



The  
Motorcycle  
Industry In  
Europe



# The safe ride to the future 2.0

The motorcycle industry's commitment to road safety

**Executive Summary**

# Policy recommendations



With about 36 million motorcycles on Europe's roads, it is essential to develop sound and inclusive transport and safety policies that take motorcycling fully into account. Policymakers must adopt a genuine Safe System approach, including vehicle technology, infrastructure and human behaviour. Decision makers must also adopt comprehensive motorcycle safety plans at local, regional and national levels.

## 1. High-level policy recommendations

- Vehicle safety has significantly improved over the years, and further developments are likely to follow as safety technologies evolve. But a durable solution to motorcycling safety requires the involvement of public decision makers.
- Countries such as Sweden, Spain, Norway, and the Netherlands set up motorcycle safety strategies that helped them to achieve high motorcycle safety levels. Other European countries should seek to adopt such best practices.
- National authorities should also collect exposure data and carry out in-depth and naturalistic studies that provide valuable and detailed insight into normal riding and accident situations.

## 2. Infrastructure recommendations

- The Safe System approach to road engineering involves matching road function, design, layout and speed limits to accommodate human error, so that crashes do not lead to death and serious injury. An effective way to achieve this is to consider motorcycle safety at the road design stage, to avoid unnecessary hazardous features, such as repeated application of paint, dangerous street furniture, restrictions to visibility etc.
- The standardisation of data collection procedures for infrastructure-related accidents and the identification of sections with high accident concentrations can also help to reduce the number of serious and fatal accidents involving motorcycle riders.
- The network-wide safety assessment (safety ratings) should be carried out by Member States by end 2024 in accordance with the revised EU Road Infrastructure Safety Management Directive.

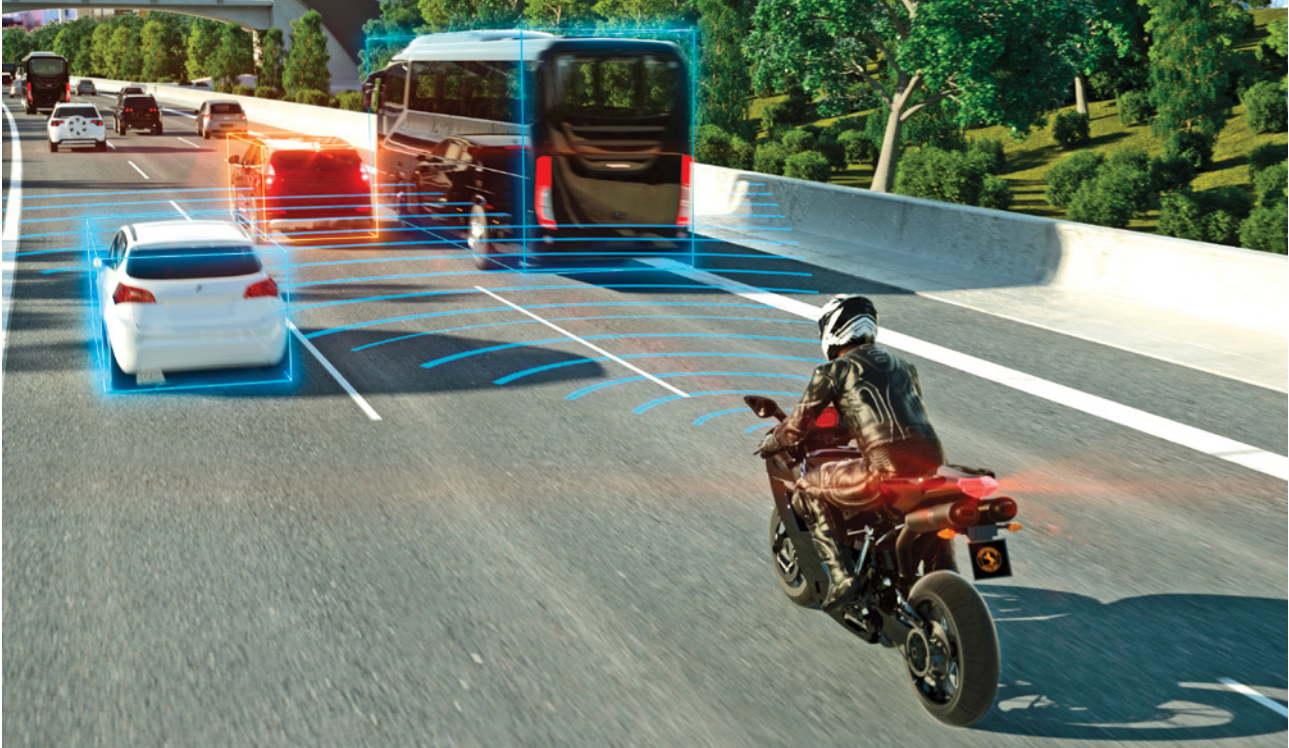
## 3. Human factor recommendations

- Public authorities should encourage riders with appropriate incentives to undergo voluntary post-licence training in order to keep their skills honed to a high level. A list of some of the best post-licence training programmes is available at: <https://motorcycle-training-label.eu/>
- Training programmes for, and campaigns towards all types of license-holders should actively promote awareness about motorcyclists, especially amongst other road users. Also, higher compliance with helmet wearing, speeding, drink-driving/riding, licensing and distracted-driving legislation can also bring substantial road safety benefits.

## 4. Vehicle recommendations

- Decision makers must ensure that advanced driver assistance systems (ADAS) and future automated vehicles adequately detect all road users, including motorcyclists.
- All EU Member States should establish periodic technical inspections for motorcycles to enhance the maintenance and repair of vehicles and to assist in the prevention of irresponsible tampering. National governments should reinforce roadside inspections of all vehicles in order to identify vehicles which could represent a hazard to traffic safety.

# A long-standing commitment to vehicle technology



**The motorcycle industry is actively working to make motorcycling safer by continuously introducing new advanced safety features. Since 2014, more than 20 new technologies have been introduced to the market by individual manufacturers and most of them are safety related.**

## Stopping in time

As signatories of the European Road Safety Charter since 2004, ACEM members committed to progressively equip their street models with advanced braking systems (ABS and/or CBS). Moreover, the motorcycle industry supported the introduction of ABS for new motorcycles over 125 cc, by progressively introducing very significant number of models with ABS well before the requirement was mandated. The sector has also developed a wide range of technologies that can operate individually or in combination with others, such as cornering ABS, rear wheel lift-off protection, automatic brake force distribution, amplified braking systems and brake by wire.

## Seeing and being seen

Being detected by other road users is critical in motorcycle accident prevention. To make visual vehicle detection easier, ACEM members committed to equip all their vehicles with automatic headlamp on technology (AHO) as of 2003. Daytime running lights (DRL) and amber position lights (APL) are also used by the industry to make motorcycles more detectable for other road users. Other relevant technologies available on the market include polyellipsoid headlamps, full

LED lights (headlights, taillights and indicators), projector headlights and adaptive lights, which automatically adjust headlights to curves, making night driving considerably safer.

## **Suspension and stability systems**

High performing suspension systems allow vehicles to adapt to different road surface conditions. They are also necessary for smooth handling and braking, and to keep riders isolated from road bumps. Over the years, manufacturers have developed a wide range of innovative vehicle suspension systems for different motorcycle usages. They include electronic suspension systems, speed-sensitive electronic steering stabilisers, semi-active suspension systems (which adapt the response of the suspension to road conditions, vehicle speed and driving style) and self-regulating suspensions. All these systems allow maximum stability and increase users' control of the vehicle.

## **Rider assistance systems for motorcycles**

Rider assistance systems can help prevent accidents and contribute to collision reduction by supporting the riders in critical situations. Relevant examples include traction control systems (TCS), tyre pressure monitoring systems (TPMS), electronic adjustable suspension, electronic cruise control, gear shift assistant, in-vehicle navigation systems, adjustable vehicle riding modes, side view assist, automatic stability control, etc.

Recently some manufacturers have developed devices that provide for adaptive cruise control, forward collision warnings and even blind spot detection, all of which will contribute to increase the level of safety for motorcyclists.

# Looking into the future: connected, cooperative and automated mobility



**Connected and automated mobility is reshaping the European transport ecosystem, making it safer, more accessible and more sustainable. ACEM members are working actively to ensure that motorcycles will be part of this future connected world.**

## **Cooperative Intelligent Transport Systems**

One of the most frequent human errors in accident situations is failure to see motorcycles within traffic, either because of driver's lack of attention, temporary view obstruction, low conspicuity of the motorcycle or an inability to correctly estimate an approaching motorcycle's speed. The motorcycle industry sees vehicle to vehicle (V2V) communication as a technology which has a high potential to improve road safety across the EU and to lead to better integration of motorcycles in the transport system.

## **From the Memorandum of Understanding on C-ITS to the Connected Motorcycle Consortium**

In March 2014, the motorcycle industry adopted a Memorandum of Understanding to coordinate the deployment of safety relevant C-ITS technology on motorcycles.

In 2015, building on the MoU on C-ITS, motorcycle manufacturers, suppliers, researchers and associations joined forces to create the Connected Motorcycle Consortium (CMC)<sup>1</sup>. An R&D

<sup>1</sup> [www.cmc-info.net](http://www.cmc-info.net)

platform whose main objective is to define common basic specifications for motorcycle ITS by focusing on evaluation, verification and requirements standardisation. The CMC is working on around 30 'use cases' in which connectivity between vehicles would allow the possibility to warn drivers and riders of potentially dangerous situations.

## **Towards an eCall system for motorcycles**

eCall systems represent an additional opportunity to increase safety for motorcyclists, that is why the industry is actively working to prepare the ground for its future deployment.

On the basis of the minimum requirements for a motorcycle-specific eCall system that is embedded in the vehicle, as defined in the European project I\_HeERO, the industry has worked together with public authorities to adapt the existing CEN standards.

The current CEN technical specifications for eCall devices for motorcycles are now being assessed jointly by the industry and Public Safety Answering Points (PSAPs) within the framework of the sAFE project<sup>2</sup>.

## **Ensuring that ADAS and future automated cars are safe for all road users**

The detection of smaller dynamic objects such as motorcycles still presents a challenge for cars equipped with ADAS (advanced driver assistance systems). Advanced drivers' assistance systems and future automated cars must be able to identify and react to motorcycles in a safe manner. The motorcycle industry calls on policy makers to address this safety issue as a matter of urgency.

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2. The sAFE project runs between January 2019 and December 2020. The project partners are BMW Motorrad, KTM, Piaggio, Yamaha, Kawasaki (full partners); and BRP, Harley-Davidson, Honda, Suzuki, Triumph, and ACEM (associated partners).

# The European Motorcycle Training Quality Label



The European Motorcycle Training Quality Label is granted to programmes delivered by training schools that have undergone a rigorous and objective evaluation. The Quality Label helps motorcyclists to identify the best post-licence training programmes in their countries.

## Excellent example of a collaborative initiative

The quality of the thousands of different training schemes across the EU is heterogeneous and given there are so many options, it is difficult for riders to make informed decisions. In order to address this information challenge, ACEM, the German Road Safety Council (DVR), and the International Motorcycling Federation (FIM) joined forces and launched the Quality Label in 2016. For more details please visit: <https://motorcycle-training-label.eu/>

## Improving motorcyclists' safety across Europe: Results

To date, only 3 years after the European Motorcycle Training Quality Label was launched, 30 training programmes operating in Austria, Belgium, France, Germany, the Netherlands, Spain and Sweden have been certified.



**The figures below show the impact of some of the labelled programmes on motorcycle training:**

- The Honda Safety Institute in Barcelona trained 3,000 motorcyclists in 2017.
- The Swedish Association of Motorcyclists (SMC) trained more than 10,000 motorcyclists in 2018.
- ADAC trained about 21,500 motorcycle riders in Germany in 2018.

The European Motorcycle Training Quality Label also creates a strong incentive for training centres to distinguish themselves. It stimulates them to raise their quality standards, which will result in better safety training across Europe.

### **Institutional stakeholders supporting the Label: Recognition at EU level**

In 2018 the European Transport Safety Council, the most important NGO in the field of road safety in Europe, acknowledged the importance of this initiative and joined the European Motorcycle Training Quality Label consortium as a supporter member.

In 2019, The European Commissioner for Transport, Violeta Bulc, released a video message that acknowledged the key role played by the European Motorcycle Training Quality Label in improving motorcyclists' safety across Europe: "We are grateful that the European Motorcycle Training Quality Label has been set up, responding to our call for voluntary commitments."

The same year, the European Motorcycle Training Quality Label received the European Commission Road Safety Charter Award, in the category "voluntary commitments". The award acknowledges inspirational and innovative initiatives that contribute towards improving road safety and saving lives on Europe's roads.

### **Paving the way to high quality standards for motorcycle training**

In the medium and long-term the European Motorcycle Training Quality Label will increase the visibility of the best training programmes available, paving the way towards higher quality standards for training in Europe.

# Conclusions

Further efforts are necessary to reduce road fatalities and serious injuries to meet the safety targets set by the European Commission and the United Nations for the next decade.


















All stakeholders including policy makers, public authorities, industry and user organisations are part of the solution. By working together, it will be possible to create a safer environment for motorcyclists across Europe.

Within this framework, the motorcycle industry fully supports the 3rd Global Ministerial Conference on Road Safety declaration “Achieving Global Goals 2030” which calls «upon Member States to contribute to reducing road traffic deaths by at least 50% from 2020 to 2030 in line with the United Nations High-Level Political Forum on Sustainable Development’s pledge to continue action on the road safety related SDG targets, and to set targets to reduce fatalities and serious injuries, in line with this commitment, for all groups of road users and especially vulnerable road users such as pedestrians, cyclists and motorcyclists and users of public transport».


All these efforts combined will be instrumental not just in making European roads safer, but they will also help to reap the considerable benefits that motorcycling brings to society, such as better access to jobs and services through affordable mobility, reduced traffic congestion levels, sport, leisure and tourism.

# ACEM Members

## Manufacturers

					<b>Kawasaki</b>
					
					

## National Associations

 AUSTRIA	 AUSTRIA	 BELGIUM & LUXEMBOURG	 CZECH REPUBLIC	 FINLAND	 FRANCE
 GERMANY	 GREECE	 IRELAND	 ITALY	 ITALY & FRANCE	 NETHERLANDS
 POLAND	 ROMANIA	 SPAIN	 SWEDEN	 UNITED KINGDOM	



[www.acem.eu](http://www.acem.eu)

**European Association of Motorcycle Manufacturers**  
Association des Constructeurs Européens de Motocycles

Avenue de la Joyeuse Entrée 1,  
1000 Brussels, Belgium

P. +32 (0)2 230 97 32 E. [acem@acem.eu](mailto:acem@acem.eu)



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