FRAME-S
Framework Architecture Made for Europe - Support

Funding: European (5th RTD Framework Programme)
Duration: Jun 2001 - Apr 2003
Status: Complete with results

Background & policy context:
In a global economy, the existence of smooth and efficient mobility for people and goods is fundamental. The failure to guarantee a high level of mobility can represent a threat to economic efficiency and competitiveness.

During recent years, the use of Intelligent Transport Systems (ITS) has come to the forefront as a valid way of helping to tackle road traffic problems. In order to stimulate the development of ITS in Europe and provide a sound foundation for its balanced and effective deployment, an European ITS Framework Architecture is essential.

The first European ITS Framework Architecture was produced in November 2000 by the KAREN Project, funded by the European Commission. The European Framework Architecture is currently being used by EU Member States as a basis for the development of their local, regional and national ITS architectures.

The purpose of the FRAME Projects, launched in the Summer of 2001, is to refine the first version of the Framework Architecture and provide support to its development and application. The aim is to give active assistance to all EU Member States (and applicant countries) wishing to develop their own architectures and to provide an opportunity for them to exchange experience.

Objectives:
Compatibility and consistency of information delivered to end-users through different media (any end-user should be able to receive the same information through different media such as GSM, DAB, etc.)

The ability of travellers and freight operators to plan and implement journeys using the most efficient, convenient and cost-effective effective combinations of transport modes

Compatibility of equipment with different infrastructures, thus enabling "seamless" travel across Europe (e.g. a driver should be able to use the in-vehicle system for electronic payment both at home and abroad)

A basis for regional, national or European authorities to produce master plans and recommendations to facilitate ITS deployment allowing, for instance, authorities to co-operate on traffic management across borders and boundaries

An open market for services and equipment in which compatible sub-systems are offered (no more standalone solutions)

Economies of scale in equipment manufacture permitting attractive prices, and thus easier investments, with compatibility guaranteed

Methodology:
The existence of ITS system architectures has become increasingly necessary because Intelligent Transport Systems themselves are rapidly becoming more and more complex. Intelligent Transport Systems frequently span several transport means (e.g. private and public transport) and are provided in many locations (on board vehicles, at the roadside, at home, at the office, or through mobile devices). It
is also increasingly important that they should be fully compatible, not only within a single country, but at the international level as well. An “architecture” in its broadest sense defines the toplevel structure of a system, providing a strategic framework from which many designs are possible. It may include both technical and organisational aspects. By establishing ITS architectures, it is possible to achieve the harmonious integration of systems by defining standards, norms and practices. It also ensures the solution of issues such as stakeholder relationships and responsibilities for communications infrastructure provision.

The use of an ITS architecture also makes it possible to highlight any problems that arise from the refinement and modification of the services that are being provided. The architecture can then become a “tool” that enables these problems to be addressed and resolved.

**Related Projects:**

KAREN

FRAME-NET

**Parent Programmes:**

**FP5-IST KA1 - Systems and services for the citizens**

**Institute type:** Public institution  
**Institute name:** European Comission, DG Information Society  
**Funding type:** Public (EU)

**Partners:**

Belgium:  
ERTICO

France:  
AFT-IFTIM; DSCR - Direction de la sécurité et de la circulation routière; Mega International

Finland:  
Traficon Ltd; VTT

Greece:  
National University of Athens (Greece)

Italy:  
MIZAR Automazione; MIT - Ministero delle Infrastrutture e dei Trasporti; Politecnico di Torino

Sweden:  
Swedish National Road Authority

The Netherlands:  
NEI - Ecorys; Rijkswaterstaat - AVV; TNO

United Kingdom:  
Department for Transport; Siemens Traffic Controls; University of Leeds

**Organisation:** Siemens AG  
**Contact country:** Germany

**Key Results:**

- Organisation of Workshops and Cluster Meetings to share and learn from ITS architecture development experiences

Dissemination of the European ITS Framework

- Architecture and of “best practice” in ITS
- Architecture development and deployment

Provision of workshops to provide training in the development of ITS architectures based on the European ITS Framework Architecture
Provision of on-line assistance for those involved in European ITS Framework Architecture development

- Development of a “Navigation Tool” to assist using the European ITS Framework Architecture as a starting point for ITS architecture development
- Upgrade of the European ITS Framework Architecture in response to the evolution of ITS experience within Europe

**Technical Implications**

**Policy implications**

The following are various categories of users who can benefit from using the European ITS Framework Architecture.

**High-Level Ministries**

: National or regional authorities that plan and manage the transport needs for the nation or state who want to ensure the consistent and co-ordinated provision of ITS within their country

**Local Authorities**

: City, regional or district authorities that are responsible for planning and managing transport in their area, and who need to deploy ITS in a coherent and cost effective manner, so that it is extendible geographically and over time

**Commercial consumers (the freight, public transport and logistics industries)**

: Companies transporting commercial goods or providing public passenger services, who use ITS for fleet management, the planning and monitoring of their operations and the provision of information

**ITS Operators (Exploitation Level)**

: Companies and public organisations who use the output from ITS products as the basis for the services that they provide, some of which may be chargeable

**Companies involved in ITS products (Industry Level)**

: All industrial organisations that are involved and concerned with the development, production and sale of ITS products

**Service Providers with access to ITS**

: Information providers, such as airports, stations, transport/travel operators, and other organisations, who provide their custo

**STRIA Roadmaps:** Network and traffic management systems

**Transport mode:** Multimodal transport

**Transport sectors:** Passenger transport, Freight transport

**Transport policies:** Digitalisation

**Geo-spatial type:** Other