Powered Two-Wheelers
Road Safety
Current challenges
Future perspectives

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The Motorcycle Industry in Europe

ACEM - created in 1994: 13 PTW manufacturers producing 25 brands
17 national associations, also representing smaller manufacturers & suppliers (SMEs)
33 million users in EU 27

Vulnerable road users

More and more citizens using PTW for commuting

Great disparity between EU MS in terms of safety

Diversity of vehicles, owners and purposes
Commuting, Leisure, Sport
Roadmap Europe 2001 - 2009

PTW parc:
(+17%
(mainly L3 motorcycles)
the greatest increase of any vehicle sector

Fatalities:
• All road users (-) 37%
• PTW riders (-) 21%
• Motorcycle riders (-) 6%
• Moped riders (-) 43%

PTW fatalities have decreased, but the share of PTW fatalities in the overall transport mix has increased due to the improved results achieved mainly by cars.
Targeted approach

- Of all fatal accidents occurring on L3 motorcycles in EU27:
  - 86% occur on A2 and A3 subcategories (62% of EU27 market) → slightly over-represented
  - 14% on A1 ‘light motorcycle’ subcategory (38% of EU27 market) → under-represented

- Different products require adapted approach (different dynamics, different riding patterns, different usage environment, different costs parameters)

- EU Member States have very different PTW safety performances.
Advanced braking systems

- ACEM Commitment to the EU Road safety charter (2004): advanced braking systems, at least as an option, on 50% of street motorcycle models on the EU market by 2010. Target achieved.

- ACEM renewed commitment beyond 2010, extending its coverage to 75% of street motorcycle models by 2015.

- The ACEM commitment will bridge towards upcoming Type-Approval EU legislation requiring mandatory fitting of advanced braking systems (Combined Braking Systems; Anti-lock Braking Systems)
Enhanced conspicuity

• ACEM commitment, introduction of Automatic Headlamp On (AHO) on PTW production (2003)
• a research programme on “lighting treatment(s)”
• research on ITS that can help in the “communication” between PTWs and other road users.

ACEM appreciates that the industry commitment on Automatic Headlamp-On (AHO) has been enshrined in the upcoming Type-Approval EU legislation.
ITS and MC – reality and perspectives

- Driver Assistance Systems DAS/RAS and Advanced ADAS/ARAS
- Expected tangible benefits
  - Safety & Environment
  - Mobility & Security & Comfort
- Several autonomous DAS already on the market

- Some promising potential

- Deployment of ADAS confronted to many challenges
eCall as research work item for the industry – main challenges:

- Definition of the accident
- Triggering concept
- Avoidance of false alarms for the PSAPs
- **Dealing with the separation of motorcycle and rider/passenger during an accident**
- Safeguarding a feasible communication if the eCall-components are distributed among the motorcycle and the rider (helmet, clothing)
- The risk of destroying the eCall components is much higher in case of accidents than in a passenger car or in a light duty vehicle.
- Cost efficiency and concepts with suitable cost-benefit ratios needs to be evaluated and developed.
V2X Communication brings forward useful info

- V2X can potentially address the most common PTW accident configurations and enhance conspicuity

- V2X will progressively appear in cars in the mid term. MC safety can benefit from including the PTW in this connected world.
THE INDUSTRY SAFETY STRATEGY

The Integrated Approach

- 3rd Driving License Directive
- Training of riders
- Training of drivers

Awareness campaigns for riders and drivers + enforcement

Forgiving roads

Technology
New features
Research

SHARED RESPONSIBILITY

MAIDS - Primary Accident Contributing Factors (%)

87.9%

7.7%

0.3%
Thank you for your attention!

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