

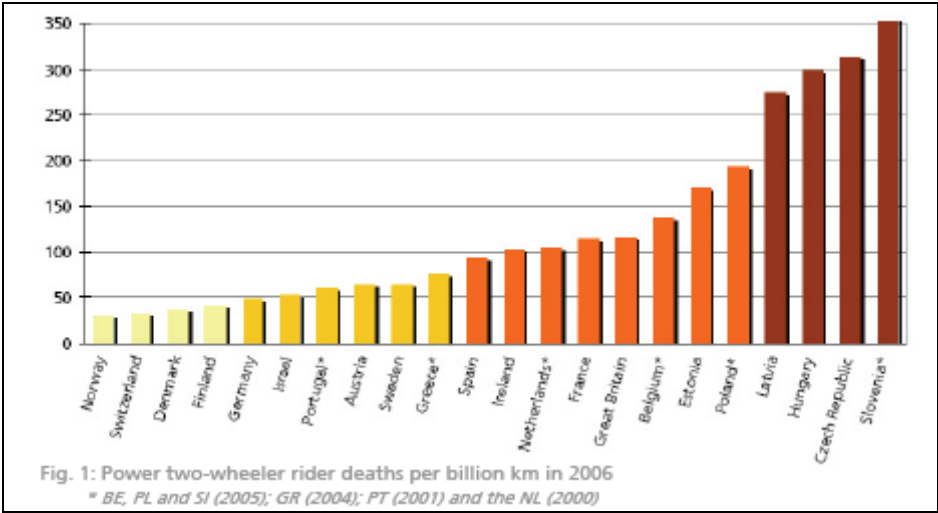


**BP2: Highway Features and Policy**

<b>Reference:</b> BP2 014	<b>Title of Project:</b>	<b>European Transport Safety Council Vulnerable Riders: Safety implications of motorcycling in the European Union</b>												
<b>Version:</b> 1	<b>Website:</b>	<a href="http://www.etsc.eu/documents/ETSC_Vulnerable_riders.pdf">http://www.etsc.eu/documents/ETSC_Vulnerable_riders.pdf</a>												
<b>Brief Description of Project:</b>	<div data-bbox="407 821 683 915" data-label="Image"> </div> <p data-bbox="708 814 1474 957">ETSC monitor transport casualties across Europe and release regular 'Performance Index (PIN)' bulletins. PIN Flash 7, release in 2007, reviewed PTW casualty performance in European countries.</p> <p data-bbox="394 961 1474 1066">The results were included in the report "Vulnerable Riders: Safety implications of motorcycling in the European Union" published in May 2008 which provided a series of recommendations to governments.</p> <p data-bbox="394 1121 1414 1157">The report identified a wide disparity of risks in countries across Europe.</p> <div data-bbox="448 1161 1187 1732" data-label="Figure"> <table border="1"> <caption>PTW rider deaths per billion km in 2006 (Legend)</caption> <thead> <tr> <th>Color</th> <th>Range</th> </tr> </thead> <tbody> <tr> <td>Dark Red</td> <td>&gt; 200</td> </tr> <tr> <td>Red</td> <td>86 - 200</td> </tr> <tr> <td>Orange</td> <td>46 - 85</td> </tr> <tr> <td>Yellow</td> <td>&lt; 45</td> </tr> <tr> <td>Grey</td> <td>NO PTW KM DATA</td> </tr> </tbody> </table> </div> <p data-bbox="423 1738 927 1780">Powered two-wheeler (PTW) rider deaths per billion km in 2006  <i>Except BE, PL and SI (2005); GR (2004); PT (2001) and the NL (2000)</i></p>		Color	Range	Dark Red	> 200	Red	86 - 200	Orange	46 - 85	Yellow	< 45	Grey	NO PTW KM DATA
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ETSC examined the differences between nations and highlighted disparity in type of motorcycle use. Their analysis of risk is essentially based on 'number of deaths per billion KM'. ETSC argue that this is a more robust measure of actual risk than the simple total number of fatalities, which takes no account of increasing motorcycle use, or rate per motorcycle registered, which once again does not reflect use.

National differences in use are discussed; for example the comparatively low number of mopeds in Great Britain and the increase in the proportion of larger capacity PTWs in Eastern Europe.



The comparative risk with car occupants is also highlighted as a measure of national performance. For example in GB a motorcyclist has 40 times the risk of a car occupant of fatal collision. In Norway the risk is only 6 times. The European average is 18 times.

The full report includes an analysis of counter-measures and a series of recommendations for governments and organisations covering vehicle design, training, enforcement, road design and publicity.

**Monitoring Data:**

ETSC has used collision data to formulate the report. The actual effectiveness of their recommendations is not known but the measures suggested have been shown to be effective where used. Their sources are referenced.

**Results:****General Recommendations***Recommendation 1*

PTWs should be integrated in transport and safety plans with strategies recognising their specificities and needs.

*Recommendation 2*

Crash investigation and databases should be standardised and allow the inclusion of variables specific to PTW safety issues.

**Human Factors Recommendations***Recommendation 3*

Traffic safety education in schools should specifically target moped safety and rider training should focus more on hazard recognition and risk assessment as well as vehicle control skills.

*Recommendation 4*

Driver training should specifically make reference to and ensure candidate's understanding of PTW issues and safety concerns, with a particular focus on the risk of perception failure.

*Recommendation 5*

While implementing the Driving Licence Directive, Member States should seek to encourage riders to undertake progressive access to PTWs by recognising the experience gained on lower PTW categories.

*Recommendation 6*

Provide consumer information regarding helmet safety and educate riders regarding the importance of proper fastening.

*Recommendation 7*

Enforcement activities should focus on helmet use, numberplate visibility and improved accuracy of speed detection, dovetailing with education and rehabilitation.

## **Vehicle and Equipment Recommendations**

### *Recommendation 8*

In order to address the major cause of motorcycle accidents, improvement in PTW conspicuity should be further researched.

### *Recommendation 9*

All PTWs should be equipped with ABS and riders educated regarding use and benefits. The variety of other advanced braking systems should be evaluated for their safety impact and, if more cost-effective, be considered as an alternative to ABS.

### *Recommendation 10*

Further research should be undertaken to examine the whether ISA for PTWs is technically feasible and beneficial to safety.

### *Recommendation 11*

Investigate the extent to which airbags and leg protectors are viable PTW safety measures.

### *Recommendation 12*

The use of protective clothing should, in the long run, be mandatory using the introduction of minimum standards.

### *Recommendation 13*

Revise Directive 2003/102/EC regarding A pillar design and PTW safety and promote legislation to incorporate side under-run protection on HGVs.

## **Road Infrastructure Recommendations**

### *Recommendation 14*

Road design, particularly curves and intersections should be optimized for PTW safety, paying attention to forward visibility and signage.

### *Recommendation 15*

RSA and RSI procedures should address the needs of PTW riders.

### *Recommendation 16*

Excessive roadside objects should be minimised and where necessary be PTW-friendly. Road surfaces should be well maintained and provide maximum and consistent skid resistance.

<b>Key Effective Conclusions:</b>	ETSC's recommendations are wide ranging and, if implemented, are in general likely to lead to a reduction in PTW casualties. Some are potentially controversial or require further detailed research but taken together the recommendations represent a powerful package of measures many of which have a proven casualty reduction benefit. Casualty rates for urban settings might better be expressed as rate per trip or possibly related to junctions rather than per KM.
<b>Projects for Comparison:</b>	UK National Motorcycle Strategy (BP2 010). Positioned for Safety Strategy (BP2 009).
<b>Justification:</b>	Although individual recommendations may be the subject of some debate, the overall approach advocated by ETSC appears likely to contribute to eSUM objectives.