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Related European Projects

Research on other projects about traffic data collecting and harmonisation between them and AlpCheck system

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Document Status Sheet

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1.0	7th Feb 2007	First release.	
1.1	8th March 2007	Added SWISS Alpine Transport Observatory and WORLDNET projects by ICCR	
1.2	11th March 2007	Minor changes by Slala	

Document Change Report

Main changes from previous version:	

Contents

Introduction

This document is output of WP 5-14 (User Requirements – Research on other projects about traffic data collecting and harmonization between them and AlpCheck system) AlpCheck project. This document has been designed to help AlpCheck partners to get a snapshot on projects which, for different reasons and in different ways, could be usefull for achieved results, for methodology or for analytical aspects.

As you'll see it is not a homogeneous collection. Reported projects were born and developed by different teams in different years with different aims, so it was truly hard to invest in a reorganization work during the short time reserved for WP 5-14. Nevertheless a common exposure has been given to help readers to understand valuable aspects.

So we have to admit it is not a complete collection; we count more than thirty projects on mobility and data traffic so it was necessary to proceed in a pre-evaluation work. We proceeded to choose those projects which, for documentation availability, for methodology, for interested area, for purposes, can provide real contributes to our goals. In order to select a project we follow these criterias:

- Documentation availability
- Aims or what problematic was concerned on
- General purpose and general usefullness
- Geographical interested area

We postponed Alps area related projects to more general in scope projects in order privilege projects based on theoretical and methodological aspects about data collecting and organization. This idea was pursued on the belief that AlpCheck, as Informative System, has to be (very) well designed rather than to search for similar projects in order to get ready made frameworks and artefacts. However, we can assure we didn't neglect Alp Space program projects. It may be possible we inadvertently lost usefull project, we apologize in the case and we'll be ready to follow partners' suggestions and indications to integrate the work.

For every project in this document you'll find a brief exposure, as introduction under the project title heading, in which we noted why it had to be here and some tips to deep for further analysis. More you'll find four subchapters:

- Abstract
- Partners
- Topic
- Results

Topic subchapter contains the "special" aspect, the salient one, of each project. Often it will be the most valuable aspect for AlpCheck.

Some materials, phrases, paragraphs were entirely reproduced from original contents, in some case they were only adjusted to fit in a more convenient manner. As usual: all contents are property of relative owners.

We wish you'll find usefull this work.

Nicola Bassi

1 Project: Corvette

Project's object is "Co-ordination and validation of the deployment of advanced transport telematic systems in the Alpine area" and it is one of the seven projects behind the TEMPO program.

Surely it is one of older European project concerning info mobility, and one of more longlived because its birthdate is in 1996. The original project's track has been revised (and updated) more and more times. At now the Corvette project covers national initiatives which cooperate each other on the basis of communication protocols set in formerly phases. In Results subchapter you'll see these national initiatives.

In 2004 Corvette was given a structure on Domain basis to best distribute roles and issues, you'll see in a subsequent chapter a brief description of these Domains.

Corvette is one of the most interesting projects to look as mobility related data source.

The information collected hereafter was found on the project's official site (http://www.corvette-mip.com). The contents has been reorganized to easy a fast approach. Contents are properties of respective authors.

1.1 Abstract

CORVETTE as a whole is a long term process begun with the implementation study in phase I (summer 1996 to autumn 1997), the ITS infrastructure deployment in Phase II (summer 1997 to summer 1999) up to the organisation of ITS services in Phase III (summer 1999 to winter 1999), with an increased emphases on infrastructure investments.

The fourth phase of the CORVETTE project was started in continuation of the CORVETTE phase III in April 2000 and covers one and a half years. In this phase of the project emphasis is given on the implementation aspects. Attention will be given to services to European travellers in order to improve significantly the impact of ITS on safety. A core part is the development of international traffic management plans in response to major traffic incidents on international transit routes, a topic which was already preliminary studied in phase III. New points of interest were introduced, such as inter-modal information to users and international management of dangerous goods.

CORVETTE TEMPO was launched in April 2001 in parallel to the final months of CORVETTE IV and incorporated a Domain structure which allowed the project to cover additional topics from eight different content domains plus Management. For phase 2004 the domain structure was altered to four domains plus Horizontal Issues and Management by integrating the domains 6 and 7 into domain 3 and domain 5 into domain 4. One of the most important achievements is the international network of data connections set up between different Traffic Information Centers (TIC) and Traffic Control Centers (TCC) in the CORVETTE region in order to improve traveller information services by supplying information on traffic disturbances in other regionas and thus enable well educated intelligent route decisions before starting a cross-border trip.

The CORVETTE project covers four regions in the alpine area:

- **Bavaria (Germany)**
- **Austria**
- **Northern Italy**
- **Switzerland**.

Additionally a close cooperation was realised with the Slovenian region due to its strong interrelation with traffic streams originating from or passing through the CORVETTE region.

The **CORVETTE MIP** project develops and implements Intelligent Transport Systems (ITS) on the Trans European Networks (TEN) with the support of the European Commission DG TREN.

The CORVETTE project recognises the importance of ITS in making better use of road networks and in providing information to the European traveller. All the involved partners have concentrated their efforts to elaborate and deploy new ITS systems and to enhance the existing ones in order to improve the quality of the services and to guarantee the continuity and interoperability of the services through the borders.

1.2 Partners

The following authorities, institutions and companies are partners in the CORVETTE TEMPO project. A link to the web site of each respective partner will open in a separate window if you click on the name of a partner.

Italian Partners

- ANAS - Ente Nazionale per le Strade S.p.A.
- Autostrada Brescia-Verona-Vicenza-Padova S.p.A.
- Autostrada Centro Padane S.p.A.
- Autostrada del Brennero S.p.A.
- Autostrade per l´Italia S.p.A.
- Autovie Venete S.p.A.
- Ministero delle Infrastrutture e dei Trasporti - Dipartimento per i Trasporti Terrestri e per Sistemi Informatici e Statistici (International Project Coordinator) - Dipartimento per il Coordinamento dello Sviluppo del Territorio – Direzione Generale per la Programmazione
- Ministero dell´interno - Polizia Stradale
- Società Autostrada Torino-Alessandria-Piacenza S.p.A. (SATAP)
- Servizio Utenza Stradale (SUS)
- Società delle Autostrade di Venezia e Padova S.p.A.

German Partners

- Institut fuer Rundfunktechnik (IRT)
- Logistik-Kompetenz-Zentrum Prien am Chiemsee
- Oberste Baubehoerde im Bayerischen Staatsministerium des Innern (OBB)

Austrian Partners

- Autobahnen- und Schnellstraßen-Finanzierungs-Aktiengesellschaft (asfinag)
- Bundesministerium für Verkehr, Innovation und Technologie (bmvit)
- Oesterreichischer Rundfunk (ORF)

Swiss Partner

- Bundesamt für Strassen (Swiss Federal Road Authority - ASTRA)

1.3 Domains

Domains describe defined content areas in which implementation and study projects take place. A Domain is substructured into Sub-Domains which allow for a more precise content related grouping of projects with similar activities across all regions. The Domain structure was changed between the project phases MIP 2003 and MIP 2004. Within this restructuring process the former Domains 5, 6 and 7 were integrated into the Domains 3 and 4 while the Domains 8 and 9 were kept for content related reasons.

The following list describes the content areas in which CORVETTE is currently engaged.

Domain 1: Road Monitoring Infrastructures

This domain includes the following activities:

- **Sub-Domain 1.2: Fixed data capture stations and control systems:** to install and test several fixed systems that allow to extend the existing monitoring network (e.g weather detectors, inductive loops, video-cameras, IR sensor, radar etc.).
- **Sub-Domain 1.3: Mobile data capture stations and control systems:** to study, install and test mobile data capture stations and control systems.

Domain 2: European Network of Traffic Centers (TIC)

This domain includes the following activities

- **Sub-Domain 2.2: TCC/TIC Upgrading:** to implement the necessary systems upgrade to secure new functions of traffic management in the TIC/TCC's including co-ordinated plans and actions across the CORVETTE Area.
- **Sub-Domain 2.3: Cross-border information exchange systems:** to achieve consensus for the necessary interchange agreements for data exchange in the area, to pave the way for using data exchange and to prepare a framework for tests and verification of data exchange links in the CORVETTE Area.

Domain 3: Traffic Management and Control (TMC)

This domain includes the following activities:

- **Sub-Domain 3.1: Traffic Management Plans:** to guarantee an international and co-ordinated approach to the traffic management plans in the CORVETTE Area with special view to the East-West and North-South corridors in the project area.
- **Sub-Domain 3.2: Urban/Interurban interfaces:** to install and operate systems integrating urban and interurban control strategies in order to improve the overall traffic management and co-ordinate information to the users.
- **Sub-Domain 3.4: Tactical Management and Control:** to install and test tactical management and control systems including LCS (speed and lane control, emergency warning etc.) in order to improve traffic management and safety.
- **Sub-Domain 3.5: Safety issues:** to assess the results of the Project (visible and perspective) from the safety impact point of view and fostering the tunnel safety by installation of modern Tunnel Control centres and tunnel control systems.
- **Sub-Domain 3.6: Electronic fee collection:** to raise the interoperability of EFC systems and to adapt EFC technologies.
- **Sub-Domain 3.7: Incident and emergency management:** Development, implementation and deployment of systems aimed to monitor and report incidents rapidly

and accurately, to limit the number of vehicles involved and reduce the consequences of incidents.

Domain 4: Traveller Information Services (TIS)

This domain includes the following activities:

- **Sub-Domain 4.3: Journey time prediction across modes and borders:** to study algorithms and plans to provide the real time journey time prediction of national and international level. Particular attention will be dedicated to the integration of peri-urban and interurban environment.
- **Sub-Domain 4.4: Roadside information and fixed points of information:** Studies, installation, implementation and evaluation of Variable Messages Signs and other fixed points of information (e.g. kiosks) in order to improve traffic management and traffic safety.
- **Sub-Domain 4.5: In-vehicle information and navigation systems:** Studies and implementation added value traveller information services by in- vehicle information and navigation systems (e.g. DAB, radios ect).
- **Sub-Domain 4.6: Internet and telecommunications based services and studies:** to enhance the existing transport information services provided through the WEB to more intelligent services and to generate a network of linked services in the whole CORVETTE Area (CORVETTE Portal).
- **Sub-Domain 4.9: Freight and fleet information:** to establish an over-regional and multilingual freight information and management system in order to ease the planning and management of dangerous and heavy goods transport and to increase the effeciency of freight transport, especially of intermodal/multimodal transport operations; to foster the interaction of transport operation and traffic management.

Domain 8: Horizontal Issues

This domain includes the following activities:

- **Sub-Domain 8.1: System Architectures:** to ensure wide consensus and endorsement of key stakeholders on the Italian National Architecture for ITS and to develop Italian National Architecture plans for ITS.
- **Sub-Domain 8.2: Evaluation:** to evaluate interoperable TIS services in the CORVETTE regional areas, following target level of quality of services already agreed in the previous project phase.

Domain 9: Project Management

- **Sub-Domain 9.1: International project management:** to assure the respect of milestones and deadlines of all partners involved in the CORVETTE project; to eleborate and edit documents and to organize, participate and moderate project meetings.
- **Sub-Domain 9.2: Regional / local project management:** to assure the respect of milestones and deadlines of the regional partners; to give organisational and administrative support to the partners; to coordinate information flows.
- **Sub-Domain 9.3: Management of cross-fertilization:** to disseminate CORVETTE experience among the other European countries; to take relevant issues and spread technical best practices from similar foreign experiences to CORVETTE partners.

- **Sub-Domain 9.4: Dissemination, communication and public relation:** to present the CORVETTE project and to foster the inward and outward communication.

1.4 Results

The CORVETTE project is set to financially support specific measures for traffic control, management and information in order to achieve a harmonised approach towards the challanges of tomorrow. Below you will find some short descriptions of projects included within CORVETTE which shall give you a brief picture about the nature of projects coordinated and funded within out common framework.

Traffic Management Plans (TMPs)	**Region: Bavaria, Austria, Switzerland, Italy**
Traffic Management Plans within the CORVETTE project provides a platform for developing harmonised regional and cross-border traffic management and user information services on the Trans-European Road Network throughout the central Alps. Details...	
Ms. Susanne Judmayr Autobahnen- und Schnellstraßen-Finanzierungs-Aktiengesellschaft, ASFINAG Phone: +43 1531 34 19871 Fax: +43 1531 34 19820 E-mail: Susanne.Judmayr@asfinag.at	
Long-Distance Corridor (LDC) Demonstration	**Region: Ireland, United Kingdom, France, BeNeLux, Germany, Austria, Switzerland, Italy**
The Long-Distance Corridor Demonstration project has been set up by the CENTRICO, STREETWISE and CORVETTE TEMPO projects in 2004 to further stimulate and develop cross-border and cross-regional traffic information and management over longer distances on the Trans-European Road Network. Details...	
Mr. Jochen Boesefeldt Autobahnen- und Schnellstraßen-Finanzierungs-Aktiengesellschaft, ASFINAG Phone: +43 1531 34 19872 Fax: +43 1531 34 19820 E-mail: Jochen.Boesefeldt@asfinag.at	
Mare Nostrum	**Region: ARTS, CORVETTE, SERTI**
The aim of the project is to define and test new solutions to improve the harmonisation of messages displayed on Variable Message Signs (VMS) and to facilitate the acquisition of information for international drivers. Details...	
Luciana Iorio Ministero delle Infrastrutture e dei Trasporti Direzione Generale della Motorizzazione e della Sicurezza dei Trasporti Terrestri Phone: +39 06 415 86 287 Fax: +39 06 415 83 253	

Traffic Management and Information System (VMIS)	Region: Austria

All traffic guidance units in the ASFINAG network, together with the comprehensive traffic data recording and all information screens, video cameras etc. are to be connected to the traffic management and information centre which is currently being built. It will be the most modern traffic control centre in Europe. Details…

Mr. Norbert Deweis
Autobahnen- und Schnellstraßen- Finanzierungs-Aktiengesellschaft
(ASFINAG)
Phone: +43 (0)1 531 34 19710
Fax: +43 (0)1 531 34 19720
E-mail: norbert.deweis@asfinag.at

Alpenflash	Region: Bavaria

Traffic congestion can be avoided by intelligent decisions of the driver based on actual traffic information. Following this lead the traffic information centre Bavaria is providing an internet based traffic information service using real time traffic data and traffic events. Details…

Mr. Axel Burket
HB-Verkehrsconsult on behalf of the Obersten Baubehorde im bayerischen Staatsministerium des Innern
Phone: +49 89 54 91 84 88
Fax: +49 89 54918488
E-mail: axel.burkert@hbvc.de

CORVETTE MIP	Region: Italy

CORVETTE project affects most of the motorways in the North of Italy and their main offshoots towards the Central regions. The Ministry of Transport is the promoter of the project in Italy since 1996 and were joined by other partners such as the Ministry of the Interior (Polizia Stradale) and some of the most relevant motorway's operators and road's user service societies. Details…

Luciana Iorio
Ministero delle Infrastrutture e dei Trasporti
Direzione Generale della Motorizzazione e della Sicurezza dei Trasporti
Terrestri
Phone: +39 06 415 86 287
Fax: +39 06 415 83 253

www.truckinfo.ch	Region: Switzerland

The fire in the Gotthard road tunnel on October 24, 2001, following the Mont Blanc tunnel disaster 20 months earlier, highlighted the fact that the arterial routes crossing the Alps constitute a vulnerable part of the Trans-European Road Network (TERN). Faced with this situation, the DETEC decided to implement a website for HGV traffic, with the aim of providing a tool for intermodal route planning and mode selection transfer HGV on rails in the Alpine transit corridors. Details…

Mr. Gerhard Petersen
Swiss Federal Roads Authority, Bern
Phone: +41 31 322 94 11/67
E-mail: gerhard.petersen@astra.admin.ch

2 Project: SERTI

SERTI project is surely a very interesting case study for AlpCheck, in particular for two aspects:

- Its geographical region of pertinence contains west and north west Alps
- It managed a similar issue with AlpCheck: exchanging information between traffic actors

In order to enhance the traffic information exchange SERTI pursued, and was involved in, DATEX 2 project. DATEX2, see the relative subchapter, is an evolution of DATEX protocol. At now it is not real operative, lacking a common framework between operators, but SERTI, among others, provided two real case studies (as prototypes):

- "Regular Profile" prototype enabling sophisticated exchanges between the client and the publisher (pull and push modes) based on web services technologies. The prototype is managed in Bordeaux in the French national server centre for traffic information.
- "Low Cost Profile" using HTTP protocol. The supplier provides content through different URLs where the clients can get the data using HTTP Get method. Only the pull mode is available with this technology. Hosted in Bristol.

It was an important investment and AlpCheck got the chance to capitalize it.

2.1 Abstract

SERTI (Southern European Road Telematic Implementations) is one of the seven Euro-regional projects supported by the European Commission in the framework of the TEMPO programme (as Corvette project). This programme, which extends until 2006, aims at improving road safety and existing infrastructures through the coordinated deployment of interoperable road information and traffic management systems on the whole trans-European road network (TERN). Documents presenting the achievements and results in detail are available on the project's web site: **www.serti-mip.com**.

SERTI covers more than 5000 km of motorways and main roads, crossing more than 20 regions in 6 different countries. These road axes, strategic in terms of transport, are regional and European transit corridors and present common problems: very dense traffic, bottlenecks, a high percentage of Heavy Goods Vehicles, sometimes difficult climatic conditions, considerable proportion of foreign drivers and crossborder traffic, peri-urban networks, periods of heavy migrations, etc. These axes are characterised by an important increase in traffic and repeated road safety problems.

In this context, the 28 project partners have defined 3 major objectives:

- **Improve road safety** (which remains a permanent national and European objective)
- **Decrease congestion** by optimising road infrastructure capacity and thus decreasing the impact of transport on the environment
- **Facilitate travel and mobility** by deploying reliable and high quality real-time information systems.

To get the targets the project focused on activities:

- Implementation of traffic management and control actions

- Deployment of high quality information systems for road users
- Deployment of traffic information data collecting devices: knowing the precise situation on the networks in real-time
- Implementation of an interconnected European network of traffic control centres: to ensure inter-operability and continuity of networks at national and European levels.

2.2 Partners

Andorra Partners

- **AMGA** Governmental Organisation http://www.mobilitat.ad/
- **DOYMO** Consultant

French Partners

- **ALGOE** Consultant http://www.algoe.fr/
- **AREA** Motorway Concessionary http://www.area-autoroutes.fr/
- **ASF** Motorway Concessionary http://www.asf.fr/
- **ASFA** Motorway Concessionary http://www.autoroutes.fr/
- **ATMB** Motorway Concessionary http://www.atmb.net/
- **CETE** Govern. Organisation http://www.transports.equipement.gouv.fr/frontoffice
- **DSCR** Governmental Organisation http://www.securiteroutiere.equipement.gouv.fr
- **ESCOTA** Motorway Concessionary http://www.escota.fr/
- **SAPRR** Motorway Concessionary http://www.saprr.fr/
- **SFTRF** Motorway Concessionary http://www.tunneldufrejus.com/

German Partners

- **BMVBW** Governmental Organisation http://www.bmvbw.de/
- **IM-BW** Governmental Organisation http://www.im.baden-wuerttemberg.de
- **SSP** Consultant http://www.ssp-consult.de/
- **SWR** Public Broadcaster http://www.swr.de/

Italian Partners

- **ADF** Motorway Concessionary http://www.autostradadeifiori.it/
- **ATIVA** Motorway Concessionary http://www.ativa.it
- **CISA** Motorway Concessionary http://www.autocisa.com
- **MI** Governmental Organisation http://www.interno.it/
- **MIT** Governmental Organisation http://www.infrastrutturetrasporti.it/page/standard

- **RAV** Motorway Concessionary http://www.ravspa.it/
- **SALT** Motorway Concessionary http://www.salt.it
- **SATAP** Motorway Concessionary http://www.satapweb.it/
- **SAV** Motorway Concessionary http://www.sav-a5.it/
- **SINA** Consultant http://www.gruppo-sina.it/Ita/index.asp
- **SINELEC** Consultant http://www.sinelec.it/
- **SITAF** Motorway Concessionary http://www.sitaf.it/

Spanish Partners

- **DGT** Governmental Organisation http://www.dgt.es/
- **LISITT** Consultant http://robotica.uv.es/grupos/lisitt/lisitt.htm
- **SCT** Governmental Organisation http://www.gencat.net/transit/

Swiss Partners

- **B+S** Consultant http://www.bs-ing.ch/
- **FEDRO** Motorway Concessionary http://www.astra.admin.ch/

2.3 DATEX

In AlpCheck perspective one of the most interesting fields of study in SERTI project was DATEX.

DATEX is an European protocol for information exchange between road traffic and travel information actors. Indeed it is absolutely necessary for road operators to be able to exchange in real-time information data about the traffic situation. In 2006, there are about 60 operational DATEX nodes in Europe, enabling traffic data exchanges at cross-border levels between about ten countries. Some countries also use this standard for their own domestic data exchange needs.

To take into account the evolution of technologies, the experience gained in data exchange implementations and the new needs of road traffic actors, the current DATEX standards need to evolve. This is the reason why the European Commission has decided, in close cooperation with the Datex Steering Management Committee, to launch, the **DATEX II** project in 2004.

At now a complete reference of documents was produced and the next step is to agree on a common framework to start the deployment of DATEX 2. This will be one of the important challenges of the 2007-2013 period, in order for DATEX 2 to be the new European road information standard triggering the pan-European traveller information services.

Information regarding the DATEX 2 standard may be found at http://www.datex2.eu/.

2.4 Results

SERTI project produced a huge amount of real services and applications. The table below contains achievements list, for every title is provided an URL to an explanatory brochure.

RDS-TMC Server (Radio Data System - Traffic Message Channel Server)
http://www.serti-mip.com/public_doc/RESULTS/25_RIF_RDSTMC_server_v4.pdf
Development and implementation of a Geographic Information System (GIS) for the SCT
http://www.serti-mip.com/public_doc/RESULTS/24_RIF_SIG_v3.pdf
Traffic management system for guidance of trucks through the Vielha Tunnel - Lleida (N-230)
http://www.serti-mip.com/public_doc/RESULTS/23_VILELLA_RIF_v2.pdf
TrafficEuroService.com
http://www.serti-mip.com/public_doc/RESULTS/22_RIF_TrafficEuroService_v2_v120606.pdf
Datex 2 Project Overview Improving data exchange between road operators, traffic information centres and service providers
http://www.serti-mip.com/public_doc/RESULTS/21_RIF_Datex_Chapeau_v2_v120606.pdf
Datex 2 Follow-up Interoperability between regular and low cost profiles
http://www.serti-mip.com/public_doc/RESULTS/20_Datex%20prototypes%20V1%20-%20120606%20V1.pdf
ARENA (Accidentes de tráfico: Recogida de información y Análisis)
http://www.serti-mip.com/public_doc/RESULTS/19_ARENA_RIF_v3_v120606.pdf
Tracking and tracing dangerous goods vehicles
http://www.serti-mip.com/public_doc/RESULTS/18_RIF_DGM_v3_v120606.pdf
ITS (INTELLIGENT TRANSPORT SYSTEMS) IMPLEMENTATION
http://www.serti-mip.com/public_doc/RESULTS/16_RIF_ADF_v5.pdf
Paso del Estrecho Traffic management plan
http://www.serti-mip.com/public_doc/RESULTS/15_PasoEstrecho_RIF_v4_v120606.pdf
Mare Nostrum VMS Long Distance Corridor

http://www.serti-mip.com/public_doc/RESULTS/14_RiF%20-20Mare%20Nostrum%20VMS%20-%20V4_v120606.pdf
Travel Time in the Oisans Valley
http://www.serti-ip.com/public_doc/RESULTS/12_RIF_TT_Vallée_Oisans_v4_ENG_v120606.pdf
Traffic Broadcast by the Südwestrundfunk (SWR) Traffic Information Centre
http://www.serti-mip.com/public_doc/RESULTS/11_Traffic%20Broadcast%20SWR_v6_v120606.pdf
Traffic Management Measures on the Baden--Württemberg TERN
http://www.serti-mip.com/public_doc/RESULTS/10_RIF_TM%20BW_v6_v080606.pdf
Traffic Information Traffic Information on the A75 motorway in the Massif Central
http://www.serti-mip.com/public_doc/RESULTS/9_RIF_Traffic_info_A75_v4_ENG_v080606.pdf
MAESTRO Reducing congestion by using travel time prediction and grid management
http://www.serti-mip.com/public_doc/RESULTS/8_RIF_Maestro_v5_v120606.pdf
www.truckinfo.ch HGV portal with intermodal route planner
http://www.serti-mip.com/public_doc/RESULTS/7_RIF5_Truckinfo_v11_v120606.pdf
Traffic Information radio: 107.7FM
http://www.serti-mip.com/public_doc/RESULTS/6_RIF_107.7_v7_ENG_v120606.pdf
Speed Control Evaluation on the "Autoroute du Soleil"
http://www.serti-mip.com/public_doc/RESULTS/SPEED%20CONTROL%20EVALUATION/SERTI,%20MAY%202005/RiF1%20-%20Speed%20control%20-%20V5.pdf
RDS-TMC evaluation in France and Spain

http://www.serti-mip.com/public_doc/RESULTS/RDS-TMC%20EVALUATION/RDS-TMC,%20MAY%202005/RiF2%20-%20RDS-TMC%20-%20V5.pdf
WEB - Tr@fic
http://www.serti-mip.com/public_doc/RESULTS/WEB-TR@FIC/WEB-TR@FFIC,%20MAY%202005/Rif3%20-%20Webtraffic%20-%20V4.pdf
Traffic Management cooperation at the French-Spanish border
http://www.serti-mip.com/public_doc/RESULTS/TRAFFIC%20MANAGEMENT%20COOPERATION/CROSS-BORDER%20TRAFFIC,%20MAY%202005/RiF4%20-%20Traffic%20Management%20cooperation%20-%20V5.pdf

3 Project: Mesudemo

MESUDEMO (1996-2000, Fourth Framework Programme) was a project to find a "Methodology for establishing general databases on transport flows and transport infrastructure networks". It did not provide useful practical results for AlpCheck's aims but indeed it provided the knowledge base for ETIS project.

MESUDEMO is really important as study about the design of an European traffic information system. It delivered specifications and recommendations helpful to most European projects on traffic and mobility matters, so in this sense it can be a starting point for AlpCheck partners involved in central system's design.

To find the rich documentation: http://www.telecom.ntua.gr/mesudemo/index.html, the conclusive work is: http://www.telecom.ntua.gr/mesudemo/final.html.

3.1 Abstract

The MESUDEMO project covered task 4 and 5 of the strategic transport research area of the EU **fourth** framework programme.

The aim of the project was to develop a methodology for creating a general **European database on transport** infrastructure and flows of passenger and goods. The methodology addressed the establishing of the framework of the database as well as supplying a procedure for estimation of those variables which were urgently missing in a potential database. The database, was the aim, will cover the EEA + Switzerland, and take into account a progressive inclusion of the CEEC/CIS countries.

A zoning system for the structuring of actual transport flows by way of spatial aggregation into major transport corridors and networks includes interregional flows within EEA + Switzerland, flows in and out of the EEA, flows connected to the CEEC/CIS, as well as important external sea links. It must also be possible to distinguish transit flows from flows between neighbouring countries.

The project was furthermore geared toward the need for more permanent solutions to transport infrastructure information, given the insight already gained in other tasks of the transport research area, whether already finished or still running.

The combination of transport flows with infrastructure data is essential to the understanding of transport. Through the project, methodologies to make such combinations possible are emphasised.

MESUDEMO was the miliar stone of ETIS project (see next chapter), the European Transport Policy Information System.

3.2 Partners

Norwegian Partners

- AGDER Research Foundation http://www.agderforskning.no/

Dutch partners

- NEA Transport Research (http://www.nea.nl/)

- Ministerie van Verkeer en Waterstaat (http://www.minvenw.nl/)

Italian partners

- ISTAT (http://www.istat.it/)

Greece partners

- National Technical University of Athens (http://www.ece.ntua.gr/)

Related European Organisations

- DGVII, Commission of the European Communities (Anna.PANAGOPOULOU@cec.eu.int)
- EUROSTAT (hubertus.cloodt@eurostat.cec.be)

3.3 The Transalpine Pilot Study

The main objective of the study was to demonstrate the need and to test the feasibility of building up an ETIS to be applied to a chosen specific area that raises sensitive political issues and where one might expect that the necessary data could be compiled and brought together. The choice fell on ETIS applied to the Alps. Therefore the database has been called the Alpine Transport Policy Information System (ATIS).

In the pilot study the database should contain detailed information on land born vehicle and goods movements for all relevant Alpine crossings, but the study should also implement a transport chain concept and provide information on short sea shipping. No existing data source alone can provide this information. By combining different sources a real added value could be achieved.

The activities followed the structure of the path for constituting ETIS:

- Define the relevant policy issues
- Define the corresponding indicators
- Build up a methodology for computing the policy-relevant indicators from the data
- Build an actual test database using real data
- Calibrate and apply the method to estimate the effect of chosen policies
- Suggest architecture and methodology for generalisation of the ATIS case.

Alpine policy issues are an essential input for the identification of indicators and variables necessary for ATIS. The availability of specific indicators for the region has been analysed from two perspectives: observed and estimated data. The efficiency of ETIS applied to the Alps has been assessed through the interaction of the top-down approach with the bottom-up approach.

To understand the selection of the indicators and variables, the policy issues that have been identified as being of particular relevance to the Alpine region, are listed below:

- Promoting combined transport
- Improving competitiveness of railway companies
- Optimal route selection in the Alpine region (avoiding detoured traffic, justified sharing of burdens of Alpine countries)
- Assessing political measurements and specific regulations (Swiss agreement, Ecopoint system)
- Impacts of toll systems and user fees on route choice in road transport
- Ecological and social impacts of Alpine traffic considering the specific situation of the mountainous landscape

- Assessing the impacts of infrastructure closures (tunnel closures, blockades)
- Assessing the impacts of new transport infrastructures
- Promoting alternatives to Trans Alpine transport (short sea shipping)

It has to be kept in mind that the variables and indicators proposed for ATIS are specifically related to the more transport related policy questions, which is only one part of the Alpine transport policy dimension. Other parts such as the specific ecological and social situation in the Alps, although being very important, have not been treated in the context of MESUDEMO.

The Transalpine Pilot Study took data from:

- Data on transport demand, which should be organised in such a way as found in the latest *state-of-the-art* in European research and exemplified in the projects INFOSTAT, MYSTIC and MESUDEMO. The NEAC transport chain database has been made available by NEA for this project together with the CAFT (Cross Alpine traffic database), TREX database from EUROSTAT, national and local (port) databases
- Data on transport supply, represented by the modal and/or intermodal networks. In the present case the application has been limited to the road network, for which the GISCO road network has been made available by EUROSTAT
- Cost information, which consist of road cost function which is approximated using information from the STEMM project.

The project simulated two cases:

- A closing accident on Brenner to valuate the re-disposal of freight traffic on others valleys
- As an example of the impacts of restrictive policies on road transport, an assessment of Swiss road toll on road/rail modal split has been carried out

More details on http://www.telecom.ntua.gr/mesudemo/final.html

3.4 Results

The main conclusions from the work on the architecture of ETIS can be summarised as follows:

- A better understanding of the organisational and technical nature of ETIS has been achieved and the corresponding basic concepts have been described.
- A general architecture of ETIS has been developed, and its main modules have been analysed further.
- A novel internal data architecture and the corresponding data model for the infrastructure networks and the flows has been developed; this internal architecture has enhanced capabilities of handling transport data.
- A realisation methodology for ETIS, which reduces the installation and maintenance costs and permits the open (but controlled) access to its data and processing methods, has been developed. This methodology, moreover, permits the easy construction of third-party additional software for ETIS.
- A concrete need for preparatory work on behalf of the Commission at the European level, in order to achieve the ETIS deployment, has been identified.
- The Transalpine Pilot has brought forward a demonstrator showing the novelties of the proposed architecture
- Moreover, a step-wise, practical path to a future ETIS has been envisaged and described.

Moreover three pilot projects were provided:

The Transalpine Pilot study

The idea of the Transalpine Pilot study was launched at the Paris workshop of CONCERTO in May 1998. The transit transport in the Alps was considered a good example of policy issue with a strong European interest, and a proper one to be used in a pilot study for testing the feasibility of a system consisting of elements of an ETIS.

The Transalpine Pilot was aiming at examining in practice and in detail the way to use transport knowledge and existing data sources and models for answering policy questions. The aim was to construct a system with many of the same characteristics as ETIS.

The Transalpine Pilot was connected to a complex transport area with a high degree of political interest, where four EU countries and one non-EU country (Germany, France, Italy, Austria and Switzerland) are directly involved, in addition to a host of other more remotely involved countries. There is a high degree of Community interest negotiating and regulating Alpine transit, also trying to promote sustainable environmental friendly transport solutions. A huge volume of freight crosses the Alps, raising questions about mode choice, the use of existing infrastructure, environmental impacts etc. Several studies had been undertaken corresponding to different interests, policies and data problems.

The main objectives of the Transalpine Pilot were to investigate how far towards ETIS one could come by using all available data and information and to demonstrate the *need* of an information system. The Transalpine pilot was defined as a separate WP10 in MESUDEMO, thus replacing the need for a separate pilot study in WP9.

The TRANSITIE Pilot study

Aiming at the recommendation for variables on freight flows the TRANSITIE pilot was performed in order to check whether it is possible to get a consistent and reliable image of the international good flows from, to and through a limited case area. In the Netherlands needs were felt for reliable data on international goods flows. If no action would be undertaken, both quality and quantity of the statistics would deteriorate. Therefore it was desired to check the feasibility of getting this consistent and reliable image of the international good flows from, to and through the Netherlands by other alternative means. Statistics of import and transport was an important source of information for the international part. In the pilot an attempt was made to get better insight in the bottlenecks which were observed in the various statistics for international goods transport and the possible solutions.

Mirror bias error: An example on France/Italy passenger flows

The example focused on the passenger transport flow between Italy and France. The method was to firstly identify and contact data holders for each mode in each country. The data holders are both public and private bodies, situated at national, provincial and local levels, and indeed covering different territories. Therefore, the second task was to collect the relevant data and control if the data fitted the required specification or could be modified to fit into the definitions of the selected variables. The third step in the method was to check the national data in the two countries on quality, availability and suitability, and in addition on the technical computer side and on the process to acquire the data.

4 Project: ETIS

As MESUDEMO is important for its theoretical approach so ETIS is valuable for its practical results. Moreover ETIS undertook very similar concerns with AlpCheck:

- The creation of an unique database
- The data finding among different sources
- The creation of indicators and measures to analyze results
- The creation of a tool to investigate and search in the data collected

ETIS experienced in European scale what AlpCheck has to face in Alpine space. The ETIS documentation reports not only technical and analytical but legal, copyrights and privacy aspects too, so it should be a good starting point to assimilate their experience in this field.

The full documentation can be found on http://www.iccr-international.org/etis/link

4.1 Abstract

European Transport Policy Information System (ETIS) provides policy-makers and policy analysts with the capability to include the European dimension in monitoring and analysing developments in European transport related strategic issues concerning infrastructure investments, forecasts, projects and policy impact assessments.

The ETIS projects develop a pilot European Transport Information System using the Trans-European Networks-Transport (TEN-T) as the basis for the pilot.

ETIS has two main functions: first, to navigate the user through existing national transport data sources with accompanying information on their comparability; second to provide an interface which allows the production of comparable data across countries for different years.

ETIS will comprise four elements: a data element, an analytical modelling element, a GIS and a final element interfacing users with the above elements.

The formation of ETIS has been sub-divided into 3 tasks:

- ETIS-LINK is a thematic network that will guide the development of the ETIS and promote this to potential users in the European Commission and in the Member States.
- ETIS-BASE will develop the core-database of the ETIS. It will work towards building a consensus view of the reference pan-European transport modelling data set. It will develop an open methodology to generate a version of a data set from existing international and national sources.
- ETIS-AGENT will define the interface element of ETIS and its associated tools. It will undertake design, initial implementation and validation of a flexible, scalable and open transport data Agent.

For the ETIS pilot to be successful, a clear definition of scope and focus is necessary. The ETIS pilot should focus on the set of policy needs and issues surrounding the TEN-T policy.

The decision to focus the ETIS pilot on the TEN-T policies is based on the realisation that the strategic and economic assessment of TEN-T priority projects requires multinational data or trans-border comparisons. Within this exercise, duplication in data collection, the harmonisation of data collection protocols, and the wide spread dissemination of this data become important issues.

Thus, the evaluation and monitoring of progress of the TEN-T policy requires an ETIS-like system. This requirement has been stated on numerous occasions by a variety of actors, for example:

- The High-Level Group on the trans-European Transport Network report concludes that the revision of the TEN-T guidelines will require an analysis of transport flows in the 27 countries (Member States, Accession Countries, and Candidate countries). Any analysis for a homogeneous assessment of TEN-T projects will require the possibility to retrieve data from heterogeneous sources and methods to make it consistent and comparable.
- Community financing for TEN-T projects is limited and choices need to be made about which projects to finance and in what order. Making choices and setting priorities requires estimating the potential impacts (good and bad) of each of these projects. In turn, this requires a good definition of the network, and believable forecasts of the volume of traffic on different parts of the network, none of which can be provided without access to complete and consistent data.
- Cross-border transport infrastructure seems to be at a standstill. The community guidelines adopted in 1996 involve a considerable investment by 2010 of EURO 400.000 million. In 2002 only 20% of the work has been completed. Especially cross-border sections, with the exception of the Öresund bridge have experienced major delays. Sections within national networks have made more progress. The trans-European approach of the ETIS pilot exercise might lead to a stronger support for the development and monitoring of the work
- The High-Level Group on the trans-European Transport Network affirmed that no single Member State can claim to have an overall picture of transport needs on the scale of an enlarged Union. Thus, it suggests setting up a European Transport Observatory in charge of carrying out, on a regular basis, a traffic inventory on the main axes and establishing European reference traffic forecasts. Such an observatory or any other organisation fulfilling similar functions would have to be enabled with the tools needed for monitoring the relevant policies.

4.2 Partners

ETIS-LINK

- **RAND Europe** Consultant Netherlands RAND http://www.randeurope.org/
- **ICCR** Consultant Austria http://www.iccr-international.org/
- **NEA** Consultant Netherlands http://www.nea.nl/

ETIS-BASE

- **AJI Europe** France mailto:christian.delavelle@aji-europe.fr
- **ISIS Consultant** Italy http://www.isis-it.com/
- **ETH University** Switzerland http://www.ethz.ch/
- **MDS Transmodal Ltd.** United Kinkdom http://www.mds-transmodal.com/
- **MKmetric Gesellschaft für Systemplanung mbH** Germany http://gtf.mkm.de/
- **NESTEAR** France http://www.neste.net/
- **IWW University** Germany http://www.iww.uni-karlsruhe.de/

- **VTT** Finland http://www.vtt.fi/

ETIS-AGENT

- **INTRASOFT INTERNATIONAL** Greece http://www.intrasoft-intl.com/
- **NTUA** Greece http://www.ntua.gr/
- **NEA** Consultant Netherlands http://www.nea.nl/
- **MKmetric Gesellschaft für Systemplanung mbH** Germany http://gtf.mkm.de/
- **AXMANN GEOINFORMATION** Germany http://www.axmann.at/
- **LIAISON SYSTEM** Greece

4.3 ETIS Tool

ETIS Tool is an integrated environment that supports:

- Transport Policy Makers/Analysts to make policy decisions, by exploring populated sets of indicators for specific Transport Policy Questions, e.g.: "Which are the priority projects for investment?"
- Consultantsin in creating a set of indicators for a particular Policy Questions from reference data sets, e.g.: "Intensity to capacity/mobility per mode"

Technical requisites:

ETIS Server:

- SW: Windows Server OS, Tomcat 5.x, Apache 2.x, Oracle 9iSW
- HW: 2.3GHz with 1GB RAM

GIS Server

- SW: Windows Server OS, ArcIMS, ArcSDE, Tomcat 5.x, Apache 2.x, Oracle 9i 2.x
- HW: 2.3 GHz with 1GB RAM

Client (browser)

- Recommended: IE version 6.x or later, JRE 1.4.2

At now (January 2007) it was impossible to find a copy of the tool in order to test it.

4.4 Results

The three tasks in which ETIS was subdivided achieved following results:

ETIS-LINK (http://www.iccr-international.org/etis/link/index.html)

- ensured quality and usefulness of ETIS
- smooth and swift consensus among the involved parties
- effective uptake of results by the Commission Member States and other users
- incorporated relevant existing work
- ensured responsiveness to user needs to ensure technical excellence

- ensured the sustainability and liability of ETIS

ETIS-BASE (http://www.iccr-international.org/etis/base/index.html)

ETIS-BASE developed the reference database of the European Transport policy Information System (ETIS): "Development of a European Transport policy Information System (ETIS) as a basis for transport planning and policy formulation". This pan-European database will become the reference database for European strategic modelling.

ETIS-AGENT (http://www.iccr-international.org/etis/agent/index.html)

In the ETIS-Agent project, the design, the initial implementation and the validation of a flexible, scalable and open transport data Agent is undertaken. The Agent constitutes the main tool for unobtrusively accessing the various ETIS data sources and it is offered to the transport community as a communication facilitating service, passing data to different information systems.

More specifically, this Agent is used for selecting and retrieving transport data and related metadata from external ETIS sources, i.e. European regional, national or supranational transport and socio-economic databases, as well as for mapping them into a common, generalised format, merging and organising them in consistent data sets meeting the requirements of transport models supporting corresponding policy measures or options. The proposed Agent is able to support the maximum degree of openness, automation and re-use of the transport data.

The ETIS-Agent provides the common platform for the retrieval of the data required for the assessment of the external effects of transport, in relation with the corresponding transport demand and service information. The ETIS-Agent access and link distributed transport and environmental related data, thus enabling further processing of these data and making possible the investigation of various policy questions on possible transport system changes and on the related impacts. Thus, the ETIS-Agent contributes to the improved understanding of the indirect and direct impacts of transport policy, and will enable policies to be designed and tested in order to improve the operations of the EU transports.

5 Project: AlpNet

AlpNet project did not achieve results immediately usefull for AlpCheck. The Alpnet's aim was to gather actors and works to resume general indications and results, the objective was to build knowledge Net about common Alps problematic.

Indeed AlpNet built two valuable databases, at now with some little problem in giving search parameters, collecting one referee persons and the other research work and initiatives about Alps. It is an information source to deep in order to gain real benefits for AlpCheck.

5.1 Abstract

ALP-NET is a project funded by the European Commission to gather research on trans-Alpine transport and to facilitate the exchange of knowledge and views among policy makers, researchers, transport operators and NGOs.

During the official running time of the project from 2001 to 2003 seven expert workshops were organised. Thematically these workshops focused on the following four areas:

- data, methods, models and GIS
- the policy and decision-making context
- intermodality and combined transport
- pricing and financing of transport infrastructure

Furthermore ALP-NET created two on-line databases; the first is an easily searchable address database containing the contact details for more than 500 relevant actors in the field of trans-Alpine transport (policy makers, researchers, transport operators, etc.). The second database contains the abstracts of relevant research reports and information from where they can be obtained.

5.2 Partners

The Interdisciplinary Centre for Comparative Research in the Social Sciences (ICCR)
Contact Person: Michael Schmidt
Schottenfeldgasse 69/1, A-1070 Vienna, Austria
Phone: +43.1.524 13 93-126; Fax: +43.1.524 13 93-200
Email: m.schmidt@iccr-international.org; Website: www.iccr-international.org

Nouveaux Espaces de Transport En Europe Applications de Recherche (NESTEAR)
89-93, Avenue Paul Vaillant Couturier; F-94250 Gentilly; France
Phone: +33.1.41 98 38 10; Fax: +33.1.45 46 55 12
Website: www.neste.net

ECOPLAN
Thunstrasse 22; CH-3005 Bern; Switzerland
Phone: +41.31.356 61 61; Fax: +41.31.356 61 60
Website: www.ecoplan.ch

NEA
Sir Winston Churchilllaan 297; NL-2288 DC Rijskwijk; Netherlands
Phone: +31.70.39 88 388; Fax: +31.70.39 54 186
Website: www.nea.nl

Network of European Transport Researchers (NETR)
78, route de Corbeil; F-91360 Villemoisson sur Orge; France
Phone: +33.6.83 86 59 80; Fax: +33.6.83 86 62 53
Website: www.netr.fr

École Polytechnique Fédérale de Lausanne (EPFL)
École Polytechnique Fédérale de Lausanne; CH-1015 Lausanne; Switzerland
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Website: www.epfl.ch

University of Karlsruhe, Institute for Economic Policy and Economic Research (IWW)
PO Box 6980; D-76128 Karlsruhe; Germany
Phone: +49.721.608-3071; Fax: +49.721.607 376
Website: www.iww.uni-karlsruhe.de

University of Rome 'La Sapienza'
5, Piazzale Aldo Moro; I-00185 Rome; Italy
Phone: +39.06.499 11
Website: www.uniroma1.it

University of Maribor, Road and Traffic Centre
Smetanova 17; SI-2000 Maribor; Slovenia
Phone: +386.2.22 94 370; Fax: +386.2.2525 337
Website: www.uni-mb.si

5.3 Topics

The overall aim of the ALP-NET thematic network, funded by the European Commission under the fifth Framework Programme, was to outline policy and research recommendations for trans-Alpine transport. This aim was achieved by analysing existing and ongoing research and providing a platform for networking among relevant actors in the field.

AlpNet project found twelve recommendations grouped in four areas; data, intermodality, pricing and policy making:

Data

Data Harmonisation: There are currently numerous excellent data sources for trans-Alpine transport but not all of them are entirely consistent or presented in comparable format. To be usable to its full extent all data should be harmonised into one single database or publication. The establishment of the Swiss/EU observatory is an important step and a unique opportunity to build an observatory for the entire Alpine area.

Data Collection: One of the best data sources on trans-Alpine transport is currently (2003) the Cross Alpine Freight Transport Survey (CAFT) which is carried out every five years jointly by France, Austria and Switzerland. The co-operation of Germany, Italy and Slovenia in this survey would further increase the quality and political acceptability of this data set.

Intermodality

The Future of Rolling Road: The role and future of rolling road transport across the Alps should be specified at the political level. Currently it is not clear whether rolling road is merely a transitional solution as a reaction to road capacity saturation or rather a new intermodal technique to be further developed in co-operation with the road transport operators.

Interoperability and the Performance of the Railways: Railway interoperability should to be improved on the technical level as well as on the organisational level (e.g. licensing of locomotives and their operators). The issue of organisational interoperability is crucial to the success of an integrated rail system and should be taken as seriously as the technical problems. Quality and reliability of railway services should be improved to increase the competitiveness of railway services.

Trans-Alpine Maritime Transport: The development of maritime alternatives appears to be feasible, especially on routes between Italy and Spain which are currently dominated by road transport. In order to support the modal shift from road to maritime transport specific flat rates for transit and transhipment in the ports should be introduced.

Pricing

Combine Policy Instruments: The multiple objectives of transport policy, such as environmental protection, economic efficiency, etc. require multiple policy instruments to be used in combination. Pricing is one important instrument among many. Others include rules, regulations and technology. The challenge for policy makers is to find the right mix between a multitude of useful and necessary instruments.

The Role of Economic Theory: Economic theory can make a contribution to efficiently reach certain targets or goals. The targets and goals themselves have to be defined in the political decision making process.

Pricing? – Yes: Transport infrastructure pricing will only have an effect on trans-Alpine transport if it is extended along the entire corridors across the EU. Thus it should be mandatory and harmonised for the different Alpine corridors.

Target Approach: There are a number of advantages to using a "target approach" rather than a pure "efficiency approach":

- quantitative targets (e.g. ecological burden, traffic load) can be established in a democratic process;
- no necessity to calculate the "real costs";
- a mix of pricing and other measures can be easily employed;
- no restriction of cross financing to the transport sector.

Policy Making

Regulation: Regulations are currently a reality in sensitive areas and could remain a policy option in the future. A certain number of trips or amount of environmental pollution could be allocated efficiently and lead to a superior outcome as compared to an unpredictable ad hoc steering of capacity according to traffic conditions, air pollution, etc.

Multilateralism: Only multilateralism can achieve viable solutions. Bilateral or national solutions only lead to the reduction of the general interests to exclusive partial concerns of certain groups. There is an urgent need for supra national European governance in this field.

Further Action in Research: The positive experience of ALP-NET demonstrates the need for a continuous networking platform. Research in various areas is continuously being undertaken by research centres, universities, consultancies, national ministries and stakeholder groups. This

research should also be collected and integrated to make it accessible. Bridging the gap between policy makers, stakeholders and researchers remains a vital task in the future.

5.4 Results

ALP-NET consists of a network of

- researchers
- policy makers
- government administration
- NGOs
- citizen movements
- transport operators
- infrastructure providers

Database of Actors

The ALP-NET Database of actors contains more than 400 entries of policy makers, operators, researchers, NGOs and other relevant actors related to trans-Alpine transport. Contact details including phone, e-mail, fax etc. are given for each person and institution. The database can be searched by country, type of actor, name of person and/or institution and by relevant keywords.

Database of Actors

Database of Research

The ALP-NET database of research aims at presenting a complete inventory of all research with relevance to trans-Alpine transport undertaken during the last 5-10 years. The database is searchable by all types of criteria including subject areas, keywords, names of researchers, etc. For the time being, the entries only provide a bibliography of the relevant studies. A short description of the content of each study will be added before the end of November.

Database of Research

6 Project: AlpenCorS

The Alpen Corridor South project is multi disciplinary approach to investigation on effects and aspects of European Corridor V in the trait between France and Slovenia.

The project has not a direct impact on AlpCheck aims but it is, nevertheless, very usefull to understand mobility implications under several perspectives. Very interesting the results on "Technology Innovation" and "Logistics and Intermodality", related documentation can be found on http://www.alpinespace.org/alpencors-results.html

6.1 Abstract

AlpenCorS is the acronym of Alpen Corridor South – the corridor south of the Alps – which means the strip of Corridor V classified under the Interreg III B Programme's geographical area, Alpine Space 2000 – 2006. It is a project that proposes a "bottom up" interpretation of the meaning and use of one of the most important European corridors selected as priorities by the E.U.

The funds assigned to the Interreg III B Programme Alpine Space, by the DG Regio, are used to analyse the socio-economic and spatial profile of transport corridors and to disseminate the results mainly to the territorial communities (i.e. institutions, enterprises and citizens) more directly affected by what is actually a policy developed by DG TREN, under the name of TEN-T (Trans Europe Network – Transport).

The project, which conceived in 2001 and became operative at the end of 2002, was developed by a group of fifteen partners from four different countries (Italy, Austria, France and Slovenia) and it includes Public Administrations, Universities and private technological partners.

The main characteristic of the project is the multi-disciplinary method of analyzing the Corridor issue. The project attempts to give back the complexity of the relationship economy-infrastructure-territory using five different disciplinary approaches and looking at implications and development of the Corridor by 2015.

In particular the project deals with:

- Economy, with the objective of assessing how growth of the GDP affects the increase in transport demand in the areas crossed by the corridor
- Transport, to identify (in terms of space and time) the critical points, in terms of the demand-supply ratio, of land transport networks located along the corridor (i.e. road and railways) highlighting the crucial areas in which priority intervention is required
- Technology, to evaluate ITS and ICT applications aimed at increasing efficiency and safety in the transport sector (especially in the road transport sector) on the basis of the development of technologies that exploit the convergence policies sustained by the EU
- Intermodality and logistics, as vital innovations for a rational and economically sustainable development of a mobility that is organised on a continental scale because of the boosting action exerted by the expanding internal market
- Territory, seen as the analysis of the spatial impacts of infrastructures development that combines, on the one hand, cities and regions from different countries and, on the other hand, institutions, firms and citizens from different local systems in a perspective that overcomes individual local actors, but that cannot be carried out without the contribution of each one of them

- A range of case studies on circumscribed areas for analyzing the peculiar impact produced by the implementation of the Corridor project

6.2 Partners

Austrian Partners

- Amt der Niederösterreichischen Landesregierung - Gruppe Raumordnung und Umwelt Abteilung Gesamtverkehrsangelegenheiten
- Austrian Research Centers, Seibersdorf research GmbH, Division of Intelligent Infrastructures and Space Applications
- GeoVille Informationssysteme GmbH
- HERRY Consult

French Partners

- École Nationale des Travaux Publics de l'Etat – FORMéquipe

Italian Partners

- Regione Veneto
- Centro Ricerche Fiat S.C.p.A.
- Centro Studi Sistemi di Trasporto s.p.a.
- Dipartimento Interateneo Territorio, Politecnico of Torino
- Dipartimentodi Scienze economiche – Universita' Ca' Foscari di Venezia
- INTI Studio and Partners
- Provincia Autonoma di Trento
- Regione Piemonte

Slovenian Partners

- Ministrtvo za Okolje in Prostor - Urad RS za Prostorsko Planiranje

6.3 Topics

No relevant topics for AlpCheck project.

7 Project: Monitraff

MONITRAF identifies and analyses the impact of road traffic within and through the Alps along the four transit corridors Brenner, Fréjus, Gotthard and Mont-Blanc. The objective of the project is to develop comprehensive measures that aim at reducing the negative effects of road traffic, while simultaneously enhancing the quality of life within the Alpine region. The measures elaborated for one transport artery shall, however, not result in an increase of traffic along another.

The project duration is January 2005 through June 2008.

For many aspects it is a twin project with AlpCheck. Traffic monitoring is examined in depth on four ways with attention to side effects as pollution and noise. We suggest to consider a real knowledge exchange with MoniTraf's partners.

7.1 Abstract

The Alps are an important transit area for people and goods. This transport junction has been of utmost importance early on for trade with goods between the north and the south, as well as for economic and social development throughout the Alps.

Road traffic within the Alps, particularly transportation of cargo is continually increasing. Renowned institutions are predicting further growth of transportation of cargo and passengers in the future.

Negative aspects of road traffic have steadily increased. Environmental pollution caused by road traffic is increasingly posing a threat to the Alps as a living, economic, recreation and natural space. Ecological conditions in the Alpine region have turned this region into one of the most vulnerable areas in Europe.

Even though the consequences have been researched and discussed in the affected regions for a long time, a comprehensive perspective has not been elaborated yet, nor actual conclusions for further measures on part of the decision makers in politics and administrative bodies.

The objective of the project is to generate measures along the four major transit corridors through the Alps Brenner, Fréjus, Gotthard and Mont-Blanc, in order to improve the quality of life within the Alpine region and to reduce the negative impact of road traffic. When generating these measures it is important to consider that they will affect all involved regions in a positive way. Therefore, problems must not be shifted from one transportation artery to another.

MONITRAF does not only develop comprehensive measures but also prepares their implementation. For this purpose relevant indicators for measuring the impact of road traffic throughout the Alpine region will be identified, and comparative analyses will be conducted. The cooperation during the project shall be developed to an extent, as to where it can be maintained beyond the duration of the project, in order to ensure that the implementation will be initiated and pursued further in a conjoint effort. A uniform representation of all involved participants will result in an increase in political influence on a national and European level.

This highlights another objective of the project: The Alpine regions shall pursue common goals in the context of transportation policy in the future, and thus resolve transportation issues conjointly.

7.2 Partners

Italian partners

- Arpa Piemonte http://www.arpa.piemonte.it
- ARPA Valle d´Aosta http://www.arpa.vda.it
- Europäische Akademie Bozen (EURAC-research) / Accademia Europea di Bolzano (EURAC-research) http://www.eurac.edu
- Landesagentur für Umwelt, Amt für Luft und Lärm, Autonome Provinz Bozen http://www.provinz.bz.it/umweltagentur

Austria partners

- Amt der Tiroler Landesregierung, Abteilung Verkehrsplanung http://www.tirol.gv.at

Swiss partners

- Central Switzerland Government Conference http://www.zrk.ch
- Sezione dei trasporti, Divisione della pianificazione territoriale Dipartimento del territorio, Cantone Ticino http://www.ti.ch/DT/DPT/SDT

French partners

- Region Rhône-Alpes http://www.rhonealpes.fr

7.3 Approach

The project will be conducted in various stages and is divided into different modules. Although a project partner will be responsible for each module, the scientific evaluation will be performed conjointly.

Module 1 - Project management and coordination

The preparations for MONITRAF have been under way ever since 2003. Initial steps involved the organization of the project and clarification of content related and organizational details. Project management that will accompany the project is supposed to facilitate the organization of the entire project.

For this purpose a network of all involved institutions and regional administrations will be established. This is necessary in order to ensure that the proposed measures will be implemented in the context of future cooperation also beyond the duration of the project.

Module 2 - Impact of road traffic in the Alpine region

In a first step the impact of road traffic through the Alps will be assessed and analyzed. Apart from already known consequences such as air pollution and noise, also comprehensive research will be conducted in other areas. For instance the impact of road traffic on the business location, on tourism and health of the population will be investigated.

These analyses are based on available data and possible indicators. The objective of the module is to provide a relatively rough but very comprehensive overview of all influencing factors of road traffic in the Alps.

Module 3 - Identifying regional commonalities and differences

Furthermore, trends within the individual regions will be compared to each other. Past and present trends will be investigated and the situation in each region will be highlighted. In this way, commonalities and differences can be identified.

Module 4 - Selection, definition and synchronization of indicators

Suitable indicators for measuring the impact of road traffic will be selected in order to generate a balanced set of indicators. The indicators enable comparisons between different regions with similar problems as a result of road traffic, and serve as a basis for additional analyses.

Furthermore, a new indicator for transportation of passengers and cargo will be generated based on transport efficiency. In this context prices for transportation and specifically their trends will be analyzed in order to generate quantitative research also within this sector.

Module 5 - Analyzing selected indicators

In this phase the selected indicators will be analyzed in a comprehensive manner. This will guarantee that the impact of road traffic can be presented by way of tables, charts and thematic maps.

The analyses will be conducted in various stages: First the indicators that have to be identified will be classified and divided into main categories. An index card for each indicator with all reference points (legislation, calculation methods, technical details, estimated timeframe) will be developed. Subsequently, scenarios will be described based on corresponding values of an indicator. Ultimately, the impact of road traffic on the environment will be evaluated.

Module 6 - Processing of information, interpretation and assessment of legal framework

The objective of this stage is to generate an information system that is easy to operate and can be continually updated, and that also supports local administration in the decision making process within community policy. The procedure will be developed by means of a database that includes all valid legal norms, furthermore by way of decisions making aids, in the context of an international meeting, as well as a final report.

The module assists in expanding technical skills, highlighting relevant aspects for the affected regions and in creating environmental awareness in stakeholders and decisions makers.

The intended work steps can be divided into the following four stages:

- Definition of database contents and guidelines for interpreting trends and indicators
- Developing a database and guidelines for interpretation, as well as an overview of laws that are applied in the different partner regions
- Comparison between the interpretation of trends, projections and indicators with effective regulations
- Providing decision making aids and access to the database of the MONITRAF website

Module 7 - Generating comprehensive measures, recommendations

This module is the last and concluding partial project within MONITRAF. Here, essentially the planned measures for "road traffic" will be investigated in terms of commonalities and efficiency.

As an important aspect, further measures for reducing the impact of road traffic in the Alpine area will be developed in cooperation with the project partners. Subsequently, proposed measures, conclusions and recommendations will be documented in a final report. The results will be presented at the end of the project, in the context of a congress of regional and national offices and other interested parties.

Identified measures will be adapted to regional characteristics and conjointly pursued by all regions in order to ensure a uniform representation of regions before national and European institutions and the broad public.

Module 8 - Public relations

The impact of road traffic can be observed in many areas of life, thus making it a relevant and explosive topic. This is why comprehensive public relation activities that accompany the project are of utmost importance. Particularly for decision makers the work forms an important basis for communicating with the population.

8 Project: Mobil Alp

Facing common mobility issues, Austrian, French and Italian territories gather together in order to develop innovative sustainable mobility offers and services for transport users at local and regional level. The project encompasses all kinds of alpine mobilities (work, tourism, business…) and involves its different actors. It promotes a strong transnational cooperation through common approaches and experience exchanges. The project started in December 2004 and the deadline is 30 November 2007.

The project may be considered of some concern with AlpCheck because it covers mobility issues, maybe could be of interest a future collaboration or a meeting in which present respective results.

8.1 Abstract

Practically, the project aims at setting innovative and sustainable mobility services and offers through pilot actions. It sets, develops and networks mobility centres. The results will be formalised in a Charter on Sustainable Alpine Mobility in order to be valued at Alpine and European level. Giving an operational content to the notion of sustainable mobility, the project is most relevant in the fields of environment and planning. It promotes the use of clean technologies, collective transports and soft mobilities and also aims at improving the Alpine image.

8.2 Partners

The following authorities, institutions and companies are partners in the Mobil Alp project. A link to the web site of each respective partner (if present) will open in a separate window if you click on the web site address.

Italian partners

- Città di Aosta http://www.comune.aosta.it
- Dolomiti Bus S.p.A. http://www.dolomitibus.it
- Regione Autonoma Friuli Venezia Giulia http://www.regione.fvg.it
- Regione Autonoma Valle d'Aosta http://www.regione.vda.it

Austrian Partners

- Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft http://www.lebensministerium.at
- Bundesministerium für Verkehr, Innovation und Technologie http://www.bmvit.gv.at
- Land Salzburg http://www.land-salzburg.at
- Land Steiermark http://www.steiermark.at
- Gemeinde Werfenweng http://www.gemeinde-werfenweng.at
- Regionaler Entwicklungsverband Eisenerz http://www.xeismobil.at

French Partner

- Conseil General de Haute Savoie http://www.cg74.fr

8.3 Topics

A lot of aims are included in this project: following a brief description of them all.

The first objective of the project is to value transport offers so as to make them more attractive to users and to increase the use of collective transports and soft mobilities centralasing and spreading information about them, using a wide range of mobility resources and proposing attractive and convenient commercial offers.

The main activities will be setting, extension and networking of mobility centres allowing multimodal information (schedule, frequencies, duration and modes), reservation or purchase of transport tickets, make easy and convenient commercial offers for travel, organizing also meetings, seminars, study trips as experience exchanges or method setting.

Then, another important task will be defining intelligent, innovative, multimodal, economically and environmentally sound offers to spread sustainable mobility, developing new transport systems, valuing and completing existing ones, optimising their use and developing transnational methods at project definition or experimentation.

To do this new mobility solutions are considered: urban/interurban links, links within/between resorts, shuttles, soft mobility, luggage transport, transports on demand, car pooling. Not only, different kind of actions are undertaken: offer, needs and potential demand assessment, study of potential offers, opportunity and feasibility studies, pilot actions, transnational activities.

After the study of new routes for mobility will be very important drawing relevant knowledge out of the actions, sum it up, value it and spread it through the Alpine Space / Europe will be done also with drawing orientations and recommendations underlining good practises and transnational added value and making a Charter giving orientations to Alpine mobility policies and planning documents. The main activities of this WP will be an European Conference (Spring 2006) gathering project partners as well as stakeholders and actors in the field of mobility and transportation from all over Europe, the definition and adoption of a Charter with a political scope in order to direct mobility policies and planning and the formulation of practical recommendations from the results of transnational exchanges and project actions.

9 Project: AlpsMobility II

The project is based on the results of the pilot project and the excellent co-operation of project partners from Austria, Germany and Italy in "Alps Mobility I". New partners from France and Switzerland have joined in the meantime. The project runs from May 2003 to September 2006.

The focus of the project I "Alps Mobility II - Alpine Pearls" is the creation of innovative eco-tourism offers called "Alpine Pearls", combining the tourist points of interest with the advantages of Sustainable Mobility with environmentally sound transport means.

This project is an alternative view to mobility problems in the Alps Region. Not of immediate help for AlpCheck but interesting in a perspective way.

9.1 Abstract

Tourism and mobility entail each other and are economic and regional key factors on the one hand, but on the other have considerable impacts on environment and health. Up to date, measures to solve these conflicts were mostly taken on a national or sectoral level and were too one-dimensional. Therefore transectoral measures and transalpine co-operations are necessary.

The focus of the project I "Alps Mobility II - ALPINE PEARLS" is the creation of innovative eco-tourism offers called "Alpine Pearls", combining the touristic points of interest with the advantages of Sustainable Mobility with environmentally sound transport means. The "Alpine Pearls" not only link tourism and mobility, but particularly link the participating model regions with each other in a transalpine sense.

The objective is the realization of a travel package through the Alps, using only environmentally sound transport means, like railway, buses, bicycles, zero-emission-vehicles and horses or walking. In order to become a "Pearl", each partner region has to fulfil certain mobility and tourism standards in the sense of sustainability according to a fixed criteria catalogue. Travelling sustainably should guide visitors on routes with the most beautiful scenery, present interesting mobility adventures and guarantee perfect information (e.g. with GPS-based hand-held computers for travellers), and at the same time should offer high comfort e.g. through luggage transport.

9.2 Partners

German partners

- Bavarian State Ministry of the Environment, Public Health and Consumer Protection http://www.stmugv.bayern.de

Italian partners

- Rete civica dell'Alto Adige http://www.provinz.bz.it
- Provincia di Belluno http://www.provincia.belluno.it
- Regione Autonoma Friuli-Venezia-Giulia http://www.regione.fvg.it
- Regione Autonoma Valle d'Aosta http://www.regione.vda.it

Austrian partners

- Bundesministerium für Land und Forstwirtschaft, Umwelt und Wasserwirtschaft http://www.lebensministerium.at
- Land Salzburg http://www.salzburg.gv.at
- Bundesministerium für Verkehr, Innovation und Technologie http://www.bmvit.gv.at
- Bundesministerium für Wirtschaft und Arbeit http://www.bmwa.gv.at
- Gemeinde Werfenweng http://www.werfenweng.org

French partners

- Commune de Morzine-Avoriaz http://www.morzine.fr
- Commune des Gets http://www.lesgets.com

Swiss partners

- Kanton Graubünden http://www.oeffentlicher-verkehr.gr.ch
- Kantone Graubünden/Zürich http://www.oeffentlicher-verkehr.gr.ch
- Interlaken Tourismus http://www.interlakentourismus.ch

9.3 Results

All partners jointly produced the implementation study and the materials for marketing the umbrella organisation "Alpine Pearls" and launched this organisation. It now has 17 pearls from five participating countries as members. Each partner then took the necessary steps in its own area to attain the organisation's goals.

In **France**, accessibility by public transport was improved, as was transport management (Les Gets). The local public transport (Morzine) was improved. Two electric buses now serve local transport needs in Morzine.

In **Italy**, hiking buses were introduced and information materials on the project were produced (South Tyrol). Intermodal packages for bus/bicycle and a virtual mobility control centre were set up (Belluno). Feeder buses were put into operation to improve accessibility from urban areas and major rail junctions. Signs were put up for interesting tourist sights (Friaul, Aosta). Two other steps for improving accessibility involved luggage transport services and the launch of an information portal. Special signs were also installed along bike paths (Aosta).

In **Germany**, a comprehensive electronic tourism and public transport information system was put in place. It premiered at the Ski World Cup 2005 in Oberstdorf. Training sessions were staged and information materials were produced.

In **Switzerland**, a visitor's ticket for free use of public transport (Interlaken) was introduced and information materials were co-produced.

In **Austria**, new products for environmentally friendly travel to the country were developed and a workshop was staged with the European railway companies. New public transport products were created ("Pongau-mobil-Ticket"). Training courses and infrastructure were set up for cyclists and pedestrians.

10 Project: AlpNap

ALPNAP is an EU funded project in the INTERREG IIIB Alpine Space programme. The 3-year project started in January 2005. It unites 11 partners from 4 countries (Germany, Austria, Italy, France) to form an Alpine wide network of experts in the fields of Alpine meteorology, air pollution, noise, and health effects. Most partners are universities and research centres.

AlpNap project covers a particular traffic aspect: the effects of traffic: air pollution, noise, health effects. Not useful for AlpCheck but interesting enough to be deserved with a mention in this document. It may be interesting to think a future integration between the two projects.

10.1 Abstract

Emissions of air pollutants and noise from road and rail traffic along major Alpine transit routes cause serious ecological pressure, impairment of life quality, nuisances, and contribute to health problems. Transport volumes are expected to rise. Conflicts between different groups of interest have not yet been resolved. The sensitivity of the Alpine space is often addressed, but arguments and decisions still lack solid scientific background and a systematic, Alpine-wide co-operation of experts is missing. New infrastructures will change the emissions and thus the environmental impact. The same holds true for administrative measures (e.g. night-time heavy traffic ban) and incentives for modal shift in freight transport. Such measures may partly improve the situation, but may also produce contradictory effects, or introduce new sources of noise while air pollution is reduced.

Reliable environmental impact assessments suffer from the fact that standard prediction tools have very limited applicability in valleys and may be subject to large errors. The project will apply innovative methods to selected areas to quantify the sensitivity of mountain regions to emissions in the valleys and to demonstrate how traffic regulations can be designed to meet standards as a function of real emissions and weather. The project also aims at a durable Alpine-wide network of experts and authorities, and an increased awareness of the interaction between nature and human activities in the Alps.

10.2 Partners

German partners

- Deutsches Zentrum für Luft- und Raumfahrt http://www.alpnap.org/alpnap.org_en.html
- Institut für Physik der Atmosphäre http://www.dlr.de/ipa
- Forschungszentrum Karlsruhe http://www.fzk.de/fzk/idcplg?IdcService=FZK
- Atmosphärische Umweltforschung http://imk-ifu.fzk.de

Italian partners

- Istituto di Scienze dell'Atmosfera e del Clima http://www.isac.cnr.it
- Università degli Studi di Trento http://www.unitn.it
- Gruppo di Fisica dell' Atmosfera http://apg.ing.unitn.it/index_en.htm

- Arpa Piemonte http://www.arpa.piemonte.it

Austrian partners

- Universität für Bodenkultur http://www.boku.ac.at
- Institut für Meteorologie http://www.boku.ac.at/imp/met
- Technische Universität Graz http://www.tugraz.at
- Institut für Verbrennungskraftmaschinen und Thermodynamik http://fvkma.tu-graz.ac.at
- Universität Innsbruck http://www.uibk.ac.at/index_en.pl
- Institut für Meteorologie und Geophysik http://www2.uibk.ac.at/meteo
- Medizinische Universität Innsbruck http://www.i-med.ac.at
- Department für Hygiene, Mikrobiologie und Sozialmedizin - Sektion für Sozialmedizin http://www2.uibk.ac.at/hyg_sm/sozialmedizin

French partners

- Centre Scientifique et Technique du Bâtiment http://www.cstb.fr
- Centre d'Etudes Techniques de l'Equipement de Lyon http://www.equipement.gouv.fr

10.3 Main Activity

The main activity of the project consists of an co-ordinated and integrated application of up-to-date science-based methods and tools to determine the emissions of air pollutants and noise, to collect measurements of the atmospheric state, concentration and noise level, to simulate the meteorological situation, the transport, dispersion and transformation of air pollutants and the propagation of sound, and to assess the impact on quality of life and health to local population. As an innovation it will be possible to treat the interaction of topography, meteorology, emission (both air and noise), transmission and impact in a consistent way, which allows a cumulative estimation of the adverse effects. This ensures a comparable assessment of the consequences of traffic modifications with respect to both air pollution and noise.

Measure technics

Air pollution

While IMK-IFU will perform air quality simulation with its MCCM model system (version of MM5 with on-line chemistry), other project partners will use various off-line models to simulate the transport and diffusion (but not primarily the chemistry) of pollutants. CNR-ISAC will apply the MIRS-SPRAY modelling system, a Lagrangian particle model with special turbulence parameterisation for complex terrain.

TUGRAZ will apply another, very small-scale Lagrangian particle model (GRAL) for resolutions down to 10 m. UNITN will apply CALGRID and CALINE; the CAL-tools are simpler than other models and will allow a comparison. Models of different scale shall be coupled. The track of statistical and conceptual modelling is also pursued here. IMGI will create a nowcasting tool on this base. BOKU will work on simple indices to characterise the sensitivity of areas with respect to unfavourable dispersion conditions.

Noise pollution

CSTB, CETE and DLR will operate noise models of different complexity. Standard models are compared with more complex numerical models which take into account detailed meteorological and topographi-cal features. MUI will provide bi-aural noise measurements during one of the campaigns. Studies will demonstrate how typical Alpine geometries (e. g., noise sources or receivers on slopes, elevated sources on viaducts, tunnel portals) influence the sound propagation and how resulting noise levels differ from estimates using standard methods.

10.4 Expected results

Meteorological and air pollution aspects will be tackled on different scales, ranging from local to Alpine-wide. Noise aspects will be treated across the full valley and in sensitive spots.

The expected results are:

- A description of available modelling tools (atmosphere - air pollution - noise), how they can be applied to Alpine valleys, their accuracy, and their limitations.
- An assessment of the suitability of various indicators with regard to its impact
- An assessment of errors and possibly systematic deviations that might be encountered by using standard methods in Alpine valleys
- Examples of large-scale (whole cross-Alpine traverses: Brenner and Frejus) and small-scale (inner valley locations) simulated concentration fields of relevant air pollutants (e.g. NOx, ozone, particles) as a function of emission scenarios (traffic flow, traffic composition), time of the day and meteorological situations.

Further results are:

- Recommendations for authorities and consultants how to best assess the environmental (air pollution, noise) impact of administrative measures (e.g. night-time heavy traffic ban), incentives (e.g. for modal shift and piggy-back transport) and new infrastructure (e.g. local bypass-tunnels, base tunnels), properly considering the complexity of natural processes in the Alpine region.
- A booklet for the public which describes in an illustrative way the main natural mechanisms acting in the Alps and their valleys and how they contribute to the dispersion of man-made air pollutants and the propagation of noise in the immediate neighbourhood of people living near transit routes.

11 Project: Alpine Awareness

Alpine Awareness could be translated literally or in more general terms as "how to mobilise the populations towards soft travel in the Alps".

The idea behind Alpine Awareness is simply to promote soft travel (essentially public transport, but also by travel by bicycle, by foot), i.e. more environmentally friendly travel, to reach tourist areas in the Alps.

This is a European problem area which is, of course, shared by all countries neighbouring the Alps.

11.1 Abstract

Over the last few decades, most European regions and territories have experienced major changes in their travel trends.

There are many reasons for this:

- Urban sprawl firstly, which has increased the population's dependency on cars, due to the increased distance between living and working areas. This dependency on cars was accompanied by an increase in car possession with an increasing number of homes having 2, even 3 vehicles per household. This trend whereby families possess several cars rendered the use of cars for everyday purposes easy, even "natural", as well as for leisure purposes (holidays in particular, trips from home to work, schools, etc.).
- Changes in the pace of life. In France, for example, the reduced working week has been conducive to several short stays in the year (replacing longer holidays), which has gone hand in hand with an increase in short and local trips, for example. More generally, in Europe flexibility in the working world has been accompanied in the same way by staggered trips over the year, with this great freedom often translating into motorised and solitary trips.
- Cultural dependency. The psychological and cultural place that the car takes varies from one country to another in Europe, but it generally ranks fairly high. Beyond the available information – which is not always sufficient but which is already well known, beyond public transport alternatives which can be improved but which already exist - there is generally a major trend to use cars which is undoubtedly one of the major stumbling blocks when looking for other ways of travelling.

The mountains and the Alps, as elsewhere, have experienced this major increase in the number of motorised trips, with their negative consequences on the environment and health: air pollution, noise, water pollution, environmental damage to due to road infrastructures and excess visitation of certain sites which have been preserved until now.

In the face of climatic warming and its catastrophic effect on the ecosystem, (glacier formation, fall in the average snowfall in mountain areas, torrential rainfall and unusual drought, flooding, accelerated soil erosion, species extinction) and the mountain economy (shorter ski seasons), it stands to reason that the trips at the very origin of the main gas emissions causing the greenhouse effect are prioritised in mountainous regions.

In this context of per households possessing an excess of vehicles and in the face of the increased diversity in activity and the cultural dependency on cars, a change in travelling modes would demand major concerted action to reverse the trend.

The project is aimed at reducing the negative impact, particularly air pollution, caused by motorised travel, and essentially cars.

To this end, the project is geared towards all parties:

- Young people: as we all know, the earlier the interest is peaked, the higher the awareness of "soft" mobility, through more environmentally friendly modes of transport, will be. In groups, they feel more concerned and motivated to find ecological solutions for their travelling needs.
- To transport and tourism professionals: these are players in the transport sector as well as those who are in contact with the main body of visitors. They must themselves possess awareness and be involved in the conception and organisation of more environmentally friendly and public transport solutions.
- The general public: this is the key to any successful public transport or environmentally friendly travel project. They must be mobilised and determined, but they must also find comfortable, rapid, practical solutions in the proposed means of transport.

11.2 Partners

The following authorities, institutions and companies are partners in the Alpine Awareness project. A link to the web site of each respective partner (if present) will open in a separate window if you click on the web site address.

German partners

- Öko-Institut e.V. – Institute for Applied Ecology http://www.oeko.de
- Technische Universität München http://portal.mytum.de

Italian partners

- Dolomiti Bus S.p.A. http://www.dolomitibus.it
- Provincia di Belluno http://www.provincia.belluno.it
- The Autonomous Region of Friuli-Venezia Giulia http://www.regione.fvg.it
- Ufficio Turistico di Arta Terme http://www.carnia.it
- Ökoinstitut Südtirol/Alto Adige http://www.ecoistituto.it
- The Autonomous Region of the Aosta Valley http://www.regione.vda.it

Austrian partners

- Municipality Werfenweng, tourism office http://www.werfenweng.org
- Marktgemeinde Bad Hofgastein http://www.bad-hofgastein.com
- Federal Ministry for Economy and Labour http://www.bmwa.gv.at
- Federal Ministry for Agriculture and Forestry, Environment and Water Management http://www.lebensministerium.at
- Federal Ministry for Transport, Innovation and Technology http://www.bmvit.gv.at

French partners

Rhônalpénergie-environnement http://www.raee.org

- *Financial partners*
  - The Rhône-Alpes Regional Council http://www.rhonealpes.fr
  - Isère County Council http://www.cg38.fr
- Technical partners
  - The Town Councils of Venosc and Villard de Lans
  - Local coach companies
  - The ski lifts at 2 Alpes and Villard de Lans
  - Parents of pupils
  - Bourg d'Oisans High School
  - The schools of Venosc and Villard de Lans
  - La Cité mixte de Villard de Lans
  - Vercors natural park http://www.pnr-vercors.fr
  - Les Grottes de Choranche http://www.grottes-de-choranche.com

- In collaboration with
  - Fédération Rhône-Alpes de protection de la nature (FRAPNA) http://www.frapna.org
  - France Nature Environnement http://www.fne.asso.fr
  - Mountain Wilderness http://france.mountainwilderness.org

11.3 Topic

Following a list of goals of the project

- Promote knowledge of best practices in travel which already exist elsewhere in Europe
- Develop learning supports in tandem with them
- Organise events (test days, competitions)
- Provide training in safety and ecology
- Draw up Travel Maps to identify black spots around the school and try to improve the situation
- Promote knowledge of the best practices in terms of travel structures already in existence elsewhere in Europe
- Organise training seminars for employees on soft travel
- Compile a guide
- Develop Travel Maps on the main tourist enterprises and visitation sites to identify black spots and find ways to improve the situation
- Organise a festive event to present the work of young people, raise awareness about the issue of soft travel, test new modes of travel which are more environmentally friendly and in harmony with mountainous areas

- Organise a European conference for partners to meet and present the results garnered by the various countries.

11.4 Results

Each country taking part in the European project (Germany, France, Austria, Italy) has proposed specia tools to suit its context.

Germany: soft mobilty in the Bavarian Alps'

The Technical University Munich is carrying out the survey 'Soft mobility in the Bavarian Alps – supply and demand' analysing mobility and spare time behaviour, needs and motives of 400 alpine tourists as well as the forms of utilization of touring information material. Additionally several in-depth-interviews are conducted with operators of the alpine tourism and mobility sector confronting them with the survey's results and learning their point of view. By a synopsis of the survey's and the interviews' results measures can be recommended to operators in transport and tourism services how supplies can be best adjusted to the tourist's demands and optimized. Furtermore recommendations for training concepts in the transport and tourism services will be provided.

Italy (Province of Belluno – Dolomiti Bus)

Young people and mobility

In October, the Longarone Trade Fair Centre in Belluno plays host to a fair called ORIENTA. It is designed for pupils in their final year at middle and high school, and aims to help them to make choices about their future, both in the world of school/university and work. In 2004 and 2005 Dolomiti Bus and the Province of Belluno organized a series of encounters with the young people in order to present the Alpine Awareness project.

In 2005 the two Italian partners set up an "Alpine Awareness" stand, and during the encounters with the young people they presented the announcement of competition developed under the European project:

- Announcement of Competition: "Getting to know mobility to move better for sustainable mobility in the alpine area".

Objective of the competition: "to encourage the younger generations who live in the alpine areas to become aware of the question of sustainable mobility i.e. the ability to make intelligent choices regarding all means of transport, in order to improve the quality of life in the mountain areas, by reducing pollution, traffic, dangers on the road and traveller stress".

In the programme of the fair, as part of the Interreg IIIB Alpine Awareness project, the Province of Belluno and Dolomiti Bus SpA organized a convention for young people and people working in the transport sector:

- Convention: "Mobility for young people –investing in education for the future of our province".

During the convention some projects were presented, aimed at encouraging young people to use everyday public transport: the Single Student Season Ticket and the Unlimited Single Student Season Ticket. A more detailed description of these can be found in the "Good Practices" section.

The convention also gave pupils from Class 5° from the "P.F. Calvi" Technical-Commercial High School in Belluno the opportunity to present a statistical survey they had carried out the previous year to find out what young people in the Province of Belluno think about questions related to mobility and sustainable transport.

Another convention:

- Encounter with pupils from Canale d'Agordo (5th year Primary and 1st year Middle School) In June 2005, Dolomiti Bus was invited by teachers of Cencenighe Comprehensive School to present the Alpine Awareness project to the students who were involved in drawing up a document listing the "Rights and Duties" of public transport users.

Operators in the transport and tourism sectors

For Orienta 2005, some materials were created to be used in various fairs and events, for setting up the stand and informing visitors about the activities which Dolomiti Bus and the Province of Belluno are putting into practice to develop awareness about sustainable mobility and respect for the surrounding environment:

- Panels for stand
- Forex panels (cm. 70 X 100), to be used later in Dolomiti Bus ticket offices
- Dolomiti Bus multilingual company video background for stand

At Christmas, Dolomiti Bus used the Alpine Awareness logo, with the aim of getting across the idea of the project by creating Christmas cards which were sent to all the stakeholders involved in the project activities.

France

Travel maps to pinpoint the problems and come up with solutions.

Rhônalpénergie-Environnement has pulled forced with FNE (France Nature Environnement) to organise classroom activities on the issue of soft travel in the schools of Venosc and Villard de Lans, Bourg d'Oisans high school and the Cité mixte of Villard de Lans for the 2005-2006 school year.

Rhônalpénergie-Environnement has developed 8 travel maps :

- for the schools of Villard de Lans and Venosc,
- for Bourg d'Oisans high school,
- for the Cité mixte de Villard de Lans,
- for the et 2 Alpes resort and ski-lifts,
- for la Grotte de Choranche and,
- for the Villard de Lans ski-lifts.

Travel maps to pinpoint the problems and come up with solutions

- making an inventory of the flows of travel generated by the school or the company (by the pupils, their parents, the personnel or visitors)-identifying the problems and flaws (in terms of safety, accessibility) which arise near the school or the company in question

- proposing solutions for improvements in conjunction with all of the people concerned (particularly the parents of pupils and teachers for schools, and the personnel and visitors for companies).

Travel Maps for Schools and Travel Maps for Companies consist quite simply of:

Changing popular travel trends also relies on an active contribution by professionals, especially in tourism, in the field of soft travel. They must be able to have access to information in order to convince visitors to mountainous tourist sites of the interest of taking public transport or car pooling (even travel by foot or by bike when the season and the type of trip permit it). They must also be able to discuss the environmental and health problems caused by car travel, as well as providing concrete, practical and attractive public transport solutions to develop this type of travel. They therefore have an active role, simply in distributing the timetables or routes and the stops for public transport lines.

Corporate training

Changing behavioural trends, particularly among visitors, is a long-term project which presupposes increasing the number of events to reach a wider cross-section of the public. For example, classroom events, the simultaneous implementation of certain improvements in terms of road safety, for example, and ultimately promoting all the work undertaken by ALPINE AWARENESS through the organisation of a public event.

To reach a maximum of people, this event is designed to be a festive sort of event, like the one organised in 2003 at the 2 Alpes ski resort ("Les 2 Alpes sans ma voiture" – 2 Alpes without my car).

12 Project: AlpFrail

AlpFRail means "Alpine Freight Railway" – target of this project is a consequent displacement of freight flows to rail in the whole alpine space by innovative concepts. A rail network, which enables connections in all directions, should be generated. The project work of AlpFRail is established for four years and provided with four million Euros. The Logistik-Kompetenz-Zentrum Prien (LKZ) leads the project technically and 16 partners of the alpine countries collaborate.

The project is unique within the EU transport politics. For the first time state ministries, regional governments, provinces, regions, chambers of commerce and associations from Germany, Austria, Italy, France and Switzerland co-operate in order to reorganise the freight traffic on rail. Furthermore take part the German Railways, the port of Venice and the association of the medium-sized transport companies in Italy. The LKZ in Prien as Lead partner analyses the freight traffic and elaborates suggestions for the cross national overall concept by the application of new technologies. Utmost emphasis is thereby put on harmonisation of economic efficiency and sustainable ecology.

12.1 Abstract

The drastic increase of the traffic

During the last 20 years the transalpine traffic has reduplicated.

In 2003 104. Mio tons of goods were transported on road and on rail over the inner alpine bow. Currently the quantity of goods is increasing disproportionally. The increased domestic market arisen from the EU east enlargement has an essential impact on it.

Changed basic conditions for the displacement on the rail in the alpine space

The lapse of the previous eco points arrangements in Austria as well as the quotas for the new EU member states have changed the general conditions for the displacement of the freight traffic to the rail in the alpine space in the year 2004.

This is also documented by the shipment decline of the Rolling Road on the Brenner. It seems important therefore, besides present very effective and national furtherance instruments for combined traffic, to observe also new rudiments for traffic displacement, like the project "AlpFRail".

Thinking in national borders

So far the rail freight traffic has been organised nationally. The responsibility of the Germans or Austrians for their railway is finished at the country border. For an optimal non-stop offer of the rail freight traffic from Hamburg to Verona there were hardly any initiatives. The railway companies still fight with their history with respect to the locomotive change, the locomotive driver change and the different electricity systems. The same applies to the enlargement of the rail infrastructure.

12.2 Partners

German partners

- Logistik-Kompetenz-Zentrum GmbH (LEAD PARTNER) http://www.lkzprien.de

- Regionalverband Donau-Iller http://www.rvdi.de
- Deutscher Verband für Wohnungswesen, Städtebau und Raumordnung e.V. http://www.deutscher-verband.org
- DB Netz AG http://www.bahn.de

Italian partners

- Autorità Portuale di Venezia http://www.port.venice.it
- Republic of Italy repr. by the Italian ministry for environment and territory http://www.minambiente.it
- Provincia di Alessandria http://www.provincia.alessandria.it
- Regione Autonoma Friuli Venezia Giulia, Direzione centrale della pianificazione territoriale, della mobilità e delle infrastrutture di trasporto http://www.regione.fvg.it/
- Regione del Veneto http://www.regione.veneto.it
- Veneto Union Chambers of Commerce - Department for European Policies http://www.eurosportelloveneto.it http://www.ven.camcom.it
- Provincia di Brescia http://www.provincia.brescia.it
- Provincia di Mantova http://www.provincia.mantova.it

Austrian partners

- Amt der Vorarlberger Landesregierung http://www.vorarlberg.at
- Bundesministerium für Verkehr, Innovation und Technologie http://www.bmvit.gv.at
- Landesregierung Salzburg http://www.salzburg.gv.at
- Landesregierung Kärnten http://www.ktn.gv.at

French partners

- Region Rhône-Alpes http://www.cr-rhone-alpes.fr

12.3 The method of resolution

Away from axes towards a rail network

In order to enable smooth rail freight traffic in all directions, the old scheme of North-South axes and East-West- routes has to be abandoned. Looking a map of the actual situation we can see that the infrastructure already exists in networks, but the traffic is organised only in single axes (for example the Brenner-Axe or the Tauern route).

That has to be changed. Therefore a rethinking by politicians and railway companies is necessary. Not only the national borders in the head of the people have to be abandoned – all involved persons of the project have to consider the alpine countries as a common European

space, which can be made accessible only with the aid of a network. At first, in the project AlpFRail all existing freight flows are being analysed and evaluated in simulation processes. On this basis the traffic flows will be optimised and integrated in a network.

In order to provide the customers with all available offers within the rail network and to enable a traffic controlling in cases of bottlenecks, a standard information and quality management system is under development.

Consolidation of all freight flows between the regions

An efficient rail freight traffic can only be achieved by a consolidation of freight flows. Up to now the freight traffic was concentrated highly on single types of goods and on so called racetracks. In the project AlpFRail this historical approach is challenged in general. There are new positive possibilities by the net thinking. That means, amongst others, that the activities expand by mixed trains. For the transalpine traffic this means concretely that also trains are considered to transport semi-trailers and swap trailers together with oversea containers.

13 Project: EU – Swiss Alpine Transport Observatory

The Land Transport Agreement between Switzerland and the EU foresees that transport flows shall continuously be analysed by an Alpine Freight Transport Observatory.

This Observatory is to be set up jointly by Switzerland and the EU Commission and will work under the auspices of the "Community/Switzerland Inland Transport Committee".

The project was tendered in October 2006 and the Observatory should be operational at some point during the year 2007. In the long term it is envisaged to establish a permanent institution and not a time-limited project.

13.1 Abstract

The overall objective of the Alpine Freight Transport Observatory is to provide an accurate, robust, detailed and up-to-date monitoring of freight transport in the Alpine region. This includes information on

- road traffic,
- non-accompanied combined transport,
- accompanied combined transport,
- wagon load rail transport,
- quality of transport flows, including infrastructure congestion,
- transport costs and prices, and
- the condition of the environment.

The observatory will gather all relevant data, harmonise it, process it and make the results available in the form of quarterly, annual and special reports as well as an on-line database.

The three specific objectives of the observatory are to support the Joint Committee and European and national policy makers in their decisions on

- Transport policy development
- Unilateral safeguard measures (Art. 46 of the Land Transport Agreement)
- Consensual safeguard measures (Art. 47 of the Land Transport Agreement)

13.2 Partners

At the time of writing this report the European Commission had not yet announced the winning bid for the observatory. However, it will be supervised jointly by the

- European Commission, DG TREN
  http://ec.europa.eu/transport/index_en.html
  Contact person: Mr. Guenther Ettl, guenther.ettl@cec.eu.int
- Swiss Federal Office for Transport
  http://www.bav.admin.ch/
  Contact person: Mr. Rolf Zimmermann, rolf.zimmermann@bav.admin.ch

13.3 Approach

According to the tender documents the objectives should be achieved by a work programme containing the following elements:

Module 1: Methodological introduction and contacts with national services

- Introduction to the various databases and data on trans-Alpine freight transport (methodology, definitions and interpretation of results)
- Contacts with national services and joint specification of scope, type and delivery dates of data
- Contacts with third parties for data delivery like rail transport operators and shipper associations
- A detailed proposal on how to evaluate transport flows – this includes definitions of the determining factors for the release of the safeguard measures to be developed in collaboration with the Joint Committee
- A detailed proposal on the structure and content of the project reports on the basis of discussions with the Observatory Working Group

Module 2: Transport monitoring and reporting

- Quarterly data collection from the relevant national institutions including follow up work and reminders
- Validate and evaluate the data
- Analyse the transport flows, taking into account changes in transport policy
- Update the information of the quality of rail services and the costs of trans-Alpine freight traffic
- Present proposals for data improvement (incl. other/new data sources) and discuss them with the national authorities
- Draw up quarterly reports for the Observatory Working Group (provide draft reports, get feedback from and the opinions of data providers and analyse those opinions
- Draw up annual reports for the Joint Committee (establish a draft report structure, collect and process data from suppliers, write a draft report for and discuss with the Observatory Working Group and draw up the final report for the Joint Committee)

Module 3: Special reports

- Collect proposals from the national contact points on how to conceptualise and define safeguard measures (including the corresponding justifications and data requirements)
- Evaluate the trans-Alpine freight transport flows for the entire Alpine arch
- Review and comment on the parameters for the quality and cost of freight transport
- Synthesise the environmental indicators from different sources and comment on their development
- Assess the effects of requested safeguard measures in terms of their impacts on the transport systems and the economy
- Find an agreement with the Observatory Working Group regarding the special reports

14 Project: WORLDNET

The WORLDNET project in the 6th Framework Programme of the EU is scheduled to start in spring 2007 and will run for 22 months. For this reason no project results are currently available but it is expected that a first database with transport flows (incl. road flows in the Alpine region) will be available in 2008, i.e. before the end of the ALP-CHECK project.

14.1 WORLDNET aims

To attain a more precise representation of the freight flows within Europe and between European countries and the Rest of the world

To extend the network model to other world regions, subsequently to facilitate the use and uptake for direct use in the countries/regions involved

14.2 Abstract

The TRANS-TOOLS model which is currently developed will become the reference transport policy assessment tool for the EU. It completes the ETIS reference database which is used for its calibration. ETIS has been developed in close cooperation with EUROSTAT to provide the Commission with a policy oriented information system. Although the scope of ETIS and subsequently TRANS-TOOLS is EU25, there is some lack of recent information on the new members (EU27) and on the new neighbours, as well as detailed country or group of countries information recording trade with the Rest of the world.

14.3 Partners

- NEA Transport Research (http://www.nea.nl)
    - Contact Person: Mr. Sean Newton, e-mail: sne@nea.nl
- Ocean Shipping Consultants, UK
- IWW, Uni. Karlsruhe, D
- MKmetric, Karlsruhe, D
- TINA Vienna, AT
- DEMIS, NL

15 Final Considerations

As we said in Introduction there is a lot of study material on Alpine Mobility. The problem, being a sensible problem, has been and it is being investigated and documented on several aspects and for many issues. During the selection work on projects we counted something as 40 European projects about mobility, Alpine Space, intermodality, traffic data exchange and traffic management. Of these someone was rejected for documentation poornes, someone because too old and so outdated, someone because it was merged in other projects. Finally we can count 13 really related projects with Alpcheck.

However, being the harmonisation between AlpCheck project and other related initiatives one of the aims of WP 5, it is not easy to think to a strict coordination with other 13 projects. Some of these were ended years ago (there are objectives difficulties in contacting referers), some are still in development (work in progress situation). So it is necessary to give indications and to operate a careful choosing work to select some of those eleven to gain the most added value.

First of all we have to select criteria with which to operate choices. Considering budget and time limitations we can't long for heavy and honerous factibility studies. We think it's better to center few and solid results then to risk aiming to get all the possible, so simplicity and availability of contacts and referers are essential. Another aspect to consider is the solidity and "sponsorship" of projects we are going to harmonise. If we have to choose a few projects we have to be certain those projects are sustained and pursued at least as AlpCheck. And last but not least we have to consider common related aspects or, better, mutual and profitable exchanges. Summarizing, in no particular order:

1. Contacts and referers availability
2. Sponsorship and solidity of candidate projects
3. Max level of usefulness in harmonisation

So we suggest working on, mainly, SERTI and CORVETTE projects because:

- These projects are evolving and growing program after program since their births. They collect partners among road owners, public security authorities, public infrastructures departments and research institutions; at now all of them are committed in these projects. We suppose it will be easy, or not so hard, to contact referers to ask for information.
- They are projects having high priority in European programs, have huge credit of phame among commissions, have collected solid results. Partners are strong institutions in mobility and infrastructure sector.
- Basically these projects collect information. After collecting they share. And then they elaborate results both in statistical mean than for real time applications. Something as Alpcheck, with the difference they did it by years.

In real terms we can speak of harmonisation considering data sources, data exchange protocols and, to high level, exchange of information and results. For example it will be very usefull the possibility to be connected to the same data sources, infact, for SERTI and CORVETTE, we are speaking about data sources directly managed by main mobility actors: road owners, traffic control centers, public infrastructures departments, public secutiry departments… Don't forget those projects have in their objectives road security and data exchange on a greater scale than AlpCheck, but in their region of pertinence Alps are included too.

Furthermore, the ALP-CHECK activities could be coordinated with the work of the recently established Alpine Transport Observatory. The observatory's work and objectives are very similar to those of ALP-CHECK, i.e. the harmonisation of data from various existing sources and the establishment of a data clearinghouse for public access to this harmonised database.

Another project to take in account is AlpenCorS. It provides for a single communication way (the Corridor South) a very depth analysis. This project may supplies data, ideas, methods and research issues to AlpCheck. In AlpenCorS case we think the best way to harmonise is by informations and results exchange between respective teams. It will be interesting a result match between the twos to valuate Corridor South effects on Alpine mobility, maybe a future projetc…

Other projects, mentioned in this document, all bring knowledge and interesting aspects, but we don't see immediately useful links. However, inside the excluded list we put in pole position Monitraff project. It is not concluded yet, and this was considered too, but it has many related aspects with AlpCheck. In the future it will be useful to perform a comparison work between Alpcheck and Monitraff.

16 Annex A: Projects resumes

We propose analytical resumes for fast reference.

Acronym:	**Program:**	**Duration:**
CORVETTE	TEMPO (DG TREN)	2001 – 2006
Object: Coordination of the work for the implementation and operation of intelligent transport systems (ITS)		
Lead partner: -		**Level of Interest:** ★★★★★

Acronym:	**Program:**	**Duration:**
SERTI	TEMPO (DG TREN)	2001 – 2006
Object: Harmonise deployment of ITS in order to improve the continuity and the quality of services on the European road network		
Lead partner: -		**Level of Interest:** ★★★★★

Acronym:	**Program:**	**Duration:**
MESUDEMO	RTD (Fourth Framework Progr.)	1997 – 2000
Object: The aim of the project is to develop a methodology for creating a general European database on transport infrastructure and flows of passenger and goods		
Lead partner: -		**Level of Interest:** ★★

Acronym:	**Program:**	**Duration:**
ETIS	RTD (Fifth Framework Progr.)	2002 - 2005
Object: ETIS is an information system of integrated policy tools to support policy analysis and policy making. It will comprise four elements: a data element; an analytical modelling element; GIS and a final element interfacing users with the above elements.		
Lead partner: Scientific Officer European Commission (Anna Panagopoulou)		**Level of Interest:** ★★★★

Acronym:	Program:	Duration:
AlpNet	(DG TERN – Fifth Framework Progr.)	2001 - 2003
Object: The overall aim of the ALP-NET thematic network, funded by the European Commission under the fifth Framework Programme, was to outline policy and research recommendations for trans-Alpine transport.		
Lead partner: ICCR (Michael Schmidt)		**Level of Interest:** ★★

Acronym:	Program:	Duration:
AlpenCorS	Alpine Space (Interreg III B)	2002 – 2005
Object: To analyse the socio-economic and spatial profile of transport corridors and to disseminate the results mainly to the territorial communities.		
Lead partner: Regione Veneto		**Level of Interest:** ★★★★★

Acronym:	Program:	Duration:
MoniTraff	Alpine Space (Interreg III B)	2005 – 2008
Object: MONITRAF identifies and analyses the impact of road traffic within and through the Alps along the four transit corridors Brenner, Fréjus, Gotthard and Mont-Blanc.		
Lead partner: Department of Transportation of the Tyrolean Provincial Government in Innsbruck		**Level of Interest:** ★★★★

Acronym:	Program:	Duration:
MobilAlp	Alpine Space (Interreg III B)	2004 – 2007
Object: To increase the uses of clean / soft / collective transports and to reduce individual motorized mobility through improved information and services to transport users as well as innovative transport offers and improved access to collective mobility.		
Lead partner: Conseil Général de la Haute-Savoie		**Level of Interest:** ★

Acronym:	Program:	Duration:
Alps Mobility II	Alpine Space (Interreg III B)	2003 - 2006
Object:		

Is the creation of innovative eco-tourism offers „Alpine Pearls", combining the tourist points of interest with the advantages of Sustainable Mobility with environmentally sound transport means.	
Lead partner: Federal Ministry for Agriculture and Forestry, Environment and Water Management (A)	**Level of Interest:** ★

Acronym:	**Program:**	**Duration:**
AlpNap	Alpine Space (Interreg III B)	2005 - 2007
Object: Innovative methods to selected areas to quantify the sensitivity of mountain regions to emissions (air pollution and noise) in the valleys and to demonstrate how traffic regulations can be designed to meet standards as a function of real emissions and weather.		
Lead partner: Deutsches Zentrum für Luft und Raumfahrt (D)		**Level of Interest:** ★★

Acronym:	**Program:**	**Duration:**
Alpine Awareness	Alpine Space (Interreg III B)	2003 - 2006
Object: Contributing to sustainable development by reducing traffic-related emissions, thus implementing the strategies of EU and national policies.		
Lead partner: Provincia di Belluno (I)		**Level of Interest:** ★

Acronym:	**Program:**	**Duration:**
AlpFrail	Alpine Space (Interreg III B)	2003 - 2006
Object: Create a sustainable mobility concept and offers to master the transalpine freight traffic by using existing (railway) infrastructure.		
Lead partner: Logistik-Kompetenz-Zentrum Prien am Chiemsee (D)		**Level of Interest:** ★★

Acronym:	**Program:**	**Duration:**
Alpine Observatory	-- (co-funded by DG TREN and the Swiss goverment)	2007 - open end
Object: Set up an observatory for transport in the Alpine region. Collect, harmonise and disseminate data.		

Lead partner:	**Level of Interest:**
Will be announced before the summer 2007.	★★★★

Acronym:	**Program:**	**Duration:**
WORLDNET	DG-TREN, 6th Framework Programme	2007 - 2009
Object: Use transport modelling to extend and update the ETIS system.		
Lead partner: NEA Transport Research		**Level of Interest:** ★★