



BP2: Highway Features and Policy

Reference: BP2 011	Title of Project:	ACEM Guidelines for Safer PTW Road Design in Europe
Version: 1	Website:	ACEM Guidelines pdf document: http://www.acembike.org/html/docs/ACEM%20publications/ACEMinfrastructurehandbook.pdf
Brief Description of Project:	<p>ACEM, the Motorcycle Industry in Europe, has produced a manual providing guidance to engineers and road safety professionals on PTW issues. The core of the information comes from existing PTW handbooks available in various European countries.</p> <div style="display: flex; align-items: flex-start;"> <div style="width: 30%; text-align: center;"> </div> <div style="width: 65%;"> <p>This handbook describes the specific needs of riders and contains guidelines for those responsible for road design and road maintenance. It includes recommendations and examples from all over Europe. Predictable road geometry can be achieved by a good road design with consistent, clear traffic signs and road markings, and by improving traffic management, PTW riders can be better guided on the road.</p> <p>In addition to road design and traffic management two other aspects have been included in this handbook: the use of a formalised and systematic assessment of road facilities and road safety campaigns considering PTWs, both are a vital ingredient in a mix of initiatives to address PTW safety.</p> <p>The handbook draws on the results of the MAIDS study which identifies common PTW collision causation factors, including infrastructure problems. In their guidance, ACEM provides advice on providing a safer infrastructure for motorcycles.</p> </div> </div>	

In the MAIDS study three environmental factors have been found to contribute to PTW (pre-)crash path:

1. a roadway design defect;
2. a roadway maintenance defect;
3. traffic hazard.

The handbook addresses a wide range of issues as illustrated in the list of contents shown below.

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- 1.2 How to use this publication?

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9. SAFETY CAMPAIGNS

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10. ROAD SAFETY AUDITS

- 10.1 EU wide initiatives
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Each chapter has a similar layout. In almost every chapter recommendations, solutions, conclusions and possibilities are summarized and examples of Europe's best practice are given.

Examples of poor practice and/or other highway defects are also covered.



Loose dirt on the carriageway.

There is a bibliography and list of websites which provide useful reference material.

Monitoring Data:

The guidelines are based on detailed casualty studies such as the MAIDS study and should therefore address real casualty issues. No specific casualty based monitoring is available.

Results:

Key Effective Conclusions:

The Guidelines provide clear and detailed advice for highway engineers based on the MAIDS study. Although based on a limited number of incidents, this study identifies human error as the key causation factor.

Primary Accident Contributing Factor (MAIDS)

	Frequency	Percent
Human _ PTW motorcyclist	341	37.1%
Human _ OV driver	464	50.4%
Vehicle	6	0.7%
Environmental	72	7.7%
Other failure	37	4.1%
Total	921	100%

'Environmental' factors, including infrastructure failings, appear to be the primary cause in only around 8% of collisions. However, this would still be a significant number of collisions/injuries across Europe. In addition problems with infrastructure contribute to human error in many crashes.

Projects for Comparison:

- IHIE Guidelines (BP2 012).
- Victoria PTW Strategy (BP2 003).
- Norwegian PTW Handbook (BP2 007).

Justification:

The ACEM guidelines provide an overview of environmental/infrastructure collision causation factors identified from collision/casualty studies along with suggested counter measures. The detailed guidance, if applied, would contribute to eSUM WP3 BP2 objectives.