



Riders' feedback and views



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TODAY



ITS & ICT integrated into Intelligent in-vehicle systems

- Offer new solutions for today's transport problems related to traffic safety, fluency, & energy efficiency:
 - help drivers prevent or avoid traffic accidents
 - mitigate the consequences of accidents
 - provide drivers with real time information about traffic and road conditions
 - find the most efficient routes
 - optimise engine performance

Motorcyclists and ITS/ICT: THE BIKE



BUT



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5 November 2010

Final Event & Demonstration

Leicester, UK

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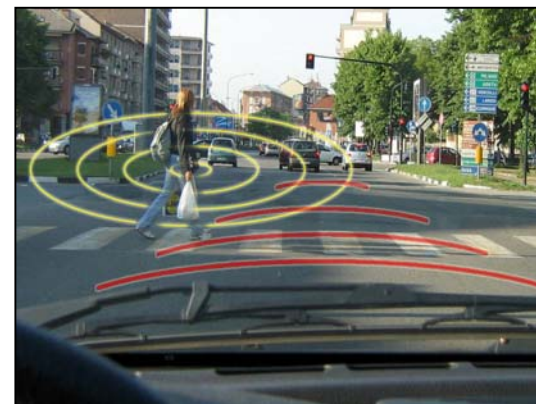
Motorcyclists and ITS/ICT: THE ROAD



Motorcyclists and ITS/ICT



- Many types of specialised purpose motorcycles
- Different dynamic on the road (field of vision, lane positioning, driving controls, traffic strategies, etc.)
- Different impact on safety and comfort
- Various benefit expectations
- Various (op)positions of individuals
- ...so far primarily for 4-wheelers...
- Engineers often simply try to apply what works for cars to motorcycles (the '2-wheeled car' scenario)



Motorcyclists and ITS/ICT



WE WANT to be:

- Aware of own location; for emergency...
- Aware of traffic en route; for relaxed riding...
- Aware of incidents en route; for fluent riding...
- Aware of weather conditions en route; for convenience ...
- Aware of potentially dangerous situations around; for personal & motorcycle safety ...
- Aware of vehicles around; for keeping guard up...
- Aware of social aspects; any friends around, how to contact, where to meet; for social purposes ...
- Able to get emergency assistance when unconscious; for staying alive...

if nothing else!

Motorcyclists and SAFERIDER



On-Bike Information Systems - OBIS

eCall

Telediagnostic service

Navigation & Route Guidance

Weather traffic & black spot

Advanced Rider Assistance Systems -ARAS

Speed Alert

Curve warning

Frontal collision warning

Intersection support

Lane change support

- Informative systems (no intervention in the riding tasks but for the « forced feedback throttle »)
- Inclusion of the users (first attempt)





WP2: Riders needs and wants

User Survey

- Internet survey widely disseminated (in the main EU languages) via the motorcycle community network;
- a general list of functions/devices were considered

- 4000 answers
- Devices considered as useful: *Adaptive Light*, Cruise Control, *Blind Spot Assistance System*, Communication System, *Black Spot Warning*, Adaptive Suspension to the type of road, Traction Control, Communication Vehicle to Infrastructure, Handle Grip and Seat Heating, Helmet Air Conditioning, *Telediagnostic Services*
- Devices considered as NOT useful: System for Reduced Visibility, Hands Free Mobile Phone, *Lane Departure Warning*, Night Vision System, *Lane Change Assistant*
- some cultural and geographical differences

- Motorcycle community involvement





WP2: Riders needs and wants

Focus Group

- expert motorcycle trainers
- focused systems and the HMI developed by the Saferider project

- positive and negative aspects were highlighted for each system
- concerns were expressed about **rider distraction** and **potential failures** of the systems leading to accidents
- **strong recommendations** were made for the development of device and functions
 - rider adaptation
 - individual customization
 - information prioritizing

- extremely useful approach but lack of follow up (testing the devices, design guidelines, training curriculum)



Motorcyclists and SAFERIDER



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WP7: Testing and validation

- Mainly on simulator
 - When completed, remains on a small scale
 - Provided limited data on user perception, use and acceptance
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- **Conclusions can hardly be drawn**
 - **Larger scale testing is needed to understand the impact of the systems on the riding tasks and the potential of project results**



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WP9: Design guidelines and training

- **Real opportunity:** to develop set of guidelines for ARAS/OBIS focusing on the needs and restrictions of riders and their machines
 - sensory overload
 - Interface interference with the riding task
 - Option to limit or switch-off systems at any moment
 - Possibility to adapt interface based on the system combination in use or rider preferences
- **Real Need:** Policy recommendations and training curriculum (involvement of the Focus Group trainers strongly recommended)

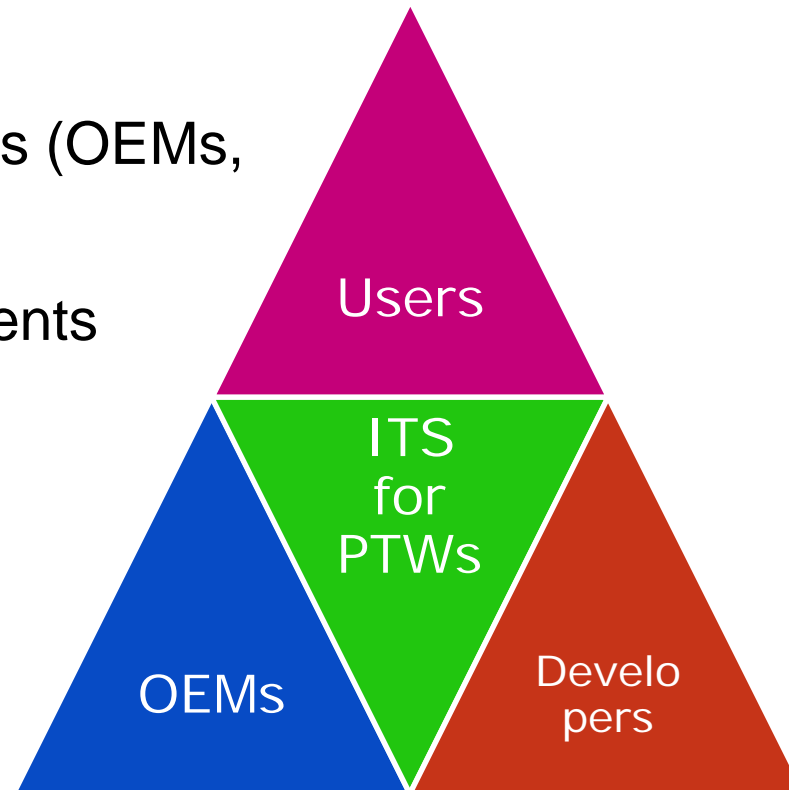
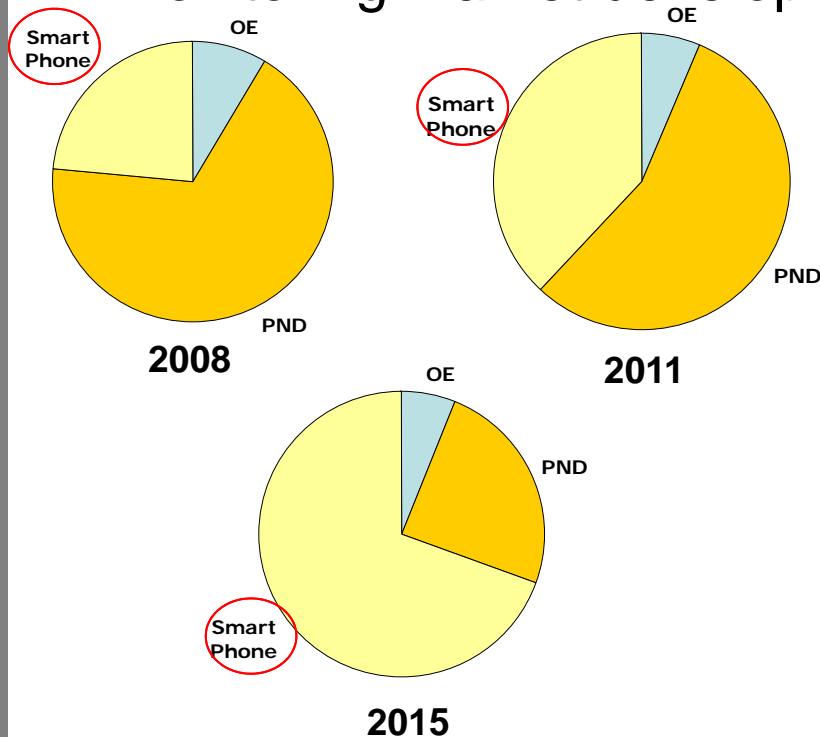


Beyond SAFERIDER



TOMORROW

- Rider-tailored projects & pilots (OEMs, Users, Developers)
- Monitoring Market developments



Beyond SAFERIDER



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TOMORROW

ITS & ICT integrated into Intelligent in-vehicle systems **will hopefully** offer new solutions for today's **motorcycling** challenges

- **Informed Rider:** Predictive choices instead of panic reactions
- **Smooth riding:** Less stress and distractions while riding
- **CO2 footprint reduction:** Enhance riding habits to support fluency in traffic
- **Safer PTW experience:** Safer traffic environment



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