PROJECT

APSN

Network of Excellence on Advanced Passive Safety

**Funding:** European (6th RTD Framework Programme)

**Duration:** Apr 2004 - Mar 2008

**Status:** Complete with results

**Total project cost:** €3,800,000

**EU contribution:** €3,800,000

**Call for proposal:** FP6-2002-TRANSPORT-1

**CORDIS RCN:** 74288

**Background & policy context:**

The growing demand for greater mobility in European society has made transport an essential feature of modern living. However, the price paid for mobility in European society in terms of deaths and injuries is far too high. Though the number of road accidents dropped significantly at the beginning of the 1990s, the trend has been less marked in recent years. In 2000, road accidents killed over 40,000 people in the EU and injured more than 1.7 million. The directly measurable cost of road accidents is in the order of € 45 billion.

For many, the high number of road fatalities is the most severe problem facing Europe today, the greatest threat to public safety, and one of the direst catastrophes in history. In any other context, the loss of so many lives would constitute a major disaster, demanding immediate and drastic action. But getting the safety message across, largely a problem of communication is not as easy as it sounds.

The European Commission advocates a cost-benefit approach in the formulation of future road safety policy: there is economic justification for taking measures valued up to € 1 million in order to save one single life. The White Paper European transport policy for 2010: 'Time to Decide' calls for a reduction by half in the numbers of deaths on the road in this decade. This reduction can be attained through research actions to reach socio-economic improvements, among others a European network of excellence on passive safety of vehicles and road infrastructure.

Another important objective is the strengthening of the European automotive industry's competitiveness for the future. The integration of knowledge and resources to design and build cost-effective and safer vehicles will contribute to this goal.

Although actions to reduce the occurrence of accidents are being undertaken (better roads, better brakes, better driver education and enforcement), it is a fact of life that some accidents will still occur, as human error can never be completely eliminated. The Passive Safety Network therefore concentrates on minimising the damage in cases where accidents do occur, in order to reduce fatalities and injuries.


**Objectives:**

In contrast with its predecessor this Network of Excellence (NoE) specifically aimed at establishing a durable integrated European vehicle passive safety research and implementation programme and the creation of a Virtual Centre of Excellence (VCE). The overall aim of APSN was to mobilise the European scientific and business expertise in vehicle passive safety to accelerate improvements in road safety in order to reduce the annual road victims in the European Union.

Specific objectives of the APSN were:

- to integrate research activities in the field of secondary safety at European, national and regional level to overcome duplication of research efforts. An example of this integration is the Integrated Project (IP) APROSYS initiated within EVPSN2;
• to facilitate technology transfer and accelerate dissemination of ongoing research activities, including EC funded R&D projects;
• to establish links with initiatives in neighbouring fields of interests like active vehicle safety, road infrastructure safety, railway safety and aircraft safety;
• to identify 'white spots' and initiate new R&D projects in the areas of, among others, restraint systems, materials, biomechanics and computer simulation;
• to accelerate the dissemination of results of passive safety research as well as the implementation and harmonisation of new and proven passive safety measures throughout Europe;
• to investigate and implement new ways for interactive working between research teams, i.e. enhanced electronic information and communication networks, new research platforms, sharing research facilities, etc.

Methodology:

The focus of the APSN activities was on those topics that would contribute to a progressive and durable integration. In particular:

• develop and start a coordinated programme for the sharing of facilities and setting-up common research guidelines;
• analyse the financial, legal (including Intellectual Property Rights) and organisational issues regarding the set-up of an association or other type of legal entity, and formalise the collaboration;
• develop and start a coordinated programme for new knowledge generation and sharing;
• develop and start a clustered joint research agenda related to road (vehicles) (passive) safety in consultation and collaboration with other stakeholders in the field;
• develop and start a coordinated programme for the exchange and training of researchers;
• develop and demonstrate the new APSN/VI website portal, hosting the completed APSN databases, the encyclopaedia and other functionalities.

Parent Programmes:
FP6-SUSTDEV-3 - Global Change and Ecosystems

Institute type: Public institution
Institute name: European Commission
Funding type: Public (EU)

Lead Organisation:

Nederlands Organisation For Applied Scientific Research

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Schoemakerstraat 97
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Organisation Website:
http://www.tno.nl
EU Contribution: €0

Partner Organisations:

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Organisation Website:
http://www.rwth-aachen.de
EU Contribution: €0

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EU Contribution: €0

Frauenhofer Gesellschaf Zur Foerderung Der Angewandten Forschung E.v.

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http://www.martrans.org

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To Be Defined

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Crowthorne House Nine Mile Ride
WOKINGHAM
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http://www.trl.co.uk
Key Results:

Durable integration of research activities

In order to realise its objectives, APSN started as a network with 55 members, with expertise varying from vehicle and restraint system manufacturers, computer modelling and software companies to international, research and educational organisations like universities and crash test and biomechanical research institutes.

The activities of APSN focused on vehicle passive safety, but had a strong link with pre-crash and post-crash issues, the integration with active safety and a link with road infrastructures. Standardisation, harmonisation and legislation issues were also included. Safer road transport can only be accomplished through a joint European effort in the areas of R&D, testing, harmonisation of regulations and dissemination and transfer of knowledge.

Dissemination of on-going research activities

The objective of dissemination of research activities was reached through the organisation of 21 workshops on a range of topics like pedestrian and cyclist safety, motorcycle safety, materials, heavy truck safety, post crash issues etc. Each year a conference was organised bringing together the passive safety research community, with participants not only from Europe, but also Japan, the United States and Australia. The annual conference was organised once in cooperation with the IP APROSYS and once jointly with the International Research Council on Biomechanics of Injury (IRCOBI). In addition, two training courses were organised, one on computer modelling in passive safety and one on post crash activities. APSN was especially active in creating interaction with and among young researchers in the safety field by organising a young APSN conference each year and issuing a young APSN award.

Links with initiatives in neighbouring fields of interests

Within Work Package 5 (WP5) User Groups, one of the user groups was specifically dedicated to non-road safety. Several workshops were organised, together with working group 4, especially the group dealing with materials and crashworthiness. A preliminary roadmap was delivered in the field of railway passive safety and contacts established with railway organisations that deal with passive safety and with aerospace organisations. With respect to integrated safety, a working group was active, leading to the definition of an evaluation concept for establishing a distributed European infrastructure for special targeted or integrated projects.

Documents:

- Publishable Excecutive Summary.pdf (Other project deliverable)

STRIA Roadmaps: Other specified

Transport mode: Multimodal transport
Transport sectors: Passenger transport, Freight transport
Decarbonisation, Societal/Economic issues,
Transport policies: Safety/Security
Geo-spatial type: Other