1. Basic information

1.1 CRIS Number: 2009/021-170

1.2 Title: Major rehabilitation of the main rail line Bar – Vrbnica (Border with Serbia)

1.3 ELARG Statistical code: 02.21

1.4 Location: Montenegro

Implementing arrangements:

1.5 Contracting Authority: Delegation of the European Commission to Montenegro

1.6 Implementing Agency: N/A

1.7 Beneficiary (including details of project manager):

   Ministry of Transport, Maritime Affairs and Telecommunications
   Project Manager:
   Srdjan Vukčević, Deputy Minister
   Rimski trg 46, 81000 Podgorica,
   Montenegro
   srdjan.vukcevic@gov.me
   Phone: +381 20 234 179 / +381 20 234 639

   Railway Infrastructure Company of Montenegro
   Project Manager:
   Vladimir Šaulić, Executive Director
   Golootočkih žrtava 13, 81000 Podgorica, Montenegro
   vladimir.saulic@zicg.me
   Phone: +381 20 441 250

Financing:

1.8 Overall cost: 15.000.000 EUR

1.9 EU contribution: 5.000.000 EUR

1.10 Final date for contracting: Two years from the date of the conclusion of the Financing Agreement

1.11 Final date for execution of contracts: Two years from the final date for contracting

1.12 Final date for disbursements: One year from the final date for execution of contracts.
2. Overall Objective and Project Purpose

2.1 Overall Objective:
Increasing the attractiveness of rail transport through service quality and safety enhancements

2.2 Project purpose:
Major rehabilitation of the Montenegrin section of the international main railway line Bar-Beograd, allowing trains to travel safely without delays at the maximum design speed of the line (80 km/h).

2.3 Link with AP/NPAA / EP/ SAA

The European Partnership with Montenegro has indirect and direct links to the project:
– Continue the restructuring and privatisation process of majority publicly owned enterprises. This applies to the separation of the railways into an infrastructure and an operating company, which has been done based on the Law on the Railways (see Annex IV).
– Continue implementing the Memorandum of Understanding on the Development of the South East Europe Core Regional Transport Network including the co-operation in the South East Europe Transport Observatory.

The proposed project is part of the National Transport Strategy and will contribute to the development of the SEE Core Regional Transport Network, by linking Montenegro through a reliably and qualitative rail link with Corridor X in Serbia. The PIU within the institutions in charge of transport is being strengthened with CARDS funds to enhance its investment planning and project implementation capacities.

– Ensure sufficient resources for the maintenance of transport infrastructures and institutions. This is an internationally funded major infrastructure overhaul project, involving rehabilitation, reconstruction and modernisation works, which will require sufficient resource allocation to ensure the achievable maximum safe speed increases, can be sustained. The Action plan for EU membership foresees adequate budget allocations based on maintenance plans.

Art 108 – Transport - of the Stabilisation and Association Agreement reads: “Co-operation may notably aim at restructuring and modernising the Montenegrin transport modes, improving the free movement of passengers and goods, enhancing the access to the transport market and facilities, including ports and airports. Furthermore co-operation may support the development of multi-modal infrastructures in connection with the main Trans-European networks, notably to reinforce regional links in South East Europe in line with the MoU on the development of the Core Regional Transport Network. The objective of the co-operation should be to achieve operating standards comparable to those in the Community as well as to develop a transport system in Montenegro compatible and aligned with the Community system and improving protection of the environment in transport.”

Furthermore, SAA Protocol IV provides for adoption of the joint, mutually harmonized measures needed for development and promotion of railway transport and combined transport, as the manner in which the largest part of bilateral and transit transport through Montenegro will be ensured in future in environmentally acceptable conditions.
2.4 **Link with MIPD**

Under “Economic criteria” of the 2009-2011 MIPD attention will be given to improving infrastructure in areas such as transport, energy and environment.

In terms of investment on infrastructure, key priorities are: (a) the connection of the Port of Bar with corridor X; (b) the continuation of activities on the construction of the Adriatic-Ionian motorway, i.e. connecting to corridor Vc. The proposed project is part of the main railway line linking the Port of Bar motorway of the sea listed port with Belgrade in Serbia (corridor X); point handles freight traffic along with a number of international and local passenger trains. It is Montenegro’s only functional link to the European rail network and in need of urgent rehabilitation.

The project will contribute towards achieving the MIPD result formulated as follows:

“A transparent and sustainable system for financing transport infrastructure investment and maintenance is well established and includes the integration of Montenegro’s transport network into the sub-regional networks and into the Trans-European Transport Network; safe and secured transport-logistic chain in all modes of transport, for all participants, goods and environment; improved transport services quality with fair prices; existence of inter-modal transport facilities, of infrastructure database.”

2.5 **Link with National Development Plan**

N/A

2.6 **Link with national/sectoral investment plans**

The Transport Development Strategy of Montenegro has the following aims:

- Improving safety of all modes of transport in order to preserve human life, reduce pollutions and preserve public funds;
- EU integration by increasing joint transport capacities and improving the competitiveness of the domestic transport sector;
- Increasing the quality of transport services;
- Utilising economic growth potentials through cheaper and more efficient transport;
- Minimising the negative impacts of transport development and traffic infrastructure on environment and society.

As to rail, the Strategy identifies the following general problems:

- Incomplete infrastructure; accumulated problems in maintenance and necessity for larger repairs; existence of the weak points on the railway and limited possibilities for modernization due to selected directions and areas through which the railway is passing;
- Unsolved ownership relations non-adjusted to the Law on the railway, practice of the neighboring countries and directives of the EU;
- Old model of monitoring of the infrastructure which is irrational from the point of engagement of the work force and unreliable in cases of extremely bad weather conditions;
- Old fashion equipment for maintenance of the infrastructure;
- Technical-technological, physical and commercial obsolescence of the rolling stock;
• Insufficiently shown market orientation of the rail operator - Railway Transport of Montenegro;
• Ineffective coordination with the Serbian Railways (Serbian rail operator);
• Ineffective coordination with the Port of Bar;
• Lack of significant presence in multimodal and combined transport.
• Quantitatively and qualitatively inadequate structure of the employees on the company Railways of Montenegro;
• Insufficiently shown international importance of the railways of Montenegro.

These are to be countered, in line with the overall goals of the Transport Development Strategy, as follows:
• Ensuring safe transport across the network and elimination of critical points on which transport is slowed due to bad technical condition of the track;
• Restructure the railway – separate operations from infrastructure;
• Co-ordinate with Serbian Railways;
• Prevent further deterioration of the network;
• Promote international traffic on the section Bar-Vrbnica (border with Serbia);
• Work towards the inclusion of the line Bar-Beograd in the Trans-European Transport Networks;
• Ensure intensification of traffic towards Albania;
• Attract new operators.

The Transport Development Strategy envisages investments in all four modes – road, rail, sea and air. Until the year 2018, 25 projects totalling approximately €3.0 billion are planned, of which €162 m for rail, €75 m for maritime, €22 m for air and the overwhelming balance of €2.817 m for road investments (rounded figures). The focus is on linking Montenegro to corridors V and X (through Serbia), meaning a highway between Bar and the Serbian border (and further to Belgrade), rehabilitating/upgrading the rail line Bar-Vrbnica (Belgrade) along with major investments in the Port of Bar. Other projects envisage a highway connection to Bosnia/Croatia on the one hand and Albania/Greece on the other, which would eventually link up with the current Zagreb-Split highway and thus provide a through route along the eastern Adriatic coast.

The Government of Montenegro adopted in September 2007 the Restructuring Strategy of the Railway of Montenegro. Montenegro applies of disintegrated mode of organization, that means complete separation of railway undertaking from infrastructure manager. Represented model of restructuring has been selected on the basis of particularity and size of the Railway of Montenegro and revision of experiences of EU railways and the railways of South-East Europe.

The Strategy is harmonized with the Stabilization and Association Agreement and the EU Transport Policy, which envisages the following principles: structural form of organization according to the laws and European directives; promotion of competitiveness and creativity in the improvement of the quality of services; interoperability and technical harmonization with European systems; promotion of international (transit) transportation and co-ordination of the activities from the Government level. The Strategy is being implemented in line with the adopted
Action Plan and in three stages – audit of financial statements, the company segmentation and privatization of the parts of the system.

The investments in the railway sector foreseen in the Transport Development Strategy amount to approx €164 m and are the following:

- Reconstruction and rehabilitation of the line Bar-Vrbnica (167.4 km). Amount of project is approx €100m. Financial arrangement has been approved by European Financial Institutions (EBRD, EIB, EAR) in amount of €52 m in the following 6 years. Realization of this project started 2003 and deadline for realization is 10 years. The proposed IPA 2009 support will fund a discrete sub-project of this key infrastructure investment.

- Reconstruction and electrification of the line Podgorica-Nikšić (56.6 km). Works in amount of 57 m Euro are financed by Czech Export Bank, the user of the loan is the Railway Infrastructure, payments are guaranteed by the Government of Montenegro. Project is in progress and will be finished in second half of 2009.

- Rehabilitation and modernisation of the line Podgorica-Tuzi (border with Albania) (27.4 km). Amount of project is €3m. Project not started yet.

- Construction of Terminals for Combined Transport at Railway Stations: Bar, Podgorica and Bijelo Polje cost estimate €3.2 m, completion unclear pending preparation of technical documentation.

The main infrastructure project in the maritime sector (beside the plan to revitalise maritime companies with a total of €36 m) is the construction and reconstruction of infrastructure in the Port of Bar (€34.7 m to be spent over eight years from 2009, this should have a positive impact on tonnage carried over the Bar-Vrbnica rail line, part of which is to be reconstructed under the present project).

3 Description of project

3.1 Background and justification:

The total length of railways in Montenegro is around 250 km, and 330 km when including station tracks.

The electrified line Bar-Vrbnica has a length of 167.4 km and was opened to traffic in 1976. Maximum allowable axle weight is 22.5 t (UIC track class D). It is currently the only operational rail line linking Montenegro to the European rail network, via Belgrade.

The line Podgorica-Nikšić is 57 km long, built in 1948 and re-built in 1965. It is currently being rebuilt and electrified at a cost of €57m under a Czech Export Bank loan to serve freight traffic to the aluminium plant near Podgorica (650,000 t/a of bauxite), and rail freight users in Nikšić (steel plant and flour mill). Maximum axle weight will be increased from 18 to 22.5 t.

The 25 km line from Podgorica to the Albanian border was completed in 1986 and renovated in 2006. It is not electrified, in good condition and suitable for heavy traffic (UIC track category D), but there are currently no trains operating on it. Negotiations have been ongoing with the Albanian side to open the line to both freight and passenger traffic. The Transport Strategy foresees €3 m of investments to get it back into operation, particularly with a view to Albanian freight traffic to and from the Port of Bar and local/tourism traffic to Lake Skadar. Further down the Albanian rail line, it would provide a link with corridor VIII in Greece.

The realisation of the Bar-Vrbnica line in the 70s was the largest railway construction undertaking in Europe at the time. It was previously renowned as the central-Yugoslavian mountain line and can be considered to be the most complicated and expensive in Europe – 37% of it are in or on technical infrastructure such as bridges (107), tunnels (106), galleries (11) and
culverts (371). Its asset value is estimated at €2.2 billion. In terms of maintenance, this means it is the most complex and expensive in Europe, too.

Passenger traffic, particularly internationally to Serbia, varies with the seasons. During winter, there are currently three train pairs to Serbia; in the summer, this increases to seven. Bad track condition in Montenegro and also in Serbia means that trains take at least eight hours between Podgorica and Belgrade (one hour more to Bar), which for a length of 476 km (Bar-Belgrade) is unacceptable. The design speed on the line is 80 km/h, but currently not more than 55 km/h can be achieved for safety reasons – on twelve sections there are major speed restrictions due to lack of regular maintenance and rehabilitation. It is envisaged that the maximum speed can be increased to 80 km/h following reconstruction of the line. There is serious competition with rail, especially given the availability of 3-4 daily flights to Belgrade with a duration of approximately 45 minutes. This will increase once the highway Bar-Belgrade is completed. Currently, a trip by car takes about seven to eight hours but would be cut down to some four hours once there is a through highway link to the Serbian capital. The line has significant local traffic, with around 15 train pairs, the majority on the Bar-Podgorica section. Daily passenger numbers are about 3,150; 56% of these travelling to and from Serbia. As to freight traffic, the line carries up to 5-15 daily trains (annual tonnage is around 270,000t). An increase is largely contingent on improving the co-operation between Luka Bar and the railways, as well as on further investments in the harbour to increase capacity, such as a planned inter-modal terminal (another one is envisaged in Bijelo Polje, along the line). Besides its function as a backbone of Montenegro’s transport infrastructure, the single-track line is increasingly attracting tourists travelling along it; it is probably the most breathtaking train journey to be experienced in Europe (with the possible exception of some Alpine lines).

Railway passenger traffic is stagnant, at around 1.1 m per year, whereas freight is increasing; nett tonne-kilometres (tkm) having grown from 55m in 2003 to 181.5 m in 2006 and 183.4 m in 2007. Nevertheless, this is far below the potential capacity – in tonnes, approximately 1.1 m are carried annually whereas the infrastructure company estimates the full capacity to be around 8 m. Main freight clients are KAP, Boksiti, MSK Kikinda, Željezara Nikšić and US Steel, and the bulk of freight traffic is carried on the Nikšić branch.

Rolling stock is very old. Railway company has 16 electric and 20 diesel locomotives, they are on average 35 years old, 4 electric train for local trains are 23 years old, and 83 passenger carriages 36 years on average. Also, company has 749 freight wagons for transport different type of goods. Nevertheless, this material is in reasonable running condition and the priority is on track rehabilitation and reconstruction. A rolling stock modernisation effort will soon become urgent, however, so as to ensure the competitiveness of rail with other competing modes of transport – in this case, road and air. It is envisaged that rolling stock is to be purchased under EBRD funding, according to current negotiations.

For much less complicated lines, the average maintenance cost is estimated at around €70,000 per track kilometre and year. For the line Bar-Vrbnica, this would mean €11.8 m annually, which is not currently the case. Annual spend on the line in recent years has been between €3-7 m, and a programme of indispensable urgent work on the line is estimated to cost €17m. In 2004 and 2005, an annual average of approximately €10m was spent on rail infrastructure, about 50/50 shared between budget and EIB funds. In the period of 2007-2008 for maintenance of railway infrastructure, from the State Budget has been funded about €8.2m as to €8.9 m.

The reconstruction/rehabilitation of the line Bar-Vrbnica is subdivided into numerous tenders and works contracts, largely with funding from EIB, EBRD, IPA and national funds. This involves renewing tracks to increase safety and speed, rehabilitating or reconstructing bridges and tunnels, removing and stabilising landslides as well modernisation of signalling including remote control and maintenance equipment. The current project envisages a €7 m EIB works contract while EBRD funds one works contracts (€3.0m pending finalisation of detailed technical documentation
and tendering; more details at 3.3 and 3.4 and in the attached summary of IFI funded work within the project). IPA funding will support the rehabilitation of the 9.9 km section Trebaljevo – Kolašin. Preliminary designs for this exist and the cost is estimated at €5 m.

This IPA-funded section (Trebaljevo - Kolašin) is in mountainous, rugged terrain, as is most of the line. It has 7 tunnels, 9 bridges, 19 culverts and one stopping place. There are 13 curves with radius varying between 300 and 20000 metres.

3.2 Assessment of project impact, catalytic effect, sustainability and cross border impact

The project should help keep rail competitive with road and air transport. It should result in increases in speed, travel comfort and safety; especially after additional have been reconstructed. An increase of average (not maximum) speed on the line from the current 50 to 75 kilometres should reduce travelling time on the 167 km section Bar-Vrbnica from more than three hours to about 2 hours and fifteen minutes. The full impact can, however, only be achieved if similar works are undertaken further up the line in Serbia; and if rolling stock is modernised.

This should lead to increases in passenger and freight traffic; including multimodal transport (intermodal and combined transport – especially once the planned investment in multimodal platforms at Bar and Bijelo Polje have been realised and investments made in the Port of Bar.

The cross-border impact is major: The line provides the link with Serbia and corridor X, there are traditionally large traffic flows between the countries, it is expected that these will be enhanced.

The projects helps catalyse the modernisation process of Railways of Montenegro, thereby contributing to environmentally compatible mode of transport; possible contribution to at least maintain the current modal split. It also helps unblock additional IFI funding.

In additional it will support Short Sea Shipping project within development of the Motorway of the Sea in Adriatic Sea.

Sustainability needs to be ensured. The Government needs to demonstrate that enough funding is allocated to keep the line in the refurbished state, so that speed and comfort can be maintained – it is unlikely that enough funds to maintain track and cover capital costs can be earned by track user charges, at least at current traffic levels.

3.3 Results and measurable indicators:

The project will achieve the following results:

**Result 1: Track section from kms 331+115 to 340+991 renewed allowing a safe maximum speed of 80 km/h, including water protection and drainage of bridges and repaired track bed in Kolašin station.**

Indicators:
- Increased rolling speed for 37%,
- Number of accidents reduced by 30%
Result 2: 8 bridges on the line Bar-Vrbnica rehabilitated.

Indicators:
- Increased rolling speed
- Number of accidents reduced by 30%,

Result 3: Tunnel No182 “Ostrovica”, length 3827 m, rehabilitated

Indicators:
- Increased rolling speed for 37%,
- Increase of passengers carried and freight tonnage

3.4 Activities:

Activity 1
Renewal of the track superstructure on a section of just under 10 km between the stations of Trebaljevo (km 331+115) and Kolašin (km 340+991). This will include replacement of rails, renewal of ballast, sleepers as required along with rehabilitation of the track planum and insulation against water and drainage on the 9 bridges. The track bed in Kolašin station is also to be repaired. (ballast, switches, sleepers, signalling,...). Detail design complete by June 2009.

One works contract – € 5 m – to be funded by IPA

Activity 2
Rehabilitation works on 8 steel bridges (rehabilitation of concrete pillars and steel structures) on the line Bar – Vrbnica. Detailed design pending planned with budget funds during the first half of 2009.

One works contract - € 6.7 m. – to be funded by NC

Activity 3
Rehabilitation of tunnel no 182. Design complete and revised, tender under preparation

One works contract – €3.0m. – to be funded by NC

Activity 4
Supervision of the Project (activities 1, 2 and 3): Major rehabilitation of the main rail line Bar – Vrbnica (Border with Serbia).

One service contract (works supervision) - € 0.3m – to be funded by NC
3.5 Conditionality and sequencing:

The project includes the following conditionality:

- The Beneficiary has to provide credit line for IFIs contribution for activity 2, 3 and 4
- The Beneficiary has to provide main design for the activity 1 which will be financed by the IPA 2009.
- The Beneficiary has the obligation to sign the Contract for the supervision before the works contract.

It is suggested that PPF from IPA 2008 funding be provided to support the Railway Infrastructure Company to prepare the full tender dossier for the works and possibly works supervision contracts. This activity will follow the preparation of the design and bill of quantities for the activity 1, and will be financed by the National Authorities (in kind contribution). Through the IPA 2007 is financed service contract which has the target – technical assistance to the existing Project Implementation Units within the Roads Directorate and ŽCG. Specific assistance will be given to the procurement and management of individual works and supplies contracts. This should ensure the IPA 2009 project is ready to tender when funds become available. In case of privatisation of the infrastructure which will be part of this project during the project implementation period, the project will be cancelled and disbursements recovered.

3.6 Linked activities

Through the CARDS Programme 2005 funds were obtained for strengthening capacities for strategic planning and drafting regulations in the field of railway transport, for restructuring Railways of Montenegro and for establishment of the Project Implementation Unit for Railways.

With a view to building capacities for programming, managing and coordinating the Instrument of Pre-Accession Assistance of the European Union (IPA), officers from the Ministry of Transport, Maritime Affairs and Telecommunications are taking part in the workshops and seminars within the Twinning Programme.

The project – Development of the Transport Sector is being implemented through IPA 2007. The goal of this project was improving the capacity of the institutions responsible for managing railway transport and continuing the process of harmonization of regulations with the acquis, as well as strengthening technical capacities of the PIU in the Transport Directorate and in the Railways.

EBRD has so far provided funding for works on the line amounting to approximately €4m, EIB is planning to make additional funding of €27 available. More details on the projects supported by these two institutions is at Annex 5.
3.7 Lessons learned

The implementation of different project preparation facilities under the CARDS 2005/06 programme allowed drawing a number of useful lessons.

The CARDS technical assistance project to the railway sector was targeting to support the established rail PIU which monitor implementation of EIB- and EBRD-funded infrastructure rehabilitation programmes. Although it is very important to continue enhancing their effectiveness by recruiting and retaining qualified personnel. At the same time, institutional support is being provided to enhance the process of restructuring within the railway company. This assistance has been completed in September 2007.

Previous and ongoing EAR-managed projects include the provision of technical assistance to introduce structural and legislative reform in the Railway Company and the Ministry of Transport and to complement the implementation of IFI-funded programmes in rail transport. The adoption of primary transport legislation has been a slow process. This can be attributed to several factors, principally the need to ensure support for the rationalisation of institutional arrangements from the various organisations and departments that made up the previously fragmented transport administration system. Support was, to a large extent, catalysed by the conditionality imposed by the IFIs on their financing arrangements. Adoption of primary legislation in line with EU standards was a major step in the right direction, although further secondary legislation is underway to be developed to support the administrative structures required for implementing the acquis. It is essential to ensure that the nature and timing of the legislative reform process adequately supports the implementation of institutional reform.

Previous projects have also addressed the need to develop strategic planning capacity. The railway infrastructure company has already successfully launched a number of internationally funded works and investment projects; it is assumed that this experience will facilitate the preparation of the IPA 2009 funded project.

Therefore Montenegrin Railways consider to be competent and able to completely realize the proposed project in accordance with European Standards and national laws.
### 4. Indicative Budget (amounts in €)

<table>
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<tr>
<th>ACTIVITIES</th>
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Amounts net of VAT
5. Indicative Implementation Schedule (periods broken down per quarter)

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<th>Signature of contract</th>
<th>Project Completion</th>
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<td>Q1 2010</td>
<td>Q4 2011</td>
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Contracts 2, 3, and 4, are under the responsibility of the national authorities. The indicative timetable for their implementation follows:

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<th>Contracts</th>
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<th>Project Completion</th>
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6. Cross cutting issues

6.1 Equal Opportunity
The project, being a rail infrastructure investment, has no direct impact on equal opportunities.

6.2 Environment
Part of the project objective is to keep rail transport competitive with road and air, and therefore contribute to a mode of transport with reduced environmental impact.

6.3 Minorities
The project, consisting of major rail track rehabilitation, has no direct impact on minorities.
ANNEXES

Annex 1- Log frame in Standard Format

Annex 2- Amounts contracted and Disbursed per Quarter over the full duration of Programme

Annex 3 - Reference to laws, regulations and strategic documents:

Annex 4- Description of the Institutional framework

Annex 5- Details per EU funded contract
### LOGFRAME

| Programme name and number: Major rehabilitation of the main rail line Bar-Vrbnica (2009/021-170) |
|---|---|
| **Contracting period expires** | two years from the date of the conclusion of the Financing Agreement |
| **Disbursement period expires** | one year from the final date for execution of contracts |
| **Total budget:** | 15.000.000 EUR |
| **IPA budget:** | 5.000.000 EUR |

<table>
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<tr>
<th>Overall objective</th>
<th>Objectively verifiable indicators</th>
<th>Sources of Verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing the attractiveness of rail transport through service quality and safety enhancements</td>
<td>Increased speed, safety and security in the railway transport (80km/h, no of accidents reduced by 30%)</td>
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<td></td>
<td>Increase of passengers carried and freight tonnage (10% increase in the each of the two years following completion of the project)</td>
<td>• EU annual progress report</td>
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<td>• Governmental Transport Statistical Office Reports</td>
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<table>
<thead>
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<th>Project purpose</th>
<th>Objectively verifiable indicators</th>
<th>Sources of Verification</th>
<th>Assumptions</th>
</tr>
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<tbody>
<tr>
<td>Major rehabilitation of the Montenegrin section of the international main line Bar-Beograd, allowing trains to travel safely without delays at the maximum design speed of the line (80 km/h)</td>
<td>Reduced travel time</td>
<td>Reports and statistic from Directorate for Transport and Railways Company</td>
<td>Continued Government commitment for improvement of railway infrastructural System</td>
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<td>Increased frequency of trains</td>
<td>Inspections of Ministries railways condition</td>
<td>Project design documentation ready by mid 2009</td>
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<td>Well-motivated personnel</td>
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<td>Results</td>
<td>Objectively verifiable indicators</td>
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</tr>
<tr>
<td>Result 1: Track section from kms 331+115 to 340+991 renewed and allowing a safe maximum speed of 80 km/h, including water protection and drainage of bridges and repaired trackbed in Kolašin station.</td>
<td>Allowable speed on the sections Increased rolling speed for 37.5%</td>
<td>Works acceptance reports Timetables</td>
<td>Support with tender documentation for IPA funding provided through PPF Successful tender procedures Sufficient qualified staff available and limited staff turnover</td>
</tr>
<tr>
<td>Result 2: 8 bridges on the line Bar-Vrbnica rehabilitated.</td>
<td></td>
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<tr>
<td>Result 3: Tunnel 182 “Ostrovica” rehabilitated</td>
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<table>
<thead>
<tr>
<th>Activities</th>
<th>Means</th>
<th>Costs</th>
<th>Assumptions</th>
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<tr>
<td>Activity 1: Renewal of railway superstructure (ballast, sleepers, rails, accessories) including rehabilitation of subgrade and water protection / drainage on the bridges of the section Trebaljevo – Kolašin (9.9 km). Trackbed repair in Kolašin station.</td>
<td>A1. IPA 2009-funded works contract</td>
<td>IPA - 5.000.000 EUR</td>
<td>Contractors deliver on time and in good quality</td>
</tr>
<tr>
<td>Activity 2: Rehabilitation works on 8 steel bridges (rehabilitation of concrete pillars and steel structures) on the line Bar-Vrbnica.</td>
<td>A2. EIB loan, second tranche - works contract, planned start mid 2010</td>
<td>EIB - 6.700.000 EUR</td>
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<tr>
<td>Activity 3: Rehabilitation of tunnel no 182 “Ostravica”</td>
<td>A3. EBRD loan, works contract, early 2010</td>
<td>EBRD - 3.000.000 EUR</td>
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<tr>
<td>Activity 4: Supervision of the works within activities 1, 2 and 3.</td>
<td>A4. IFI, Service contract (works supervision)</td>
<td>IFI - Service contract € 0,30m</td>
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### Annex 2- Amounts in EUR contracted and Disbursed per Quarter over the full duration of Programme

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<tr>
<td>Cumulated</td>
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Annex 3 - Reference to laws, regulations and strategic documents:

Relevant Strategy:

1. Transport Development Strategy of Montenegro
2. Restructuring Strategy of the Railway of Montenegro

Reference list of relevant laws and regulations

Railway Transport

1. Law on Railways („Official Gazette of the Republic of Montenegro” No 21/2004);
2. Law on Railway Transport Safety („Official Gazette of Montenegro” No 04/2008);
3. Law on Contracts for Railway Transport (Official Gazette of the Republic of FRY No 26/95);
4. Law on Inspection Supervision (Official Gazette of the Republic of Montenegro No 39/03);
5. Law on Ratification of Agreements on the Establishment of a High Performance Railway in South East Europe (Official Gazette of the Republic of Montenegro No 44/2007);
6. Regulation on the contents and conditions for issuing the certificate on safety for managing railway infrastructure („Official Gazette of Montenegro” No 56/2008);
7. Regulation on the contents and conditions for issuing the licence for infrastructure managers („Official Gazette of Montenegro” No 56/2008);
8. Regulation on the contents and conditions for issuing the certificates on safety in railway transport („Official Gazette of Montenegro” No 56/2008);
9. Regulation on the contents and conditions for issuing the licence for railway transport („Official Gazette of Montenegro” No 56/2008);

Other

1. Public procurement law („Official Gazette of the Republic of Montenegro” No 46/06);

Legal Framework

The following provides a summary of the railway background in Montenegro, including legal and institutional basis along with information on the project itself.

The Law on Railways is harmonized with the following EU Directives: 91/440/EC, 95/18/EC and 95/19/EC, 2001/12/EC, 2001/13/EC, 2002/49/EC and 2001/14/EC. This law regulates management of railway infrastructure and operation of railway transport. On the basis of this Law the market of railway transport services is founded on the principle of separation of infrastructure from operations which opens the possibility for other operators in railway transport to enter the market. It is expected to bring new employment as well as the improvement of the quality of services. Based on the Law and the Protocol IV on land transport Montenegro will invest into construction, reconstruction and modernization of infrastructure through the annual programme budget. Investments in infrastructure will also be made on the basis of loans the beneficiary of which will be the railway infrastructure company. The payments and guarantees for the credits will be provided from the budget.

The Law on Railway Transport Safety was passed in December 2007. This Law regulates the terms and conditions for safe, regular and undisturbed railway transport and functioning of the railway system in the territory of Montenegro. In the drafting process the substantive provisions
from the following directives were transposed into the Law: 95/18/EC, 96/487EC, 2001/16/EC, 2004/50/EC and 2001/14/EC.

The Law on Contracts for Railway Transport provides for the contractual and other obligations relations in the field of transport of passengers and cargo in railway transport. Its provisions refer to the activities of public railway transport of passengers and cargo and railway own-account transport of passengers and cargo. The Law was passed in 1995 and it is harmonized with EU regulations and international conventions from that period.

The Law on Inspection Supervision was passed in June 2003, and provides for the principles of inspection supervision, manner and procedures for performing inspection supervision, obligations and powers of the inspectors and other issues important for performing inspection supervision.

In June 2007 the Parliament of Montenegro adopted the Law on Ratification of Agreements on the Establishment of a High Performance Railway in South East Europe within SEECP (South East European Co-operation Process). This Agreement is the statement of the willingness to use the advantages that railway transport has in comparison with other means of transport and to stop the decrease in the railway transport recorded in the last couple of decades.

For the purpose on further completion of legal framework in railway sector The Ministry of Transport, Maritime Affairs and Telecommunications has prepared four Regulations, based on the Law on Railways, which regulate the terms and conditions for issuing transport licenses and safety certificates, as well as the Draft Contract on the Use of the Railway Infrastructure.

Decision on methodology of assessing the criteria for using railway infrastructure and organizing and regulating the transport, which is to be passed according to the Law on Railways, will be passed in the fourth quarter of 2008.

In the second quarter of 2009 the new Law on Contracts on Railway Transport will be passed. In the fourth quarter of 2009 the by-laws will be passed on the basis of the Law on Railway Transport Safety. These by-laws will regulate:

- Categorization of railway tracks, classification and signage;
- Scope of work of the notified body;
- Technical and other conditions for designing, construction and reconstruction of the railway tracks and plants, buildings and devices on the tracks;
- Conditions for construction and maintenance of the system of communication in railway transport;
- Manner of maintaining, controlling and organizing periodical revisions of railways tracks and plants, buildings and devices on the tracks;
- Technical and other requirements that have to be fulfilled by railway vehicles, devices and equipment built in the vehicles;
- Special conditions under which the railway vehicles, which do not meet the prescribed requirements, can communicate on the railway tracks in Montenegro;
- Manner and conditions for performing technical inspections of railway vehicles and the conditions that institutions and companies authorized for performing technical inspections have to meet;
- Manner of maintaining, controlling and organizing periodical inspections of railway vehicles and other conditions of importance for the safety of railway transport;
- Basic conditions and measures for safe railway transport;
- Timetable, its form, contents, procedure of publishing and posting;
- Number of railway workers of the appropriate degree, qualifications and health capacity that have to be on board of the train in operation and the existence of the signal-safety and telecommunication devices;
- Signals and signal marks, type, meaning, shape, colour and the minimum visibility distance of signals and signal marks, as well as their location and manner of use
- The manner of intersection of railways and roads and defining the places on which such intersections can be made, as well as the manner of provision of crossings and special devices and measures to be undertaken for the purposes of safe transport on road and pedestrian crossings;
- Scope of work of the investigation body; form, contents and procedure for issuing, returning and confiscation of the identity document of the authorized persons of the investigation body as well as the procedure of keeping records of such identity documents, etc.
Annex 4- Description of the Institutional framework

The Ministry of Transport, Maritime Affairs and Telecommunications is in charge of railway transport policy. Within the Ministry there is the Department of Maritime and Railway Transport and European Integration with two employees in charge of railway transport - one being the inspector for railway transport and the other the Deputy Minister for Maritime and Railway Transport and European Integration. According to the Law on Railway Transport Safety and the Law on Inspection Supervision, the inspector for railway transport who works within the competences of the Ministry performs the activities of inspection supervision.

On the basis of the Ordinance on Amendments to the Ordinance on the Organization and Operation of Public Administration („Official Gazette of Montenegro” No 32/06), the Transport Directorate was established. It contains the Department for Railway Transport, which performs the function of a Regulatory body with the following basic responsibilities: issuing licenses to companies for managing railway infrastructure and certificates on safety in managing the infrastructure; issuing licenses and certificates to the carriers in public transport and own-account transport; appointment of routes and using railway infrastructure, adopting timetables and keeping legally required records etc. With the aim of strengthening human resources of the Directorate and its Department for Railway Transport, four new employees were hired in 2007. In 2008 the Ministry of Transport, Maritime Affairs and Telecommunication sees capacity strengthening in the form of employing one inspector for transport safety, two officers in charge of railway transport and one officer for the affairs of European integration. It is necessary to increase staffing; one additional staff member was recruited in 2008; this should contribute to further administrative capacity strengthening. Further strengthening of administrative capacities in the Ministry is planned in 2009, meaning employing two officers for railway transport, according to the plan for establishing Investigation Body in charge of investigation in case of railway transport accidents and incidents within the Ministry and two officers for European integration.


In 2005 the Railways of Montenegro became a member of UIC (International Union of Railways) and CIT (International Rail Transport Committee). Montenegro participates in the South East Europe Transport Observatory (SEETO) which was established according to the Memorandum of understanding for the SEE Railway Transport Area. As a result, the Addendum to the Memorandum of Understanding on the Development of the South East Europe Core Regional Transport Network for a South East European Railway Transport Area was signed on December 4, 2007 in Tirana. This will facilitate a gradual liberalization of the railway services market in the whole region. Furthermore, on the basis of the Declaration on Railway Transport Network passed on December 1, 2006 by the Ministerial Conference of SEETO, the plan was made to make a Common Statement on the Network on the level of the South East Europe. Passing of the National Statement on Network is planned for the fourth quarter of 2008. It will help the safety and deepening of legal and technical interoperability with the region.
Traffic Directorate
Department for Railway Traffic

- DIRECTOR
  - Assistant Director
    - Department for Preparation, Construction and Maintenance of Civil Roads
    - Department for Railway Traffic
      - Adviser (Railway Transport Affairs)
        - Adviser (Normative Affairs)
        - Adviser (Analytical Affairs)
        - Adviser (Railway safety Affairs)
      - Adviser (Mainteance and Protection)
      - Advisers (Experts for Supervision)
      - Employee (Technician)
    - Department for Road Traffic
    - Services for General Affairs and Finance
Annex 5- Details per EU funded contract

Project will have 4 contracts: three Work contracts and one Service contract.

Contract 1 – Works contract – 5,000,000 EUR - IPA 2009 is planned to support renovation of the track superstructure on a section of just under 10 km between the stations of Trebaljevo to Kolašin. This will include replacement of rails, renewal of ballast, sleepers as required along with rehabilitation of the track planum and insulation against water and drainage on the 9 bridges. The track bed in Kolašin station is also to be repaired. (ballast, switches, sleepers, signalling,...). Detail design for this contract will be prepared by June 2009.

Contract 2 – Works contract – 6,700,000 EUR from National contribution is planned to support rehabilitation of 8 steel bridges (rehabilitation of concrete pillars and steel structures) on the line Bar – Vrbnica. Detailed design pending planned with budget funds at the end of 2009.

Contract 3 – Works contract – 3,000,000 EUR is planned for rehabilitation of tunnel no 182 on the main rail road. Regarding this contract design is completed and revised, and tender is under preparation.

Contract 4 – Service contract – 300,000 EUR from National contribution is planned for works supervision on renovation of the track superstructure on section 9.9 km long between the stations Kolašin-Trebaljevo, rehabilitation works on 8 steel bridges and rehabilitations of tunnel no 182 on the main rail road.

In addition here is explanation of activities which will be financed form National contribution through credit lines from European Bank for Reconstruction and Development (EBRD) and European Investment Bank (EIB)

On July 2007, EBRD Management approved credit funds for “Montenegro Rail Infrastructure Emergency Rehabilitation Project” in the amount of €15 m. In 2008, EIB assigned the first tranche of the credit funds in the amount of €7 m.

Investment plans for both credit lines are attached:
NEW CREDIT LINES FOR RAILWAY INFRASTRUCTURE
EAR/EBRD/EIB
Amount EUR 60 m

European Bank for reconstruction and development (EBRD)
Amount: EUR 15 m

European Investment Bank (EIB)
EUR 34 m
Planned: 15 mil. for Infrastruct. 19 mil. for Operations

Other investors EUR 11 m

“Montenegro Rail Infrastructure Emergency Rehabilitation Project”
Finally approved by EBRD Management, on July 2007 in the amount of EUR 15 m by 3 credit tranche:
First: EUR 6 m
Second: EUR 5 m
Third: EUR 4 m
**INVESTMENT PLAN**  
**EBRD – AMOUNT EUR 15 M**

<table>
<thead>
<tr>
<th>RAILWAY INFRASTRUCTURE (Rehabilitation)</th>
<th>EUR 12 m</th>
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<tr>
<td>LABOUR RESTRUCTURING</td>
<td>EUR 3 m</td>
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## REHABILITATION PLAN

### PROJECT TITLE

<table>
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<tr>
<th>PROJECT STATUS AND ESTIMATED IMPLEMENTATION PERIOD</th>
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### 1. Slopes Rehabilitation – ground stabilization on Podgorica – Bar line

1.1. Rehabilitation of 3 slopes on Podgorica – Bar line
   - “Crnica/Bujaci”, km. 436 + 600
   - “Brela”, km. 447 + 500 – 447 + 65
   - “Ratac/Mrčele”, km. 450 + 000 – 450 + 200
   
   **Contract Value:** EUR 2,496,654.34 (+5%)  
   Contracted project implementation in 2008  
   Evaluation of project duration with technical / final reception of the works I / II quarter 2009

### 2. Rehabilitation of the tunnels on Vrbnica – Podgorica line

2.1. Rehabilitation (Trebaljevo – Kolašin section)
   Tunnel No. 171, length 314 meters.
   Tunnel No. 173, length 413 meters.
   
   **Contract value:** EUR 1,835,011.13  
   - Letter as per building site access and the beginning of the works as of 17.11.2008
   Project implementation 2008/ I quarter 2010

2.2. Rehabilitation (Trebaljevo – Kolašin section and Kos – Trebješica section)
   Tunnel No. 175, length 201 meters.
   Tunnel No. 185, length 174 meters.
   
   **Contract value:** EUR 1,093,988.15  
   - Beginning of the works: 21.10.2008
   Project implementation 2009

2.3. Rehabilitation
   Tunnel No. 182 “Ostrovia’” (length 3,827 meters).
   - Designed documentation is realized and revised.
   - Tender documentation preparation, International Tender launching, Contractor selection and Contract conclusion is planned for the I quarter 2009
   - Evaluated project value – works: EUR 3-3,5 m
   - Project implementation 2009 / 2010

### 3. Stabilization – slopes rehabilitation and construction of protective galleries on Vrbnica – Bar section

section: Trebješica – Lutovo – Bratonožići - Bioče

First locality: - LOT 1.

1.1. Slope rehabilitation (T-206) km. 367+360
1.2. Slope overhauling and gallery construction km. 367+480
1.3. Slope rehabilitation and gallery construction from km. 367+820 to km. 367+862
1.4. Slope rehabilitation and unstable gradient from km 367+962 to km 368+128

Planned tender duration and Contract allocation:  
I quarter 2009; Implementation – works providing 2009

Cost of works evaluation EUR 2 -2,5 m.
Second locality: LOT 2.

2.1. Slope rehabilitation
   from km 372+077,10 - 372+197
2.2. Slope rehabilitation
   from km 377+765 to km 377+900 (II phase)

4. Rehabilitation – repair of concrete bridges on Vrbnica – Bar line

| 4.1. Bridge “Kruševo”, km 303+463 | Rehabilitation works providing IV quarter 2009 and 2010 |
| 4.2. Bridge “Biogradska Gora”, km 326+263 | Estimated value: EUR 0.7 – 1 mil. |

Note: Repair of other concrete bridges in accordance with ‘Project analysis / Study’ situation as of – ŽICG / 09
# INVESTMENT PLAN
**EIB – AMOUNT EUR 34 M**

## REHABILITATION PLAN FOR INFRASTRUCTURE IN THE AMOUNT OF EUR 15 m

<table>
<thead>
<tr>
<th>PROJECT TITLE</th>
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| **1. Main repair – rehabilitation of superstructure on Vrbnica – Bar line**  
   **Section: Bijelo Polje – Kruševo (Ravna Rijeka) – Mijatovo Kolo** | |
| 1.1. Main repair – rehabilitation of the line from km 297+630 to km 314+150 on the following sections:  
   - Station Bijelo Polje – Kruševo passing point and  
   - Kruševo passing point – Mijatovo Kolo passing point on the length of 16.5 km open track, including station tracks repair and Kruševo and Mijatovo Kolo passing points as well. | Project implementation – supply of the material and work performance 2009 / 2010  
Estimated value …. EUR 7 m |

## Other supplies and planned projects

2. Supply of new mechanization and equipment for maintenance and works on the line and contact line of the electrified line as well.
   
   Evaluation: EUR 5.5 m

3. Station buildings arranging in Podgorica and Bar stations.
   
   Evaluation: EUR 0.8 – 1 m

4. Electric equipment and plants modernization
   
   Evaluation: EUR 5, 5 – 7 m

5. Information technologies modernization and implementation
   
   Evaluation: EUR 0.7 m

6. Vrbnica _ Bar line / Bridges /
   
   
   Antirust protection of steel bridge constructions including the parts of concrete bridges and some steel elements rehabilitation:
   - Bridge “Ljubovida”, km 311+510
   - Bridge “Trebarjevo II” km 334+673
   - Bridge „Tara III“ km 346+903
   - Bridge „Lutovo“, km 367+421
   - Bridge „Mala Rijeka“, km 385+489
   - Bridge „Kosorski Žlijeb“, km 391+846
   - Bridge „Moraća“, km 424+978
   - Bridge „Skadarsko Jezero“, km 429+284
   
   Estimated value of the works …EUR 7 m.
   
   Works performance plan:
   - Allocation of Contract IV quarter 2009

7. Other projects

Harmonization of new projects subject to the approved credit funds and Creditors.