

# Economic and Social Council

Distr. GENERAL

TRANS/SC.2/2005/6/Add.3 23 August 2005

ENGLISH ONLY

# ECONOMIC COMMISSION FOR EUROPE

### INLAND TRANSPORT COMMITTEE

Working Party on Rail Transport (Fifty-ninth session, Paris, (France), 24-25 November 2005, agenda item 6)

# STUDY OF THE SITUATION OF RAILWAYS IN MEMBER COUNTRIES

### Transmitted by the Government of Romania

### Data on past and future developments of rail passenger and goods traffic

	D . 1. 2004	2004/2002	D 11 (	2004/2002
	Passengers carried in 2004	2004/2003	Passenger-kilometres	2004/2003
	(millions)	%	in 2004 (millions)	%
Passenger rail transport	99.5	104.9	8 638.3	101.3

		2004/2003	Ton-kilometres in	
	Tons carried in 2004	%	2004	2004/2003
	(millions)		(millions)	%
Freight rail transport	72.7	101.9	17 021.3	113.2

Romania was the first country of the Central and Eastern European Countries that made, since 1998, institutional separation between infrastructure manager and railway undertakings, in accordance with European Union directives in rail transport:

- CFR SA infrastructure manager
- CFR Calatori is national railway passenger operator
- CFR Marfa is national railway freight operator.

During 1999-2004, 23 private railway operators were created, especially in freight transport, about 7- 10% from rail freight market.

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### New developments

#### Legal framework

(a) Legislation for transposition of "first railway package", adopted by EU in March 2001, has been adopted:

- Directive No. 2001/12/EC amending Council Directive No. 91/440/CEE on the development of the Community's railways
  - Expedition Government Ordinance No. 125/18.12.2003 for completing the Expedition Government Ordinance No. 12/1998 on the Romanian railway transport and the reorganization of the Romanian National Railway Company (M.O. No. 919/22.12.2003)
  - Law No. 128/2004 for approval Expedition Government Ordinance No. 125/18.12.2003 (MO No. 371/28.04.2004)
- Directive No. 2001/13/EC for the modification of Directive 95/18/EC regarding the licenses of the railway company
  - Order of the Minister of Transports, Constructions and Tourism No. 343/2003 approving the norms for granting the railway transport license and the safety certificate, for providing public/private railway transport services on Romanian railways as well as for granting the authorization and the certificate for manoeuvre operations to economic agents that carry out operations of railway manoeuvre, (MO No. 688/01.10.2003)
  - Order of the Minister of Transports, Constructions and Tourism No. 830/2003 modifying and completing OMTCT No. 343/2003 (MO No. 836/25.11.2003)
- Directive 2001/14/CE on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification
  - Government Ordinance No. 89/2003 regarding the allocation of the railway infrastructure capacity, the tariffs for using the railway infrastructure and the certification regarding safety (MO No. 623/31.08.2003)
  - Law No. 8/2004 for approval GO No. 89/2003 (MO No. 178/02.03.2004)

(b) Legislation for transposition of directives on the railway interoperability has been adopted:

• Directive 2001/16/EC of the European Parliament and of the Council on the interoperability of the trans-European conventional rail system

- Government Decision No. 850/2003 on the interoperability of the Romanian conventional rail system with the trans-European conventional rail system (MO No 529/23.07.2003)
- Directive 96/48/EC on the interoperability of the trans-European high-speed rail system
  - Government Decision No. 1533/2003 on the interoperability of the high-speed rail system (MO No. 18/09.01.2004)

(c) Legislation for transposition of the last directives on the transport of dangerous goods by rail has been adopted:

- Directive 2003/29/EC, adapting to technical progress Council Directive 96/49/EC on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail, as amended
  - Order of the Minister of Public Works, Transports and Housing No. 891/2003 setting up certain rules concerning the transport of dangerous goods by rail (MO No 433/19.06.2003)
- Directive 2004/89/EC, adapting to technical progress Council Directive 96/49/EC on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail, as amended
  - Order of the Minister of Transports, Constructions and Tourism No. 2224/2004 setting up certain rules concerning the transport of dangerous goods by rail (MO No. 1189/13.12.2004)
- Directive 2004/110/EC, adapting to technical progress Council Directive 96/49/EC on the approximation of the laws of the Member States with regard to the transport of dangerous goods by rail, as amended
  - Order of the Minister of Transports, Constructions and Tourism No. 644/2005 setting up certain rules concerning the transport of dangerous goods by rail (MO No. 416/17.05.2005)
- (d) Other important legislation on the railways, adopted recently:
  - Law No. 402 of 19 October 2004, regarding the approval of GO No. 60/2004 on the settlements concerning the construction, maintaining, repairing and operating the railways, other ones than the one managed by the National Railway Company "CFR" S.A. "MO", Part 1, No. 956 of 19 October 2004
  - Law No. 408 of 19 October 2004 for the approval of GO No. 58/2004 having regard to the settling of the National Centre for Railway Training– CENAFER, MO, Part I No. 956 of 19 October 2000

- Government Ordinance No. 58/2004 having regard to the settling CENAFER, of the National Centre for Railway Training– CENAFER, MO, Part I No. 715 of 6 August 2004
- Government Ordinance No. 60/2004 having regard to the regulations on constructing, maintaining, repairing and operating on the railways, different ones than the ones managed by the National Railway Company CFR-2 – S.A., MO, Part I No.741 of 17 August 2004
- Government Decision No. 27/2004 for the approval of the conditions of the national Railway Company "CFR" – S.A. on the renting of some not interoperable railway infrastructure, an also having regard on their management MO, Part I No. 72 of 28 January 2004
- Government Decision No. 1252/2004 having regard to the settling of Commercial Society "Mechanized Railway Track Maintaining" – S.A. as a branch of the National Railway Company "CFR" – S.A., MO, Part I No. 773 of 24 August 2004
- Government Decision No. 1283/2004 concerning the settling of the Commercial Society "Electrificare CFR" – S.A. as a branch of the National Railway Company "CFR" – S.A., MO, Part I No. 783 of 26 August 2004
- Government Decision No. 1387/2004 concerning the approval of Activity Contract of National Railway Company "CFR" – S.A. and of Activity Contract of National Railway Passenger Company1 S.A. for the period 2004-2007, MO, Part I No. 831 of 9 September 2004
- Government Decision No. 1663/2004 concerning the organization and functioning of the National Railway Training Centre – CENAFER, MO, Part I No. 1663 of 10 October 2004

(e) "The second railway packet", adopted by the European Union in April 2004 has begun to be transposed in the national legislation:

- Directive No. 2004/51/EC of the European Parliament and of the Council from 29 April 2004 for amendment Directive No. 91/440/EEC of the Council concerning the Community railways development
  - Law No. 155/2005 for amendment and adjusting the Expedition Government Ordinance No. 12/1998 on the Romanian railway transport and the reorganization of the Romanian National Railway Company, republished, MO, Part I No. 441 of 25 May 2005

Administrative capacity: strengthening of the administrations and in particular of the infrastructure manager and of the regulatory body

During June 2004 – April 2005 – the actions regarding the strength of the administrative capacity in the railway field have continued:

- the legal framework: by the end of 2003 the new railway package was fully adopted in national legislation, adopted by European Union in 2001 and the conditions for the alignment to the railway requirements established by EU were created;
- institutional framework: beside the institutions in the railway field, created and improved starting in 1998 in accordance with the railway directives requirements, during

the analysed period the institutional framework has been created in accordance with the directives requirements of the first EU railway package;

- implementing measures: the administrative strength actions of the railway institutions have continued by the improvement of the organizational structures, by elaborating/implementing of some improved procedures, developing of some projects financed inclusively by EU for the supporting of railway sector.

#### Strengthening of the infrastructure manager

The railway infrastructure manager in Romania is Railway National Company "CFR" – SA and has been created even since 1998 when the first stage of railway reform regarding the restructuring of Romanian Railways (SNCFR) has taken place.

The infrastructure manager is institutionally separated by the freight and passenger operators and by the other institutions, entities or bodies from the railway sector. Romania was the first State from the Central and East European Countries that has realized the institutional separation, as a way of applying Directive 91/440/CEE. In the legal documents for the regulation of reform and the establishment of the infrastructure manager, EGO 12/1998 and GD 581/1998, the attributions that are totally in accordance with the provisions of EU Directives, are defined.

For strengthening of infrastructure manager, according to the Directive 2001/12/CE, by EGO 125/2003 approved by Law 128/2004, in Article  $10^1$  shall be provided that the infrastructure manager is responsible for his management and internal control in compliance with the legal provisions in force. By this legal document the new definition of the infrastructure manager has been adopted: any body or company that is responsible in particular for managing and maintaining railway infrastructure; this also includes the operation of traffic management and infrastructure control and safety systems; the functions of the infrastructure administrator of a network or part of it may be allocated, in compliance with the regulations in force, to more bodies or companies.

The infrastructure manager concludes access contracts with the railway operators and accomplishes also the allocation of railway infrastructure capacity for those operators, in a nondiscriminatory way, in compliance with the requirements of Directive 2001/14/CE that has been totally adopted in national legislation by GO 89/2003 approved by Law 8/2004.

In accordance with Article 6 of GO 89/2003, under normal business conditions and over the time period for which the Performance Contract, the accounts of the infrastructure manager shall at least balance income from infrastructure charges, surpluses from other commercial activities and State funding on the one hand, and infrastructure expenditure on the other. The infrastructure manager shall, with due regard to safety and to maintaining and improving the quality of the infrastructure service, be provided with incentives to reduce, under the law, the costs of provision of services on rail infrastructure and the level of access charges. The method for apportioning costs shall be established in accordance with the regulations in force and updated from time to time to the best international practice.

Charges for the use of railway infrastructure shall be paid to the infrastructure manager and used to fund his business. Ministry of Transports, Constructions and Tourism may require the infrastructure manager to provide all necessary information on the charges imposed. The

infrastructure manager must, in this regard, be able to justify that infrastructure charges actually invoiced to each operator, comply with the methodology, rules, and where applicable, scales laid down in the network statement.

The infrastructure manager shall ensure that the application of the charging scheme results in equivalent and non-discriminatory charges for different railway undertakings that perform services of equivalent nature in a similar part of the market and that the charges actually applied comply with the rules laid down in the network statement.

Through GD 1387/2004 having regard to the approval of the Activity contract of the National Railway Company "C.F.R." - S.A. and of the Activity Contract of the National Railway Passenger Transport "C.F.R. Călători" - S.A. for the period 2004-2007, published in the MO, Part I No. 831 of 09/09/2004, the activity contract of the infrastructure administrator was approved, the National Railway Company "C.F.R." - S.A.

The normative document stipulates that the infrastructure administrator shall shape its expenditures strictly to the level of the income achieved from the commercial operation of their own traffic capacities, from operation of the patrimony, from renting some parts of the non-interoperable infrastructure, from other own activities, from the transfers from the State budget and from external credits reimbursable and not reimbursable. When the annual income does not totally cover the foreseen expenditures, CFR – SA shall take measures in order to diminish the expenditures, but without affecting the traffic safety.

C.F.R. - S.A. binds itself to perform the works in accordance with the programmes for investments, rehabilitation and repairs, not overrunning the budgetary allotments annually assigned for such an aim to the Ministry of Transports, Constructions and Tourism. Every year, the Ministry of Transports, Constructions and tourism shall sustain the continuation of the investments in the railway public infrastructure, including the ones that have to be achieved, giving priority to modernization of the itineraries on European Railway Transport Corridors, by granting the financing through inclusion within its budget of the needed amounts.

For the access on the public infrastructure, the tariff for the use of the infrastructure is applied (TUI- Infrastructure access fee).

The maximum limits of the fees for using the infrastructure for the freight railway traffic and for passenger railway traffic are as follows:

- infrastructure access fee for the railway freight traffic; the equivalent value in ROL of 3,6 EURO/ train-km
- infrastructure access fee for railway passenger traffic: the equivalent in ROL for 2,4 EURO/train-km.

#### Strengthening of regulatory body

GO 89/2003 approved by Law 8/2004 and EGO 125/2003 approved by Law 128/2004 have adopted the provisions of the first railway package regarding the "regulatory body".

By GO 89/2003 the regulatory body made up of experts of Ministry of Transports, Constructions and Tourism shall be established. The President of the regulatory body shall be the State

secretary responsible for railway transport, whereas the other members of the regulatory body are experts working, at least, in the railway, European integration, and economic and legal domains. An applicant shall have a right to appeal to the regulatory body if it believes that it has been aggrieved, in order to lodge an appeal against the decisions adopted by the infrastructure manager or where appropriate the railway undertaking concerning:

- (a) the network statement;
- (b) criteria contained within it;
- (c) the allocation process and its result;
- (d) the charging scheme;
- (e) level or structure of infrastructure fees which it is, or may be, required to pay;
- (f) safety certificate, enforcement and monitoring of the safety standards and rules.

The regulatory body shall ensure that charges set by the infrastructure manager comply with chapter II and are non-discriminatory. Negotiation between applicants and an infrastructure manager concerning the level of infrastructure charges shall only be permitted if these are carried out under the supervision of the regulatory body. The regulatory body shall intervene if negotiations are likely to contravene the requirements of this Ordinance. The regulatory body shall have the power to request relevant information from the infrastructure manager, applicants and any third party involved, which must be supplied without undue delay. The regulatory body shall be required to decide on any complaints and take action to remedy the situation within a maximum period of two months from receipt of all information.

The decisions of the regulatory body shall be binding on all parties covered by those decisions. In the event of an appeal against a refusal to grant infrastructure capacity, or against the terms of an offer of capacity, the regulatory body shall either confirm that no modification of the infrastructure manager's decision is required, or it shall require modification of that decision in accordance with directions specified by the regulatory body.

Appeals against the decisions taken by the regulatory body shall be settled by the relevant law courts, in accordance with the Law on contentious matters No. 29/1990, with the later amendments.

The regulatory body shall exchange information with similar regulatory bodies in the EU member and candidate States about their work and decision-making principles and practice for the purpose of coordinating its decision-making principles with those of the regulatory bodies in the EU member States.

Without prejudice to the legal regulations concerning competition and the activity of the institutions/authorities with responsibility in that area, the Regulatory Body established by Government Ordinance No. 89/2003 on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification shall monitor the competition on the railway services markets, including the railway freight transport market.

In case any applicant or interested party feels that it has been treated unjustly, has been the subject of discrimination or has been injured in any other way this may lodge a complaint with the Regulatory Body in accordance with of Government Ordinance No. 89/2003.

According to the provisions of GO 89/2003, the Rules of Procedure, as well as the tasks and financing of the regulatory body, shall be approved by Government decision.

The project of Government Decision having regard on the organization, functioning, tasks and financing of the Survey Council, is under establishing procedure at the Ministry of Transport, Constructions and Tourism.

Restructuring of the sector: long-term business plan for restoring financial equilibrium in the sector and for modernizing passenger operations, subsidies for public service obligations

Strategy for the development of the railway transport system in Romania for the period 2005 – 2008 has been approved.

1. General situation, priorities, restrictions

Strategy for developing the railway transport system in Romania during 2005–2008 shall be structures on the basis of guiding lines within the following documents:

- ✓ Government strategy
- ✓ Conditions for the European integration
- ✓ General stipulations from the national Development Plan.

When defining the development strategy of the railway system the difficulties that this sector has at the European level have to be taken into account (market loss, huge deficit, large subsidiaries) and similar solutions to the ones used for the partners of the European Union have to be found.

The strategy defines the major guiding lines towards which the reform of the railway system has to be oriented, but its application has to be done in accordance with the policies of the other ways of transportation and with the priorities in other economy sectors of the Romanian society. It is estimated that for the step 2005-2008 it is essential to pass from the step of applying of a sector strategy within the railway system to elaborating and applying a multi-sector strategy, that should include also the railway sector; thus, the costs for implementation can be reduced and a synergetic effect could be reached.

2. Elaborating an implementing the development strategy of the railway infrastructure

Accomplishing the major objectives of the European integration of the railway transport system is connected to the modernization of the infrastructure and to the interoperability with the European railway infrastructure. Romania has created a judicial frame having regard to the engagements to modernize the main railway lines on the European Corridors that cross the country or within the International Agreements AGC, AGTC and TER. Achieving such engagement leads to attracting an important transit traffic through Romania, granting important income. Meanwhile, modernizing the railway infrastructure in Romania implies important financial efforts during the following 10-15 years, form different sources; State budget, bank loans, European funds.

Romania is crossed by 2 of the 9 trans-European Corridors:

- Corridor IV Berlin/Nurnberg-Praga-Budapesta-Constanta/Salonic/Istambul;
- Corridor IX Helsinki-St. Petesburg-Moscova/Pskov-Kiev-Liubashevska-Chisinau-Bucuresti-Dimitovgrad-Alexandropolis.

CFR has started projects for rehabilitating and modernizing the railways already since 1997, projects that are in different stages of their implementation or of project.

- 2.1 Modernizing the European Corridors IV and IX
- 2.1.1 General description

**The railway trans-European Corridor IV** has, on the Romanian sector, a length of 880 km. From the Hungarian border up to Constanta, it crosses Romania from the North-West to the South-East, the main localities that is passes through being: Curtici, Arad, Deva, Simeria, Coşlariu, Sighişoara, Braşov, Ploieşti, Bucureşti, Feteşti, Constanța; there is also a Southern branch of this Corridor that crosses Romania on the route Arad, Timişoara, Drobeta Tr. Severin, Craiova, Calafat. Between these localities, the sections on which rehabilitation works are and shall be done have been established

**Railway trans-European Corridor IX** has on the Romanian sector a length of 568 km. It has a common section, on the part București – Ploiești Side line Triaj, on 56 km, with the track of the European Corridor IV. From the Bulgarian border up to Constanța, it crosses Romania from North East to the South, the main localities that he passes through being: Giurgiu, București, Ploiești, Buzău, Focșani, Mărășești, Adjud, Bacău, Roman, Pașcani, Iași, Ungheni. It also has a Southern branch on the part Bucuresti – Giurgiu și Videle – Giurgiu. Between these localities, the sections on which the rehabilitation works shall be done have been established.

2.1.2 Strategic projects for 2005–2008

The projects taken into account for the period 2005–2008 are grouped on some segments of the European corridors, depending on the financial resources available and the capacity of execution of the works in accordance with the strict procedures agreed depending on the financial sources allotted for each segment.

2.1.2.1. Rehabilitation of portion of line București Nord-București Băneasa and Fetești-Constanța (86 km)

Financing the rehabilitation works on these portions of line is achieved on the basis of a credit from the Government of Japan, through JBIC –Japan Bank for International Cooperation. On 30 March 2001 a Memorandum of Financing was signed between the Governments of Japan and of Romania. In the Memorandum the following due amounts were stipulated, shared on financing sources:

Y 25,635 milliards (\$US 223 million at the date of concluding the Memorandum) credit JBIC,

- ✓ Y 8,545 milliards (\$US74 million at the date of signing the Memorandum) financing from the State budget.
  - The duration foreseen for the implementation of the project: 2002–2008.

The consultant selected on the basis of an international bid is the Japanese company Pacific Consultants, that shall have as main responsibilities the following:

- executing the technical project and the bids documents;
- assuring the function of Engineer FIDIC during the execution of the works.

For the years 2005-2008 the bid and the execution of the works is stipulated. A risk element that has to be taken into account is the settlement of the problems regarding the unfavourable evolution of the exchange rate yen/US\$ that leads to subfinancing the works.

2.1.2.2. Rehabilitating the portion of line București Băneasa–Fetești (141 km)

For the section București Băneasa–Fetești, on the basis of the Memorandum of Financing agreed between the European Commission and the Government of Romania, the following were established:

- ✓ two projects on the portions of railway line Bucureşti Băneasa–Fundulea and Fundulea– Feteşti;
- ✓ a project for supervising of the sections Bucureşti Băneasa-Fundulea and Fundulea-Lehliu
- ✓ a project for preparing the execution project and of the documents for the bid for the section Fundulea- Feteşti and supervising the works for section Lehliu Feteşti.

The total value of this projects is of  $\notin 322,528$  million, from which the eligible value is of 308,972, from which 75% is financed by the European Union ( $\notin 231,729$  million), the difference of 25% being co-financed from the State budget.

The project "Preparing the project of execution and the bid documentation for the section Fundulea-Fetesti" and the supervising of the works for section "Lehliu–Feteşti", ISPA 2000/RO/16/P/PT/001/02 is under unfolding procedures from 19 March 2003, and the date of the termination of the contract is foreseen for November 2007.

The technical project and the bid documentation for the portion of the line București Băneasa– Fundulea (38 km) has been done by the projector of SYSTRA, selected through international bid in collaboration with ISPCF. Financing the project elaboration and of the bid documentation was granted from PHARE sources.

The project "Works for rehabilitating the railway section București Băneasa–Fundulea", ISPA 2000/RO/16/P/PT/001/03 is being unfolded, being structured on five portions (bridges works, Infrastructure and supra- structure Works, civil works in the stations, signalizing and telecommunication works, works for the contact line). Nowadays, the bids are being unfolded in order to select the constructors that are going to perform the works.

The project "Rehabilitation works for the Fundulea–FetestiRailway" ISPA 2000/RO/16/P/PT/001/04-05 is to be accomplished in 2005.

For the rest of the Fundulea-Fetesti section, the technical project and the work's supervising is made by the German company DE Consult. According to the Financing Memorandum, the echeloning of the works for this section is predicted for the period 2003 - 2007.

2.1.2.3. Rehabilitation of the Campina-Predeal railway section (54 km)

The rehabilitation works for the Campina–Predeal section are made, in accordance with the Financing Memorandum convened between the European Commission and the Romanian Government on two Projects:

- reviewing of the technical project made by ISPCF and the supervising of works,
- rehabilitation works.

The total amount is  $\notin 214,979$  million, of which the eligible value is  $\notin 199,485$  million with 75% EU financing ( $\notin 149,614$  million), the rest of 25% being co-financed from the State budget.

The project "The reviewing of the technical project and supervising services for the works on the Campina–Predeal section" No. 2003/RO/16/P/PT/007/01 has a deadline for sending the offers, on the 11th of March 2005. It is estimated that this contract should be signed in June 2005.

2.1.2.4. The rehabilitation of the Predeal–Brasov railway section (26 km)

For the Predeal–Brasov section the value of the estimated works is €250 million, the technical project is made by ISPCF and an external financing is waited.

Many contracts were initiated for a possible financing of the works for the Predeal-Brasov section with JBIC.

2.1.2.5. The rehabilitation of the Brasov–Sighisoara–Coslariu–Simeria–Curticisection and adjacent studies (479 km)

For the sections Brasov–Sighisoara–Coslariu–Simeria–Curtici, a financing demand was sent to EC on 24 August 2004 for technical assistance from ISPA. The rehabilitation works corresponding to these projects shall be financed from the cohesion funds and IEB loan.

The technical assistance project for the reviewing of the Feasibility Study (made by ISPCF) is made in accordance with the Financing Memorandum ISPA 2001/RO/16/P/PA/008 convened between the European Commission and the Romanian Government; it has two parts:

- ISPA 2001/RO/16/P/PA/008.01 Review of the Feasibility Study the Hungarian frontier section Curtici–Simeria. The total amount is €420,000, of which the eligible value is €400,000, with 75% EU financing (€300,000), the rest being co-financed from the State budget.
- ISPA 2001/RO/16/P/PA/008.02. The elaboration of the technical project for the execution of the access railway infrastructure for the new bridge over the Danube in Calafat–Vidin.

The total amount is  $\notin$ 425,000, of which the eligible value is  $\notin$ 400,000, with 75% EU financing ( $\notin$ 300,000), the rest being co-financed from the State budget.

For each of the sections composing this project, preparing works were made for the financing, as follows:

<u>Curtici – Arad – Deva – Simeria section (184 km</u>): The feasibility study, made by ISPCF was approved by the CFR. In order to obtain external financing, the feasibility study was sent to the IEB and the EC (estimated value- 295 MEURO)  $\notin$ 400,000 were allocated from ISPA non-disbursable funds in order to audit the FS and to prepare the ISPA application.

Following to the tender for the auditing consultant for the FS, the ITALFERR Company was selected and a contract has been signed.

<u>Simeria–Coslariu section (70 km</u>): The feasibility study, made by ISPCF, is to be reviewed and approved by the CFR.

<u>Coslariu-Sighisoara-Brasov</u> section (295 km): The topo-geo study is to be elaborated by the ISPCF.

Sighişoara–Rupea section: ISPCF is elaborating the feasibility study.

Rupea-Braşov section: ISPCF is elaborating the feasibility study.

2.1.2.6. Modernization works on the Southern section of the Trans-European Corridor

IV: Curtici-Arad-Timişoara-Craiova-Calafat

For the Southern section of Corridor IV, Curtici–Arad–Timişoara–Craiova–Calafat, following the Government E.O. No.149/2000, for the ratification of the Agreement between the Romanian Government and the Bulgarian Republic Government regarding the technical, financial, legal and organizational aspects regarding the construction of a new mixed bridge (rail and road) at the frontier between the two countries, over the Danube, signed in Bucharest on 5 June 2000, the CFR assigned ISPCF for the elaboration of the feasibility study and the tender documentation for the execution of works for "the rehabilitation and modernization of the railway track No. 113 Craiova Calafat according to the infrastructure parameters in the AGTC agreement (Law No 8/1993)".

The study was elaborated by the ISPCF-SA and was approved by the CNCF"CFR"-SA. An amount of 465 MEURO is estimated for the works. By G.D. No. 118/2003, the technical and economical indicators were approved. Many actions are to be made in order to obtain financing.

2.1.3 Finalizing of the Râmnicu Vâlcea–Vâlcele railway track

The Râmnicu Vâlcea–Vâlcele railway track shall be, according to the project, a simple, unelectrified track ensuring the direct connection between the Pitesti–Curtea de Arges railway and the Piatra Olt–Podul Olt railway line. The practical circulated capacity shall be of 26 pairs of trains a day.

The new line has the advantage of crossing the Carpathians at an altitude of 450 km, while reducing the distance between the S-E and the N-V of the country by 127 km.

The objective was introduced in the investment programme for 2004, with an external financing of approx.  $\notin$ 138 million ensured (partial \$US 38 million) by the Italian company SECOL, the executants. The major priority is the finalizing of the drafting and the approval of the project, in order to know the entire estimated value. The actual estimation is of \$US 200 million. After the finalization of the drafting it is necessary to ensure supplementary financing for the finalization of works.

- 2.2 Annual maintenance of the railway infrastructure for the reduction of speed restrictions and dangerous points.
- 2.2.1 Analysis of the present situation

From the analysis of traffic capacity at the disposal of railway operators in the last years, resulted the necessity to reduce the length of the network, as follows:

Year	Length of the network [km.]	No. of equivalent track switches
2001	22,247	30,242
2002	21,030	29,832
2003	20,964	29,541

Reduction of maximum speeds for the passenger and freight transport on current and direct lines is as follows:

Speed		Year/Length [km.]				
level [km/h]	2001	2002	2003			
< 50	3,682	3,750	3,825			
51-80	5,471	5,520	5,575			
81-100	2,811	2,725	2,656			
101-120	2,057	2,014	2,009			
121-140	219	212	201			
TOTAL	14,240	14, 226	14,266			

Reduction of maximum speeds was necessary because of the status of the track and art works, which imposed for traffic security reasons the introduction of speed restrictions, as follows:

Year	2001	2002	2003
No. of uncovered speed restrictions	245	186	238
Length (km)	602	624	575

At the end of 2004, there were speed restrictions because of art works, as follows:

- covered – main lines 59, secondary lines 29;

- uncovered - main lines 27, secondary lines 27.

The situation of dangerous points is: floodable sections, with erosions and scouring, instable embankments, muddy sections, rock falling and others, in the present is 1,054 dangerous points with a length of 163,323 km.

2.2.2 Elimination of dangerous points and speed restrictions on the public railway infrastructure, increase of the technical and commercial speed by at least 20%

The accomplishment of this point implies the definition and the legal approval of a multi-annual strategy regarding the insurance of annual financing resources for repairing works of public railway infrastructure, to ensure a unitary vision, together with:

- Ensuring an undiscriminatory contribution of the State regarding the development of road an rail infrastructure in Romania, in a way that the utilization costs for the infrastructure should be reflected in the operators fees in equivalent per cent for the rail and road traffic;
- Ensuring continuity for reparation works for the railway infrastructure through multiannual projects.
- Establishing a medium-term strategy to ensure a stability of the level for the access charge paid by the railway undertakers that will allow a better preparation for their presence on the market, by elaborating intelligible multi-annual business plans.

On the whole, the repair costs of the railway infrastructure can be divided into several types of works. The following table presents an approximate evaluation of the repairs necessities for the achieving of the objective mentioned in the title of this chapter, beginning with a certain annual echeloning, which can be re-analyzed taking into consideration the possibilities of financing the works.

			Total		Annual values	
No.	Type of work	Quantities	amount [Mil. Euro]	[Mil. on years		Value [Mil. Euro]
1	Quantity of track switches and track switches parts (including the financial effort of installing)	31,000 tons	200	4	10,000 tons	50
2	Repairs of unstable embankments – dangerous points	1,054 dangerous points	527	10,5	100 dangerous points	50
3	Speed restrictions due to the inappropriate technical status of the way (track, sleepers, prism, embankment, installations, etc.)	4,840 km	1,440	16	300 km	90

Considering that the achievement of this objective is a very difficult task exceeding Romanian possibilities of sustaining the railway infrastructure is absolutely necessary to accomplish in the following period, a thorough study of each dangerous point and each speed restriction in order to be presented to the Romanian Government:

- a more precise financial evaluation regarding the total financial effort;

- a more elaborate time echeloning of the works, taking into consideration the position on the railway network of each case, on:
  - European corridors;
  - Main and secondary lines
  - Secondary lines
- complementary proposals of taking over some lines by the private sector, unnecessary line closing;
- proposals regarding possible financial schemes considering transfers from the State budget, European community funds, IFI credits.

The study must present functioning solutions of the railway under safe conditions with an annual repairs budget that does not exceed 2–2.5 thousands billion lei. It is considered that by April 2005 this study should be sent by CFR to the Ministry of Transports, Construction and Tourism, in order to prepare the proper legal framework for the approval of the long-term strategy for the repairing of the infrastructure and the re-establishing of its financial balance.

#### 2.3 Modernization of fixed equipments of the railway infrastructure

The modernization of the fixed equipment of the railway infrastructure has an important role for the increase of the transport safety and the reduction of the functioning costs, through the automation of some operations performed manually, at present. The main fields are:

- electronic centralization of the railway stations;
- introduction of informatics in the operation posts for the CED installations;
- introducing of automatic signalling installations at the road-rail crossings, instead of the guarded BAT-SAT mechanical barriers;
- replacing of the CEM installation by CED installations;
- modernization of the electro-alimentation installations for the CED installations;
- introduction of ETCS level 1 to ensure the interoperability;
- retechnologization of the electro-alimentation installations of the contact lines.

The most important projects are related to the electronic centralization of the stations. For these stations, in the period 2005-2008, the necessary funds of over  $\in 100$  million have been ensured. The other directions of action require a smaller budget but these have a very special effect in the increase of productivity of the railway.

#### 2.3.1. Introduction of the interlocking systems of the stations

#### 2.3.1.1 Present situations

In the modern interlocking systems stations proposed, there are installations for the ensuring of railway traffic safety based on calculation techniques, with technical parameters superior to those of the present installations. By introducing these, the reduction of the consumption of raw materials and materials by 30% can be obtained, of maintenance and exploitation costs by 8% as well as the energy consumption. At the same time, the decisional speed can be increased in solving the traffic conflict situations. An interlocking installation can take over the safe command and control of the switches and signalling in the railway stations over many

kilometres, the functions of the automatic interlocking on the same area, as well as some of the dispatcher centralized management functions of the traffic.

The first major investment after 1990 for the railway traffic management in safe conditions has been the modernization of CED and BLA installations in Ploiesti Sud station. The work has been entirely financed from Romanian funds and consisted of replacing the relay interlocking installation by an installation based on advanced technical calculation. The work was completed in 2001.

The PHARE project 9604/1996 stipulated that  $\notin$ 29,5 million of this was meant for the interlocking systems of 4 railway stations equipped with Alcatel technology following the tender. So far, the works were completed for the interlocking systems in Timisoara station (26.05.2004), Brasov (02.10.2004) and Arad (20.11.2004). The interlocking system works Bucharest railway Complex are predicted for 2005.

2.3.1.2. The strategy of continuing the programme of introducing the interlocking systems in station in the period 2005–2008.

The regulation of interlocking systems is an essential condition for the accomplishment of the interoperability with the European railway network, the harmonization with the European standards for the forthcoming accession, the increase of traffic safety, the improvement of the railway technological process and the increase of economic efficiency by a substantial reduction of the maintenance and operating effort, with the proper diminution of costs, including those related to the operating and maintenance staff.

The new generation of installations is mainly based on the electronic computer control for processes, offering more flexible solutions by purchasing and installing hardware and software equipment adequate for every case.

Because the interlocking system installations function on computer-controlled commands, a great part of the costs is related to the software development adequate to every railway station or section. All these make the transition to the new electronic system induce at every railway station important costs for the harmonization of the software programmes according to the management standards.

At present, 'C.F.R.' – S.A. began to benefit from the most modern versions of the interlocking systems which can be purchased on the market because it has installed, following some previous tender procedures, systems supplied by SIEMENS and SEL Alcatel, recognized as world leaders in this field. So far, only these two companies have the technical ability, materialized by already functioning projects, to achieve complex interlocking systems for the great railway stations in order to ensure the command of hundreds of switches and signals.

The advantages of working with two worldwide leaders are multiple: Romania is offered a high functional safety, it can take advantage of the latest improvements developed for these installations but, especially, it can maintain the equipment costs under control. It must be emphasized that at the previous purchasing procedures, SIEMENS AG and SEL ALCATEL were on the first places with low prices.

The evolution's analysis of the introduction of signalling interlocking systems at the railway administrations in the developed countries has highlighted that they also successfully chose two competing suppliers. In order to continue the process of implementing interlocking systems on the railway, it is not considered as necessary the diversification of the chosen solutions by promoting some new suppliers. Such a policy would lead to an unjustified increase in the costs for adapting the software to the internal conditions in Romania of every adopted solution. At the same time, the interfacing of the interlocking systems from many suppliers for the national traffic management can introduce some supplementary risk elements in a sensitive field such as traffic safety, following the activities of making compatible some software products from different producers.

Considering the above, it is appreciated that the limitation at two in the number of interlocking system types at the CFR is normal, taking into consideration the reduction of risks and costs in the following activities:

- the elimination of the costs for adapting the system to the requirements imposed by the management regulations of the traffic in Romania;
- the important reduction of the time needed to install and implement the system in new stations due to the fact that the software is already adapted to the exploiting conditions of the signalling installation in Romania (the implementation of SIEMENS solution lasted six years and the one of SEL ALCATEL has begun four years ago and is not yet completed);
- an easier interoperability and a safer compatibility of the interlocking installations inside the railway network;
- the justification of technological transfer from these suppliers towards Romanian companies, because in the case of small quantities of spare parts the taking over of these technologies becomes inefficient;
- an easier purchase of the spare parts and the measurement and control equipments;
- smaller costs with training the operating, maintenance and inspection staff;
- the possibility of using the same maintenance staff;
- better possibilities to transfer the operation staff inside the railway network.

The control over prices is achieved both by the initial low prices, the competition between the two companies and by a reasonable policy of expanding the system in new stations through maintaining the balance between the companies.

2.3.1.3. Implementation programme of interlocking systems in the period 2005-2008

In the period 2005-2008, the programme of expanding the Siemens solution will continue in 7 stations, under the provisions in the Government Decision 835/10 July, 2003 which has approved the contracting of external and/or internal credits a total amount of  $\notin$ 45 million by the Ministry of Transports, Construction and Tourism. The stations in this programme are:

- Ploiesti Est, Ploiesti Vest and the Branch Ploiesti Triaj which will be managed from Ploiesti Sud. The €13 million works will be finished in 2005;
- Deva and Simeria with €16 million works;
- Alba Iulia and Sighisoara with €16 million works.

At the same time, the expansion of the Alcatel solution in 11 stations on the European corridors

IV and IX will continue in parallel. By Government Decision 1045/2004, the contracting of a  $\in 60$  million credit was approved for CFR SA for this purpose. The phases of these works in the stations are:

- Chitila, PM Buciumeni, Chiajna, Fetesti beginning in 2005, €15 million works;
- Constanta Complex, Palas, Focsani beginning in 2006, €14 million works.
- Lugoj, Caransebes, starting with the year 2007, €14 million Works
- Craiova complex of units and Drobeta-Turnu Severin starting with the year 2008, €17 million works.

Projects shall have to be prepared and funds shall have to be found until 2008, in order to ensure the continuation of the schedule during the time period 2008 - 2012.

### 2.3.2 Modernization of other types of stationary plants

In order to reduce costs and the number of operation personnel, several projects will be considered, that are expected to have a great impact upon the railway operation activities, as follows:

No.	Objective	Estimated budget [million EURO]
1	Completing – in 2005 – the works for the informatization of operation posts of CED equipments in the railway stations of Vidra and Timişul de Sus, as well as their placing into service	0.29
2	Reducing the supervising personnel in CED stations, improving the security level of railway traffic on the sections without BLA, by control of the current track with the axle-counter (30 installations/year)	1.2/year
3	Improving the security level of traffic and smoothing the car traffic by mounting the automated-signal devices at the cross-level passages, instead of the BAT-SAT supervized mechanical gates BAT - SAT (20 passes/year)	1.2/year
4	Replacing the CEM devices with low-cost CED devices, in order to reduce operation personnel and improve the traffic security. (16 devices/year)	1.3/year
5	Modernization of electric supply for CED devices (rectifiers, invertors, etc. – new variants characterized by reduced losses and high reliability)	2.5/year
6	Suppression of some railway stations and providing a complete number of BLA devices (18 stations /year)	4.5/year
7	Interoperability with the European railway networks by 1 <sup>st</sup> level ETCS implementation (100km /year)	2.3/year
8	Re-technologization of electricity supply devices for the contact track (2 sub- stations /year)	6/year
9	Creating the National Centre for railway traffic management (budget 2005 – 2008)	7.5/year
10	Implementing the railway region dispatchers units (budget 2005–2008)	12.5/year

### 2.4. Modernization of railway stations

During the period 2005–2008, the modernization programme for passenger railway stations will continue; consequently, by 2012–2015 all stations of the most important towns in Romania

(about 100–150 railway stations) are to be modernized in conformity with European norms: easy access of passengers, tall and covered platforms, commercial centres, access for the disabled, etc.

Currently, there are two modernization projects carried on for 42 railway stations. Available funds ensure funding for as many as 21 railway stations. The first project, "Maximization of opportunities of resource-making out of rents and minimization of maintenance and operation costs in five railway stations", in value of €24 million (EBRD-funded), has the following components:

- €15.7 million allotted for the modernization works of the railway stations of Craiova, Timişoara, Cluj-Napoca, Iaşi and Constanța;
- €0.5 million allotted for the development and implementation of the CFR Managerial Schedule of Ownership;
- €2 million allotted for consultancy during the performance of contract works;
- €1 million allotted for the pre-feasibility study, the feasibility study and recommendations for the optimal development of Gara de Nord, including economic and operational studies for the modernization of the latter;

In the third quarter of 2005, execution works are scheduled to begin; they are estimated as follows:

No.	Railway station	Estimated budget [million Euro]	Deadlines
1	Craiova	1.75	$3^{rd}$ quarter of 2005 – $3^{rd}$ quarter of 2007
2	Timișoara	1.85	$3^{rd}$ quarter of $2005 - 3^{rd}$ quarter of 2007
3	Cluj-Napoca	1.05	$3^{rd}$ quarter of $2005 - 3^{rd}$ quarter of 2007
4	Iași	0.8	$3^{rd}$ quarter of $2005 - 3^{rd}$ quarter of $2006$
5	Constanța	10.25	$3^{rd}$ quarter of $2005 - 3^{rd}$ quarter of $2008$

Apart from the EBRD-funded programme concerning the rehabilitation of some railway stations in Romania, and in conformity with Government Decision 870/2003, some other important 37 railway stations have been considered, to be Credit Suisse First Boston International-funded, to the value of \$US 60 million. It should be noted that modernization works can be contracted only within the approved budget.

In conformity with the technical and economic documents, as approved by the Economic Technical Board of the Ministry of Transports, Constructions and Tourism, the budget of \$US 60 million is sufficient for the funding of the modernization of the 16 railway stations; therefore, tenders have been organized and contracts have been concluded with different builders. The former are currently in different execution phases:

		Estimated	
No.	Railway station	budget [\$USmillion]	Deadlines
1	Ploiești Sud	2,756	3rd quarter of $2004 - 3$ <sup>rd</sup> quarter of
			2006
2	Arad	4,090	4th quarter of $2004 - 4^{\text{th}}$ quarter of
			2006
3	Deva	2,037	Contract still to be concluded
4	Alba Iulia	1,841	4th quarter of 2004 – 2nd quarter of
			2005
5	Brașov	4,047	Contract still to be concluded
6	Bacău	2,593	Contract still to be concluded
7	Suceava Burdujeni	3,500	4th quarter of 2004 – 2nd quarter of
			2006
8	Buzău	2,275	Contract still to be concluded
9	Focșani	6,055	2nd quarter of 2003 – 2nd quarter of
			2005
10	Sighișoara	2,667	3rd quarter of 2004 – 2nd quarter of
			2006
11	Drobeta Turnu –	6,825	2nd quarter of 2004 – 1st quarter of
	Severin		2006
12	Galați	7,352	4th quarter of 2005
13	Fetești	4,701	4th quarter of 2004 – 4th quarter of
			2006
14	Sibiu	3,854	Contract still to be concluded
15	Oradea	3,992	Contract still to be concluded
16	Tulcea	1,415	Already taken over

Currently, negotiations are being carried with the Ministry of Public Finances for the approval of an extension of the leasing contract period for the funding of the 16 railway stations to match the whole execution period for the execution contracts.

At the same time, during the period 2005–2008, measures will have to be taken in order to attract new financing resources for the remaining 21 railways out of the 37 initially considered.

2.5. Carrying on the process of equipping CFR with modern repairing and maintenance track vehicles

The fleet of CFR track heavy vehicles has been undergoing modernization since 1997. The process must continue in a coherent strategy that should provide for the endowment of CFR with an entire system of track vehicles that is able to ensure the performance of all maintenance and repairing track operations. The accomplishment of this requirement is an essential condition in order to achieve some of the important objectives in restructuring the railway.

- ✓ Increasing the labour productivity to CFR;
- Decreasing the number of the personnel, that has no qualifications;

- Decreasing the costs of the railway infrastructure and decreasing the access charge for the use of infrastructure;
- ✓ Decreasing the number of dangerous points and the speed restrictions.

The priority is that CFR should submit a coherent programme concerning all the endowment requirements with big and small mechanization track vehicles, a programme that should be approved within the Economic Technical Board of the Ministry of Transports, Constructions and Tourism, following that all the financing programmes should be used in order to achieve it.

There are more solutions for financing the endowment program with track vehicles:

- ✓ EIB loan 20777/2000 amounting to \$US15 million, is available for this project. The tenders are to be carried out starting with 2005, and the deliveries to be ended in 2006.
- ✓ The second loan with IBRD amounting to \$US 75 million, that already approved by the IBRD management and in process of being approved by the Romanian authorities, allots about \$US 57 million in order to purchase track vehicles;
- An EXIMBANK (USA) loan offer amounting to \$US 30–50 million is expected to be negotiated;
- ✓ Comprising within the future financing financial packages some sections from the European corridors and the track vehicles that are necessary to provide the operation of the respective track under technical designed parameters, after having ended the work.
- 3. Passenger railway transport

By Government Decision 1387/2004 concerning the approval of the Activity Contract of the National Railway Company "C.F.R." – SA and the approval of the Activity Contract of the National Passenger Railway Transport Company "C.F.R. Calatori" SA for the period 2004–2007, published in the Official Gazette, Section 1, No. 831 dated09/9/2004, there has been approved the activity contract of the national passenger railway transport operator, the National Passenger Railway Transport Company "C.F.R. Calatori".

The object of the activity contract consists in establishing the relations between CFR Calatori and the public institutions in order to perform under comfort, quality and safety standards the public passenger railway transport that has the role of a social public service. The specific provisions for the years 2005–2007 are established annually, through a Government Decision to approve the budget of CFR Calatori, after having approved the annual law of the State budget.

During the validity period of the present activity contract, CFR Calatori binds itself to prepare and to put into operation the number and categories of trains that are necessary in order to ensure the role of a social public service for the public passenger railway transport. The minimum number and the categories of trains that will run on the operating sections will be approved by an order of the Minister of Transport, Constructions and Tourism. The transport capacities that are offered to the passengers will be established annually according to the market evolution and demands and to the State budget possibilities.

CFR Calatori will provide for the following service types to the passengers:

- passenger transport within the domestic and international traffic by trains, established in the timetable, by supplementary and specially ordered trains;
- transport capacities classified on comfort and service criteria: 1<sup>st</sup> class and 2<sup>nd</sup> class coaches, with and without compartments, 1<sup>st</sup> class and 2<sup>nd</sup> class sleeping cars, berth–cars, saloon cars, dining–cars and bars, cars for the transport of vehicles;
- free information about timetable and travel conditions;
- the possibility of renting different types and categories of passenger cars;
- selling travel tickets up to 10 days in advance within the domestic traffic and up to 60 days within the international traffic.

CFR Calatori will provide for the minimum compulsory transport conditions concerning the commercial speed, the comfort and services onboard the trains, according to the train category during the whole period of the transport contract.

Development and modernization strategy of CFR Calatori will be in conformity with the European legislation from the passenger railway transport field and it will provide for the conditions necessary for the European integration.

CFR Calatori binds itself by the activity contract:

- to meet the demands of the public passenger railway transport market;
- to promote a tariff policy correlated with the legislation in force concerning the tariffs' conditions for the social public services and with the transport market evolution;
- To grant travel facilities for the services carried out to some passenger categories according to the regulations in force;
- To act permanently for an efficient use of the material and human resources, ensuring, thus, the reduction of the real transport costs.

In order to use the public railway infrastructure, CFR Calatori will pay to the National Railway Company "CFR–SA" charges for the use of infrastructure, that are established according to legal provisions.

3.1 A new policy of subsidies and their distribution on types of trains

The future institutional separation of passenger transport on types of traffic (short distance traffic and regional units) will create a new background for the distribution of the subsidies. A new strategy for granting differentiated subsidies for the trains must be drawn up. The passenger short–distance trains will receive higher subsidies, and the high–speed trains (IC and international trains) must gradually reach the reduction of the subsidy up to its cancellation. This fact must take place in the same time with the access opening for this type of trains at a European level. Granting subsidies to the passenger railway transport including from the local budgets will complete the new structure of the subsidies.

In the past few years, the subsidy for the railway transport in Romania was situated to a percentage of about 0.7 % from the gross national product, out of which more than a half was due to the passenger transport, and the rest to the modernization and repair of the public railway infrastructure. The amounts allotted in absolute value are much below the European level. The annual evolution of the subsidies was the following:

	1999	2000	2001	2002	2003	2004
Passenger subsidy (million Euro)	184.16	198.97	162.99	155.17	196.76	177.86
Subsidy in Euro/1,000	15.3	17.11	14.86	18.25	23.16	20.32
passengers/km						

Related to the European mean that represents about €50-60 for 1,000 passengers/km, it is obvious that Romania holds a modest position within the subsidies' policy, although the costs of a passenger railway operator tend to be similar at the European level (the same rolling stock, the same maintenance or repairing costs, similar costs for energy and diesel oil). The major problem of the subsidy is that the Romanian gross national product is not comparable with the European mean, yet.

In this context efficient measures, must be implemented to reduce the railway infrastructure costs in order to decrease the tariff for the use of the infrastructure, and the subsidies should be granted according to the types of train, so that the ones that need more this State subsidy are protected.

In order to improve the financial stability in the railway field and in order to continuously modernize this field, a draft of a normative act on establishing the main aspects is in the process of being drawn up within the Ministry of Transports, Constructions and Tourism in order to achieve this goal.

The draft of a normative act has a special complexity as the present system needs a large review of the legal frame regarding the transfer from the State budget for the modernization of the railway infrastructure, the non-discriminatory policy regarding the railway and road transport, the performance of the investments in the railway infrastructure, as well as the connections with granting the subsidies in the railway field, the establishment of the tariff policies in the passenger railway transport. The draft of the normative act is expected to be approved by the end of the 2005.

#### Investments in rail infrastructure

Investments in rail infrastructure are financed from the State budget, in accordance with law.

Year	2000	2001	2002	2003
Investment in infrastructure (million Euro)	39.3	62.9	79.9	72.7

In 2004, the total investments in rail infrastructure were  $\notin 123.63$  million. The State budget contributed with  $\notin 74.54$  million and  $\notin 49.09$  million was an ineligible transfer ISPA from European Union (provisional results).

#### Investments in railway rolling stock

Investments in railway rolling stock for passenger are financed from the State budget, in accordance with law.

Year	2001	2002	2003
Investment in railway rolling stock for passenger	12.98	28.09	17.59
(million Euro)			

In 2004, the total investments in railway rolling stock for passenger were  $\in 12.07$  million (provisional results).

Investments in railway rolling stock for freight are not financed from the State budget, in accordance with law.

Year	2001	2002	2003
Investment in railway rolling stock for freight	6.85	9.40	102.30
(million Euro)			

In 2004, the total investments in railway rolling stock for freight were €29.0 million (provisional results).

#### Information on research activities in the field of railway transport

In the field of railway transport, research activities were carried out in accordance with national legislation regarding national research:

- in national research institutes
- in universities
- in private companies.

# Practical experiences with the application of global positioning systems in rail freight transport

Romania is preparing a Memorandum regarding Marco Polo funding for concluding a general agreement with the European Union in this field.

The Memorandum will allow European funding for the projects in this domain, including in the future possible projects on global positioning systems (GPS) in rail freight transport.

#### Railway safety: Risk assessment techniques

1. Romania has a solid legal framework in the field of overall safety of railway transport in accordance with international rules of rail, for many decades.

As a result, in recent years, Romania has not had any important rail accidents and neither have there been any people killed in rail accidents.

Reproduced below are the provisions from the law of Romanian railway (GUO 12/1998) regarding Traffic Safety on the Romanian Railways:

### Article 30

Public rail transport must be carried out in a climate of firm discipline, ensuring the conditions required for the full safety of carried goods and persons.

#### Article 31

The personnel of the national company managing the rail infrastructure, with tasks related to traffic safety, as well as the licensed rail operators shall comply with the specific provisions of the railway regulations and instructions related to traffic safety.

#### Article 32

In order to carry out the railway traffic in traffic safety conditions, the national company managing the rail infrastructure and the rail operators licensed according to the terms and provisions of this emergency ordinance, shall fulfil, within the limits of the approved competences, the following tasks:

- (a) provide, organize and coordinate the traffic and shunting operations, apply railway traffic safety measures so as to prevent any railway accidents;
- (b) set out and propose for approval standards, instructions and regulations related to the activities carried out on rail infrastructure;
- (c) prepare their own instructions for technical operations;
- (d) organize and exercise through its own specialized bodies, the permanent control of the production, operations and railway traffic safety activities;
- (e) exercise permanent control in matters related to the good operation, maintenance and repair of the railway vehicles, rail track, installations, machines and equipment, and act so as to prevent any causes of disturbance in public transport operations and production processes;
- (f) take measures aimed at a rational and safe use of the railway vehicles , installations, machines and equipment and observance of the relevant technical standards regarding the maintenance and repair thereof;
- (g) propose for approval or approve, according to the terms and conditions of the law, the feasibility studies for modernization projects and new investments for rail transport, the design or the performance of new investments and participate in the reception and setting up thereof, according to the approved programs;
- (h) endorse the design features of the railway vehicles as well as technical solutions for construction works and putting in operation of new tracks and railway traffic equipment, as well as for the modernization of the existing ones;
- (i) approve the operation of rail vehicles and perform technical check-ups on rail tracks with access to the Romanian rail infrastructure, checks the personnel operating them, according to the terms and provisions of the regulations of the Romanian railways, as the case may be;
- (j) approve the technical characteristics of the complex equipment to be imported, as well as those of machines and equipment of unique type manufacture, of major importance, to be procured for rail transport from the domestic market or from abroad;
- (k) approve the implementation of any kind of construction and installation works carried out in the area of the Romanian rail infrastructure, or that may affect the stability and safety of the track and of the railway equipment;

- (l) propose for approval technical standards related to the operation, maintenance and repair of the vehicles;
- (m) approve standards, regulations and work instructions for the operation, maintenance, rail traffic safety, design and repair of tracks, equipment, and of all the facilities in its inventory;
- (n) provide and follow up the implementation of the construction, assembly and repair of its inventory assets;
- (o) organize the reception of the rolling stock, tracks, installations and equipment, at the premises of the suppliers and repair companies, in order to secure an adequate traffic safety quality;
- (p) establish, with the observance of the legal provisions, the personnel standards, positions and trades for their own activity, as well as their responsibility for railway traffic safety;
- (q) set out and propose for approval the criteria for the classification of the equipment, materials and components according to their relevance for railway traffic safety;
- (r) set out and propose for approval the methodological standards related to quality verification and certification - from the point of view of railway safety - of all equipment, rolling stock and components used in traffic on the Romanian railways and that are important in terms of traffic safety;
- (s) set out and propose for approval the methodological standards for the selection, training, verification of skill and knowledge and of the psychological and physical abilities of all licensed staff with tasks related to traffic safety on the Romanian railways;
- (t) set out and propose for approval methodological and quality standards for the maintenance and repair of all equipment, materials and components of relevance for railway traffic safety;
- (u) approve the production, repair and maintenance technologies for equipment, installations and railway vehicles;
- (v) organize, according to the terms and conditions of the law, the licensing of staff with responsibilities in railway traffic safety, as well as of staff fulfilling tasks related to the check up and methodological guidance for traffic safety;
- (w) exercise their own permanent control in any matters related to the railway traffic safety and takes action in order to prevent the occurrence of any causes that may lead to deviations from the traffic safety;
- (x) cooperate through their own specialized bodies, in accordance with the special railway regulations, with the bodies of the Prosecutor's Office, the Ministry of Interior, Ministry of Health and with other bodies provided for by law, in order to save and evacuate persons and goods endangered by railway accidents and limit and remove the consequences thereof and resume the railway traffic, as well as in order to determine any causes, circumstances and culprits that may have generated such railway accidents.

2. Romania has prepared the transposition of Directive 2004/49/CE of the European Parliament and of the Council of 29 April 2004 on safety on the Community's railways and amending Council Directive 95/18/EC on the licensing of railway undertakings and Directive 2001/14/EC on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification (Railway Safety Directive).