



# Orient/East-Med Corridor (R4): Montenegro – Serbia Rail Interconnection

### Partners:

- Railway Infrastructure of Montenegro (ŽICG AD)
- Ministry of Transport and Maritime Affairs, Montenegro

#### EU contribution:

- €20 million (50% of investment cost)
- €1 million (project preparation support)

# Estimated total investment:

• €40 million

### Estimated EIB loan:

• €20 million

The extension of the Orient/East-Med Corridor into the Western Balkans along Route 4 is approximately 580 km long and runs from Vršac (Serbia – Romania border) to Belgrade (Serbia) and then to Podgorica and Bar (Montenegro). Bar – Vrbnica (the latter at the Montenegro – Serbia border) is the most important section of the Montenegrin rail network, carrying about 20% of all passengers and about 60% of cargo. Rail as a whole is an important part of the Montenegrin economy, accounting for almost 60% of all freight and 10% of passenger travel.

The Bar – Vrbnica route opened to traffic in 1976 and since then there has been no major overhaul of the signalling systems, nor of the 91 concrete bridges located on the route.

With this investment project<sup>1</sup>, signalling systems covering approximately 9 km of line will be replaced in Podgorica, and about 5.3 km of bridges on the Vrbnica – Bar section will be renovated.



View of the longest bridge on the Podgorica – Bar railway line, on Mala Rijeka.

## **Results:**

- 167 km of electrified railway track between the port of Bar and the Serbian border at Vrbnica become fully functional.
- Modern signalling on approximately 9 km of railway line and 5.5 km of renovated bridges.
- Completion of a multimodal maritime-rail transport route from the port of Bar to the wider Western Balkans region.



Old and new passenger fleet in Podgorica Station, commuting between Belgrade and the Port of Bar.

Transport



Map of Bar - Vrbnica route, Montenegro.

#### **Estimated Start Date:**

Last quarter of 2015

#### Estimated End Date:

• End of 2017

## Estimated Loan Repayment Period:

• 15 years

Transport

The Bar – Vrbnica railway line was constructed as part of the railway corridor to Belgrade and opened to traffic more than 40 years ago. The original design speed was 75-100 km/hour and the design axle load was for 22.5 tonnes.

The overhead electrical supply system was installed in 1976 and the original capacity of the line was about 80 trains per direction per day on the Podgorica – Bar line. Today, there are only 68 trains on the Podgorica – Bar line, and both speeds and cargo loads have declined.

Structural weaknesses and poor signalling have led to speed restrictions being introduced on about two thirds of the line, reducing capacity significantly compared to when it was first built.

The line also poses important safety risks: a total of 210 emergencies were recorded in the period January 2008 to December 2012. Moreover, faulty signals reduce the reliability of the system and caused about 250 hours of lost operation in 2012.

As part of a separate, but complementary, investment due to be implemented between 2015 and 2019, signalling will be replaced on around 11 km of line in Bar.

The Government of Montenegro has budgeted for further modernization works on the railway track for the 2014 – 2020 period.

Detailed designs for the signalling system in Podgorica have now been prepared. Additional EU assistance is being provided for designing structural improvements to the bridges, for any additional studies required and for tendering the works.

# **Benefits**

- Enhanced security and efficiency of rail transport for around 750,000 passengers using the Bar – Vrbnica railway route on an annual basis.
- Passenger and cargo rail carrying capacity considerably increased, and travel times reduced.
- Lower operational and maintenance costs for the railway operators, giving better services to passengers and cargo operators alike.
- The investment will facilitate regional trade and integration and thus have a positive impact on the economy in the region.
- CO<sub>2</sub> emissions will be reduced.