PROJECT

TERMINET

Towards a New Generation of Networks and Terminals for Multimodal Freight Transport

**Funding:** European (4th RTD Framework Programme)

**Duration:** Jan 1997 - Dec 1999

**Status:** Complete with results

---

**Background & policy context:**

Intermodal transport is expected to help tackle increasing pollution and traffic congestion in road transport. However, national and European initiatives to foster a modal shift away from road transport and to promote intermodality have substantially failed until now. The actors involved are still dissatisfied with the presence of numerous administrative and institutional barriers, and with the quality of operations and transhipment processes. This situation calls for new, perhaps more complex bundling concepts and extended transhipment schemes that may also demand advanced designs of intermodal terminals.

**Objectives:**

TERMINET aimed to identify promising and innovative directions for bundling networks, new generation terminals and terminal nodes for combined unimodal and intermodal transport in Europe.

The main objectives of TERMINET were to:

- formulate public and private measures to support and encourage new generation operations;
- recommend terminal and terminal node concepts for particular types of nodes in identified bundling concepts, or alternatively, to specify bundling networks with node types and locations suited to certain terminal concepts, and to outline a feasible implementation strategy;
- identify in detail the probable, promising and missing regions or transport corridors and the freight markets involved.

**Related Projects:**

- IMPULSE - Interoperable modular pilot plants underlying logistic system in Europe.
- IQ - Intermodal quality.
- SCANDINET - Promoting integrated transport in peripheral areas of the Union. Case Scandinavia.

**Parent Programmes:**

[FP4-TRANSPORT - Specific research, technological development and demonstration programme in the field of transport, 1994-1998](https://example.com)

**Institute type:** Public institution

**Institute name:** European Commission; Directorate-General for Energy and Transport (DG TREN; formerly DG VII)

**Funding type:** Public (EU)

**Partners:**

NA
Terminet has:

- identified innovative networks, which were found to be more efficient when the bundling of small flows helps to establish hub-and-spoke concepts for medium to long distances;
- investigated new generation terminals, which were found to be economically viable at high freight volumes (>200,000 units);
- outlined cost and performance criteria for clients of advanced terminals;
- highlighted harmonisation measures at the EU level aimed at promoting the operational implementation of new generation terminals;
- set up five case studies at existing intermodal terminals (Metz/F, Busto Arsizio/I, Venlo/NL, Valburg/NL, and Duisburg/D);
- evaluated these case studies in terms of investment and operational costs, and performed transport chain cost comparisons with conventional unimodal (road) transport;
- identified perceived barriers for implementation of new generation multimodal terminals and associated innovative networks.

Policy implications

The TERMINET project has tackled the majority of topics concerning the integration of advanced terminals and complex freight networks. However, several aspects need more in-depth research in order to pave the way for the implementation of this concept. These include cost/benefit analyses for the whole network with integrated terminals, the development of efficient feeder services and regional networks, and the evaluation of risks and benefits related to highly robotised and automated terminal operations.

In the context of a refined implementation strategy for new generation intermodal terminals specific transport related barriers should be further investigated and assessed. Finally, the scalability and flexibility of new terminal concepts - primarily for smaller applications - needs to be evaluated.

Documents:
- [terminet.pdf (Final report)](terminet.pdf)

STRIA Roadmaps: Network and traffic management systems
Transport mode: Multimodal transport
Transport sectors: Freight transport
Transport policies: Decarbonisation, Societal/Economic issues