PROJECT

FORCE 3

Radio Data System/Traffic Message Channel for European Interoperability

Funding: European (4th RTD Framework Programme)
Duration: Dec 1996 - Dec 1999
Status: Complete with results

Background & policy context:

Updated information on traffic flows, accidents, weather conditions and other relevant events is an essential tool to reach safe and sustainable road transport. The concept of Traffic Message Channel (TMC) allows traffic messages to be standardised, encoded and transmitted in a digital form, through RDS, to the vehicle receivers in parallel with the current broadcast programme.

There is a network of RDS/TMC services across Europe, with subtle differences in content and quality. The service providers and the other actors involved in the business chain of RDS/TMC also vary across Europe, with both complementary and overlapping services. Harmonised and interconnected services would allow to use the same receiver in any European country, and achieve standardised quality levels of the service.

Objectives:

The main objective of the FORCE 3 project, together with the FORCE 1 and FORCE 2 projects of the Telematics Applications Programme and the ECORTIS-TEN-T project, was to enable the implementation of RDS/TMC services with European wide functionality.

To ensure that those services are continuous, interoperable with any receiver and achieve agreed quality levels, specific objectives of the FORCE-ECORTIS projects were to:

- achieve a common functionality according to agreed definitions,
- develop common guidelines for implementing and operating services,
- encourage common understanding of the European elements and basic services,
- enforce the co-ordination between service providers and all RDS/TMC actors,
- increase the exchange of traffic information between services,
- consolidate standards and specifications,
- fix the framework for European activities.

Related Projects:

- INCOME: Integration of Traffic Control with Other Measures
- TROPIC: Traffic Optimisation by the Integration of Information and Control

Parent Programmes:
FP4-TRANSPORT - Specific research, technological development and demonstration programme in the field of transport, 1994-1998

Institute type: Public institution
Key Results:

Within the overall RDS/TMC European service development, the FORCE 3 project has:

- created technical information for system architecture definition,
- offered support to national service providers for implementing Quality & Assurance processes,
- issued operational and organizational guidelines.

No direct assessment of individual services was carried out by FORCE 3 project, while guidelines were produced to help each service provider to carry out its own service evaluation. The guidelines and agreements resulted from the project, have knitted the services of the different countries together, enforcing their common European nature.

RDS/TMC services have met basic acceptance criteria such as actual use by drivers who have on-board TMC receiver, information comprehensibility and user satisfaction level. Drivers exposed to TMC information declared to feel better informed. Considerable traffic efficiency impacts, due to TMC information, were experienced by 10% to 20% of the drivers.

Policy implications

ITS services have the potential to benefit from interoperability, with clear advantages for delivering European policy objectives. The language independence of RDS/TMC is a particularly important function which benefits from the coded nature of the system. It allows users to receive the RDS/TMC services in their chosen language, regardless of where they are in Europe. This is a major achievement for a cohesive and integrated TEN T network, which is one of the main EU tasks.

In certain countries some RDS features may be misused for publicity purposes and may endanger road safety. The national radio regulatory bodies need to enforce the application of the CENELEC standard, regarding the use of RDS features. However, this is not a concern of TMC or of the project, but rather of the appropriate national radio regulatory authorities.

The increasing difficulty in achieving transport infrastructure projects of a traditional nature, like new or improved highways, points to increasing emphasis on ITS in European policy objectives in the near future. The TMC Forum, whose membership is open to public and private organisations interested in TMC, shall be responsible for all further work at European level.

Documents:

force3rep.pdf (Final report)
**STRIA Roadmaps:** Network and traffic management systems

**Transport mode:** Road transport

**Transport policies:** Decarbonisation, Societal/Economic issues