

THE EUROPEAN RAILWAYS IN THE TEN CONTEXT: FROM PLANNING TO IMPLEMENTATION

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Abstract

Railway systems consist of a mode with many advantages such as environmentally friendly transport services, rational energy consumption- non-oil based- as well as much spare capacity available.

The European Commission promotes a range of measures to maintain the efficiency and competitiveness of the European transport sector. Their final goal is to change the traffic share of the various transport modes in order to face among others the lack of additional capacity of the road system, the environmental impacts resulting from the over-use of the road systems etc. In this context, the revitalisation of the railway system is of real importance.

The railway system consists of a valuable European asset that may contribute substantially towards the ratification of the entire transport system. Strengthening of the railway sector implies both modernisation of the infrastructure as well as improvement of the efficiency of the operations.

In the framework of the Common Transport Policy - as a result of the Maastricht Treaty- the European Parliament and the Council issued the decision No 1692/96/EC on the guidelines for the development of the Trans-European Network (TEN).

In such a framework the railway system consists of an integral part of the TEN. For the efficient implementation of the rail TEN the Commission is proposing to focus on the construction of the missing links as well as on the upgrading of the rail infrastructure providing great potential for shifting freight transport from roads to railways.

Along these lines there has already been identified a group of railway projects which guarantee the efficient development of infrastructure in critical routes all over the continent. These priorities were agreed during the 1994 Essen European Council, and provide a basis for the EU co-financing of the TEN. The focus of this paper is on the role of the railways in the context of the TEN planning and implementation. More precisely, in chapter one some useful information on the advantages of the railways will be presented. Chapter two will present the development of the European railways, before the establishment of the TEN. Chapter three will present the vision of an integrated European rail network in the context of the TEN. In chapter four, the extension of the railway network in the framework of the revision of the TEN will be presented. Finally in chapter five, conclusions and recommendations will be drawn.

Keywords: Trans-European Network (TEN), Common Transport Policy, European railway system

JEL, classification R10, R40, R30

1. Introduction

The present railway systems are the result of a long development that started in the first half of the 19th century with the construction of the first railway link in England. Since then, railways have evolved into the complex rail system, of today³⁸. As railways played a crucial role in the development

³⁸Mainly consisting of the infrastructure, the traffic control systems, the rolling stock and the operations

of national economies, the solutions adopted for the technological and organizational problems, which arose over the years, primarily met national requirements. This has led to a sector marked by a number of technical variations in its standards –often non-compatible to each other- despite the many common features among the various rail systems. This situation of the European railway systems and rail markets usually reminds of a patchwork of poorly interconnected national systems.

In Europe, various gauge widths can be found, together with different systems for the supply of electricity, different maximum permitted axle loads for wagons and locomotives, different clearances (gabarit), etc. Furthermore, the European rail market is characterised by major differences in the organization of the rail traffic management systems, differences in the requirements for staff and so on. As a result, rail/ services from one country to another face significant delays at border crossings, due to the above differences, which lead to additional costs making thus railways less competitive than other transport means (e.g. road).

The low level of efficiency of the railway system, together with the rather inflexible structure of the European railway companies (state enterprises –most of them), were among the main causes responsible for the severe problems of the railway market after the 70s. In fact, rail transport in Europe has experienced a sharp decline for almost thirty years, especially in the area of freight. In 1970 the railways carried 21 % of all freight in the fifteen countries of the European Union. By 2000 this figure went down to 8.1 % while for the same period the proportion of the freight going by road rose from 30.8 % to 43.8%. During the period 1970 to 2000 the tonne-kilometre performance of railway freight also fell by 12% and that was the only mode of transport exhibiting a drop where all the other competitive modes were increasing their performance. Amazingly so, during the same period, the volume of tonne-kilometres carried by road has tripled! The share of railways in the area of passenger transport also declined, although less dramatically, from a percentage of 10.2% of total in 1970, rail transport fell to 6.3% in 2000. **(1)**

The upcoming developments in the TEN and revised TEN context are opening new perspectives for the sector which need to be explored. Therefore the focus of this paper is to examine and present the role of the railways in the context of the European TEN³⁹ planning and construction. More precisely, the **second part** of the paper provides some useful information on the advantages of the railways as a transport mode. The **third part** comments on the development of the European railways, in the context of the TEN. **Part four** examines the rail priority projects, as these were decided in the Essen summit. In **part five**, the paper tackles the extension of the railway network in the framework of the revision of the TEN, focussing on the new priorities, as these have been defined in the context of the Van Miert approach. In **part six**, the paper gives some information regarding the on going restructuring of the rail sector in the European Union; finally, some summarizing conclusions on the prospects of the European railways are drawn.

2. The Role of Railways

This part of the paper provides some information on the importance of the railways as a transport mode, together with a range of problems, which have led in the sharp decline of the railway traffic the last decades.

Railways are a mode with unique advantages. An attractive railway system can provide environmentally friendly transport services, with low energy consumption, not based on oil, and with much of spare capacity available. Its ability to serve the required modal shift in freight traffic can be shown by the fact that one single train set can carry the equivalent load of up to 50-60 trucks. In addition, the existing railways' infrastructure is dense, and is in

³⁹ Trans-European Network

general in a good state. However, it seems that the railways face sharp difficulties to match the modern requirements of the market.

Railway traffic is generally more energy efficient and has lower emissions than other modes of transport. Since there is a strong relation between energy and transport policies, this advantage has played a particular role in the whole effort to promote railways. The transport sector is responsible for 25-30 % of the total energy consumption, and policy initiatives have been introduced to promote passenger and freight transfer from road (and air) to rail and intermodal freight transport. A transfer from road to rail is contributing towards diminishing polluting emissions, limiting CO₂ emissions, and also minimising the use of natural resources like oil. **(2)**

It should be noted that important energy savings can be achieved in the short-term, on the basis of available technology. It has been estimated that the completion of the European high-speed railway network will lead to an increase in electricity consumption of the rail mode, but this will be more than compensated by a drop in the energy consumption of the other transport modes. As a result, introduction of high-speed trains across Europe will translate into energy saving of some 4% and this for higher mobility and speed levels. It has been estimated that when the high-speed network will be completed (2010)⁴⁰, the relevant annual savings would amount 4181 million litres of fuel. **(3)**

Moreover, an electrified rail system provides a transport grid that can be operated with energy produced by various resources, including renewable sources complying with the future energy policy expressed in the Commission's Green Paper. **(2)**

The following Table 1 shows the energy consumption of the various transport modes:

Table 1. Consumption of the various transport modes.

Passengers transport	Year: 2000
Unit consumption bus-passengers in goe (grams oil equivalent) per pkm	22
Unit consumption car-passengers in goe (grams oil equivalent) per pkm	38
Unit consumption train-passengers in goe (grams oil equivalent) per pkm	19
Unit consumption airplane-passengers in goe (grams oil equivalent) per pkm	160
Freight transport	Year: 2000
Unit consumption truck freight in goe (grams oil equivalent) per tkm	72
Unit consumption train freight in goe (grams oil equivalent) per tkm	7

Source: European Commission/ DG TREN: Report "Transport and energy", 2001

The Table shows that railways have the half of the average unit consumption of the passengers cars (19 vs. 38 goe respectively); for freight transport, the railways have on average, one tenth of the respective unit consumption of trucks (7 vs. 72 goe).

⁴⁰ the forecast show that the railways would then transport 143 bio more passenger-kilometers

3. The Development of the European Railways in the TEN Context

This part of the paper examines the development of the rail mode, as part of the Trans-European Network (TEN), as well as the relevant investments that have been devoted on its infrastructure during the last years.

An important moment for the implementation of the common transport policy, the Maastricht Treaty introduced the concept of the trans-European network (TEN), which has gradually arisen as one of the driving forces for the achievement of growth, competitiveness and employment in the EU territory. The result of this process was the Community guidelines for the development of the trans-European transport network (TEN). (4)

The significance of these guidelines lied in the fact that they were the first attempt to describe a vision of how an integrated network in the Union's territory should develop in the 2010 horizon.

The TEN accounts for almost half of the total goods and passenger traffic in the EU. It can be seen as a planning instrument enabling established links to countries bordering the EU to be improved.

The Community guidelines involve investments by 2010 estimated at that time around Euros 400,000 million. A number of financial instruments have been set up by both the Community and the European Investment Bank in order to implement this particular policy, namely the budget for the funding of the trans-European network. However, so far, only 20 % of the work has been completed, and much remains to be done. At the present rate, and without additional financing, a further 20 years will be needed just to complete the work planned for 2010. If the necessary infrastructure is not completed, there is the danger that the Common Transport policy goals will not be achieved. (5)

Especially large investments have been devoted for railways, where 88.5 billion Euros, between 1996 and 2001, were spent on railway infrastructures. The highest amounts spent are exhibited, so far in Italy, UK, Germany, France and Spain. From 2002 onwards, 118 billion Euros are planned to be invested for the entire TEN-T railway network.

Three types of railway lines were distinguished in the TEN guidelines: high speed lines, upgraded high-speed lines and conventional. Between 1996 and 2001, in the 15 Member States, of the time, expenditure on high-speed lines accounted for 48% of the total, 30% was allocated to upgraded high-speed lines and approximately one fifth was spent on conventional lines. For the period up to 2006 the share for high-speed lines increases slightly, with the highest expenditure being in France, Italy, Spain and Germany. Investments in conventional lines add up to 17.5 billion Euros from 1996 until 2001 and another 23.1 billion will be spent from 2002 onwards. (6)

In the new member countries, 2.9 billion Euros were invested between 1996 and 2001. As it has been reported during the TINA⁴¹ process, the total investments in railway infrastructure in the TEN (at the time) candidate countries, has been estimated to 37,119 Million Euros between 1999-2015. Poland and Romania have the lion's share in the railways investments. It is noticed that no investments in high-speed lines were reported. (7)

In the territory of the enlarged Union, the railway network was distinguished in the basic (backbone network⁴²) and the additional railway components, as reported by the countries themselves.

Tables 2, 3 and 4 give interesting information on the situation.

⁴¹ Transport Infrastructure Needs Assessment

⁴² identical with the sections of the ten Pan-European Corridors of Helsinki in the candidate countries

More precisely, Italy Germany and France appear to realise investment programs of 39,780 mil., 36,175 mil. and 26,972 mil. Euros respectively, during the period 1996-2010. On the other side, Poland and Romania realise investment programs of 14,612 mil. and 5,192 mil. Euros respectively, during the period 1999-2015. In total, the “old” EU countries have programs of investments in rail infrastructure amounting to about Euros 220 bil, in the horizon of 2010. The relevant investments in the “new” EU countries are about Euros 37.5 bil. in the horizon of 2015.

Table 2. Investments in the TEN Rail infrastructure*All sums in Million euros*

	<u>Investments in TEN Rail infrastructure</u>						
	1996/1997	1998/1999	2000/2001	2002/2003	2004/2005	2006/2010	Total
EU of 15							
Austria	669	984	285	433	311	622	3303
Belgium	575	967	539	1136	1088	2934	7240
Denmark	1291	3055	420	5	0	0	4772
Finland	188	265	236	552	431	497	2169
France	1730	4402	4599	4636	4810	6732	26972
Germany	5371	5033	4270	6824	5033	9644	36175
Greece	380	475	569	945	941	984	4295
Ireland	46	104	60	87	87	121	505
Italy	1730	7822	8292	8845	6112	6977	39780
Luxembourg	31	11	7	3	3	7	62
Netherlands	625	1429	5724	6342	6364	3153	23638
Portugal	127	580	422	422	329	118	1998
Spain	755	1743	2794	4144	4516	10540	24494
Sweden	935	697	383	1303	1209	1511	6038
UK	569	4690	6431	8358	8697	9563	38307
Total	15025	32257	35033	44035	39392	53466	219749

Source: T E N - I n v e s t / : P L A N C O Consulting GmbH, 2003

Table 3. Investemnts in the TINA Rail infrastructure

Investments in the TINA Network 1999-2015			
	Backbone Network	Additional Components	Total
Bulgaria	1930	200	2130
Czech Rep.	1904	1807	3711
Hungary	2915	1115	4030
Latvia	510	432	942
Lithuania	1268	49	1317
Estonia	183	76	259
Poland	9718	4894	14612
Romania	3651	1541	5192
Slovakia	1728	187	1915
Slovenia	3011	0	3011
Total	26818	10301	37119

Source: TINA Final Report. November 1999

Table 4. Comparison of the TINA Network with the TEN

	TOTAL TINA	EUROPEAN UNION	Ratio CEEC/EC
Surface Area In km²	1,087,617	2,238,700	48.6%
Population in mil. Inhabitants	105.9	372.1	28.5%
Length of Rail in km	20,924	73,900	28.3%
Km per 000 sq. km	19.24	33.01	58.3%
Km per 000,000 inhabitants	197.58	198.60	99.5%
Construction Cost to complete the Railway Network	37,119 *	219,749 **	16.9%

* in the period 1999-2015

** in the period 1996-2010

Source: TINA Final Report. November 1999; Main indices for the TINA Network versus TENs. Elaboration of figures

Regarding the type of railways the situation in the Member States in 1996 was not so much different than that in the Candidate Countries. In the former, the Trans-European Transport network comprised approximately 90% of conventional lines. Only 10% of the length of the railway links was upgraded high-speed lines or high-speed lines. In the Candidate Countries, almost 100% was conventional lines. However, it can be assumed that there were differences as to the operational characteristics of the conventional lines in the Candidate Countries.

Up to the year 2001, the share of up-graded high-speed lines and high-speed lines increased to almost 15 % in the Member States, whereas in the Candidate Countries no significant developments took place. In addition, for the same period, the share of up-graded high-speed lines and high-speed lines increased up to almost 15 % in the Member States, whereas no significant developments took place in the Candidate Countries.

Further developments until 2015 and 2020 are difficult to capture although, it can be said that the recent enlargement (1st May 2004) will have significant consequences on the overall picture of the railway infrastructure in Europe. The high-speed network will certainly be further developed, not only in the territory of the “old” Union, but also in the “new” Member States. The limited public and private capital available, needs to be coupled with innovative policies related to charging for infrastructure use. In addition public funding must be more selective and focused on the necessary major projects increasing the territorial cohesion of the “expanded” Union, optimising thus infrastructure capacity and contributing towards the removal of bottlenecks.

4. Rail priority Projects, as defined at Essex

The European Council, in the Essen meeting 1994, identified a number of major priority projects, which were subsequently incorporated into outline plans adopted by the Parliament and the Council, which provided a basis for EU co-financing of the trans-European transport network.

This method of building up the trans-European network, as introduced by the Maastricht Treaty, has yet to yield all its fruits. Some major projects have now been completed or have reached their final construction stages, such as the two basic railway priority projects (as defined in the Essen list), mentioned herewith:

➤ ***High-speed train PBKAL:***

It envisages the construction of a new railway network that will soon provide a high-speed alternative to air travel for passengers crossing the heart of Europe. Linking a number of capitals and other major cities, Europe’s first cross-border high-speed rail project was launched in 1989 with the signature of an agreement between France, Belgium, Germany, the Netherlands and the United Kingdom.

➤ ***High-speed train East:***

European citizens from west and east alike will benefit from a new high-speed railway link between Germany and France. The project envisages the construction of the new 320 km an hour line between Paris, Metz-Luxembourg, Saarbrücken-Mannheim and Strasbourg/Kehl. The project is designed to connect the extensive high-speed rail networks that already exist in France and Germany.

In addition, common transport policy promoted the development of the most modern techniques within a European framework of interoperability. Projects launched at the end of the 1980s are now bearing fruits, as can be seen in the trans-European high-speed rail network and the GALILEO satellite navigation programme.

If a number of missing strategic links have to be built, a more effective use of the existing network becomes crucial. Only the proper use of modern technologies and the innovative cooperation between public authorities and the private sector will be able to integrate the logistic chains crossing Europe and to achieve more integrated and more efficient traffic management.

5. The Revision of the TEN: The Rail Extension

In the context of the EU enlargement, and together with the revision of the TEN, new priorities should be defined, including now projects in the new –enlarged- territory of the Union. This part of the paper focuses on the new railway priority projects⁴³, after the extension of the TEN.

The TEN guidelines were not meant to be rigid, nor eternal and so, they were revised in the light of new transport data, traffic forecasts and changing economic, political and financial circumstances.

The European Commission submitted at the end of 2003, a new proposal to further reform the trans-European network policy⁴⁴. The scope of this proposal is to connect the networks in the whole territory

⁴³ from the “Essen priorities” to the “Van Miert priorities”

⁴⁴ already approved in May 2004

of Union –including the new Members States- and increase the concentration on selected real European priorities such as cross-border projects and the key land and sea routes needed for continent-wide cohesion and an expanded internal market. (8)

This re-focusing of efforts in the Trans-European Transport Network leads to a shift of emphasis and concentration on the networks, which connect the new Member States. A high-level Group, chaired by the former Commissioner Van Miert and supported by senior transport experts from all 25 member States studied the new needs.

Particular attention was paid to a number of important issues such as:

- Halting or slowing down present trends of modal shift
- The possibility of integrated rail freight corridor management in line with the Railways Policy
- The perennial problems of technical harmonization and interoperability in rail transport
- The need to fully integrate harmonized management systems in the Trans-European network, taking advantage of advanced technical tools such as GALILEO

In view of the expected increase in traffic on the major axes, and the need to incorporate the new Member States, the Commission identified the new priorities to facilitate transnational exchanges in a single internal market, by promoting intermodality and rebalancing of the territory of the enlarged Union. These new priorities⁴⁵, have a high European value added and are realistic, concerning financing constraints. However, the eligibility of each project depends on the financial instruments and has to be assessed on a case by case basis.

The countries agreed to begin the commencement of works on all the sections of these projects at the latest in 2010 or to make them operational at the latest in 2020.

The majority of these projects aims at building new, or upgraded existing railway lines. The new geography of transport flows in Europe together with the technological advancements of the transport sector, particularly in the railway sector, require going beyond the traditional design of infrastructure. Technological projects are also adopted aiming towards improving the interoperability, as well as the overall transport management of the rail network of the rail network based on the European Galileo system of radionavigation by satellite.

From the adopted 30 priority projects, the following nine are of special interest for the European railways development: (9)

✓ **Railway line Berlin – Verona/Milano – Bologna – Napoli - Messina**

Ongoing improvements to one of Europe's major rail axes will enable both people and goods to travel much faster between Northern Europe and Italy. The construction of a new rail basis tunnel under the Brenner pass will encourage the development of intermodal transport in the Alps. Besides the bridge over the Strait of Messina will connect the second most populated island of Europe (5 millions inhabitants) to the rest of Europe.

The project consists of 3 sections:

- Munchen – Kufstein;
- Kufstein – Innsbruck;
- Brenner Tunnel

✓ **High speed railway lines of South-West Europe**

The additional capacity and higher quality of service ensured by this project will improve the connection of Portugal, Spain and the South of France to North and Central Europe, contributing to a better accessibility of the Iberian Peninsula through the natural barrier of Pyrenees. Journey times

⁴⁵ Referring to the time period 2007-2020

within the areas will be dramatically reduced. Additional capacity and improved quality of services will make a significant contribution to sustainable development by shifting road traffic to rail. Improved transport links will also provide a substantial boost to economic development in the regions served. The extension of the European standard gauge to the Spanish and Portuguese network will smooth international trade by removing the interoperability barrier at the Spanish- French border.

✓ **Railway line Lyon – Trieste/Koper – Ljubljana – Budapest – Ukrainian border**

The construction of this new rail line will encourage the development of intermodal freight transport in the Alpine Valleys suffering from high traffic densities and serious pollution. Its extension eastward will improve the connections to new Member States while reinforcing the access to the Adriatic Sea.

✓ **Nordic triangle railway line/road**

The Nordic triangle transport scheme aims at upgrading road and rail in Sweden and Finland to improve freight and passenger transport between the Nordic countries and Central Europe. It will contribute to overcome the remoteness of Sweden and Finland from the centre of European continent and help to integrate these outlying regions into the European Union.

The project is a combined railway and road investment program for the Nordic Triangle in Sweden, connecting the cities Copenhagen, Stockholm, Oslo and Helsinki. Concerning the section to be upgraded some works have to be done in the railway sector and some others in the road sector.

✓ **Freight railway line Sines – Madrid - Paris**

This project consists of the construction of a new high capacity rail link across the Pyrenees on a route that is still to be defined amongst several options under consideration. This link, dedicated mainly to freight, should include European gauge lines and would require the construction of a long distance tunnel, (expected length between 33 and 47 km) approximately 50% in Spanish territory. The expected capacity is 20 ton/year. Up to now some preliminary studies concerning the rail tracks have been carried out but still remains a great part to be completed. Design and interoperability standards will comply with EU and UN/ECE standards.

✓ **Railway line (Paris) – Strasbourg – Stuttgart – Wien - Bratislava**

This project comprises the construction of new and upgraded high speed lines all the way from Paris to Wien and the upgrading of existing lines between Wien and Bratislava. More precisely it includes, the construction of a second track on the Kehl bridge over the Rhine to interconnect the French and German networks. It includes upgrading of the existing lines, which will be used for freight. The project will provide a continuous rail axis for both passengers and freight from Paris to Bratislava. The development of this axis will contribute to a successful EU enlargement by connecting the new Member States and providing an alternative to roads for inter – Member States traffic. The project will improve access to and from the many conurbations along its route.

✓ **Railway line (Athens) -Thessaloniki – Sofia – Budapest – Wien – Praha – Nurnberg/Dresden**

The project is the backbone of the railway network of Eastern Europe, connecting the ports of Athens, Thessaloniki and Constanza to the enlarged Union. The selected sections will complete an axis on which future Member States have already invested through the ISPA⁴⁶ programme that will enable a better level of connectivity of networks on the basis of the common standards such as TER and ERMTS, double track, electrified, with maximum speed from 160 to 200 km/h. This line will foster traffic and trade within a big part of Europe. It will also provide the Greek network with an important hinterland.

✓ **Railway line Gdansk-Warszawa-Brno/Bratislava-Wien**

The modernisation of this rail line will allow faster journeys for both passengers and freight transport services. The development of attractive rail service from the Baltic Sea along a North - South axis

⁴⁶ ISPA: Instrument for structural Programmes for pre-Accession

constitutes a unique opportunity for providing an alternative to the existing saturated North - South axes from the North Sea. The project's route has a particular interest from a European point of view since it carries a high share of international transport (48 million tonnes of international traffic in transit 2000). Besides, the project contributes to a wider strategy to attract new economic activities along the axis, and to promote a modal shift on long distance traffic, while at the same time serving the mobility needs of regional passengers.

✓ **Railway line Lyon-Genova-Basel-Duisburg-Rotterdam-Antwerpen**

Developing a rail axis, from the North Sea to the Mediterranean will contribute towards rebalancing the modal split on one of the most populated and industrial areas in Europe. While establishing a direct connection from the Iberian Peninsula to Germany for passengers, the ultimate goal is to develop a rail freight corridor with dedicated rail freight lines. Works comprise the construction of the new high speed lines in France (South and East branches of the “TGV Rhin – Rhone”), in Germany (between Karlsruhe and Basel and from the Frankfurt airport to Mannheim), upgrading of existing lines to enhance their freight capacity and the construction of a dedicated freight line (the “Iron-Rhine”) from Antwerp to the German network.

The priorities as were identified in the Essen Summit were proved effective measures for viable investments on transport infrastructure. Especially for the railways, the Essen priorities gave a clear message on the will of the European Governments to revitalise the railways, through investment measures of high scales.

6. Restructuring of the railway sector

This part of the paper briefly describes the institutional and legislative part of the problem, which – together with the infrastructure- consists a top priority for efficient railways.

The whole process for revitalising the railways –following the provisions of the Common Transport Policy- has been so far efficiently canalised. It is expected that soon all these efforts will give concrete and positive results. Railway is a mode with many advantages that should be properly utilized. The current trends are very positive. If this effort to revitalise the railways fails and railways continue to lose their market position, it would be very difficult to find other opportunities in the near future.

Even if the ambitious investment programme for modernisation of the European railway infrastructure is generally achieved, there would always exist the question of efficient rail operations. There cannot be an efficient railway system without efficient and economically viable rail enterprises.

The European Commission’s first White Paper on the development of the Common Transport Policy was published in December 1992, and the guiding principle of this document was the opening-up of the transport market. Over the last 10 years or so, this objective has been generally achieved, except in the rail sector.

The European Parliament took in December 2000 a historic decision to open up completely the rail freight market by 2008.

The arrival of new railway undertakings could help to bolster competition in this sector and should be accompanied by measures to encourage company restructuring that takes account of social aspects and work conditions. The priority is to open up the markets, not only for international services, as decided in December 2000, but also for cabotage on the national markets (to avoid trains running empty) and for international passenger services. This opening-up of the markets should be accompanied by further harmonisation in the fields of interoperability and safety. Starting from March 2003, the member states should implement a package of measures, which should restore the credibility, in terms of regularity and punctuality, of this mode in the eyes of operators, particularly for freight.

This is the so called “*Rail First Infrastructure Package*”, which consists of three Directives, i.e. 2001/12, 2001/13 and 2001/14:

Directive 2001/12, refers to the access rights of railway enterprises

Directive 2001/13, refers to the licences of the railway enterprises

Directive 2001/14, refers to the allocation of capacity of the railway infrastructure

According to this framework, from March 2003 the Member States must:

- Open up international freight services on the trans-European Network (and on the entire network in 2008)
- Give managers independent of the railway companies responsibility for decision-making to ensure equitable access to infrastructure and set up regulatory bodies
- Create a transparent framework for allocation of capacity and for charging for the use of infrastructure

The first package is completed with the new Interoperability Directive 2001/16 for conventional railways.

The European Commission has adopted on 23 January 2002 a new package ("second package") of measures to revitalise the railways by rapidly building an integrated European railway area. The five measures are based on the guidelines set out in the 2001 White Paper on transport and aim at greater safety, interoperability and opening of the rail freight market. To give strong impetus to this process, the Commission has also decided the establishment of a European Railway Agency to steer the technical work on safety and interoperability

Finally, The European Commission adopted on 3 March 2004 its third railway package containing measures to give additional impetus to the European railways. The package consists of a Communication, four legislative measures and a Working Document on an extended impact assessment for the gradual opening up of the market for international passenger services.

7. Prospects

Revitalising the railways is thus an imperative. It is a top priority in the European Union's Common Transport Policy. Far from wishing to "fragment" the railways the European Union is anxious, in line with its transport policy, to create conditions in which rail transport can once again be efficient and competitive, both for freight and passengers.

With the "Third railway package", the Commission is proposing to continue the reform of the railway sector by opening up international passenger services to competition within the European Union. It seeks thus to complete the integration of the European railway area and stimulate a mode of transport which is needed more than ever. The Commission is also proposing to improve the rights of passengers using international services, establish a certification system for locomotive drivers and step up the quality of freight services. *"In 2010, the high-speed trans-European network will be connected and new services will be able to develop on the basis of competition. Pressure from low-cost airlines is already a reality for international rail passenger services: they will have to evolve into new models and this is without any doubt the right time to free up initiatives"* stated Loyola de Palacio, Vice-President of the European Commission responsible for transport and energy. *"This proposal is both ambitious and realistic: with the 2010 deadline, we are establishing a clear timeframe for all operators so that they can prepare"* (10)

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