Riders’ feedback and views

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5 November 2010
Final Event & Demonstration
Leicester, UK
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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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)
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)

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**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 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

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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)

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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

➤ 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
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

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Beyond SAFERIDER

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