## Improve the safety of the machines

Improvements to the design and construction of cars over the last 20 years have resulted in very substantial reductions in deaths and injuries on the road. This has not been the case with changes to the design of motorcycles. ABS brakes for high capacity motorbikes have been commercially available for 20 years, and are now being fitted to a wide range of machines, but penetration is still much lower than for ABS in cars.

Motorcycles are complex, powerful vehicles and there remain a number of areas where their safety performance could be further improved. In its Motorcycling Strategy of 2005, the UK Government said that it will consider the benefit of a consumer information assessment programme for PTW to assess whether it might lead to improvements in motorcycle safety in the way that the EuroNCAP programme has led to significant improvements in car design.

*"Every sixth road accident victim in Spain is a motorbike rider. This is why the Directorate General for Traffic gathered all stakeholders concerned to develop a Strategic Plan for motorcycles and mopeds. The Plan prioritises 36 measures, 19 of which will be implemented in 2008"*

Pilar Zori Bertolin, DGT, Spain

*"Several measures have been implemented in Austria to improve the safety of motorcyclists: graduated licensing, multi-phase rider training, voluntary training courses, speed enforcement and awareness raising campaigns. Typical motorcycle routes were improved, e.g. with the installation of optimised guard rails. Yet, if Austrian riders have a relatively lower death rate ratio PTW/car drivers (Fig. 2) than in other countries, motorcyclist deaths have been stagnating over the past ten years. "*

Martin Winkelbauer, KfV, Austria

The World Health Organisation and the World Bank have advised that care should be taken to avoid the adoption of policies which could encourage the growth of motorised two-wheeler traffic by giving advantages to PTW users.

*"In Norway, I believe all the most cost effective measures have been implemented – mandatory helmet use, strict licensing, engine tuning ban, daytime running lights for motorbikes. The question that needs to be raised now is whether there should be any place for these motorised toys in the transport system at all"*

Rune Elvik, TOI, Norway

ETSC Review "**Vulnerable riders - Safety implications of motorcycling in the European Union**" (to be published beginning of 2008) summarises the following **recommendations**:

To Member States:

- Enforce the compulsory wearing of helmets
- Install safety cameras able to detect speeding riders and enforce PTW compliance with speed limits.
- Improve rider and driver training. Rider training should focus on hazard recognition and risk assessment as well as vehicle control skills. Driver training should ensure that candidates understand the vulnerability of motorcyclists and "look out for them" when driving.
- Educate riders regarding the importance of proper fastening and provide consumer information regarding helmet safety.
- Road design and maintenance should address the specific needs of PTW users (provide good winter maintenance, use of anti-skid surfaces, forgiving roadsides).

To European Institutions:

- Further investigate the effectiveness of ABS for PTWs.
- Investigate the extent to which airbags are viable PTW safety measures.
- Motorcycles should also benefit from eCall, which is going to be introduced as a standard for passenger cars in many EU countries.
- The European research agenda should include PTW issues.


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