PROJECT

**METRO.FREIGHT.2020**

Transportation choices for the medium-sized business economy - Strategy for strengthening and efficient use of the railway infrastructure in conurbations

*Transportmittelwahl für die mittelbetriebliche Wirtschaft - Strategie zur Stärkung und effizienten Nutzung der Schieneninfrastruktur in Ballungsräumen*

**Funding:** National (Austria)

**Duration:** Jan 2009 - Jun 2011

**Status:** Complete with results

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**Background & policy context:**

In most European congested urban areas the railtracks of the 19th and 20th century serving locations of industry and goods stations were removed, transformed for the public transportation, closed down or used for other utilisation. The main reasons might be the deindustrialization of the inner cities and the centralisation of the supply-sector (wholesale markets, shopping centres). Simultaneous the urban areas got an excellent road network on the surface and an efficient public transportation system in the underground or on dedicated tracks. These were the major tasks for the authorities planning transport as yet.

**Objectives:**

The research project “METRO.FREIGHT.2020“ analyses the possibilities of optimal utilisation of the first and the last miles on the still dense Austrian railways in urbanised areas, and options for short transport chains (under 120 km) on the rails. The principal goal is to find handy arguments for the transport policy and feasible technical solutions which sustain an economic evaluation. With a view of the ongoing closing-down of decentral track connections, the project aims at finding models for an efficient future utilisation, parallel and also additional to the current development of the transportation sector. Network solution initiatives of carriers and loaders and existing (niches) offers both at home and abroad are addresses in the project.

**Methodology:**

The project has three phases. The first phase explores as research areas the most industrial relevant metropolitan regions in Austria, as there are the Vienna region, the metropolitan triangle Linz-Wels-Steyr, the styrian capital region Graz and the urbanised region of the Rhein-Valley. During the first phase within the metropolitan regions in question clusters of goods traffic generating industrial locations will be identified and zoned into freight service areas, in order to find specific shift potentials towards the rail. The second phase concentrates on evaluating the state of traffic infrastructure and options for using it. A cataster of existing or potential “track connection nodes” will be an intermediate result. During the third phase the surveyed transport demands will be identified as to their technical, operational and infrastructural shift potentials and their ranges. Transport chains of train affiliated goods will be scrutinised for economic and logistic requirements in a comparison of transport carriers. This scrutiny of road, track and intermodal transport chains will be based on the assumptions of several traffic scenarios (for example a road congestion scenario, an environment scenario with traffic management policies, and an infrastructure development and high-tech scenario). The results are theoretical shift potentials and scenario depending factual shift volumes of each freight service area. The latter perspective not only considers service quality of traffic infrastructure and technical affiliations of goods to tracks, but also economic affiliations of business sectors and open mindedness of respective authorities.

Finally, partial results will be summarized in a White Paper METRO.FREIGHT.2020, which will be available for interested stakeholders as operators, carriers, shippers and public authorities. This White
Paper will present application models, solution models gained from the research areas (which can be applied to other areas too), suggestions for national and international networking and recommendations for local and regional authorities’ traffic policies.

**Parent Programmes:**
I2V - Intermodality and Interoperability of Transport Systems

**Institute type:** Public institution

**Institute name:** Federal Ministry for Transport, Innovation and Technology (BMVIT)

**Funding type:** Public (national/regional/local)

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**Key Results:**

The research project “METRO FREIGHT” analysed the possibilities of a reinforced utilization for the first and the last miles on the still dense Austrian railways network within the metropolitan regions in Austria (exemplified in case studies for Vienna, Graz, Linz and the Rhine-Valley in Vorarlberg).

As a result a cadaster of existing or reconstructable sidings resp. rail shipping points has been surveyed. Finally they were evaluated in respect of serviceability concerning tracking in the rail network and extensibility in the service area which was complemented with propositions for further developing.

Following up a holistic planning strategy should be established which integrates developing transport generating sites, enhancing railway infrastructures and shifting freight traffic towards eco-friendly transport modes in accordance with shipping undertakings and operating carriers. As conclusions three scenarios have been identified, namely a scenario of ultimative displacement (of rail freight service in towns), a retardive scenario of braking the retreat of rail (connected with a change of paradigm in transport and traffic planning) and - not very likely - an offensive scenario of clean freight mobility (“CFM”). Nevertheless the last one bridges to the research initiative SMART.CITY.SUPPLY which aims to create in a longer view fully electrified transport chains serving the center of consumption within the metropolitan regions.

Findings of the study are published by a final report (German only) which is available online via the Federal Ministry for Transport, Innovation and Technology (BMVIT):

www2.ffg.at/verkehr/file.php?id=407

**Documents:**

Metro.Freight.2020 Final Report (German, June 2011)

**STRIA Roadmaps:**
Network and traffic management systems, Smart mobility and services, Infrastructure

**Transport mode:** Rail transport

**Transport sectors:** Passenger transport, Freight transport
Transport policies: Environmental/Emissions aspects, Safety/Security, Decarbonisation
Geo-spatial type: Other