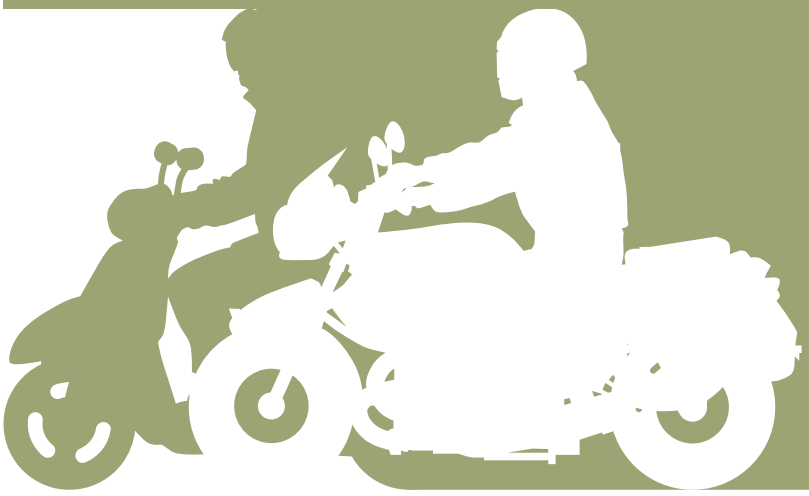
Victoria's Road Safety and Transport Strategic Action Plan for Powered Two Wheelers *2009–2013*

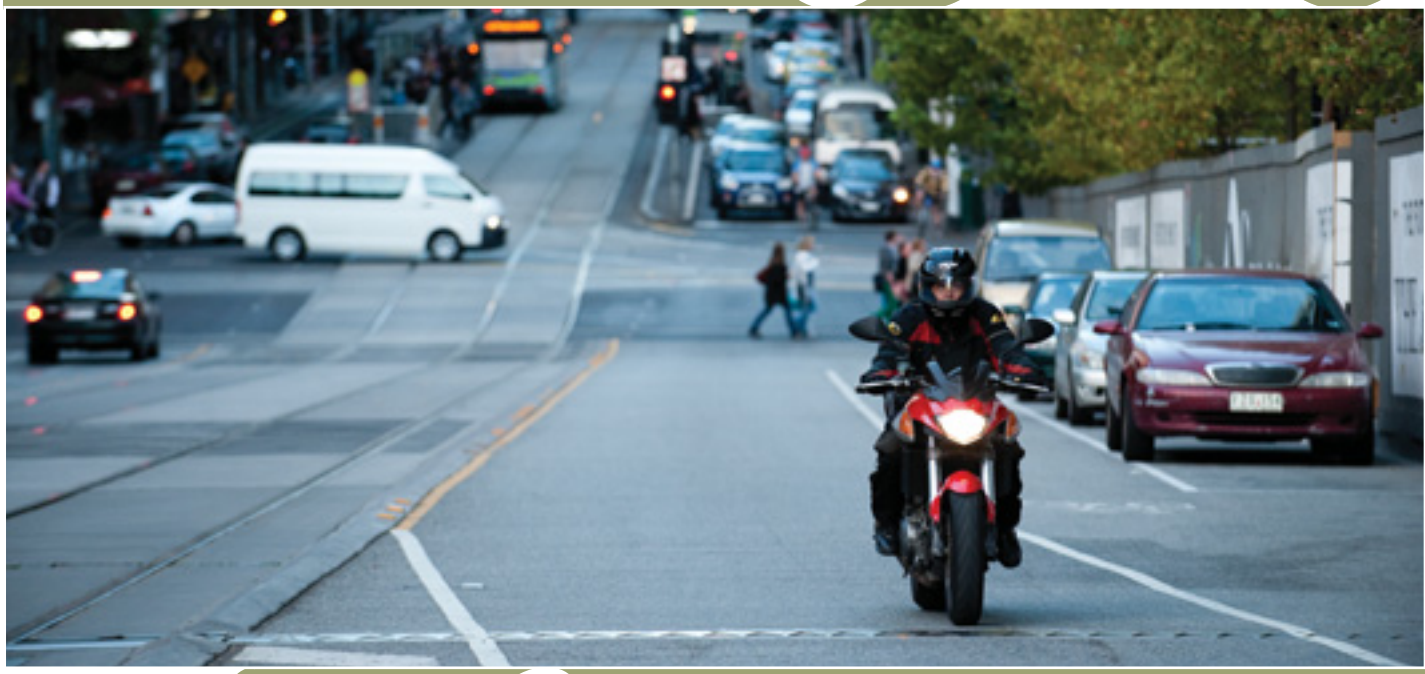
State Government Victoria

Victoria's Road Safety and Transport Strategic Action Plan for Powered Two Wheelers *2009–2013*



For their assistance with the photo shoot, the following organisations are gratefully acknowledged:
Honda Australia
DECA Training
Monza Imports

Contents



VICTORIA'S ROAD SAFETY AND TRANSPORT STRATEGIC ACTION PLAN FOR POWERED TWO WHEELERS 2009–2013

Executive Summary

The Victorian Government recognises that powered two wheelers (PTWs)* are a part of Victoria's transport future.

The number of PTWs on Victorian roads has increased steadily in recent years. This trend has occurred throughout Australia and is expected to continue into the future. There is a need to balance the safety and mobility needs of riders in the broader context of an integrated transport system.

PTWs are seen by many people as an attractive alternative form of transport to the car for daily commuting. With rising fuel prices, depending on the choice of vehicle, they can be cheaper to buy and operate than a car. They can also be a more efficient way to travel in congested traffic, and easier and cheaper to park.

Recreational use of PTWs is also increasing. This is leading to more people riding on weekends and growing numbers of PTWs along popular tourist routes, such as the Great Ocean Road and in the Yarra Ranges. There has also been a significant increase in the number of people riding off-road in State Forests and on private land.

However, riders and pillion passengers are amongst the most vulnerable road users. The likelihood of serious injury or death in a crash is 34 times higher than for the occupants of a car. They account for 13 per cent of road fatalities and serious injuries in Victoria, yet PTWs make up only three per cent of all registered vehicles and less than one per cent of traffic volume. Road safety for riders and their pillion passengers is critical.

Since the introduction of the *Victorian Motorcycle Road Safety Strategy 2002–2007*, there has been a reduction of 20 per cent in rider and pillion passenger fatalities, at a time when registrations were increasing. Elsewhere in Australia, rider and pillion passenger deaths increased over the same period. Of particular note is the success of the Victorian Motorcycle Blackspot Program, made possible by the Motorcycle Safety Levy. The program has shown very positive results, with a 24 per cent reduction in PTW casualty crashes at the first 85 treated sites.

Victoria's Road Safety and Transport Strategic Action Plan for Powered Two Wheelers 2009–2013 is designed to set a new strategic direction for the use of PTWs in Victoria over the next five years. For the first time it takes an integrated approach to PTW safety and transport.

The plan builds on Victoria's previous success by targeting four areas for action:

- increasing knowledge and understanding of PTW riding and crashes
- ensuring that PTWs are given appropriate recognition in transport policy and planning in Victoria
- improving rider awareness, skills and knowledge
- encouraging greater use of safer motorcycles and scooters, equipment and protective clothing by riders.

The plan is aligned with Victoria's Road Safety Strategy and recognises the critical priorities of improving safety on our roads, reducing congestion and moving towards a more sustainable and lower emissions transport system.

The plan has been developed in consultation with a range of stakeholders, including significant input from members of the Victorian Motorcycle Advisory Council.

The plan contains actions to be undertaken in the next three years (2009–2011). Progress on the actions will be reviewed during 2011, and a new set of actions for 2012–2013 will be developed.

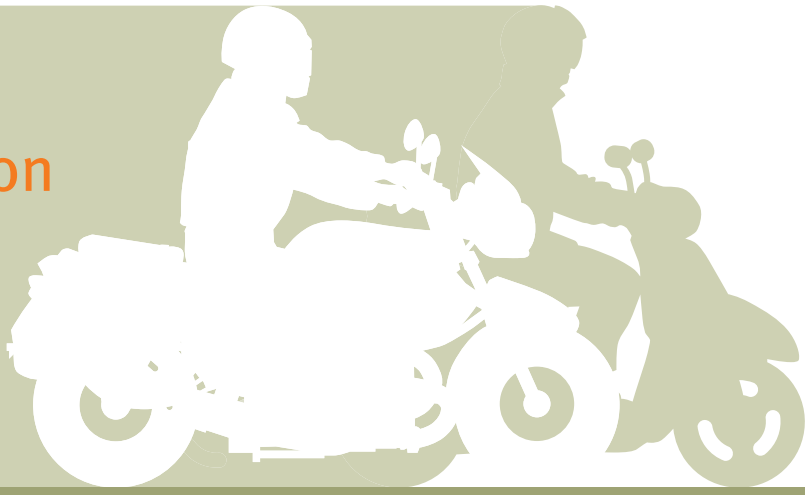
Development

Through its key transport and road safety agencies the Victorian Government has developed the plan in consultation with a range of stakeholders. The Victorian Motorcycle Advisory Council (VMAC) has also played an important role in the development of the plan. VMAC is a forum with representatives from a broad range of organisations and agencies with interest and involvement in PTW safety and transport issues. It provides strategic advice on PTW matters to the Victorian Government through the Minister for Roads and Ports.

The plan was developed based on:

- community forums conducted by VMAC with key stakeholders, including riders and representatives from motorcycle clubs and the motorcycle industry
- a review of the achievements of the *Victorian Motorcycle Road Safety Strategy 2002–2007*
- a review of PTW strategies from government and advocacy groups both nationally and internationally
- a review of transport related issues and initiatives for PTWs
- an analysis of on-road PTW crashes and related injuries in Victoria
- a review of potential countermeasures to improve PTW road safety.

Implementation

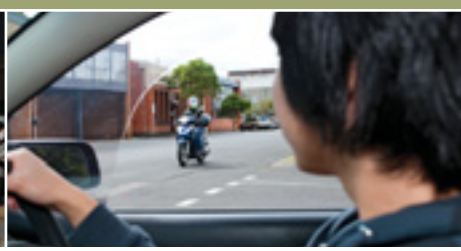


The plan fits within the framework of *Victoria's Road Safety Strategy: arrive alive 2008–2017*. It takes a Safe System approach to road safety, which recognises the benefits to be gained from an overarching strategy that delivers safer travel through safer vehicles, safer roads and safer road users. A Safe System is one in which the likelihood of a crash, and the risk of death or serious injury in the event of a crash is reduced.

The plan also links with the *Victorian Transport Plan*, which provides a framework for the management and development of the State's transport system. PTWs are a growing part of Victoria's transport future, and the plan will support greater consideration of PTWs in transport policy and planning.

The initiatives and actions detailed in the plan will be delivered through the partnership of key agencies with responsibilities for transport and road safety in Victoria. These include VicRoads, the Department of Transport, the Transport Accident Commission (TAC), Victoria Police, the Environment Protection Authority and the Department of Justice. The support of the PTW industry, and rider associations, clubs and groups will also be important for the success of the plan.

The focus of the plan is on-road safety and transport issues for PTW riders and pillion passengers. More than half of all motorcycles sold are for off-road purposes, and while off-road use is not in the scope of the plan, it is likely that some of the initiatives will have a flow on safety benefit. The Victorian Government is managing a recreational trail bike initiative to address a range of off-road issues. This is being led by the Department of Sustainability and Environment (DSE), and VMAC is contributing to the development of this initiative.



Achievements to Date

Considerable progress has been made in addressing a range of priority safety issues for PTW riders and pillion passengers under the *Victorian Motorcycle Road Safety Strategy 2002–2007* and through *arrive alive! Victoria's Road Safety Strategy 2002–2007*. This has contributed to a 20 per cent reduction in PTW rider and pillion passenger fatalities in Victoria since 2002.

At the same time there has been an increase in PTW sales and registrations. In 2002, a Motorcycle Safety Levy was incorporated into the TAC insurance premium on PTWs of 126cc capacity and over. The levy has enabled funding of projects that have complemented a broad range of PTW safety initiatives. This funding will continue to be used to deliver many of the actions contained in the plan.

Significant achievements to date have included:

- research into better understanding PTW crashes and potential countermeasures. This has included an enhanced motorcycle crash investigation study and a motorcycle exposure study
- a program of PTW specific road improvements and road maintenance developments. This included a Motorcycle Blackspot Program and PTW friendly improvements to popular routes. It also involved the development and dissemination of communications materials for those involved in the design, construction and maintenance of roads
- the implementation of the new Learner Approved Motorcycle Scheme (LAMS) in 2008. This was designed to reduce the risks for novice riders by limiting them to moderately powered PTWs that are appropriate for their level of experience. This has included more PTWs that have safety features such as ABS and combined braking systems, and restricted access to high powered race replica motorcycles
- a range of targeted enforcement activities designed to address issues such as speeding and unlicensed riding
- education and information campaigns about appropriate and safe behaviour when using the road network. This has included several print publications, a DVD for riders and television commercials designed to promote safety to riders and raise driver awareness of PTW riders.

Background

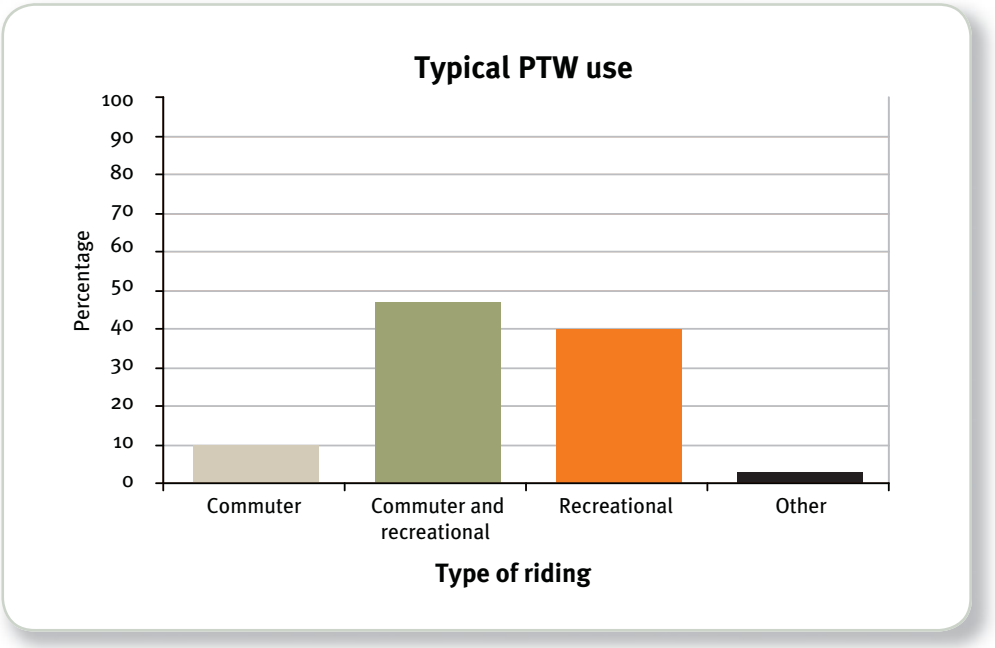
PTWs as an alternative transport option

PTWs are a growing part of Victoria's transport future. Registration and sales data indicate an increasing trend in the number of PTWs in Victoria. There has been a 72 per cent increase in the number of PTW registrations in Victoria over the ten years to 2008. This growth is occurring not just with motorcycles, but also with scooters.

Scooter sales have seen significant growth in Victoria, increasing from 770 in 2004 to 2,663 in 2008. Recent reports indicate that those people buying scooters are typically urban residents in large cities and are generally taking local trips over short distances, including some use for commuting and recreation purposes. Scooter riders tend to be aged 25–35 years, with a greater representation of women than men compared with motorcycle riders.

With such significant increases in the numbers of PTWs on Victorian roads, there is a need for greater consideration of PTWs in road use and transport policy development and planning. Those working in these fields need to become more aware of the needs of PTWs and the role they can play in the transport network.

To date, the greatest emphasis has been placed on addressing safety issues associated with this mode of transport. Less is known and understood about the characteristics of PTW use, and its contribution to the transport mix on Victorian roads. A recent survey of riders conducted by VicRoads provides some information. This showed that 20 per cent ride daily, and a further 41 per cent ride 2–5 times per week. Many (40 per cent) only ride for recreational purposes, 10 per cent for commuting exclusively and 47 per cent for both recreation and commuting – see the graph on page 9. This survey also indicated that 33 per cent of those surveyed rode because it was cheaper and more convenient to use than a car, and 20 per cent did so because they believed it was more environmentally friendly than driving a car.



PTWs can play a valuable role in reducing the environmental impacts of transport as many motorcycles and scooters produce lower greenhouse gas emissions than cars. However, many PTWs do emit high levels of other air pollutants. More focus is required on the fuel consumption and emissions performance of the PTW fleet. This will inform riders and policy developers and contribute to the achievement of positive environmental outcomes.

A better understanding is required of the role PTWs can play in:

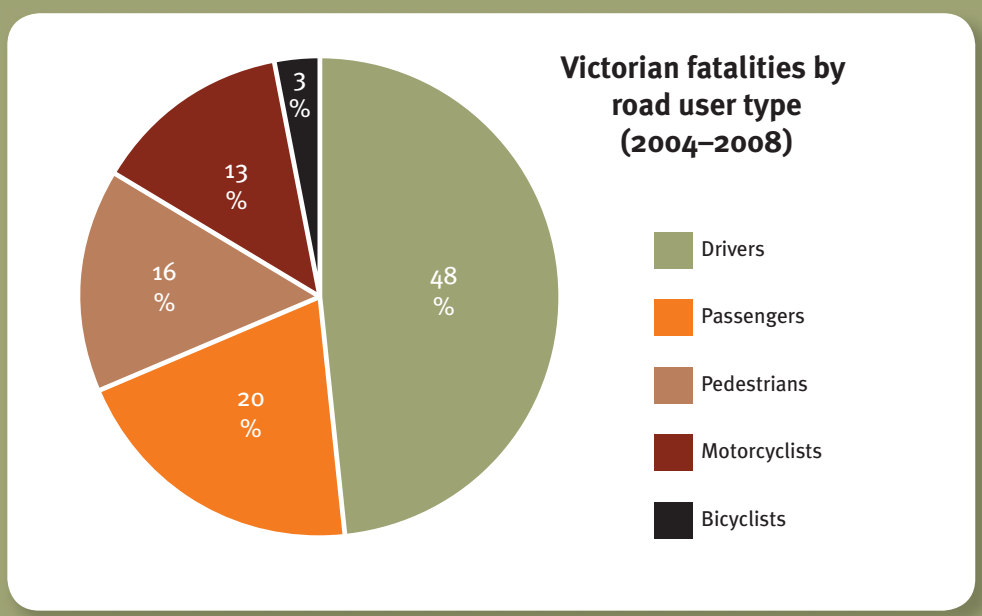
- improving mobility options for riders
- contributing to managing congestion on the transport network
- reducing fossil fuel use and greenhouse gas emissions.

The plan includes initiatives and actions designed to provide evidence in these areas as a basis for the development of sound policies.

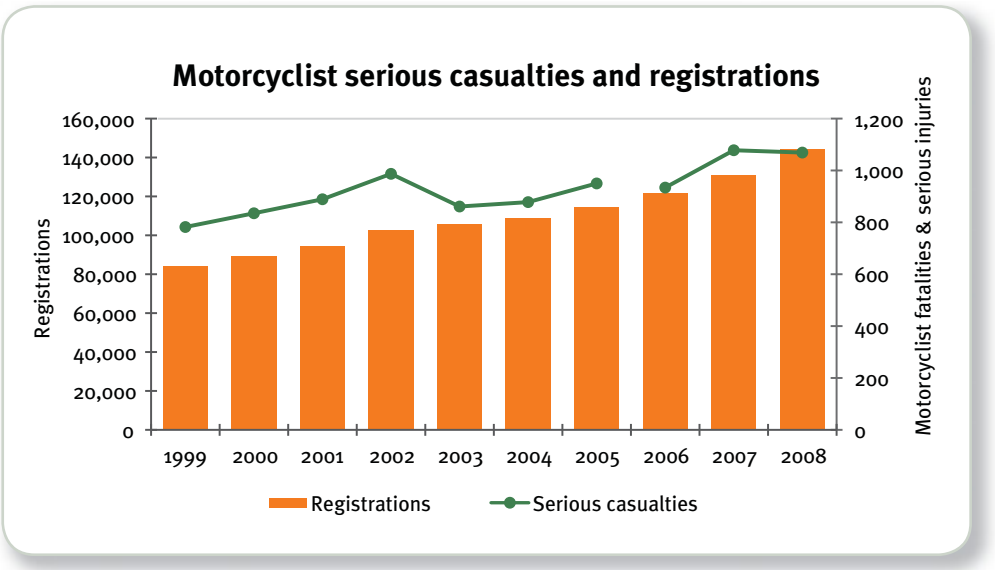
The delivery of transport related initiatives will be led by VicRoads and the Department of Transport, with other agencies and organisations involved as appropriate.

Road safety issues for riders and pillion passengers

Between 2004 and 2008 PTW users accounted for 13 per cent of all road fatalities in Victoria (see graph below), despite PTWs making up only three per cent of total registered vehicles and less than one per cent of traffic volume.



As shown in the graph on page 11, PTW registrations in Victoria have continued to increase. The number of serious casualties has also increased, although the rate of increase has slowed.



Note: A change to Victoria Police data collection processes and systems has resulted in a discontinuity in the data series. Therefore, non-fatal data from 2006 onwards should not be directly compared with previous years' data.

The rate of fatal and serious injury per 10,000 registered motorcycles remained relatively stable between 2004 and 2008. It remains significantly higher than the rate for passenger vehicle occupants (84 per 10,000 registered motorcycles, compared with 15 per 10,000 registered passenger vehicles).

Investigation into the serious injury and fatal crashes involving PTWs in Victoria shows the following.

Characteristics of those involved

- 93 per cent of all PTW users killed were male.
- 47 per cent of those killed were aged between 30 and 50 years and this age group represented 49 per cent of serious injuries.
- In ten per cent of all fatalities, the rider did not have a valid licence, while ten per cent were riding an unregistered motorcycle.
- Of all riders killed, four per cent were not wearing a helmet.

Involvement of alcohol

- 21 per cent of PTW riders killed had a blood alcohol (BAC) reading exceeding .05 and of these 49 per cent exceeded a BAC of .15. In comparison, 27 per cent of car drivers killed had a BAC exceeding .05 and of these, 62 per cent exceeded .15.

Where crashes occurred

- 56 per cent of fatalities occurred in Melbourne metropolitan areas, while 44 per cent occurred in country Victoria.
- 48 per cent of all fatalities occurred on 100–110 km/h roads and 27 per cent occurred on 40–60 km/h roads. Of all country fatalities, 81 per cent occurred on 100km/h roads.
- 63 per cent of all fatalities occurred on arterial roads.
- Of all PTW users seriously injured, 46 per cent occurred on local roads.
- Of all fatalities, six per cent occurred on unsealed roads (does not include off-road crashes).

When crashes occurred

- 42 per cent of fatalities occurred on weekends.
- Two types of riding are apparent in Victorian PTW crash data:
  - commuter riding, with crashes occurring in urban areas between 3.00 p.m. and 6.00 p.m. on weekdays
  - recreational riding, with crashes occurring in rural areas between 12.00 p.m. and 3.00 p.m., especially on weekends.

Other characteristics of crashes

- 50 per cent of all fatal and serious injury crashes involving PTWs were single vehicle crashes.

Motor scooters

Motor scooters have been identified as an emerging road user group. Scooter crashes are increasing at a rate higher than that for other motorcycles or cars. This increase is likely to be due to an increase in scooter use (suggested by increased sales figures). Indicative data has suggested that:

- The proportion of scooter crashes resulting in serious injuries is similar to the proportion for motorcycle crashes, and much higher than that for car occupants.
- Compared with motorcycle crashes, scooter crashes occur more often in urban areas, close to the rider's home, and involve a greater proportion of women.
- Scooter crashes share some common factors with car crashes, with a similar proportion occurring on weekdays, in 60 km/h zones, involving two vehicles and occurring at intersections.

The PTW riders group is not homogeneous. The crash experiences, rider demographics and typical use of their motorcycle or scooter vary amongst riders of different types of vehicles. Consideration must be given to understanding the motivations, crash experiences and type of riding for different groups of riders to ensure that countermeasures can be targeted for maximum road safety benefit.

Many of the issues associated with these crash characteristics were highlighted in the *Victorian Motorcycle Road Safety Strategy 2002–2007*. They remain important for the direction of the plan.

The importance of improving research and evaluation

Ensuring the availability of accurate data about PTWs is essential. At present there are limitations in crash data reporting and collection. Only limited data is available on PTW use and their role in the transport network. There is also a need for greater understanding of specific issues, such as the value of rider training. While work has been undertaken under the *Victorian Motorcycle Road Safety Strategy 2002–2007* to address this situation, there is a need for further research and evaluation.

There is an opportunity to take a more coordinated approach to the issue of data collection, research and evaluation. This could involve working more closely with other Australian states and territories, and on an international level with other researchers and organisations, to advance knowledge and understanding of PTW safety and transport issues.

The Aim of the Plan

In an environment where PTWs are an increasing component in Victoria's transport mix, the plan seeks to identify initiatives and actions that will:

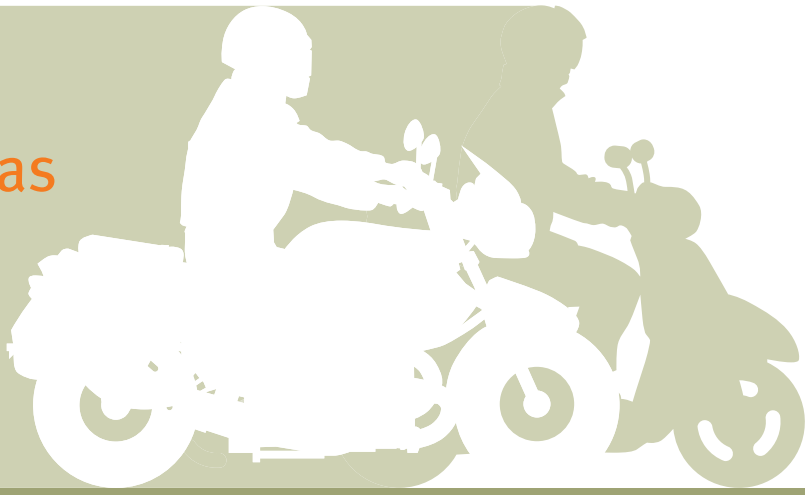
- significantly reduce the number of riders and pillion passengers killed or seriously injured
- ensure that PTWs are given appropriate recognition in transport and road use policy and planning.

Guiding Principles

The following guiding principles underpin the plan:

- The number of deaths and serious injuries for PTW riders and pillion passengers should not be seen as inevitable. Improving safety must be a high priority.
- There is a need to improve understanding of the safety and transport issues associated with PTW riding through effective research and evaluation of initiatives.
- There is a recognition that PTWs can offer benefits for the operation of the transport system by reducing traffic congestion, and can have environmental benefits compared with travel by car.
- The roads need to be shared responsibly and initiatives for PTW riders and pillion passengers must balance the needs of all road users.

Key Focus Areas for the Plan



The plan is organised under four key focus areas. Each area of the plan uses a variety of approaches, with each containing specific initiatives and actions.

KEY FOCUS AREAS	APPROACHES
Increasing knowledge and understanding	• Improving data collection • Research and evaluation
PTWs in the transport network	• The role of PTWs in the transport network • Improving the road system for PTWs
Rider and pillion passenger safety	• Rider responsibility • Other road users' responsibilities to riders • Rider skills and knowledge • Rider licensing • Enforcement • Post-crash management of injured riders and pillion passengers
Safer PTWs and rider equipment	• Safer PTWs • Safer rider and pillion passenger equipment and clothing

The plan identifies actions under arrive alive, to be undertaken between 2008 and 2010, and also additional actions to be undertaken between 2009 and 2011 under *Victoria's Strategic Road Safety and Transport Action Plan for Powered Two Wheelers 2009–2013*. In due course, a new action plan will be developed for 2012–2013. To provide clarity for the reader, the title of the plan has been abbreviated to PTW Plan in the following tables.

Increasing knowledge and understanding

Improving data collection

There is a lack of comprehensive data and research evidence about PTWs from a road safety perspective and as a sustainable form of transport. This ranges from limitations in crash data reporting and collection, to the uncertainty about the effectiveness of a range of safety related activities, such as training for riders.

There is also a need for a better understanding of the growth in PTW use, through research into the types and destinations of trips taken, reasons for these (e.g. for commuting and/or recreation) and the socio-demographic characteristics of riders and pillion passengers. This will enable market segmentation so that initiatives and actions can be targeted more effectively.

A series of surveys of riders in 2007 and 2008 has provided some data on PTW use in Victoria. However, the collection and analysis of transport and road safety data on PTWs needs to be continually improved to ensure successful transport planning and the ongoing development of innovative and effective road safety countermeasures.

Initiatives

- Improve the quality and accuracy of PTW crash and transport data that is collected, and make this available for planning and policy development purposes, as well as for the development of effective safety countermeasures and strategies around mobility.
- Disseminate relevant PTW safety and transport information, including research findings, to riders and other key stakeholders.
- Improve the exchange of information and data across government agencies around PTW safety and transport issues and initiatives.

Actions under PTW Plan 2009–2011

ACTIONS	RESPONSIBILITY
Improve the collection, collation and exchange of PTW crash data through better interagency liaison.	Victoria Police VicRoads TAC
Collect data on PTW use, including travel patterns, reasons for trips taken, common routes taken, modal shifts for commuting, types of vehicles, etc.	Department of Transport VicRoads
Disseminate research and evaluation findings through conferences, seminars, journals and the media.	VicRoads TAC

Research and evaluation

There is a need for a coordinated approach to research and evaluation. This approach needs to involve research undertaken in association with other states and territories and, internationally, to avoid duplication and to maximise the use of the resources available. Consideration needs to be given to improving networking between researchers and organisations at a national and international level, and providing support for increased collaboration in research into PTW safety and transport issues.

Initiatives

- Support an ongoing program of coordinated research and evaluation into PTW safety and transport issues and initiatives.
- Support networking between researchers and organisations with an interest in PTW transport and road safety research and countermeasure development.

Actions under *arrive alive Victoria's Road Safety Strategy: First Action Plan 2008–2010*

ACTIONS	RESPONSIBILITY
Investigate simulation and computer modelling to better understand motorcycle crash risk and injury.	VicRoads

Actions under PTW Plan 2009–2011

ACTIONS	RESPONSIBILITY
Develop a coordinated program of research projects and, where appropriate, collaborate with other states, and territories, national bodies and researchers internationally.	VicRoads TAC
Investigate ways of maximising resources devoted to PTW research through greater collaboration and networking between researchers and research organisations.	VicRoads
Liaise with other states and territories and national bodies to ensure PTW research is included as a key focus for road safety and transport conferences and forums.	VicRoads TAC

PTWs in the transport network

The role of PTWs in the transport network

With the continuing growth in the number of PTWs on our roads, there is a need to ensure that they are given greater consideration in the management of the transport network in Victoria.

PTWs offer the potential to contribute to a reduction in traffic congestion, air pollution, fossil fuel use and greenhouse gas emissions. The use of a PTW for commuting may be more environmentally friendly than driving in a car without passengers, which represents the majority of cars that account for traffic congestion during peak times. There is a need for further investigation of the benefits of PTWs on reducing traffic congestion, fossil fuel use, air pollution and greenhouse gas emissions. It is important that there is a better understanding of the nature and extent of PTW use on Victorian roads. It is also important that there is consideration of initiatives to facilitate the movement of PTWs on congested roads being undertaken within Australia and internationally, and the impact that these may have on the use of sustainable transport options.

PTWs require less parking space than cars, and provision needs to be made for adequate parking facilities at key locations. This includes parking at major destinations, such as shopping centres, and at transport hubs. Improving parking for PTWs at transport hubs may encourage use of public transport options for journeys during peak travel times. These issues require further investigation to determine feasibility and the extent of any benefits.

Initiatives

- Recognise PTWs as part of an integrated transport system and promote across all levels of government the need to consider them in policy development, land use and transport planning.
- Understand the nature of trips taken by PTWs, the modes of transport that they replace and the impact that they can have on traffic congestion and the environment.
- Identify and support the use of PTWs where they are most suitable and can have an inherent benefit as part of an integrated transport system, including consideration of opportunities to improve the way PTWs can share road space.

Actions under PTW Plan 2009–2011

ACTIONS	RESPONSIBILITY
Conduct research into both the road safety and transport impacts of road space management opportunities, such as lane filtering, advanced stop lines and use of bus and transit lanes to identify possible initiatives for trialling. This will include monitoring developments internationally.	VicRoads
Analyse and disseminate data collected by the 2007 Victoria Integrated Survey of Travel and Activity (VISTA07) and through other research on PTW use.	VicRoads
Collate and disseminate information on the fuel efficiency and emissions of PTWs, and develop advice on eco-riding.	Department of Transport VicRoads Environment Protection Authority
Promote the introduction or wider application of alternative fuels, low emission technology vehicles and technologies that have overall environmental and energy efficiency benefits.	Environment Protection Authority VicRoads Department of Transport
Work with other governments through national forums to develop standards for motor vehicle emissions and fuel quality.	Environment Protection Authority Department of Transport
Evaluate the utilisation of existing parking spaces for PTWs at transport hubs to identify if there is a need for more spaces.	Department of Transport
Promote the availability of parking spaces for PTWs at transport hubs.	Department of Transport
Review the guidelines for PTW parking in light of international best practice.	VicRoads Department of Transport
Work across state and local government to ensure PTWs are considered in policy development and transport planning.	Department of Transport VicRoads
Work with professional associations of engineers and transport planners to increase awareness of PTW specific safety and transport needs.	Department of Transport VicRoads

Improving the road system for PTWs

The engineering of the road surface and environment can have a significant impact on the likelihood of a crash, the ability of a rider to recover and avoid a crash, and on the severity of injury to riders and pillion passengers should a crash occur. Hazards in the road environment can be reduced through the use of more PTW friendly engineering products and practices, and road maintenance procedures. It is important that all those involved in the design, construction and maintenance of the road environment are more aware of the specific needs of PTWs.

A range of treatments have already been trialled and implemented on Victorian roads under the Motorcycle Blackspot Program, funded by the Motorcycle Safety Levy. Treatments have included better signage on curves, enhanced delineation, improvements to road surfaces and the use of new products, such as more PTW friendly barriers and other roadside furniture. An evaluation of the effectiveness of the Motorcycle Blackspot Program has shown very positive results following treatments at the first 85 sites, with a 24 per cent reduction in PTW casualty crashes. This reduction is equivalent to the prevention of 24 PTW casualty crashes each year.

Initiatives

- Support the implementation of engineering products and practices, and road maintenance procedures that will improve safety for PTW riders and pillion passengers on popular PTW routes.
- Educate and encourage those involved in the design, construction and maintenance of the road environment to be more aware of the specific needs of PTWs, and to adopt more PTW friendly engineering products, practices and maintenance procedures.
- Continue to identify and treat motorcycle blackspots, especially along high risk and popular PTW routes.

Actions under *arrive alive Victoria's Road Safety Strategy: First Action Plan 2008–2010*

ACTIONS	RESPONSIBILITY
Trial barrier protection devices and revised design and maintenance procedures to improve motorcycle safety.	VicRoads
Treat motorcycle black spot locations, black lengths and popular touring routes.	VicRoads Local government
Undertake a risk based assessment of the road network from a motorcyclist's perspective.	VicRoads

Actions under PTW Plan 2009–2011

ACTIONS	RESPONSIBILITY
Continue ongoing monitoring of sites that have been treated to improve PTW safety.	VicRoads
Continue to identify, trial and implement new treatments, products and practices that will improve PTW safety.	VicRoads
Review the extent to which existing Road Management Plans (RMP) address road surface maintenance to ensure consideration is given to the specific needs of PTW users.	VicRoads Local government
Conduct seminars and distribute materials on the need to adopt more PTW friendly engineering products, practices and maintenance procedures targeting local government, VicRoads, road design and construction contractors, and utility providers (public transport, electricity, gas, water and telecommunications).	VicRoads
Liaise with tertiary institutions delivering engineering courses to include content on PTW friendly engineering products, practices and maintenance procedures in relevant courses.	VicRoads
Liaise with professional associations to seek their support for the promotion of seminars and courses about improving road design, construction and maintenance practices that will improve motorcycle safety.	VicRoads
Promote recognition of PTW transport planning best practice across state and local government via articles in professional journals and magazines.	VicRoads
Ensure road safety audit methodologies and training for engineers address PTW safety issues.	VicRoads

Rider and pillion passenger safety

Rider responsibility

It is important that riders understand the risks associated with riding on–road and their vulnerability in a crash. They need to take responsibility to minimise and manage these risks, in particular:

- wearing appropriate protective riding gear
- increasing their visibility (conspicuity) to other road users
- complying with the road rules and riding for the conditions
- keeping a safe distance (survival space) from other vehicles
- choosing to ride a PTW that best matches their level of skill and experience
- not riding while impaired by alcohol or other drugs
- not riding when fatigued.

Riders' associations, clubs and the PTW media have the potential to play an important role in changing the culture amongst riders to be more safety conscious. Working closely with these organisations will be an important step in encouraging riders to take greater responsibility for riding safely.

Initiatives

- Improve the awareness amongst riders and pillion passengers of their vulnerability in a crash, and their need to take responsibility and manage the risk associated with riding.
- Develop a more safety focused culture and attitude amongst riders by working in collaboration with riders' associations, clubs and the PTW media.

Actions under *arrive alive Victoria's Road Safety Strategy: First Action Plan 2008–2010*

Note that *arrive alive* also incorporates a comprehensive program of actions designed to address key road safety issues across a range of road user groups. These include speed, drink and drug driving, fatigue and driver distraction issues. Only those actions unique to PTW users are detailed here.

ACTIONS	RESPONSIBILITY
Undertake awareness raising campaigns to: • increase safe road user practices by drivers and riders • highlight to all road users the extreme vulnerability of motorcycle riders.	TAC VicRoads
Undertake research to examine: • fatigue related crashes and road design countermeasures • fatigued motorcycle riding • (driver and) rider perception of fatigued crash risk.	VicRoads

Actions under PTW Plan 2009–2011

ACTIONS	RESPONSIBILITY
Continue to disseminate materials that are designed to improve the awareness amongst riders and pillion passengers of their vulnerability in a crash, and their need to take responsibility to manage the risk associated with on-road riding.	VicRoads TAC
Identify methods for encouraging the media to depict safe PTW riding practices and not irresponsible behaviours.	VMAC VicRoads
Engage with riders' associations, clubs and the PTW industry and media to promote safety to riders and discourage irresponsible riding.	VMAC VicRoads TAC
Engage with the PTW industry to develop and implement a code of conduct for retailers around encouraging buyers to choose vehicles suited to their level of skill and experience, as well as to wear appropriate protective riding gear.	VMAC VicRoads TAC

Other road users' responsibilities to riders

Other vehicles are involved in about half of PTW serious casualty crashes. In a significant number of these crashes the driver of the other vehicle is at fault; many involve the driver of a vehicle failing to give way at an intersection and turning across the path of a PTW travelling straight ahead.

These types of crashes, and others in which drivers are at fault, could potentially be avoided if drivers have a greater awareness of PTWs, make better judgements and take more responsibility in sharing the road safely with riders. In particular, drivers need to understand:

- the vulnerability of riders and pillion passengers in crashes with other vehicles
- the importance of looking out for riders, especially at intersections
- that they must allow sufficient survival space when travelling near PTWs
- the importance of complying with road rules, driving for conditions and not driving while impaired by fatigue, alcohol or other drugs.

Initiatives

- Increase awareness in other road users of their responsibility to share the road safely with PTWs.
- Improve awareness of PTWs and the judgements made by drivers that impact on safety for riders and pillion passengers, particularly at intersections.

Actions under *arrive alive Victoria's Road Safety Strategy: First Action Plan 2008–2010*

Note that *arrive alive* also incorporates a comprehensive program of actions designed to address key road safety issues across a range of road user groups. These include actions around sharing the road with other users that will benefit PTW users. Only those actions unique to PTW users are detailed here.

ACTIONS	RESPONSIBILITY
Undertake awareness raising campaigns to: • increase safe road user practices by drivers and riders • highlight to all road users the extreme vulnerability of motorcycle riders.	TAC VicRoads
Enhance driver licensing procedures to improve skills and attitudes related to sharing the road safely with all road users, including heavy vehicles, public transport vehicles, cyclists, pedestrians and motorcyclists, particularly in high risk areas such as in tunnels.	VicRoads

Actions under PTW Plan 2009–2011

ACTIONS	RESPONSIBILITY
Identify the direction for further research to improve awareness of PTWs and the judgements made by drivers that impact on safety for riders and pillion passengers, particularly at intersections.	TAC VicRoads
Promote to heavy vehicle drivers and fleet operators the potential hazards to PTW riders, and other road users, caused by oil leakages onto the road surface.	VicRoads

Rider skills and knowledge

Analysis of crash data and research indicates that newly licensed riders, older riders and those returning to riding after a break are at greater risk of a crash than other riders. Inexperience and risk taking are a factor in many crashes involving PTWs. Newly licensed and young riders are over-represented in crashes. In recent years there has also been an increase in the number of older riders taking up riding for the first time or returning to riding after a significant break. The crash risk of these riders is approximately twice that of riders who have continued to ride without a break. This increased crash risk is linked to these riders being more likely to ride for recreational purposes and riding unfamiliar, large capacity and/or high powered motorcycles.

The development of rider skills and knowledge is an important component in improving safety. Training and coaching may be able to play an important role; however, any program needs to be based on research evidence and established best practice. The evidence about programs that are able to improve rider skills and knowledge is limited. More effective research and evaluation are needed.

While rider training associated with the licensing system is conducted in controlled off-road environments, few programs designed to improve rider skills and knowledge are available that involve on-road riding. There are also innovative approaches that may be useful, such as 'insight' training, which is training designed to provide greater insight and awareness of potential risks when riding.

Initiatives

- Research and evaluate the use of innovative and new training techniques to improve rider skills and knowledge, including investigating programs currently being used nationally and internationally.
- Research the skill and knowledge development needs of different rider groups, such as scooter riders, novice riders, those returning to riding after a break and older riders.
- Trial and evaluate programs designed to develop and improve skills and knowledge of novice riders and those returning to riding after a break.

Actions under *arrive alive Victoria's Road Safety Strategy: First Action Plan 2008–2010*

ACTIONS	RESPONSIBILITY
Improve motorcyclist and scooter rider training and strengthen the licensing process, through measures including the development of a motorcycle hazard perception training tool.	VicRoads
Continue the promotion and distribution of the RideSmart training product to novice riders in order to accelerate riding and higher order skills.	TAC

Actions under PTW Plan 2009–2011

ACTIONS	RESPONSIBILITY
Implement a large-scale trial program designed to improve rider skills and knowledge that involves: • consideration of the skill and development needs of different rider groups • a focus on practical on-road coaching • a comprehensive evaluation to assess impact and effectiveness.	VicRoads
Develop and pilot a program targeting riders returning to riding after a break, that considers the specific skill and development needs of this group.	VicRoads
Continue research to identify the factors influencing rider hazard perception and response, including differences between experienced and inexperienced riders, and their implications for development of a PTW hazard perception training tool.	VicRoads
Develop multimedia products designed to raise the awareness of PTW riders of the risks associated with different riding conditions and road environments.	VicRoads

Rider licensing

The licensing system needs to prepare PTW riders for the challenges they will encounter on the road. Licence testing and training needs to be delivered consistently through the approved providers. For many, the rider training offered as part of the licensing system is their first experience of riding a PTW. This training has the potential to play an important role in establishing key safe riding skills and behaviours. However, it needs to be based on research evidence and established best practice in order to be effective. It also has to address the different needs of riders of scooters and motorcycles.

A graduated licensing system (GLS) for PTWs similar to the new GLS for novice drivers should be considered. This would offer the opportunity to investigate and explore options for further pre-licence training, as well as strategies designed to better manage the risk of inexperienced riders and to improve their level of safety.

An increasing number of riders are returning to riding after a break. Their riding skills may have deteriorated during this time. In many cases riders are purchasing newer, larger capacity motorcycles than they may have ridden in the past. There is a need to investigate ways to ensure the currency of skills and knowledge of returning riders. This could mean changes to the current licensing system.

Initiatives

- Ensure the licensing system will best prepare riders through the provision of consistent, relevant and quality training and testing.
- Review the licensing system with a view to improving the GLS for PTWs, and removing inconsistencies that exist between the current GLS for car drivers and the existing licensing system for riders.
- Investigate changes to the licensing system to ensure that riders returning to riding after a break maintain riding skills and knowledge at an appropriate level.

Actions under *arrive alive Victoria's Road Safety Strategy: First Action Plan 2008–2010*

ACTIONS	RESPONSIBILITY
Improve motorcyclist and scooter rider training and strengthen the licensing process, through measures including the development of a motorcycle hazard perception training tool.	VicRoads
Investigate means by which returning and non-regular motorcyclists are required to maintain rider skills at an appropriate level.	VicRoads

Actions under PTW Plan 2009–2011

ACTIONS	RESPONSIBILITY
Review the licensing and training system for PTWs and identify opportunities for improvements, including: • developing a strategy to strengthen the graduated licensing system (GLS) for PTWs, including strengthening pre-licence training • removing inconsistencies that exist between the current GLS for car drivers and the existing licensing system for riders • the feasibility of alternative licensing requirements for scooters and/or mopeds (low capacity motorcycles and scooters).	VicRoads
Establish a process for auditing training and licensing providers to ensure quality and consistency in delivery.	VicRoads
Implement the delivery of the motorcycle licence knowledge test via computer technologies in all training and licensing providers.	VicRoads

Enforcement

Enforcement is a key activity in improving road safety for all road users, including PTW riders and pillion passengers. There are a range of issues around which continued enforcement is required, in particular speeding, unlicensed riding, riding unregistered vehicles, riding under the influence of alcohol and/or drugs, and correct lane use and overtaking.

Speed is a significant factor in many PTW casualty crashes, including riding at excessive speed and not riding at a speed to suit the road conditions, such as on curves or when the road is wet. The higher the travel speed, the less time a rider has to respond to a hazardous situation, and the greater potential for death or serious injury in a crash. Speed is an issue for all vehicles on our roads. Ensuring all vehicles travel at a safe speed should benefit riders and pillion passengers. This can be achieved through a continued program of enforcement of speed limits for PTWs and other vehicles.

Identifying vehicles engaged in illegal acts, such as speeding or travelling through red lights at intersections, is a significant issue for enforcement agencies. Identifying speeding PTWs currently presents additional challenges. Frontal identification of motorcycles using decals or front number plates has been investigated and not found to be a satisfactory solution. However, the potential for alternative solutions will be explored further.

Riding without a learner permit or licence and riding unregistered PTWs are serious issues. Alcohol and/or drugs is also a significant issue in serious PTW casualty crashes. Further research is required to gain a better understanding of the scale of these problems and methods to address them.

Initiatives

- Implement a range of community policing activities focused on PTW safety issues.
- Provide enforcement around key crash risks for riders where they are at fault, in particular, speeding, unlicensed and unregistered riding, riding under the influence of alcohol and/or drugs, and helmet wearing.
- Provide enforcement around key crash risks for riders where other vehicles are at fault, in particular, by targeting vehicle drivers who fail to give way at intersections and follow too close (tailgate).
- For enforcement purposes, explore ways to improve the identification of vehicles, including PTWs, in consultation with industry.

Actions under *arrive alive Victoria's Road Safety Strategy: First Action Plan 2008–2010*

ACTIONS	RESPONSIBILITY
Improve strategic enforcement that is location and season specific, with a focus on high risk motorcycle routes.	Victoria Police
Better enforcement through regulatory or legislative change to require clear identification of motorcycles.	VicRoads

Actions under PTW Plan 2009–2011

ACTIONS	RESPONSIBILITY
Improve targeted enforcement to reduce the incidence of high-risk and inappropriate behaviours, including unlicensed riding, use of unregistered PTWs, riding under the influence of alcohol and/or drugs, and riding without helmets.	Victoria Police
Implement a community policing and education project featuring statewide and regional activities that will target both riders and drivers who exhibit risk taking behaviours that jeopardise PTW safety.	Victoria Police
Review penalties for illegal high-risk activities to ensure there is sufficient deterrence to offending.	VicRoads Department of Justice Victoria Police
Develop and trial approaches to deal effectively with unlicensed riders and those riding unregistered PTWs.	VicRoads Victoria Police

Post-crash management of injured riders and pillion passengers

The speed and effectiveness of the trauma management of injured riders and pillion passengers at crash scenes can save lives and limit the extent of injury. The system used for prioritising dispatch of an ambulance already takes into account a patient's clinical need. There may be the potential for more rapid response of professional emergency assistance, especially through the use of technologies to improve the ability to locate the injured rider or pillion passenger.

It is essential that those providing non-professional (first responder) first aid to injured riders and pillion passengers at a crash scene are aware of the type of first aid that may be required, based on the nature and extent of injuries that are common. This includes critical issues such as removing helmets and other riding gear safely.

Initiatives

- Investigate and implement ways to enhance the emergency services response to crashes involving PTWs.
- Investigate and implement ways to improve the crash scene management of injured riders and pillion passengers through improved provision of non-professional (first responder) first aid assistance to injured riders and pillion passengers.

Actions under *arrive alive Victoria's Road Safety Strategy: First Action Plan 2008–2010*

ACTIONS	RESPONSIBILITY
Investigate enhancing the emergency response to motorcyclists involved in crashes.	VicRoads

Actions under PTW Plan 2009–2011

ACTIONS	RESPONSIBILITY
Work with first aid training providers to include non-professional first responder first aid rider management techniques in training courses.	VicRoads
Ensure licensing materials include specific information about crash scene management of injured riders and pillion passengers.	VicRoads

Safer PTWs and rider equipment

Safer PTWs

It is important that riders choose to ride PTWs best suited to their level of skill and experience, and will meet the requirements of the type of riding they do most. Many riders with limited recent experience, in particular those returning to riding after a break, choose to ride large capacity motorcycles that increase their risk of a crash.

Technologies incorporating Intelligent Transport Systems (ITS) can improve traffic management, provide information to transport users and improve road safety. While there are few commercially available ITS specifically designed to improve safety for PTWs, there are several emerging technologies. There are also a range of ITS for other types of vehicles that have the potential to improve PTW safety. Other technologies that should be investigated include PTW airbags, antilock braking systems (ABS), integrated braking systems, brake assist systems, collision warning and avoidance systems and rear view displays. It is important that these new technologies are available to the Australian market and are not limited to specific international markets, such as Europe.

Initiatives

- Encourage riders to choose PTWs best suited to their level of skill and experience, the type of riding they do, and with new and improved safety features, including ITS.
- Continue to investigate the potential benefits of existing and emerging ITS solutions and other design improvements, both for PTWs and for other vehicles that may enhance safety for riders and pillion passengers.
- Encourage the motor vehicle (PTWs, cars and heavy vehicles) industry to ensure that new technologies that will assist in reducing the number and severity of crashes involving PTWs are made available to the Australian market.

Actions under *arrive alive Victoria's Road Safety Strategy: First Action Plan 2008–2010*

ACTIONS	RESPONSIBILITY
Promote consumer take-up of antilock braking systems, integrated braking systems and other safety features.	VicRoads TAC
Encourage safety innovations by motorcycle manufacturers, including airbag protection.	VicRoads

Actions under PTW Plan 2009–2011

ACTIONS	RESPONSIBILITY
Engage with the PTW industry to ensure the importation of vehicles with safety features, such as antilock braking systems and integrated braking systems.	VMAC VicRoads
Engage with the PTW industry to identify barriers to uptake of safety features by riders and develop approaches to overcome them.	VMAC VicRoads

Safer rider and pillion passenger equipment and clothing

Riders and pillion passengers are at significant risk of injury in a crash. Wearing protective riding gear can significantly reduce the severity of injury in many crashes. While helmets are the most effective known injury prevention countermeasure available to PTW users, protective clothing has also been found to have significant benefits in terms of minimising injury. In addition, an appropriate choice of colours for protective clothing can play a key role in improving the visibility of riders (conspicuity) to other road users.

Those not wearing appropriate protective riding gear (including helmet, jacket, pants, gloves and boots) need to be educated about its importance, particularly those new to riding. As scooter sales increase, it is apparent that many scooter riders, in particular, may not be wearing adequate protective riding gear.

As a consumer it can be difficult to obtain reliable information about the quality (in terms of protection in a crash and from extreme weather conditions) of different riding gear. Even experienced riders and pillion passengers can become confused by the range of options and lack of consistent information about the quality of the product's available.

Initiatives

- Promote the wearing of high quality helmets and high quality protective clothing at all times to all riders and pillion passengers and, where necessary target specific messages to individual groups, such as scooter riders and their pillion passengers.
- Support riders and pillion passengers to make better choices in purchasing riding gear (helmet and clothing) that offers the highest level of protection in a crash, as well as improved conspicuity.

Actions under *arrive alive Victoria's Road Safety Strategy: First Action Plan 2008–2010*

ACTIONS	RESPONSIBILITY
Support motorcycle trainers and retailers in encouraging the use of protective clothing.	VicRoads TAC
Investigate improvements to the protective qualities of helmets.	TAC

Actions under PTW Plan 2009–2011

ACTIONS	RESPONSIBILITY
Promote the use of protective clothing through various avenues, including the SPOKES website and promotion at key motorcycling events, such as the Moto GP.	TAC
Consider if gaps exist in communications around protective clothing and, if so, develop appropriate measures to address these.	TAC VicRoads
Continue to develop a 'star' rating system for protective clothing and conduct a pilot project.	TAC VicRoads
Monitor international research into improved conspicuity for PTWs and riders.	VicRoads
Engage with the PTW industry to develop and implement a code of conduct for retailers around encouraging buyers to choose appropriate protective riding gear, as well as vehicles suited to their level of skill and experience.	VMAC VicRoads TAC

Making the Plan Work

Measuring performance and accountability

Monitoring and evaluating the performance of the PTW Plan are essential for ensuring initiatives are implemented with maximum road safety and transport benefit. Performance will be measured and reported to the Minister for Roads and Ports. A new set of actions will be developed in 2011.

Communication

A key feature of the implementation of the PTW Plan will be effective communication with PTW users and the wider community to explain the initiatives and actions of the plan. This is essential and needs to be a two-way process.

Partnerships

As with *Victoria's Road Safety Strategy: arrive alive 2008–2017*, the PTW Plan needs to be delivered through strong and coordinated partnerships between government, its agencies and the wider community. It will rely on the support and efforts of state and local government, communities, organisations and individuals throughout Victoria. The focus needs to be on achieving best practice and should also include working closely with other jurisdictions where this is appropriate.

The implementation of the PTW Plan will be led by key state government agencies, in particular VicRoads, TAC, Victoria Police, Department of Transport, Environment Protection Authority and Department of Justice. They will work in consultation with VMAC, which is well placed to provide strategic advice on the initiatives and actions required to ensure the successful implementation of the plan. The support and involvement of local government are essential to the success of many aspects of the plan. Similarly, other key organisations in the community with an interest in PTW safety are important partners for the plan. This includes local government, RoadSafe Community Road Safety Councils, the PTW industry and PTW clubs and associations.


VICTORIA POLICE


vicroads


EPA
VICTORIA


TAC


State Government
Victoria
Department of
Justice


State Government
Victoria
Department of
Transport