

THE JOURNEY TO A BRIGHTER DESTINATION

FEBRUARY 2022



mcia
Today's Industry. Tomorrow's Journeys



CONTENTS

EXECUTIVE SUMMARY..... 3

SUPPORTING PARTNERS 5

CHAPTER 1 — Improving mental health and well-being 6

- Ride happy..... 6
- It's only natural..... 7
- Cognitive function 8
- Physical health 9

CHAPTER 2 — The environmental impact of motorcycling 10

- Leisure motorcycling study 10
- Life cycle analysis study..... 11

CHAPTER 3 — The economic impact of motorcycling 13

- Sport and related tourism 13

CHAPTER 4 — The diverse world of leisure motorcycling..... 14

- Tourism and adventure motorcycling 14
- Heritage, culture and classic motorcycles 14

CHAPTER 5 — A world of motorcycle sport..... 15

- Electric motorcycles in sport..... 15
- Types of motorcycle sport 15
- The challenges 17

CHAPTER 6 — Embracing the future 18

- Alternative power 18
- Barriers to electrification 18
- Adventures can still happen 19

CHAPTER 7 — Challenges to motorcycling 21

- Licensing 21
- Responsible riders..... 22
- Road safety 22
- What can the motorcycle industry do to promote post-test training..... 23
- Personal Protective Equipment (PPE) 24
- Noise aware 25

CHAPTER 8 — Summary and next steps..... 26

REFERENCES 27

EXECUTIVE SUMMARY

Motorcycles, or 'powered two wheelers' (PTWs), offer a significant environmental, economic, and societal benefit to the UK's population, responding to both physical and emotional needs of travel.

They can and must play a role in the future of our urban and sub-urban transport systems as an affordable and cleaner form of personal mobility. The Motorcycle Industry Association (MCIA) has already shown this in its recently launched 'Action Plan' for the 'powered light vehicle' sector, which includes motorcycles, detailing the barriers that need to be overcome if powered two, three and light four wheeled vehicles are to have their potential fully realised by Government and, therefore, their take-up maximised.

This document examines higher powered PTWs in a more traditional sense, ridden primarily as a leisure activity, and examines the many benefits leisure motorcycling brings to the table for consumers and businesses alike. These range from the benefits to mental health and the economy, to the significant gains that can be had from increased tourism and motorcycle sport revenue.

Motorcycling is good for you, physically and mentally. It's more involving than other sedentary forms of motorised transport, so is a more active form of travel that gives considerable benefits to a rider's overall well-being, awareness, and skill level. Covid has brought about a mental health pandemic in its own right. People are facing tougher lives than ever before and motorcycling has been a lifeline for many, whether through exposure to fresh air, being at one with nature, being part of a community or relieving stress through enjoyable experiences.

Motorcycling is also playing its part in transport decarbonisation. A recent MCIA-commissioned study shows the emissions contribution of petrol-powered motorcycles favoured by leisure riders is minimal, not least because of the infrequent use and low annual miles travelled. The Department for Transport (DfT) has itself acknowledged our sector's emissions contribution as being just 0.4% of overall UK transport emissions. This minimal impact is further offset by the rapid adoption of lower powered, more intensely used, electrically powered PTWs in urban and sub-urban settings. Further still, if we consider the whole life cycle of our vehicles, from production through to in use and end of life, they are shown to be significantly more environmentally friendly than a range of other transport modes, including electric cars. Whole life cycle analysis must be considered by the Government when it comes to environmental impact, and it must move away from an exclusive focus on zero-emissions at the tailpipe when determining a transport mode's harm to the environment.

We are committed to the Government's decarbonisation agenda. However, it must recognise the challenges higher powered leisure motorcycles face today in becoming zero emission at the tailpipe and be open minded about alternative fuels used to power internal combustion engines (ICE). Our sector is leading the charge when it comes to zero emission electric vehicles, particularly for lower powered PTWs which are already 60% fully electric and will likely be 100% by 2030, but electric isn't a silver bullet for our diverse sector. It will be more of a challenge to electrify higher powered leisure motorcycles in a way that is commercially viable and so industry must be given the time and help to do so before working towards any arbitrary date for phasing out new non-zero emission at the tailpipe motorcycles.

The motorcycle industry is a significant contributor economically speaking too. A recent report by Oxford Economics, on behalf of the European PTW industry body, ACEM, highlights the economic contribution made by the sector across manufacturing, R&D, retail and sport, all of which are represented by global institutions with global influence. This translates into followers and fans, generating significant live attendance at events and eight-figure TV audiences, resulting in a multi-million-pound business both in the UK and globally.

Key to the success of our future and, in turn, the Government's future of transport agenda, will be getting more people on two wheels. Improving access and removing barriers to entry will be critical to this. Potential riders face an intimidating and confusing licensing regime which wouldn't be tolerated by other road users, something the MCIA is committed to continue working with the Government on to ensure the regime is fit for the future, not at the expense of training quality or safety, but the improvement of it.

Underpinning all this is and must be motorcycling with a conscience. MCIA is confident this paper will change the perception of motorcycling as a leisure activity and further cement its role, not only within the UK's transport systems, but as an economic, environmental, societal and cultural contributor too.

SUPPORTING PARTNERS



— Motorcycle Action Group (MAG)

The Motorcycle Action Group (MAG) welcomes the highly significant statement of intent which the Motorcycle Industry Association's (MCIA) 'Journey' report represents. The document lays out a clear position on the importance of motorcycling as it stands today in the context of leisure, pastimes, and sports. It also confirms the industry's commitment to develop a strategy to create a foundation for the continuation of motorcycling as we know it. Further, it considers all the things that are important to today's riders. The objective is to ensure not only that motorcycling continues, but that it also attracts a new, younger, and growing audience in the years to come. MAG and MCIA are closely aligned in many key areas. MAG recognises that the industry must naturally operate within and introduce products to market that cannot just be eligible to be offered for sale, but also be demanded by the changing marketplace. It is appreciated; however, this must not just be shaped by government policy alone but also what inspires the customer. As Government moves ahead with its agenda and objectives for net zero by 2050, MAG will work closely with MCIA to ensure the riders voices are heard with an objective of ensuring these opinions sufficiently influence policy proposals and the final outcomes. We are looking forward to working with MCIA and, together, feel much can be gained by working collaboratively, but with a mutual appreciation of each organisation's beliefs and objectives.

Neil Liversidge, Chair



— Auto Cycle Union

As the national governing body for Motorcycle Sport in the UK, and having a long tradition in the world of motorcycle sport being a founder member of the World Governing Body, the Federation Internationale Motocyclisme (FIM), the ACU welcome the publication of this important paper as it sets out to illustrate the importance of all Motorcycle Sport disciplines and the contribution they make to business, tourism and wider economy. ACU look forward to working closely with the industry on moving this agenda forward to ensure Motorcycle Sport retains its place and further, has the opportunity to grow as new technologies find their way into the market.

Roy Humphrey, Chairman



— Mental Health Motorbike

We are very pleased to be supporting MCIA and the wider industry on the challenges faced by the riding community, Mental Health has never been so prominent as it is now. Mental Health Motorbike is a free face to face and online mental health support charity for the biker community operating throughout the UK. We exist to create meaningful and purposeful opportunities, for all bikers, so that together we grow the well-being of the biker community. We do this through one to one, peer support, events, training activities and projects, working in partnership with the industry, other organisations, clubs and individuals.

Paul Oxborough, Founding Director



Motorcycling is good for you. A study conducted by the Institute of Neuroscience and Human Behaviour (INHB) concluded that motorcyclists are less stressed and more fulfilled than their four-wheeled counterparts. ^[i] It is generally accepted that stress is a contributing factor to poor mental and physical health, so a reduction in stress is to be welcomed.

Having good mental health helps us relax more, achieve more and enjoy our lives more. NHS – Every Mind Matters Oct 2019

Having good mental health helps us relax more, achieve more and enjoy our lives more.

The World Health Organisation (WHO) defines mental health as a state of well-being in which the individual realises his or her abilities, can cope with the normal stresses of life, work productively and fruitfully, and is able to contribute to his or her community'. ^[ii]

Our mental health influences our physical health, as well as our ability to lead a healthy lifestyle and to manage and recover from physical health conditions. ^[iii]

Furthermore, American psychotherapist Sam Louie concluded "for myself and another therapist colleague, we believe that riding is an act of therapy itself. While traditional therapy has its values, sometimes being alone on the seat of a bike, free of distractions can provide the emotional space needed to declutter your soul." ^[iv]

— Ride happy

Statistics from The Samaritans show there were 5,691 suicides in England and Wales in 2019. This figure is rising and 321 more lives were lost this way than during 2018. To put this in context, 1,752 people died on Britain's roads during 2019.

125 people a week take their own lives. Suicide is also the biggest killer of men aged under 45 years old. 75% of all suicides are male according to CALM (The Campaign Against Living Miserably). Whilst motorcycles are ridden by males and females, any boost to men's mental health is a huge step forwards in the fight to reduce such devastating statistics.

Motorcycles relieve the stresses of life for many. Riding a motorcycle gives riders a positive outlook on life and increases levels of dopamine (also known as the happy hormone). It feels good and aids relaxation. Consequently, participation in activities that improve mental health is to be encouraged, and riding a motorcycle is one such activity and a very powerful form of anti-depressant.

In August 2020, the Australian division of global banking and insurance company, ING, published a study revealing that motorcyclists are generally much happier than the average car driver. The study uncovered the therapeutic potential of motorcycle riding, with 82% of motorcyclists agreeing that riding makes them happy, compared with 55% of motorists. Crucially, more than half of the riders surveyed said the positive mental health effects of riding was the main reason for their choosing to ride a motorcycle. ^[v]

Researchers at the University of California Los Angeles (UCLA) conducted a study for Harley-Davidson on the relationship motorcycles have on the brain. The Mental and Physical Effects of Riding a Motorcycle measured the biological and physiological responses of more than 50 experienced motorcyclists using mobile electroencephalogram (EEG) technology. Results published in January 2019 found that riding has a very positive outcome on mental health.

After just 20 minutes of riding a motorcycle, hormonal bio markers of stress were reduced by 28%. There was also a reduction of cortisol levels, which is important as a sustained level of cortisol (our fight or flight response) can lead to anxiety, headaches, heart attacks, memory problems and insomnia. ^[vi]

Researchers also concluded that on average, riding a motorcycle for 20 minutes increased participants' heart rates by 11% and adrenaline levels by 27%, similar amounts to light exercise.

Almost half (48%) of the ING motorcycling respondents said riding a motorcycle is a form of mindfulness that helps them de-stress. 41% said they love the sense of freedom that comes with riding and more than a third (34%) enjoy the fresh air and the associated exposure to nature.

Almost half of the respondents said riding a motorcycle is a form of mindfulness

— It's only natural

As humans, we relish being close to nature and benefit from the experience. In April 2021, the website Wilderness Redefined^[vii] listed twelve tangible physical and mental positives of being outdoors, which included increased happiness and reduced stress.

Unlike travelling by car, motorcyclists are gaining the maximum benefit from nature, at one with their surroundings, breathing the air and living the sights.

Motorcycling is a great way to meet new people from all walks of life, and whilst it's common knowledge that having an active social life helps fend off anxiety and other health conditions, motorcycling also offers a strong sense of community and a warm welcome to all riders. As such, motorcycling is an excellent counter to social isolation, itself a contributor to poor mental health.

The sense of community amongst motorcyclists is strong. Riders acknowledge each other as they pass and support each other when they breakdown, physically and mentally. With an inclusive culture and a welcoming attitude, no one is excluded, and a common passion brings strangers together.

We are all unique. Riding a motorcycle enables a person to have a sense of freedom, to be themselves and to explore their individuality on their journey through life. An example of this is the charity Mental Health Motorbike (www.mhmotorbike.com). Their aims are to support the well-being benefits of motorcycling as well as supporting riders who experience many types of mental health conditions.

They have created the country's first free national mental health support network. They do this by training volunteers as mental health first aiders to support other members when they need help. They offer three levels of support to riders and their families. Mental Health Motorbike see the motorcycle as the glue that holds the community together. But what is unique is the way in which they work with all types of riders from different cultures, genders, age ranges and from the LGBTQ+ communities. Inclusion is an important part of their work, and they are respected by the community for this.

— Cognitive function

Riding improves cognitive function, makes you smarter and helps prevent the onset of dementia and Alzheimer's disease according to Dr Ryuta Kawashima, author of the Nintendo game "Dr Kawashima's Brain Training". [viii]

By using motorcycles more in our life, we can have positive effects on our brains and minds.

A 2009 study by Dr Kawashima at the University of Tokyo looked at the relationship between motorcycling and the human mind. His two sample groups, which had an average age of 45, were regular riders, and those who had not ridden for ten years.

The regular riders were found to have a higher level of concentration, because riding had consistently activated the relevant area of their brain. The lapsed riders used a motorcycle every day for two months which resulted in

improved cognitive faculties, particularly those that relate to memory and spatial reasoning capacity. An added benefit, according to the study, was that participants reported reduced stress levels and an improved mental state.

When asked whether car driving produced similar results, Dr Kawashima said:

"A car is a comfortable machine which does not activate our brains. It only happens when going across a railway crossing or when a person jumps in front of us. By using motorcycles more in our life, we can have positive effects on our brains and minds."



— Physical health

Riding a motorcycle may not burn as much energy as running a marathon, but it has physical as well as mental health benefits.

According to slipstremer.com, not only is riding a physical and mental workout, but it increases insulin sensitivity too, which improves the metabolic rate leading to more calories burned and less fat stored.^[ix]

A rider's body is key to making a motorcycle balance and steer, so riding is like a full body workout, as most muscles are involved in the process, improving muscle tone and core strength.

CHAPTER 2 The environmental impact of motorcycling



Transport is the UK's largest emitter of greenhouse gases (GHG). However, motorcycling contributes just 0.4% of that figure, as the 2021 Transport Decarbonisation Strategy itself stated.^[x] Within this, for the first time, our sector was given a suggested date of 2035 for the ban on new non-zero emission at the tailpipe motorcycles (or 'L-Category' vehicles), subject to further consultation expected later in 2022. However, it should be noted that zero emissions at the tailpipe is not appropriate for the entirety of the L-Category sector.

— Leisure motorcycling study

MCIA commissioned a study to look at the impact of the motorcycle market on the environment, and specifically leisure motorcycling. The Leisure Motorcycling Study was carried out by Local Transport Projects, a leading independent transport planning, traffic and highway engineering practice.

An initial review of the UK National Atmospheric Emissions Inventory (NAEI) provided data relating to carbon emissions for a number of sectors in the UK, but in particular the road transport sector. The data provided relates to GHG emissions as CO₂ equivalent (CO₂e) and includes data for rural, urban and motorway use. The data includes cars, heavy duty vehicles (HGVs/buses), light goods vehicles (LGVs) and motorcycles. The analysis of this data can be seen in Figure 1:

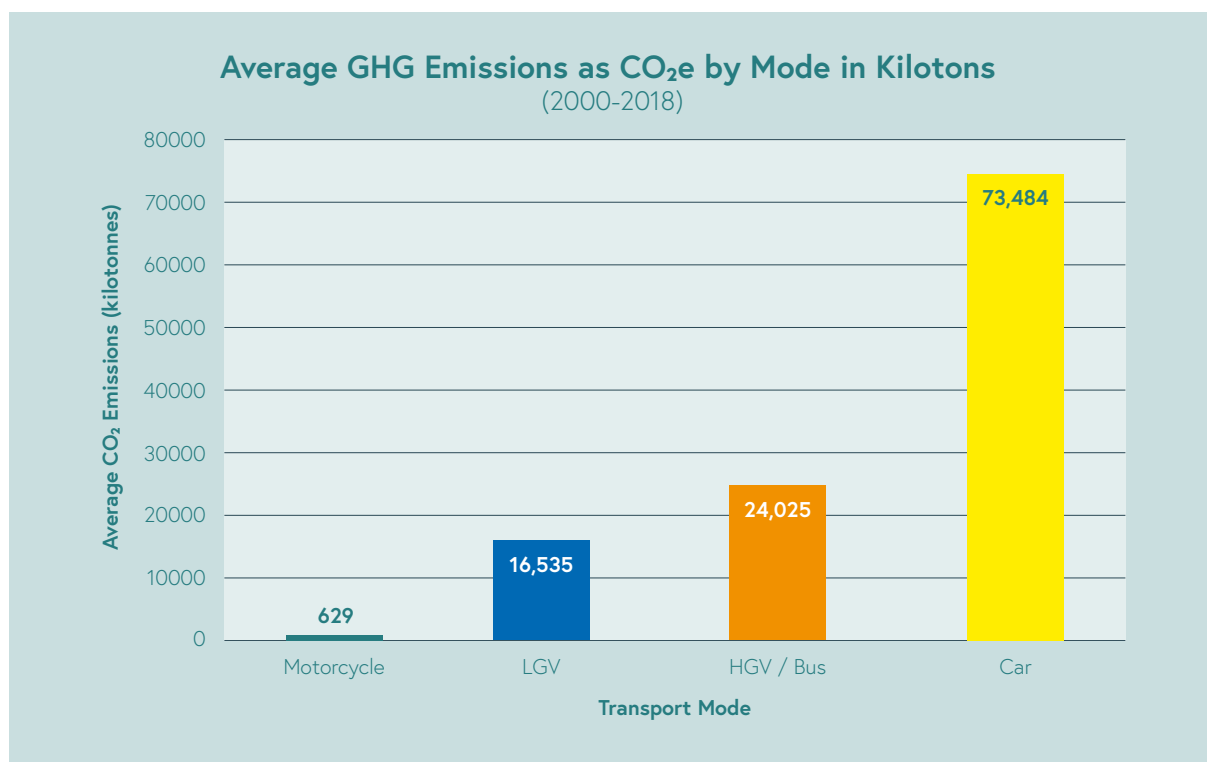


Figure 1: Average GHG emissions as CO₂e by mode in kilotons (2000-2018) (Source NAEI, 2020)

This data shows an overall average of the total CO₂e emissions between 2000 and 2018. As demonstrated above, motorcycles contributed the least, with an annual average of 629 kilotons of CO₂e emissions between 2000 and 2018. The data shows that LGVs contributed an average of 16,535 kilotons of CO₂e, while HGVs/buses contributed on average 24,025 kilotons of CO₂e. As might be expected, cars were the biggest contributor, with 73,484 kilotons of CO₂e between 2000 and 2018.

While motorcycles make up a very small part of the overall picture, the Leisure Motorcycling Study looked specifically at the leisure market, to give an idea of the impact from what is a relatively small part of the motorcycle market as a whole.

Larger capacity motorcycles tend to be used more for touring and leisure purposes. As shown earlier, there are many benefits to motorcycling as a leisure activity in terms of mental health and well-being.

The Leisure Motorcycling Study ^[xi] explored several comprehensive datasets, as well as relevant pieces of literature to demonstrate the benefits of leisure motorcycling. The results of the study found that an average motorcyclist travelling for leisure purposes could be expected to produce approximately 0.66 tonnes of CO₂e per year.

To put this into context, the study offered comparisons with other recognised leisure activities. For example:

- based on the top 5 flight destinations from the UK, the average CO₂ emissions produced is approximately 1.3 tonnes of CO₂ per passenger.
- a person travelling in a large car with a touring caravan for the purpose of a holiday/short break could be expected to produce approximately 0.72 tonnes of CO₂e per year.

— Life cycle analysis study

MCI A commissioned Zemo Partnership to conduct a Life Cycle Analysis ^[xii], the holistic approach of analysing a product's full environmental impact, from product creation, in use operation, to eventual disposal. As such, it is a technique for quantifying the environmental impacts in a rigorous manner that allows for a fair comparison to be made with other products and their impacts, as opposed to, for example, purely emissions at the tailpipe.

A number of comparative scenarios were modelled, some of which directly compared petrol-powered leisure motorcycles with other transport modes. For example in Figure 2, an L3-Category 950cc petrol motorcycle was compared to a medium segment battery electric car and a medium segment performance petrol car. The assumed annual operational mileage was 4000km and operational lifetime for all vehicles was 14 years.

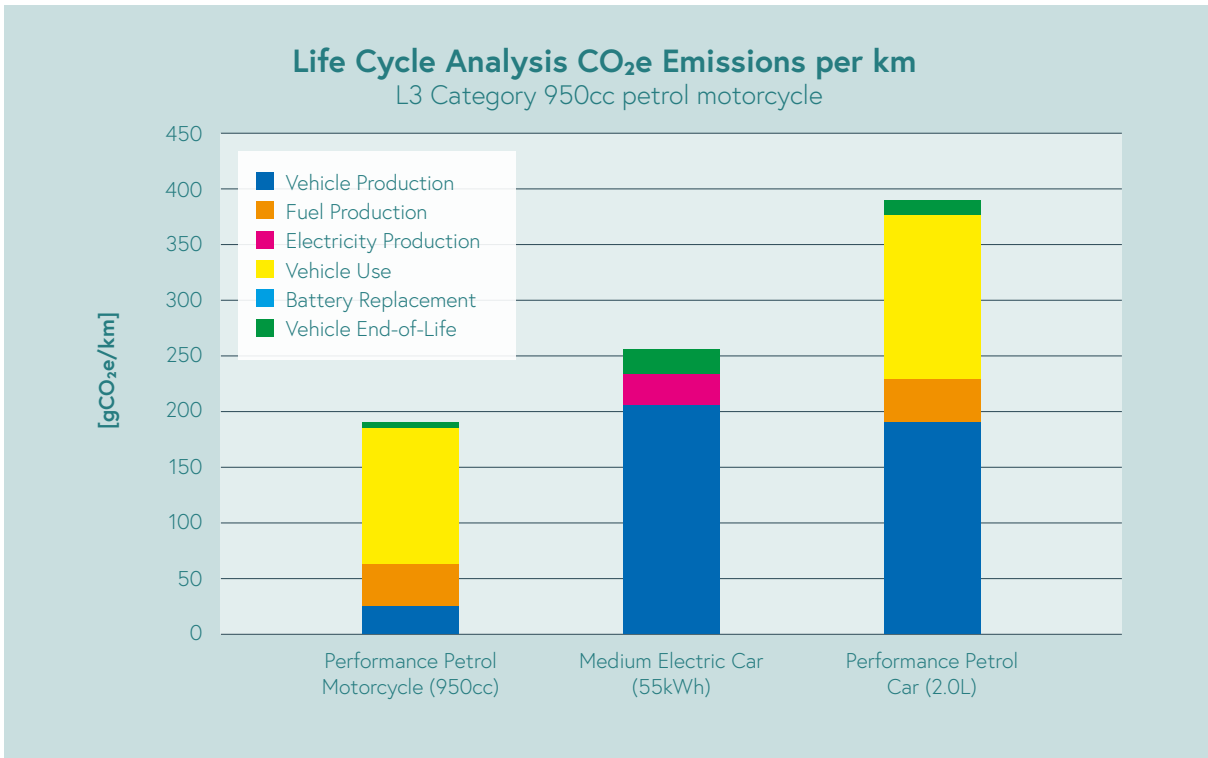


Figure 2: Life Cycle CO₂e emissions per km – Performance Petrol Motorcycle

Clearly, the lifetime GHG emissions per km are less for the petrol motorcycle than either of the cars. In terms of decarbonising transport, it is therefore crucial the Government focusses its efforts on where it can get the maximum benefit, which the data above clearly demonstrates is not, initially at least, the motorcycle sector.

The motorcycle industry acknowledges that change is needed and that it will do everything in its power to ensure that change happens. Significant steps have been made by the industry, particularly in the commuter and last mile delivery market sectors, with current trends suggesting these sectors will soon be dominated by electric power, where it is expected that the fully electric market will grow by 600% by 2025.

As identified earlier, the leisure motorcycle sector is small, with a relatively low impact on overall CO₂e emissions, mitigated even further considering the rise in lower powered electric PTWs and our vehicles' whole lifetime impact on the environment.

CHAPTER 3 The economic impact of motorcycling



In the 2021 ACEM-commissioned Oxford Economics report, The economic importance of motorcycles to Europe^[xiii], motorcycle-related activity supported €21.4 billion of output (GDP) across Europe, was associated with 389,000 jobs and €16.6 billion of tax revenues. It further states that 11% of the total contribution to GDP was accounted for by the UK and that for every €1 of GDP generated by the sector, a further €1.80 is supported in other industries.

Some highlights from the report are shown below in order to offer a flavour of the economic significance of this sector.

The report's authors state that in 2019, motorcycle-related activity supported €21.4 billion of output (GDP) across Europe, associated with 389,000 jobs and €16.6 billion of tax revenues. They further state that 11% of this total was accounted for by the UK and that for every €1 of GDP generated by the sector itself, a further €1.80 is supported in other industries.

— Sport and related tourism

In terms of sport and related tourism, five million spectators attended major motorcycle events across Europe in 2019 and 2.5 million individuals attended motorcycle trade fairs and promotional events. More information about the UK-based sports activity can be found in chapter 5.

In addition, motorcycle sporting events, including a number that took place in the UK, are estimated to have generated €395 million gross value-added contribution to the 2019 European GDP. Furthermore, €33 million was generated through VAT payments on ticket sales, while the procurement of goods and services by the event organisers also stimulated economic activity indirectly to other sectors. It is estimated that race organisers across Europe spent €190 million with suppliers in 2019.

In terms of jobs, the major motorcycle sporting events generated the equivalent of 9,000 full time equivalent jobs. In addition to these, there are staff who work at race events on a temporary basis.

Apart from the direct costs associated with motorcycle sport events, attendees also spend elsewhere in the economy as they travel to events, stay in hotels, eat in restaurants, and purchase souvenirs. The report shows that every spectator going to major motorcycle races spends on average €250 to attend an event.

Many of the events attract international visitors, and in 2019 their expenditure is estimated to have stimulated a €376 million gross value-added contribution to European GDP. 20% of this is attributed to the accommodation and food services sector. Spending of international spectators supported a total of 7,200 jobs, of which 810 were based in the UK.

Together, motorcycle sports and events supported a €2.1 billion gross value-added contribution to European GDP in 2019. Oxford Economics also estimated that motorcycle sports and events supported 38,400 jobs across the EU-27 and UK in 2019, with 3,000 of these being UK based.

Leisure motorcycling appeals for different reasons. It is a way of experiencing the places being travelled through, of being part of a community of like-minded people, the sense of continuing a history of riders, or the feeling of freedom a motorcycle provides.



— Tourism and adventure motorcycling

Motorcycle tourism arguably started alongside the mass availability of motorcycles themselves, as for many years during the post-war period, motorcycles were the sole form of transport for many, and the lure of turning a trip into an adventure grew from there.

Over time, there have been many awe-inspiring journeys undertaken on two wheels, across inhospitable terrain and through unstable territories, and this continues to this day. Most famous of today's adventure riders is Hollywood actor Ewan McGregor and his travelling companion Charley Boorman, who have brought the excitement of motorcycle adventures into countless living rooms via their televised exploits. Their most recent challenge saw them cover 13,000 miles on electric motorcycles.

The exploits of McGregor, Boorman and others have helped create a new sector of the market, adventure motorcycling. Although some of these machines are capable of traversing many miles over unmade tracks, deserts, and rivers, many mimic the style, with a tall, comfortable riding position, plenty of suspension travel and all-terrain tyres, but are primarily used much closer to home.

Sales of adventure-styled motorcycles in the UK have grown dramatically in recent years, representing around one in every five bikes registered today.



— Heritage, culture and classic motorcycles

The market for classic motorcycles has enjoyed a sustained period of success, as riders seek out the machines of their youth or those that escaped them in earlier years.

A network of dealers, workshops, parts suppliers, and auction houses has also evolved to feed this market. Although formal definitions of classic do exist, the demand for particular models is more flexible and is often satisfied by the import of old machines from overseas. In the classic world the satisfaction of restoring an old wreck is as strong, or even stronger, than riding the bike itself.

The Federation of British Historic Vehicle Clubs (FBHVC) estimate that in 2020, 27% or 417,535 of the 1,538,927 registered historic vehicles in the UK (i.e. those over 40 years old) were motorcycles, a jump of 50% from 2015. This compares with an overall registered historic vehicle growth of 26% for the same period. An estimated 44%, or some 183,700 of these are in regular use, equal to around 13% of all motorcycles. ^[xiv]

Classic motorcycling is not just a growth sector, but a notable part of the current UK industry.

CHAPTER 5 A world of motorcycle sport



Motorcycle racing is one of the oldest forms of motorsport in the UK. The first recorded race between a pedal powered bicycle and its new motorised cousin took place around 1897.

As the British motorcycle industry boomed and became dominant globally in the 1950's 60's and 70's, British riders dominated World Championship racing. This in turn fuelled interest in domestic motorsport which became a regular feature across the UK every weekend; indeed, for a period of time motorcycle speedway racing rivalled football as the 'national sport' in some parts of the UK.

Today, motorcycle sport is still a very popular activity for riders of all ages, abilities and genders. The evolution of safe, permanent circuits has enticed many more people to transition from road riding to trying their hand on a circuit, and the trend looks set to continue as participation numbers continue to rise.

The competitive side of the sport is overseen by the UK National Governing Body, the Auto-Cycle Union (ACU). The ACU has over 16,000 competitive licence holders, split amongst the major disciplines listed below.

— Electric motorcycles in sport

Electric motorcycles are now becoming a regular feature of sport in the UK. Manufacturers are developing high performance electric motorcycles and using motorsport as a proving ground for innovation and new technology.

The first motorcycle sport discipline to properly embrace electric bikes was trials riding, but electric motorcycles are now making gradual progress in motocross.

In 2009 a new race for electric road race bikes was launched on the Isle of Man during TT fortnight, called TTXGP. In 2010, the race was rebranded as the TT Zero and ran in a similar format for the next nine years as part of the annual TT race event. The race has been entered by teams from all over the world.

In 2019, the World Governing Body of motorcycle sport, the FIM, launched the MotoE World Cup; a race for electric motorcycles as part of the MotoGP race weekend. Twelve teams competed in the six-round championship, with support from major sponsors. Technical advances and lessons learned from this discipline has led to developments in battery range, charging times and motor performance, all of which are to the benefit of road going electric motorcycles.

— Types of motorcycle sport



Closed circuit sport

Racing on closed circuits such as Brands Hatch and Silverstone is the most popular form of spectator motorcycle sport. There are over 20 permanent motorsport circuits in the UK with a number of others that are used on a temporary basis. The British Superbike Championship is the highest profile domestic motorcycle sport, comprising twelve weekends of racing per year. In 2019, the Championship attracted an average audience of just over 40,000 at each round. Events are also televised

and broadcast live on Eurosport, attracting an audience of over 11,157,233 over the championship, averaging over 929,000 views per round. ^[xvi]

World Championship events like MotoGP and World Superbikes attract huge crowds. The UK MotoGP rounds in 2019 attracted over 114,000 people. Cumulatively, 2,863,113 people watched the 2019 MotoGP season, which demonstrates the popularity of the sport.^[xvi] The growth of digital and social media platforms has allowed the sport to reach many more people, showing over 30 million followers.^[xvii]

Non-competitive recreational sport also takes advantage of the UK's network of closed circuits. Track Day events, where riders use sports orientated road bikes to ride on many of the UK's best motorsport circuits have grown in popularity in recent years, with an estimated 10,000 riders regularly participating annually.



Motocross & Enduro

These are very closely related. Both are higher speed, off-road disciplines, with motocross races taking place on purpose-built circuits with jumps and banked turns. Motocross is popular with younger riders and is often considered a gateway discipline with the skills learned transferable to disciplines like road race.

Enduro is a cross country sport, with events often run on forestry land where the fire break roads are used to connect special sections through wooded areas.

There are around 6,000 Motocross riders in the UK participating in competitive events, with around 8,000 more riders using the network's private off road practice tracks.



Trials

This is the most accessible and popular type of motorsport activity in the UK, with over 10,000 regular licenced participants taking part in sanctioned events across the country.

Trials riding is a test of skill and balance, where obstacles are crossed without the rider putting a foot on the ground. It has low participating costs.

Due to the low speeds and quiet bikes, Trials riding has a negligible environmental impact, and is popular in rural and farming communities. Like other forms of motorcycle sport, trials riding has seen the growth in electric bikes, with most of the youth classes now using electric power.



Grass track & Speedway

Speedway takes place on loose shale and similar, oval circuits with bikes that have no gears and no brakes, in multi-purpose and purpose-built stadiums with spectator seating and facilities. Speedway is a sport with a truly global reach. 18 selected league meetings including the play off final rounds of the British speedway championship are broadcast live on Eurosport/Discovery Channels. The Individual World Speedway Championship branded as the Grand Prix series is also broadcast globally to an audience of over 300 million viewers. The UK Speedway Grand Prix attracts over 40,000 spectators^[xviii] and over 150,000 TV viewers.

Grass track racing, a complementary but more basic form of the sport, takes place on a grass surface, generally farmland fields as available, dependant on the growing season and livestock requirements. Very much a grass roots form of the sport, grass track has a strong following in areas throughout the UK.

— The challenges

Motorcycle sport has thrived for many years across the UK, but in recent years has come under a number of different pressures that have necessitated a degree of evolution and adjustment to enable the sport to stay relevant and accessible to a new generation of riders.

- **Cost** - as with most things, the cost of participation has increased significantly over the last decade. The price of motorcycles and consumable components has increased, along with entry fees (as access to land is lost and permanent venues see their costs increase).
- **Land Access** - disciplines that use the countryside have come under significant pressure from other user groups who share that access. Recent Government land access laws removed access to many areas previously used for sport, and other areas saw the number of events reduced.
- **Noise** - one of the most exciting aspects of motorcycle racing, its sound, is also its single biggest challenge. All UK permanent race venues are subject to strict sound limits, usually enforced by local authorities. Combined with strict operating times and a limit on the type of event and number of events each year, permanent venues usually maintain a sustainable working relationship with their local community who will benefit from the event's economic output. Off road sport tends to use temporary venues on a less regular basis. This can lead to a more challenging relationship with local authorities and communities as both sides work to mitigate the impact of the event's sound. However, the evolution of electric motorcycles in off road sport has already had a positive impact on the sound issue.

Motorcycle sport is enjoyed by millions and makes significant contributions to the economy

Motorcycle sport is enjoyed by millions of riders and non-riders alike and makes significant contributions to the economy (see chapter 3).



— Alternative power

With the Government commitment to ban the sale of new non zero emission at the tailpipe motorcycles, the industry is working hard to electrify or innovate using alternative fuels. Electric PTWs are finding favour among buyers of commuter and delivery machines, attracted by their ease of use, and charging versatility, but buyers of leisure and touring motorcycles are yet to be converted in any numbers.

Proportionally, the motorcycle sector has always received less support than the car sector. For example, up until December 2021, an incentive grant of up to £1,500 was available on new, eligible electric PTWs. Unfortunately, this has since been reduced to £500 for electric motorcycles with a purchase cost of no more than £10,000.

Running costs are currently lower for an electric motorcycle when compared with a petrol equivalent, with £2.70 quoted as a typical cost to charge. Small batteries mean shorter recharging times too.

For many leisure motorcyclists, a significant part of the experience is the multi-sensory thrill of a petrol engine. The feel of the machinery immediately below the rider, the skill of engaging the right gear at the right time and reading the characteristics of the motor are all absent from an electric bike, no matter how good its efficiency and performance may be.

Therefore, developments in low or zero carbon combustible fuels are a welcome addition, meaning the Journey to Net Zero is varied as long as an open mind to all possibilities is maintained. MCIA is monitoring developments closely and participate in a number of working groups with Zemo Partnership on renewable fuels.

— Barriers to electrification

The Department for Transport and the Office for Zero Emission Vehicles commissioned research in 2020 to identify how to accelerate the adoption of electric vehicles in the UK. The report highlighted that '... availability of and access to charging infrastructure is a critical barrier to adoption. Clearly, for consumers to adopt an EV they need to be able to charge it.' [xix]

Availability of and access to charging infrastructure is a critical barrier to adoption

In November 2020, Government announced investment of £1.3 billion to accelerate the roll out of charging infrastructure. The focus is on major routes to reduce anxiety around long journeys. There is a lot of focus on rapid chargers, allowing vehicles to be charged quickly and users to be on their way promptly. The aim is to make it as easy to charge a car as it is to fill with fuel. While it is important to ensure there is sufficient charging infrastructure for electric cars, it is crucial to ensure that the different infrastructure needed for electric motorcycles is not forgotten. While it is in many ways much less complex than the requirements for cars, if the infrastructure is not available, the switch to electric motorcycles for longer journeys particularly will be much slower.

Improvements are being made. There are more electric chargers being installed on major routes and in residential streets. In Braintree, Essex, the Gridserve Electric Forecourt has opened, for example. This is powered by clean solar energy and clever battery storage technology. The ambition over the next five years is to build more than 100 electric forecourts across the UK.

Another key barrier is range anxiety. In a recent Department for Transport study looking at the Future of Transport: User Study, range anxiety was listed as an important barrier to buying an electric vehicle. ^[xx]

A typical category A licence electric motorcycle is listed online as having a range of 161 miles in city mode and 123 miles in combined highway mode.

Despite these barriers, the motorcycle sector continues to innovate. An agreement between a number of major motorcycle manufacturers to develop a 'Swappable Batteries Motorcycle Consortium' was agreed in 2021. Honda, KTM, Piaggio Group and Yamaha are working together to develop common technical specifications of swappable batteries and are committed to the promotion of the widespread use of light electric vehicles, such as mopeds, scooters, motorcycles, tricycles and quadricycles in the transport sector and to the more sustainable life-cycle management of batteries.

— Adventures can still happen

Actors Ewan McGregor and Charley Boorman tackled range anxiety concerns by embarking on a 13,000-mile journey on electric motorcycles. Further to the success of *The Long Way Round* and *The Long Way Down*, this journey took over 100 days. They travelled through 13 countries starting in South America, finally ending their adventure in Los Angeles. The ups and downs of this journey was viewed as part of the documentary *The Long Way Up* which demonstrates that adventures can still happen while embracing future technology.

The Life Cycle Analysis study mentioned compared an L3 79kW battery electric motorcycle with a premium segment battery electric car and a premium segment diesel SUV. The assumed annual operational mileage being 4000km and an operational lifetime of 14 years for all vehicles.

The lifetime GHG emissions per km of the premium electric motorcycle (figure 3) was significantly lower than the comparator vehicles.

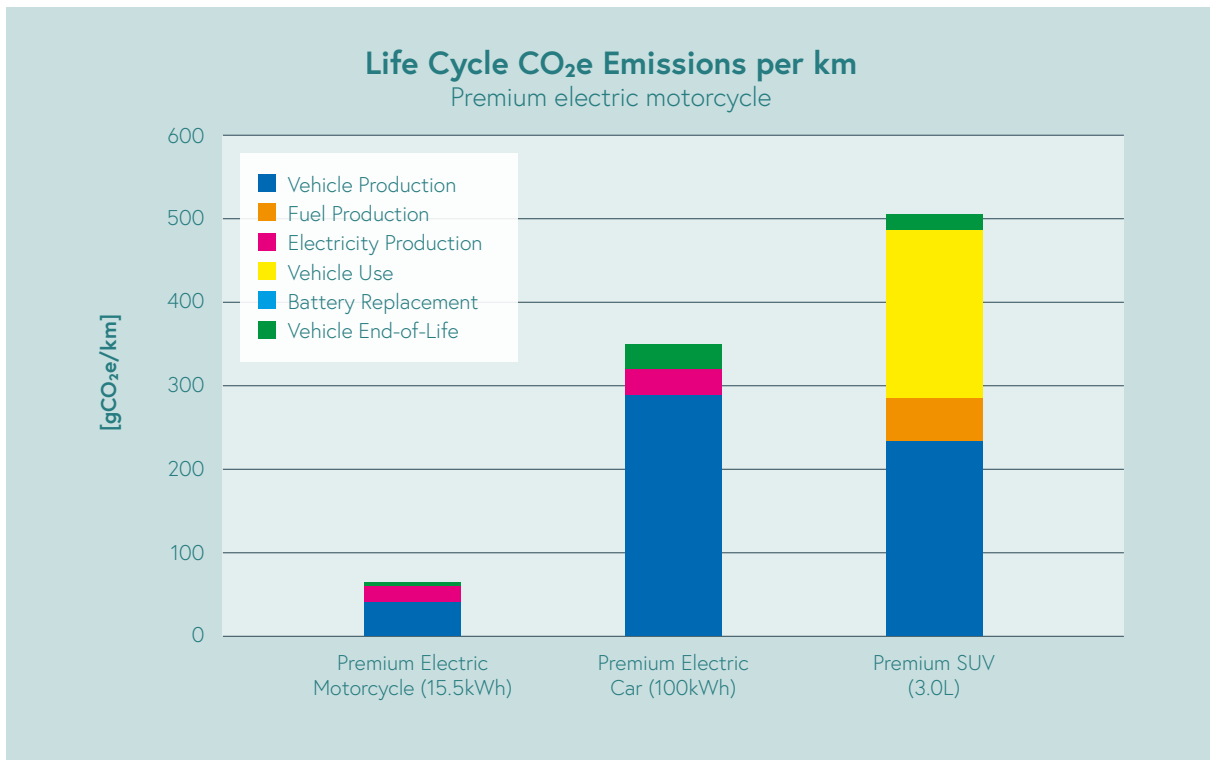


Figure 3: Life Cycle CO₂e Emissions per km - Premium Electric Motorcycle

CHAPTER 7 Challenges to motorcycling

Despite the benefits of leisure motorcycling, there are still several barriers to entry that make it disproportionately difficult when compared with other leisure activities.



— Licensing

The current training and testing regime is unnecessarily onerous. Whilst MCIA accepts that riders should be well trained and properly equipped to take to the road, the current testing system encourages perpetual learners.

This document focuses on riders of higher powered motorcycles and whilst MCIA has proposals for those wanting to ride lower powered motorcycles, the detail provided here concentrates on the former.

The current system encourages riders to wait until the age of 24 to take their motorcycle test to gain immediate access to full powered vehicles, rather than progressing steadily towards an unrestricted licence. This is a lost opportunity to improve rider safety. Progressive access to a full A category licence is repetitive, complex, costly, time consuming and lacks proper incentives to encourage this phased approach.

MCIA proposes that Direct Access to A2 and A licences should be by a single part test with a DVSA Examiner

Repeating identical Module 1 and 2 tests does nothing to raise standards and improve riding skills. It demonstrates the candidate is still at the minimum standard required. It is also inconvenient and expensive for candidates and approved training bodies (ATBs), many of whom must travel long distances, as local DVSA, multipurpose test centres have no availability. This is especially the case during the summer months as demand for PTW tests is much higher and waiting lists considerably longer.

Requiring two separate tests exacerbates this problem, and the large area of land needed for Module 1 testing means the costs to DVSA to deliver the off-road element of the test are disproportionately high. Off-road testing manoeuvres like those currently included in Module 1, could be completed before the on-road part of the test and can be designed to utilise much smaller areas, like those required for CBT training. A single event test will also reduce the administrative burden placed on DVSA and reduce waiting lists. Riders can demonstrate skills improvement as they move through the licence categories by utilising the progressive access route. They could be examined at the ATB centre of their choice, on the PTW they wish to ride, ensuring that a DVSA examined test has been passed once during their progression.

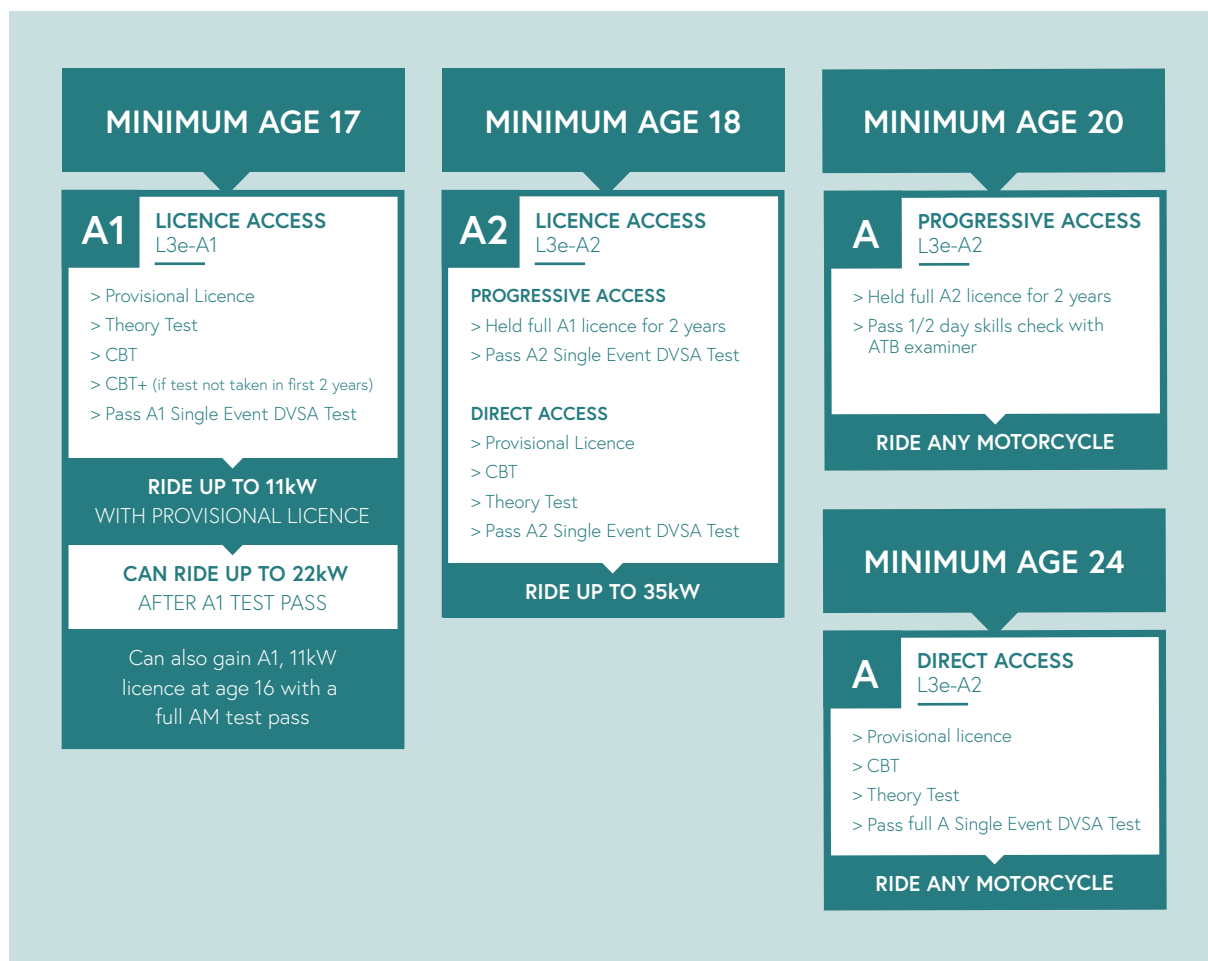


Figure 4: MCIA Proposed Licencing Changes

— Responsible riders

The vast majority of riders are barely noticed by others, they simply go about their passion and hobby, riding their motorcycles in the most responsible way. However, there are a relatively small number of riders who act in an unsociable manner which creates a poor reputation for the wider riding community.

As a sector we need to do more to encourage riders to ride responsibly and considerately to the wider community. Speeding and noise are particular areas of concern which creates more challenges when trying to promote an environment for motorcycling to grow.

— Road safety

Traditionally, Government documents relating to the future of transport make little or no reference to motorcycles. Additionally, road layouts and infrastructure can contribute to accidents and the needs of motorcyclists are rarely considered when new roads are developed, or when road layouts are redesigned. In 2019, MCIA's policy document, *The Route to Tomorrow's Journeys*, helped raise the profile of PTWs with Government, something MCIA will continue to do.

The majority of road users are not required to undertake any additional training once they have passed a driving test. This includes motorcyclists, who as with other road users, could benefit from periodic post-test training to keep their skill levels up. It is the case that some riders are involved in single vehicle accidents, however, as vulnerable road users, riders are more likely to be the victim of another road user's lapse in concentration or poor judgment.

MCIA believes that far more should be done to ensure drivers are aware of riders. At the same time, there is an opportunity to improve rider skills and train them to be more aware of the risks posed by others.

Riders are often seen as the problem which isn't helped by a minority of motorcyclists who ride recklessly or dangerously. This, combined with the perception of motorcycles as being anti-social, often means they are excluded when road safety policy is being developed. Motorcycle Action Group's 'Welcoming Roads' idea is welcome, which looks to redress imbalances in the approach to road safety for different transport modes.

— What can the motorcycle industry do to promote post-test training?

It is essential motorcyclists are given the same considerations as other vulnerable road users and must be included in both national and local transport policies. MCIA cannot force this change of policy but will continue to encourage key Government decision makers to help make riding as safe as possible.

Many riders who have negotiated the hurdles to pass their test and gain their full licence believe that it is the end of their training and that the experience gained when riding their motorcycle will address any shortfalls, however this is not the case and often these riders just end up compounding their errors.

With around 45,000 motorcycle test passes each year, the opportunities to influence riders are plentiful. Convincing riders who have had their licence for a significant period of time will be more difficult. However, we must create a way of making advanced rider training a much more attractive and rewarding thing to do. As an industry, it is impossible for the sector to address the collisions that are caused by other road users. However, we can and will encourage riders to help equip them with the skills and knowledge needed to keep themselves and other road users as safe as possible.

We are aware there have been many campaigns to increase demand for advanced training, both locally and nationally. However, MCIA has already brought together a large group of training providers and road safety professionals to work together to support and promote the many excellent schemes that are already available. As a result of this work, MCIA will be launching a new initiative which will be known as the "Elite Rider Programme".

MCIA is uniquely placed to be able to co-ordinate the wider industry to develop this programme providing recognition to the rider and look at ways to incentivise people to enrol on the initiative. Our objective is to make Advance Rider Training cool and aspirational. To help us achieve this, we will coordinate the main media companies that operate in our sector with this objective.

To support this initiative, we are creating "The Elite Skills Hub" as a single portal for riders looking to improve their riding skills and knowledge. The Hub contains details of nationally available post-test rider training schemes, with advice for riders and links to book training. This approach will not only make it easier for riders to identify the most suitable post-test training opportunities for them, but it will also benefit road

safety professionals who can sign post riders to the Elite Skills Hub, rather than finding and listing the numerous weblinks to post-test training providers.

For our part MCIA will:

- Encourage members to help promote this scheme on their websites, via their databases and within marketing campaigns.
- Partner with motorcycle media to make post-test training more appealing and interesting to more riders.
- Make it an aspirational goal to improve riding skills, promote the benefits to riding and enjoyment, rather than something focussed on safety outcomes.
- Endeavour to make it socially unacceptable to use the roads irresponsibly or with a lack of skill, training or consideration of other road users.
- Invest in marketing activity to help achieve the objectives of the initiative.

By working with experts from such a wide range of organisations, we are confident that we can encourage riders to come forward to take additional training in much larger numbers than ever before.



— Personal Protective Equipment (PPE)

The Transport for London Motorcycle Safety Action Plan states that:

"Research shows that the probability of protective clothing preventing an injury ranges from 17 per cent to 26 per cent for injuries to the upper torso, from 20 per cent to 45 per cent for the upper extremities, from 11 per cent to 39 per cent for the lower torso and from 21 per cent to 45 per cent for the lower extremities. This supports the need for an increased focus on the use of protective clothing which could result in a reduction in the extent and seriousness of motorcyclist injury in the Capital, in the event of collisions occurring." [xix]

A variety of Personal Protective Equipment (PPE) is available for riders specifically designed for motorcycling. Technology has moved extremely quickly in this area, so riders are better protected than before.

Over the coming years, innovation will protect riders further still. This is often a direct result of motorsport where new technologies are in constant development and a great example is the advent of airbags embedded in clothing, which we expect to see become more common place in the coming years.

However, robust PPE comes at a price and that price is inflated by the 20% VAT payable. Currently, only helmets (not the visors which could be argued are essential) are VAT exempt by law. MCIA believes that Government should extend this to all tested and approved motorcycle wear. We believe this will encourage users to wear the correct clothing and PPE and thus reduce serious injury and consequent pressure on the NHS.

The probability of protective clothing preventing an injury ranges from 17 per cent to 26 per cent for injuries to the upper torso



— Noise aware

Motorcycles and other PTWs offer many positives for the emerging transport landscape, from the mentally uplifting experience of riding through beautiful landscapes in fine weather to efficiently dealing with the daily commute and ensuring that deliveries and services arrive on time. However, in the eyes of many citizens, these positives are instantly forgotten when their peace and quiet is shattered by the sound of an illegal motorcycle exhaust.

The PTW industry is at the forefront of transport development and invests heavily in designing efficient vehicles which comply with global regulations, so it is frustrating when a small number of riders hold it back through the fitment of illegally modified exhausts from another age. Of course, the majority of the 1.4 million UK riders quietly go about their leisure and commuting rides on legal, barely noticeable PTWs.

This problem is not confined to the UK, as other countries unfortunately find themselves in a similar situation, with the noise issue gaining a high profile in both Austria and Germany. In Germany, several regions have come together to create the Silent Rider campaign, which highlights the issue and brings together riders and the communities affected by noise. An objective of the Silent Rider campaign is shown on their website as "a rethinking of the small number among motorcyclists, more mutual respect between all parties and we plead for responsible cooperation and consideration". [xxii]

In a similar vein, MCIA is opposed to any illegal modification on road-going vehicles and is keen to work with other stakeholders to overcome this problem in the UK.

CHAPTER 8 Summary and next steps

This document sets out the benefits leisure motorcycling has for the economy, our mental health and well-being, and the environment. It also puts forward a compelling case for why motorcycling as a leisure activity can and must be protected as much as possible as we head towards a net zero future.

As a sector, we have been on a journey, a journey which must continue. The future can and will be bright for our sector, but if, and only if, the Government ensures the right level of support is in place, starting from now, both in terms of financial consumer incentives but also the time and investment needed for us to adapt to new powertrains, electrical or otherwise.

The decarbonisation agenda is here to stay and rightly so. However, unlike other modes of transport, we face significant challenges when it comes to higher powered leisure motorcycles and their becoming zero emission at the tailpipe. Given our limited impact on the environment, though primarily used for leisure and therefore with low annual mileages, petrol powered leisure motorcycles are also used for commuting and last mile delivery purposes. Accepting net zero is the goal, there can and must be a transitional role to play for ICE engines as we look to head towards that end point. We accept not every vehicle is appropriate for every type of journey which is why MCIA has always been a strong advocate of the right vehicle for the right journey approach and extends to a right policy/regulation/subsidy for the right vehicle approach too. This will be critical to encouraging modal shift, getting more people out of single occupancy cars and onto smaller, lighter, and more environmentally friendly vehicles, where appropriate.

Our sector, and indeed other transport sectors, cannot be expected to transform overnight given the diverse nature of each. Therefore, all things considered, the phase out date for our sector (subject to further consultation), should be proportionate to our impact on the environment and considered alongside our positive role in the future of urban and sub-urban travel before working towards any arbitrary date for phasing out new non-zero emission at the tailpipe motorcycles. In other words, we need help to complete the 'journey' we are on and work together in reaching net zero in a way that is commercially viable for manufacturers and appealing to both today's riders but also tomorrow's riders too.

REFERENCES

- i** The Mental and Physical Effects of Riding a Motorcycle, Catalyst Agency LLC, <http://www.donvaughn.com/wp-content/uploads/2019/01/Motorcycle-Study-Research-Results.pdf>
- ii** Strengthening mental health promotion, World Health Organization. Geneva: WHO; 2001
- iii** Bell R. 2017, <https://www.gov.uk/government/publications/psychosocial-pathways-and-health-outcomes>
- iv** Louie S, 2019, Motorcycling: Love the Machine, <https://www.psychologytoday.com/us/blog/minority-report/201907/motorcycling-love-the-machine>
- v** ING, 2020 Motorcyclists: Happiest Drivers on the Road, Motorcyclists: Happiest Drivers on the Road – ING Newsroom
- vi** Web MD, 2020, What is Cortisol? <https://www.webmd.com/a-to-z-guides/what-is-cortisol>
- vii** Black J, 12 Scientific Benefits of Being Outdoors, <https://wildernessredefined.com/benefits-of-being-outdoors/>
- viii** Smartmotorcyclingguide, 2020, The Mental Health benefits of Riding a Motorcycle – the Ultimate Guide, <https://smartmotorcyclingguide.com/2020/04/26/the-mental-health-benefits-of-riding-a-motorcycle/>
- ix** Slipstreamer.com, 2017, Five Surprising Health Benefits of Motorcycle Riding <https://slipstreamer.com/health-benefits-motorcycling/>
- x** Department for Transport, 2021, Decarbonising Transport; A Better, Greener Britain <https://www.gov.uk/government/publications/transport-decarbonisation-plan>
- xi** Local Transport Projects, April 2021, Leisure Motorcycling Study
- xii** Zemo Partnership, Powered Light Vehicles Life Cycle Analysis, 2021, <https://www.zemo.org.uk/>
- xiii** Oxford Economics, 2021, The Economic Importance of Motorcycles to Europe, <https://acem.eu/policy-areas/competitiveness/oxford-economics-study-the-economic-importance-of-motorcycles-in-europe>
- xiv** Federation of British Historic Vehicle Clubs, 2020, [https://www.fbhvc.co.uk/storage/downloads/news/365/PR_Infographic_V3%20\(top_down\).pdf](https://www.fbhvc.co.uk/storage/downloads/news/365/PR_Infographic_V3%20(top_down).pdf)
- xv** Motorsport Vision Racing, <https://www.msvracing.com/bikes/document-store/>
- xvi** McLaren P, 2019, 2019 MotoGP Spectators, <https://www.crash.net/motogp/news/935175/1/motogp-spectators-thailand-top-silverstone-drop>
- xvii** MotoGP.com, 2020, MotoGP reaches 30 million fans across social media, <https://www.motogp.com/en/news/2020/09/07/motogp-reaches-30-million-fans-across-social-media/342026>

- xviii** BBC News, 2018, Speedway Grand Prix: Thousands attend Cardiff event, <https://www.bbc.co.uk/news/uk-wales-south-east-wales-44898414>
- xix** Reiner C, Beard G, Park T, Kinnear M, 2020, Driving and accelerating the adoption of electric vehicles in the UK, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/914111/driving-and-accelerating-the-adoption-of-electric-vehicles-in-the-uk.pdf
- xx** Future of Transport: User Study, NatCen Social Research for Department for Transport, Page 50 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/937918/Future-of-Transport-User-Study-accessible.pdf
- xxi** Transport for London Motorcycle Safety Action Plan, Page 16, March 2014
- xxii** <https://www.silent-rider.de/initiative/>



Published by: MCIA, 1 Rye Hill Office Park, Birmingham Road, Allesley, Coventry, CV5 9AB

Copyright © 2022 MCIA. All rights reserved. No part of this framework, including logos and graphics, may be reproduced without permission in writing from the publisher.