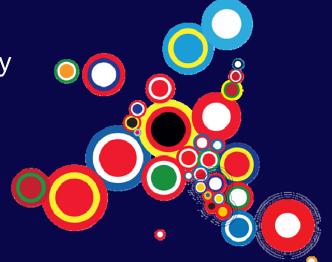


# INSTRUMENT FOR PRE-ACCESSION ASSISTANCE (IPA II) 2014-2020

## **MULTI-COUNTRY**

Co-financing of Connectivity Projects in the Western Balkans



#### **Action summary**

The action is to support the construction of energy and transport infrastructure, namely Projects of the Energy Community Interest (PECIs) and the Trans-European Transport Core Network (TEN-T core network) in the Western Balkans region.

The European Commission will, via the Western Balkans Investment Framework (WBIF), co-finance mature energy and transport infrastructure projects together with loans from the international financial institutions, as part of the Connectivity Agenda/Berlin Process.

This action will be instrumental in improving connectivity within the Western Balkans, as well as between Western Balkans and the European Union, and will serve as a driver for economic growth, jobs, and new investments in the region.

Action Identification						
Action Programme Title	IPA II Multi-country Action Programme for Connectivity 2015- 2016					
<b>Action Title</b>	Co-financing of Connectivity Projects in the Western Balkans					
Action ID	IPA 2015/038-055.01/MC/COFIN CONNECT IPA 2016/038-727.01/MC/COFIN CONNECT					
Sector Information						
IPA II Sector	9. Regional and territorial cooperation					
DAC Sector	43010					
Budget						
Total cost	EUR 538.8 million					
EU contribution	EUR 144.9 million					
Management and Implementation						
Method of implementation	Indirect management:					
	Co-Delegation Agreement; Contribution Arrangement					
Implementation responsibilities	DG NEAR/D.5, EIB, EBRD, KfW, CEB, World Bank Group					
	Location					
Zone benefiting from the action	Western Balkans					
Specific implementation area(s)	Western Balkans					
	Timeline					
Deadline for conclusion of the Financing Agreement	N/A					
Contracting deadline	For the budgetary commitment of year 2015					
	at the latest by 31 December 2016					
	For the budgetary commitment of year 2016					
	at the latest by 31 December 2017					
End of operational implementation period	31/12/2024					

#### 1. RATIONALE

#### PROBLEM AND STAKEHOLDER ANALYSIS

#### Connectivity agenda in the Western Balkans

Improving connectivity within the Western Balkans and between the Western Balkans and the European Union (EU) is a key factor for growth and jobs and will bring clear benefits for economies and citizens.

The Western Balkans Six (WB6) has made the connectivity agenda one of its highest priorities, with a special emphasis on the preparation and financing of concrete regional infrastructure investment projects, but also on the implementation of technical standards and soft measures such as aligning and simplifying border crossing procedures, railway reforms, information systems (ITS), road safety and maintenance schemes, unbundling and third party access.

#### Transport sector

The EU adopted, in January 2014, a new transport infrastructure policy to put in place a powerful European transport network across the 28 Member States. These new guidelines refocus transport financing on a tightly defined new core network, the **Trans-European Transport Core Network (TEN-T core network)**, which will form the backbone for transportation in Europe's single market. It will remove bottlenecks, upgrade infrastructure and streamline cross border transport operations for passengers and businesses throughout the EU.

Within the **WB6 framework**, the European Commission and the six Prime Ministers from the Western Balkans agreed, on 21 April 2015 in Brussels, on **indicative extensions of the TEN-T core network in the Western Balkans region**. In Riga, on 22 June 2015, the WB6 Transport Ministers confirmed the maps of the comprehensive and core networks extending the TEN-T network in the Western Balkans and introduced the **corridor coordinators**.

In close cooperation with the **South East Europe Transport Observatory (SEETO)** and with the support of their instruments, the coordinators will set up corridor platforms where national authorities will work with transport operators and infrastructure managers, International Financial Institutions (IFIs) and other interested parties to identify priority regulatory changes, operational measures and infrastructure investments, as well as the most appropriate sources of financing to support the implementation of the transport corridor work plans. It will allow short term improvements while facilitating the preparation and implementation of major infrastructure works.

The regional core transport network, including road, railway, inland waterways as well as port infrastructure, shall be implemented through specific infrastructure projects as well as through soft measures implementing EU standards.

The soft measures will require limited funding but a strong political commitment. A study from the SEETO has analysed, amongst other measures, concrete border crossing and corridor management issues, which could be used as an input for a list of short term soft measures.

#### Energy sector

The EU is consuming and importing increasing quantities of energy. The acknowledgement of the advantages of coordinated action in such a strategic field has led to the adoption of common rules and strategies to pool Europe's efforts to secure the energy that it needs at an affordable price, while generating the least possible pollution. The EU thus adopted in February 2015 the Energy Union Strategy based on the three long-established objectives of EU energy policy: security of supply, sustainability and competitiveness. It is in the perspective of stronger security of supply and market integration that the EU set out in particular the target of 10% electricity interconnection by 2020, which is the minimum necessary for the electricity to flow and be traded between Member States.

With the aim to extend the EU internal energy market to EU neighbouring countries in South East Europe and the Black Sea region, the **Energy Community (EnC)** was created in Athens in October 2005 and entered into force in July 2006. The EnC takes in particular measures to create a single energy market, its legal framework relying principally on the adoption of EU energy *acquis*.

Adopted in October 2013, the South East Europe Energy Strategy outlines the key objectives and actions needed to create a regional energy market, as well as the investment needs for energy efficiency and renewable energy.

A list of **Projects of Energy Community Interest (PECIs)** was subsequently adopted, identifying in particular the electricity and gas interconnections as key areas that would contribute to the Western Balkans economic development and further EU integration.

In parallel, the EnC prepared a list of national **soft measures** to accompany these investments (third party access, unbundling, regulator independence, licensing and permitting regimes, customer switching, etc.).

The EnC also flagged the regional measures necessary for the operation and development of a real regional energy market in the Western Balkans region, based on three pillars (spot market development, cross-border balancing and regional capacity allocation).

The WB6 Ministerial meeting in Vienna on 2 July 2015 focused on the energy dimension of the connectivity agenda and agreed on the high priority deliverables in this sector.

#### Co-financing Policy and Connectivity

Under the new approach, funds from the Instrument for Pre-Accession (IPA II) will support the development of infrastructure in the Western Balkans not only by Technical Assistance (financing studies and preparatory documents etc.), but also by financing a share of the investment costs. This is vital to cope with the lack of fiscal space in the budgets of the IPA II beneficiaries and to favour economic development as a response to the continuous stagnation of the economies.

The support of the European Commission and DG NEAR to the connectivity agenda is reflected in the substantial increase of the available funding: around € 100-150 M per annum of regional IPA II funds have been earmarked for connectivity projects – for co-financing in the period 2015-2020. The **Western Balkans Investment Framework (WBIF)** has been identified as the most suitable instrument to allocate these funds and to ensure efficient and coordinated fund allocation. Initially, IPA II regional funds will be only available for projects under the connectivity agenda for co-financing, while the technical assistance (TA) will continue for all four WBIF sectors (energy, transport, environment, social). National IPA allocations might also contribute towards regional projects, in a coherent approach of the Connectivity Agenda/Berlin Process of DG NEAR.

Future IPA II regional funds will primarily be used for transport projects on the core transport network, and energy projects on the PECI list.

In October 2014 IPA Steering Committee approved the new **WBIF methodology**, including:

- Co-financing of investments, where the main principle is to support implementation of mature regional projects subject to a maximum co-financing threshold per sub-sector (overall 20% rate, with exception of the railway sector for which the rate is 50%). One should prevent "crowding out" loan financing for already viable projects by too high IPA grant co-financing rates;
- Establishment of **National Investment Committee** frameworks (NICs) in the IPA II beneficiaries. The NICs are responsible for defining and managing the prioritised **Single Project Pipelines**, and serve as a basis for programming of all available financing sources (incl. national and other donors).
- New implementation structure of IPA regional funds through the WBIF, following the new financial regulation (FR) as well as the impact of co-financing of investments to the WBIF.
- The **criteria and conditions** applied for the list of potential projects for **co-financing** under 2015 IPA are:
  - (1) Projects must be **mature** (technically, financially);

- (2) Projects must be subject of the Connectivity Agenda (TRA: core network, ENE: PECI list);
- (3) Country strategy papers agreed, and a country sector policy in line with EU standards;
- (4) Projects must be confirmed by a first draft prioritised **Single Project Pipeline and discussed by a NIC (or similar body)**, before summer.

#### WBIF Programming and Identification of Connectivity Projects for 2015

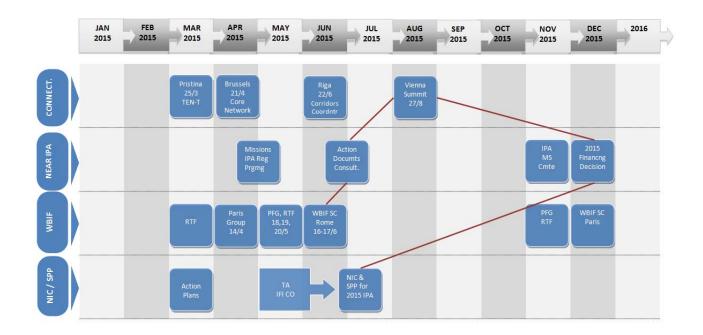
The year 2015 is the first time that major IPA allocations from the Multi-Country envelope were foreseen for co-financing of connectivity investment projects. Due to the fact that the set up / finalisation of the NIC structures and the Single Project Pipelines was still in progress during the programming period, the identification of connectivity projects for financing in this special year started with a desk review based on information from the WBIF Management Information system (MIS), which is based on the current pipeline of WBIF technical assistance projects (preparatory studies). This information was then discussed with the IFIs (international financial institutions: EBRD, EIB, and KfW), and with the six geographical units in DG NEAR. EUDs contacted the line ministries in the six IPA II beneficiaries, doing the next fact checking, as part of the preparations for the upcoming programming visits.

The WBIF team in NEAR/D.5, in close cooperation with and accompanied by DG NEAR geographical units and Delegations of the EU in the Western Balkans, undertook **programming missions** in all six capitals (Podgorica, Tirana, Skopje, Pristina, Belgrade, Sarajevo), to determine whether the draft list of potential cofinancing projects reflected the six governments' priorities and whether they were in line with the relevant sector strategies and planning frameworks. The general agenda of the programming missions included: preparation meeting with the EUD (Head of Operations, Head of Sections, relevant task managers), meeting with NIPAC office, and a joint meeting with NIPAC, relevant line Ministries, Ministry of Finance, possibly Prime Minister's office, possible other stakeholders (rail, road, electricity, gas companies, etc.) for energy and/or transport project discussions according to proposed list.

The WBIF team tried to identify whether the financial assumptions for each project are valid and if the IPA II beneficiaries had the necessary fiscal space to take up the corresponding loans. In addition, the authorities were informed on actions and timelines of four parallel processes: Connectivity/Berlin Process, NEAR IPA procedural deadlines, WBIF state of play and new methodology, and NIC/SPP framework and infrastructure project prioritization.

Following the country visits, the team organized consultations with the relevant stakeholders within the WBIF meetings, as well as via a set of videoconferences, in order to finalize the details of the "project passports" annexed to this action Document, i.e. project descriptions, maturity, financial frameworks etc.

Timeline of four parallel processes



#### RELEVANCE WITH THE IPA II MULTI-COUNTRY STRATEGY PAPER AND OTHER KEY REFERENCES

The Multi-country Indicative Strategy Paper 2014-2020<sup>1</sup> (hereinafter referred to as the Strategy Paper), establishes support for economic, social and territorial development as one of its main objectives. In order to promote a comprehensive approach to the economic development of the region by stimulating key long-term drivers of growth, the Strategy Paper refers to the targets set by the regional strategy South East Europe 2020.

In that perspective, the Strategy Paper, describing the EU assistance, identifies in particular as a priority investing in improved transport and energy interconnections within the region and with the EU.

The action will be implemented in line with the priorities identified in the Strategy paper but also in line with relevant EU policies, such as the TEN-T guidelines and the European Energy Security Strategy, which encourages the development of energy interconnections between candidate countries, potential candidates and the EU.

The action will also follow EU macro-regional strategies, such as the EU Strategy for the Danube Region (EUSDR) and the future EU Strategy for the Adriatic-Ionian Region (EUSAIR) which both identify better connections within the Western Balkans and between this region and neighbouring Member States as key priorities.

The action addresses the need identified by the Multi-country Strategy Paper to prioritize infrastructure development, planned using one single mechanism involving the relevant stakeholders. As stipulated throughout the Strategy Paper, the Western Balkans Investment Framework will remain the main instrument for regional infrastructure investment support. WBIF includes national administrations (with the NIPAC and Ministries of Finance playing an important role), the Commission (both geographical and regional units), IFIs and bilateral donors. As asked for in the Strategy Paper, this action results in a list of priority projects for financing in 2015, and from 2016 onwards to be based on a single project pipeline per sector, based on national strategies.

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<sup>&</sup>lt;sup>1</sup> C(2014) 4293, 30.06.2014

The action also addresses the development of financing mechanisms expressed in the Strategy Paper (blending loans and grants, new financial instruments, promote private sector participation in financing, etc.) to ensure access to finance for large infrastructure projects linking the Western Balkans and Turkey to the EU.

The action is in line with the different national strategies and the Indicative Country Strategy Papers<sup>2</sup> establishing the priorities for national IPA Programmes with the exception of Bosnia and Herzegovina where national strategies in the transport and energy sectors do not exist and whose Indicative Strategy Paper therefore does not cover these sectors However, the adoption of the "Bosnia and Herzegovina Framework Transport Policy 2015 – 2030" can be seen as a first step in this regard. With the understanding that it is the basis for a sector strategy to be now developed, two transport projects with a direct cross-border impact were exceptionally included for support under this action. Future WBIF investment support will require the adoption of country-wide strategies.

#### LESSONS LEARNED AND LINK TO PREVIOUS FINANCIAL ASSISTANCE

The action is in line with previous WBIF financing of infrastructure projects in the Western Balkans, namely technical assistance (preparatory studies), now expanded with the co-financing of investments (construction). WBIF continues to serve as a forum for exchanging economic analysis on investment needs as well as the framework for blending grants with loans, thus achieving significant leverage of the scarce public funds. It is confirmed as the appropriate mechanism to link national strategies to regional and macro-regional strategies and to provide technical assistance to projects on the lists established by the NICs in order to bring them to maturity and to make them "bankable". With this action, WBIF evolves its previous financial assistance, to include co-financing of construction, starting in 2015. Co-financing actions already exist in the national IPA programmes, supporting the IPA II beneficiaries on meeting the targets set in the national IPA programmes. In a coherent approach, co-financing is enabled for regional IPA funds too.

DG NEAR recognized the need to improve coordination and implementation of infrastructure projects in the Western Balkans, and has obtained consensus in the WBIF Steering Committee on the new WBIF methodology and co-financing, inclusive of approval of the IFIs, the IPA II beneficiaries, and the donor countries, and assisted by the detailed review of the WBIF pipeline done in 2014.

The new methodology and co-financing strengthen the ownership principle, with National IPA Coordinators (NIPACs) responsible for prioritization of projects via the NICs and SPPs, and in the future responsible for sending in applications for co-financing. At the same time, the new methodology tries to keep the procedures at the minimum level of complexity as possible, and taking into account EUBEC recommendations (EU Blending and External Cooperation Platform). Coupled with ensured transparency of WBIF structures the new methodology enables continuity of projects from the WBIF pipeline.

In line with the Multi-Country Strategy Paper, and in order to increase the impact of the EU's financial support, co-financing via the Multi-Country IPA is, therefore, concentrating on the areas where regional investments are most needed to meet accession criteria and tailored to take into account the capacities of the IPA II beneficiaries to meet these needs. Assistance under regional programmes is directed towards areas where similar or joint efforts by several IPA II beneficiaries are needed, and where energy and transport investments will produce a positive connectivity impact in several IPA II beneficiaries.

The existing regional structures (SEETO and EnC) support the investments, in particular by setting up and implementing soft measures and preparation of infrastructure projects, as well as overall transposition and implementation of the EU acquis.

The Joint Assistance to Support Projects in European Regions (JASPERS) offers support to the IPA II beneficiaries to develop, manage and review the quality of their infrastructure projects, making them eligible for IPA funding. In the framework of the WBIF, the Infrastructure Project Facilities (IPFs) complement JASPERS in supporting the beneficiaries in the preparation of project documentation (feasibility studies, preliminary and detailed design, environmental impact assessment, tender dossiers, etc.). If JASPERS also

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<sup>&</sup>lt;sup>2</sup> C(2014) 5770, 18.08.2014-Albania; C(2014) 9495-Bosnia and Herzegovina,15.12.2014; C(2014) 5861, 19.08.2014-the former Yugoslav Republic of Macedonia; C(2014) 5771, 18.08.2014-Montenegro; C(2014) 5772, 20.08.2014-Kosovo; C(2014) 5872, 19.08.2014-Serbia; and C(2014) 5998, 26.08.2014-Turkey

supports the elaboration of sector strategies, their activities and IPFs' services are nevertheless mostly focused on infrastructure development.

In total four Infrastructure Project Facilities (IPFs) have supported national and regional efforts in the development and upgrading of transport, energy, environment, and social infrastructures, promoting the sustainable development in the Western Balkans through the effective and rapid preparation of investment projects. IPF 1 and 2 have been completed, IPF 3 and 4 are currently active, and IPF 5 is planned to start shortly. DG NEAR is preparing a special Connectivity TA, to further speed up the project preparation in this area.

When implementing the action, it will be guaranteed that there is no overlap, but complementarity with the existing instruments.

Given the fact that public funds are scarce, there is a clear need to concentrate investments, as well as policy and regulatory efforts, on key corridors and interconnectors. By injecting substantial additional funds, this action shall boost progress on these connectivity priorities.

The initiative of such an action naturally belongs to the European Commission due to its key role in advancing the EU integration of the Western Balkans.

#### 2. Intervention logic

#### LOGICAL FRAMEWORK MATRIX

OVERALL OBJECTIVE	OBJECTIVELY VERIFIABLE INDICATORS (*)	SOURCES OF VERIFICATION	
To contribute to enhancing the socio-economic development and competitiveness of the Western Balkans	GDP growth Increase of trade in goods and services Human development index	European Commission Progress Reports National Statistics Institutes National Central Banks SEE 2020 implementation reports Government budget reports Public Finance statistics Eurostat	
SPECIFIC OBJECTIVE	OBJECTIVELY VERIFIABLE INDICATORS (*)	SOURCES OF VERIFICATION	ASSUMPTIONS
To improve connectivity within the Western Balkans and between Western Balkans and the EU	Development of a regional energy market in the Western Balkans, integrated to EU energy market  Implementation of the extension of the TEN-T core network in the Western Balkans	WB6 Ministerial meetings conclusions SEE 2020 implementation reports Reports from SEETO Reports from EnC	Political commitment from beneficiaries Sufficient administrative capacity in the beneficiaries Local ownership of action outputs Financial sustainability for an efficient operation and maintenance of the infrastructure Continued government commitment towards EU integration process
RESULTS	OBJECTIVELY VERIFIABLE INDICATORS (*)	SOURCES OF VERIFICATION	ASSUMPTIONS
Result:  Completion of the connectivity projects benefiting from co-financing of the EU.	Completion of the construction of energy and transport infrastructure projects, as specified in the project list (electricity transmission lines, gas pipelines, roads, railways etc.).	Reports from the WBIF's joint fund, lead Financial Institutions, IPA II beneficiaries, Contractors Reports from SEETO Reports from EnC WB6 Ministerial meetings conclusions	Political commitment from beneficiaries Agreement of the beneficiaries on the priorities to address (e.g. PECI's list pre- identified projects on the indicative extension of the TEN-T core network) and the methodology (e.g. applying the Union guidelines for the TEN-T) Sufficient administrative capacity in the beneficiaries Set up of National Investment Committees, or similar coordination mechanisms and establishing single project pipelines
ACTIVITIES	MEANS	OVERALL COST	ASSUMPTIONS
Activities to achieve Result:  Construction of transport and energy infrastructure projects, including technical assistance, via grant-loan arrangements between the European Commission and the IFIs involved in the WBIF (EIB, EBRD, KfW, CEB, WBG)	Codelegation Agreement; Contribution Arrangements	EUR 144.9 million from IPA total investments.	Maturity of projects Beneficiaries capacity to absorb assistance

#### ADDITIONAL DESCRIPTION

After an intensive programming exercise, described in the first part of the action Document, the following eight **projects were identified for co-financing in 2015<sup>3</sup>.** Please note that all projects are subject to a final decision by the budgetary authorities. Figures on total investment, loan amounts, other sources of financing and grant percentage are indicative only.

#### 1) Albania | Albania - the former Yugoslav Republic of Macedonia Power Interconnection (I): Grid Section in Albania

The project shall implement the Albanian part of the 400 kV transmission line Albania – the former Yugoslav Republic of Macedonia (Elbasan - Bitola), the 400 kV transmission line Elbasan - Fier as part of the East-West power transmission corridor and the new substation Elbasan 3 to interconnect the new infrastructure with the existing transmission system of Albania. The transmission line from Elbasan to Fier is an integral part of the future Albanian transmission network and essential for the technical operation of the whole line under most efficient conditions.

This project is on the list of priority investment projects of the Energy Community Ministerial Council (PECI project), in the national development plans of OST and MEPSO (Former Yugoslav Republic of Macedonia's TSO) and also in the regional development plan of ENTSO-E.

Investment: EUR 70 million | lead IFI: KfW | Loan: EUR 50 million | Grant from IPA II 2016: EUR 14 million | Grant percentage: 20%

# 2) The former Yugoslav Republic of Macedonia | Albania – the former Yugoslav Republic of Macedonia Power Interconnection (II): Grid Section in the former Yugoslav Republic of Macedonia

Construction of a new single circuit 400kV overhead transmission line from the Bitola 2 Substation to Ohrid Substation (both in the former Yugoslav Republic of Macedonia); construction of a new single circuit 400kV overhead line from Ohrid substation to the connection point at the Albanian border; construction of a 400kV/110 kV substation in Ohrid; extension of the Bitola 2 Substation.

The Project will ensure the interconnection of the grid with the Albanian grid, thus enhancing regional trading opportunities.

Investment: EUR 49 million | lead IFI: EBRD | Loan: EUR 37 million | Grant from IPA II 2015 (including TA): EUR 12 million | Grant percentage: 24% (incl. TA)

#### 3) Montenegro | Trans-Balkan Electricity Corridor (I): Grid Section in Montenegro

<sup>&</sup>lt;sup>3</sup> The loan amount can be higher than the amount of the total investment, since the loan often covers other projects/investments too. WBIF grant is a percentage of the total investment. See Project Passports in Annex for sources and uses of funds, and other information.

The 220kV system which connects Western Serbia to Montenegro has been in service for more than 50 years and is nearing the end of its useful life. In addition, the 220 kV connection from Bosnia and Herzegovina to Serbia (in the direction of Montenegro) will be insufficient to support projected future electricity trading between these three countries. The Montenegro part of the project consists of:

- 1. Construction of new Substation 400/110kV Lastva
- 2. Construction of a new 400kV overhead transmission line from Lastva to Pljevlja
- 3. Reconstruction existing Substation 400/220/110 kV Pljevlja
- 4. Construction of a new 400kV overhead transmission line from Pljevlja to Montenegro /Serbia state border

The Project will thus facilitate trade across the whole of the region and with Italy via an undersea cable; it will contribute to the stability and security of the electricity system across the region. It is a PECI priority project. The proposed grant relates only to the Montenegro part of the project.

Investment: EUR 127 million | lead IFI: EBRD, Loan IFI: KfW | Loan: EUR 25 million | Grant from IPA II 2015: EUR 25 million | Grant percentage: 20%

#### 4) Serbia | Trans-Balkan Electricity Corridor (II): Grid Section in Serbia

The project Transbalkan corridor - Internal line - New 400 kV OHL between SS Kragujevac (Serbia) - SS Kraljevo (Serbia) with the upgrade of SS Kraljevo (Serbia) to 400 kV voltage level is part of a wider project to further transition to 400 kV voltage in central and western Serbia. Feasibility studies have shown that the construction of new 400 kV lines in the area proves to be more cost effective than investing in the rehabilitation of existing and construction of new 220 kV lines in the area. Investment in the transmission grid is necessary as the existing network is largely consisting of 50 year-old or more lines.

This project will improve the security of supply of electricity for approximately 1.05 million domestic customers, it will also reduce network losses with an expected annual saving of EUR 380,000 approximately.

Investment: EUR 28 million | lead IFI: KfW | Loan: EUR 14.27 million | Grant from IPA II 2015 (including TA): EUR 6.6 million | Grant percentage: 24% (incl. TA)

#### 5) Bosnia and Herzegovina | Mediterranean Corridor (CVc): Road Interconnection, Bosnia and Herzegovina – Croatia

The border crossing and the cross-border bridge are the missing link in the existing motorway construction project, which is currently underway in both Bosnia and Herzegovina and Croatia. The application for a WBIF Grant from the side of Bosnia and Herzegovina is supplementary to the corresponding financing on the Croatian side, envisaged from the Regional Funds (Cohesion Fund (European Structural and Investment (ESI) Funds).

The motorway section Svilaj - Odžak is a part of Corridor Vc on the northern Bosnia and Herzegovina border. The length of the section on Bosnia and Herzegovina territory is ca. 11.3 km. This section includes the border crossing and the bridge Svilaj, as well as 10 km of motorway. The section starts in the middle of the river Sava, which also represents the border between Croatia and Bosnia and Herzegovina, continues towards the south near Svilaj and ends in Odžak. The Section has two interchanges: Svilaj and Odžak. The detailed design was adopted for a 660 m long bridge across the River Sava, of which 330 m is located in Bosnia and Herzegovina. Estimated value of the bridge is 15 million, border crossing 7 million, and the 10 km motorway 87 million.

Investment: EUR 109 million | lead IFI: EIB | Loan: EUR 45 million | Grant from IPA II 2016: EUR 22 million | Grant percentage: 20%

#### 6) Bosnia and Herzegovina | Mediterranean Corridor (R2a)<sup>4</sup>: Road Interconnection, Bosnia and Herzegovina – Croatia

Cross-border bridge in Gradiska over the Sava River in one component of an overall investment on the Banja Luka-Zagreb motorway, on the Northern border between Bosnia and Herzegovina and Croatia.

Main design for the bridge completed in 2014, and EIA (Environmental Impact Assessment) completed. Update of EIA is in progress, expected to be completed by end September 2015. Building permits available for the bridge.

The bridge is the missing link on the existing motorway project which is (on Bosnia and Herzegovina side) completed and in operation from November 2011. The IPA grant from the side of Bosnia and Herzegovina is coordinated with the corresponding financing on the Croatian side, envisaged from Regional Funds (Cohesion Fund (European Structural and Investment (ESI) Funds). Bosnia and Herzegovina cost for Gradiska bridge (18.4 million) includes half of the shorter version of the bridge (20/2=10 million) plus 8.4 million for the motorway connection (embankment extension on Bosnia and Herzegovina side). The cost of the border crossing is EUR 16 million. Financing includes 10.8 million from an overall 65 million EIB loan.

Investment: EUR 34.4 million | lead IFI: EIB | Loan: EUR 10.8 million | Grant from IPA II 2015: EUR 6.8 million | Grant percentage: 20%

#### 7) Kosovo\*<sup>5</sup> | Orient/East-Med Corridor (R10): Rail Interconnection, the former Yugoslav Republic of Macedonia – Kosovo\* – Serbia

The EBRD is considering providing a sovereign loan to Kosovo to be on-lent to Infrastructure of Kosovo Railways JSC. The loan would finance the urgent rehabilitation and upgrading of SEETO's Rail Route 10 within Kosovo. The route is 148 km long and spans from the border/boundary with Serbia in the north of Kosovo (Leshak station) to the border/boundary with the former Yugoslav Republic of Macedonia (Hani i Elezit station).

The project will be implemented in three phases with the rehabilitation and upgrading of the following sections: section Fushe Kosova / the Former Yugoslav Republic of Macedonia border (phase 1); section Fushe Kosova / Mitrovica (phase 2); and section Mitrovica / Serbian border (phase 3).

This railway line is the only operational railway link connecting Kosovo's domestic network to the international network. The line is part of the "core network corridor" and the Comprehensive Network of the South East Europe Transport Observatory (SEETO) and the project will support Kosovo's integration to the regional and European markets. The proposed loan and grant relate to phase 1 only.

Investment: EUR 80.9 million | lead IFI: EBRD, EIB | Loans: EUR 19.2 million x 2 | Grant from IPA II 2015: EUR 38.5 million | Grant percentage: 48%

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

Rehabilitation of structures and signalling modernisation on 2 sections of the railway line between the port of Bar and the Serbian border at Vrbnica:

- Phase 1 (2015-2017) Replacement of signalling covering about 9 km of line, in the station Podgorica, as well as reconstruction of about 5.3 km of concrete bridges.
- Phase 2 (2016-2019) Replacement of signalling covering about 11 km of line, in the station Bar

<sup>4</sup> This project is subject to a full assessment by the national investment committee in the beginning of September 2015.

<sup>5</sup> This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

These sections are part of the 167 km of electrified single track railway line between the port of Bar and the Serbian border at Vrbnica, forming the Montenegrin part of SEETO Rail Route 4. Bar-Vrbnica is the most important railway line of the Montenegrin rail network, carrying about 20 % of all passenger volume and about 60 % of all freight. The Beneficiary should confirm the need for the grant that would complement its own funds, and the project component that would receive the grant. The loan and grant amounts below only regard Phase 1.

Investment: EUR 40 million | lead IFI: EIB | Loan: EUR 20 million | Grant from IPA II 2015: EUR 20 million | Grant percentage: 50%

#### 3. IMPLEMENTATION ARRANGEMENTS

#### **ROLES AND RESPONSIBILITIES**

IPA funds will be implemented through the WBIF, via a long term contractual arrangement between the Commission and all IFIs which allows a programmatic (not at project level) and integral (using the established structures rather than creating a parallel structure) approach while respecting all obligations under the Financial Regulation and insisting on adequate payment procedures and reporting requirements. This proposal represents a major and stable construct which is intended to absorb around EUR 100-150 million of IPA funds per year for a long term duration.

#### European Commission/DG NEAR

The action will be managed by DG NEAR/D.5, which will sign an agreement with all IFIs involved in the WBIF (EBRD, EIB, KfW, CEB, WBG). See Implementation Methods for further information.

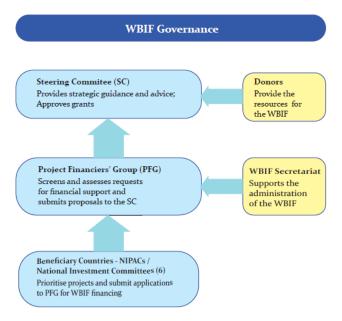
#### Western Balkans Investment Framework (WBIF)

The WBIF is a joint blending facility of the European Commission, participating financial institutions, bilateral donors, and Western Balkans, to deliver funding for strategic investment projects in IPA II beneficiaries. The WBIF promotes a harmonised approach in the identification, prioritisation, development, and financing of these projects.

The WBIF is governed by a **Steering Committee** composed of representatives of the European Commission, partner IFIs, and the Contributors to the EWBJF. The Steering Committee decides on the JGF grant allocations, takes all decisions related to the JGF, and provides strategic orientation to the WBIF. The Steering Committee is co-chaired by the Commission and a donor country on an annual rotating basis. In 2014, Germany co-chaired the Steering Committee. Italy will co-chair during 2015.

The **Project Financiers' Group**, composed of representatives of the Commission, the partner IFIs, bilateral Financial Institutions and development agencies of EWBJF contributors, provides a 'single entry point' for requests and is responsible for the process of screening (by the Commission) and financial appraisal (by the Financial Institutions) of grant requests. The Project Financiers' Group recommends positively assessed requests to the Steering Committee for grant approval and monitors their subsequent implementation.

The **WBIF Secretariat**, a light structure, housed within DG NEAR, supports the administration and daily operations of the WBIF.



#### IMPLEMENTATION METHOD(S) AND TYPE(S) OF FINANCING

This action will be implemented under indirect management through the signature of a co-delegation agreement between the Commission and the five International Financing Institutions (IFIs) participating in the WBIF:

- European Investment Bank (EIB)
- European Bank for Reconstruction and Development (EBRD),
- Council of Europe Development Bank (CEB),
- Kreditanstalt für Wiederaufbau (KfW), and
- World Bank Group (WBG).

All the above IFIs have been long standing partners in the inception, realisation and implementation of the WBIF. Over the five years of operation of the WBIF, the EIB, the EBRD, the CEB, KfW and the World Bank Group have demonstrated the availability and capacity to be entrusted with the implementation of the action. The EIB and the EBRD in particular have undertaken the role of the WBIF joint fund management, while together with the other IFIs have been participating in the operational and decision making structure of the WBIF and the implementation of Technical Assistance, whose aim has been the preparation of investment projects.

The grant funds (Commission and bilateral donors) are pooled in a joint fund and are managed by the EBRD and the EIB, who are the joint fund managers. The grant funds are then disbursed to the lead IFIs, which are responsible for the management of the implementation of the individual projects. The lead IFIs sign agreements with the IPA II beneficiaries for the grant from the joint fund. They also sign separate loan agreements. The IPA II beneficiaries add the national contribution and start with the implementation of the investment project. This means carrying out procurement award procedures for the total project amount; signing procurement contracts with final contractors and implementing the contracts under the supervision and responsibility of the respective lead IFI.

Under the Co-delegation Agreement the following tasks will be entrusted:

#### Tasks entrusted to the joint fund Managers:

The EBRD and the EIB will be the managers of the joint fund. They will be responsible for the same tasks as already identified in the General Conditions of the joint fund, in particular:

- Managing IPA Funds through the joint fund;
- Disbursing funds from the joint fund to the lead IFIs;
- Channelling funds recovered from lead IFIs;
- Compiling reports on the joint fund;
- Collecting reports from lead IFIs and submitting these reports to Commission/PFG/SC.

#### Tasks entrusted to the lead IFIs:

The co-financing of major infrastructure projects includes loan(s) signed between the IPA II beneficiary and a lead IFI. The lead IFIs are the EIB, the EBRD, the CEB, the KfW, and the World Bank Group.

Under the co-delegation agreement the Commission delegates those tasks to the lead IFIs which are necessary to manage the implementation of the grants covering projects assigned to them by the Steering Committee (SC). These entrusted tasks would typically include:

• Managing the implementation of the projects approved by the SC under the lead IFIs own rules and procedures;

- Assuming responsibility and accountability for the funds disbursed to them by the joint fund Managers including recovery;
- Providing reporting according to the requirements defined in the co-delegation agreement.

#### Commission Decision on programming and selection of projects within the WBIF

The Financing Decision would include an indicative list of projects, which would demonstrate that the amount allocated in the Financing Decision is based on a pipeline of mature infrastructure projects (such an indicative list is not necessary for TA projects). The Financing Decision together with the indicative list of projects will be subject to opinion of the IPA Committee (Member States).

Nevertheless, as the final selection of the projects is only known at the WBIF Steering Committee meeting, the Commission should be in a position to confirm or not this final selection as soon as possible after the Steering Committee meeting.

In order to simplify and accelerate this approval process, it is proposed to organise a sub-delegation to the competent Director who can, in his capacity as permanent chairperson of the Steering Committee, confirm the final selection agreed by all Steering Committee members. There is no further involvement of the IPA Committee required.

#### 4. Performance measurement

#### METHODOLOGY FOR MONITORING (AND EVALUATION)

The Commission may carry out a mid-term, a final or an ex-post evaluation for this action or its components via independent consultants, through a joint mission or via an implementing partner. In case a mid-term or final evaluation is not foreseen, the Commission may, during implementation, decide to undertake such an evaluation for duly justified reasons either on its own decision or on the initiative of the partner. The evaluations will be carried out as prescribed by the DG NEAR guidelines for evaluations. In addition, the action might be subject to external monitoring in line with the EC rules and procedures set in the Financing Agreement.

The co-delegation agreement sets all terms and conditions for this delegation (equivalent to the general conditions for all indirect management agreements, based on the PAGODA template), plus ad hoc terms including reporting requirements, with a precise description of the roles and responsibilities of the entrusted entities. The reporting requirements agreed in the co-delegation agreement would apply to each contribution arrangement too.

The managers of the co-delegation agreement are the managers of the joint fund (EBRD/EIB). They will compile reports on the joint fund, as well as collect reports from lead IFIs and submit these reports to Commission/PFG/SC. lead IFIs will provide reporting according to the requirements defined in the co-delegation agreement. See infographics on previous page for the visualization of reporting relationships.

The expansion of the WBIF as a blending platform that provides financing for large investment projects, comes with increased needs for transparency on activities and reporting requirements. The WBIF Management Information System (MIS) is a tool that serves both the purposes of information on activities but also financial and operational reporting. Reporting requirements under the co-delegation will be met in a consistent manner, in order to allow the Commission to arrive to accrued accounted reports every year. The MIS is a tool that has the capacity to produce the reports, and will continue to be adapted as much as possible to the procedures used by the IFIs.

The day-to-day monitoring of the action will be carried out by the relevant Task Manager in DG NEAR, in coordination with the WBIF Secretariat. In the perspective of this exercise, s/he will use the reports produced by the above mentioned entities. When relevant, s/he will also have contacts with DG NEAR geographical desks, EUDs, Energy Community Secretariat, SEETO Secretariat, and the IPA beneficiaries, in order to monitor the action as closely as possible to its implementation.

The Result Oriented Monitoring (ROM) mechanism will be used to support the monitor	ing of the action

#### INDICATOR MEASUREMENT

Indicator	Baseline (2)	<b>Milestone 2017</b> (3)	<b>Target 2020</b> (4)	<b>Final Target 2023</b> (5)	Source of information
OUTPUT - Completion of the construction of energy and transport infrastructure projects, as specified in the project list (electricity transmission lines, gas pipelines, roads, railways etc.).	0 (none completed).	N/A	N/A	8 (all completed).	Reports from the WBIF's joint fund, lead Financial Institutions, IPA II beneficiaries, Contractors Reports from SEETO Reports from EnC

- (1) This is the related indicator as included in the Indicative Strategy Paper (for reference only)
- (2) The agreed baseline year is 2010 (to be inserted in brackets in the top row). If for the chosen indicator, there are no available data for 2010, it is advisable to refer to the following years 2011, 2012. The year of reference may not be the same either for all indicators selected due to a lack of data availability; in this case, the year should then be inserted in each cell in brackets. The baseline value may be "0" (i.e. no reference values are available as the action represents a novelty for the beneficiary) but cannot be left empty or include references such as "N/A" or "will be determined later".
- (3) The milestone year CANNOT be modified: it refers to the mid-term review of IPA II.
- (4) The target year CANNOT be modified.
- (5) This will be a useful reference to continue measuring the outcome of IPA II support beyond the 2014-2020 multi-annual financial period. If the action is completed before 2020 (year for the performance reward), this value and that in the 2020 target column must be the same.

#### 5. Cross-cutting issues

#### **EQUAL OPPORTUNITIES AND GENDER MAINSTREAMING**

Improved transport can increase both women's and men's productivity and in so doing promote gender equality. Except for contributing to economic growth, transport plays a crucial role in broadening access to health and education services, employment, improving the exchange of information, and promoting social cohesion. However, transport needs can differ between women and men, for example differences in access to private transport, in patterns of commuting and employment, in child-care and elder-care responsibilities, in basic attitudes to private and public transport. A gendered analysis could therefore bring important information. Likewise a gendered analysis of energy provision and consumption could give information about how the whole population can benefit from interventions.

This action will look into possibilities of exploring how transport and energy interventions can be responsive to the needs of both women and men knowing that it will require the development of a structured approach. A crucial step is to make sure that both women and men are represented at each step of the planning and design process of transport investments. Government agencies and NGOs, community-based organisations, and women's groups that can be used in planning and implementation should be identified and consulted.

The action will ensure that equal opportunities are given to women, men, people with disabilities, minority groups etc. who all have an interest in the development of transport and energy sectors. Participants and experts should have an appropriate gender balance given the specific competences and expertise needed in the project. As transport and energy are male-dominated sectors, women's participation will be encouraged.

#### **ENVIRONMENT AND CLIMATE CHANGE (AND IF RELEVANT DISASTER RESILIENCE)**

Environment, climate change and disaster resilience are systematically considered during the preparation and design of major infrastructure projects, in particular when preparing Environmental Impact Assessments but also, for example, when carrying out geophysical investigation to determine seismic classification.

#### ENGAGEMENT WITH CIVIL SOCIETY (AND IF RELEVANT OTHER NON-STATE STAKEHOLDERS)

The preparation of investment projects is always accompanied by public consultation which requirements are set by national planning regulations and EU Directives, in particular the Environmental Impact Assessment Directive (2011/92/EU amended 2014/52/EU).

#### MINORITIES AND VULNERABLE GROUPS

Participation in the implementation of the action will be guaranteed on the basis of equal access regardless racial issues or ethnic origin, religion and beliefs, age or sexual orientations.

Besides, investment projects provide benefits to the groups of population without distinction, including people belonging to minorities and vulnerable groups.

#### 6. SUSTAINABILITY

A key aspect in ensuring the sustainability of the action's results will be a strict focus on the projects imbedded in the national transport and energy sector strategies and sector work programmes.

The political commitment from the beneficiaries to keep developing and maintaining transport and energy networks connecting them between themselves but also to the EU as well as a strong

involvement of the existing structures, that is the EnC and the SEETO, will be decisive to attain and sustain the action's objective.

#### 7. COMMUNICATION AND VISIBILITY

Communication and visibility will be given high importance during the implementation of the action. The implementation of the communication activities shall be the responsibility of the beneficiary, and shall be funded from the amounts allocated to the action.

All necessary measures will be taken to publicise the fact that the action has received funding from the EU in line with the Communication and Visibility Manual for EU External Actions. Additional Visibility Guidelines developed by the Commission (DG NEAR) will have to be followed.

Visibility and communication actions shall demonstrate how the intervention contributes to the agreed programme objectives and the accession process. Actions shall be aimed at strengthening general public awareness and support of interventions financed and the objectives pursued. The actions shall aim at highlighting to the relevant target audiences the added value and impact of the EU's interventions and will promote transparency and accountability on the use of funds.

It is the responsibility of the beneficiary to keep the EU Delegation and the Commission fully informed of the planning and implementation of the specific visibility and communication activities.

Two initiatives are foreseen:

First, joint efforts for **enhanced donor visibility**, including for the EU contributions, ensuring that all relevant stakeholders and where possible also final beneficiaries are informed about donors' involvement, joint actions and their results. This will be achieved by mainstreaming visibility requirements, capacity building, clarifying responsibilities and enhancing relevant tools of external communication.

Second, further improvement of cooperation and coordination to ensure communication and visibility requirements are respected. The aim is to give **more visibility to the objectives and results achieved** through joint funding and show the link between the funds invested and the policy priorities behind them

These activities shall be funded from the amounts allocated to the Action and the European Commission shall be informed of their planning and implementation.

#### **LIST OF ANNEXES**

Connectivity Agenda: Project Passports, Transport Map, Energy Map





## **CONNECTIVITY AGENDA**

## Co-financing of Investment Projects in the Western Balkans in 2015<sup>1</sup>

#	Reference	Beneficiary	IFI	Description / Title	Investment € million	Grant € million	Grant in %
IPA	/WBIF 2015 Co-financing				538.8	144.9	27%
EN	ERGY PROJECTS						
1	WBIF CF 1001 ALB ENE	Albania	KfW	Albania – the former Yugoslav Republic of Macedonia Power Interconnection (I): Grid Section in Albania	70	14	20%
2	WBIF CF 1002 MKD ENE	the former Yugoslav Republic of Macedonia	EBRD	Albania – the former Yugoslav Republic of Macedonia Power Interconnection (II): Grid Section in the former Yugoslav Republic of Macedonia	49	12	24%
3	WBIF CF 1015 MNE ENE	Montenegro	KfW	Trans-Balkan Electricity Corridor (I): Grid Section in Montenegro	127	25	20%
4	WBIF CF 1003 SER ENE	Serbia	KfW	Trans-Balkan Electricity Corridor (II): Grid Section in Serbia	28	6.6	24%
TRA	ANSPORT PROJECTS						
5	WBIF CF 1006 BIH TRA	Bosnia and Herzegovina	EIB	Mediterranean Corridor (CVc): Bosnia and Herzegovina – Croatia Road Interconnection	109	22	20%
6	WBIF CF 1009 BIH TRA	Bosnia and Herzegovina²	EIB	Mediterranean Corridor (R2a): Bosnia and Herzegovina – Croatia Road Interconnection	34.4	6.8	20%
7	WBIF CF 1010 KOS TRA	Kosovo*	EBRD	Orient/East-Med Corridor (R10): the former Yugoslav Republic of Macedonia – Kosovo* – Serbia Rail Interconnection	80.9	38.5	48%
8	WBIF CF 1008 MNE TRA	Montenegro	EIB	Orient/East-Med Corridor (R4): Montenegro – Serbia Rail Interconnection	40	20	50%
IPA	IPA 2015 Serbia				78.2	60.8	78%
9	IPA 2015/038-442	Serbia	n/a	Orient/East-Med Corridor (CX): Serbia – the former Yugoslav Republic of Macedonia Rail Interconnection	62.7	47	75%
10	IPA 2015/038-442	Serbia	n/a	Orient/East-Med Corridor (CX): Intermodal Terminal in Belgrade, Serbia	15.5	13.8	89%
Tota	al				616.5	205.7	33%

<sup>&</sup>lt;sup>1</sup>Subject to a final decision by the budgetary authorities.

<sup>&</sup>lt;sup>2</sup>This investment project in Bosnia and Herzegovina is subject to a full assessment by the national investment committee in the beginning of September 2015.

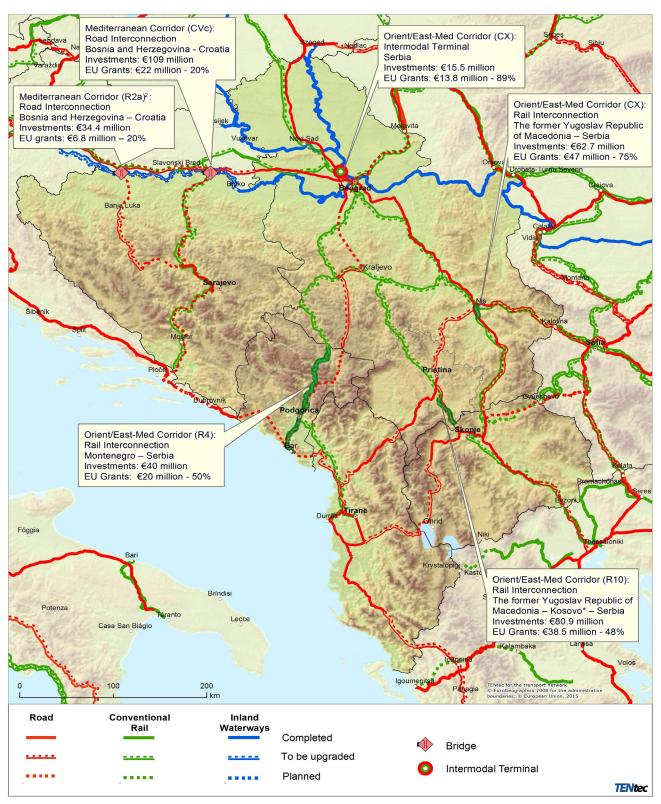
<sup>\*</sup>This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence.





## Regional Core Transport Network

2015 Investment Projects Co-financed through the Instrument for Pre-accession Assistance/ Western Balkans Investment Framework<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> Subject to a final decision by the budgetary authorities.

<sup>&</sup>lt;sup>2</sup> This investment project in Bosnia and Herzegovina is subject to a full assessment by the national investment committee in the beginning of September 2015.

<sup>\*</sup>This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence.





# Electricity Infrastructure Projects of Energy Community Interest (PECIs)

2015 Investment Projects Co-financed through the Instrument for Pre-accession Assistance/ Western Balkans Investment Framework<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> Subject to a final decision by the budgetary authorities.





# Albania – the former Yugoslav Republic of Macedonia Power Interconnection (I): Grid Section in Albania

# in Albania

#### Partners:

- Transmission System Operator in Albania (OST sh.a.)
- The Ministry of Energy and Industry, Albania
- The Ministry of Finance, Albania

#### EU contribution:

- €14 million (20% of investment cost)
- €2.53 million (project identification and preparation costs)

# Estimated total investment:

€70 million

#### Estimated KfW loan:

• €50 million

## Beneficiary contribution:

• €5 million

#### Other grants:

• €1 million

This project is part of the European Commission's initiative to establish an East – West electricity transmission corridor between Bulgaria, the former Yugoslav Republic of Macedonia, Albania, Montenegro and Italy.

The section between Bulgaria and the former Yugoslav Republic of Macedonia has been completed, and the construction of the submarine cable between Italy and Montenegro is underway. In addition, a new 400 kV connection between Albania and Montenegro is now in operation while an undersea cable between Albania and Italy is in the planning stages.

In Albania a 400 kV transmission system will connect Fier to Elbasan and from there to the border with the former Yugoslav Republic of Macedonia. Two substations will be upgraded as part of the project<sup>1</sup>.



Modern substation in Elbasan, Albania.

#### Results:

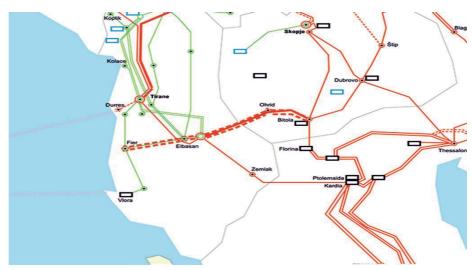
- Albanian power transmission system integrated into the European energy market.
- Approximately 130 km of 400 kV overhead transmission line from Fier to the border with the former Yugoslav Republic of Macedonia.
- Fier and Elbasan substations upgraded.



Existing 400 kV transmission lines in Elbasan, Albania.

1

<sup>&</sup>lt;sup>1</sup> Subject to a final decision by the budgetary authorities.



Albania - the former Yugoslav Republic of Macedonia electricity transmission interconnections.

#### Estimated Start Date:

First quarter 2017

#### Estimated End Date:

• June 2020

# Estimated Loan Repayment Period:

11 years

Significant increases in annual power load and several new generation sources added to the Albanian grid have put a strain on existing transmission systems, leading to frequent interruptions in electricity supply to domestic and industrial consumers alike.

The existing transmission systems would not be able to cope with the new power generation sources planned for development in southern Albania (e.g. hydropower plants in Devoll, Vjosa, and Osumi river cascades and new gaspowered electricity plants).

The new high voltage supply system will make the power supply system in Southern Albania more reliable and help connect the Albanian power transmission systems to the wider region. At least 800,000 people and numerous industries in the Fier and Berat/Kucova and Elbasan region will benefit from uninterrupted electricity supply.

The European Commission and the European Bank for Reconstruction and Development provided financial assistance for the project identification and preparation phases, as part of the Western Balkans Investment Framework.

The project is now at detailed design stage and the preparation phase is due to be completed in 2016.

No population resettlement will be needed and impact on biodiversity will be minimal since the new facilities will be built on degraded parklands or agricultural land with low productivity.

- The investment is expected to generate an additional €314.7 million to Albanian Gross Domestic Product
- At least 800,000 people and numerous industries in the southern part of Albania will benefit from uninterrupted electricity supply.
- Reduced transmission loses, leading to lower electricity prices for Albanian consumers, industry and investors.
- Secure power supply in Albania by eliminating overloads in the system and so reducing the outages.
- Reduced CO<sub>2</sub> emissions in Albania through increased capacity for production of renewable energy.





## Albania – the former Yugoslav Republic of Macedonia Power Interconnection (II): Grid Section in the former Yugoslav Republic of Macedonia

#### Partners:

Electricity
 Transmission System
 Operator of
 Macedonia (A.D.
 MEPSO)

#### EU contribution:

- €12 million (24%, out of which €9 million investment and €3 million technical assistance costs)
- €1.8 million (project preparation costs)

# Estimated total investment:

€49 million

## Estimated EBRD

• €37 million

This project is part of the European Commission's initiative to establish an East - West electricity transmission corridor between Bulgaria, the former Yugoslav Republic of Macedonia. Albania, Montenegro and Italy. The section between Bulgaria and the former Yugoslav Republic Macedonia has been completed, and the construction of a submarine cable between Italy and Montenegro is underway. In addition, a new 400kV connection between Albania and Montenegro is now in operation while an undersea cable connecting Albania and Italy is also planned for the medium

Investments¹ in the former Yugoslav Republic of Macedonia include a 400 kV transmission system from Bitola to Ohrid and from there to the border with Albania. It will thus complete the 400 kV electricity ring between Albania, the former Yugoslav Republic of Macedonia and Greece.



Existing 400 kV lines in the former Yugslav Republic of Macedonia

#### Results:

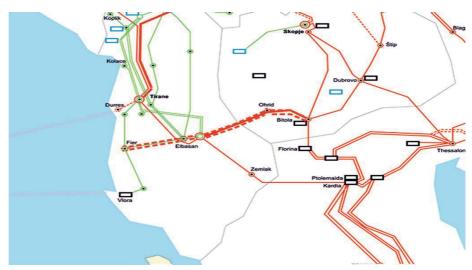
- Balanced energy market between the former Yugoslav Republic of Macedonia and Albania.
- 95 km of 400 kV overhead transmission line between Bitola and the border with Albania (via the Bitola – Resen – Ohrid – Struga corridor).
- Bitola substation upgraded and new Ohrid substation built and operational.



View of existing 110 and 400 kV transmission lines.

**Energ** 

<sup>&</sup>lt;sup>1</sup> Subject to a final decision by the budgetary authorities.



Albania – the former Yugoslav Republic of Macedonia Power Interconnections.

### Estimated Start Date:

First quarter 2017

#### Estimated End Date:

June 2020

# Estimated Loan Repayment Period:

12 years

Electricity generation in Albania is predominantly based on hydropower, while approximately 85% of the power generated in the former Yugoslav Republic of Macedonia is from coal. Connecting the two systems will help to balance the two power markets and enable more efficient management of the reserve and emergency capacities in both countries. Moreover, the new transmission line will trigger better and less expensive energy supply to residents and businesses in the former Yugoslav Republic of Macedonia by normalising voltage levels, stabilising load flow and frequency fluctuations, and decreasing technical losses in the overall transmission system.

The new high voltage supply system will thus not only help complete the connection with the wider region but also improve the capacity and reliability of the power supply system in the former Yugoslav Republic of Macedonia.

The European Commission and the European Bank for Reconstruction and Development provided financial assistance for the project identification and preparation phases under the Western Balkans Investment Framework.

The section from Bitola to the border with Albania is now at detailed design stage; the project preparation phase is due to be completed in 2016.

Construction will not involve population resettlement and will have a minimal impact on existing biodiversity.

- At least 270 jobs created by MEPSO and its contractors for the duration of building works, i.e. a minimum of 36 months.
- Reduced transmission loses leading to lower electricity prices for householders, industry and investors in the former Yugoslav Republic of Macedonia.
- Power supply in both countries secured by eliminating overloads in the existing systems and thus reducing the outages.





# Trans-Balkan Electricity Corridor (I): Grid Section in Montenegro

#### Partners:

- Montenegro Electricity Transmission Company (CGES a.d.)
- Ministry of Finance, Montenegro

#### EU contribution:

- €25 million (20% of investment cost)
- €3.5 million (project identification and preparation costs)

# Estimated total investment:

• €127 million

#### Estimated KfW loan:

• €25 million

# Estimated EBRD

€60 million

# Beneficiary contribution and other grants:

• €17 million

This project contributes to the establishment of a Western Balkans regional electricity market through the creation of a 400 kV transmission corridor between Montenegro, Serbia and Bosnia and Herzegovina. The corridor would be further linked to the European Union via the Italy – Montenegro submarine cable which is due to be completed in 2017.

The investments¹ in Montenegro comprise the construction of a new 400 kV transmission line from Lasta to Pljevlja and then to the border with Serbia, including the construction of a new substation in Lastva, the grid connection from Lastva substation to the existing 400kV Podgorica − Trebinje line, and the upgrade of the 400/220/110 kV substation in Pljevlja. The project include the cost of dismantling the existing 220 kV overhead lines between the substation in Pljevlja and the Montenegro/Serbia border.



3D representation of the new 400/110/35 kV substation in Lastava.

#### Results:

- Montenegrin power transmission system integrated into the wider European energy market.
- Approximately 165 km long 400 kV overhead transmission line from Lasta to Pljevlja and then to the border with Serbia.
- A new 400kV substation in Lastva and upgraded substation in Pljevlja.



View of existing 400 kV transmission lines along the Trans-Balkan Corridor.

<sup>&</sup>lt;sup>1</sup> Subject to a final decision by the budgetary authorities.





Existing and planned transmission corridors in Montenegro.

Estimated Start Date:

Last quarter of 2017

Estimated End Date:

• End of 2020

Estimated Loan Repayment Period:

12 years

The planned investments will reduce CGES's operational and maintenance costs. They will also help normalise voltage levels, stabilise load flows and frequency fluctuations, and decrease technical losses in the overall transmission system. The project will thus improve the quality and security of the electricity supply to Montenegro and the wider region.

The investment in Montenegro will be coordinated with similar projects in Serbia and Bosnia and Herzegovina: construction of new 400kV overhead transmission lines in Serbia and Bosnia and Herzegovina; decommissioning of existing 220kV lines in Serbia; and upgrading of substations in Bajina Bašta (Serbia) and Višegrad (Bosnia and Herzegovina). The entire corridor is expected to be completed by 2023.

The European Commission, together with KfW Development Bank and the European Bank for Reconstruction and Development, provided financial assistance for project identification and preparation, under the Western Balkans Investment Framework.

The feasibility study and preliminary conceptual designs for the Montenegrin project were completed in early 2015. No population resettlement will be required since the new facilities will be built on, or in the vicinity of, existing transmission corridors.

Specific mitigation measures have been identified for sections where the new investment may lead to forest fragmentation, with potential knock-on effects on the fauna and flora.

- Social welfare benefits associated with the investment on the Montenegrin part are estimated at €7.5 million in 2018 and €5 million in 2023.
- Reduced transmission losses and additional electricity generators on the grid, leading to lower electricity prices for residents, industry and investors.
- Secure power supply in Montenegro by eliminating overloads in the system and so reducing outages.





#### Partners:

- Electricity
   Transmission System
   Operator in Serbia (JP EMS)
- Ministry of Mining and Energy, Serbia

#### EU contribution:

 €6.6 million (24%, out of which €5.6 million investment and €1 million technical assistance costs)

# Estimated total investment:

• €28 million

#### Estimated KfW loan:

• €14.27 million

# Beneficiary (national) contribution:

• €7.13 million

# **Energy**

# Trans-Balkan Electricity Corridor (II): Grid Section in Serbia

This project1 contributes to the establishment of a Trans-Balkan Power Corridor that would connect the electricity transmission systems from Serbia, Montenegro, Bosnia and Herzegovina to Croatia, Hungary, Romania and Italy through either 400 kV overhead lines or submarine cable. A new 400 kV transmission line between Kraljevo and Kragujevac will be built and the substation in Kraljevo will be upgraded to 400 kV. These investments are needed because the existing transmission system is seriously out-dated and thus prone to system failures and high operational and maintenance costs.

The Kragujevac – Kraljevo section is on the list of Projects of Energy Community Interest, being located in one of the Energy Community Treaty Contracting Parties (Western Balkans countries, Moldova, and Ukraine). It will upgrade the electricity distribution system in Central and Western Serbia and interconnect it with systems in the neighbouring EU states.



Low voltage transmission lines on the Kraguevac - Kralievo route

#### Results:

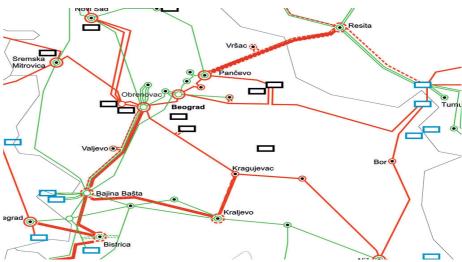
- Secure and stable electricity supply to Central and Western Serbia and to the wider region by enabling interconnection with other transmission systems in the Western Balkans and the neighbouring EU states.
- Approximately 59.4 km of 400 kV overhead transmission line from Kragujevac to Kraljevo.
- Upgrade of the existing substation in Kraljevo (Kraljevo 3) to 400/220/110 kV.



View of existing 400 kV transmission lines in Kraguevac.

<sup>&</sup>lt;sup>1</sup> Subject to a final decision by the budgetary authorities.





Existing and planned electricity transmission lines along the Trans-Balkan Corridor in Serbia.

Estimated Start Date:

First half of 2016

#### Estimated End Date:

• End of 2018

# Estimated Loan Repayment Period:

12 years

This project improves the security of the electricity supply for the one million residents of Zlatiborski, Moravički, Rasinski and Raški districts, who are now connected, via 220 kV lines, to the hydropower plant of Bajina Bašta and the 400/220/110 kV substation in Niš. Moreover, the new transmission line is expected to reduce EMS's network losses by approximately 7,000 MWh/year, equating to annual savings of around €380,000.

Other investments in the Serbian electricity transmission network are being considered to capitalize on or complement the new Kragujevac -Kraljevo section of the planned Trans-Balkan Corridor. These include building 400 kV transmission lines (with ancillary upgrades of substations, if appropriate) from Pančevo to Resita (Romania), from Kraljevo to Bajina Bašta, and from Bajina Bašta to Višegrad and then to the border with Montenegro and undersea to Italy. EMS also plans to build a 400 kV interconnection between Serbia and Hungary.

The feasibility study together with the preliminary designs for the project are now complete. The new development will have a low to moderate social and environmental impact since the new facilities will be built in close proximity to the existing transmission corridors.

Statutory planning and land expropriation issues should be resolved by October 2015 and the construction permit granted by the end of 2015. The upgraded substation and overhead transmission line are due to become operational by 2020.

- Secure power supply in Western and Central Serbia for 1.05 million consumers (15% of the total population of Serbia) by eliminating overloads in the existing system and thus reducing outages.
- Reduction of transmission losses by approximately 7,000 MWh/year, i.e. savings of around €380,000/year.
- CO<sub>2</sub> emissions reduced by 5,832 tonnes/year.





## Mediterranean Corridor (CVc): Bosnia and Herzegovina – Croatia Road Interconnection

#### Partners:

- Federal Ministry of Transport and Communications, Bosnia and Herzegovina
- PC Motorways of the Federation of Bosnia and Herzegovina (JP Autoceste FBiH d.o.o.)

#### EU contribution:

- €22 million (20% of investment cost)
- €2.5 million (project preparation support)

## Estimated total investment:

• €109 million

#### Estimated EIB loan:

• €45 million

Beneficiary contribution and other grants:

• €42 million

The Mediterranean Corridor links the Iberian Peninsula with the Hungarian – Ukrainian border. Its extension into the Western Balkans connects Central Europe, specifically Hungary and eastern Croatia, to Bosnia and Herzegovina and the Adriatic Sea.

The longest section of the Mediterranean Corridor (CVc) runs through Bosnia and Herzegovina – approximately 340 km in total. It consisted largely of two-lane roads until the early 2000s when a major road upgrading programme started on most of its route.

This investment project¹ concerns the construction of a border crossing, a cross-border bridge over the River Sava, as well as 10 km of motorway on the Svilaj – Odžak section that is being built between Bosnia and Herzegovina and Croatia, along the Mediterranean Corridor (CVc).



View of Corridor Vc in the vicinity of Sarajevo, Bosnia and Herzegovina.

#### Results:

- Modern and efficient border crossing facilities on the Svilaj – Odžak section of the Mediterranean Corridor (CVc).
- 600m cross-border bridge over the River Sava.
- Completion of the Svilaj Odžak motorway section, including the cross-border areas.



Upgraded interchange on Corridor Vc, Bosnia and Herzegovina.

**Transport** 

<sup>&</sup>lt;sup>1</sup> Subject to a final decision by the budgetary authorities.



Map of Bosnia and Herzegovina - Croatia Section of the Mediterranean Corridor (CVc).

**Estimated Start Date:** 

Mid 2016

#### Estimated End Date:

End of 2017

#### **Estimated Loan** Repayment Period:

25 years

The road network in Bosnia and Herzegovina covers more than 8,000 km, more than 1,000 km of which are European routes. Most of this network has been designed to accommodate a two-way single carriageway with a maximum speed of 80kph. Traffic lane width varied from 3.50 to 3.75m, and road shoulders from 0.5 to 1m wide. As average daily traffic volumes grew to with 9.700 vehicles. over corresponding increase in freight volumes, Bosnia and Herzegovina embarked on a motorway construction programme in cooperation with its neighbours. It has been actively supported by the European Union and its partners, particularly under the Western Balkans Investment Framework.

The Svilaj - Odžak section is part of the motorway designed and partially built by Bosnia and Herzegovina along the Mediterranean Corridor (CVc) to Croatia. The route will accommodate 2x2 traffic lanes and speeds of 120kph. Construction works are ongoing for this section. The new bridge over the Sava and the border crossing facilities funded under this project will allow even increased traffic volumes to flow Relying smoothly. on existing infrastructure would undoubtedly have resulted in serious bottlenecks.

The funding granted to Bosnia and Herzegovina will be complemented and coordinated with EU financing allocated to the Croatian part of the project under Regional Funds.

- Secure and efficient transport by road for an annual average daily traffic gradually increased to more than 9,799 vehicles per day.
- 2x2 traffic lanes and speeds of 120kph replacing single carriageways limited to of 80kph.
- Future border crossing delays avoided by the new bridge over the River Sava and modern border crossing facilities.
- Passenger and freight carrying capacity significantly improved, with reduced travel time.
- Lower operational and maintenance costs for motorway operators and users.
- The investment will facilitate trade, regional integration and sustainable growth and thus have a positive impact on the broader economy of Bosnia and Herzegovina.





# Mediterranean Corridor (R2a): Bosnia and Herzegovina – Croatia Interconnection<sup>1</sup>

#### Partners:

- Ministry of Transport and Communications of Republika Srpska, Bosnia and Herzegovina
- Motorways Company of the Republic of Srpska (JP Autoputevi Republike Srpske)

#### EU contribution:

- €6.8 million (20% of investment cost)
- €0.6 million (project preparation and institutional support)

# Estimated total investment:

• €34.4 million

#### Estimated EIB loan:

 €10.8 million (out of an existing €65 million loan)

# Beneficiary contribution and other grants:

• €16.8 million

**Transport** 

The extension of the Mediterranean Corridor into the Western Balkans along Route 2a (R2a) spans 239 km, from Okučani in Croatia to Banja Luka and Lašva in Bosnia and Herzegovina. It connects Bosnia and Herzegovina (the Republic of Srpska) to the main transport routes in Croatia leading to the Adriatic ports.

The Mediterranean Corridor (R2a) integrates the Western Balkans into the transport flows which link the Iberian Peninsula to the Hungarian – Ukrainian border. Consequently, it accounts for most of the freight and passenger traffic in the Republic of Srpska, Bosnia and Herzegovina.

The present investment project<sup>2</sup> concerns the construction of a border crossing, a cross-border bridge over the River Sava, as well as motorway connections on the Banja Luka – Gradiška section.



View of Banja Luka – Gradiska motorway, Bosnia and Herzegovina.

#### Results:

- Completion of the Banja Luka Gradiška motorway section, including the cross-border areas.
- Modern and efficient border crossing facilities on the Banja Luka – Gradiška section of the Mediterranean Corridor (R2a).
- Cross-border bridge in Gradiška.



Upgraded interchange in Mahovljanska, Bosnia and Herzegovina.

<sup>&</sup>lt;sup>1</sup> This investment project in Bosnia and Herzegovina is subject to a full assessment by the national investment committee in the beginning of September 2015.

<sup>&</sup>lt;sup>2</sup> Subject to a final decision by the budgetary authorities.



Map of Bosnia and Herzegovina - Croatia Section of Route 2a, with Gradiška Bridge.

Estimated Start Date:

First quarter of 2017

#### Estimated End Date:

• End of 2018

Estimated Loan Repayment Period:

17 years

Mediterranean Corridor (R2a) currently runs through the urban area of Gradiška for approximately 2km, with the existing 260m two-way bridge over the Sava leading to a small car park in the centre of the town. On the Croatian side the bridge carries traffic to a much larger parking and clearance area located to the east of the much smaller town of Stara Gradiška.

The new bridge will be built about 3 km to the west of the existing bridge and outside the urban area of Gradiška. It has been designed to accommodate a significant increase in overall traffic, projected to rise from 12,000 vehicles per day today to about 28,450 in 2024.

The new border crossing facilities will ease social and environmental pressures on Gradiška, by diverting traffic outside the city centre. It will also trigger reductions in journey times and vehicle operating costs.

Building the new bridge is expected to reduce border crossing times from 5 to 2 minutes for cars and from 30 to 12 minutes for trucks. It will adequately accommodate the traffic generated by the commissioning of a new motorway on this route in November 2011.

The overall costs of this project includes half of the shorter version of the bridge (€10 million), border crossing facilities (€16 million), as well motorway connections (€8.4 million).

Financing arrangements include €10.8 million from an overall €65 million EIB loan already in place for this motorway.

Estimates suggest economic benefits to the economies of Bosnia and Herzegovina and Croatia could reach €79 million by 2024.

The funding granted to Bosnia and Herzegovina will be complemented and coordinated with EU financing allocated to the Croatian part of the project under Regional Funds.

- Safe and efficient road transport for more than 2,400 vehicles/day.
- Passenger and freight carrying capacity significantly improved, along with reduced travel time.
- Faster border crossing for cars and trucks between Bosnia and Herzegovina and Croatia.
- Lower operational and maintenance costs for motorway users and operators.
- The investment is designed to facilitate trade, regional integration and sustainable growth and thus have a positive impact on the broader economy of Bosnia and Herzegovina.





#### Orient/East-Med Corridor (R10): the former Yugoslav Republic of Macedonia – Kosovo\* – Serbia Rail Interconnection

#### Partners:

- Kosovo Railways JSC (InfraKos Sh. A.)
- Ministry of Infrastructure and the Ministry of Finance, Kosovo

#### EU contribution:

- €38.5 million (48% of investment cost)
- €7.54 million (project preparation and implementation support)

# Estimated total investment:

• €80.9 million

# Estimated EBRD loan:

• €19.2 million

#### Estimated EIB loan:

• €19.2 million

The Orient/East-Med Corridor (R10) crosses Kosovo from the north to the south, from the border with the former Yugoslav Republic of Macedonia to the one with Serbia, and constitutes Kosovo's sole connection to the wider region by rail. The entire track is in poor condition, with serious structural limitations that do not allow for traffic in excess of 60km/h and in some areas 20 km/h.

This route is part of the Core Network Corridors of the Trans-European Transport network (TEN-T) extension into the Western Balkans and South East Europe Transport Observatory (SEETO)'s Comprehensive Network. It is thus part of the long-term sustainable development plans of the European Union and its partners.

This investment project¹ will enable outdated switches, tracks and trackbed, culverts, bridges and tunnels along the Fushë Kosovë / Kosovo Polje – border with the former Yugoslav Republic of Macedonia route to be replaced or renovated.



Freight transport on Route 10.

#### Results:

- Railway network in Kosovo integrated into the Orient/East-Med Corridor, connecting the Western Balkans to Austria, Greece and Bulgaria.
- Railway transport systems in Kosovo interconnected to those in the former Yugoslav Republic of Macedonia and Serbia.
- Approximately 64 km of railway track fully rehabilitated.



Passenger transport on Railway Route 10, close to Fushë Kosovë / Kosovo Polje.

ransport

<sup>&</sup>lt;sup>1</sup> Subject to a final decision by the budgetary authorities.

<sup>\*</sup>This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence.

EBRD grant:

support)

€0.8 million (project

**Estimated Start Date:** 

Last quarter 2015

Estimated End Date:

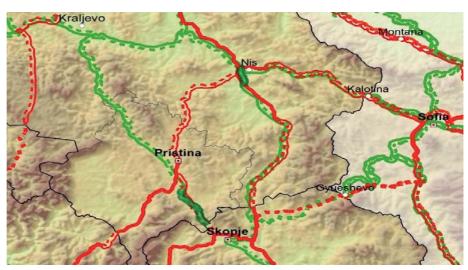
End of 2017

**Estimated Loan** 

20 years

Repayment Period:

implementation



Map of the Orient/East-Med Corridor (R10).

The Orient/East-Med Corridor (R10) is 256 km long, out of which 148 km are in Kosovo. It connects Kraljevo (Serbia) to Pristina (Kosovo) and Gorce Petrov (the former Yugoslav Republic of Macedonia). The first railway tracks were built in 1936 and the route was regularly maintained until the 1990s. No major investment has been made since then.

The rail connection with Serbia is no longer in operation (Fushë Kosovë/Kosovo Polje – Podujevë/Podujevo) since the Merdare tunnel, on the border, was demolished in the 1990s, cutting cargo and passenger links from Pristina to Belgrade.

The route will be renovated in three phases:

- Fushë Kosovë/Kosovo Poljeborder with the former Yugoslav Republic of Macedonia
- Fushë Kosovë/Kosovo Polje Mitrovicë/Mitrovica
- Mitrovicë/Mitrovica border with Serbia.

All three sections are due to be completed by 2020.

This investment project concerns phase 1 only. With connections to the Orient/East-Med Corridor, passenger numbers on this railway route in Kosovo could reach one million and freight 206.8 million tonnes/year by 2040.

This project will give rise to an interoperable railway route in Kosovo providing safe transport services to people and businesses in the region and wider Europe.

The feasibility study and preliminary designs for the project have been completed. The new development will not have significant social or environmental impacts as the new facilities will be built on the route of the existing rail track. Detailed designs are being prepared and are due to be completed in the first quarter of 2016. Construction could start in the last quarter of 2016 and be finalised by the end of 2020.

- Secure and efficient rail transport for approximately 50% of the population of Kosovo.
- An investment of €80.9 million that is expected to bring at least double that amount into the local economy in the medium to long term.
- Passenger and cargo rail capacity and travel time significantly improved.
- Reduced CO2 emissions.





# 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.

ransport

<sup>&</sup>lt;sup>1</sup> Subject to a final decision by the budgetary authorities.



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

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.

- 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.