EuroRegional Projects: what has been achieved?

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ERPs have delivered real-world results

On four domains, real deployment has been achieved:

- Domain 1: Road Monitoring Infrastructure
- Domain 2: European Network of Traffic Centres
- Domain 3: Traffic Management and Control
- Domain 4: Traveller Information Services
- (Plus : horizontal issues and project management)

Some technologies that are now taken for granted actually originated in or were developed through ERPs:

- Variable message signs
- RDS TMC
- Real time traffic information
- Coordinated and planned traffic management

DGTREN shows the way

The EC « only » subsidizes ITS projects :

- Rates of 10% for works, 50% for studies
- Total : 192 Meuros (originally) over six years
- Which results in total investment from partners of 1 000 Meuros

Extremely positive impact of EC funding :

- It legitimize involvement in ITS at member state level
- 50% rate stimulates innovation

Strict management

Each ERP involves numerous partners :

- from several countries
- mostly national or local road operators and authorities.
- they define a yearly work plan that is approved of by the European commission, which then monitors its progress.

This means that partners have to agree on a set of objectives and report to the EC.

Strict management ensures that issues and projects are not forgotten over time.

As a consequence:

- very little delay in projects
- near 100% budget consumption

Real team spirit

This is not easy, and consequently :

- Partners meet about 3-4 times a year for each ERP

They get to discuss

- common ERP issues
- plus all common issues related to traffic management

This in itself is an achievement, because :

- cross-border items tend to be overlooked
- language barriers do exist

Just one example :

- traffic management accross the Pyrenees.

Four expert groups

In order to ensure cross-fertilization, ERPs have created four joint expert groups on :

- Evaluation
- Monitoring
- Traveller information services
- Data exchange

With the help of the « Tempo secretariat », they contribute greatly to good management:

- Joint procedures (eg evaluation)
- Overview and promotion of ITS deployment in Europe
- Promotion of information services, which is a key DG TREN objective

Some case studies for all ERPs

They are a showcase for what ERPs are good at:

1- Mainly actual deployment of traffic information and management systems that have been proved to work:

- VMS, RDS TMC, travel time

2- But also :

- Experimentation of some promising systems
- Joint initiatives to deepen understanding and build concensus of common issues
- Going almost as far as « pre normalization »

Traffic data exchange

Effective data exchange is recognized as a necessity

- Between TCC for road management
- From TCC to TIC for trafic information

Road operators are united:

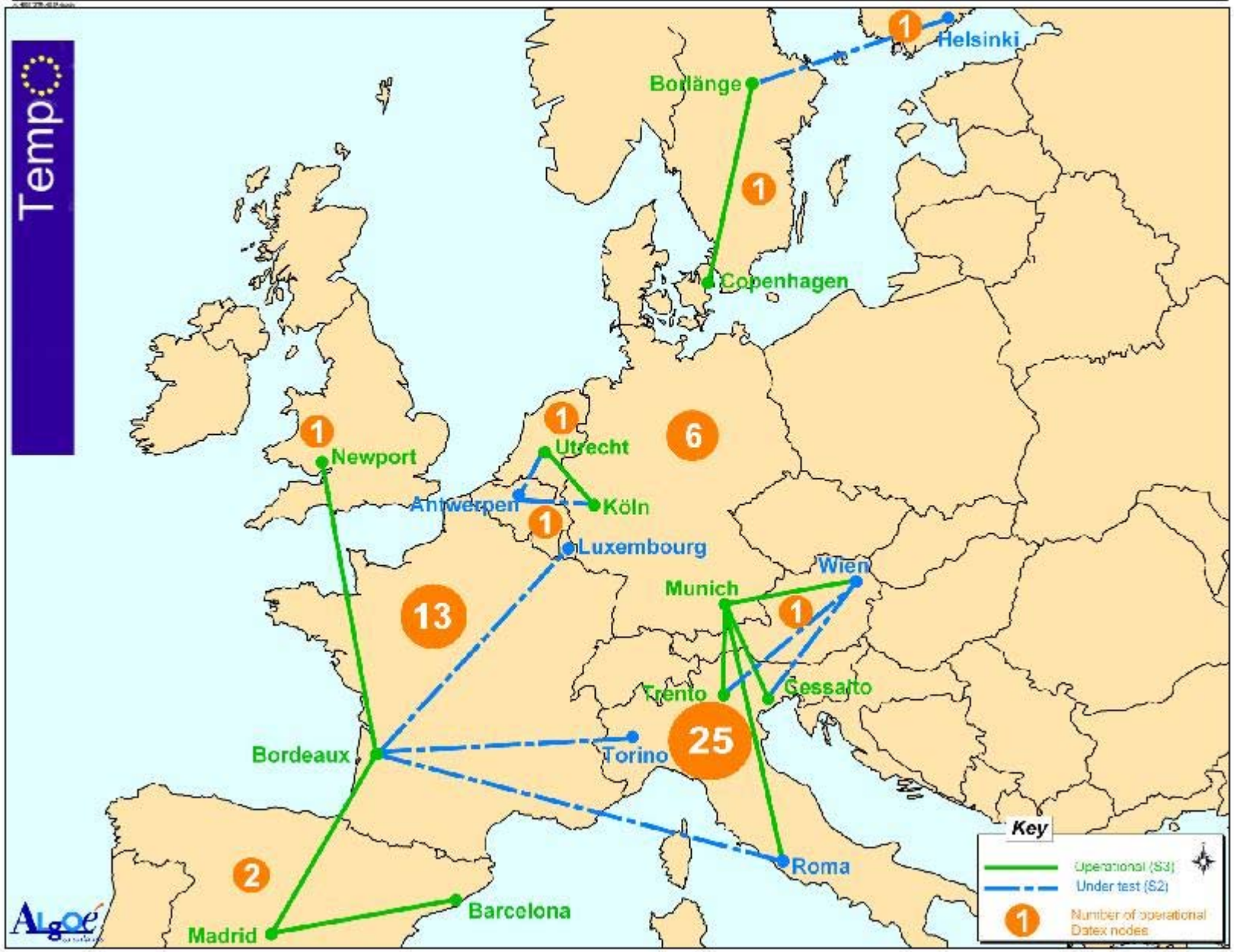
- under the umbrella of the Datex MoU
- meet and work in the Datex SMC
- steer the work of the Datex technical committee

Numerous Datex links are already operational.

Next generations of Datex protocol

- In order to benefit from latest technological standards
- Thanks to Centrico impulse, two versions are developped:
- A full version with TCC to TCC functionalities
- A lighter version for TCC to TIC data transmission
- Milestone: 2006

European Network of Traffic Centres
International Datex links



RDS-TMC evaluation in France and Spain (Serti)

Drivers are interested in on-board real-time information. RDS-TMC services allow users to receive

- real-time information on road incidents occurring along their itinerary
- in the driver's mother tongue
- Information can be delivered to drivers through a receptor via a cartographic display, vocal interface or short texts.

Within SERTI, these services have been deployed in France and Spain since 1998.

Several evaluations were undertaken in SERTI; road information transmission time and reliability of the traffic information chain is now demonstrated.

Nearly 4 million receivers mixing route guidance and TMC services are now in use in Europe.

Cross Channel information services project (Centrico)

Improving travel information services for all cross channel travellers, in particular the freight industry :

- bringing all stakeholders together to develop sustainable solutions and making best use of existing infrastructure
- providing the data needed for emerging information services
- developing long term solutions using new technologies

A two month trial was carried out in 2003.

- Eurotunnel promoted the 107.7FM service on their VMS and in the departure letter handed to customers at check-in
- Traffic info about English roads on SANEF 107.7FM service
- The XCIS team designed a leaflet as a guide for foreign drivers that contains translations of the English VMS settings

Next steps:

- coverage of the southern half of England in the portal, which became live in March 2005.
- real-time information about roads in France on VMS at Dover Harbour and Eurotunnel is being investigated.

Speed Control Evaluation on the "Autoroute du Soleil" (Serti)

ASF evaluated a speed control system between Orange and Valence (about 90 km) :

- real-time systems allowing detection of traffic destabilisation
- and display of "speed limits" to drivers in order to adjust the traffic flow.

The first results of the 2004 experimentation were very positive in terms of safety and efficiency. When compared to 2003 for the same period of the year with a similar level of traffic

- a reduction of accidents (- 48%) and of congestion (- 16%) was observed when the system was activated.
- the time saved during August peak periods was estimated to be more than 30 000 hours (i.e. 1,3 M€).

Project investment for the whole system : 700 k€.

Cross Border Management (Centrico)

Several (>8) corridors have been defined in Centrico:

- Paris-Brussels corridor, Randstad-Rhein-Ruhr network, Rhein corridor, Noord Nederland-Niedersachsen corridor…

Objectives:

- improve cross-border traffic control in order to manage traffic efficiently
- set up cross-border management plans and roadside associated tools on priority corridors and networks.

Most have been defined for cross-border re-routeing:

- If traffic on the main route is disturbed, a recommendation for the use of alternative routes is given.

On some corridors it was decided to set up a full traffic management plan:

- an instruction book comprising predefined possible problems
- with corresponding traffic management measures to take.

Informations kiosks (Streetwise)

Kiosks and rolling screens to deliver traffic information

- web based services to en-route drivers, esp. freight users
- a common project in the 2005 work plan for Streetwise partners

March 2005, an information point installed at a service area on a busy junction on the M42 motorway in England:

- upper screen: a continuous stream of summarised and localised motorway and trunk road traffic information
- interactive screen for interrogation of the summary information in detail plus access to the HA data
- an average of 1000 visitors per week

April 2005, a touch screen kiosk was installed on the StenaLine Ferry (Stranraer – Belfast):

- a portal to the individual websites of partner state's roads authority
- information on incidents, roadworks, journey times, CCTV images
- communications via StenaLine's satellite Internet connection.

More initiatives in Wales, Scotland etc.

Average speed and interdistance control (Arts)

Increasing road safety through awareness

- In 2003 – 2004 : COFIROUTE designed, developed and installed on a 12 km-section of its network, a system to measure average speeds and vehicle interdistance.

Process:

- Inputs : the distance between two equipped sites and the exact instant the plates are read
- The system computes average speeds and vehicle interdistance.
- In case of excessive speed or too short interdistance, the plate number of the concerned vehicle and a safety message are alternately displayed on a small roadside Variable Message Sign.

Evaluation

- The number of vehicles exceeding 130 km/h dropped from 60% in October 2003 (start of the experimentation) to 28% in June 2004.

Next steps: COFIROUTE will look at some improvements of

- Accuracy of time interval measurement in case of HGVs
- Recognition of all European licence plates

Electronic fee collection (Connect)

Objective :

- move from vignettes and time-based road pricing
- to distance-related road tolling and an EFC system
- compatible and interoperable within the CONNECT region

EFC in Slovakia:

- will prepare studies on economical, technical and legislative background
- will be concluded by testing the appropriate EFC technology. Design and testing of an interoperable EFC system which complies with Slovak and EU requirements
- distribution is planned for 2006

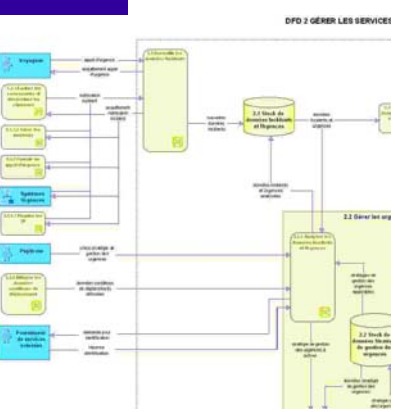
EFC in Slovenia:

- In order to promote the unhindered movement of people and goods between Western and Eastern European regions
- Slovenia is the coordinator of EFC activities in the area

Joint ITS architecture (Connect)

All CONNECT partners will :

- focus on the harmonisation of national ITS architectures
- In order to support interoperability of ITS applications installed in the CONNECT road network
- will comply with projects and initiatives like KAREN, FRAME-S and FRAME-NET.
- considering new telematics applications currently being introduced on the market or still in development.
- helps optimise functionalities of the telematics system, reduce operating costs and provide interfaces to other applications.



Austria, Czech Republic, Hungary, Italy are heavily involved.

Possibly based on ARTIST :

- Architettura Telematica Italiana per i Sistemi di Trasporto, which already exists
- realisation of a selection tool in the ARTIST frame will help with the development phase
- adoption of training tools will make the exchange of research in the different sectors more efficient.

Temp

Temporary Use of the Emergency Lane (Viking)

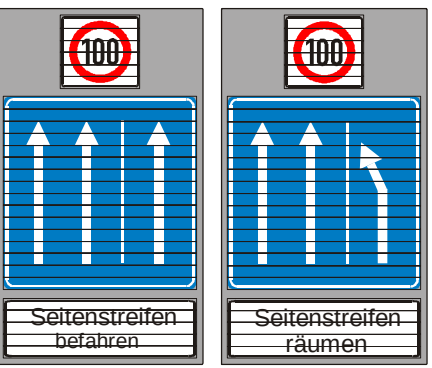
Case study: motorway A7 (Hamburg – Flensburg)

Very positive cost benefit analysis

- The costs add up to a total of 2,9 mill. EUR
- medium to long-term : 6-lane extension

Reinforced control is necessary :

- 26 sections with variable message signs, 12 inductive loops
- 32 video cameras, 32 section control stations have been installed



From a defined critical number of vph (e.g. 2,800):

- the system suggests the opening of the emergency lane
- which will then have to be released manually
- qfterwards, the emergency lane will be closely monitored

Conclusion:

- significantly improves the situation with little change in accident rate
- the possibility of an extension in northern direction has been analysed in another feasibility study.

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sécurité routière

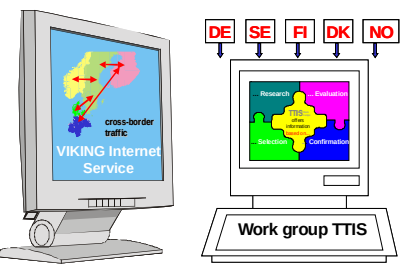
Travel and Transport Information Service (Viking)

VIKING partners' objectives:

- to offer a service for the whole of Northern Europe
- to focus on cross-border travel
- to comprise all means of transportation
- to offer information for all transport purposes (i.e. private, business, freight)

"TTIS" is online since March 2000

- 5 main areas, 65 thematic focal points,715 sections
- information on countries, road traffic, freight traffic, public transport
- Choice of language



Content-Management-System:

- enables decentralized updating and maintenance
- as well as improvement and extension.

Work group responsible for the maintenance, further development and promotion of the website.

www.truckinfo.ch (Corvette)

Arterial routes across the Alps are vulnerable.

Idea : a website for HGV traffic, with the aims of

- providing a tool for intermodal route planning and mode selection –
- transfer HGV on rails – in the Alpine transit corridors.

The main features of the internet platform are :

- the inter-modal route planner (piggy-back service train connections)
- supply of traffic information

Three steps :

- 1- production of a map to present actual traffic and HGV information within the Alpine corridors through Switzerland.
- 2- inter-modal routing information was added
- 3- multilingual interface (German, French, Italian and English)

After the project had started:

- incorporated the alternating truck traffic intervals systems
- Implementation of traffic regulation system in the Gotthard tunnel

VMS Nuremberg (Corvette)

Nuremberg region:

- trade fair, the Franken stadium and sports Arena are very close
- when events coincide, massive additional traffic on the motorway network around Nuremberg and on the main radials

VMS system Trade fair/stadium/ARENA Nuremberg

- automated VMS on the motorways and the urban road network
- drivers can be directed to their goal on the ideal way
- overlays of long-distance traffic and traffic related to a special event can be prevented

The VMS system:

- a scope of 70 km on motorways and 33 km on urban roads
- The overall system is managed by a traffic management unit with standardised software.
- Partners: Bavarian road authorities, the city of Nuremberg and Nürnberg Messe GmbH
- completed in March 2004.
- It is considered to be the most modern system of its kind in Europe.

MareNostrum (Arts, Serti, Corvette)

Objectives :

- define new solutions to improve the harmonisation of messages on text + pictogram VMS
- test of such solutions along an international corridor (Spain, France, Italy and Austria)

The main achievements up to date are:

- creation of this very concrete initiative!
- first draft document on possible solutions
- development of an agreed methodological approach
  - analysis of format and composition rules of messages
  - aims to face the issue of travellers' information processing
- Identification of the most suitable methodologies to be applied in the first "off line" testing activity to be performed

In full cooperation with related initiatives:

- UN's Vienna convention

ERPs are not over just yet.

By 2006, ERPs will have:

- Tested an advanced data transfer protocol (Datex2)
- Proved a number of technologies

More importantly even : actual deployment

- A number of traffic control centers…
- …linked through a network
- Traffic management coordination
- Traffic information services (public or private)

The effort must continue on after 2006

ITS and ERPs have a positive impact on :

- Road safety
- Congestion times
- Beneficial to the environment and the economy as a whole

There is still a lot to achieve :

- Maintain existing services and infrastructure
- Develop them in order to take into account the increase in traffic
- Include urban areas and promote multimodality

ITS deployment should continue

- Preferably with help from the EC

Personal recommendations:

- Strict focus on deployment
- Careful steering and monitoring
- Active promotion, based on facts
- With a separate activity for experimentations

Thank you for your attention.

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