

Brussels, 22 February 2006

European research to advance road safety

€100 million have been made available from the Sixth Framework Programme for Research that will advance the safety of drivers, passengers and pedestrians. This background note provides information about a few key projects, many of which feed into European and international working groups on vehicle safety and supports European transport and industrial policies.

Reducing death and injury due to road accidents

The APROSYS project is looking to make a specific contribution to reducing road deaths among 4 specific groups: car occupants, motorcyclists, truck occupants and pedestrians and cyclists. Results will include new mathematical models of the human body to help with car design; a worldwide, harmonised female crash test dummy for side impact testing; new tools for design, implementation and evaluation of intelligent safety systems; test methods and protection systems for injury reduction.

<http://www.aprosys.com/>

Reducing whiplash injuries

2 projects are looking at how whiplash occurs and therefore what measures can reduce its effects. The results of these projects feed into legislation on passive safety measures such as head restraints in cars, and a new dummy developed through the project has been marketed to several car companies and research organisations.

<http://www.passivesafety.com/whiplash1/>

Improving passive safety

Passive safety looks to limit the negative consequences of accidents through improved vehicle standards and safety systems. A Network of Excellence has been established with 53 partners from industry and academia to create a long-term integrated research programme in the area of passive safety. By working together, the partners will be able to make the most of the research they do at European, national and regional levels and make sure there is better take-up of the results of that research.

<http://www.passivesafety.com/>

Improving crash compatibility between cars

Several EU-funded research projects are providing direct input to regulatory groups looking at the issue of car-to-car compatibility, which can be defined as the ability of a vehicle to protect its own occupants in case of a crash with another vehicle. The projects have developed potential test procedures such as a load sensing wall for assessing frontal impact across the width of the car, and tests with barriers designed to measure how stiff the front of the car is. A current project is looking at ways to improve compatibility of impact at the front or side.

<http://vc-compatibleproject.net/>

Daytime running lights

A project is developing a headlamp system based on LEDs (light emitting diodes). Such a system can produce more brightness for up to 50% less energy than existing halogen lamps, as well as providing a platform for car-to-car or car-to-infrastructure communication in the future.

Better crash test dummies

To improve the safety of car occupants and pedestrian, it is important to be able to make a realistic assessment of crash situations to predict and therefore prevent injuries. There are several projects which have advanced the technology of dummies, so they can provide more accurate information. Both adult and child dummies are developed and the work of some of these projects has fed into the creation of an international agreement on crash test dummies.

<http://www.wt.tno.nl/fid/mframe.html>

<http://www.passivesafety.com/siber/>

In-vehicle system to sense danger

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. The PREVENT project, which is developing such applications has over 50 partners, including industry (12 car manufacturers and 16 parts suppliers), public authorities, research institutes, universities and other public and private bodies.

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

Improved safety through car-to-car communication

CARTALK is an advanced driver support system based on vehicle to vehicle communication technologies. 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. The project is comprised of 7 partners, including a car manufacturer, a parts supplier, research institutes and universities.

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

Road sector working together to identify its research agenda

The European Road Transport Research Advisory Council is an organisation bringing together representatives from all road transport sectors, consumers, vehicle manufacturers, component suppliers, road infrastructure operators and developers, service providers, energy suppliers, research organisations, cities and regions as well as public authorities at both European Union and national level. They have developed a common vision and common strategic research agenda for the sector, which has safety and security as one of its key components.

<http://www.ertrac.org/>