Road safety in Europe: The research stakeholders' view

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ECTRI

- Non-profit organisation established in 2003 to
  - Promote integrated transport research and development in Europe
  - Tie together the foremost multi-modal transport research centres across Europe
  - Promote the excellence of European transport research
- 28 major European research institutes from 20 European countries representing more than 4,000 research staff
- Offices located in Brussels

Context

- EU target, set in 2001, of halving road deaths by 2010
- Good progress in some countries
- Road deaths in EU27 reduced by 36% between 2001 and 2009 (42% for EU15)
- But numbers killed in 2009 still higher than the target set by the EU for 2010
- New target to further reduce by 50% by 2020
- So still much to be done

Actors and issues in transport safety research

- Main actors:
  - Driver (user)
  - Road, or infrastructure
  - Vehicles

- Main factors:
  - Technology
  - Society
  - Policy

Focus areas for action to address EU safety targets

- Emphasis on injury prevention, not just reduction in fatalities
- Vulnerable road users
  - Pedestrians, especially children
  - Cyclists
  - Urban areas
- Motorcycle (PTW) riders
- Training and education
- The elderly and mobility impaired

Other considerations

- Recognising and transferring best practice between EU countries
- Safety an important component of other actions – eg sustainability and the environment

Previous research and knowledge requirements

- Over past decade, technological development addressed mainly passive safety systems
- Considerable progress in vehicle structures and materials used, and in occupant protection
- Influence of roadside furniture on crash seriousness
  - Road side location of furniture
  - Effect of impact on vehicle structure
- Requirements for crash tests re-evaluated and extended

Previous research and knowledge requirements (2)

- Research should continue on:
  - Vehicle compatibility
  - Conspicuity and new materials
    - with special emphasis on vulnerable road users
- Research on infrastructure should focus on ‘self explanatory’ and ‘forgiving’ road environments

Previous research and knowledge requirements (3)

- Improvements in harmonisation of road safety related data
- Further research requires the creation and maintenance of reliable pan-European databases
- Better, more accurate geographical and sectoral data
- Development of accident prediction models for different types of member states
  - Road safety impact assessments
  - Blackspot management
  - Network safety assessment
- Benchmarking
- Costs and benefits of safety interventions

Previous research and knowledge requirements (4)

- Systems often have multiple uses, and overall impact on safety often unclear
- Data availability and its analysis are key
- Synergetic effects of ITS in safety, mobility and the environment under-researched

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Previous research and knowledge requirements (4)

- Driver behaviour and training
  - New technologies to enhance awareness, aids for the driver
  - Include all stakeholder groups (those involved in the technological development as well as operators, users, etc)
  - Long-term impacts

- Enforcement technologies
- Effectiveness of public awareness campaigns
- Driving impairment prevention
- Influence of, and on, mobility measures (eg route guidance, modal transfer, interchange, etc)

Research ‘white spots’

- Cross-modal integration of approaches regarding behavioural aspects of safety and security
- Safety and security management
- Development of an evaluation and prediction model for middle and long-term national road safety strategies
- Implementation of virtual testing in safety regulations
- Simulation for enhancing vehicle safety

Concluding remarks

- Fatality statistics important but we need to take wider view of KSI data
- Just learning the lessons from around Europe may not be enough to get greater reductions at an aggregate level
- There are many factors all pushing in the wrong direction:
  - ageing drivers
  - distractions in vehicles
  - chronic fatigue
  - misuse of drugs and medicines
  - incompatible vehicle sizes and structures
  - pressure to reduce costs of road safety education
  - etc
- There is still much work to be done

Thank you for listening