acem The Motorcycle Industry In Europe

The safe ride to the future 3.0

The motorcycle industry's commitment to road safety

Executive Summary

Policy recommendations

With about 40 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.

- In a recently agreed revision of EU infrastructure safety rules, the EU has mandated risk mapping and safety rating for roads of the strategic Trans-European Transport Network, motorways and primary roads, with a specific focus on vulnerable road users including motorcyclists.

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/

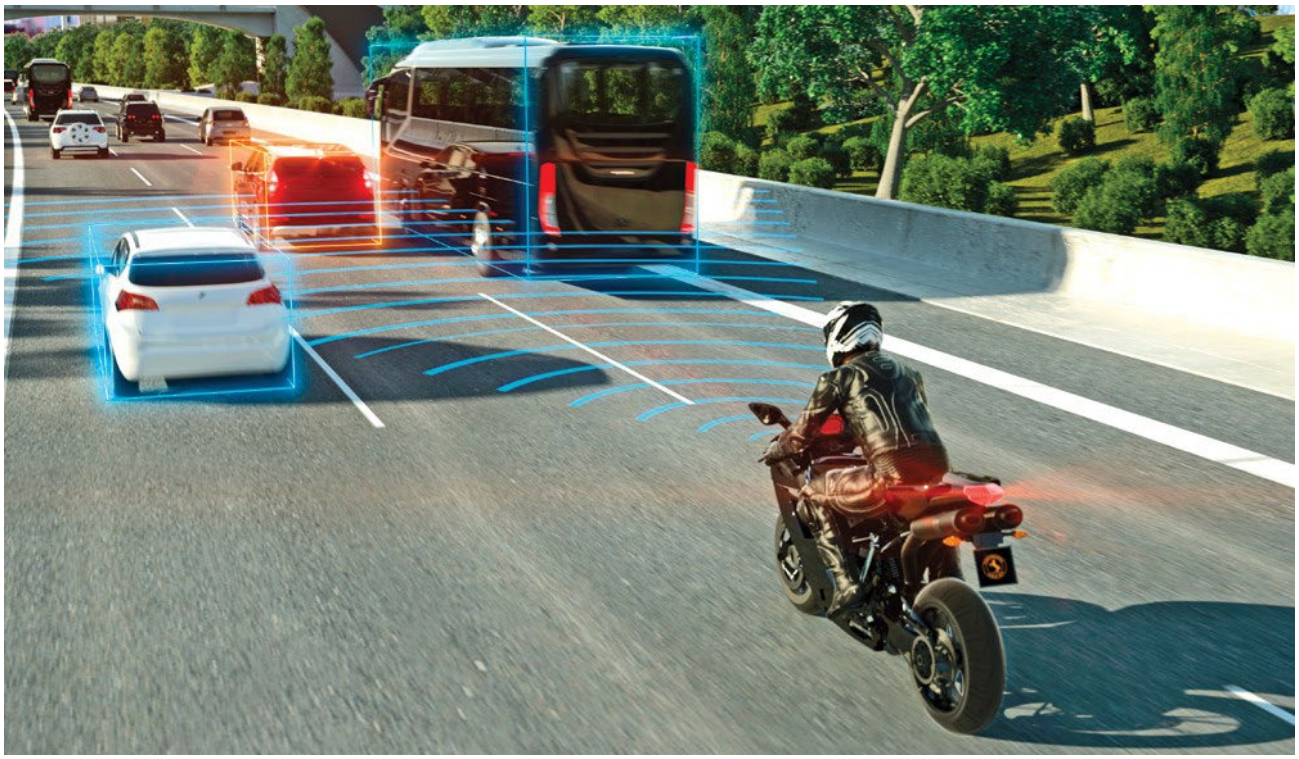
- Training programmes for, and campaigns towards all types of license-holders should actively promote awareness about motorcyclists, especially amongst other road users. Also, higher compliance with helmet wearing, speeding, drink-driving/riding, licensing and distracted- driving legislation can also 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 vehicles manufactured by ACEM members are pursuing the highest levels of safety standards. Further to this, the motorcycle sector continues to invest in R&D operations to bring to market safety technologies that facilitate the integration of motorcycles into the transport system.

Stopping right in time

Since 2004, ACEM members, as signatories of the European Road Safety Charter, have consistently demonstrated their commitment to motorcycle safety by equipping their models with advanced braking systems, such as ABS and CBS. The industry proactively adopted ABS on all L3-A2 and L3-A3 models well before the regulation made it mandatory for those categories. Today, ABS or CBS is mandatory for all L3-A1 vehicles, with ABS market penetration reaching 90%among ACEM OEM members. Furthermore, ACEM members have pioneered technologies like cornering ABS, rear-wheel lift-off protection, brake force distribution, and brake-by-wire, which enhance braking performance.

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, adaptive lights and cornering 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, motorcycle 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.

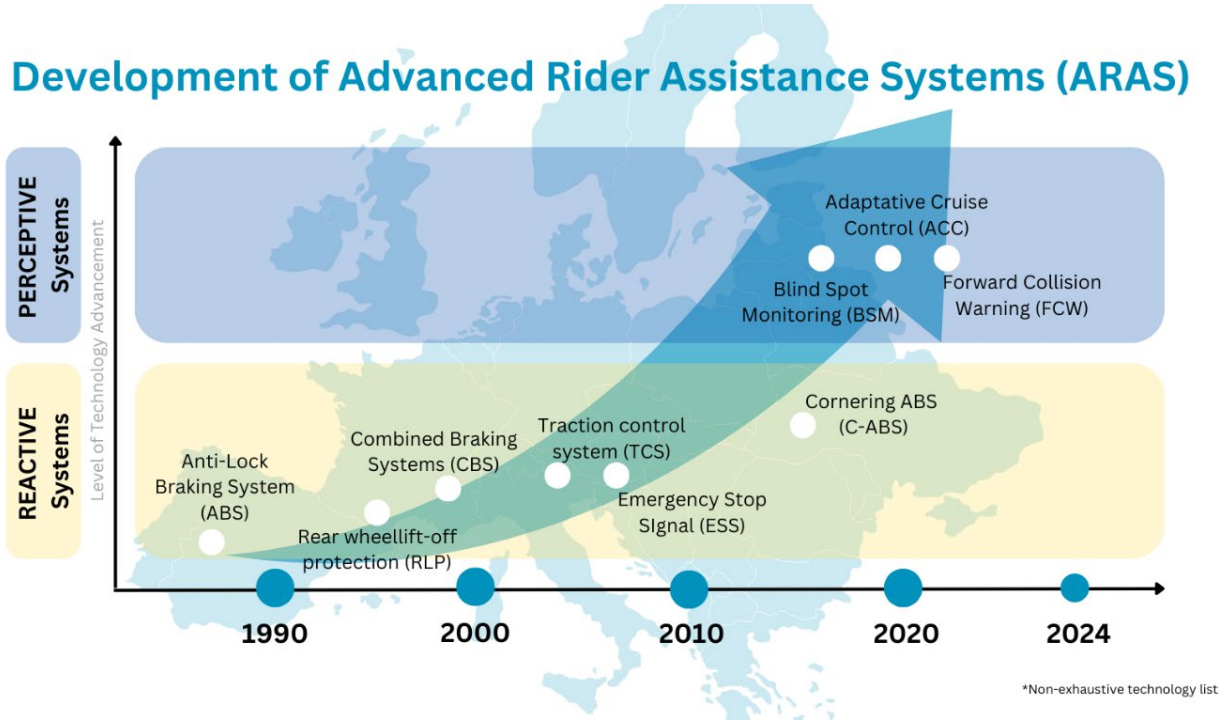
PTW technologies evolution

ACEM members continue supporting safety improvements, such as advanced motorcycle design, new intelligent features, new braking-, lighting-, suspension- and rider assistance systems. These technologies can help prevent accidents and contribute to collision reduction by supporting riders in critical situations. State-of-the-art technologies are deployed on different PTW segments considering their specific characteristics and use on the road.

The latest generation of ARAS has moved from reactive systems to perceptive systems that are designed to monitor the motorcycle's surroundings in the front and in the back using radar sensors, to monitor the environment and detect potential hazards. These perceptive systems complement rider awareness and give the rider a warning.

Despite these evolutions in safe vehicle technologies, ACEM stresses the technological and user-based limitations of these technologies and therefore promotes the need for continued riders' awareness and education for proper and optimised use of vehicles to maximise riding benefits on the roads.

To facilitate this, ACEM continues to be committed to a collaborative approach with all other road safety advocacy stakeholders to raise awareness of safe vehicle technologies (Euro NCAP, ETSC, ACEA).



Looking into the future: connected, co-operative 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)1.

1 www.cmc-info.net

The main objective of this platform has been to define common basic specifications for motorcycle ITS in areas such as: triggering conditions, localisation accuracy, algorithms and communicated data, as well as rider interface and antenna performance. 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.

eCall systems for motorcycles

In case of an accident, the eCall systems have the potential to help riders using motorcycles, mainly in rural and remote areas, to communicate to relevant entities that an emergency occurred.

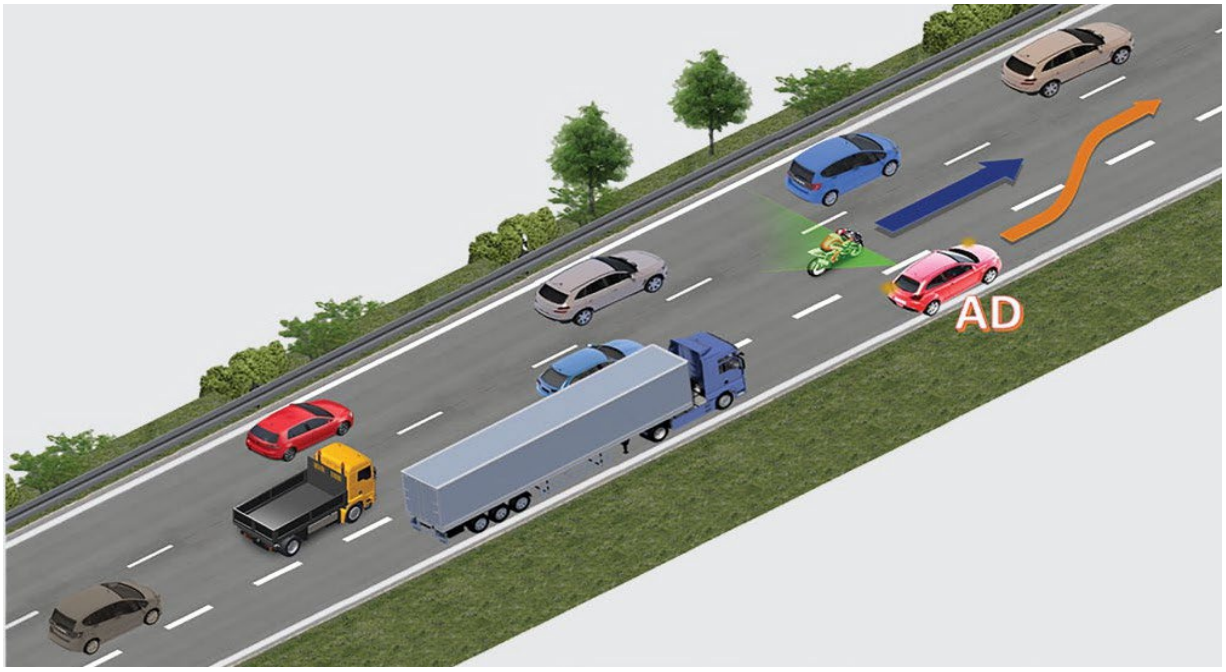
An eCall solution based on Third Party Service (TPS) has already been offered as optional for some years. Riders are also able to use some aftermarket products available on the market, such as smartphone APPs, or a rider based eCall systems (connected to helmets, jackets, or airbags).

The motorcycle Industry supports a diversified and flexible approach towards motorcycle eCall systems, which will be a strong enabler for future innovation. Vehicle based eCall systems require the consideration of certain motorcycle specificities.

Industry activities are paving the way for the future deployment of 112 based In-Vehicle-Systems (IVS), but PSAP’s standards for common interpretation are needed to support future voluntary deployment to avoid false calls.

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.



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 36 training programmes operating in Austria, Belgium, France, Cyprus, Germany, Greece, Italy, the Netherlands, Portugal, Spain and Sweden have been certified.

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, former 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.

"The European Motorcycle Training Quality Label has been strongly supported by the European Commission. Indeed, high-quality safety training is a fundamental element in the Safe System approach." Adina Valean, former European Commissioner for Transport, 2020.

In 2024, the European Road Safety Charter highlighted the importance of the industry initiative at the event "Enhancing road safety for motorcyclists".

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.

industry's ultimate goal is to increase the number of riders attending voluntary safety-oriented courses and thus improve riders' safety performance in the European Union.

In 2023 all 36 schools awarded the European Motorcycle Training Quality Label and academia joined forces to prepare for a new high-quality training toolbox to address the most relevant and frequent powered-two wheelers accident scenarios.

The toolbox represents a natural evolution of the European Motorcycle Training Quality Label especially thanks to the united endeavours of training experts and academia, namely: Ludwig Maximilian University of Munich – LMU, Würzburg Institute for Traffic Sciences – WIVW, Institute for Motorcycle Safety – ifz, Traffic accident research at TU Dresden – VUFO and the Austrian Road Safety Council – KFV.

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 current 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 4th 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.

7 ACEM Members

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Let the Good Times Roll
KTM
KYMCO
MV AGUSTA
PEUGEOT MOTOCYCLES
PIAGGIO GROUP
POLARIS
ROYAL ENFIELD
SUZUKI
TRIUMPH
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ZERO MOTORCYCLES

National Associations

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AUSTRIA	AUSTRIA	BELGIUM & LUXEMBOURG	CZECH REPUBLIC	FINLAND	FRANCE
IVM Industrie-Verband Motorrad Deutschland e.V.	ΣΥΝΔΕΣΜΟΣ ΕΙΣΑΓΩΓΕΩΝ ΜΟΤΟΣΥΚΛΕΤΩΝ ΕΛΛΑΔΟΣ	MGE	AIMID	ancma	equa
GERMANY	GREECE	HUNGARY	IRELAND	ITALY	ITALY & FRANCE
rai VERENIGING	PZPM Polski Związek Przemysłu Motoryzacyjnego	ACAP Associação Automóvel de Portugal	anesdor	Mc R F	mcia
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