

Safer motorcycling in Europe

PTW industry safety strategy

PACTS, SAFER VEHICLE CONFERENCE
London, 14 June 2016

The motorcycle industry in Europe

- Established in 1994
- 17 PTW manufacturer producing 32 brands
- 18 NA + SMEs
- Member of IMMA





The L-category family

2-Ws
Mopeds &
motorcycles



3-Ws
Tricycles

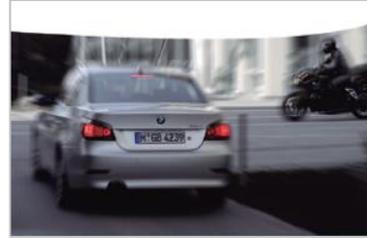


4-Ws
Quadricycles



Industry strategy: The safe ride to the future

Official launch - 29 September 2014

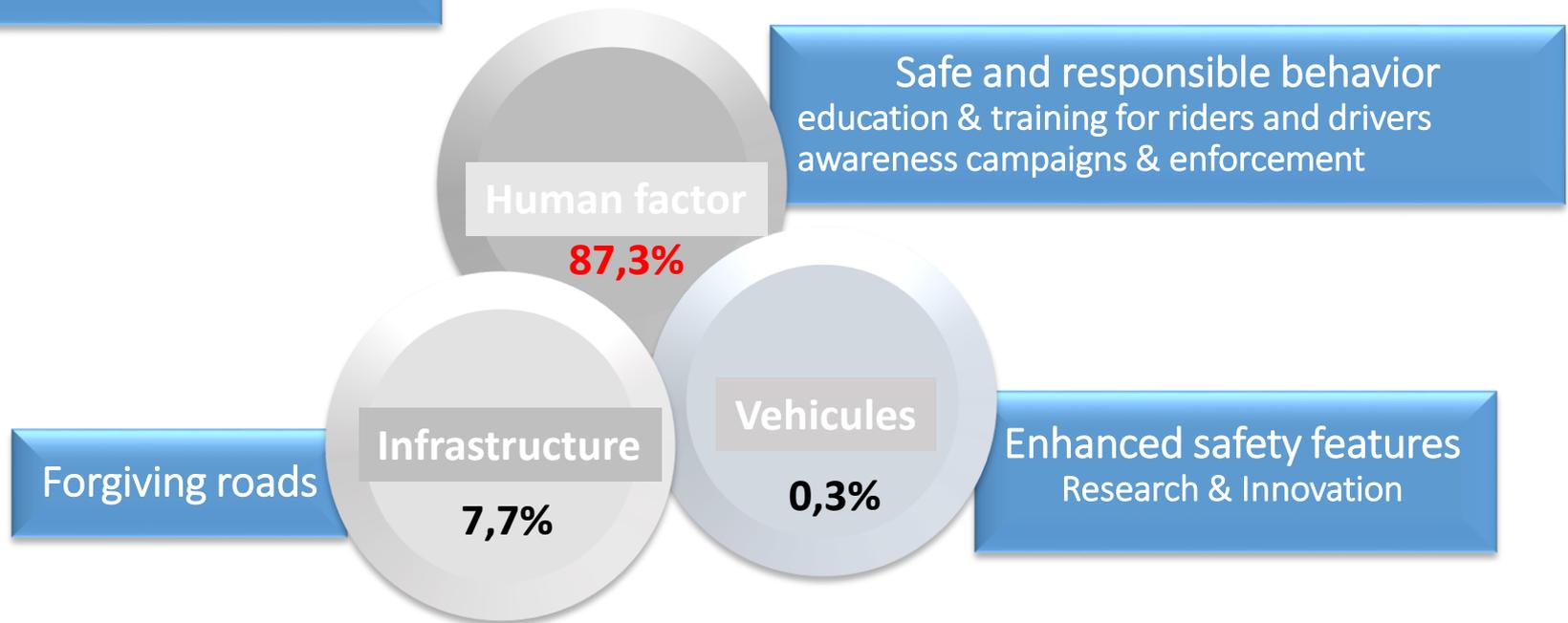


Calling for inclusive approach:

PTWs - integrated in safety, mobility and transport policy at European, national and local level

Industry is committed to safety

SHARED RESPONSIBILITY



Source: MAIDS

PRODUCTS - individual and collective initiatives

- **Individual initiatives – Stability, Conspicuity, ITS**
- **Collective initiatives - Cooperative ITS**

Stability - Vehicle handling and suspension

Braking systems

- advanced braking technologies: combined braking systems (CBS), rear wheel lift-off protection, automatic brake force distribution, amplified braking systems and brake by wire.
- voluntary commitment to ERSC – 2004, 50% of street models with ABS as an option by 2010.
- initial target - surpassed, objective: 75% of street motorcycle models with ABS as an option or as standard in 2015
- ABS systems - mandatory for new motorcycles over 125cc from 2016. New motorcycle models up to 125cc will have to be equipped with either a combined braking system, ABS, or both.



Suspension systems

- electronic suspension systems (standard or optional)
- speed-sensitive electronic steering stabilisers (standard in high performance models)
- semi-active suspension systems and self-regulating suspensions.

Lighting devices: seeing and being seen

- Voluntary commitment - equipping all models with automatic headlamp on technology (AHO) since 2003
- Daytime running lights (DRL)
- Amber position lights (APL)
- Adaptive lights
- Polyellipsoid headlamps
- Full LED lights (headlights, taillights and indicators)
- Projector headlights and xenon headlights.



ITS - Rider Assistance Systems

Rider assistance systems for motorcycles:

- anti-lock braking systems (ABS)
- traction control systems (TCS)
- tyre pressure monitoring systems (TPMS)
- Electronic adjustable suspension
- electronic cruise control
- gear shift assistant
- fuel economy assistant
- proximity activation systems
- (i.e. keyless riding systems)
- in-vehicle navigation systems
- adjustable vehicle riding modes
- airbag

Advanced Driver Assistance Systems (ADAS), Adaptive Cruise Control (ACCA) or Autonomous Emergency Braking Systems (AEBS) - engineered for use in cars, have the potential to be dangerous if applied to a PTW without necessary adaptation.



Cooperative ITS – The Way Ahead

High safety benefit (PTW conspicuity)

- V2X can address the most common PTW accident configurations and enhance conspicuity - 54% of PTW accident occur at an intersection (MAIDS)
 - V2X will progressively appear in cars in the mid term
 - PTW safety will benefit from being included in this connected world.
 - Not all ITS applications directly transferable from car
 - The control of PTWs must not be removed from the rider
 - Finding MC HMI solutions for C-ITS is a complex task
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- **Collective initiatives - Cooperative ITS - Looking into the future**

C-ITS - Industry involvement:

- Advanced Safety Vehicles (ASV) promotion project (Japan; 1996 –)
- Car2Car Communication Consortium (V2X standardization, PTW WG)
- ITS World Congress 2012 (Motorcycle Approach Warning System)
- V2X field operational test project SIM^{TD} in Frankfurt am Main (120 vehicles; 5 motorcycles)
- ITS World Congress 2013 (Motorcycle Approach Warning System (with autonomous driving car))
- DRIVE C2X project - 2013-2015 (demonstration project)
- ITS World Congress 2015 (Connected Motorcycle Consortium launched).

ACEM MoU on C-ITS

ACEM aims are to:

- embrace and become involved in C-ITS deployment movement in the transport area
- draw attention to and maximise benefit of C-ITS technology to protect PTWs as VRUs

Signed by all ACEM manufacturing members.



ACEM supports

- Further development of ITS applications which can improve safety for PTWs
 - ITS solutions designed with consideration of the specific requirements of PTWs and their riders
 - Integration of PTWs in transport management planning, infrastructure projects and consideration by car OEMs to realise the full potential of ITS in improving the visibility of PTW riders as vulnerable road users
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Towards eCall for motorcycles - challenges

eCall for cars/eCall for PTWs

Common

- Rescue chain
- Communication Standards
- Requirement power supply
- Infrastructure / business case

Difference

- Motorcycle and rider separate
- Forces vary to vehicle & rider post crash
- Accident recognition is complex
- Stability criteria and sensor types
- Voice connection potentially unreliable
- Distance rider-vehicle

eCall system - embedded in the vehicle (liability, quality & supply chain)

Indicative Motorcycle eCall Roadmap

1. Define minimum requirements

Done

2. Define open issues

3. Evaluate potential solutions

Done

4. Discussion with stakeholders

Current step - I_HeERO project

5. RESEARCH

TO FOLLOW

6. Standardisation

7. Technical concept development

8. Market information

9. Series development

10. Market introduction

Country tailored approach (events 2015)

POLAND – May, workshop

GREECE – June, meeting MoT

ITALY – September, press
event

SPAIN – October, press
event

FRANCE – December, event huis-clos



Dialogue stakeholders → national PTW safety platforms

European Training Quality Label

Official launch – 7 September 2016



First official applicants:
KNMV,AFDM

“In medium and long-term the Quality Label as well as other similar quality labels, some of which are currently being developed, could increase the visibility of the best training programs available → higher quality standards for training in Europe.” – (ACEM Safety Strategy)

The safe ride to the future

36 million PTW riders on Europe's roads; expected constant growth - the way forward:

Inclusive transport and safety policies that fully take motorcycling into account

Integrated approach: new ITS solutions, well-designed and properly maintained infrastructure, responsible and well-trained road users

All stakeholders (industry, policy-makers, users' organisations, etc.) - part of the solution.

Want to know more?

2016 ACEM Annual Conference “The safe ride to the future”

7 September 2016, Brussels

11th International Motorcycle Conference, IFZ

3-4 October 2016, Cologne

Thank you for your attention!

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