



Brussels, 19 November 2009

Public Consultations European Road Safety Action Programme 2011- 2020

Comments from the European Motorcycle Industry (ACEM)

EXECUTIVE SUMMARY

First and foremost the next Action Programme should set realistic and achievable targets for the reduction in the number of fatalities and serious injuries amongst road users for the period 2011-2020.

The 4th Road Safety Action Programme should consider the improvement in safety of moped and motorcycle riders as one of the priority areas of intervention by creating a favourable environment and thus contributing to the reduction in the number of moped and motorcycle riders either killed or seriously injured.

Safety for the Powered Two-Wheelers (PTW) can be enhanced only by applying an integrated systematic approach and by involving policymakers and other relevant stakeholders at European, national and local level.

The great disparity in road safety performance and risk exposure for PTW riders between countries, regions and cities in Europe requires urgent strategies, actions and activities and should be considered as one of the main challenges to be met by the next Road Safety Action Programme.

The PTW contribution to the sustainable urban development could be much greater if the improvement of PTW safety is considered as a priority in the strategic urban planning in EU Member states.



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There is a strong need to promote a comprehensive system approach to PTW safety which engages a better knowledge and interaction between motorcycle and moped riders, other road users, and the road environment – the potential areas for intervention.

A coordinated response will include the development and implementation of multisectoral strategies on PTW road safety prevention with sufficient finances for planned activities to be achieved within a specific timeframe.

While many improvements have been made to the actual mopeds and motorcycles little has been done on research, riders' behaviour, infrastructure and enforcement - components of primary importance for the improvement of the riders' safety in EU.

Safety for Powered Two-Wheelers (PTWs) can be enhanced only by applying an integrated systematic approach and by involving policymakers and other relevant stakeholders at European, national and local level.



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Introduction

ACEM, the Motorcycle Industry in Europe, is the professional body representing the interests and combined skills of 12 powered two wheelers (PTWs) manufacturers producing a total of 25 motorcycle and moped brands, and 15 national associations out of 13 European countries, representing a turn-over of 35 billion EURO and providing jobs to over 150.000 people.

ACEM members' registrations touched the 2.7 million units' landmark at the end of 2007. PTW sector represents an added value of more than 1.5 billion EURO per year, of which ACEM members are responsible for 90% of the total production and market in Europe.

Powered Two Wheelers are being used across Europe for various purposes, but mainly utility commuting and leisure. In Europe of 27 countries, there are approximately 33 million motorcycle riders enjoying the benefits of their mopeds and motorcycles.

ACEM acknowledges the communication of the Commission on its Internet consultation relating to the preparation of the European Road safety Action Programme 2011 - 2020 and is pleased to provide an additional contribution to the on-line questionnaire response, particularly focusing on vulnerable road users such as Powered Two Wheelers.

Moped and Motorcycle riders – vulnerable road users

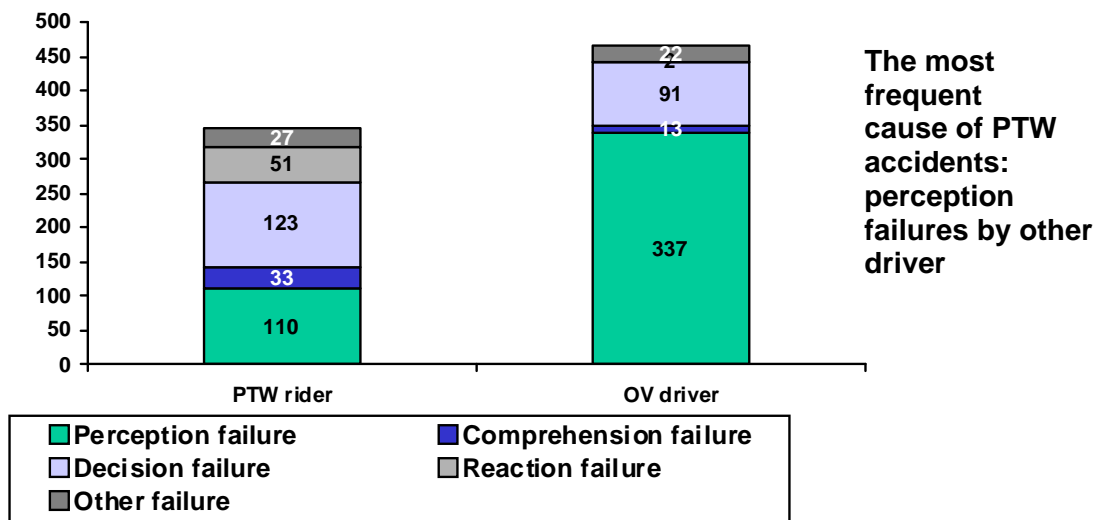
Motorcycle and moped riders deserve particular attention when it comes to road safety. Travelling at similar speeds to cars in traffic they, however, do not have passive safety features, like cars, to absorb crash energy and to reduce the consequences of an accident. This implies that whenever vehicles collide, involving a motorcycle, that the physical damage is often much greater for the powered two-wheeler rider.

The Motorcycle Accident in-Depth Study (MAIDS), co-funded by the European Commission, the most complete available in Europe, clearly shows that the major cause leading to accidents (88% of all cases) is the human error committed not only by the riders but, even more often, by other vehicle users. It is noteworthy that 'other vehicle' drivers, who also have a motorcycle license are much less likely to commit a perception failure on the oncoming motorcycle or misinterpret its distance and speed

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than 'other vehicle' drivers who do not have a motorcycle license www.maids-study.eu/.

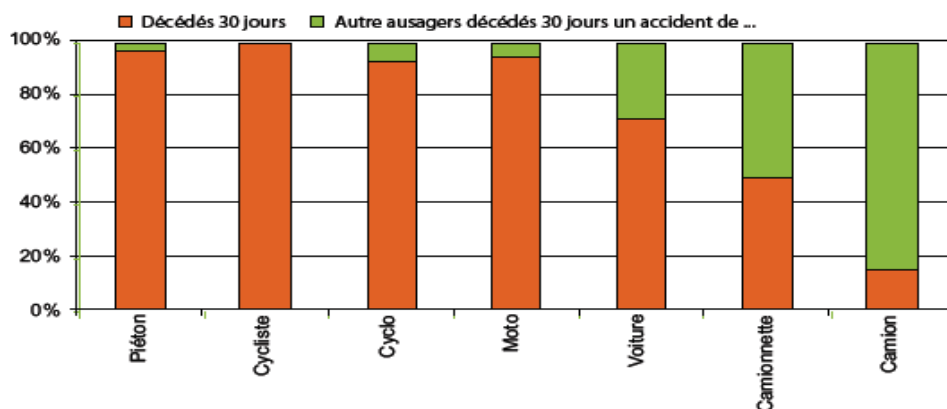
Table 1. Main accident causation factors – human errors (MAIDS)



As vulnerable road users moped and motorcycle riders are 18 - 20 times more likely than car drivers to be seriously injured when on the road.

According to the 2008 PTW Report of the Belgian Road Safety Institute in fatal accidents involving PTWs 95% of the victims are the riders and the remaining 5% are other road users (car drivers, passengers, cyclists and pedestrians).

Table 2. Report of the Road Safety Observatory, Belgian Road Safety Institute, 2008



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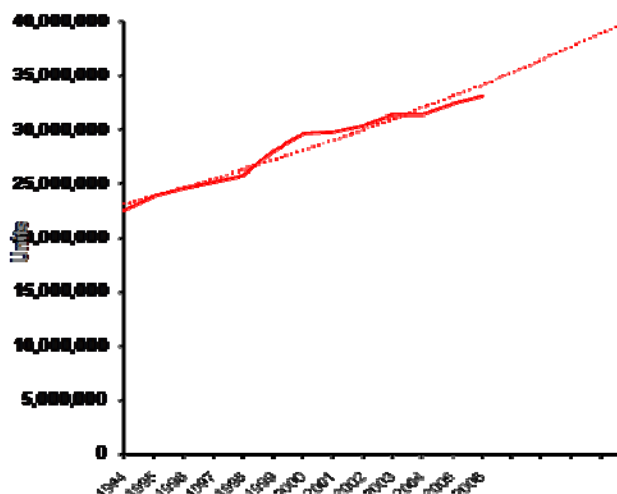
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Significant growth of the Powered Two-Wheeler market and fleet

Europe has experienced a significant growth of the Powered Two-Wheeler market in recent years. An increasing number of citizens and businesses is turning to motorcycles and scooters because they offer leisure and solutions for city mobility.

PTW Fleet Evolution



PTW safety record in Europe

Moped safety has been improving in Europe. (Table 3)

Between 2000 and 2007, there have been 26% less moped fatalities, an important reduction in a stable circulating parc. When compared to the European average, high rates of fatalities per 10.000 vehicles were reported in Denmark, France, Portugal, Slovenia and The Netherlands.

The motorcycle circulating parc has been increasing more (+21%) for the period 2000–2007 than the motorcycle rider fatalities (+3.4%). The countries with the lowest safety improvement rate compared to the 2007 EU 15 average ratio of 2.96 fatalities/10.000 vehicles are Ireland, Portugal, France, UK, Slovenia and Greece.

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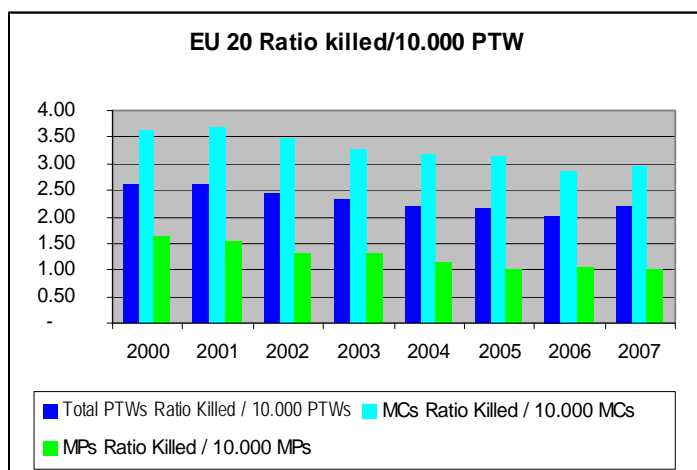
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Table 3. Source: IRTAD database



Notwithstanding the significant increase of the PTW fleet and of the kilometres driven by PTWs ¹combined with their greater vulnerability it is clear that a relative improvement in motorcycle safety has been made².

The absolute figures however show that there is still a lot of room for improvement.

The appropriate targets and adequate countermeasures (as described in this document) and correct public policy in all EU Member states could further support improvements in motorcycle safety.

¹ Kilometres driven by PTWs – annex1

² The overall casualty rate for motorcycles has improved in UK since 1998. In 2008 the number of deaths or serious injuries was 1,131 per billion kilometres driven. A decade earlier it was 23 per cent higher. (source: Compendium of Motorcycling Statistics 2009, Department for Transport, UK)

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PTW - mobility benefits

The need for an alternative mode of transport to cars and to public transport is reflected by the constant increase in the numbers of PTWs in the European cities.

More and more citizens are using PTWs for commuting because mopeds and motorcycles reduce journey times and are easier to park, bringing economic and environmental benefits to the users and to the community as well.

The combination of increasing congestion and mobility needs has generated a considerable increase in the urban PTW market over the period 2002 – 2007. The growth of the 125 cc category (+100 %) and of the scooter style (+33%) illustrate very well this trend.

In Barcelona for example the number of PTW trips increased by 80% during the period 2000 – 2008 *(source: Mid-term report European Safety Motorcycling (eSUM) project, 2009).*

³An original survey in Paris has shown that 100 million additional person kilometres were made by PTW in 2007 compared to 2000. 53% of this increase comes from people shifting to PTW from public transport and 26.5% from private cars. The remaining 20% is attributable to the increased use of PTWs by those already owning such vehicles in 2000. The analysis of the overall results of the consequences of the shift towards PTW shows that there is a net benefit to the community after the deduction of accident and environmental costs. A small reduction in accidents would have a significant effect on these results by raising the already favourable balance of shifting towards PTW usage.

PTW are providing convenient mobility, energy savings and economy of use. This supports the lifestyles of a growing number of European citizens and contributes to the sustainable urban development.

The PTW contribution to the urban development could be much greater if the improvement of PTW safety is considered as a priority in the strategic urban planning in EU Member states.

³ (Source: *The contribution of two-wheel motor vehicles (2WMV) to mobility in a big city: the case of Paris*, Pierre Kopp, Economist, Professor at the Pantheon-Sorbonne (Paris I) University, 2009)



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Improvement in the safety of moped and motorcycle riders –

ACEM Recommendations

The 4th Road Safety Action Programme should consider the improvement in the safety of moped and motorcycle riders as one of the priority areas of intervention. This will be achieved by creating a favourable, safer riding environment and thereby contributing to the reduction in the number of moped and motorcycle riders either killed or seriously injured.

The main focus of the next Action Programme should be on the identification, dissemination and application of best practices across Europe to satisfy the challenging, but achievable, targets to be set up by the programme.

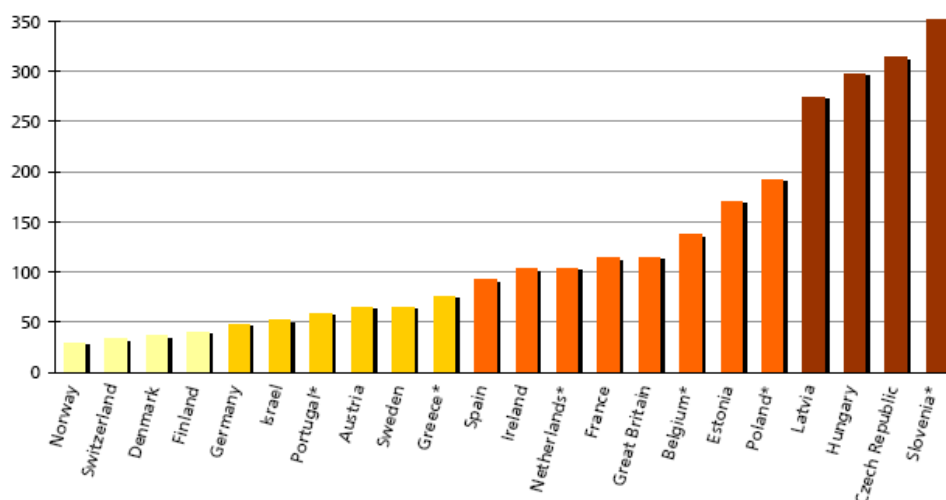
These targets should definitely include the reduction in the number of fatalities as well as the reduction in the number of seriously injured riders in EU.

A multitude of good examples are largely available at all levels and throughout the whole European region. Pooling all the resources and stimulating a real collaboration and sharing of experience between the European citizens and communities is a key and prominent factor in the overall process.

The great disparity in road safety performance and risk exposure for PTWs between countries, regions and cities in Europe requires urgent strategies, actions and activities and should be considered as one of the main challenges to be met by the next Road Safety Action Programme.

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Source: PIN report, ETSC



(3) PTW rider deaths per billion PTW-km in 2006

Facilitating networking, 'twinning' countries, regions and municipalities and thus strengthening the institutional management capacity is the major necessary step in making a difference to the road safety situation in the next decade in Europe.

There is a need to implement current knowledge and identify future solutions to reduce exposure to the risk of death and serious injury, to prevent serious and fatal crashes; to mitigate the severity of injury when they occur and to reduce the consequences of injury for PTWs.

One single EU Transport Safety body should be established, coordinating actions and providing expertise to Member States, where similar bodies could assist in coordinating efforts to be carried out at national and local level.

Road safety should be a shared responsibility at EU, national, regional and local levels and national actions devoted to PTW safety improvements should involve the development and the implementation of the multidisciplinary strategies and results-orientated action programmes.

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EU Member states should be strongly supported in integrating a strategic framework for long-term transport planning in order to achieve a better traffic system design. This will allow safer operation and use with providers and users addressing their responsibilities and accountabilities in light of current knowledge and good practice.

The EU has an important role to play in encouraging action at national level. In the area of PTW safety, it should invoke the adoption of national realistic and achievable targets and road safety action plans to improve road safety performance of the moped and motorcycle riders.

PTW safety is a complex matter and improvements in this field require an integrated, 'safe system' approach from all participants. It is a fundamental requirement that PTWs should have a place in the overall transport policy and sustainable urban development.

Integrated systematic approach

Safety for the Powered Two-Wheeler can be enhanced only through applying an integrated systematic approach by policymakers and other relevant stakeholders at European, national and local level. At the same time it is essential to fix challenging and achievable reduction targets for vulnerable road users and PTW riders.

The systematic approach should encompass the following elements:

- Improve the knowledge on road safety and PTW
- Act on human factor
- Act on vehicle factor
- Act on infrastructure.

1. Better and improved knowledge on road safety and PTW

PTW accident research – understanding the situation and accident causation

The ultimate goal is to harmonise data collection at EU level and to create a complete in-depth European database on accidents involving PTWs. Counter

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measures need to be based on scientific research and on detailed analysis related to PTW safety.

There are still problems with harmonised definition of serious injury, crash injury classification (serious, light injuries), lack of health sector monitoring and under-reporting on injuries not only for PTW but for all road users.

Another key issue currently is related to the usefulness of the information derived from relative and absolute data.

A. Review of PTW road safety performance

There is a strong need to deliver periodic reviews of the PTW road safety performance in EU that will provide policymakers, safety practitioners, and researchers across Europe with easily accessible research and factual information and data in order to give an impartial, evidence-based view on PTW safety topics and to inform about remedial policies.

Such analysis should be made on the basis of accurate and harmonised data for:

- Number of fatalities, serious injuries and circulating parcs by category of road users (all road users, moped, motorcycle and all PTWs) recorded in a dedicated PTW database;
- The number of km travelled as exposure risk data;
- When km travelled are not available, the ratio number of riders killed per 10,000 circulating PTWs is an interesting indicator to compare the PTW road safety situation among regions and countries;
- The country comparison should be made by using a great number of different indicators (including economics, demographics, etc) for the final settings of goals and targets at European level. Specific important indicators that should be used are:
 - the correlation between the trends of PTW accidents and the safety measures undertaken during a definite period
 - personal safety and traffic safety rate;
 - Quick indicators for monthly PTW reports and monitoring;
 - Time series analysis – enhanced prediction for certain groups and subgroups.

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B. Motorcycle Accidents In-depth investigations

ACEM can bring expertise, experience and support to the development of further in-depth investigations based on OECD methodology to obtain further insights into the nature and causation of PTW accidents and to identify suitable countermeasures to avoid and mitigate accidents.

The Motorcycle Accident in-Depth Study (MAIDS), co-funded by the European Commission and the most complete available in Europe, was completed in 2004, so further developments in this area are strongly recommended. This will not only give access to up-to-date data and help to understand the evolution of the causation of PTW accidents and, thereby help to better target the concrete challenges and take the proper countermeasures.

2. Human factor - Prevention, education and training and enforcement

A. Education and training

ACEM believes that training and education is fundamental to improve powered two wheeler (PTW) safety in the Community. The harmonisation of the training systems in EU will definitely contribute to improving the road safety of moped and motorcycle riders in Europe.

This situation could be alleviated by introducing mandatory training for all PTW riders. This riders' training should be based on the scientific results of the EC-funded "Initial Rider Training" (IRT) project.

The modular approach is fundamental to the IRT, as it allows the competent authorities to offer those modules of most relevance to the riders in an effective way. The IRT consists of 3 complementary vertical modules of Theory, Machine Control and Traffic Interface, and one horizontal module of e-Coaching. The innovative e-Coaching module aims to train the beginner rider to perceive traffic hazards and how to react to them in a simulated traffic environment without any risk exposure. State-of-the-art computer simulations provide new tools to enhance rider skills beyond what has so far been possible, and to accelerate the learning curve of beginner riders - <http://www.initialridertraining.eu/>.

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The IRT concept allows the addition of more advanced modules whenever the rider would like to continue their life-long learning or to step up to a higher licence category in order to be able to ride more powerful motorcycles. The modular concept is rider orientated, based on the initial appraisal of the rider's expertise and striving to further enhance and build upon his experience and skills already acquired on the lower category motorcycle. Last but not least the concept is putting an emphasis on the rider's hazard awareness and perception.

- Compulsory Initial training for novice riders

ACEM proposes that all novice PTW riders should undergo some level of training. This training should be done by all candidate riders prior to doing the test to obtain the licence, or to obtain an entitlement to ride based on another licence category.

- Training for progressive access riders

The progressive access training should be designed to actually enhance motorcycle safety; and not merely be a check in traffic to demonstrate that the rider has the required skills to operate a motorcycle in traffic. EU Member States should be encouraged to introduce training for progressive access to PTW categories and to increase the utilization of the IRT modular concept.

- Training for beginner riders making use of equivalence options

Having car driving experience provides 'equivalence' riders significant knowledge on traffic rules and real traffic experience. However, as the operation of these "light motorcycle" category vehicles requires different skills than those to operate a car, ACEM proposes to introduce focused training for the riders making use of the equivalence. It should be noted (MAIDS) that riders making use of the 'equivalence' to ride a "light motorcycle" also become safer car drivers, with increased awareness of PTWs in traffic.

- Training for other drivers

Last but not least ACEM insists that the safety of vulnerable road users should also be one of main components of the car drivers training through both theoretical as well as practical exercises.

B. Awareness raising and influencing road users' behaviour

There should be regular, targeted campaigns addressing both motorcyclists and other road users on safety-related subjects that include mutual respect, protective equipment, speed, and issues of both alcohol and drugs.



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C. Enforcement

As for other motorised vehicle users, combined publicity and enforcement is needed to secure compliance with key safety rules like speed, drinking and driving, helmet use, PTW riders without proper licence.

Riders without a licence and with no training were found to be over represented in the MAIDS Urban accident report.

3. Vehicle factor

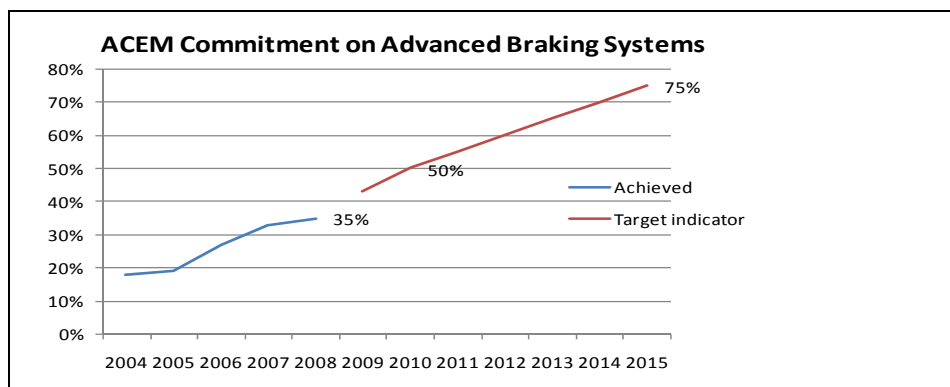
In developing their products, ACEM manufacturers assure the highest standards of construction. To meet type approval requirements, including high safety and environmental performance standards, ACEM manufacturers use many complex and refined technologies.

ACEM's member manufacturers committed themselves to progressively increase the number of PTWs fitted with advanced braking systems. Advanced braking systems include a range of systems such as, but not limited to, ABS, coupled or combined braking systems, etc. By 2010 the majority of newly sold street models on the European market will have advanced braking systems, at least as an option.

ACEM can report that in 2008, 35% of models available on the European market were already available with an advanced braking system, which translated into 35% actual penetration in terms of PTW sales. ACEM member manufacturers offered to renew this commitment beyond 2010, extending its coverage to 75% of street models by 2015.

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2008 ACEM manufacturers' renewed commitment to the EU Road Safety Charter, establishing a further 75% objective by 2015



At the last ACEM annual conference in December 2008, the European Motorcycle Industry gave a clear sign of its commitment for a long-term vision based on vehicle innovation, for increased safety and improved environmental performance.

Market surveillance

Inquiries have revealed that low-cost-low-quality PTW imported principally from South-East Asia often fail to comply with European type approval requirements, putting at risk the consumer. Better market surveillance can contribute to improvements in PTW safety and ensure a level playing field for the industry

Periodic inspection

To maintain initial construction standards, the vehicle needs to undergo regular maintenance and servicing. Currently, a majority of Member States have introduced PTW periodic inspection for safety and, increasingly, for environmental reasons. MAIDS confirms that the lack of proper vehicle maintenance is a contributing factor in PTW accidents (5% of all PTW contributing factors). Periodic inspections reduce the incidence of safety related defects to tyres, brakes and lights, particularly those of which the owner is unaware and are likely to discourage tampering of mopeds. ACEM therefore supports the inclusion of PTWs in the scope of Directive 96/96/EC.

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4. Infrastructure factor

The elements of the TEN-T Directive – safety impact assessment, safety audit, safety inspection need to be promoted more widely in EU. The need to access EU funding for safety engineering development and demonstration projects is obvious.

The analysis of fatal accidents on Germany's road network has highlighted the dangers posed by rural roads to motorcycle riders.⁴ It comes to the conclusion that motorcycle safety is closely linked to the conditions of the road infrastructure. The safety of motorcycle riders – the study discovers - has long been ignored by highway authorities across the world.⁵

Together with other road users, PTW users will benefit from improvements to road network planning, design and operation and from the application of the safety design principles,

The ACEM recommendations for infrastructure improvements:

- integration of the needs of PTWs in the basic training for road designers, highway and traffic engineers;
- appropriate maintenance of the road infrastructure;
- consideration of PTW safety at the road design stage;
- exploration of new legislation aimed at the protection of vulnerable road users including PTW operators;
- the revision and development of standards that encourage PTW-friendly design, construction and maintenance;
- development of standardized procedures for data collection of accidents involving the infrastructure.

The important role of the cities

More and more European citizens are using PTWs for commuting because mopeds and motorcycles reduce journey times and are easier to park, bringing economic and environmental benefits to both the users and to the community as a whole.

⁴ Professor Jürgen Follmann, the University of Applied Sciences in Darmstad

⁵ Source: ITS Safety & Security Supplement



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The significant growth of the PTW fleet in recent years in Europe (from 30% of total vehicle stock in 2000 to 34% in 2008) is due in particular to an increasing demand for vehicles providing urban mobility solutions to citizens and businesses.

The important role of the cities in the improvement of the PTW safety is very clearly demonstrated in the frame of the eSUM (European Safer Urban Motorcycling) project – www.esum.eu

This is a cooperation project between major European motorcycling cities and motorcycle manufacturers. The joint goal is the identification, development, and practical demonstration of measures which are able to guarantee safe motorcycle and motor-scooter transport in the inner-city traffic.

The general aim of eSUM is to show that a constant reduction in PTW accidents is feasible by addressing PTW safety through an integrated approach.

The trial implementation of the cities' initiatives and demonstrations of PTW dedicated infrastructure measures are at the core of the project, for example:

- Rome with 30 zones and black-spot remedial measures
- Advanced Stop Lines are to be demonstrated in London and Barcelona
- Addressing black-spots in Barcelona
- Paris will demonstrate dedicated PTW lanes.

The eSUM project should deliver a model plan for urban PTW actions and estimations of potential safety improvements to be disseminated to other European cities.

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Annex 1 – Kilometres driven by PTWs

As there is not enough data available on the number of kilometres travelled by PTWs in all EU countries (*source: Traffic Safety Basic Facts 2008, European Road Safety Observatory*) it is not possible to present a European evidence based overview.

However many country publications are stating that there is a significant increase in the number of kilometres driven and this increase has been considered as important safety-related factor.

Hereunder a few examples:

1. Mid-term report, eSUM project – benchmarking report for Rome

		Internal + External trips		Percentage change
		1996	2004	2004/1996
Walking & cycling		1,272,194	1,603,349	26%
Public transport		1,466,586	1,110,981	-24%
Private transport	Car	3,105,202	2,941,585	-5%
	PTW	430,943	486,102	13%
Total		6,274,925	6,142,016	-2%

Table: Rome mobility by transport mode

“Collision exposure is typically assessed in terms of vehicles- km travelled for the interurban situation, but for the urban case it is preferable to present the situation in terms of the number of trips” (*source: ATAC – the Mobility Agency for the City of Rome*).

2. Report on Motorcycle and moped riders in Belgium - “The number of kilometres driven by PTWs has more than doubled in Belgium for the period between 1991 and 2007 - increase with 169%” (*source: Report of the Belgium Road Safety Institute, 2008*).

3. Study on PTW in Paris - “100 million additional person kilometres were made by PTW in 2007 compared to 2000” (*source: The contribution of two-wheel motor vehicles to mobility in a big city: the case of Paris, Pierre Kopp, Economist, Professor at the Pantheon-Sorbonne (Paris I) University, 2009*).

4. Survey on PTWs in Italy and France (*source DOXA survey, Italy and GEMA, France*)

Average km per year in Italy and France:

- 50 cc (scooter style) – 2 800 km per year
- 125 cc (scooter style) – 4 400 km per year
- > 125 cc (motorcycle style) – 5 300 km per year.

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