

eSafety – Improving road safety using information & communication technologies

eSafety is a joint initiative of the European Commission and the relevant European industries. Its objective is to improve road safety through Intelligent Vehicle Safety Systems.

The eSafety initiative was established in April 2002 as a public-private partnership of the European Commission and industries having an interest in information-based road safety systems, e.g. car manufacturers, road operators, telecom companies and transport service providers. eSafety aims at increased road safety and road transport efficiency through the use of Intelligent integrated safety systems. These systems use information and communication technologies for vehicle safety. "eSafety illustrates how the Commission and industry can work together on Information society initiatives to improve the quality of life and increase the welfare of European citizens" (Viviane Reding*).

The objectives of eSafety

The objective of eSafety is to accelerate the development, roll-out and use of vehicle safety systems through research, co-ordination and information. There are two possible kinds of systems and both are included: stand-alone devices like the Electronic stability programme (ESP), which helps control the vehicle in critical situations, and the more advanced so-called Driver assistance systems. The textbook example of such a system is eCall, a device by which the car after an accident

automatically calls the rescue services and transmits location data, thus significantly reducing the rescue services' response time.

"The death toll on European roads is unacceptably high. Bringing the benefits of eSafety to all road users is therefore a top priority of the Commission"
(Viviane Reding*)

eCall is a good example of the benefits eSafety can provide. In principle, the technology is available. But there are legal, budgetary, administrative and co-ordination problems to overcome, e.g. the European emergency phone number 112, which eCall will build on, is not equally well implemented in all Member States. The problems differ from Member State to Member State but together they delay the implementation of eCall on a Europe-wide scale.

Here the co-ordinating role of the eSafety Forum (see box) comes in.

A European approach is needed!

There are several reasons, why eSafety has to be implemented on a European level:

- The death toll caused by road transport in the 25 EU Member states is unacceptably high. Every year, 43.000 people die on the Union's roads and many more are severely injured. The economic loss caused by road accidents amounts to more than €160 billion per annum. In contrast, the European Transport White Paper in 2001 set the goal of halving the number of road fatalities by

Bodies steering the eSafety initiative

- **The Forum:** the driving force of eSafety is the Forum. It assembles more than 150 active members representing all road safety stakeholders. The Forum organizes one or two plenary sessions per year, as well as two dedicated high-level meetings, one with industry and another one with Member States' representatives.
- **The Steering Group:** the day-to-day decisions are taken by the steering group. It is co-chaired by the European Commission and two industry associations (ERTICO and ACEA) and meets six times per year.
- **The Working Groups:** specific strategic or technological topics are discussed in working groups. So far, there have been eleven working groups, all chaired by industry representatives. Some of them have already concluded their work, others are running, new ones may come up.

For more information please go to the eSafety and eScope web sites. (see box overleaf)



2010. "To bring the benefits of eSafety to all road users in Europe is therefore a top priority for the European Commission" (Viviane Reding*).

- Car and transport markets are global. If road safety is to benefit from the single European market, the industries involved must have a common approach to Intelligent Safety systems. The eSafety Forum guarantees necessary co-ordination.
- Last but not least, much road traffic is in itself transnational. Just think of holiday traffic. Safety systems must therefore be interoperable and reliable under different natural and national conditions.

Policy activities

The work done in the different eSafety bodies leads to policy or research recommendations addressing all expert stakeholders.

The 1st Commission communication

Taking into account eSafety working group recommendations of November 2002, the European Commission adopted and published a first communication to the Council and the European Parliament in September 2003, "Information and Communications Technologies for Safe and Intelligent Vehicles". The most important single action envisaged in this communication was the development and deployment of a pan-European in-vehicle emergency call service, eCall. (see reference above)

With this political tailwind, the members of the "eCall Driving Group" elaborated a Memorandum of Understanding on the Europe-wide roll-out of eCall. So far it has been signed by more than 40 interested parties.

Based on the Memorandum, the Driving Group also developed an implementation plan for eCall. The target date when all new cars should be equipped with eCall is September 2009. This "Plan for success" was approved by industry at a high-level meeting of the eSafety Forum on 3 February 2005.

The 2nd Commission communication

Among the signatories of the Memorandum of Understanding, there are six EU Member States now (12/2005): Greece, Finland, Italy Lithuania, Slovenia and Sweden. Switzerland has signed it as well. The commitment of all the Member States to eCall is crucial for the pan-European use of the system, because rescue centres all over Europe must have the capacity to receive the calls and to react to them.

In a second Commission communication, adopted on 14 September 2005, the Commission therefore calls on the Member States to reinforce their support for eSafety and eCall and to invest in the

necessary emergency infrastructure for eCall, with a view to launch the Europe-wide service in 2009.

Another Commission communication is under preparation in the winter of 2005/2006: a renewal of the 1999 "European statement of principles on human-machine interface". It aims at a common approach of the European industry to the problem of the driver's interaction with the new safety devices in the car in order to guarantee that the growing complexity of the safety systems does not pose a safety risk in itself.

Research activities

eSafety's activities draw on the achievements of previous research programmes. At present, several research projects are partly funded by the 6th European Framework Programme. From its 1st Call for tenders, projects PREVENT, AIDE and some others were retained. PREVENT looks into preventive active safety systems, e.g. devices that help the driver keep safe distance from the car ahead, while AIDE conducts research on human-machine interaction.

Several interesting proposals from Call 4 were chosen for negotiations in the summer of 2005. Most of them focus on co-operative safety systems (e.g. CVIS, SAFESPOT and COOPERS). These are systems by which vehicles communicate with one another or the infrastructure. Others cover priorities such as Accident causation analysis (TRACE) or the economic benefits society might gain from a take-up of eSafety systems (eIMPACT).

**Member of the European Commission responsible for the Information Society and Media*

See Also:

- Fact sheet 35: i2010
- Fact sheet 44: European emergency number 112
- Fact sheet 49: eCall

All fact sheets and more can be downloaded from "Europe's Information Society Thematic Portal", below

Further Information

- **eSafety Home Page:**
http://europa.eu.int/information_society/activities/esafety/index_en.htm
- **Europe's Information Society Thematic Portal:**
http://europa.eu.int/information_society/
- **eScope – the eSafety Observatory:**
<http://www.escope.info>
- **Information Society and Media Directorate-General, Unit G4 – ICT for Transport:**
Av. de Beaulieu 31, 1160 Brussels
infso-g4@cec.eu.int