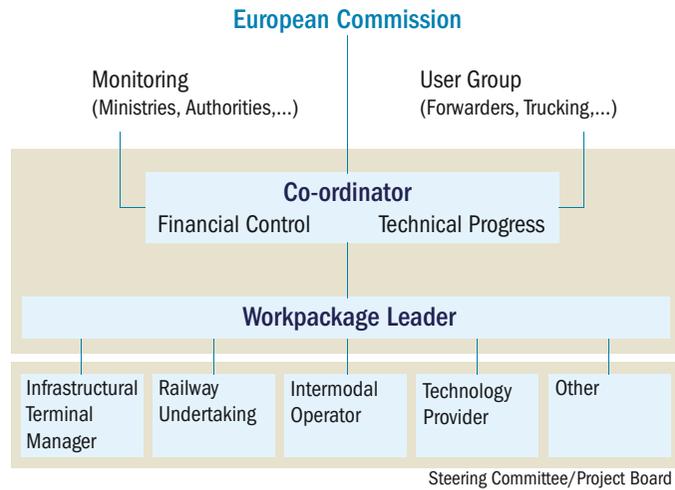


BRAVO Project Management Structure



The project is composed of almost all elements of the international conventional rail and intermodal transport chain and thus stakeholders from operational parties, industry, scientific community, users and the political sphere of several European countries along the Brenner corridor.

The tight time-schedule from innovation to application within only 3 years and the close link to daily operation during the demonstration phase demand an appropriate management structure that is linking the different parties and ensures a timely completion of the vertical (technical and corridor-oriented) and horizontal (managerial) tasks of the project.

BRAVO Consortium

15 PARTNERS FROM 6 COUNTRIES

KombiConsult is the co-ordinator of the BRAVO project and also performs the project management in cooperation with the consultant HaCon.

The high-potential consortium unites both incumbent and independent railway undertakings - Österreichische Bundesbahnen (ÖBB), Railion Deutschland, Trenitalia Logistica, Lokomotion, and Rail Traction Company (RTC) - the intermodal and terminal operators Cemmat, Kombiverkehr, and Ökombi, the Greek forwarder Hellas Transport, and Interporto Bologna that is operating the freight village in Bologna. In addition, the Swiss wagon manufacturer Ferriere Cattaneo seeks to contributing technological innovations, while the UIRR is responsible for disseminating the results. The Technical University of Darmstadt is the scientific advisor to the BRAVO project.

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Brenner Rail Freight Action Strategy

Aiming At Achieving A Sustainable Increase of Intermodal Transport Volume by enhancing Quality Efficiency and System Technologies



www.bravo-project.com



Funded under the 6th Framework Programme for Research and Technological Development of the European Commission DG TREN

History and Vision

The Brenner Corridor is one of the mostly used European freight corridors both by road and rail, which is transiting the sensitive Alpine region. With an objective to raise the volume of environmental-friendly combined rail-road transport and increase rail's market share on the Brenner corridor, in 2002, all stakeholders of this industry from Austria, Germany, and Italy committed themselves towards the Ministries of Transport of the countries in question to the "Action Plan Brenner 2005".

This plan contains a list of measures required to organize and ensure the short- to medium-term upgrading of the level of service provided in combined transport on this corridor. For all actors, this Action Plan is the most important prerequisite for the achievement of the objective to increase substantially rail transport volume on the Brenner axis. The Action Plan also takes up existing measures and projects to improve the competitiveness of rail freight on the Brenner corridor. It consolidates these approaches, supplements them by additional actions and supports them by means of an implementation plan that is aimed at bringing about a modal shift.

The Brenner 2005 Action Plan comprises three packages of measures:

- Measures to improve and stabilise the quality of services and to eliminate serious capacity bottlenecks in particular for the unaccompanied combined transport
- Measures to improve the competitiveness of unaccompanied transport thus creating the basis for opening up additional transport markets
- Measures which form the basis for a long-term growth of combined transport as a whole

Most of the stakeholders of this Action Plan are partners of the BRAVO project aiming at addressing the research and demonstration activities (RTD), which have been identified in connection with the Action Plan.

Objectives

BRAVO, a consortium of 15 partners, has been set up to develop and demonstrate a Brenner Corridor Action Strategy in order to lay foundations for achieving a significant and sustainable increase in intermodal transport volume on the Brenner corridor. This strategy is also designed as a blueprint applicable to other pan-European freight corridors.

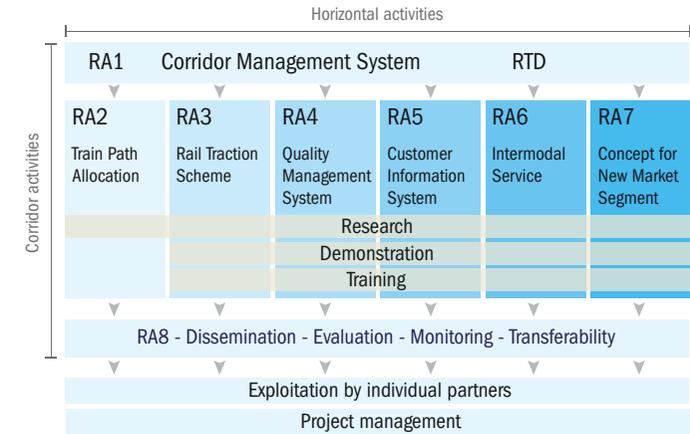
The research activities of the BRAVO project are composed of the following scientific and technological objectives:

- Development of a coherent corridor management scheme enabling open access and train path allocation
- Blueprint for an interoperable rail traction scheme involving multi-current and radio-controlled locomotives
- Development of an EDP-supported quality management system
- Development of an advanced customer information system generating estimated-time-of-availability information
- Scheme on extended & innovative intermodal services
- Prototype of an innovative intermodal technology to capture conventional semi-trailers for unaccompanied intermodal transport

The BRAVO project will also **include 6 demonstration activities** validating the research results:

- Radio-controlled pushing locomotive
- Interoperable through-rail traction scheme
- Quality management system (QMS)
- Pilot of "estimated-time-of-availability" system
- Full-scale demonstration of an innovative pocket wagon technology
- New concept for unaccompanied CT of conventional semi-trailers.

Work breakdown structure



In **Research Activity (RA) 1**, the viable requirements and the basic components of a sustainable and open Corridor Management System (CMS) will be developed. This RA will be both initiator and integrator for all other RTD to be performed during the project.

The RA2 is dealing with the train path availability and allocation process, which will be analysed in detail in order to enhance the timetables of freight trains on the corridor.

The RA3 aims at enhancing the interoperability in rail production which is considered as a prerequisite to improve the performance and the efficiency of rail traction services.

The RA4 seeks to develop and implement a coherent quality management system (QMS) which will measure the quality, develop key performance indicators and quality agreements and design appropriate supporting software and information tools.

The RA5 is to achieve an expert system enabling railways and intermodal operators to deliver an "estimated time of availability" information to their customers. Based on RA2 and RA5 results, **the RA6** will implement advanced intermodal transport schemes with innovative timetables, pricing schemes and the optimal utilisation of the Gateway concept.

The RA7 addresses the important semi-trailer market, the conventional road-only semi-trailer with no lifting devices and examines technological solutions of how they could be conveyed in unaccompanied intermodal transport. The horizontal activities such as dissemination, evaluation and transferability are summarised and enumerated in **the RA8**.