



Spin doctor

DIGITAL REVOLUTION

Viviane Reding previews
the ICT2008 conference

Wendy Hall on the
web's semantic future

Kevin Warwick
revisits Turing's test

Tony Prescott introduces
the 'scratchbot'

**Nobel prizewinner Peter Grünberg on the discovery that gave us
matchbox-sized hard discs, and its modern spin-off**

Objective:

zero accidents, zero congestion

In 2007, 38.500 deadly accidents occurred on European roads, which resulted in 43.000 fatalities. A total of 1.3 million road accidents in the EU 27 resulted in 1.7 million people in hospitals. This is more than the total population of a small Member State such as Estonia!

In 2001, the EU subscribed to cutting the number of fatal accidents on Europe's roads by 50% until 2010. There is even growing interest in the EU to adopt a "vision zero" policy, to eliminate road fatalities completely. This is an ambitious undertaking, given that humans will always make mistakes which lead to accidents. Indeed, studies have shown that 93% of road accidents are due to human error.

But, what about making our means of transport more intelligent? Can we achieve "vision zero" with ICT technologies in vehicles that will communicate with each other and their environment, to warn us of potential hazardous situations or even react for us to save our lives?

If deployed on a large scale, Intelligent Transport Systems and Services can greatly contribute to road safety. Before new systems and applications can take to the road however, it is vital to test their benefits under real-life conditions. The ERTICO-led FOT-Net project is working to make vehicles safer by making test results comparable across Europe and even beyond.

Testing new ICT systems: a major step towards safer vehicles

Field Operational Tests (FOT) are large-scale test programmes aimed at providing a comprehensive assessment of the efficiency, quality, robustness and acceptance of ICT solutions used for smarter, safer, cleaner and more comfortable transport solutions. Field operational testing is widely recognised as an effective instrument to test new transport technologies in the real world.

The FOT-Net project gathers National, European and international FOT organisers



in one strategic networking platform. Open to all stakeholders from public and private sectors, FOT-Net is a Specific Support Action funded by the European Commission DG Information Society and Media under the Seventh Framework Programme.

Making vehicle test results comparable at a global scale

Previous European FOTs have largely operated at national level and have typically been confined to controlled conditions. There is now a growing recognition of the need for larger scale activities within a common European framework, in order to let individual FOTs benefit from each others' learning experiences and to enable the comparison of results.

Vincent Blervaque, Director of Development and Deployment at ERTICO – ITS Europe, explains: "Field Operational Tests are a powerful tool for gaining insight into the way new functions and systems suit the user when operated under real-world conditions. Also, testing new systems over a longer period of time will allow us to gather statistically sound data."

Developing a FOT best practice manual

The FOTs carried out around the world are an invaluable source of scientific data. FOT-Net promotes and facilitates the exchange of knowledge and cooperation with European and international partners.

FOT-Net is developing a catalogue of national and European FOTs, which will serve as a reference for all FOT organisers and provide a benchmarking overview of the socio-economic impact of the technologies tested.

Next generation of intelligent vehicle systems: Cars that talk to each other

The majority of accident-producing situations are due to poor perception of danger or mistaken interpretations of driving conditions, which can have disastrous consequences. In order to relay all kinds of information to the driver, there is a need for technologies that are able to share information between the vehicles and their infrastructure.

In-car driver aids such as navigation systems have proved to be both reliable



and increasingly popular. However, even the most effective vehicle-based system could benefit further if additional information were available thanks to cooperation with other vehicles and with the infrastructure.

This need is addressed by the CVIS project (Cooperative Vehicle to Infrastructure Systems), which aims to design, develop, and test the technologies needed to allow cars to communicate and network directly with the roadside infrastructure. Both transport safety and efficiency will benefit from large-scale deployment of cooperative systems.

A universal platform for vehicle-to-infrastructure communication

The CVIS project has achieved an important milestone - the development and beta testing of its universal reference platform for cooperative systems. This multi-purpose open platform provides multiple communication interfaces, precise positioning and software support for vehicle-to-vehicle and vehicle-to-roadside communication. A workshop and product launch event in Berlin on 10-11 December 2008 will feature:

- Cooperative system technology overview by European experts
- Presentation of CVIS universal platform for vehicle-to-infrastructure communication and services
- Static and mobile demonstration of CVIS technology and applications
- Short- and medium-range vehicle-infrastructure communication
- Advanced positioning techniques
- Examples of cooperative mobility applications

The universal platform is a major step towards mature vehicle-to-vehicle and vehicle-to- infrastructure communication and services. ERTICO Head of Sector Paul Kompfner clarifies: "These new technologies will open the way for the provision of a multitude of innovative services for drivers, road operators and fleet managers. Key features for the 'always-connected vehicle' will include instant alerts for traffic problems, personalised route guidance and

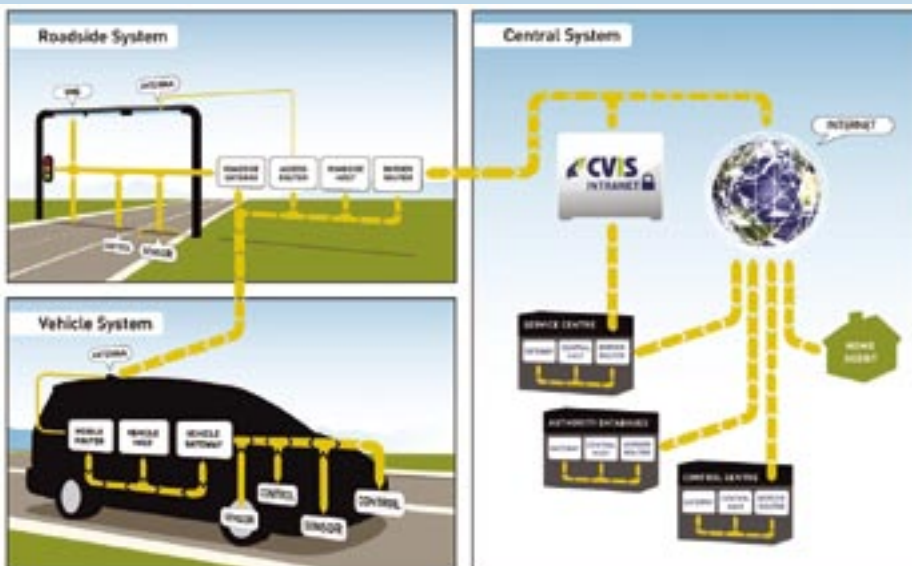


cooperative traffic management – not to mention "Internet everywhere".

Pleading for rapid deployment of ITS solutions

Developing smarter vehicles and transport infrastructures that can communicate with each other may be one of the means to achieve "vision zero" in Europe, but many barriers are making the deployment of ITS more difficult than expected. Common standards are vital as an incentive for manufacturers to invest in the right technologies. Furthermore, technologies need to come to maturity, impact assessments need to be carried out to show the real benefits and the life-saving potential of such systems, and last but not least, people need to be informed and understand the great potential of these new safety systems, in order to create a true mass market and ensure safety for everyone.

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For more information please visit:
www.fot-net.eu
www.cvisproject.org
www.ertico.com