



## MONTENEGRO

### Partners:

- Railway Infrastructure of Montenegro (Željeznička infrastruktura Crne Gore AD)
- Ministry of Transport and Maritime Affairs, Montenegro

### Estimated total investment:

- €44.8 million

### EU contribution:

- €20 million (50% of investment cost)

### EIB loan:

- €20 million

### Beneficiary contribution:

- €4.8 million

## 2015 CONNECTIVITY PROJECT

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

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, signalling systems covering approximately 9 km of line will be replaced in Podgorica, as well as 29 concrete bridges and 20 tunnels 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
- 29 concrete bridges and 20 tunnels (8.5 km) renovated.
- Rehabilitation of 6 slopes, currently impacted by landslides.
- Significant progress with creating 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.

Previous EU contribution for this section:

- €6.5 million (project preparation support)

Investment Start Date:

- November 2017

Estimated End Date:

- End of 2022

Estimated Loan Repayment Period:

- 15 years



Map of Bar - Vrbnica route, Montenegro.

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 day on the Podgorica – Bar line. Today, there are only 40 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 2020 and 2022, 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 2020 – 2025 period.

Works on the signalling system in Podgorica as well as on some of the slopes have already started. Additional EU assistance is being provided for designing structural improvements to the bridges, for any additional studies required and for tendering the works.

## Benefits

- 1,000 jobs created during construction.
- Enhanced safety and reliability of rail transport for around 850,000 passengers using the Bar – Vrbnica railway route on an annual basis.
- Passenger and cargo rail carrying capacity considerably increased, and travel times reduced by 1h to 2h, contingent on additional fleet investments.
- 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.