

**ECONOMIC COMMISSION FOR EUROPE**

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**INLAND TRANSPORT COMMITTEE**

Working Party on Rail Transport

Sixty-second session  
Geneva, 18-20 November 2008  
Item 4 of the provisional agenda

18 November 2008

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**TRANS-EUROPEAN RAILWAY (TER) PROJECT**

Note by UNECE TER Project

The background of the page features a large, light blue watermark of the United Nations logo, which consists of a world map surrounded by a laurel wreath.

**INLAND TRANSPORT COMMITTEE**

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**TRANS-EUROPEAN RAILWAY(TER) PROJECT**

**Report of activities implemented in 2008**

**Transmitted by the United Nations TER Project Central Office**

## Introduction

### **Revision of the TEM and TER MASTER PLAN – First Joint TER and TEM Expert Meeting**

- **The UNECE Inland Transport Committee at its sixty-eight, sixty-ninth and seventieth sessions reiterated its support for the Trans-European Motorway (TEM) and Trans-European Railway (TER) activities.**
- **The UNECE TEM and TER Projects Steering Committees decided to revise the MASTER PLAN and elaborate the Terms of Reference (TOR).**
- **In accordance with TER Project Program of Work and in close collaboration with the participating countries of Central and Eastern Europe, the common TEM and TER activities dealing with intended TEM and TER MASTER PLAN Revision as well as the collection of data in the TER MASTER PLAN Railway network are being organized for the first time. The new TOR framework of the TER MASTER PLAN Revision implies on a need to collect additional data. The revision also aims to present, discuss and verify the methodology and questionnaires required and respected by all 25 participating countries.**
- **Based on inputs of the countries, the TEM and TER PCOs, in close collaboration with the UNECE and external consultants of both projects, prepared the TOR for the revision of the MASTER PLAN.**

# The TEM and TER MASTER PLAN

ECONOMIC COMMISSION FOR EUROPE

## TEM and TER Master Plan Final Report

Trans-European Motorway (TEM)  
Trans-European Railway (TER)  
Projects



UNITED NATIONS

## **TEM and TER MASTER PLAN scope and objectives**

- **The TEM and TER MASTER PLAN elaboration achieved its goal, which was to present a consistent and realistic short, medium and long term investment strategy for the road, rail and combined transport Backbone Networks in the wider TEM and TER region.**
- **TEM and TER Projects offered a substantial contribution to the extension of TEN-T, the practical implementation of Pan-European Transport Corridors, the promotion of intermodal operation and complementarity of transport modes.**
- **Further work in some aspects is necessary and technical assistance is needed in order to monitor the progress. There is still a considerable difficulty in presenting the complete shape of the TEM and TER Backbone Networks in different time horizons (2015 and 2020) due to lack of adequate information of the current status and the planned progress in some parts of the respective networks.**
- **The following 25 countries are to be involved in the 1<sup>st</sup> Revision and Extension of the TEM and TER MASTER PLAN: Albania, Armenia, Austria, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Georgia, Greece, Hungary, Italy, Lithuania, Moldova, Montenegro, Poland, Romania, Russian Federation, Serbia, Slovakia, Slovenia and Turkey.**
- **Other countries in the region participate in the project as observers.**

## TER Member Countries



# The UNECE-UNESCAP EATL Rail Routes



## **TER activities carried out in 2008**

- **4. – 5. December 2007 Bratislava:**  
**PUBLIC PASSENGER TRANSPORT CONFERENCE**  
**Presentation about a new foreseen cooperation between OSJD and TER**
- **10. – 13. December 2007 Vienna:**  
**24<sup>th</sup> STEERING COMMITTEE MEETING of the TER**  
**4<sup>th</sup> MEETING of EXPERTS of the TER MASTER PLAN**  
**TER WORKING PARTY (WP.1) on the implementation of the TER MASTER PLAN**
- **17. – 18. December 2007 Kiev:**  
**THE UNECE NATIONAL WORKSHOP – <http://www.unece.org/trans/main/eatl/6thNatlWrkshp.html>**
- **18. February 2008 Geneva:**  
**THE 70<sup>th</sup> SESSION of THE UNECE INLAND TRANSPORT COMMITTEE**
- **17. – 18. March 2008 Geneva:**  
**THE 49<sup>th</sup> SESSION of the WORKING PARTY on INTERMODAL TRANSPORT and LOGISTICS**  
**THE 1<sup>st</sup> SESSION of the GROUP of EXPERTS on HINTERLAND CONNECTIONS of SEAPORTS**



## **TER activities carried out in 2008**

- **21. –23. April 2008 Prague :**  
**1<sup>st</sup> MEETING of the TEM and TER MASTER PLAN REVISION COORDINATION GROUP SESSION of the WORKING PARTY (WP.1) on INFRASTRUCTURE DEVELOPMENTS and TECHNICAL OPERATIONS**
- **30. – 31. July 2008 Cierna nad Tisou/Slovakia :**  
**TECHNICAL VISIT – Railway Boarder Station and intermodal terminal Dobra**
- **2. – 3. September 2008 Hallstatt/Austria :**  
**1<sup>st</sup> JOINT MEETING of the TEM and TER MASTER PLAN REVISION EXPERT GROUPS TECHNICAL VISIT – Tunnel Safety**
- **8. September 2008 Geneva :**  
**1<sup>st</sup> SESSION of the GROUP of EXPERTS on EURO-ASIAN TRANSPORT LINKS (WP.5/G.2)**
- **9. – 10. September 2008 Geneva :**  
**21<sup>st</sup> SESSION of the WORKING PARTY on TRANSPORT TRENDS and ECONOMICS (WP.5)**



Infrastruktur Bau

## Arlberg Railway Line Tunnel Safety Upgrade of Arlberg Tunnel

### Characteristics of existing **railway tunnel**

- twin-track tunnel, opened in 1884
- length 10.6 km
- cross section 41 m<sup>2</sup>
- equipment: train radio, emergency telephones, work lighting in individual sections
- one emergency exit 400m after St. Anton portal

### Road tunnel runs parallel to the railway tunnel:

- bi-directional tunnel, opened in 1978
- Length 14 km
- Fully transverse ventilation system
- One service access at one of the third points



- Maximum **distance** between rail and road tunnel **400m**
- Maximum **difference in altitude** between road and rail tunnel **35m**

## Arlberg Railway Tunnel

### Cross-passages between railway and road tunnel

Due to the difference in elevation between the two tunnels, two different cross passage types were designed:

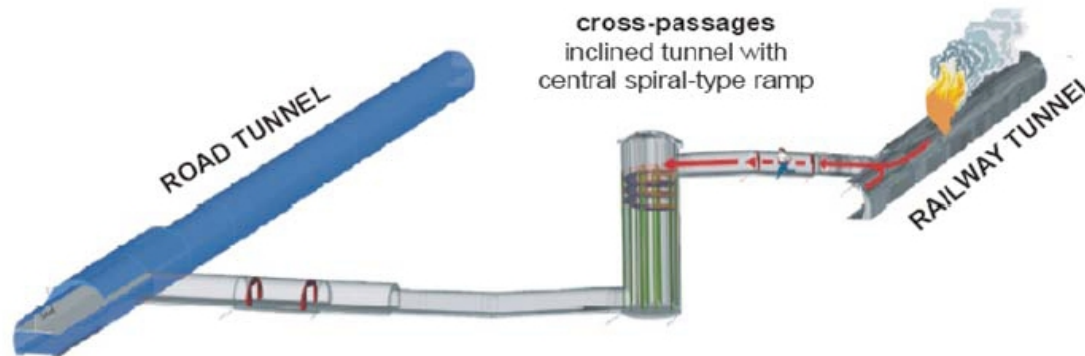
- Inclined tunnel with a maximum longitudinal gradient of 10%



## Arlberg Railway Tunnel

### Cross-passages between railway and road tunnel

- Inclined tunnel with a central shaft structure, which houses a spiral-type ramp with a maximum longitudinal gradient of 10%



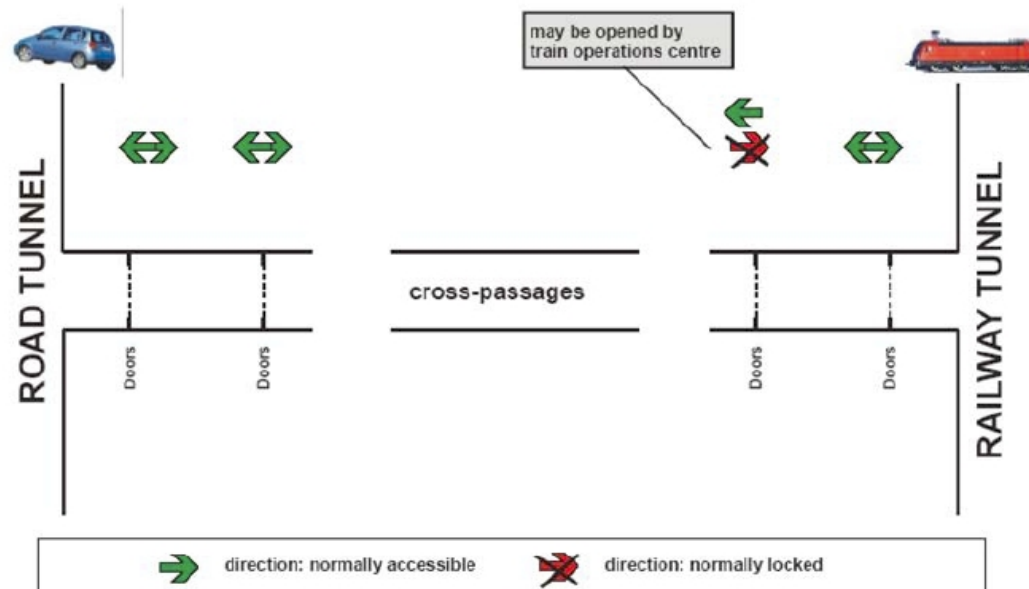


Infrastruktur Bau

# Arlberg Railway Tunnel

## Cross-passages between railway and road tunnel

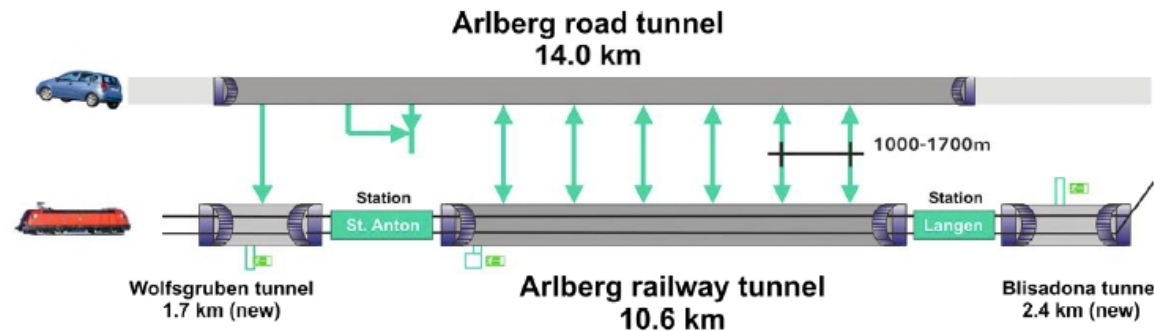
Door opening options – Normal operation and accident situation in road tunnel



## Arlberg Railway Tunnel

### Cross-passages between railway and road tunnel

Organisation of evacuation of persons to open air area and of assisted rescue campaign



- Organisation of the evacuation to open air area by the control centre of the tunnel, which is not affected by the accident
- The control centre of the tunnel, which is affected by the accident, shall be the meeting point of the officers-in-charge

## Beskyd Tunnel - General Information

- 02 Located between Beskyd and Scotarske (Western Ukraine) in hilly area (780 m asl)
- 02 The only Single-track tunnel along 5<sup>th</sup> Crete International Transport Corridor
- 02 1,747 m length
- 02 More than 100 years old
- 02 Under very bad and potentially technical conditions (e.g. speed limit: 25 km/h due to advanced deterioration)

## Beskyd Tunnel



Project Area  
of the  
Beskyd Tunnel

D2



## **TER present and future issues 2008**

- **Extension of the TER Project to the observer countries  
( Belarus, Ukraine, Serbia, Moldova, FYROM)**
- **Full integration of new member countries**
- **TEM and TER MASTER PLAN Revision**



**Thank you for your attention!**



**THE END**