



Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 30-Oct-2019 | Report No: PIDA27143



BASIC INFORMATION

A. Basic Project Data

Country Serbia	Project ID P170185	Project Name Serbia Accelerating Innovation and Growth Entrepreneurship	Parent Project ID (if any)
Region EUROPE AND CENTRAL ASIA	Estimated Appraisal Date 07-Nov-2019	Estimated Board Date 18-Dec-2019	Practice Area (Lead) Finance, Competitiveness and Innovation
Financing Instrument Investment Project Financing	Borrower(s) Republic of Serbia	Implementing Agency Ministry of Education, Science and Technological Development	

Proposed Development Objective(s)

The project’s development objective is to improve (i) relevance and excellence of scientific research, and (ii) innovative entrepreneurship and access to finance for enterprise growth, as a way of contributing to Serbia’s growth and competitiveness.

Relevance of research refers to the potential of research results to be commercialized on the market, thus contributing to the economy, while excellence refers to international recognition of the quality of the research.

Components

- Research sector reforms
- Enterprise Acceleration
- Project Implementation, Monitoring, Policy and Capacity Building

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	48.00
Total Financing	48.00
of which IBRD/IDA	48.00
Financing Gap	0.00



DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	48.00
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Environmental and Social Risk Classification

Moderate

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Country Context

1. Following years of recession and slow growth, the Serbian economy expanded by 1.8 percent on average over the 2015-2017 period, with a stronger growth of 4.2 percent in 2018, prompting the need to rethink the overall growth model for the country. Growth started to recover on the back of higher investment (average annual growth of 8.3 percent annually) and strong growth of exports (up 10.7 percent annually in real terms). Consumption recovered as well, but at a slower pace (at 1 percent annually in real terms). Growth of the industry and services sectors contributed most to the overall growth of the economy between 2015 and 2017, while agriculture had a negative contribution to growth in 2015 and 2017. In 2018, growth was broad-based with all three major sectors rising faster than in the previous year. Despite the generally positive economic outlook in the near-term, challenges remain. Growth will depend on the pace of ongoing structural reforms and progress toward EU accession.
2. Labor market performance has improved. Labor force participation rate increased to 54 percent in 2017, the highest level since 2005. The average 2017 employment rate reached 46.7 percent, led by services, which created 33,000 new jobs (a quarter of them in wholesale and retail trade), spurred by higher consumption and fast-growing services exports. By the fourth quarter of 2018, the employment rate was 47.4 percent, while the unemployment rate was 12.9 percent.
3. Strong revenue performance and spending controls led to the budget surplus in 2017 and 2018. In 2017, Serbia had a surplus of 1.2 percent of GDP, underpinned by strong revenue collection, spending controls (including savings from interest payments), and, to some extent, due to under-execution of public investment. In 2018, the budget recorded a surplus of 0.6 percent of GDP despite some relaxation in spending controls. As a result of prudent fiscal policies, public debt continued to decline and stood at 54.3 percent of GDP at the end of December 2018, with further, albeit slower, declines expected during 2019.
4. As Serbia positions itself for EU membership, increasing competitiveness in the European market remains a priority. A structural shift in Serbia's growth model, driven by increased productivity and higher-value added production, is



needed to boost competitiveness and spur economic growth. This can be achieved, in part, through enterprise innovation facilitated by increased and more efficient investments in applied research and development (R&D), and support for research commercialization, enterprise formation, and growth of innovative small and medium enterprises (SMEs).

Sectoral and Institutional Context

5. Research is the basis for new knowledge and technologies, and innovation is the adoption of invention by the market, often through entrepreneurial action. Innovation and entrepreneurship are important drivers of growth, due to their role in (i) shifting growth patterns to be more productivity based and trade-oriented, and (ii) increasing economic dynamism. Specifically, innovative firms grow faster: by 15 percent in sales, and 8 percent in labor productivity, and firm R&D expenditures significantly increase performance: by 12 percent in sales and 6 percent in labor productivity growth, on average in the Western Balkans (without Croatia).
6. The importance of young, innovative firms for employment and growth has been noted in countries around the world. New firms are more likely to create new employment opportunities than older ones. Young companies also introduce competition into markets and create new markets by developing and commercializing new services and products.¹
7. A 2018 World Bank analysis shows that high-growth firms (HGFs) in client countries are also younger than the average. For example, start-ups account for about 40 percent of all HGFs in Brazil, Cote d'Ivoire, Ethiopia, and Hungary, and around 30 percent in Indonesia. The same analysis identifies the following factors as significantly contributing to the probability of high growth of a firm: innovation capability, network economies, managerial capabilities and worker skills, and global linkages.²
8. Innovation in Serbian firms is currently limited by constraints to achieving research excellence (high quality of outputs) and research relevance (economic and societal applicability), both of which are needed for innovation to contribute to growth.
9. Innovation-related indicators show that Serbia has (i) low levels of R&D expenditures, (ii) a science financing model that results in inefficiencies, due to its largely non-competitive structure, and (iii) low levels of public-private research collaboration, which results in low levels of commercialization of research results that could support economic growth. Around 0.9 percent GDP is invested in R&D, well below EU average of 2.03 percent, with most of the funding coming from the Government. This indicates that the private sector is severely underinvesting in R&D and innovation, suggesting market failures (likely due to uncertainty and information asymmetries) and a need for public financing and other structural incentives.
10. To address these challenges, the Government, supported by the World Bank and the European Union Delegation to the Republic of Serbia (EUD), has committed and initiated significant reforms of the country's research and

¹ For instance, see Kauffman Foundation (2015), "The Importance of Young Firms" <https://www.kauffman.org/what-we-do/resources/entrepreneurship-policy-digest/the-importance-of-young-firms-for-economic-growth> and "Lederman, Daniel; Messina, Julián; Pienknagura, Samuel; Rigolini, Jamele. 2014. Latin American Entrepreneurs: Many Firms but Little Innovation. World Bank Latin American and Caribbean Studies; Washington, DC: World Bank. <https://openknowledge.worldbank.org/handle/10986/16457> License: CC BY 3.0 IGO."

² World Bank (2018). High-Growth Firms: Facts, Fiction, and Policy Options for Emerging Economies.



innovation, and entrepreneurship system. The reforms aim to reduce challenges recognized in the Research for Innovation Strategy, 2016-2020.

11. Government efforts include a comprehensive set of reforms that includes both supply (R&D) and demand side (private sector innovation) interventions, as well as creating links between the two. A number of reforms have already been completed by the Government, while others are covered under this or other projects. Some planned reforms are not yet covered by support. On the supply side, the reforms are focused on: (i) establishing a strong strategic and legislative framework through improved policy making; (ii) improving research excellence and relevance through competitive research funding; (iii) strengthening Scientific Research Organizations (SROs) through performance-based institutional funding and reforms; and (iv) developing and maintaining human capital needed for excellence in research. On the demand side, reforms center around: (i) incentivizing private sector R&D activities; (ii) accelerating enterprise growth; and (iii) improving the regulatory environment for venture capital. Finally, to link the two, the Government is making efforts to improve business-academia collaboration and technology transfer.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

12. The project's development objective is to improve (i) relevance and excellence of scientific research, and (ii) innovative entrepreneurship and access to finance for enterprise growth, as a way of contributing to Serbia's growth and competitiveness.
13. Relevance of research refers to the potential of research results to be commercialized on the market, thus contributing to the economy, while excellence refers to international recognition of the quality of the research.

Key Results

- (i) Number of international scientific publications in top 10 percent of recognized journals
- (ii) Number of collaborative applied research projects
- (iii) External investment generated by participating companies (US\$)
- (iv) Number of new or improved innovative products or services introduced to the market

D. Project Description

14. The Project will support reforms of the research sector, through establishment and operation of the Serbia Science Fund, reform of selected group of RDIs, and specific interventions promoting researchers skills. The Project will also allow for the large Serbian diaspora to be engaged through a Diaspora Facility, aimed at strengthening the Serbian innovation and entrepreneurship ecosystem by providing scientific excellence, financial networks, knowledge, and new market opportunities. Finally, the Project will provide needed support to innovative SMEs through an enterprise acceleration program that will extend co-investment grants and technical assistance to enterprises.
15. The project consists of 3 components. Component 1 (EUR 34 million) will support Research Sector Reforms. Sub-component 1.1 will finance the operationalization of the Serbia Science Fund (SF), established in 2018, reporting formally to the Ministry of Education, Science and Technological Development (MoESTD). Project support includes strengthening of the fund's organizational architecture (i.e., governance, operational structure, M&E, etc.) and financing for basic science grants, applied research grants aimed at improved academia-private sector linkages, collaboration with diaspora researchers, EU researchers, and others. A Serbian diaspora program (see Subcomponent



1.3) will be closely connected to the Science Fund. The TA will also support the MoESTD and the SF in the prioritization and development of SF's programs. This component will be an addition to Government budget resources allocated for this purpose. Sub-component 1.2 will support institutional reform of select individual Research and Development Institutions (RDIs), through improvements in governance systems, strategic planning, HR development, accounting, monitoring, marketing, upgrading laboratory infrastructure and facilities, and more. The public RDIs who wish to participate in the program will undergo detailed assessments. In the first phase, all RDIs will undergo a self-assessment done by RDI management. Second, interested RDIs will be invited to apply to undergo a detailed independent external assessment conducted by a team of international experts. These will evaluate key aspects of an RDI, with agreed criteria including 1) governance practices, 2) staff capabilities, 3) HR and other policies and processes, 4) quality and quantity of R&D outputs, 5) collaboration with other RDIs, private sector and international community, and 6) potential for upgrading excellence of research and its relevance to the private sector and overall Serbian economy. Lastly, based on the results, detailed transformation plans for selected RDI will be prepared by the external assessment teams in close collaboration with the RDI leadership and MoESTD, and satisfactory to the Bank. This will include detailed action plans with specific milestones with deadlines. The project will provide financing for the implementation and monitoring of the transformation plans. Subcomponent 1.3 will support a Serbian Diaspora Facility (SDF) within the Science Fund, to leverage the strengths and desire of Serbian diaspora community for the benefit of the research, innovation and entrepreneurship ecosystem in Serbia. This technical assistance and matching grants program, which builds on the experience of a similar successful Bank project elsewhere, will aim to attract promising scientists, researchers and entrepreneurs from the Serbian diaspora community to transfer knowledge and skills back to Serbia through a variety of activities (mostly advisory) including participation in policy making, governance, program management and monitoring, advisory bodies and networking; collaboration in scientific and applied research and technology transfer, etc.

16. Component 2 (EUR 7 million) will support development of Enterprise Acceleration program, building on existing programs of the Innovation Fund (IF). The component will involve a co-investment matching grant program and training and mentorship program for innovative early- and growth-stage firms aimed at facilitating their growth. The training and mentorship program will cover project and people management practices, strategy development and execution, market research, marketing and sales, product development, partnership development, fundraising, and so on. Firm grants will be managed through a co-financing facility within the Innovation Fund (IF) and companies will receive investments in the range of \$150,000 to \$500,000 per firm.
17. Component 3 (EUR 2 million) will finance activities related to project implementation and monitoring including operations of a Project Implementation Unit (PIU). This will include operational and fiduciary (procurement, environmental and social safeguards), M&E, project audits, studies, policy/program design and capacity building support to the MOESTD and related agencies.
18. The proposed operation is fully congruent with the World Bank Group's Country Partnership Framework (CPF) for FY16-20 focus areas (Focus area 1: "Economic Governance and the Role of the State" and Focus Area 2: "Private Sector Growth and Economic Inclusion"). Both focus areas are aligned with the Government's Strategy of Scientific and Technological Development of the Republic of Serbia, 2016–2020: Research for Innovation. The operation specifically responds to the second focus area, Objective 2a: Contribute to priority business climate improvements. An important intervention under this objective is continued support to building Serbia's innovation and technology transfer system based on promising results yielded from pilot efforts in these two areas and a need to scale them up to create a broader impact on employment generation. All three components of the Project directly and jointly contribute to the Research for Innovation Strategy, 2016-2020, with activities of the Science Fund supporting primarily public R&D, activities of the Innovation Fund supporting primarily enterprise innovation, and the diaspora-



related activities supporting innovation generated by both public and private entities. The proposed operation also has links to the first CPF focus area, Economic Governance and the Role of the State, specifically Objective 1b: More Effective Public Administration & Service Delivery. Establishing and maintaining the appropriate governance of the Science Fund and improving governance across public RDIs would allow these entities to improve the efficiency and effectiveness of the scientific research system, more effectively stimulate the supply of excellence and relevance of scientific research, as well as link these institutions and the private sector more effectively.

Legal Operational Policies	
	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Assessment of Environmental and Social Risks and Impacts

19. The project is classified as Moderate Risk taking in account the nature of the project, small size of sub-projects and the experience of the implementing agency in managing similar activities and the application of new and energy efficient technologies. Project will not directly fund civil works and no adverse impacts such as involuntary land acquisition, impacts on biodiversity, on cultural heritage, are expected. Also, the Project will not finance any of the activities listed in the World Bank Group -IFC Exclusion List. The environmental risks will be small in magnitude, of temporary nature and directly associated with the listed investments and TA activities under the Project. In few cases, the mitigation activities will need to be designed to deal with disposal of wastewater, communal, industrial or hazardous waste. The project may finance research involving human beings/tissue/embryos and animals if done in accordance with EU directives and procedures (Horizon 2020) and national laws and regulations on ethical research. Project will conduct public awareness raising about the applied research ethics and procedures to avoid misconception about this type of research. Any activities that may have moderate and significant environmental and social impacts, including involuntary impacts on land or assets, and unpredictable risks for the environment, community health and safety will be deemed ineligible through the Project’s Environmental and Social Screening Procedure to be used for defining grant eligibility. Moderate impacts will be identified by the ESMF and addressed in activity-specific ESMPs.

E. Implementation

Institutional and Implementation Arrangements

20. The Ministry of Education, Science and Technological Development (MoETSD) will be responsible for the overall project coordination and implementation with specific agencies responsible for the implementation of their respective components. A single Project Implementation Unit (PIU) will be established at the MoESTD reporting to the MoESTD State Secretary (Research and Technology) who as Project Director/Coordinator will be responsible for coordination of the project with all project implementing entities (PIEs), namely the Science Fund and the Innovation Fund. The PIU will be responsible for all project implementation related activities including technical, operational,



environmental and social safeguards, reporting, monitoring and evaluation, audits, studies, and capacity building, etc. The fiduciary activities related to the procurement and financial management aspects will be handled by the Central Fiduciary Unit (CFU) at the Ministry of Finance which is responsible to handle such activities for several Bank financed projects. The CFU will engage additional staff as necessary to handle this responsibility. Establishment of PIU including its policies/resources, responsibilities, as well as the Project Operations Manual (POM) outlining detailed project implementation arrangements including operating, fiduciary and M&E procedures, staffing, responsibilities, resources, etc. will need to be satisfactory to the Bank.

21. One PIU Project Officer will be dedicated to coordinating activities of the Science Fund. The Science Fund will be responsible for the implementation of Component 1.1 Science Fund and Component 1.3 Diaspora Facility and will hire/assign appropriate staff/consultant as required. The SF is a new entity and has no experience with the World Bank projects thus will require significant capacity building assistance under the project. The MoESTD will be responsible for the implementation of Component 1.2 RDI Reforms. This will include selection of RDIs to participate in the project based on assessments of RDIs. The MOESTD will also be responsible for the approval of RDI transformation plans and monitoring of their implementation; these plans will be subject to prior review and approval by the World Bank. A second PIU Project Officer will be dedicated to coordinating activities of the Innovation Fund. The Innovation Fund will be responsible for the implementation of Component 2. Enterprise Acceleration. The Innovation Fund has years of successful experience in managing Bank and EU financed projects. Given that Enterprise Innovation is a new activity for the Innovation Fund, the project will include relevant technical assistance for enhancing IF's capacity to manage this program. All Grants Manuals outlining detailed policies and procedures including evaluation, procurement, environmental, reporting and M&E procedures will be subject to prior review and approval by the World Bank.

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APPROVAL

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