
acem

The eSUM project
european Safer Urban Motorcycling
WP3 Best practices

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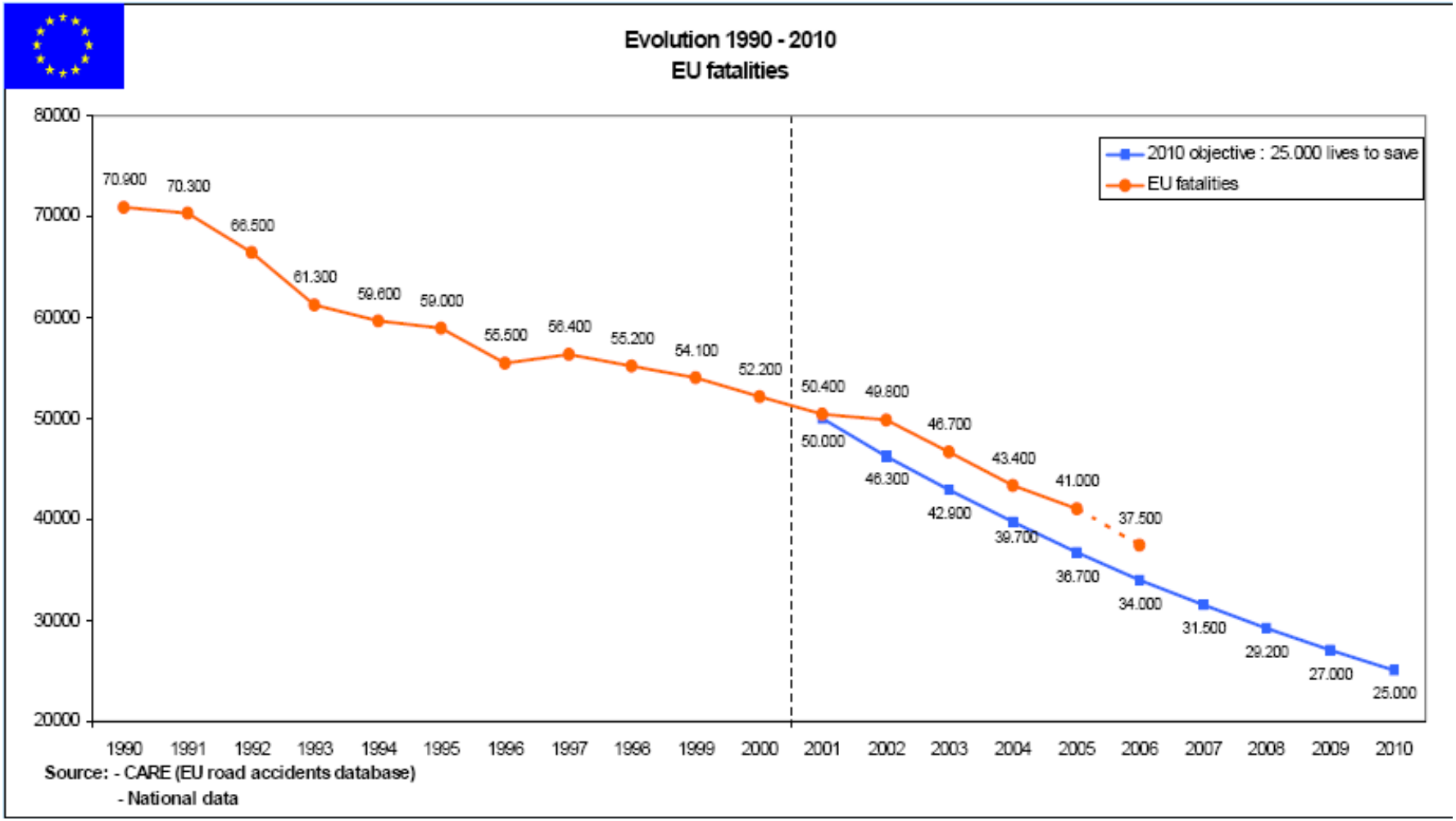
Introduction

- PTW casualty situation
- eSUM Project overview
- Identification of Best Practice
- Initial results
- Next steps.

EU current objective & performance



eSUM Project Overview

- A consortium of urban and national authorities, PTW manufacturers, ACEM and road safety investigators
- Coordinated by Barcelona Municipality, eSUM develops best practice from the experiences of cities from 4 EU countries with high levels of PTW use / proven experience in developing good PTW road safety
- EU manufacturers of innovative, safer PTW models (C1, MP3) participate along with ACEM.

eSUM key activities and dates

Work Package	Deliverable Name	Lead Partner	Start Date	Completion Date
WP1	Project Administration	Barcelona	Jun 08	Ongoing
WP2	Diagnosis of Urban PTW Safety	Rome	Jun 08	Apr 09
WP3	Best Practice Guidance for Improving Urban PTW Safety	London	Aug 08	Feb 09
WP4	Demonstrations for Improving Urban PTW Safety	Barcelona	Jan 09	Aug 10
WP5	Monitoring and evaluation	Uni Athens	Jan 10	Oct 10
WP6	Transfer & Marketing	ACEM	Jan 10	Sept 10
WP7	Dissemination	Barcelona	Jun 08	Jan 11

Project Completion Jan 2011

Work Package 3

- Led by Transport for London
- Identifying Best Practice to reduce PTW casualties in urban areas.

Best Practice

- 6 key areas to identify Best Practice:
  - **BP1** Rider training and awareness campaigns
  - **BP2** Dedicated highway features to improve PTW safety
  - **BP3** Effectiveness of targeted enforcement
  - **BP4** Specific remedial measures at ‘blackspots’
  - **BP5** Improved PTW design
  - **BP6** Potential for ‘soft’ street furniture to reduce PTW injuries.

Methodology

- Detailed web searches
- Research and academic institutions
- Partner Input
- Questionnaire.

eSUM
European Safer Urban Motorcycling

Can you help improve motorcycle safety?

The European Safer Urban Motorcycling Project (eSUM) is a collaborative initiative between industry and local authorities of some of Europe's principal motorcycle cities to identify, develop and demonstrate measures designed to deliver safer urban motorcycling. Two-thirds of all accidents occur on roads in urban areas, where 80% of citizens live.

As one of the eSUM partners, Transport for London is leading on the work package which focuses on benchmarking best practice in urban motorcycle safety. We need **your** help in identifying successful projects aimed at reducing powered two wheeler casualties in urban areas. The six themes we are assessing are:

Theme	Description
BP1	Assessing the potential of **driver and rider training and awareness campaigns** to reduce urban motorcycle collisions.
BP2	Assessing the potential contribution of **PTW dedicated highway features,** such as access to bus lanes, priority at signals and surface treatments, to collision reduction.
BP3	Review and assess the effectiveness of high levels of **targeted enforcement** on collision reduction.
BP4	Evaluate the contribution of specific **PTW remedial measures at collision 'blackspots'** in urban areas.
BP5	Assess the potential of **improved PTW design** in the reduction of collisions in urban settings.
BP6	Evaluate the potential contribution of the introduction of frangible or **'softened' street furniture** to reducing PTW injuries.

If you are aware of a motorcycle safety project in any of the 6 themes please contact us on: motorcycle-projects@tfl.gov.uk. We will email a simple questionnaire for you to provide details of the projects. We will then 'showcase' examples of best practice as a resource for road safety practitioners across Europe.

Thank you.

www.esum.eu

Methodology

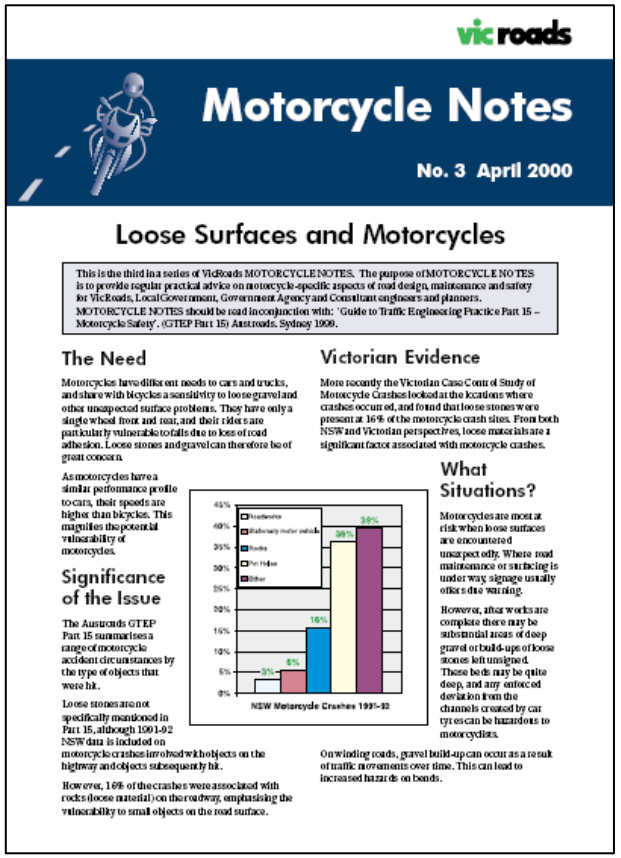
- Initial appraisal using standard assessment form
- Key features of project listed
- Was monitoring data collected?
- What were the main outcomes?
- Shortlist of potential ‘best practice’ projects.

BP1 – Training and Awareness

- Initial Rider Training Programme (FEMA, ACEM, FIM)
- Honda Rider Simulator
- UK Bikesafe
- “Kill Spills” campaign
- Norwegian Rider Training Curriculum
- ACEM’s “Lucky 13” campaign
- ACEM’s Integrated Helmet Campaign.

BP2 – Highway Features

- PTWs in bus lanes
- Moving mopeds from cycle lanes to the road (Netherlands)
- Strategic Motorcycle Safety Programme (Australia)
- IHIE Guidelines
- Road Safety Audit.



vic roads

Motorcycle Notes

No. 3 April 2000

Loose Surfaces and Motorcycles

This is the third in a series of VicRoads MOTORCYCLE NOTES. The purpose of MOTORCYCLE NOTES is to provide regular practical advice on motorcycle-specific aspects of road design, maintenance and safety for VicRoads, Local Government, Government Agency and Consultant engineers and planners. MOTORCYCLE NOTES should be read in conjunction with: 'Guide to Traffic Engineering Practice Part 15 – Motorcycle Safety'. (GTEP Part 15) Austroads, Sydney 1999.

The Need

Motorcycles have different needs to cars and trucks, and share with bicycles a sensitivity to loose gravel and other unexpected surface problems. They have only a single wheel front and rear, and their riders are particularly vulnerable to falls due to loss of road adhesion. Loose stones and gravel can therefore be of great concern.

As motorcycles have a similar performance profile to cars, their speeds are higher than bicycles. This magnifies the potential vulnerability of motorcycles.

Significance of the Issue

The Austroads GTEP Part 15 summarises a range of motorcycle accident circumstances by the type of objects that were hit.

Loose stones are not specifically mentioned in Part 15, although 1991-92 NSW data is included on motorcycle crashes involved with objects on the highway and objects subsequently hit.

However, 16% of the crashes were associated with rocks (loose material) on the roadway, emphasising the vulnerability to small objects on the road surface.

Victorian Evidence

More recently the Victorian Case Control Study of Motorcycle Crashes looked at the locations where crashes occurred, and found that loose stones were present at 16% of the motorcycle crash sites. From both NSW and Victorian perspectives, loose material is a significant factor associated with motorcycle crashes.

What Situations?

Motorcycles are most at risk when loose surfaces are encountered unexpectedly. Where road maintenance or surfacing is under way, signage usually offers due warning.

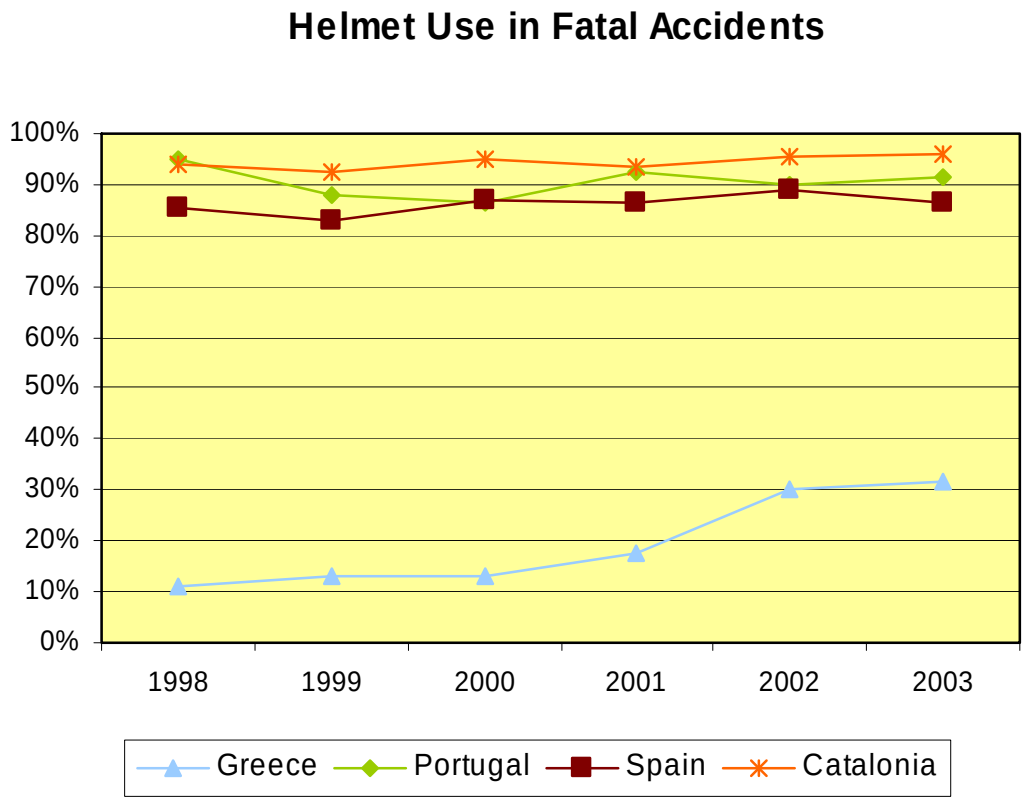
However, after works are complete there may be substantial areas of deep gravel or build-ups of loose stones left unsigned. These beds may be quite deep, and any enforced deviation from the channels created by car tyres can be hazardous to motorcyclists.

On winding roads, gravel build-up can occur as a result of traffic movements over time. This can lead to increased hazards on bends.

BP3 - Enforcement

- Enforcement of Italy's helmet law – effects on injuries
- Rider risk reduction courses – UK
- ACPO Motorcycle Enforcement Strategy - UK
- Netherlands moped helmet enforcement.

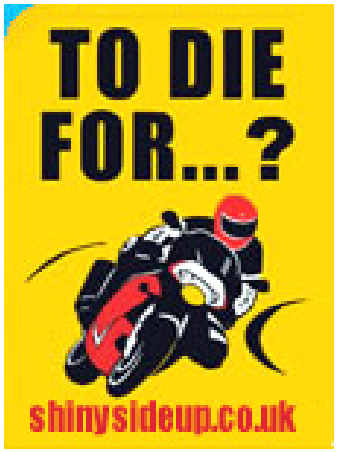
Initial results



Catalonia

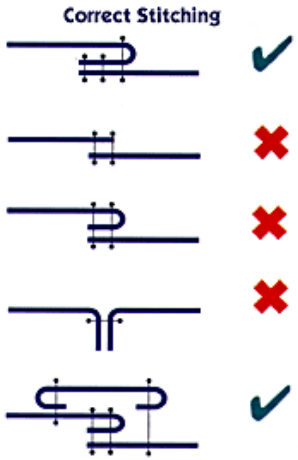
BP4 – 'Blackspots'

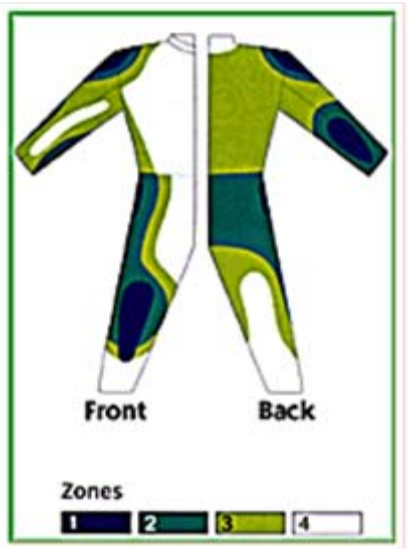
- Shiny Side Up Partnership – UK
- Victoria Motorcycle Blackspot Programme
- Involvement of PTW groups in Highway Design.



BP5 – PTW Design & Rider Protection

- Motorcycle airbag systems
- Airbag jackets
- Motorcycle helmet standards
- ABS and advanced braking systems
- Tyre pressure monitors
- Standards for protective clothing
- Daytime Running Lights.





Initial results

Total Vehicle design approach:

- What evidence exists that these models are safer?
- Concerning the analysis of PTW models, where the number of cases is limited by the short time in circulation (e.g. Piaggio's MP3) data is collected for additional cities with high model sales
- BMW's C1 model – the only PTW designed from crash-worthiness design principles. 30,000 units sold since 1990s. Considers accident data from different countries, comparing C1 against similar cc model performance in urban (& interurban) areas.

BP6 – 'Soft' Highway Features

- 'Super flexi poles' (Hulme City Australia)
- More identified which are applicable to rural routes
- 'Declutteriing' of the street environment.

Next Steps

- We still require YOUR input!
- More detailed analysis of projects identified as potential ‘best-practice’
- Demonstration and transfer Best practice identified in the partner cities (and beyond)
- Successful interventions shared with transfer cities
- Wider transfer of best practice through eSUM website.

Motorcycle-projects@tfl.gov.uk

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