Railway axis Athens–Sofia–Budapest–Vienna–Prague–Nuremberg/Dresden

This railway line forms the backbone of the railway network of eastern Europe, connecting the ports of Athens (Piraeus), Thessaloniki and Constanta to the heart of the enlarged EU. Together with a second rail axis (No 23) it will allow connections between the Baltic Sea, the Aegean Sea and the Black Sea.

What is the axis?

The project connects the eastern Member States of the enlarged EU through a major railway axis. The sections involved will complement sections which have already been upgraded with funding from the ISPA programme. Completing them will improve connectivity between all the networks on the basis of common standards (TER and ERTMS, electrified, twin-track, with maximum speeds of 160–200 km/h). At its eastern end, the axis has one branch to the Black Sea port of Constanta and another to Thessaloniki/Athens. Following the accession of Romania and Bulgaria, this axis will be the only connection from south-eastern Europe (and Greece) to the heart of the EU which runs wholly in EU territory. An additional branch from Prague to Linz will improve north–south connections in the area, and will prepare for a future extension of the EU to the countries of south-east Europe.

What are its expected benefits?

The line will foster traffic and trade within a huge region of Europe. It will also provide the Greek network with important connections. The project will increase rail capacity, especially for freight, and reduce rail journey times and costs significantly for both freight and passenger trains. On the central sections of the route, the share of inter-Member State traffic is expected to increase from 25 % to 50 %.

What is its current status?

The Thessaloniki–Kulata–Sofia line has been rebuilt and electrified, and operates with speeds up to 120 km/h. Further improvements to increase speeds, double the track and introduce ETCS signalling systems are planned.

The 280 km Sofia–Vidin section is electrified, but two thirds is single track, and speeds are below 100 km/h. A feasibility study for upgrading this section, with ISPA financial assistance, is under way.

A second Danube bridge – Vidin–Calafat – between Bulgaria and Romania, expected to be completed by 2008, is a key project for Bulgaria and for this axis. Upgrading works on the Calafat–Craiova line in Romania will also be required.

The main Romanian branch – Curtici–Brasov–Bucharest–Constanta – is electrified twin-track, in good condition but with relatively low speeds. An ISPA-funded feasibility study for upgrading to 160 km/h on the Curtici–Simeria (180 km) section has been made, and a similar study for the Simeria–Brasov (300 km) section is under way. Delays in finalising the studies may lead to a delay in completing the Curtici–Brasov section.

The Vienna–Budapest line now operates at speeds of 140–160 km/h. Some upgrading works are envisaged.

In the Czech Republic, upgrading on the Břeclav–Brno–Prague line is almost completed, and a tilting train will soon start operating. Upgrading on the Prague–Plzeň–Cheb (German border, towards Nuremberg) section is ongoing. European rail traffic management signalling systems will be installed to improve interoperability.

In Germany, upgrading and electrification, by 2015, of the Nuremberg–Czech border section will ensure higher speeds. However, financial uncertainties may lead to a delay in the completion of this section.

Upgrading on the Prague–Linz line will start in 2005. Currently only a small section south of Prague to Benesov (42 km) is electrified and twin-track.

Agreements between Germany, the Czech Republic and Austria, for upgrading to higher speeds and the use of tilting trains, will lead to reduction in journey times: for Nuremberg–Prague to 3 hours and 20 minutes, Berlin–Prague to 3 hours and Prague–Vienna to 3.5 hours.

Priority section	Type of work/status	Distance (km)	Timetable [1]	Total cost as of end 2004 (million EUR)	Investment up to 31.12.2004 (million EUR)	TEN-T contribution, including studies, up to 31.12.2004 (million EUR)
Greek/Bulgarian border–Kulata–Sofia –Vidin/Calafat	Rail (upgrade and new line)	420	2006–15	4 277	0	0
Curtici–Brasov	Rail (new)	480	2006–13 (2010)	2 678	0	0
Budapest–Vienna	Rail (upgrade)	260	2006–10	300	0	0
Břeclav–Prague–Nuremberg	Rail (upgrade) and ERTMS	690	2005–16 (2010)	2 315	0	0
Prague–Linz	Rail (upgrade)	250	2005–17 (2016)	1 555	0	0
TOTAL		**2 100**		**11 125**	**0**	**0**

[1] In brackets, completion date listed in the 2004 guidelines, if different from the date notified in 2005 by the Member State.