TRANSPORT RESEARCH KNOWLEDGE CENTRE FOR THE EUROPEAN RESEARCH AREA

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Abstract

The Directorate General for Energy and Transport of the European Commission has launched in 2002 a project to develop a web site, the Transport Research Knowledge Centre, providing information and analysis on research funded at European level and research in the individual countries of the European Research Area. The paper outlines the concepts and previous experiences on which the development of the Knowledge Centre builds, the processes for the collection of information, the set of products that will be included in the web site and those which are available as a result of the initial activities of the project.

Information on research projects are reported on in a harmonised way according to standard forms providing basic factual information plus key results and policy implications. Thematic analyses are carried out on research findings based on a structure tailored to the needs of policy makers including thirty themes with four dimensions: geography/sector, mode, sustainability policy objective, and tool. Further thematic analyses are conducted and published in the form of policy brochures according to the forthcoming needs of the European Commission. An overview of the transport research programmes of the EU and in thirty countries has been produced in the initial activities of the project.

Keywords: Information systems; European research area; Transport research programmes; Transport research projects
Topic area: I Information Networks on Transport Knowledge

1. Introduction

The Directorate General for Energy and Transport of the European Commission has launched in 2002 an initiative to develop a web site providing information and analysis on transport research in Europe. The web site is being developed by a project, called EXTR@Web ("Exploitation of Transport Research Results Via the Web"), funded within the Key Action "Sustainable Mobility and Intermodality" of the Growth Programme of the Fifth Framework Programme. A European consortium, including academic organisations, industry organisations and consultancies, participates in the project.

The project aims to provide and promote a virtual knowledge centre, the Transport Research Knowledge Centre (TRKC) where policy-makers, researchers and other stakeholders find structured and user-friendly access to transport research across Europe. The Centre is meant to support research activities and the policy-making process by providing a permanent archive of research results and the related policy implications for transport research funded at European level and transport research funded in the individual countries of the European Research Area.

Other, complementary aims of the project are:

- to provide an electronic hub for inter-connecting European and national research programmes into an easily navigable European network;
- to establish a common scheme for the structure and content of the reporting of transport research results;
- to provide analytical outputs that are structured and tailored according to the needs of policy makers;
- to raise awareness of the new service.

The paper focuses on the outcome of the initial stages of the EXTR@Web project which are aimed at providing the structure of the knowledge base and the methodology for its creation. The paper is meant to illustrate how results are collected and reported on in the web site. The paper outlines the concepts and previous experiences on which the development of the Knowledge Centre builds, the processes for the collection of information, the main products that will be stored in the web site under development, and a summary of the information on research in Europe collected in the initial activities of the project.

2. Background and motivations

The Transport Research Knowledge Centre (TRKC) supports the development of the European Research Area (ERA), launched at the European Council of Lisbon in March 2000. The Council set the strategic objective of the EU becoming the most competitive and dynamic knowledge-based economy in the world. In order to achieve this, an approach was proposed to prepare the transition to a knowledge-based economy based on policies in the domains of information society and research and development.

The idea of the ERA stems from the recognition of the lack of a proper environment to stimulate research and exploit results and of the fragmented nature of activities and the dispersal of resources. The main aim of the ERA is to support co-operation initiatives in the research sector. Further information on the ERA is on the web site of the Directorate General Research of the European Commission "Towards a European Research Area" at http://europa.eu.int/comm/research/era/index_en.html.

Databases and information systems are mentioned among the instruments available to the European Union to bring the ERA into being (European Commission, 2000). One element of the European strategy for the ERA is therefore the creation of a shared knowledge base on the research activities carried out at international and national levels.

This serves the purpose of the ERA of creating an internal market in research and an area of free movement of knowledge and technology, at the same time increasing co-operation, stimulating competition and achieving a better allocation of resources. By enabling access to outputs of research activities, the knowledge base has an impact on both the research conduct and the exploitation of research results whether by public policy makers or decision makers in the industry.

The knowledge base:

- helps ensure that research is conducted efficiently, by reducing the risks of duplicating efforts and mobilising the proper capacities for compensating or amplifying co-operations,
- facilitates the transfer of good practice across Europe,
- helps ensure that opportunities for new products or technology transfer are recognised and highlighted to the appropriate decision levels.

In addition, the knowledge base can have an impact for the EU policy making process in terms of improvement of the co-ordination of national research activities and policies. Co-ordination aims at promoting a consensus on research priorities of common interest and drawing together work on common problems. As an example, by knowing who is doing what, the European Commission can prepare studies or call for tenders with the relevant professionals. Last but not least, knowledge about new and risky approaches and corresponding problems lead to widespread lessons learned for the next steps.

In an attempt to ensure full support from the individual countries to the initiative, the European Commission formed an Advisory Group of representatives nominated by the Research and Transport Ministries of the European countries. The Advisory Group holds periodic meetings to monitor the activities of the EXTR@Web project. The Advisory Group is expected to feed the views and needs from the individual countries into the EXTR@Web project, as well as support the enforcement of the agreed standards and structures for reporting at national level.

Some of the representatives sitting in the Advisory Group of the EXTR@Web project are members of the European Platform for Co-operation and Co-ordination of Transport Research (EPTR) whose aims include, among the others, the identification of themes of common interest and the support to the development of the work programmes of the Framework Programmes of the European Commission.

3. Antecedents

EXTR@Web is the follow-up project of a previous project called EXTRA (Exploitation of Transport Research) funded within the Transport Programme of the Fourth Framework Programme (FP4). EXTRA had developed a web site (http://europa.eu.int/comm/transport/extra/home.html), which was restricted to the research projects (more than 270) funded within the FP4 Transport Programme of former DGVII (Transport) of the European Commission. The projects covered seven sectors: strategic research, rail transport, integrated transport chain, air transport, urban transport, waterborne transport, road transport. The items uploaded in the web for the projects of the Transport Programme are shown in Table 1 below.

Table 1. Items in the web site of the EXTRA Project

Project summaries	
Downloadable final project reports	
Thematic overviews	1. Integrated policy aspects of sustainable mobility 2. Environmental aspects of sustainable mobility 3. Economic aspects of sustainable mobility 4. Social aspects of sustainable mobility 5. Urban transport 6. Efficiency and quality 7. Safety and security 8. Human factors 9. Interoperability 10. Freight intermodality
Policy brochures	1. Sustainable mobility 2. Clean urban transport 3. European transport networks 4. Single European Sky 5. Maritime Safety 6. Freight intermodality 7. Getting prices right 8. Road safety 9. Intelligent transport systems

The Transport Research Knowledge Centre (TRKC) being developed by the EXTR@Web project is intended to play in Europe the role that in the US is played by the Research In Progress (RIP) web site of the Transportation Research Board (TRB) where a database of research projects throughout the US is maintained and updated on a continuous basis (http://rip.trb.org/).

The RIP web site allows for retrieving projects with two facilities:

- a "search project" facility, where the user provides free text which is searched for in title, abstract and index terms; a wild-card search facility is included (i.e. partial words, e.g. "econom*" for economics, economic, economy, economies);
- a "browse project" facility, where the user chooses among recently added projects, subject category, organisation, persons.

The RIP web site provides for each project a record of basic information including abstract, start and end dates, status (proposed, planned, active, inactive, terminated, completed) and source organisation. The user can then have access to a detailed view including funding, details of the contract, contacts in the sponsor and performing organisations. Researchers can provide data on their projects on-line. No analysis of research results is provided.

No facility with a scope and coverage similar to the TRKC exists today in Europe, where the only example of web which collects EU-wide research results is the German FIS (Forschungs-Informations-System) which is a proprietary, restricted-access system of the Federal Ministry of Transport, Building and Housing. The FIS, however, implements a top-down approach where research findings are presented to respond to specific policy questions. Provable information is provided as traceability allows the user to know the source of every statement. Traceability is also useful to cope with the ageing problem, i.e. information becoming out-of-date. In addition, policy views from governments are reported on to make evident the differences with policy views from research.

The only existing public web resource dedicated to transport research with a European dimension is the Transport Research Capacity in Northern Europe (RECAP) which only provides a database of organisations involved in research on transport (http://www.ntf-recap.org/). The RECAP web site, which is an initiative by the Ministry of Transport and Communication in Finland and Vinnova, the Swedish Agency for Innovation Systems, covers ten countries: Sweden, Finland, Norway, Iceland, Germany, Poland, Denmark, Estonia, Latvia and Lithuania. Information on address and areas of activities of the organisations is included.

Information on research is found in the web sites of the main European programmes such as the Framework Programmes for research, technological development and demonstration of the European Commission (information in the CORDIS web site: http://www.cordis.lu), and the international co-operation programme for market-oriented and industrial research EUREKA (http://www.eureka.be). Forms on individual projects are included with a focus on objectives and contact details of the participants. Only seldom information on the results of the projects is included.

4. Inputs to the transport research knowledge centre

The main challenge is the provision of timely and condensed information excerpted from the vast amount coming out from projects in a way which cost-effectively makes the user aware of the sources that can meet his information needs. Target users of the TRKC are the public policy makers, decision makers in the product and service sector, influencers, and the research community. Priority is given to the information needs of policy makers in public institutions.

Two levels for information collection are considered: programme and project. A difficulty arises in the definition of the terms programme and project in view of the variety of schemes across international institutions and individual countries. In any case, a review of the research structures existing internationally and nationally is beyond the scope of the work of the EXTR@Web project.

In a wider meaning, which is the one adopted, programmes include formal programmes on transport, funding schemes under which research on transport, among the other research themes, can take place, less structured set of activities of a major institution financing and/or performing research on transport. Formal programmes at international level may also restrict to co-operation and co-ordination schemes without provision of additional funding.

Research projects with public funding differ in structure between the EU context and the national one: while EU projects have a formal co-ordination structure and involve each two or more organisations, nationally the situation is sometimes found where contracts are signed with individual organisations and co-ordination among organisations researching on the same or similar subjects only occurs informally or ex-post.

The selection of programmes and projects for inclusion in the TRKC is consequence of its policy orientation. Priority is given, in a descending order, to transport systems and concepts, integrated use of technologies and methodologies in infrastructures and vehicles, individual technologies and methodologies adjusted for use in transport.

At the backbone of the TRKC is the geographic network created to cover, in addition to international research, national research in thirty countries of the ERA: the EU15, the ten Countries acceding in 2004 (Poland, Hungary, Czech Republic, Slovakia, Estonia, Latvia, Lithuania, Slovenia, Malta, Cyprus), plus Norway, Iceland, Switzerland, Bulgaria and Romania.

For each programme at international level and for each country there is a contractor or subcontractor of the EXTR@web project acting as accumulation point. He is responsible for collecting and structuring information on individual programmes and projects. The activities of the contractors and subcontractors are supported by a Benchmarking Group of representatives of the thirty countries, nominated by the competent ministries, having the role of guaranteeing access to national information ("door opening"), agreeing priorities for programme/project selection and validating outputs.

The key success factor for the development of the Centre is the clear understanding of the benefits that those who sponsor and carry out research can reap from door opening and information disclosure.

The key information providers are the public institutions sponsoring research and the research community performing research. The former are expected to provide information at the programme level and disclose research topics, beneficiaries of research grants and funding conditions. The latter are expected to provide information on the individual projects where they are involved and disclose project aims, methodologies and results achieved. A different structure of the incentives for disclosing information applies to these two actors.

Incentives for public institutions include the achievement of the objectives of the ERA by the identification and mapping of initiatives and expertise, and the launch of new co-operation initiatives that call for critical mass, complementary skills and show a cross-border nature of problems. Also, they have an interest to make the supply of research meet the demand arising from political decision makers, industrialists and investors.

Incentives for the research community have been explored in a paper by Barba Navaretti et al. (1996). Incentives are different whether the researcher feels closer to the "science" or the "technology" institution. In an ideal world, in the science institution peer group esteem is the main value, disclosure and priority are the norms, and incentives include eponimy, search for co-operation and research grants. In the technology institution profit is the main value, secrecy and patents are the norms, and incentives include the search for new partnerships/alliances, new markets and new funding.

5. Products of the transport research knowledge centre

The set of products which are provided by the TRKC include (Table 2):

- listing of programmes and projects with contact details and URL,
- reporting forms on individual programmes and projects,
- aggregate analyses on research results according to themes of policy relevance.

Table 2. Main products of the EXTR@Web project

	A. Listing	B. Individual	C. Aggregate
Programme	A.1 Lists of European and national programmes with contact details and URL (I)	B.1 Programme Forms for European and national programmes (E/I)	C.1 Pan-European Compendium with national overviews of research activities and organisations (I)
Project	A.1 Lists of European and national projects by programme with contact details and URL (I)	B.1 Project Profile Form for European and national projects (E/I) B.2 Progress Summary Form for European and national projects (E/I) B.3 Result Summary Form for European and national projects (E/I) B.4 Thematic analyses on postable themes for European and national projects (I)	C.1 Thematic papers on postable themes (I) C.2 Policy brochures on themes according to European Commission policy priorities (I)

Key: I = produced internally by the EXTR@Web consortium; E = produced externally by the source of a programme or the co-ordinator of a project

Information on research programmes and projects are reported on in a harmonised way across funding institutions and countries, according to standard forms providing basic factual information plus key results and policy implications of the projects. To this aim, a Common Reporting Scheme is developed which includes one summary form for individual programmes, and three forms for individual projects according to the stage of development:

- a project profile,
- a progress summary and
- a result summary form.

Forms are available on-line for direct compilation by the sponsors (programme form) and the researchers (project forms) using the shared-web facility (extranet) set by the EXTR@Web project at http://www.transport-research.info/web/login/Login.aspx?ReturnUrl=%2fDefault.aspx. The EXTR@web team is responsible for quality checking, and, as a fall back option, for compilation.

In addition to programme and project forms, the Centre provides thematic analyses of project results. Projects are labelled according to relevant themes which are pre-defined according to a four-dimension structure including sector/geography, mode, sustainability policy objective, and tool to achieve policy objectives (Table 3). These thirty pre-defined, postable themes provide the modular structure for the thematic analysis stage.

The structure reflects the policy orientation of the TRKC and aims to provide outputs that meet the needs of transport policy makers at both European and national level.

Analyses are conducted at both project and cross-project levels for each postable theme. Aggregate, i.e. cross-project analyses give rise to thematic papers. The thematic papers include a fixed part which provides definition of the theme as well as an outline of the significance of the theme in terms of priorities of the current transport policy in the EU. This is followed by the aggregate research findings derived from the analyses conducted on the individual projects.

Bullet-point type analyses for the themes of the third and fourth dimension (policy objective and tool) are provided for each project as an input to the thematic papers. Thematic findings for the themes of the first and second dimension (sector/geography and mode) are excerpted directly from the key findings section of the result summary form of each project. In each thematic paper research findings are structured according to clusters of projects, which represent subthemes of research relevance.

In addition to thematic papers, there will be, in the future stages of the EXTR@Web project, policy brochures on other, non-postable, themes based on flexible prioritisation according to the needs of the European Commission (as an example maritime safety).

As main targets of the TRKC are policy makers and research managers, particular emphasis is given, in both the reporting and the thematic analysis stage, to the policy implications of the research results. Policy implications include the relevance and interest of the project to stakeholders, the foreseen future developments, the ensuing and exploitation actions already initiated by stakeholders, and the recommendations for further actions.

According to availability of information and importance the programmes included in the TRKC are covered to different depths, some being only listed, some having a programme form compiled. Projects also are covered with different depths: priority 3 projects are only listed, priority 2 projects have reporting forms, priority 1 projects have reporting forms and thematic analyses.

Prioritisation of programmes and projects follows the policy orientation of the TRKC: the system view prevails on the level of individual technologies and components. Additional criteria for prioritisation of projects include EU policy priority, national policy priority, EU dimension of the problem, success story in policy terms, learning from failures in policy terms, local interest to disseminate and gain visibility.

Table 3. Postable themes for analysis of project results

1 Sector/geography	*2. Mode*	*3. Policy objective*	*4. Tool*
1.1 Passenger	2.1 Air	3.1 Economic aspects	4.1 Decision support tools
1.2 Freight	2.2 Rail	3.2 Efficiency	4.2 Financing tools
1.3 Urban	2.3 Road	3.3 Equity and accessibility	4.3 Information and awareness
1.4 Rural	2.4 Waterborne	3.4 Environmental aspects	4.4 Infrastructure provision (including TENs)
1.5 Regional	2.5 Other modes	3.5 User aspects (ergonomics, quality, choice, rights)	4.5 Integration
1.6 Long-distance	2.6 Intermodal	3.6 Safety and security	4.6 Intelligent Transport Systems
1.7 EU Accession issues			4.7 Regulation/deregulation
			4.8 Land use planning
			4.9 Transport management
			4.10 Pricing and taxation
			4.11 Vehicle technology

The initial information collection activities of the EXTR@Web project have been related to the programme level. EU programmes as well as programmes in the individual countries have been identified and listed with contact details and URL. For a selected number programme forms have been provided. For each of the main EU and national programmes a database of projects has been compiled. The database provides contact details and URL (where existing) for each project. In addition, a compendium has been published where the main programmes and organisations supporting and performing research for each of the thirty countries are shortly reviewed (EXTR@Web, 2003).

The main results from the activities carried out for the programme level are summarised in Table 4. The table restricts to the major programmes currently still on-going. The list focuses on the national programmes that cover land transport as well as strategic and intermodal issues.

At European level, most of the research activities are carried out within the Framework Programmes of the European Commission. The COST actions, which aim at providing state-of-the-art reviews for themes where research is being carried out in different countries, are a minor initiative.

In addition, a number of EU-funded programmes exist which, although may have a research component, have mainly an application character. These include: the Marco Polo programme of the Directorate General (DG) Energy and Transport on freight intermodality, the Multi-annual Indicative Programme (MIP) of DG Energy and Transport on trans-European network projects, the Interreg III programme of DG Regional Policy dedicated to cross-border and trans-national co-operation. A number of transport projects promoted in the industrial sector are included in the Eureka programme of international co-operation.

The interest of the TRKC concentrates on the Fifth Framework Programme (formally covering the period 1998-2002, still some projects on-going). The Key Action Sustainable Mobility and Intermodality of the Growth Programme, which includes more than 120 projects, is the focus of the TRKC due to its prevailing system perspective and policy orientation.

At national level there are countries which have formal programmes covering a wide range of research activities in transport, like the Predit programmes in France covering land transport (the Predit 3 is running today), other countries have programmes with more limited scope. In some cases, individual projects falling into areas of priorities for research are funded by public bodies such as ministries and administrations. In other cases, transport is only one research theme within a general scheme of public funding.

In the conventional schemes of research programmes, co-ordination is carried out by a public institution, being it a minister or an agency or any entity committed for the management. In more innovative schemes, programmes are co-ordinated by public-private partnerships. One example of the latter is the public-private foundation Connekt in the Nertherlands, which in 2003 has proposed the Transition to Sustainable Mobility programme (TRANSUMO).

In some cases there are sub-national, e.g. regional, programmes. Two examples are the activities of the Federal States in Germany (Bundesländer) and of the Regional Governments in Spain. In France exist some regional research groupings. At an intermediate level between European and national programmes are bilateral or multi-lateral programmes between countries. One example is the Franco-German Deufrako initiative covering rail transport.

Table 4. Main current research programmes on transport in Europe

European/Country	*Programme Title*	*Programme Source*	*Programme focus and URL*
European	FP5 GROWTH KA2 - Fifth Framework Programme, Competitive and Sustainable Growth Programme, Sustainable Mobility and Intermodality Key Action	European Commission, DG Energy and Transport	Socio-economic scenarios and policies for sustainable mobility, infrastructure, vehicles and their operations, modal and intermodal transport management systems and services http://dbs.cordis.lu/fep/GROWTH/GROWTH_PROJl_search.html
	FP5 GROWTH KA3 - Fifth Framework Programme, Competitive and Sustainable Growth Programme, Land Transport and Marine Technologies Key Action	European Commission, DG Research	Technology developments for more efficient, intelligent, clean and safe land vehicles, more efficient, safe and environmentally- friendly vessels, technology platforms for advanced concepts of land vehicles and vessels and for transhipment http://dbs.cordis.lu/fep/GROWTH/GROWTH_PROJl_search.html
	FP5 GROWTH KA4 - Fifth Framework Programme, Competitive and Sustainable Growth Programme, New Perspectives in Aeronautics Key Action	European Commission, DG Research	Technology developments for reducing aircraft development cost and time to market and for improving efficiency, environmental friendliness, operational capability and safety of aircraft; technology platforms for concepts of future aircraft http://dbs.cordis.lu/fep/GROWTH/GROWTH_PROJl_search.html
	FP5 EESD KA4 - Fifth	European	Methodologies in urban planning towards sustainable transport, comparative

	Framework Programme, Energy Environment and Sustainable Development Programme, City of Tomorrow and Cultural Heritage Key Action	Commission, DG Research	assessment and demonstration of new transport technologies and related infrastructure http://www.cordis.lu/eesd/ka4/projects.htm
	FP5 EESD KA6 - Fifth Framework Programme, Energy Environment and Sustainable Development Programme, Economic and Efficient Energy for a Competitive Europe Key Action	European Commission, DG Research	Alternative propulsion systems and energy infrastructure for public and private road vehicles http://www.cordis.lu/eesd/src/proj_eng.htm
	FP5 IST KA1 - Fifth Framework Programme, Information Society Technologies Programme, Systems and Services for the Citizens Key Action	European Commission, DG Information Society	Next generation of user-friendly, dependable, cost-effective and interoperable general-interest services: in-vehicle applications and integrated safety, info-mobility and location-based services, intelligent infrastructure for all modes and intermodality http://www.cordis.lu/ist/ka1/trans_tourism/home.html
	COST - Co-operation in Science and Technology	International co-operation	Co-ordination of national research on common themes in all modes and intermodality http://www.cordis.lu/cost-transport/home.html
Austria	I2 – Intelligente Infrastruktur,	Bundesministerium für Verkehr,	Fostering intelligent inrastructure http://www.bmvit.gv.at/sixcms/detail.php/template/i/_e1/3/_e2/2/_e3/1000/_r

	Intelligent Infrastructure	Innovation und Technologie (BMVIT) Federal Ministry for Transport, Innovation and Technology	elid/776/_relid2/781/
	A3 – Austrian Advanced Automotive Technology	idem	Development of innovative technologies in the automotive sector http://www.bmvit.gv.at/sixcms/detail.php/template/i/_e1/3/_e2/2/_e3/1000/_relid/776/_relid2/780/
	ISB – Innovatives System Bahn, Innovative Railway System	idem	Shifting goods traffic from road to rail http://www.bmvit.gv.at/sixcms/detail.php/template/i/_e1/3/_e2/2/_e3/1000/_relid/776/_relid2/779/
	MOVE – Mobilität und Verkehrstechnologien, Mobility and Transport Technologies	idem	http://move.take-oev.at/
	Programm für die Förderung des kombinierten Güterverkehrs Straße-Schiene-Schiff, Programme for the Advancement of Combined Road-Rail-Waterborne Freight Transport	idem	http://www.bmvit.gv.at/sixcms/detail.php/template/i/_e1/3/_e2/1/_e3/1000/_relid/1039/_relid2/2108/
Belgium	PADD II – Deuxiéme Plan d'appui scientifique à une politique de	Service Public Fédéral de Programmation (SPP) Politique	Transport issues within "Sustainable Production and Consumption Patterns" http://www.belspo.be/belspo/fedra/prog.asp?!=en&COD=CP

	développement durable, SPSD II - Second Scientific Support Plan for a Sustainable Development Policy (2001-2005)	Scientifique, Federal Public Planning Service (PPS) Science Policy	
Czech Republic	Optimisation of the Transport System and its Sustainable Development	Ministry of Transport and Communication (MDCR)	4 sub-programmes focusing on sustainable passenger and freight transport and its restructuring
Finland	HEILI – Henkilöliikenteen strateginen tutkimus, Passenger Information Programme	Ministry of Transport and Communication	Information services and incident management in public transport http://www.heili.info/indexen.html
	LINTU – Liikenneturvallisuuden pitkän aikavälin t & k-ohjelma, Long-term Research and Development Programme for Road Safety	idem	http://www.lintu.info/english.htm
	TEDIM – ohjelma, Telematics in Foreign Trade Logistics and Delivery Management in the Baltic Sea Area	idem	Integrating information and communication systems for logistics http://www.tedim.com
	FITS – Liikennetelematiikan rakenteiden ja	idem	Improving public and commercial transport services http://www.vtt.fi/rte/projects/fits/indexe.htm

	palveluiden tutkimus- ja kehittämisohjelma, Research Programme on ITS Infrastructure and Services		
	VALO – Verkostojen ajantasainen logistiikka, Real-time logistics in Networks	idem	Development of logistics processes of companies http://www.valo-ohjelma.fi/englishfr.html
France	PREDIT 3 – Programme de Recherche et de Développement pour l'Innovation et la Technologie dans les Transports Terrestres, Land Transport Research Programme	4 Ministries (transport, environment, research and industry) and 2 government agencies (environment/energy management and valorisation of research)	11 fields of research known as operational groups: 1. mobility, territories and sustainable development, 2. services and mobility, 3 new knowledge for security, 4. security-oriented technologies, 5. logistics and transport of goods, 6. technologies for goods transport, 7. energy and environmental impact, 8. clean and energy-saving vehicles, 9. integration of information and communication systems, 10. vehicles and infrastructure, 11. transport policies http://www.predit.prd.fr
Germany	Forschung und Technologie für Mobilität und Verkehr, Research and Technology for Mobility and Transport	BMBF - Bundesministerium für Bildung und Forschung, Federal Ministry of Education and Research	Covers the following sub-programmes: Mobility in Conurbations (MOBIBALL), A better Understanding of Mobility (MOBEV), Quiet Transport, Leisure-time Traffic, Mobility Information Services, Regional Public Transport, Flexible Transport Chains, Towards Minimal Emission, Optimised Transport Logistics for Recycling and Waste Management, and Rail System 2010 http://www.tuvpt.de/

	Schiffahrt und Meerestechnik (Fachprogramm), Waterborne Transport and Maritime Technology Sector Programme	BMBF - Bundesministeriu m für Bildung und Forschung, Federal Ministry of Education and Research	Ship technology, shifting transport to coastal waters and inland waterways
	Nationales Luftfahrtforschungs-programm, National Programme Aeronautics Research	BMWA - Bundesministeriu m für Wirtschaft und Arbeit, Federal Ministry of Economics and Labour	Air transport growth and environmental protection, safety and passenger friendliness, economic efficiency http://www.dlr.de/PT-LF/lufo/03_07/Lufo3.html
Ireland	Pilot Transport Research Programme	Department of Transport and Higher Education Authority	Public transport, road infrastructure, urban freight distribution
Italy	FAR – Fondo per le Agevolazioni alla Ricerca, Fund for Research Facilitation	MIUR – Ministero istruzione Università e Ricerca Scientifica, Ministry of Education University and Research	Industrial research in technological innovation for vehicles, vessels, aircraft
	PRIN – Progetti di Rilevante Interesse Nazionale, Projects of National Interest	MIUR – Ministero istruzione Università e Ricerca Scientifica,	University research in civil engineering, industrial and information engineering, economics http://www.cofin.cineca.it

		Ministry of Education University and Research	
	Piano Nazionale per la Sicurezza Stradale, Road Safety Plan	Ministero Infrastrutture e Trasporti, Ministry of Infrastructures and Transport	Pilot projects for road safety http://www.infrastrutturetrasporti.it/main/facciamo/amm_llpp/dirgen/ispettorati/stradale/PNS/PNS.html
Netherlands	Connekt - Publiek Privaat Kennisnetwerk voor Verkeer en Vervoer, Public Private Innovation Network for Traffic and Transport	Public-private foundation (4 Ministries: Transport, Economic Affairs, Science and Education and Environment and Housing).	Managing traffic and mobility by introducing administrative organisational innovations, Developing know-how with regard to the need for and value of mobility, providing a platform for knowledge-exchange and standardisation in the field of ITS (Intelligent Transport Systems). http://www.connekt.nl
Norway	POT – Program for Overordnet Transportforskning, Programme for Superior Transport Research	Samferdselsdepartementet, Ministry of Transport and Communication	Strategic research on transport economics and planning
	RISIT – Risiko og Sikkerhet i Transportsektoren, Risk and Safety in Transport	Norges Forskningsråd, Research Council of Norway	Knowledge regarding risk perception, risk management within the transport sector
Romania	AMTRANS – Amenajarea teritoriului si transporturi,	Ministerul Educatiei si Cercetarii,	Transport integrating systems, technologies and services to provide compatibility with international transport systems http://www.ipa.ro/AMTRANS/index.html

	Territory Arrangement and Transport	Ministry of Education and Research	
Spain	Programa nacional de Transportes y Ordenación del Territorio, National Transport and Land Use Programme	MCYT - Ministerio de Ciencia y Tecnologia, Ministry of Science and Technology	Under the PROFIT (Programme for the Promotion of Technological Research) framework, transport safety and security, integrated transport management, land planning and sustainable development, intelligent transport systems and services
Sweden	Transport Programmes	VINNOVA, Swedish Agency for Innovation Systems	Several transport-related programmes: The use of Energy in the Transport sector, Public transport, Logistics and Freight Transport, Maritime Safety, Transport Policy Publications, Innovative vehicles for different transport modes, innovative logistics and freight transport systems http://www.vinnova.se
	Banverkets FoU-program för åren 2000-2005, Research and Development Programme 2000-2005	Banverket, Swedish National Rail Administration	Railway transport system: development in a social perspective, competitiveness from a market perspective, efficiency, safety and environmental adjustment http://www.banverket.se
	Inriktningsprogram för Fou för åren 2000-2009, Research and Development Programme 2000-2009	Vägverket, Swedish National Road Administration	Road safety, traffic safety, safer vehicles, a good environment, increased accessibility, increased transport efficiency, infrastructure, the transportsystem in the city http://www.vv.se
Switzerland	Transport Co-ordination Basics Programme	ARE – Swiss Federal Office for Spatial Development	Capacity-linked levy on heavy goods vehicles, fair and efficient prices, leisure traffic, spatial effects of transport infrastructure http://www.are.admin.ch/are/fr/index.html
United Kingdom	Road Safety	Department for Transport	http://www.dft.gov.uk/stellent/groups/dft_science/documents/page/dft_science_504474.hcsp
	TSD/ILT – Transport	Idem	http://www.dft.gov.uk/stellent/groups/dft_science/documents/page/dft_scienc

Strategy and Integrated Local Transport		e_504476.hcsp
Vehicle Technology	idem	http://www.dft.gov.uk/stellent/groups/dft_science/documents/page/dft_science_504475.hcsp
TET – Transport Environment and Taxation	Idem	http://www.dft.gov.uk/stellent/groups/dft_science/documents/page/dft_science_504477.hcsp
Freight logistics	idem	http://www.dft.gov.uk/stellent/groups/dft_freight/documents/page/dft_freight_026881.hcsp
Rail	idem	http://www.dft.gov.uk/stellent/groups/dft_control/documents/contentservertemplate/dft_index.hcst?n=6193&l=1
LINK Programmes	Idem	Partnership industry and academia, future integrated transport, inland surface transport http://www.dft.gov.uk/stellent/groups/dft_science/documents/page/dft_science_504480.hcsp
New Horizons	idem	Creative solutions for transport problems by independent researchers http://www.dft.gov.uk/stellent/groups/dft_science/documents/page/dft_science_025626.hcsp
Foresight Vehicle Programme	Department for Trade and Industry	Components and systems for the vehicles of the future http://www.foresightvehicle.org.uk

6. Conclusion

The web site of the Transport Research Knowledge Centre is ready and includes initial information on European and national research programmes and projects. At the time of this paper (February 2004) the site is only waiting for the go-ahead of the European Commission for being public. It will be operating under the site of the Directorate General Energy and Transport of the European Commission (http://europa.eu.int/comm/transport/index_en.html).

The user of the TRKC web site will be provided with reporting and analysis outputs, access to original public documentation on the projects, as well as search and retrieval capabilities which, building upon postable themes and free text search, allow iterative focusing and the real-time conduct of analysis on user-defined themes. The user will be able to search for programme or projects with the option of selecting based on criteria of geography (European and country) and date (to cut older items). In addition, the user will be provided with complementary information on events such as conferences and workshops, and linkages to main organisations sponsoring and performing research on transport across the ERA.

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