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The Commission's Intelligent Car Flagship under the i2010 initiative: Questions and Answers

What are "intelligent cars" and i2010 flagship initiatives?

Promoting the development of cars that are smarter, safer and cleaner is part of the EU's "European Information Society 2010" (i2010) strategy to boost growth and jobs in the digital economy (see [IP/05/643](#)). The "intelligent car" is one of three i2010 "flagship initiatives" that aim to show how information and communication technology (ICT) can improve our public services and quality of life (the other two are "technologies for an ageing society", and "digital libraries").

The key aims of the "intelligent car" flagship initiative are to:

- co-ordinate the efforts of stakeholders, citizens, Member States and industry to accelerate the development and take-up of these technologies,
- support R&D on smarter, cleaner and safer vehicles, with funding from the EU's seventh research framework programme (FP7) and facilitate the take-up and use of research results. This should include a set of field operational tests to assess in real-world environments the impact of eSafety systems on driver behaviour and driving dynamics (EU intelligent car research priorities are fully supported by the European Road Transport Research Advisory Council - ERTRAC), and
- build awareness of the benefits of e-safety technologies, so as to stimulate demand among drivers. This work will include regular technology demonstration events and targeted TV programmes.

Why a Commission flagship initiative on the intelligent car?

Modern society depends heavily on mobility. Yet most transport problems, such as congestion of trunk routes and in urban areas, harmful effects on the environment and public health, waste of energy and above all, accidents which cause fatalities, injuries and material damage, have yet to be overcome. The "intelligent car" flagship will be a powerful tool for reaping the benefits of ICT in the transport sector.

In the EU, traffic congestion costs amount to € 50 billion per year or 0.5% of Community GDP, and by 2010 this figure could go up to 1% of EU GDP. The number of cars per thousand persons rose from 232 in 1975 to 460 in 2002. The overall distance travelled by road vehicles has tripled in the past 30 years, and in the past decade, the volume of road freight traffic has grown by 35%, contributing to 7,500 kl or 10% of the network being affected daily by traffic jams.

Systems that use advanced ICT provide targeted solutions to today's transport problems. For example, if all vehicles in the EU were equipped with automatic emergency call (eCall) technology by 2010, road accident fatalities could be reduced by 5-15%. Moreover, eCall could reduce time lost to traffic congestion by between 10% and 20%, with cost savings of €2 to 4 billion.

Autonomous Cruise Control (ACC), which helps to avoid rear-end collisions, could save up to 4,000 accidents per annum if 3% of vehicles were equipped with it by 2010.

Lateral Support (lane departure warning and lane change assistant) could save 1,500 accidents per annum if only 0.6% of vehicles were equipped with it by 2010, or 14,000 accidents per annum if 7% of vehicles were equipped with it by 2020.

The AWAKE project, which developed a Driver hypovigilance system that wakes up drowsy drivers, estimated that technology like this could prevent up to 30% of fatal crashes on motorways and 9% of all fatal crashes.

What is the Commission communication on intelligent cars all about?

The Commission communication on intelligent cars calls upon citizens, the industry and EU Member States to work together to solve transport-related societal problems and to improve the take-up of information and communication technologies to this end. The communication presents the intelligent car initiative as a policy framework for actions in this area. The intelligent car initiative has three pillars: the eSafety Forum, the ICT research programme and awareness-raising actions.

Who are the key players in this flagship initiative?

First we have the citizen, who cannot be expected to invest in technology unless its benefits are clear. Then we have the EU automotive industry, which makes about 17 million vehicles per year and employs, (including its suppliers), close to 2 million people in Europe, with a worldwide turnover of more than € 450 billion. ICT suppliers will also help the automotive industry to boost its competitiveness. Finally, we have EU Member States, which play a vital role in providing political support for technology take-up.

Examples of intelligent car projects

PReVENT

PReVENT is a European automotive industry project, co-funded by the European Commission, to improve road safety by developing and preventive safety applications and technologies. The total cost is about €55 million, of which the Commission is contributing €29.8 million.

Preventive safety applications help drivers to avoid or mitigate accidents by using in-vehicle systems that sense the nature and significance of the danger, while taking the driver's state into account. PReVENT has over 50 partners, including industry (12 car manufacturers and 16 parts suppliers), public authorities, research institutes, universities and other public and private bodies.

CARTALK

CARTALK is an advanced driver support system based on vehicle to vehicle communication technologies. It started in August 2001 as a three-year project which is funded within the Information Society Technologies cluster of the EU's 5th Framework Programme for R&D. The aim is to develop a mobile ad hoc network as a first step in the development of future co-operative systems for road safety.

A vehicle sends a warning message when it detects a breakdown, high traffic density, congestion, or dangerous road surfaces. This allows early warnings to be sent to other vehicles on the same road, and makes it possible to brake early when a car hidden by the one in front is already braking. This system can also help to prevent misunderstandings between drivers already on a highway and those trying to enter it (7 partners, including a car manufacturer, a parts supplier, research institutes and universities).

<http://www.prevent-ip.org/>

<http://www.cartalk2000.net/>

More intelligent car projects

http://europa.eu.int/information_society/activities/esafety/doc/medias/car_showcases.pdf

See also

[IP/05/1137](#)

[IP/06/191](#)