



# Motorcycling in Australia

Directions for the Motorcycle  
Industry 2017–2020



# MOTORCYCLING IN AUSTRALIA

## Directions for the Motorcycling Industry

This document has been prepared by the Federal Chamber of Automotive Industries' Motorcycle Group. It outlines a range of issues affecting motorcycling in Australia and sets out directions to be taken by the industry over the next three years (2017–2020). These will reinforce the status of motorcycling as an important transport mode offering significant benefits to regulators, planners, and communities, and to the riders themselves.

The document is relevant to the importers and retailers who constitute the motorcycle industry, government agencies (from national regulators to local planners), and stakeholders in related industries – in fact, anyone with an interest in motorcycling.

### About the FCAI

FCAI is Australia's peak industry organisation representing manufacturers and importers of passenger vehicles, light commercial vehicles, and motorcycles.

The manufacturers represented in the Motorcycle Group are:

- » BMW Motorcycles Australia
- » BRP Australia Pty Ltd [*Can-Am, BRP*]
- » Harley-Davidson Australia Pty Ltd
- » Honda Australia Motorcycle and Power Equipment Pty Ltd
- » Kawasaki Motors Pty Limited
- » KTM Australia [*KTM, Husqvarna*]
- » NF Importers [*Ducati, Norton*]
- » Peter Stevens Importers [*Triumph, Hyosung, Vespa, Gilera, Piaggio, Aprilia, Moto Guzzi*]
- » Suzuki Australia Pty Limited
- » Victory Motorcycles [*Victory, Indian*]
- » Yamaha Motor Australia Pty Limited.

### Scoping the Industry

This document is concerned with two-wheeled vehicles – motorcycles (both road and off-road) and scooters (smaller vehicles with a step-through frame and a floor for the rider's feet).

These machines are sometimes referred to as Powered Two Wheel vehicles (PTWs).

One in five of the vehicles sold in Australia that are classed as "motorcycles" are All-Terrain Vehicles (ATVs) or Side by Side Vehicles (SSVs). Almost all of these are four-wheeled vehicles which are mainly used commercially and on rural properties.

ATVs are not included in this analysis of the motorcycle industry.

There is also a small number of three-wheeled motorcycles (trikes) entering the market and being used on public roads.



Issued November 2016

If you would like more information about the issues discussed in this document, please contact:

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# A VISION FOR AUSTRALIAN MOTORCYCLING

Motorcycling is a smart and affordable way to travel, ideally suited to the Australian lifestyle. Motorcycles come in many styles and sizes from trail bikes to cruisers to touring bikes to scooters. They have lower travel costs, produce less CO<sub>2</sub> emissions, reduce travel time and traffic congestion in urban areas, and use valuable inner-city parking space more effectively. The smaller, more efficient engines also have less impact on urban air quality. Riding motorcycles and scooters encourages outdoor activity and a healthy lifestyle.

## Motorcycling in Australia:

- » Offers an affordable, accessible, and sustainable mode of transport;
- » Can provide significant but often overlooked benefits in transport policy and urban planning;
- » Provides a variety of sporting and recreational opportunities and promotes a healthy outdoor lifestyle; and
- » Makes a significant contribution to national economic activity.

This document sets out a number of key issues to be considered and addressed by governments at all levels, the wider community, and the motorcycle industry itself in order to ensure this vision is achieved:

- » Transport policy and urban planning (page 3)
- » Energy efficiency and emissions policies (page 4)
- » Motorcycling safety policies and programs (page 5)
- » Motorcycling safety perceptions (page 6)
- » Support and promotion of motorcycle sport and recreation (page 8)
- » Recreational off-road licensing and designated land use (page 10)
- » Design standards and new technology (page 12)
- » Industry relationships (page 13).

## The Australian Market

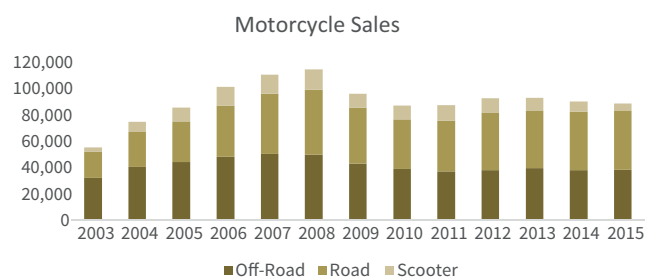
There are more than 40 brands of motorcycles and scooters imported into Australia. They are sold by authorised dealers across Australia, supported by other motorcycle-related businesses such as workshops and sellers of clothing and accessories. Approximately 880 businesses service the motorcycle industry across Australia.

In 2015 there were approximately 88,000 new two wheeled motorcycles sold in Australia.

This included off-road motorcycles, road motorcycles and scooters. Road motorcycles comprised 51% of all new bikes sold, off-road bikes were 43%, and scooters 6% of the total new bike sales.

Both new and second hand motorcycles are sold and serviced through over 880 businesses, employing nearly 4,000 people including 1,700 motorcycle mechanics. These businesses have an annual turnover of \$1.8 billion, making a profit of over \$102 million and paying wages in excess of \$184 million. Overall they contribute \$340.5 million to the Australian GDP or 0.02%.

Adding used motorcycle sales takes the annual total sales to over 200,000 motorcycles.



## Graph of sales

> More than  
**1.05 MILLION**  
**MOTORCYCLES**  
across Australia  
(including rural)



More than  
**40**  
brands  
IMPORTED

over  
**200,000**  
**NEW AND USED**  
sales each year



Approximately  
**40,000**  
**sport**  
or single event licences  
issued each year

**4500**  
**motorsport events**  
annually contributing  
millions of dollars to  
local economies



At the moment  
there are 2.2  
million people holding  
current motorcycle  
licences in Australia

**807,000**

registered  
motorcycles on  
Australian roads



**880**  
motorcycle-related  
businesses employing  
nearly 4000 people



Approximately  
22,000 annual  
racing licences issued  
each year

# MOTORCYCLE RIDERS: WHO ARE THEY?

## People of all ages and from all walks of life ride motorcycles.

Mini-bikes allow children to be introduced to motorcycling at a very young age.

They are able to enter motorcycle sports as young as age seven which helps build skills and responsibility.

At the other end of the scale, mature-age riders have the time and money to enjoy recreational riding and touring.

There are about 2.2 million motorcycle licence-holders in Australia and around 807,000 registered motorcycles (ABS Census data: 2015).

## Motorcyclists – A Part of the Community

Motorcycle sport and recreation is popular, with an estimated 4500 events each year conducted by Motorcycling Australia (MA), the national body for organising motorcycle racing around the country.

About 22,000 motorcycle sport riders hold a full racing or competition licence – another 40,000 single event competition or recreational licences are issued each year. These events contribute millions of dollars to the economy, particularly in regional and rural areas.

International motorcycle events bring visitors to Australia and local municipalities. Currently Australia hosts rounds of both the World MotoGP and World Superbike championships; from time to time, other international motorcycle events are held in Australia such as Speedway World Championships, Trials World Championships and Motocross World Championships.

Other world-recognised events include the annual Finke Desert Race (500 entrants and at least three times as many support crew). The Ulysses AGM (3000 – 5000 older riders participate) and Junior Motocross Championships (700 entrants and over 1000 family members for support) are just two more examples of hundreds of community events run every year by motorcyclists.

There is a major contribution to society from motorcycle-related events such as the “Snowy Ride” (which raises funds for the Steven Walter Children’s Cancer Foundation), the Ride 4 Kids, and the many Toy Runs in each state which collect toys and goods for the less fortunate in our society.

In addition to motorcycles for sport and recreation, nearly every farm in Australia has one or more motorcycles of some description and motorcycles are a familiar sight on our streets – from the small motorcycles used by Australia Post to deliver mail throughout city and regional areas, to the powerful machines used on roads and highways by our police patrols. The “last kilometre” in delivering goods and messages in the CBD is extremely important to the city’s services and businesses; motorcycles are an intermediate solution between bicycle couriers and light commercial vehicles. Items now being delivered by motorcycle include fast foods, medical supplies and samples, and spare parts.

However, there is significant potential within Australian urban areas for the greater use of motorcycles.



# MOTORCYCLES IN TRANSPORT POLICY AND URBAN PLANNING

Motorcycling offers significant benefits in managing traffic and in urban planning and therefore warrants greater attention in the development of transport policies. Motorcycles have significantly less impact on roads than any other type of vehicle which means infrastructure assets last longer. However, most strategies focus on walking, cycling, and public transport, and make only cursory mention of motorcycling.

***“To avoid future congestion, the municipality’s road network needs to be optimised for the more space-efficient modes, including significantly better priority for space efficient vehicles at traffic lights especially trams, buses and pedestrians. Road space efficiency can also be achieved by lower speed limits, encouraging the use of more compact cars and vans, and the increased use of motorbikes and scooters.”***

— City of Melbourne Transport Strategy 2012.

## Transport Options

Motorcycling provides a low cost and flexible means of medium to long distance travel enhancing social inclusion whereas public transport is limited in the areas served and the hours of operation while cycling, even for dedicated cyclists, is only a viable option for relatively short-distance commuting.

An integrated transport strategy should recognise the role and advantages of motorcycling in areas of maximum density (inner-city and suburban centres); on arterial and main suburban roads; and for inter-city travel on freeways and motorways. Motorcycles are the only other transport mode capable of travelling at highway speeds.

## Traffic Management

Greater use of motorcycling has the potential to offer significant benefits to commuters and the business community. Motorcycles –

- » Take up less space and can take up to 48% less time to cover the same trip through congested traffic as a car;
- » Move more freely and are less likely to be caught in gridlocks; if a motorcycle breaks down, it does not block traffic; and
- » Are better able to clear intersections and avoid traffic problems which benefits all road users.

Full integration of motorcycles into urban traffic management would see motorcyclists able to use bus transit or priority lanes, and other real estate for both movement and parking. Encouraging urban motorcycle use would have benefits for all road users.

## Parking

Motorcycle parking can be provided in smaller spaces which cannot be used by motor cars; this includes verandahs and other small spaces on private property, reducing the need for or impact on street parking in residential areas or at transport interchanges, a particular advantage when planning transit-oriented developments (TODs).

Currently Melbourne is the only capital city in Australia where a motorcycle can be legally parked on the footpath. In addition, within the Melbourne CBD, more than 300 on-road parking spaces have been designated specifically for motorcycles.



FCAI will continue to promote the benefits to the community of motorcycling to ensure it is given greater weight in transport policy and urban planning.





# MOTORCYCLING: ENERGY EFFICIENT AND LOW EMISSION

Motorcycling offers significant benefits in emissions reduction and local air quality because:

- » Motorcycle journeys are quicker and motorcyclists spend less time stuck in traffic;
- » Motorcycle engines are smaller and therefore inherently fuel efficient; and
- » Motorcycles produce lower emissions of both CO<sub>2</sub> and other pollutants per kilometre of travel.

Greater use of motorcycles has the potential to make a contribution to reducing the harmful emissions created overall by the transport sector.

In 2011, the Australian average CO<sub>2</sub> emissions for passenger and light commercial vehicles was 206 g/km. European studies show an average for motorcycles of 110 g/km; smaller machines average 70 g/km.

Fuel consumption for smaller capacity motorcycles and scooters can often be as low as a couple of litres per hundred kilometres.

## Embedded Energy

The finite resources that are required to produce, distribute to point of sale, and ultimately recycle (or dispose of) a motorcycle are far less than for a car. Ultimately less resources are required to manufacture a motorcycle, which is able to transport one or two people, than a car.

In addition, over its lifetime, a motorcycle will burn less fossil fuel, take up less space, and deliver its rider more efficiently in congested traffic. This leads to a strong environmental argument for the expanded use of motorcycles and scooters in the modern metropolitan area.

## Efficiency Standards

Motorcycles complying with relevant Australian Standards and Design rules should be able to meet any emissions targets in the short to medium term. However, current transport policies do not include emission targets for motorcycles.

The need to lower emissions and develop more efficient engines is being driven by agencies in the Northern Hemisphere and this will result in further significant improvements. However, if more stringent targets for emissions, safety, or other aspects are contemplated in Australia, government agencies need to be aware that all motorcycles sold here are imported and the Australian market only represents a very small percentage of global production.

## Electric vehicles

A new sector is being developed to bring electric-powered motorcycles (e-cycles) to the market. At the point of use, these vehicles have zero emissions. The infrastructure required for other electric vehicles will also be suitable for e-cycles and so the industry will be able to take advantage of any developments in the medium to long term.

E-cycles are becoming increasingly price-competitive with combustion-engined bikes, while delivering more performance as better battery systems emerge at lower cost.



FCAI

FCAI will continue to encourage the use of motorcycles to reduce urban traffic congestion, overall fuel usage, and emissions of the transport fleet.

# MOTORCYCLING SAFETY: POLICIES & PROGRAMS

55% of serious casualty crashes involve another vehicle and in 57% of these crashes the motorcyclist was not at fault [SA Motorcycling Road Safety Strategy, 2005-2010]. Education and enforcement must therefore target all road users.

## Training

Training and testing practices have developed independently in each Australian state and territory. Consequently there is a wide variation in the programs delivered and the skills tested. Government agencies often question the safety benefits of training; however, there is an increasing trend for licensing bodies to encourage new riders to undertake training whilst reducing the opportunity to gain a licence by simply taking a test.

Car driving experience should not be a pre-qualification in order to obtain a motorcycle licence. There is no evidence to show that riders with previous driving experience are safer than those without. Many of the important hazard perception and roadcraft strategies for riders are specific to riding and are only developed through riding experience.

Learners warrant special attention.

FCAI encourages state agencies to include higher order skills such as Hazard Perception and Roadcraft in their training and testing schemes.

## Licensing

There are a number of different strategies, regulations and approaches to road safety and licensing throughout Australia. FCAI's preference is for a "best practice" licensing system that is uniform across all states. In this way all Australian motorcycle riders benefit from the application of consistent standards to ensure their safety and well-being. In particular:

- » Prospective riders should be able to obtain a licence at the same age anywhere in Australia;
- » Prospective riders should be licensed to ride the same category of motorcycle in all states; and
- » Riders should progress through the same Graduated Licensing Scheme (GLS) stages, at the same age and with the same qualification criteria in all states.

The now almost nationally-recognised Learner Approved Motorcycle Scheme (LAMS) ensures learners and inexperienced riders have a range of relatively low power, medium capacity vehicles to meet their needs during the early licensing stages.

However, there are still variations between Australian jurisdictions in the motorcycle specification. The total Australian market is a small percentage of the global market and meeting the special requirements of an even smaller part of this already small market adds costs which must ultimately be borne by the community. Uniform licensing and registration categories across all jurisdictions would remove this burden.



FCAI advocates nationally uniform "best practice" training and licensing to ensure that all Australian riders have the skills to ride safely.





## Real and Perceived Dangers

There is no doubt that motorcyclists are more vulnerable than other road users; however, figures from the Bureau of Infrastructure, Transport and Regional Economics show that fatalities were down 10% in the period from April 2011 to April 2012 [BITRE, 2012]. Over the last 30 years the number of fatal crashes per 10 000 registered bikes has also dropped by 79% despite motorcycling being the fastest growing vehicle segment with numbers doubling over the decade from 2003 to 2013, and continuing to grow through to 2016.



## Safer Riders

The key issues are the skills and attitudes of the riders. A higher level of skill and experience is necessary for higher-powered machines. FCAI has supported the introduction of the Learner Approved Motorcycle Scheme (LAMS) and Learner Approved Motorcycles across Australia. These motorcycles are restricted to an upper capacity limit of 660cc and must have a power-to-weight ratio of less than 150 kW/tonne. This scheme has allowed the entry-level motorcyclist a far wider selection of motorcycles than the previous arrangement which restricted riders to an upper capacity limit of only 250 cc.

A significant number of riders killed or seriously injured in crashes were involved in risk-taking behaviour – 27% of riders killed were over the legal BAC limit, 4% were speeding or riding too fast for the conditions, and 8% were unlicensed or inappropriately licensed.

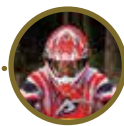


## Safer Bikes

Motorcycles are intrinsically responsive and manoeuvrable. Technology is now available to control braking (ABS) and traction (TCS):

- » Advanced Braking Systems (ABS) – the introduction of ABS on new motorcycles was an industry safety initiative which has been naturally taken up by consumers without the need for regulation.
- » Traction Control Systems (TCS) – designed to control tyre slip when accelerating out of corners.

Motorcycles have only two points of contact with the road so it is essential that tyres appropriate to use are chosen and then properly fitted and maintained.



## Personal Protection Equipment (PPE)

Helmets have been mandatory since 1971 and are now accepted as a normal part of motorcycling.

Whilst helmets are the only piece of PPE that is mandatory, there is a huge range of other products and types of clothing that is worn by riders for both comfort and protection. Most riders accept that there is a minimum standard of PPE that should be worn by all riders, but the differing needs of road riders, versus off-road riders means that what suits one group may not suit the other. Climatic conditions must also be taken into consideration, as what may be suitable in the southern parts of the country may be inappropriate for the tropical north.

There are moves within the industry to try and establish a “Star Rating” system for protective motorcycle clothing. Respected researcher Dr Liz de Rome is working with Dr Chris Hurran on a project that may eventually see a rider able to choose a piece of protective clothing based on its ability to protect them in the case of an accident. Currently there is a perception that price of a garment is a good guide of protective qualities, however that is an assumption and may be incorrect.



## Other Road Users

As driver aids (ABS, AEB, ESC, lane control, blind-spot technology etc.) become increasingly common in cars, there is the potential for drivers to become more reliant on the car's technology and less on their own skills and awareness. Australia's licensing systems fail to make drivers aware of vulnerable road users and, unfortunately, do not convey the driver's responsibilities towards these groups adequately.

All road users should be educated and tested on their awareness of and interaction with motorcyclists and other vulnerable road user groups.

The licence test should examine the driver's ability to observe, anticipate, and react to motorcyclists in a number of traffic situations. A Hazard Perception Test which includes vulnerable road users may be a good way of raising awareness at the licence testing stage.

The industry also continues to support riding with headlights on as a safety measure to help ensure that motorcyclists are clearly visible to other road users during the day. More and more “distracted drivers” are seen as the cause of issues and accidents on our congested roads. Vulnerable road users, such as motorcyclists, are being put at risk by distracted drivers.



FCAI supports uniform licensing, training and testing standards and programs to make other road users more aware of motorcyclists.





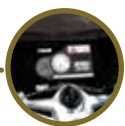
## Safer Roads

Being two-wheeled vehicles, motorcycles can be affected by many factors that a car driver might not even notice:

for example, the condition of the road surface is of greater significance. Features such as adverse camber and pavement maintenance practices can increase the risk to motorcyclists. As well as motorcycle-specific Black Spot programs, motorcyclists will also benefit from other safety initiatives such as shoulder sealing and the removal of hazardous objects on or near the roadside.

- » The road surface – slippery road marking materials, unsealed shoulders, unfinished road works, all pose threats to a single track vehicle such as a motorcycle. It is essential that road maintenance crews abide by their own policies when constructing, altering or maintaining the road network.
- » Roadside hazards – Ideally all “roadside furniture” should be designed and placed with vulnerable road users in mind. Given that there is an enormous amount of road network to cover, FCAI encourages all state jurisdictions to target Motorcycle “Black Spots” for roadside treatments as a priority.

The road system is designed for large four-wheeled vehicles. Not only does this compromise the safety of motorcyclists but it fails to take advantage of the smaller size of motorcycles. Motorcycles have negligible impact on the road surface, helping to maintain its condition longer and reducing the need for repairs and maintenance.



## Motorcycles within Intelligent Transport Systems (ITS)

A 2006 study by the Monash University Accident Research Centre (MUARC) found that, apart from ABS, very few motorcycle-specific ITS have been developed. They developed a list of priority ITS for motorcycles. These range from active systems such as electronic stability systems to passive systems such as external air bags for motor vehicles to minimise injury to a rider in the event of a crash. Some developments such as Heads-up Displays and rear vision systems for helmets are already commercially available.

The potential for a motorcycle to be equipped with a device which allows other road users to be aware of their location in traffic would be an enhancement to rider safety but carries with it other issues which still need to be explored.



## Small Mobility Vehicles

One of the most significant areas of change in the PTW (powered two wheel) market is occurring at the entry level.

Small mobility scooters and short distance commuting scooters are appearing in ever-increasing numbers in Australia. They range from engine-assisted bicycles to gophers and have a variety of power sources and configurations – electric, hybrid- pedal, and internal combustion engine. Many are not covered by motor vehicle regulations and can be ridden on footpaths in urban areas.

Mostly unregistrable, these scooters are not generally considered as part of the motorcycle fleet; however, licensing authorities, local councils and governments alike are being forced to come to terms with these forms of personal mobility which have not been fully taken into consideration in planning and licensing laws.

Of particular concern to the motorcycle industry is the categorisation of small mobility vehicles when one is involved in an accident. If they are not a registered vehicle being ridden by a licensed person, they should not be considered as “motorcycles” and should not form part of the “motorcycle” statistical record.

## Crash Factors

Motorcycle injuries peak on weekends suggesting that many serious crashes are associated with recreational riding.

More than half of fatal motorcycle crashes involve another vehicle, which is most often at fault. The main reason given is that the motorist did not see the motorcyclist. The speed of an approaching motorcycle may be difficult to judge resulting in motorists not giving the expected right-of-way. Defensive riding skills and risk management are therefore of paramount importance for riders.

Fatal single motorcycle crashes are more likely to result from running off the road on a corner or bend.

Road conditions have a greater impact on motorcycle crashes. Obstructions or lack of visibility; unclean road surfaces or loose material; poor road condition or road markings; and the horizontal curvature of the road can all be significant factors.

It is also clear that rider attitude and behaviour is a key factor in crashes:

- » About 20% of motorcycle fatalities in Australia involve an unlicensed rider.
- » As with other motor vehicles, alcohol, drugs, and inappropriate speed are known to be contributing factors in motorcycle crashes, especially single vehicle crashes.

— Centre for Accident Research and Road Safety, Queensland, 2012



FCAI supports the continued development, introduction, and promotion of better technology for safer motorcycles.



FCAI urges all road authorities (state and local government) to pay particular attention to the needs of motorcyclists in road design, construction, repairs, and maintenance.

# MOTORCYCLES IN SPORT

There is a strong link between motorcycle sales and racing licence-holders. This is often used as a measure of the “health” of the industry; good sales of dedicated racing motorcycles reflect strong interest in riding at all levels.

Australia has produced several high profile riders over the past three decades and, as a result, international interest and world championship events have come to Australia. The most recent being Toby Price, the Australian off-road champion who took the world by surprise in winning the world’s toughest motorcycle endurance race, the Dakar, in 2016. World MotoGP and World Superbike events held annually in Victoria are a direct result of Australian riders competing successfully in those championships.

Motorcycle sporting events at all levels inject significant money into the local economy. These range from off-road events in rural and regional Australia to the high profile international events at Phillip Island in Victoria.

There is significant potential for high profile riders to promote motorcycling, attract new riders, and advocate safer riding (eg, the MAC campaign in South Australia which uses five-times World Champion Mick Doohan, and more recently in 2016 the QLD Government which is also using Doohan in its new motorcycle safety campaign). There is also an opportunity for motorsport facilities to offer advanced rider training.

## Recreational Motorcycle Sport & Riding

Beyond the high profile events, so called “grass roots” motorcycle sport is taking place most weekends. These events can attract large numbers of competitors, and associated attendees such as family and friends. Events such as Junior Motocross, Enduro events, local and State Motocross and road racing, and Trail Park rides all have large followings of competitors, and bring people to a specific location. Other events such as organised trail and adventure bike rides and tours can cover large distances but also bring flow-on economic benefit to the areas and townships through which they pass.

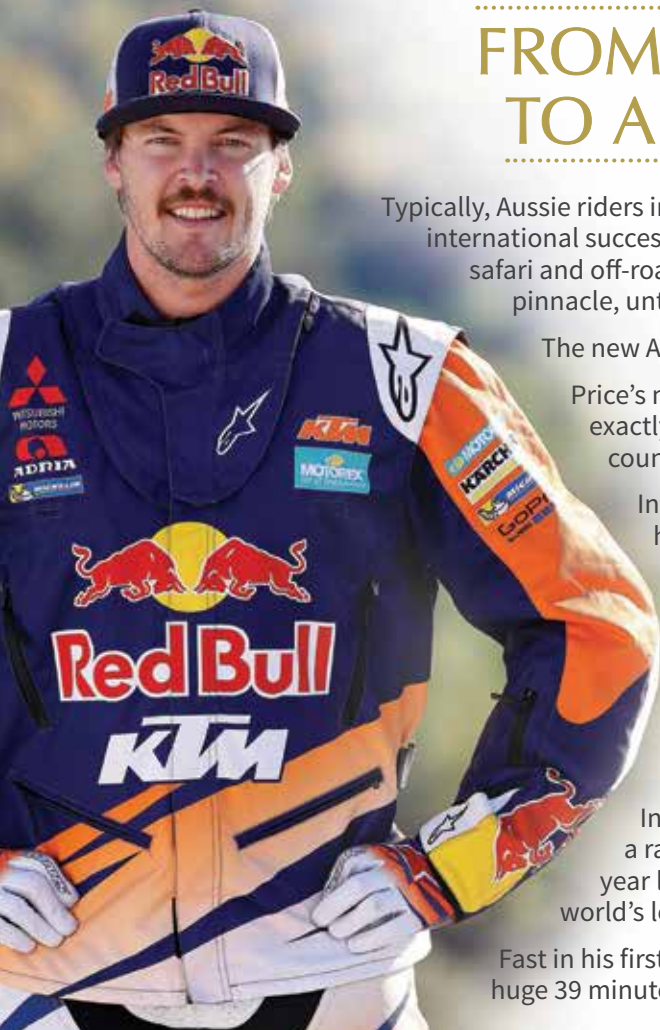
Unfortunately, off-road motorcycle sport is under considerable threat from the closure of venues and denial of access to facilities. Such restrictions on motorised off-road sport are often motivated by concerns about the environment and excessive noise that can be generated through irresponsible or unregulated use. However, these issues can be addressed through appropriate land use and facility management.



FCAI will continue to work with Motorcycling Australia and the controlling bodies of Australian motorsport to support local events and rider development; and with land management and Government authorities to continue to facilitate access to areas for recreational motorcycle activities.



## FROM THE AUSSIE DESERT TO A DAKAR SUPERSTAR



Typically, Aussie riders in all disciplines have had to tread the toughest roads to international success. In arguably the toughest discipline of them all, long distance safari and off-road racing, several have come close but none have reached the pinnacle, until now.

The new Aussie phenomenon in off road racing is Toby Price.

Price's motto is "Don't dream your life. Live your dreams". And that's exactly what this effervescent racer from the Hunter Valley, in country NSW, is now doing.

In his junior years he won several NSW titles and in 2003, at aged 15, he won both the 125cc and 250cc national motocross titles against far more experienced and seasoned competitors.

After a spate of injuries, Price nearly gave competitive riding away until thrown a lifeline by Kawasaki. But he persisted, was given a Kawasaki contract, then switched to the Austrian KTM factory team, resulting in wins in the fast and furious Finke Desert Race – widely regarded as Australia's toughest endurance event – in 2010, again in 2012, as well as more national off-road championships.

In 2013, he suffered a huge physical setback, crashing heavily during a race in California and breaking three vertebrae in his neck. But a year later, he was back racing again and set his sights firmly on the world's longest and most prestigious endurance race, the Dakar.

Fast in his first year, in his second he was dominant, winning the 2016 Dakar by a huge 39 minutes, cementing his place as an international superstar.

## FROM LITTLE THINGS, BIG THINGS GROW

It could be said that mini-motorcycles made young men better adults . . . well, at least that's what the YMCA thought back in the 1960s.

The true origins of the minibike have been distorted over time although shoehorning engines into all sizes of support frames has occurred from the time that motorcycles were first built.

In the midst of challenge, often comes opportunity. So it was during the early 1960s when a sales slump at American Honda sparked a new market for production motorcycles.

One of these was the Honda mini-trail, a small bike modified by the factory so people could ride more safely and easily on trails and dirt roads. It was an instant success.

In the US, the Young Men's Christian Association (YMCA) saw mini-bike riding as a means of getting young men together, and teaching safe riding skills in the great outdoors.

Honda donated 10,000 mini-trail bikes, plus parts and service classes – at a huge cost to the company of around US\$2.5 million – to the project. And so began a mini-bike boom, with other brands quickly joining in.

Back in 1971, Yamaha's two-stroke 58cc JT1 Mini-Enduro sold for just \$299 while others like the Suzuki Trailhopper had swing-in handlebars and a removable front wheel so it could fit in the boot of the family car.

Mini-bikes now range from basic trundlers to highly sophisticated mini-racers and continue to provide thousands of young riders, male and female, with their first, tantalising sample of the joys of motorcycling.



# OFF-ROAD LICENCES AND LAND USE

Off-road riding and mini-bike riding are healthy outdoor lifestyle activities that can involve the whole family and impart important skills and discipline to young riders. Off-road riding needs to be recognised as a healthy and legitimate recreational activity and adequately provided for with access to appropriate riding areas ranging from small outer urban tracks to trails in public forests and bushland.

Sanctioned events such as organised trail rides have been run in Australia for many years. One-off permits to run these events are granted to clubs and organisations with proven records of running safe and environmentally responsible events. A majority occur in regional and rural Australia and this has a strong economic impact on those communities (e.g., the Blue Light Rally in Victoria).

## Recreational Riding Research

A report prepared by the university of Queensland in 2009 concluded that recreational riders:

***“... perceive trail bike riding as a social activity which is beneficial to their personal well-being, their physical and mental health, and the relationship with their family and friends ... In addition, trail bike riders are concerned with being able to continue practicing the sport in an organised and well managed fashion while taking into consideration the concerns of local communities.”***

In a proposal to carry out further research in this area in order to provide a sound basis for policy formulation, Dr Madeleine Brabant, a Research Fellow at Griffith University, noted:

***“Exercise and physical activity such as trail bike riding can reduce weight gain, obesity and in turn reduce the risk of chronic disease. It can also reduce symptoms of depression and anxiety and improve mental health. Exercise enhances personal and social development and improves self-esteem. Active students produce better academic results than non-active students. Physically active workers report less absenteeism and improvements in productivity.”***

Off-road motorcycles are one of the most popular categories in Australia, accounting for some 43 per cent of sales. This segment is an important one for the industry, with direct sales and associated expenditure making a significant contribution to regional and state economies.

## Vehicle and Licence Regulations

Off-road motorcycles are specially built to endure the rigours of off-road riding. There is a significant difference between the on-road legal requirements of indicators, mirrors, etc, and the practical requirements of riding in the bush.

Governments are grappling with this issue in a disconnected and random manner. Recognition of second tier registration for off-road motorcycles (restricted to riding in the bush) is urgently needed. It is pleasing to see that NSW has recently turned its attention to seriously considering Recreational Registration for off-road motorcycles, citing the Victorian scheme as a very good example of a common sense approach to the issue.

A special licence category for recreational riding for junior riders is also needed. A licensing system (similar in nature to recreational boating) whereby a junior rider can legally ride, when accompanied by a fully licensed rider, may help control illegal riding activities.

## Recreational Land Use

Land use pressure on the urban fringe has led to conflict between different user groups and residents. Unfortunately an inconsiderate minority of riders has tended to give the entire off-road motorcycle community a bad reputation. Most off-road riders care deeply about the responsible sharing of recreational areas and practise appropriate riding behaviour.

Designated land use is becoming a reality. Off-road riding parks are now economically viable. Examples include:

- » Victorian Department of Sustainability and Environment (DSE) “Trail Bike Project” has recognised the legitimate use of the forest by trail bike riders;
- » Queensland Moto Park (QMP) has received major funding from the State Government and eight local councils through the Council of Mayors (South East Queensland); and
- » Wyaralong Trail Bike Facility offers a safe and legal site for nearly 230,000 trail bike riders in South East Queensland.



FCAI supports uniform licensing, training and testing standards and programs to make other road users more aware of motorcyclists.



# IN PRAISE OF THE HUMBLE POSTIE BIKE

On any given week day across Australia, up to as many as 7000 postie bikes are wheeling their way through Australia's roads, streets, laneways and housing estates, providing a level of service and reliability that is respected the world over.

It's known by everyone as simply the postie bike but to Honda it's the NBC110, the most recent in a decades-long succession of postal delivery motorcycles which have been Australia's best-selling two-wheeled model, simply by virtue of its professional contractual role for Australia Post.

The NBC110 is sold only to registered Australia Post contractors. It is 108cc of fuel-injected, hard-working four stroke single cylinder and is an icon of Australian suburban culture. The latest Honda model, which first appeared in 2013, has gradually replaced the much-loved bright red CT110 as each postal delivery bike clocked 25,000km or accumulated three years of use, and was taken out of service.

The postie bike began life as the Honda Cub, the model first produced during the post WWII environment to provide affordable mobility for Japan's population.

The CT90 iteration arrived in Australia in the mid-1960s and was adapted for Australia Post requirements with a heavier duty suspension, more performance and stronger brakes to cope with the demands of postal delivery.

The automatic centrifugal clutch, developed by Honda during the late 1950s, is seen as ideal for postal delivery riders because of its ease of use.

When idling, the clutch is not engaged so the bike doesn't move, giving posties the use of a free hand to deliver the mail into boxes.

The new NBC110 is 60 per cent more fuel efficient than before and has evolved marvellously to fit the postal delivery environment with improvements such as plastic leg guards, brighter indicators, and improved manoeuvrability.

And when you are covering as much as 60 million kilometres a year, delivering the mail, these economic and reliable motorcycles prove their worth every day.



# DESIGN STANDARDS AND NEW TECHNOLOGY

European and North American markets drive design standards and new technologies, especially those that make motorcycling safer. Australia represents about 1% of worldwide sales and so cannot direct the development of future technology.

However, as a sophisticated and well-developed market, we do have access to the latest technology in the products imported.

Australian Design Regulations can specify United Nations Economic Commission for Europe (UNECE) standards which would lead to more global harmonisation of regulations. This would ensure that local design regulations will have less impact on local pricing and thereby give the consumer/end user greater access to the latest technology.

## Grey (Parallel) and Personal Imports

Motorcycles coming in as grey or personal imports are required to comply with ADRs but, without effective auditing or monitoring, there is no guarantee that these vehicles actually do so.

The Specialist and Enthusiast Vehicles Scheme (SEVS) for vehicles manufactured before 1 January 1989 allows people to import historic and enthusiast bikes. These must simply comply with the basic state regulations applying at the time they were manufactured.

The Registered Automotive Workshop Scheme (RAWS) allows for the importation and supply of used specialist or enthusiast vehicles.

Motorcycles manufactured in the past 10 years can be imported through RAWS; however, features such as ABS and security systems are often not included while advertisements regularly show bikes with non-compliant fittings (tyres, exhaust pipes) which should have been changed before sale. Many riders are therefore being exposed to unnecessary risks.

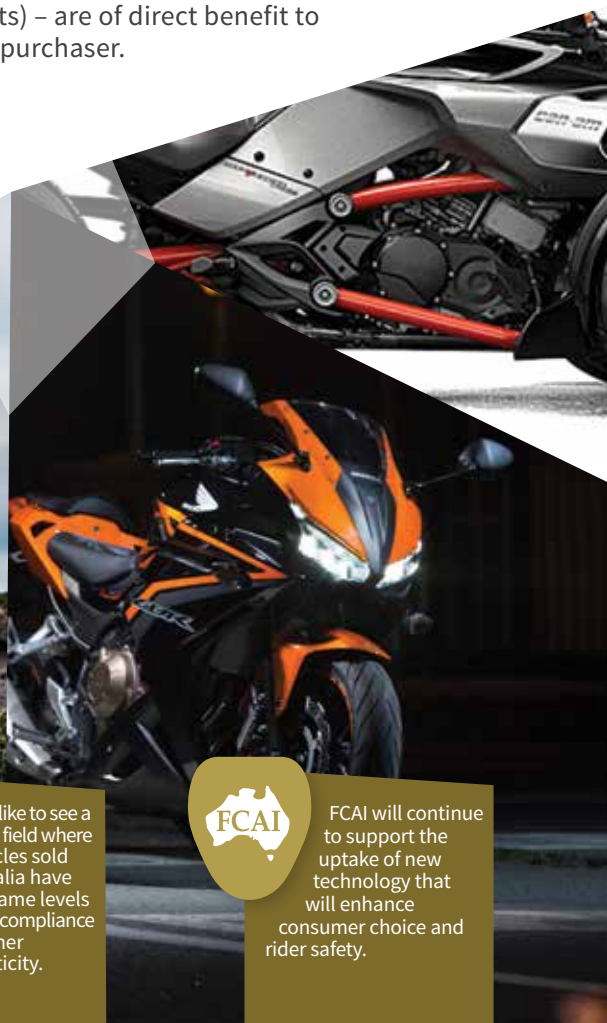
Issues include:

- » There is no mechanism to audit or monitor ADR compliance;
- » There is no mechanism to manage safety recalls; and
- » There is no mechanism to identify imports with a previous history of damage and repair or to guarantee stated vehicle mileage.

There should be more rigorous enforcement of standards and greater penalties for breaches of regulation.

## New Technology

Several FCAI members have direct links to the Global Automotive Industry. Developments in technology quickly filter down to motorcycle manufacturers and are incorporated where appropriate in new models. Intelligent Transport Systems (ITS), Antilock Braking Systems (ABS), and Electronic Stability Controls (ESC) are already well integrated. Lower emissions, hybrid technology, electric powered vehicles and improved recycleability are all a reality while security features – such as ignition security systems (immobilisers) and data-dot technology (which identifies individual components) – are of direct benefit to the owner/purchaser.



FCAI

FCAI would like to see a level playing field where all motorcycles sold within Australia have to have the same levels of scrutiny and compliance to ensure customer safety and authenticity.

FCAI

FCAI will continue to support the uptake of new technology that will enhance consumer choice and rider safety.



# MOTORCYCLING RELATIONSHIPS

**FCAI Motorcycle Group Members import 19 different brands of motorcycles which account for just under 90% of the total sales volume in the Australian market.**

FCAI is the key communications channel for the industry, raising the motorcycle industry's needs with Federal Government, State and Local Government, licencing and registration authorities, technical and regulatory bodies, and other related organisations. The FCAI Motorcycle Group seeks to maintain effective communication and cooperation with relevant authorities and understands the importance of having consistency in messages about issues and concerns.



## State & Federal Governments

Having a voice in the development of policies and regulations is critical to the Motorcycle Industry and FCAI is the appropriate organisation to voice those concerns and issues relevant to the motorcycle Industry.

Having credible input into policy that will affect the industry is essential to the long-term survival of the Industry, and will help with planning at a macro and micro level within businesses across the breadth of the motorcycle industry.

## Motorcycle Dealers

Motorcycle dealers have a key role to play in information flow to the public and can be used as a conduit for feedback to the industry.

Motorcycle dealerships also have an important communications function role in the motorcycle industry. They are the front line of communication about all aspects of motorcycling to both current riders and potential riders looking at getting into motorcycling. They can also be an effective medium for communicating messages of industry-wide importance to the public.



FCAI

FCAI will communicate with key Motorcycle Riders Groups; where appropriate, seek input into industry programs; and support raising skills and competencies throughout the industry.



# FOR POLICE THE WORLD OVER, TWO WHEELS ARE INDISPENSABLE

Time and again, the motorcycle has proved itself as an invaluable tool for police services all over the world.

Rapid, versatile and capable of negotiating dense traffic to respond to critical incidents, road and off-road motorcycles have become a vital asset to police and emergency services fleets, with most of the more common manufacturers designing specific packages which suit these requirements.

The BMW police motorcycles are probably amongst the most commonly recognised motorcycles on the roads in Australia. The reality of life on the road as a motorcycle or traffic police officer is a challenging job, and the comfort and safety of the officers is paramount. It's a tough job with long hours on the road in all weathers, and requires someone who really enjoys riding.

Most modern police services have rigorous motorcycle-specific courses for their aspiring motorcycle traffic officers. Most, if not all will have previous experience in traffic or patrol work. All Australian state and territory police services – the smallest of the jurisdictions, the ACT, included – also have their own off-road machines for tasks such as search and rescue, and patrolling those off-road areas where riders like to test their skills.

Intensive training and plenty of on-road duty provides police riders with an array of skills from the slow, ceremonial escort to rapid passing and traffic management, as commonly experienced when performing VIP tour duties, through to the day-to-day traffic duties.

Police motorcycles, with extra equipment such as a radio, sirens, emergency lights, police radar, safety bars, first aid gear and the necessary documentation, usually weigh significantly more than most commuting bikes, yet are out in the traffic for as much as 12 hours a day.

Years of training have refined the skills and knowledge base of police motorcycle riders to a high degree.

Here's a few so-called "tricks of the trade" that Police Officers like to impart to all other riders, to ensure they stay safe on our roads:

- » Proper use of your motorcycles brakes is vital to your survival. Practise emergency stopping, in all conditions, train yourself to get the maximum out of your motorcycle and yourself when it comes to stopping. If your bike is equipped with anti-lock brakes, ensure you know what it feels like to have that system activated in an emergency
- » Look for people in stationary and parked cars and be wary where the car's front wheels are pointed. If the wheels are turned the car is headed in that direction. Try and establish eye contact with the driver.
- » While lane-filtering on a multi-lane road, ensure you are ready for any and all problems, whilst it is now legal, if something does go wrong, it's the rider who will end up hurt.
- » Be wary of driver behaviour generally, distracted drivers are a danger to all road users.
- » Look for an escape route and always be prepared to swerve, brake or accelerate.
- » When traffic lights turn green, look all directions before taking off; never assume right of way.
- » When stopped, or slowing to a stop, change down through the gears and stop in first gear, with your left foot on the ground, using the rear brake to smoothly stop the bike at very low speeds. Remain ready, in gear, checking your mirrors – the driver immediately behind you expects motorcyclists to move away promptly.





# DIRECTIONS FOR THE MOTORCYCLING INDUSTRY

## Transport Policy & Urban Planning

FCAI will continue to promote the benefits to the community of motorcycling to ensure it is given greater weight in transport policy and urban planning.

## Energy Efficiency & Emissions

FCAI will continue to encourage the use of motorcycles to reduce urban traffic congestion, overall fuel usage, and emissions of the transport fleet.

## Safety: Policies & Programs

FCAI advocates nationally uniform “best practice” training and licensing to ensure that all Australian riders have the skills to ride safely.

FCAI supports uniform licensing, training and testing standards and programs to make other road users more aware of motorcyclists.

FCAI supports the continued development, introduction, and promotion of better technology for safer motorcycles. FCAI urges all road authorities (state and local government) to pay particular attention to the needs of motorcyclists in road design, construction, repairs, and maintenance.

## Safety: Perceptions

FCAI will continue to promote statistical reporting which provides a fair and balanced picture of motorcycling safety issues.

## Motorcycle Sport & Recreation

FCAI will continue to work with Motorcycling Australia and the controlling bodies of Australian motorsport to support local events and rider development.

FCAI will continue to work with land management and Government authorities to continue to facilitate access to areas for recreational motorcycle activities.



## Off-Road Licences & Land Use

FCAI will continue to promote appropriate recreational registration and some form of junior licensing system to support and encourage these activities.

FCAI will work to encourage responsible off-road riding and greater access to designated land use.

## Design Standards & New Technology

FCAI would like to see a level playing field where all motorcycles sold within Australia should have the same levels of scrutiny and compliance to ensure customer safety and authenticity.

FCAI will continue to support the uptake of new technology that will enhance consumer choice and rider safety.

## Motorcycling Relationships

FCAI will communicate with key Motorcycle Riders Groups; where appropriate, seek input into industry programs; and support raising skills and competencies throughout the industry.



## RIDING INTO THE FUTURE: WHERE TO NOW?

Motorcycling's ability to deliver a "feel-good" factor unmatched by any other forms of human transportation make its appeal almost universal yet, challenges to the industry remain, particularly in the areas of safety, ease of use, and user-friendliness across the genders and a range of ages.

Advances in safety have been significant in recent years, and the research continues.

A key safety innovation which is now becoming commonplace and standard fitment on many road-going motorcycles is linked braking and anti-lock braking. Both technical features reduce or almost eliminate the possibility of locking a wheel under heavy braking, which is a significant contributor to instability.

Stability control and/or traction control are rider assistance systems and are seen as a valuable safety aids that can also be switched off when not required. The system electronically measures all key input data, such as wheel speed, lean angle, pitch angle, acceleration, braking pressure and more, and intervenes seamlessly to keep both wheels in firm contact with the road.

Two wheel drive is seen as having strong potential for enhanced safety and stability, and is already being closely trialled by a number of manufacturers. The complexity of delivering drive to the front wheel has been overcome, but is not without considerable cost.

A San Francisco-based start-up company has attracted attention with its gyroscopic stability system. It uses a pair of flywheels spinning at 10,000+ rpm to generate significant torque which acts to control the tilt and lean of its vehicle. The gyroscopic effect keeps the two-wheeled vehicle upright, and landing gear is deployed when parked.

Another innovation is the transference of car-type airbag technology into motorcycles. Some larger road-going motorcycles (such as the Honda Goldwing) have an inbuilt airbag. After studying some 1000 airbag deployments on racetracks and open roads, Italian rider protection specialist company Dainese has now become a leader in the inbuilt airbag for motorcycle rider jackets.

The Dainese-patented 3D airbag doesn't require a sensor kit fitted to the motorcycle but uses its own proprietary algorithms for deployment.

The jacket's inbuilt systems monitor the dynamics of the rider 800 times a second and determines when to deploy. When deployed, the airbag provides a uniform inflation of 5cm over its surface area to better safeguard the rider's collarbones, chest and back.

What happens when the world's largest car company decides that motorcycles provide a big part of the human mobility solution? The result is the Toyota i-Road.



Technically, it's not a motorcycle but Toyota's i-Road blends all the best two-wheeled attributes – nimbleness, fun to ride, and a compact size—with those of a car (reduced exposure to the elements, comfort for occupants of challenged mobility, long distance comfort).

The battery-powered, cabin-enclosed i-Road has a tandem seat at the rear behind the rider (driver), steers with its single rear wheel and has two motorcycle-sized wheels across a narrow track at the front. The secret to its appeal is that it leans into corners like a motorcycle, and the vehicle automatically senses the optimal lean angle. So the i-Road has zero emissions, the convenience of a motorcycle with the comfort and stability of a car.

It may not be for everyone, but the i-Road shows just how much motorcycling can be a major contributor to hybrid design solutions for modern commuting.

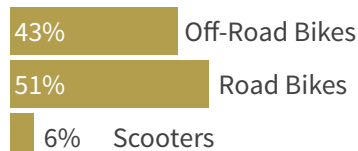




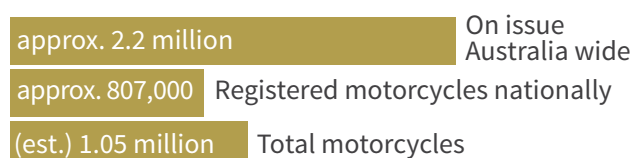
# IN REVIEW

## Motorcycle Sales

**2015 total: 88,000** comprising:



## Motorcycle licences



## Australian motorcycle dealerships

**\$2.8 billion** sector

**\$1.8 billion** revenue/turnover

**\$102.1 million** profit

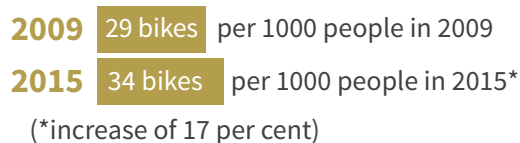
**\$184.6 million** in wages

Contributes **\$340.5 million** to Australian GDP (0.02%)

**880 businesses**, employing 3920 people including 1700 motorcycle mechanics

## Motorcycle ownership

Ownership of Registered Motorcycles has increased from:



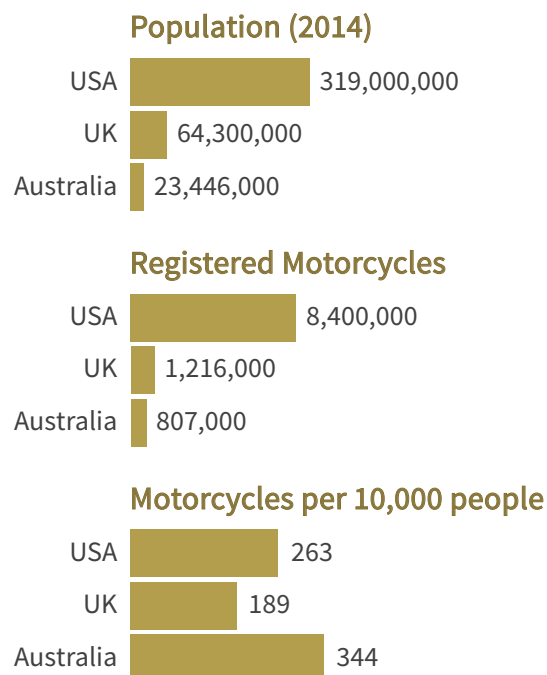
## Sport and recreation

Motorcycle sport and recreation is popular with an estimated 4500 events each year conducted by Motorcycling Australia (MA), the national body for organising motorcycle racing around the country.

About 22,000 annual licenses are issued to motorcycle sport riders, along with more than 40,000 single use recreational licences each year.

These events contribute millions of dollars to the economy, particularly in regional and rural areas.

## How do we compare?



## Europe (2015)

**1.21 million registered motorcycles** (2 and 3 wheel), including mopeds

**24 countries** (Including UK, Germany, Netherlands, Scandinavia, Greece, Italy, Spain)

**885,443 motorcycles** (+10.3%);

**328,305 mopeds** (-6.7%)



BMW Motorrad



Kawasaki



Norton



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