

PROJECT

EIMPACT

Socio-economic Impact Assessment of Stand-alone and Co-operative Intelligent Vehicle Safety Systems (IVSS) in Europe

Funding: European (6th RTD Framework Programme)

Duration: Jan 2006 - Jun 2008

Status: Complete with results

Total project cost: €2,519,299

EU contribution: €1,598,044



Call for proposal: FP6-2004-IST-4

[CORDIS RCN : 80586](#)

Background & policy context:

Intelligent Vehicle Safety Systems (IVSS) possess great potential to increase the safety and effectiveness of the transport system. Socio-economic assessment is an important force for acceptance and implementation of the applications. It is needed to analyse the efficiency of IVSS-applications from an individual and a societal point of view. The balance between costs and benefits of those IVSS that can be expected to have a significant impact in the next 10-15 years- will be the basis for the development of a roll-out strategy for IVSS.

Objectives:

The eIMPACT project, 'Socio-economic Impact Assessment of Stand-alone and Co-operative Intelligent Vehicle Safety Systems (IVSS) in Europe', addressed the need to quantify the effects of the systems in order to support decision making about research, investments, deployment incentives, etc. eIMPACT was part of the EU's Sixth Framework Programme for Information Society Technologies and Media.

The main objectives of eIMPACT were:

- To carry out a socio-economic impact assessment of IVSS, based on a description of relevant IVSS, and their expected impacts on traffic safety and efficiency;
- To provide perspectives on the market introduction of IVSS, integrating the input from the impact analysis, policy options and stakeholder roles.

eIMPACT supported the eSafety initiative for the development, deployment and use of Intelligent Integrated Safety Systems in Europe.

Methodology:

The socio-economic impact assessment had the central role in this project. This methodology, developed in the SEiSS project (2005), was extended in this project to address the stakeholder-specific analysis. All other work packages and tasks were defined in relation to the socio-economic impact assessment. Key activities included the identification of the most promising stand-alone and co-operative IVSS technologies; the development of scenarios for IVSS for the years 2010 and 2020, the assessment of the traffic safety and efficiency impacts of the IVSS in these scenarios; and the identification of policy options available for enabling the implementation of IVSS. The output will be a socio-economic impact assessment including cost-benefit results, stakeholder benefits and costs and macroeconomic effects.

To carry out its work, eIMPACT chose an integrated approach in both methodology and work flow. The structure of this report followed the logical structure of the work flow used in carrying out the project. The Project WPs were the following:

- WP0: Project Management and Services;

- WP1: Inventory and recommendations for in-depth socio-economic impact assessment of Intelligent Vehicle Safety Systems (IVSS);
- WP2: Evaluation Frame and Socio-economic Cost-Benefit Analysis;
- WP3 Impact assessment of Intelligent Vehicle Safety Systems;
- WP4 Policy options for facilitating market introduction;
- WP5: Stakeholder Analyses and Overall Evaluation Results;
- WP6: Dissemination, Integration of Results and Final Workshop.

The consortium consisted of 13 partners, representing OEM's (original equipment manufacturers), research institutes and universities, covering both the older and newer EU states.

Parent Programmes:

[FP6-IST - Information Society Technologies - Priority Thematic Area 2 \(PTA2\)](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

Nederlandse Organisatie Voor Toegepast Natuurwetenschappelijk Onderzoek - Tno

Address:

Van Mourik Broekmanweg 6
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Organisation Website:

<http://www.eimpact.info>

EU Contribution: €272,375

Partner Organisations:

Valtion Teknillinen Tutkimuskeskus

Address:

Vuorimiehentie
1000 ESPOO
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Organisation Website:

<http://www.vtt.fi>

EU Contribution: €127,950

Bundesanstalt Für Strassenwesen (Federal Highway Research Institute)

Address:

Brüdenstrasse 53
51427 BERGISCH GLADBACH
Germany

Organisation Website:

<http://www.bast.de>

EU Contribution: €159,911

Centro Ricerche Fiat - Societa Consortile Per Azioni

Address:

Strada Torino, 50
10043 ORBASSANO (TO)
Italy

Organisation Website:

<http://www.crf.it>

EU Contribution: €107,355

Ministerie Van Verkeer En Waterstaat**Address:**

BOOMPJES
3000 BA ROTTERDAM
Netherlands

EU Contribution: €90,875

Robert Bosch Gmbh**Address:**

Robert-Bosch Platz
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Germany

Organisation Website:

<http://www.bosch.com>

EU Contribution: €41,964

Ptv Planung Transport Verkehr Ag**Address:**

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Organisation Website:

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EU Contribution: €115,684

Irion Management Consulting Gmbh**Address:**

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Germany

EU Contribution: €110,880

Daimler Ag**Address:**

Mercedesstrasse
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Organisation Website:

<http://www.daimler.com>

EU Contribution: €73,400

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12033 STOCKHOLM
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EU Contribution: €38,250

Bmw Forschung Und Technik Gmbh**Address:**

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EU Contribution: €19,320

Universitaet Zu Koeln**Address:**

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Organisation Website:

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EU Contribution: €406,000

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VINOHRADY
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Czech Republic

EU Contribution: €34,080

Key Results:

eIMPACT contributed valuable knowledge about the types and magnitude of the benefits for twelve IVSS. eIMPACT developed complete, exhaustive and integrated methodologies for socio-economic impact assessment, exploration of policy options, and extension of the CBA to stakeholder analysis. These were applied successfully in the project to produce an integrated impact assessment of twelve IVSS. The approach could be used in the future to assess other stand-alone and cooperative IVSS as well as other ICT systems. The methodologies can be applied to safety systems as well as systems that may have other primary effects.

New information available in the future can be used to improve the estimates provided by eIMPACT. For example, Field Operational Tests in Europe, Japan and the US can provide valuable empirical data about driver behaviour, attitudes, risk, exposure willingness to pay and cost data needed for evidence, improved assessments and systems. Such information can be used to improve the impact assessments of systems such as those addressed by eIMPACT.

Furthermore, the eIMPACT accident trend forms an important input to the safety impact assessment and the CBA. Improved accident forecasts can also produce more accurate safety impact estimates and CBA. Future accident trend forecasts can be improved by continued efforts toward a unified EU general accident database in which definitions (e.g. injuries, road types, etc.) are harmonised across the EU. These continued efforts should begin to take into account the potentials of new safety systems in the road safety prognoses.

Note: The assumptions on which the penetration rates and impact assessments were based were obtained from state-of-the-art sources, whether that be literature or discussion with experts. The results presented in the eIMPACT deliverables reflect the knowledge of the partners in the eIMPACT consortium.

Documents:

 [Final Report and Integration of Results and Perspectives for market introduction of IVSS \(Final report\)](#)

STRIA Roadmaps: Cooperative, connected and automated transport

Transport mode: Road transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Safety/Security, Digitalisation

Geo-spatial type: Other