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DEVELOPMENT OF A EUROPEAN CONVENTIONAL AND
HIGH-SPEED RAILWAY NETWORK

Transmitted by the Governments of Austria, the Czech Republic,
Finland, Latvia, the Netherlands, Romania, Slovakia, Slovenia
and the European Commission

Note: To examine further aspects of conventional and high-speed rail lines, the Principal Working Party, at its fifty-first session, requested Governments, the European Commission (EC) and the International Union of Railways (UIC) to provide relevant information on the development of (i) a European conventional railway network and (ii) a European high-speed railway network (including information on the complementarity between high-speed rail and air transport, regional development, regional transport and urban transport) (TRANS/SC.2/188, paras. 32-37).

The Working Party may wish to consider the information received from Governments reproduced below.

Please note that the distribution of documentation for the Working Party on Rail Transport (SC.2) is no longer "restricted". Accordingly, the secretariat has adopted a new numbering system whereby all working documents other than Reports and Agendas will be numbered as follows: TRANS/SC.2/year/serial number. Reports, Agendas, resolutions and major publications will retain their previous numbering system (i.e. TRANS/SC.2/189).

AUSTRIA

A list of infrastructure projects of ÖBB on the railway sector until the year 2000 is reproduced in Annex 1.

CZECH REPUBLIC

(a) A Conventional Network

(i) On the basis of an international agreement signed by the Czech Republic, railway tracks have been selected to be modernized according to parameters determined by the AGC and AGTC agreements. In the Czech Republic this concerns the IV and VI Crete Corridors which have been realized; and the A IV Crete branch for which a feasibility study is presently being prepared.

The Czech Republic anticipates modernizing its railway lines by giving priority to the transit corridors that are directly linked to European arterial roads and (a) are included in the international AGC and AGTC agreements; (b) adhere to the TER Project; and (c) correspond to EU and UIC standards.

These corridors are defined as follows:

- I. (Germany)-Děln-Prague-Česká Třebová-Brno-Břeclav-(Austria/Slovakia)
- II. (Austria)-Břeclav-Přerov-Petrovice u Karviné-(Poland) and branching off at Česká Třebová-Přerov
- III. (Germany)-Cheb-Plzeň-Prague-Olomouc-Ostrava-Petrovice u Karviné/Mosty u Jablunkova-(Poland/Slovakia)
- IV. (Germany)-Děln-Prague-Veselí nad Lužnicí-Horní Dvořistí-České Velenice-(Austria).

The modernization of these corridors will be as follows:

Corridor I

- four sections are completed and the Poříčany train station has been modernized including the lines: Poříčany-Úvaly; Uhersko-Choceň; Česká Třebová-Brno; and Tunnel No. 8.
- in 1998 the following will be completed: optimizing the Děln line to the border; modernizing the Hněvice-Hrobec line; optimizing the Česká Třebová-Skalice nad Svitavou and Skalice nad Svitavou-Brno lines; and electrification of the Brno-Česká Třebová line.
- At present the following modernization of lines is near completion: Kolín-Poříčany; Vranovice-Brno; from the border to Břeclav-Vranovice; and the Přelouč and Vranovice train stations.

Between 1998 and 2002 a total of twelve construction projects will take place. In 2002 Corridor I will be completely modernized. The investment expenses are anticipated to be 36.5 billion crowns. Financial sources are assured by grants from the state budget and guaranteed by loans from the EIB, KfWW, ERRD, EXIM and the Czech Spořitelna Bank; non-guaranteed state loans; and funds supplied by PHARE.

Corridor II

The Hodonín-Moravský Písek line was modernized in 1997. The modernizing of Corridor II, which is divided into 14 construction projects, should be completed in 2005. Contributions from the state budget are anticipated at 7 billion crowns; and guaranteed state loans at 12 billion crowns; the remainder will be financed by non-guaranteed state loans. Guaranteed loans are being underwritten by an EIB and KfW's Loan and Guaranty Contract.

Corridors III and IV

At present ILF, a foreign company, is conducting a feasibility study of Corridor III, while a preliminary one is being prepared for IV by Sudop Praha a.s. These studies include resolving the matter of junctions which are not now in Corridors I and II. Their modernization is anticipated to begin in 2003. Modernizing Corridor IV will be done after Corridor II is completed. All work is expected to be completed in 2010; and the investment costs will be more than 40 billion crowns (at 1996 price level).

Corridor modernization will:

- raise the speed of lines to 160 kms/hour;
- make accessible transit areas according to UIC GC loading measurements (primarily for combined transport);
- provide arterial roads for the overloaded D4 (22.5 ton/axle).

The most effective form of modernization will be achieved in accordance with neighbouring states, by installing an electrical tri-system of a seven-wagon train with tilting technology. The suppliers of these units are the CKD consortium of Prague; the Moravian/Silesian Studenka Wagons; Siemens; and Fiat. The first train should be delivered next year and the complete series in 2000-2001.

The joint co-operation of work to modernize the lines has been assured by the following agreements:

- between the Czech Ministry of Transport and Communication, the German Ministry of Transport and the Austrian Ministry of Public Works and Transport to work together to develop the rail connection Berlin-Prague-Vienna;
- between the Czech and the German Transport Ministries to work together to develop the train connection from Prague to Nuremberg.

All of the above agreements were duly signed by the individual ministries in Vienna on 7 June 1995.

From 1 May 1997 an agreement has been signed between the Czech and the Polish Transport Ministries to work together in preparing and attaining line modernization included in the AGC and AGTC agreements. A similar agreement is ready for signature by the Slovak Republic.

(b) High Speed Rails

A study is being prepared now, as yet unfinished, for a basic network of high speed railway lines. Individual lines are presently under negotiation according to relevant laws and after specific ones have been approved, that

terrain will be protected. Completion is expected after the year 2010. Another variant, direct link up of these lines to Czech airports, is not contemplated at this time.

Supplementing individual modes of transport in large cities is being done by gradual integration into their mass transit system.

There is a conceptual study being prepared at present to build high speed lines of 300 kms/hour that would link up to all of Europe. The defined corridors are: Germany-Decin-Prague-Brno-Austria; Germany-Plzen-Prague; and Brno-Ostrava-Poland. When this study is completed it will be incorporated into relevant ground plans. Construction is expected after 2010 in connection with building the European network of high speed trains.

The linkage of high speed lines to other transport modes is presently being researched.

Another long-term project on the horizon is magnetic rails. This year, in Germany, there is going to be an exhibition on the Hamburg-Berlin city line about this subject. Initial research will be unveiled in the hopes that it will interest other countries and eventually replace high speed lines. The Czech Republic will check out this alternative should it look promising.

FINLAND

(i) The Finnish Rail Administration's primary goal is to upgrade existing lines to meet the needs of passenger and freight traffic. Track renewal is indispensable, since the last time superstructures were extensively renewed was in the 1960's.

In addition to track renewal various development projects are under way on the rail network in Finland. The focus is on increasing rail capacity, expanding electrification and improving safety. Insufficient rail capacity has been a problem especially in southeastern Finland and the Helsinki region. Bottlenecks have been removed by building additional tracks on the busiest line sections.

The project of Helsinki-Leppävaara urban line (12 km) was started at the beginning of 1998. The project includes two additional tracks as well as station and street arrangements to accommodate feeder traffic. Work is scheduled to take place in 1998-2000.

RHK's objective is to equip the nation's main lines with automatic train protection by 2001. At the end of 1997 the system covered the Helsinki-Turku, Tampere-Seinäjoki and Riihimäki-Lappeenranta line sections. Level crossings are also eliminated or protected in a systematic manner by line sections.

(ii) Finland's international rail network is part of the TEN network. Today high speed trains operate between Helsinki and Turku. Other planned high speed lines are Helsinki-Vainikkala and continuing to St. Petersburg. The upgrading work on these lines are progressing and they will be ready by the year 2010 at the latest. Finland intend to make a proposal concerning these high speed lines to include them in the EU next TEN high speed map.

LATVIA

Latvian Railway have no plans to develop a railway network with 1435 mm gauge (European conventional railway network), because we have no direct connection to railways with 1435 mm gauge, but our and neighbours' railway network is with 1520 mm gauge.

High speed railway development will be realized in the next 20-30 years and is common with the increasing volume of rail traffic on 1. Crete corridor.

NETHERLANDS

The Dutch Government and the Dutch railways is developing a high-speed-line for passengers between Amsterdam and Berlin (HSL-Oost). The rail connection between Rotterdam and Germany is being further developed (Betuweroute). In the whole country railways are being upgraded for the use of these railways by heavy freight trains.

ROMANIA

Steps towards the creation of a Pan-European railway network

CFR performs its activity inside the railway working groups for the development of Pan European transport corridors no. IV and IX, which are crossing Romania. A feasibility study, financed through PHARE, for the development of the railway and combined transport on the territories of Hungary, Romania and Bulgaria, is under way.

Memoranda of Understanding were signed between the member railways for the development of railway components of corridors no. IV and IX.

Agreements were concluded between CFR - JZ, CFR - MAV and CFR - UZ, regarding the paths and parameters of the future high speed railways links.

SLOVAKIA

(i) European conventional and high-speed railway network

The modernization programme for railway routes is approved by the Slovak Republic Government resolution no. 197/96 as the component part of the "Updated long-term programme of transport railways development". The priority of this programme is the modernization of International Crete corridors TEN IV, V and VI, that represent 801 km of RSR network. This is 21.8% of the total RSR length. International corridors provide for more then 70% of RSR transport operations. The criterions for achieving the technical parameters of the corridors are the AGC and AGTC agreements.

The first task is the modernization of railway communication north - south, i.e. a part of the corridor no. V (Bratislava-Zilina) and the corridor no. VI (Zilina-Ďadca-Zwardoň). On this railway communication the new railway station Bratislava-Petrzalka with a new track to Kittsee (ÖBB) proceeding to Vienna was constructed. The line will be put into operation this year.

The reconstruction of frontier station Ďadca and electrification of the route Ďadca-Zwardoň is realised, in the frame of which simultaneously this route is modernized so as to fulfil the AGTC conditions.

Since 1994 the reconstruction of frontier crossing station Kúty (to the Czech Republic) is gradually realized.

(ii) Development of European high-speed route

The study of optimal directing of high-speed route was elaborated across the Slovak territory in a variant solution. At this time no definitive solution exists as to which variant shall be preferred and the study is not yet approved. Until the year 2010 construction is not expected.

SLOVENIA

The part of the Infrastructure Development Programme is the upgrading of the existing lines that comprises the increase of capacities and a higher level of the existing infrastructure network modernization as follows:

short-term priority projects expected to be implemented within the period 1997-2000

- a new direct railway connection between Slovenia (25km) and Hungary (19km) - a part of corridor No V
- modernization of signalling and safety devices on the line Ljubljana-Sezana - a part of corridor No V
- track renewal (105 km)
- construction of the second track Koper-Divača (1st phase) - a part of corridor No V

medium term priority projects expected to be implemented by 2005

- construction of the second track Koper-Divača (2nd phase)
- track renewal 175 km
- modernization of the signalling and safety devices on the line Pragersko-Ormoz-Murska Sobota

projects to be implemented after 2005

- construction of the second track on the line Maribor-Austrian border (16 km) - a part of corridor No. X
- construction of the second track on the line Ljubljana - Jesenice (73,2 km) - a part of corridor No. X

The rehabilitation of the line Ljubljana-Zidani Most-Maribor-Šentilj in direction towards Vienna for speeds up to 160 km/h is foreseen for the period after 2000. According to the Infrastructure Development Programme the project takes part in the programme of the high speed line network on the territory of Slovenia. The new high speed line Trieste-Ljubljana as a part of the south-east European high speed line is being under study. The realization of this line depends to a great measure on the plans of the neighbouring countries and on the financial support of the European institutions.

EUROPEAN COMMISSION

A report is under preparation on the development of a conventional and high-speed railway network, which will be ready in the autumn of 1998. A copy will be sent to the secretariat as soon as it is available.

Infrastructure projects of the Austrian Federal Railways (ÖBB) until the year 2000

Stretch:	Wien - Nickelsdorf
Situation:	Connection of Eastern region with EU-network
Object:	Increase of line capacity (additional 40 transit trains per day), cut of running time Wien - Budapest by increase of speed, expansion of the area of remote control
Measures:	Reconstruction of railway stations, change of tracks
Stretch:	Wien - St. Pölten
Situation:	Conflict between high capacity traffic (200 km/h) and freight and regional traffic
Objective:	Increase of line capacity for sufficient operation quality, increase of speed to 200 km/h
Measures:	4-track reconstruction; mixed traffic on both 2-track lines
Stretch:	St. Pölten - Wels - Salzburg
Situation:	East-West-connection
Objective:	Increase of punctuality, increase of line capacity for sufficient operation quality, increase of speed to 200 km/h
Measures:	4-track reconstruction, one 2-track line for regional and freight traffic and one 2-track line for high capacity tourist and freight traffic, railway station bypasses
Stretch:	Linz - Selzthal
Situation:	Importance as North-South-transit-axis, deterioration of line condition
Objective:	Increase of line capacity for sufficient operation quality, remote control of railway stations, better organized operation

Measures: 2-track reconstruction of the line (start 1997), reconstruction of railway stations

Stretch: **Wels - Passau**

Situation: Part of North-South-transit-axis

Objective: Increase of line capacity, removal of low speed areas, remote control of railway stations, better organized operation

Measures: Reconstruction of railway stations

Stretch: **Salzburg - Rosenbach**

Situation: Part of North-South-transit-axis

Objective: Increase of line capacity by 15 % (additional 50 transit trains per day), 50 Transitzüge pro Tag), cut of running time

Measures: Selective 2-track reconstruction (closing of gap), at the moment gradual reconstruction

Stretch: **Wörgl - Schwarzach/St. Veit**

Situation: Part of East-West-axis and connecting line to South and Southeastern part of Austria

Objective: Handling of future increase of traffic

Measures: Reconstruction of railway stations (platforms)

Stretch: **Landeck - Bludenz (Arlbergbahn)**

Situation: Important for Western Austria because part of East-West-axis

Objective: Increase of line capacity, reduction of delays

Maßnahmen: Reconstruction and enlargement of railway stations, 2-track reconstruction of the

Stretch: **Wiener Neustadt - Mürzzuschlag (Semmering-route)**

Situation: Part of international railway network

Objective: Adaption of the line for international standards , improvement of operation , cut of transit time and length, increase of speed to 200 km/h

Measures: Construction of Semmering base-tunnel, widening of tunnel profile, reconstruction of line, harmonization of gradient

Stretch: **Mürzzuschlag - Spielfeld**

Situation: Link-up with Austrian high capacity network

Zielsetzung: Handling of future increase of traffic, increase of speed to 160 km/h

Measures: Adaption and modernization measures

Stretch: **Bruck a.d.Mur - St. Michael**

Situation: Link-up with line Passau - Spielfeld and Pontebbana axis

Zielsetzung: Increase of line capacity , increase of speed to 200 km/h

Measures: 4-track reconstruction (Leoben - St. Michael; Galgenberg and Traidersberg tunnel), reconstruction of railway stations

Stretch : **Bruck a.d.Mur - Tarvisio (Pontebbana)**

Situation: Part of Pontebbana axis

Objective: Removal of capacity bottlenecks (additional 30 transit trains per day), increase of speed to 160 km/h

Measures: Continuous 2-track reconstruction (especially line St. Veit a.d.G. - Klagenfurt)

Stretch: **Linz - Summerau**

Situation: Part of North-South-transit-axis

Objective: Increase of line capacity, improvement of service (platforms)

Measures: Reconstruction and enlargement of railway stations

Note: The order of the listed projects should not imply any kind of preference for some projects. All projects are equally realized according to organizational and financial capacities.