

PROJECT

NEARCTIS

Network of Excellence for Advanced Road Cooperative Traffic Management in the Information Society

Funding: European (7th RTD Framework Programme)

Duration: Jul 2008 - Jun 2013

Status: Complete with results

Total project cost: €3,134,212

EU contribution: €2,500,000



Call for proposal: FP7-ICT-2007-2

[CORDIS RCN : 87274](#)

Background & policy context:

NEARCTIS is an academic network involving several of the main teams working in the field of traffic management and optimisation, with a particular focus on cooperative systems. Within the field of ICT for mobility, the project deals more specifically with the question of cooperative systems for road traffic optimisation, but it covers a wider scope as it appears that cooperative systems have to be integrated into the whole traffic management system. This aims to develop systems able to cope with what are the main problems at stake: safety, energy consumption, environmental impacts and congestion as an obstacle to mobility.

Objectives:

The main objective of the project was to constitute what could be considered as a virtual research institute. This means elaborating the main elements of this reach institute: building a consistent research programme, defining a set of shared resources (data, experimental means, bibliographical databases), organising the spreading of knowledge and research results. To reach these objectives, the project included a harmonisation of the research programme of all the partners on the various topics addressed, specification of case studies to be made together, and the elaboration of a dissemination and training programme for researchers and professionals. A focus was made on spreading excellence towards the scientific community of the field, particularly for the European Union newcomers.

Methodology:

The project was designed as a first step towards constituting a permanent virtual institute ensuring consistency between research programmes and good mutualisation of resources. Tight relationships with the international scientific community, but also with the main stakeholders of the field (traffic operators, local authorities, consultants or manufacturers) were ensured through a network of associated partners who are involved into all the main activities of the project.

Parent Programmes:

[FP7-ICT - Information and Communication Technologies](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

Institut Francais Des Sciences Et Technologies Des Transports, De L'aménagement Et Des Réseaux

Address:

BOULEVARD ISAAC NEWTON 14 CITE DESCARTES 14-20

77447 MARNE LA VALLEE CEDEX 2
France

Organisation Website:

<http://www.ifsttar.fr>

EU Contribution: €233,407

Partner Organisations:

Imperial College Of Science Technology And Medicine

Address:

Exhibition Road, South Kensington
LONDON
SW7 2AZ
United Kingdom

Organisation Website:

<http://www.imperial.ac.uk>

EU Contribution: €205,347

Ecole Polytechnique Fédérale De Lausanne

Address:

Batiment Ce 3316 Station 1
1015 LAUSANNE
Switzerland

Organisation Website:

<http://www.epfl.ch>

EU Contribution: €257,276

Deutsches Zentrum Fr Luft Und Raumfahrt E.v

Address:

Linder Hoehe
51147 KOELN
Germany

Organisation Website:

<http://www.dlr.de>

EU Contribution: €163,817

University Of Southampton

Address:

Highfield
Southampton
SO17 1BJ
United Kingdom

Organisation Website:

<http://www.soton.ac.uk>

EU Contribution: €270,525

Europe Recherche Transport

Address:

AVENUE FRANCOIS MITTERRAND 25

69675 BRON
France

Organisation Website:

<http://www.ert-sas.fr>

EU Contribution: €415,547

Institut National De La Recherche Sur Les Transports Et Leur Securite

Address:

2 Avenue du General Malleret Joinville
94114 ARCUEIL
France

Organisation Website:

<http://www.inrets.fr>

EU Contribution: €183,141

University College London

Address:

Gower Street
London
WC1E 6BT
United Kingdom

Organisation Website:

<http://www.ucl.ac.uk>

EU Contribution: €270,922

Polytechnio Kritis

Address:

Agiou Markou Str.
73132 Chania
Greece

Organisation Website:

<http://www.tuc.gr>

EU Contribution: €282,840

Technische Universiteit Delft

Address:

STEVINWEG 1
2628 CN DELFT
Netherlands

Organisation Website:

<http://www.tudelft.nl>

EU Contribution: €217,178

Technologies:

Unclassified
Non-technology

Key Results:

NEARCTIS developed a harmonised programme of research in the form of a thematic agenda. This

agenda was organised according to the seven research themes. They discussed the nature and interpretation of each of these themes and synthesise the relevant contributions. This thematic presentation of a research agenda was intended to form the basis of a harmonised programme of research. The broad base of expertise within the NEARCTIS consortium led to identification of the main topics and issues of research to be addressed in order to develop and exploit the potential benefits of cooperative ICT for traffic management. The agenda was extensive and included a wide range of topics but still remains open to extension and enrichment from complementary research ideas. The programme included scope for many projects, each with specific objectives.

The seven research themes under which the NEARCTIS Harmonised Research Programme was developed are:

1. Increased availability of mobile communications
2. Increasing data availability
3. Improved modelling at all scales
4. The need for communication between autonomous systems
5. An understanding of the consequences of interactions at various levels
6. Achieving effective large-scale management of transport systems and their efficient usage
7. Support for policy developers and decision makers

Innovation aspects

The framework developed helps to identify ways in which contributions can be made. This has led to formulation of an agenda for research that will be required to develop and exploit the opportunities for advances in traffic management that are furnished by ICT. By doing this, the project gives some perspective on future opportunities and identifies the actions that will be required to realise them.

Strategy targets

- An efficient and integrated mobility system:
 - Secure Transport
 - Acting on transport safety: saving thousands of lives
 - Service quality and reliability
- Innovating for the future: technology and behaviour
 - A European Transport Research and Innovation Policy
 - Promoting more sustainable development

Documents:

 [D.1.1 - Document management procedures \(Other project deliverable\)](#)

STRIA Roadmaps:

Cooperative, connected and automated transport, Network and traffic management systems

Transport mode: Road transport

Transport sectors: Passenger transport, Freight transport
Digitalisation, Societal/Economic issues,

Transport policies: Decarbonisation

Geo-spatial type: Other