ITS/Co-operative systems for smart and safe urban mobility

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Background

Cities are a focal point in the economic, social and cultural life of Europe throughout its history, since the times of ancient Athens and Rome.

The industrial era has brought about a process of urbanisation that has led to a 21st century Europe in which the great majority of people live in cities or visit them regularly.

Cities have always been concerned for the safety of their citizens and visitors.

In today's cities, the greatest everyday threat to life comes from the use of motor vehicles, not from enemy attacks.



The challenges

- In 2012 28,000 people died in road traffic crashes in the EU
- Around 40% (11,000) of those fatal crashes happened in urban areas
- Around half of those who died in urban areas were pedestrians and cyclists. Elderly people (>65) were also overrepresented
- Between 2000 and 2009 the number of road deaths in urban areas decreased by 32% (38% on other roads)



Only ITS/Cooperative systems?

Anything that is recommended on ITS/Co-operative systems should not prevent decision makers from improving urban safety by more traditional means. For example:

- Differentiating streets according to their function (following the principles of Sustainable Safety)
- Setting safe speeds (30 km/h) for areas where pedestrians and cyclists interact with vehicles
- Making the road system self-explaining to its users
- Achieving high levels of use of seat belts and other protective equipment



ITS/Cooperative systems

- Supportive ISA (Intelligent Speed Assistance)
 - A mature technology with substantial safety benefits
 - Benefit-to-cost ratios ranging from 2:1 to 4.8:1
 - Between 30% and 50% of drivers are travelling above 50 km/h on urban roads
 - If drivers slowed down on average by 1 km/h around 400 deaths per year could be prevented on urban roads
- AEB (Advanced Emergency Braking)
 - Estimated fatality reduction of 7%
 - Very high benefit/cost ratio
- Intelligent Infrastructure
 - Curve speed warning
 - Intersection collision warning
 - Road works warning



Recommendations to cities

- Adopt SUMPs and integrate road safety into them
- Consider the functions and use of different kinds of roads
- Promote 30km/h speed limit zones in residential areas
- Improve urban infrastructure for the benefit of VRUs
- Promote public transport (bus and rail are the safest land transport modes)



Recommendations to the EU

- Mandate the Introduction of Intelligent Speed Assistance
- Include the collection and maintenance of speed limit data under the ITS Directive specifications on real time traffic information
- Promote ITS/Co-operative systems where evidence about their life saving potential has been researched
- Recognise that these systems need accuracy, reliability, acceptability and a fail safe option. Take into account risk compensation and adaptative behaviour



ETSC: find out more...

- Safety Monitor
- Drink Driving Monitor
- Speed Monitor
- Reviews & Policy Papers
- Fact Sheets



Save the date 18th of June 2014 Annual PIN Conference – Car occupant deaths

