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Report No: PAD3201

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT  
ON A  
PROPOSED LOAN

IN THE AMOUNT OF EURO 100 MILLION  
(US\$109 MILLION EQUIVALENT)

TO THE  
REPUBLIC OF BELARUS

FOR A  
BELARUS HIGHER EDUCATION MODERNIZATION PROJECT

APRIL 29, 2020

Education Global Practice  
Europe And Central Asia Region

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## CURRENCY EQUIVALENTS

Exchange Rate Effective January 31, 2020

Currency Unit = (BYR) Belarusian Ruble

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US\$1 = BYR 2.14

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EUR€1= USD 1.10

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## FISCAL YEAR

January 1 - December 31

Regional Vice President: Cyril E Muller

Acting Country Director: Alexander Kremer

Regional Director: Fadia M. Saadah

Practice Manager: Harry Anthony Patrinos

Task Team Leader(s): Nina Arnhold

## ABBREVIATIONS AND ACRONYMS

AMAs	Academic and Methodological Associations
BEEPS	Business Environment and Enterprise Performance Survey
BHEMP	Belarus Higher Education Modernization Project
BEMP	Belarus Education Modernization Project
BYR	Belarusian Ruble
CIS	Commonwealth of Independent State
CPD	continuous professional development
CPF	Country Partnership Framework
DA	designated account
DFIL	disbursement and financial information letter
EA	environmental assessment
EBRD	European Bank for Reconstruction and Development
ECA	Europe and Central Asia
ECTS	European Credit Transfer and Accumulation System
EMIS	Education Management Information System
ENQA	European Association for Quality Assurance in Higher Education
ESG	European Standards and Guidelines for Quality Assurance in the European Higher Education Area
ESIA	environmental and social impact assessment
ESMF	environmental and social management framework
ESMP	environmental and social management plan
EU	European Union
FM	financial management
FY	fiscal year
GDP	gross domestic product
GIAC	Main Information and Analytical Center of the Ministry of Education
GNI	gross national income
GRM	grievance redress mechanism
GRS	grievance redress service
HEI	higher education institution
HDI	Human Development Index
ICT	information and communication technologies
IFC	International Finance Corporation
IFR	interim financial report
IT	information technology
LiTS	Life in Transition Survey
MoE	Ministry of Education
MoLSP	Ministry of Labor and Social Protection
NIE	National Institute of Education
NPF	new procurement framework
NQF	National Qualifications Framework
OECD	Organisation for Economic Co-operation and Development
OP/BP	Operational Policies/Bank Procedures
PAD	project appraisal document

PDO	project development objective
PIU	project implementation unit
POM	project operations manual
PP	procurement plan
PPP	purchasing power parity
PPSD	project procurement strategy for development
RIVSh	Republican Institute of Higher Education
SCD	Systematic Country Diagnostic
SOE	state-owned enterprises
SORT	Systematic Operations Risk-Rating Tool
STEM	science, technology, engineering, or mathematics
UNESCO UIS	UNESCO Institute for Statistics
USD	US Dollar
VET	vocational education and training



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DATASHEET

**BASIC INFORMATION**

Country(ies)	Project Name	
Belarus	Belarus Higher Education Modernization Project	
Project ID	Financing Instrument	Environmental Assessment Category
P167992	Investment Project Financing	B-Partial Assessment

**Financing & Implementation Modalities**

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Disbursement-linked Indicators (DLIs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	

Expected Approval Date	Expected Closing Date
05-May-2020	31-Dec-2025

Bank/IFC Collaboration

No

**Proposed Development Objective(s)**

The Project Development Objectives (PDO) are to improve the teaching and learning environment and the information on labor market relevance of higher education.

**Components**

Component Name	Cost (US\$, millions)
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Modernization of the teaching and learning environment	97.00
Innovations in teaching and learning	8.50
Quality assurance	3.00
Project management	0.50

**Organizations**

Borrower: Republic of Belarus  
 Implementing Agency: Ministry of Education

**PROJECT FINANCING DATA (US\$, Millions)**

**SUMMARY**

<b>Total Project Cost</b>	109.00
<b>Total Financing</b>	109.00
<b>of which IBRD/IDA</b>	109.00
<b>Financing Gap</b>	0.00

**DETAILS**

**World Bank Group Financing**

International Bank for Reconstruction and Development (IBRD)	109.00
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**Expected Disbursements (in US\$, Millions)**

WB Fiscal Year	2020	2021	2022	2023	2024	2025	2026
<b>Annual</b>	0	10.89	24.63	28.67	23.72	16.19	<b>4.90</b>
<b>Cumulative</b>	0	10.89	35.52	64.19	87.91	104.01	<b>109.00</b>





**INSTITUTIONAL DATA**

**Practice Area (Lead)**

Education

**Contributing Practice Areas**

**Climate Change and Disaster Screening**

This operation has been screened for short and long-term climate change and disaster risks

**Gender Tag**

**Does the project plan to undertake any of the following?**

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF	Yes
b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment	Yes
c. Include Indicators in results framework to monitor outcomes from actions identified in (b)	Yes

**SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)**

**Risk Category**

**Rating**

1. Political and Governance	● Moderate
2. Macroeconomic	● Substantial
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Moderate
5. Institutional Capacity for Implementation and Sustainability	● Substantial
6. Fiduciary	● Moderate
7. Environment and Social	● Moderate
8. Stakeholders	● Substantial
9. Other	
10. Overall	● Moderate



**COMPLIANCE**

**Policy**

Does the project depart from the CPF in content or in other significant respects?

Yes  No

Does the project require any waivers of Bank policies?

Yes  No

**Safeguard Policies Triggered by the Project**

Yes

No

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Performance Standards for Private Sector Activities OP/BP 4.03		✓
Natural Habitats OP/BP 4.04		✓
Forests OP/BP 4.36		✓
Pest Management OP 4.09		✓
Physical Cultural Resources OP/BP 4.11	✓	
Indigenous Peoples OP/BP 4.10		✓
Involuntary Resettlement OP/BP 4.12		✓
Safety of Dams OP/BP 4.37		✓
Projects on International Waterways OP/BP 7.50		✓
Projects in Disputed Areas OP/BP 7.60		✓

**Legal Covenants**

**Conditions**

Type	Description
Effectiveness	The Project Operational Manual (POM) has been adopted by the Borrower in a manner satisfactory to the Bank.
Effectiveness	The Ministerial Order has been issued and is in full force and effect.





## I. STRATEGIC CONTEXT

### A. Country Context

- Over the past three decades, Belarus managed to attain high rates of economic growth accompanied by significant reductions in poverty and declining inequality.** After the dissolution of the Soviet Union, Belarus pursued a strategy of only gradually opening its economy to the private sector and limited reforms of the state-owned enterprise (SOE) sector. Growth rates in real gross domestic product (GDP) were impressive, averaging about 6.3 percent per year during 1996–2000 and about 8.3 percent per year during 2001–08 (World Bank, 2018a). The poverty headcount<sup>1</sup> fell from 32 percent to less than 1 percent between 2003 and 2014, the largest drop in the entire Europe and Central Asia (ECA) region during this period. A reduction in inequality, which remains at low levels compared to other countries from the region, complemented the reduction in poverty. Belarus performed well also in other dimensions of human development. In the 2016 Human Development Index (HDI), which covers life expectancy, education, and gross national income (GNI) per capita, it ranked 52<sup>nd</sup>, higher than it would have been predicted based on the country's per capita income. Certain challenges (for example, related to labor market performance) notwithstanding, disparities by gender are low in Belarus and show steady improvement (World Bank, 2018a; 2018b). In the latest Social Institutions and Gender Index of the Organization for Economic Co-operation and Development (OECD), Belarus ranked 12<sup>th</sup> among the 160 countries covered.
- Nonetheless, changing conditions have slowed economic growth and put further human development in Belarus at risk.** Capital investment, foreign borrowing, the import of subsidized fuel, and the Russian Federation's economic development were key factors behind Belarus' impressive growth but ceased to have a strong positive impact in recent years. Investment decisions not geared toward competitiveness and periods where public expenditure and wages grew faster than productivity have put an additional strain on economic development. Following the 2008 financial crisis, which led to lower export demand and challenges with access to foreign financing, the Belarusian economy stagnated in 2009 (World Bank, 2018a). Despite a short rebound during 2010–11, economic growth has slowed significantly since then, averaging 3 percent during 2009–14 (World Bank, 2018b). Spurred by falling oil prices, Belarus fell into recession in 2015–16, even though a modest recovery can be observed for 2017. The economic downturn has been accompanied by stagnation in real income growth and an increase in the vulnerability of households. The poverty headcount<sup>2</sup> increased by 2 percentage points in 2015 and by another percentage point in 2016 (World Bank, 2018a). This development was even more pronounced in rural areas, which reversed a trend of spatial convergence in living standards witnessed during 2003–14 (World Bank, 2018b). Subjective measures of well-being were affected as well. In the European Bank for Reconstruction and Development's (EBRD) Life in Transition Survey (LiTS), the share of adults who reported that they are satisfied with life decreased from 66 percent in 2006 to 50 percent in 2010 and to 41 percent in 2016, the largest decrease among all countries from the ECA region. At least in the near future, economic growth is projected to remain at its current rate of around 2 percent, leading to the risk of Belarus entering a low growth trajectory (World Bank, 2018a).
- There are, however, several advantageous conditions now that can help Belarus address its development priorities.** These include, for example, growth in the IT sector, and the advantages of a geographical position between East and West. In addition, Belarus can make use of the huge development potential of its private sector and its highly educated work force. Nevertheless, continuing reforms and targeted policies are needed to foster the structural recovery of the Belarusian economy, its integration in global value chains and a shift to export-driven

<sup>1</sup> Measured based on the purchasing power parity (PPP) USD 5/day threshold.

<sup>2</sup> Measured based on the PPP USD 10/day threshold.



growth, which are required for entering a path of strong economic growth and improvements in living conditions.

4. **For Belarus to return to sustainable economic development that reduces further poverty and increases shared prosperity, a new growth model is required.** The World Bank’s Systematic Country Diagnostic (SCD) identifies six priorities to pursue the twin goals of poverty reduction and shared prosperity, including unleashing private sector growth potential and maintaining Belarus’ human capital edge. Important levers to achieve Belarus’ development priorities are addressed by various government programs and have been taken up in the Country Partnership Framework (CPF). The CPF for the fiscal year (FY) 2018–22 period has as its main objective to foster sustainable and inclusive growth and to improve living standards (World Bank, 2018b). The CPF revolves around the main areas of: (a) creating opportunities for private sector growth and for more efficient public investment; (b) maintaining the country’s human capital edge; and (c) improving the contribution of infrastructure to climate change management, economic growth, and human development. These three areas are complemented by the cross-cutting theme of promoting the use of data and access to information in public decision making to increase the transparency of information, foster the use of impact data and promote well-informed decision making by private and public sector actors based on a public-private dialogue. In this new growth model, maintaining Belarus’ human capital edge is one of the main pillars to achieve a “competitive, inclusive, and dynamic Belarus” (World Bank, 2018a, p.10).
5. **Further developing human capital is crucial in Belarus as jobs are increasingly about cognitive and interpersonal tasks, while manual and routine tasks are declining.** Technological change is driving a wedge in product and labor markets by providing immense opportunities for some firms and workers while leaving others behind. The “future of work,” in which technology takes over tasks once performed by humans, is already a reality in Belarus and elsewhere (Ridao-Cano and Bodewig, 2018). Technological change, offshoring and the skills upgrading of the workforce are big drivers of the changes in the task content of jobs (Acemoglu and Autor, 2011). While technological change may make certain types of jobs obsolete (Frey and Osborne, 2017), it has not necessarily led to less demand for work in aggregate (Autor, 2015; Graetz and Michaels, 2018). Jobs today are increasingly intensive in skills that complement technology (advanced cognitive and social-emotional skills). Workers well equipped with these skills (high-skill workers) are benefiting from these changes, while low-skill workers are losing the most— the employment share of (mostly high-skill) workers in non-routine cognitive jobs is increasing while the share of (mostly low-skill) workers in manual jobs is declining (Acemoglu and Restrepo, 2019).

## B. Sectoral and Institutional Context

6. **Belarus’ new growth model requires a modern tertiary education system and the Belarus Higher Education Modernization Project is a crucial step towards achieving this.** Belarus needs a tertiary education system where relevance, interconnectedness and attractiveness constitute its three main intertwined features. In the wake of the transition toward knowledge-based societies where high-skill workers benefit the most from technological change, the importance of higher education to economic and societal development has significantly increased in many countries throughout the world. Students are more and more dependent on acquiring the right sets of skills for living meaningful and productive lives, and societies and their economies can benefit greatly from highly-skilled graduates and the knowledge and technologies generated by higher education institutions (HEIs). As a result, the ability to ensure that all stakeholders are provided with offers that suit their needs in an easily accessible way has become an indispensable feature of modern tertiary education systems. In the case of students, important strategies to achieve this consist of targeted adaptations of the educational content and the forms of provision that take into account the diversifying needs and conditions under which they pursue their studies and that focus on the actual outcomes of the learning process. In the case of companies, key strategies include gearing HEIs’ research and development activities more strongly toward the needs of the (regional) economy and establishing channels for an actual transfer



of knowledge and technologies. Cutting across the different facets of relevance, systematic information gathering on the relation between higher education systems and their environment has evolved into an important strategic instrument supporting policy makers and institutional managers.

7. **In Belarus, important foundations for a modern, relevant tertiary education system are in place.** The system has a broad geographical coverage, with 23 of the 51 HEIs located in the main regional centers throughout Belarus. High enrolment rates have led to a large pool of students and comparatively high levels of education within the population. Building on universal school education at the pre-tertiary education level, Belarus has reached a tertiary education gross enrolment ratio of 87.0 percent in 2016, 76.3 percent for males and 98.4 percent for females.<sup>3</sup> The overall ratio exceeds the average for the Central and Eastern Europe region of 80.0 percent. As a result, Belarus reaches a high share of tertiary education graduates within the population, which amounted to 41 percent among the 25-34-year-olds in 2016. In this respect, Belarus reaches similar shares as Estonia (41 percent) and Latvia (42 percent) as well as the EU8 countries (40 percent). In absolute terms, however, demographic developments have led to a decrease in student numbers. Whereas 371,755 students were enrolled in Belarusian HEIs in 2014/15, this number dropped to 299,247 in 2017/18 (National Statistical Committee, 2018a). Even though a recent rebound in fertility rates will lead to a transitory interruption of this development in the medium term, the trend of demographic decline will prevail in the long run and affect the number of graduates entering the Belarusian labor market.
8. **Efforts to increase and sustain Belarus' tertiary education system relevance have induced an intensification of the external relations of HEIs and have made the interconnectedness of modern tertiary education systems one of their crucial features.** This comprises connections between HEIs and their direct environment as a first dimension. Representatives of civil society and the economy have become involved in the activities of HEIs in several ways. They support the governance of institutions (for instance, via their representation on governance boards), but have also become involved in the teaching and learning process, for example, via participating in the curriculum development process and providing internships to students. The international relations of tertiary education systems and their institutions constitute a second dimension. These have been fostered to promote the flow of talent and ideas and to access valuable knowledge and ideas for enhancing the quality of tertiary education, from good practices of institutional governance to innovative forms of higher education provision. Key strategies to support these connections include promoting the compatibility and transparency of higher education systems (which facilitates the mobility of students and academics) as well as developing strategic inter-institutional relations across national borders.
9. **As a precondition for relevance and interconnectedness, the attractiveness of HEIs for students, academics and companies, both domestic and foreign, has become a third key feature of tertiary education systems fit to assume a proactive role in societies of the 21<sup>st</sup> century.** With regard to students, modern facilities as well as guidance and counselling services addressing their well-being, advancement and future careers can complement relevant and accessible programs as factors contributing to a meaningful and successful higher education experience. Additional levers for increasing HEIs' attractiveness relate to foreign students, for whom programs and support services offered in different languages, the ease of having study periods abroad recognized at home, dedicated welcoming structures and an atmosphere of openness can provide important arguments for the choice of a specific study destination. With regard to academics, working conditions conducive to high-quality research and career advancement constitute the main factor behind the attractiveness of institutions. The up-to-date research and innovation infrastructures required in this respect furthermore contribute to the attractiveness of HEIs for companies.

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<sup>3</sup> UNESCO Institute for Statistics (UIS) data.



10. **Suitable quality assurance processes framing the core activities of HEIs are an additional cornerstone of modern tertiary education systems.** In an ever faster changing world, constant efforts to ensure the relevance and quality of higher education are needed, especially with regard to its alignment with labor market needs. This requires a culture within higher education systems and their institutions that places emphasis on continuous quality enhancement. A key strategy developed to bring about this culture consists in establishing a well-aligned system of quality assurance processes on the system and institutional level and promoting that institutions take ownership, while being monitored and supported in their efforts by an independent arbitrator.
11. **All of these features lie at the heart of the pan-European Bologna Process, which, therefore, provides valuable strategies and instruments for modernizing tertiary education systems.** Initiated in 1999 as a special form of inter-governmental cooperation, the Bologna Process aims at creating a common European Higher Education Area revolving around the mobility of students and academics and the employability of graduates. Over the course of its implementation, various tools have been devised in close cooperation among representatives from the participating countries to achieve that objective. This includes: novel approaches to the design of curricula and to teaching and learning, which aim at putting learners and their needs at the center of the higher education process; a common degree structure and transparency tools, which promote the compatibility of higher education systems and, thereby, the mobility of students; various programs supporting the exchange of ideas and people; and a framework and guidelines for quality assurance on the system and the institutional level, which aim at promoting a culture of continuous quality enhancement throughout higher education systems.
12. **A major step toward modernization was made with Belarus' accession to the Bologna Process in 2015.** This step implies important developments such as the introduction of the Bachelor's–Master's system<sup>4</sup>, the implementation of a student-centered approach to teaching and learning and a learning outcomes framework, and the adoption of transparency tools such as the European Credit Transfer and Accumulation System (ECTS), the Diploma Supplement and the National Qualifications Framework (NQF) on the agendas of policy makers and HEIs. In addition, matters of student and staff mobility as well as quality assurance are receiving increased attention. At the same time, great expectations vis-à-vis the implementation of the Bologna Process requirements were created among representatives of the Belarusian higher education sector and on the side of the European higher education community.
13. **However, it cannot be taken for granted that the accession to the Bologna Process leads automatically to a successful implementation of its requirements.** On the contrary, the required transformation comprises a set of far-reaching and challenging changes, which necessitate coordinated efforts and cooperation among various actors from within and outside of the country. With regard to the Bachelor's–Master's degree structure, for instance, first legislative changes were introduced, but these mark only the beginning of the required transformation, as the mere numbers reveal: In 2017/18, around 284,300 students were enrolled at the undergraduate level, but only around 14,900 in Master's degree programs. The implementation of transparency instruments is at a similar stage. While a higher education section of the NQF was drafted, the other sections are still under development. First changes to the design of programs were made as well in the form of a greater orientation toward the outcomes of the higher education process and the required workload for students, but these have not led to a fully-fledged introduction of a learning outcomes framework and the ECTS so far.
14. **Targeted efforts are also needed to promote the relevance of higher education in Belarus, especially with a view to the needs of the labor market.** Despite the quantitative expansion of the sector, higher education still yields significant benefits for graduates, which suggests that they are in high demand. During the 2011–15 period, the

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<sup>4</sup> Bachelor's and Masters in Belarus refer to the first and second level of the Belarusian higher education system respectively.



average increase in wages (with basic education or lower as the reference group) amounted to 44.1 percent for tertiary education, compared to 8.3 percent for secondary general education, 21.5 percent for secondary specialized education, and 13.9 percent for education at vocational schools (Belarus PER). State and, in particular, private enterprises frequently report a lack of qualified graduates (World Bank, 2018a). In the 2013 Business Environment and Enterprise Performance Survey (BEEPS) conducted by the International Finance Corporation (IFC), for instance, more than 20 percent of employers reported skills gaps as a key constraint for their business (World Bank, 2018b). The lack of qualified candidates seems to be particularly pronounced in potential growth areas such as computer sciences, suggesting that Belarus faces the challenge well known in other countries of a lack of graduates in the fields of science, technology, engineering, and mathematics (STEM). This challenge is acknowledged by the Belarusian government that launched in 2017 a new project “University 3.0”. The “University 3.0” model promotes a stronger relationship between the science sector and the economy, which aims at developing entrepreneurial universities, including via support for joint facilities and entrepreneurship education for students.

15. **Innovative approaches to teaching and learning and a greater flexibility of provision could remedy parts of the mismatches between higher education and the labor market but are not sufficiently developed in Belarus so far.** New forms of teaching and learning and updated educational content are key for providing students with the skills required in 21<sup>st</sup> century societies and economies. The same holds true for more flexible forms of provision, which can increase the accessibility and efficiency of higher education. Students in Belarus are to some extent able to choose forms of provision that suit their particular circumstances in the form of daytime, evening and correspondence education, complemented by distance education approaches and first steps toward the use of new technical means. However, the potential of new information and communication technologies (ICT) in the context of higher education provision remains insufficiently used. Potential for improvement exists also with regard to program design, especially in relation to the Bologna Process instruments directed at putting the learner at the center of the higher education process such as a learning outcomes framework.
16. **In addition, students – and the labor market – would benefit from sound information on the outcomes of different higher education programs.** Currently, there is no systematic monitoring of the career trajectories and labor market success of graduates. While some data are available for those under the job placement system, information on those who studied on a fee-paying basis is scarce. The collection of more comprehensive data would not only allow students to make informed study decisions that take into account the differences in outcomes among programs but could also inform higher education policies directed at the labor market relevance of higher education. When it comes to policy making, scope for improvement remains with regard to taking up data for steering purposes, which could be achieved in Belarus in connection with the ongoing development of an Education Management Information System (EMIS) at the pre-tertiary education level, supported by the World Bank.
17. **Belarusian HEIs furthermore need to become more attractive partners for companies with regard to research and development activities.** Sporadic exchanges of HEIs with the economy via certain institutional sub-units notwithstanding, cooperation between the two sectors does not take place on a broader scale at the moment. Even though there are efforts on the side of the Government to foster these ties via the establishment of entrepreneurial universities under the “Universities 3.0” concept, transfer channels, including adequate innovation infrastructures, and the entrepreneurial engagement of students and academics remain insufficiently developed.
18. **The increase in relevance and the successful implementation of important transformations of the sector will depend, among others, on an intensification of the outward relations of the Belarusian tertiary education system and its institutions.** At the moment, systematic exchanges between HEIs and employers are mostly restricted to interactions related to the work placement scheme. Other forms of cooperation such as the involvement of





companies in institutional governance and program and curriculum design do not exist on a broader scale. However, a better interconnectedness of Belarusian higher education in this direction would be relevant for its alignment with the labour market and within the context of Belarus' ongoing transition process toward the Bologna Process degree structure including the Bachelor's and Master's degree. Room for improvement exists also with regard to international relations. Here, implementing fully the Bologna Process instruments (in particular, the NQF, the ECTS and the Diploma Supplement) would increase the compatibility and transparency required for an increase in the flow of students. This could furthermore be promoted via institutional strategies that pay greater attention to internationalization and strategic partnerships and double degree programs involving Belarusian and foreign HEIs as well as via more comprehensive government support programs and an adequate design of legislative framework conditions. Improved financial and non-financial support would be needed for increasing the mobility of academics as well. These efforts to promote internationalization would benefit from a stronger integration of Belarusian higher education into international contexts more generally, including the participation in major initiatives on the European level, closer exchanges with international experts, and the involvement in peer learning mechanisms, especially those related to the implementation of the Bologna Process requirements.

19. **An ongoing modernization process will furthermore require that Belarus invests in the functionality and attractiveness of its tertiary education sector.** Many teaching and learning facilities are outdated, and lack of modern research infrastructure does not only hamper research and development but also negatively impacts on the quality of higher education and training. Enhancing the guidance and support structures for students and establishing welcoming structures and a supportive atmosphere for international students would greatly enhance the attractiveness of Belarus as a study destination. Physical facilities that are up-to-date and enable high-quality learning experiences would add to this. Adaptations of the physical infrastructures would also increase the attractiveness of HEIs for domestic and foreign academics and post-graduate students, in particular, an upgrading of laboratories, equipment and machinery. This would at the same time increase HEIs' attractiveness for companies, which would be particularly relevant with regard to the STEM fields, since these relate to sectors of the Belarusian economy with a high growth potential.
20. **Finally, a comprehensive quality assurance system in line with modern standards requires particular attention in Belarus.** Currently, quality assurance on the system level is implemented under the aegis of the Department of Education Quality Control of the Ministry of Education with a focus on inputs to the higher education process. On the institutional level, many HEIs have opted for ISO 9001 certification, a system that has no direct relation to the higher education sector. Thus, an overhaul is needed for Belarus to establish an adequate higher education quality assurance system. Relevant facets of such a change can be derived from the Bologna Process requirements and include the establishment of an independent quality assurance agency on the system level that complies with the European Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) and is well connected within the European quality assurance community. Within institutions, quality assurance and enhancement need to be viewed more as a genuine contribution to the overall mission of HEIs, and less as a bureaucratic exercise. Key preconditions for initiating the required transition process are a suitable legal and institutional framework as well as sufficient capacities within HEIs. Once such an updated quality assurance system has been put in place, it will provide important information on the quality of provision for state actors, the private sector, current and prospective students and families alike.

### C. Relevance to Higher Level Objectives

21. **Overall, the project will contribute to the objective of ensuring sustainable and inclusive growth and an improvement of living standards in Belarus.** The improvement of living standards is the overarching goal of the



*Program of Activities of the Government of the Republic of Belarus for 2016–20* and resonates in the CPF vision of a “competitive, inclusive, and dynamic Belarus” (World Bank, 2018a, p. 10). Competitiveness, innovation and human capital development are identified as key means to achieve the goal in both cases, to which the BHEMP would contribute via ensuring that the Belarusian higher education sector is fit to assume a central role in this regard. The consideration of matters of inclusion and energy efficiency would also promote that overarching goal.

22. **By supporting the modernization of the higher education sector, the BHEMP will contribute to Belarus’ efforts to maintain its human capital edge – a priority identified by the FY18 SCD and one of three focus areas of the FY18–20 CPF.** Both the Government of Belarus’ programs and the CPF highlight the relevance of ensuring that tertiary education continues to be a driving force behind sustainable growth, among others, through preparing graduates for a rapidly changing labor market. Addressing important facets of the higher education process, the project would support this goal by:
- (a) Increasing students’ motivation to study, ability to acquire and transmit new knowledge, collaborate and focus through a modernized university learning environment;
  - (b) Raising university research productivity and making education more applied and practical, especially in STEM fields of studies, through modernizing university research equipment;
  - (c) Ensuring the relevance of tertiary education content to the needs of students and the labor market;
  - (d) Increasing flexibility of provision and the introduction of innovative approaches to teaching and learning;
  - (e) Promoting connections between HEIs and companies;
  - (f) Expanding the capacities for generating and utilizing data for policy-making, strategy development and steering purposes at the system and institutional level;
  - (g) Ensuring that the Bologna Process framework and its instruments are implemented comprehensively, especially with a view to the international mobility of students;
  - (h) Fostering quality enhancement through the establishment of a comprehensive and suitable quality assurance system.
23. **The project would furthermore have an impact on the innovativeness and competitiveness of the Belarusian economy.** Innovation, entrepreneurship and private sector growth feature high on the agenda of the Belarusian Government and are a key component of Belarus’ path toward a new growth model. In addition to improving the preparedness of higher education graduates for the labor market, the project addresses the relation between the higher education sector and the public and private sectors of the economy more broadly. The upgrading of laboratories and equipment, the promotion of an entrepreneurial mindset among staff and students, and support for the development of infrastructures such as technology parks would all contribute to making HEIs attractive partners for (regional) enterprises and improving the performance of the innovation system in Belarus.

## II. PROJECT DESCRIPTION

### A. Project Development Objective

#### PDO Statement

24. The DO is to improve the teaching and learning environment and information on the labor market relevance of higher education.

#### PDO Level Indicators

25. The Project’s achievement of the PDO will be measured via the following indicators:



- Number of higher education institutions with improved research facilities
- Percentage of Bachelor's and Master's programs with established learning outcomes
- A national system to regularly trace higher education graduates (Graduate Tracer Study – GTS) is established
- The newly established Belarus quality assurance agency is a full member of the European Association for Quality Assurance in Higher Education (ENQA)<sup>5</sup>

## B. Project Components

### Component 1: Modernization of the teaching and learning environment (*estimated cost: \$97 million equivalent*)

26. The objective of this component is to enhance the environment for teaching and learning as well as that for research and innovation. Through this component, the Project will support the modernization and the increase in relevance and attractiveness of the Belarusian tertiary education system for students, academics, and companies. This comprises physical infrastructures and equipment as well as curriculum reform at the tertiary level. The quality and efficiency of tertiary education are inextricably linked to quality-enhancing inputs such as modern facilities, appropriate information technology and laboratory equipment, and qualified staff.<sup>6</sup> In addition to general aspects of teaching and learning environments, accessibility of tertiary education facilities to staff and students with disabilities and compliance with environmental standards need to be ensured.

27. To promote these important priorities which the World Bank concurred with (and with a view to activities to be financed under subcomponents 1.1 and 1.2), the MoE has collected related proposals, established a set of criteria and subsequently pre-selected appropriate project infrastructure and investment activities. Proposals from universities were pre-selected focusing on:

- (i) *Regional higher education institutions*, as they have an important role to play in creating and fostering a dynamic social and economic environment;
- (ii) *Higher education institutions aspiring to become entrepreneurial universities* (“Universities 3.0”). The project would *support* the creation of learning spaces that are conducive to bolster entrepreneurial culture (i.e. through the creation of incubators, innovation hubs, etc.); and
- (iii) *Academic and methodological associations (AMAs)* - this criterion is chosen in connection with the fact that *educational* and methodological associations in the field of specialized tertiary education (education areas and tertiary education majors) operate on the basis of leading HEIs in their respective fields and supervise the design of curricula for various tertiary education programs, as well as development of new programs, related to the field of specialization. This allows considering the aforementioned HEIs as research and methodology centers that define conceptual trends in the development of the tertiary education system within the relevant field of education. As part of the project, these HEIs will be the main educational institutions to provide others with access to unique academic and research equipment and provide higher-quality consolidation of professional competencies in students.

<sup>5</sup> <http://www.enqa.eu/>. “As indicated in the *ENQA statutes approved by the General Assembly in 2015*, it is a condition of membership that all members of ENQA undergo an external review at least once every five years. Before being accepted or being re-confirmed as a member, an applicant agency must satisfy to the Board that it meets the criteria for membership: the *European Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)*.”

<sup>6</sup> See Ahmed et al., 2018; Beichner, 2008; Brooks, 2011; Hill and Epps, 2010; Lizzio, Wilson and Simons, 2002; Mitchell, White and Pospisil, 2010; Perks, 2013; Vermeulen and Schmidt, 2008; Walker, Brooks and Baepler, 2011.



- (iv) *Improving energy efficiency* of university premises and infrastructure.

***Subcomponent 1.1: Enabling high quality practical training***

28. The skill development of students depends on the education content, the teaching and learning environment, and the forms of provision. Especially with regard to skills that are relevant within 21<sup>st</sup> century societies and economies, promoting the right combination of these elements has gained in importance. Against this backdrop, the objective of this subcomponent is to: (i) set up or modernize laboratory and research facilities at HEIs; (ii) outfit classrooms with modern educational equipment and (iii) set up or modernize centers for shared use of unique educational and scientific equipment. The intent of establishing such labs and centers is to continue the shift toward practice-based skills training rather than theoretical knowledge, and more efficient and shorter training, in order to make tertiary education more labor-market relevant. This subcomponent will make an important contribution to the new Bachelor's/Master's system by providing students with research experience and opportunities for practical application of learning.
29. The Bank-financed activities under this subcomponent will focus primarily on investments in modernized research infrastructure. However, these investments will be complemented by appropriate training in how to use the new equipment in the educational process, which will be provided to the teachers through the existing training system in the Republic of Belarus paid for by the Borrower's counterpart funds. The institutional responsibility for implementing these activities will rest with the RIVSh. Separate tenders will be launched for similar groups of equipment. The tenders will include the delivery, installation, and calibration of the equipment and, if necessary, technical training on equipment service and usage, and will be separated into lots by year of delivery to coincide with the completion of the rehabilitation activities in each of the HEIs.
30. Modernization of laboratories and research facilities at HEIs will also support activities related to energy efficiency, renewable energy and low-carbon technologies e.g.: establishment of a "smart" house training and research center for energy saving and alternative energy studies, application and research; ecological security intersectoral research laboratory (the lab will be furnish with a mobile fuel consumption meter, a mobile exhaust gas meter, a mobile gas analyzer, a mobile dispersed particle content meter, environment temperature and humidity gauges); research laboratory of innovative building materials and energy efficient technologies in construction; multiple-access center for research of engines, energy machines, fuels and various energy sources; procurement of e-cars and/or hybrid cars for learning proposes, etc.
31. An important activity under this subcomponent will be the provision of infrastructure for the establishment of a multi-disciplinary STEM research center at BSU. This center will enable practice-related graduate training in different and innovative STEM areas and explicitly respond to industry demands. The Center will include about 30 educational laboratories covering key areas of interdisciplinary studies at the interface of biology, chemistry, physics and informatics. The proposed Center will provide trainings and develop programs in areas not yet represented at Belarusian universities, namely bioengineering, nano-chemistry, synthetic and system biology, biotechnology, pharmacology, bioinformatics, biomechanics, etc. The development of these programs responds to the needs of the labor market, including in the medical and pharmaceutical area. The amount of investment for the Center is about EUR 31 million including the renovation and equipment of the building.
32. Subcomponent 1.1. will finance the creation and modernization of research laboratories at Belarusian universities through procuring goods (research equipment). Direct output of these activities will be an increased innovative capacity of universities in learning and research.



***Subcomponent 1.2: Modernization of the physical environment for teaching and learning***

33. This subcomponent will focus on the rehabilitation of buildings and premises of higher education institutions in order to: (i) improve the overall conditions for teaching and learning; (ii) create a barrier-free environment for learning and improving access and working and learning conditions of staff and students with disabilities by creating an inclusive learning and working environment; and (iii) improve energy efficiency of buildings and premises. To ensure that female and male students and teachers, as well as students and teachers with disability, have a voice and opportunity to influence and prioritize modernization activities and discuss their opinions, this subcomponent will include participatory planning through frequent focus group discussions.
34. Overall, component 1 will benefit students and academics as well as employers and the broader economy in several respects. Students will obtain easier and more flexible access to higher education and enjoy a learning experience that is better aligned with their needs and of higher quality. Academics, including doctoral students, will benefit from a better working environment that allows them to engage in high-quality research as it is required for career advancement and entrepreneurial activities. These effects will furthermore have a positive impact on employers and the economy, which obtain access to better-qualified graduates and research and development activities and outcomes that support their innovation activities. In addition, HEIs will be able to reduce their recurrent expenditures via the increased energy efficiency of their premises. Given the focus of the investments, it will be ensured that these benefits stretch across all regions of Belarus.
35. Subcomponent 1.2. will finance the modernization of research and learning environment, including rehabilitation works for the establishment of a multi-disciplinary STEM study and research center at BSU, and the creation of a barrier-free environment in Belarus universities through procuring civil works (infrastructure repairs and engineering works). Direct output of these activities will be an improved quality of learning and research in line with labor market development prospects.

***Component 2: Innovations in teaching and learning (estimated cost: \$8.5 million equivalent)***

36. The objective of this component is to increase quality, relevance and attractiveness of tertiary education through modernized programs with a focus on learning outcomes and curriculum reforms. Relevant tertiary education requires effective teaching and learning practices in line with modern labor market demands and provision of quality data and information, for example via a graduate tracing system (GTS), mobility and transparency tools like ECTS – the European Credit Transfer and Accumulation System, etc., as well as measures to support innovative teaching and learning through digitalization. Related activities will be supported under component 2.
37. The Belarus' National Qualifications Framework which contains generic learning outcomes (in the form of knowledge, skills and competences defined per degree level) is currently in draft form. The definition of generic learning outcomes is an important step towards development of the new degrees (Bachelor's, Master's). While further work is assumed to involve sector councils for certain groups of professions, the definition of learning outcomes of the program level will be an important task requiring support under the new project. Global perspectives and competencies are planned to be incorporated into the new curriculum design as well as into internationalization activities under subcomponents 2.1. and 2.2.



38. During project preparation, the World Bank implemented a grant from the British Government<sup>7</sup> which focused on enabling evidence-based tertiary education policies in Belarus. Under this grant, a handbook for the establishment of learning outcomes was developed which will provide guidance for future curriculum reforms as well as a GTS proposal, supporting students' transition into the labor market and identifying potential skills mismatches. Such a system will help policy makers as well as families and students to make more informed choices. Based on the work under the grant, the MoE decided that the graduate tracking system will be piloted, evaluated and rolled out under the project. The learning outcomes handbook was disseminated to the higher education sector and will provide an important input for training under component 2. Thus, component 2 sets out to support different ways of promoting and implementing innovations in the teaching and learning process and on the institutional level. It comprises the following subcomponents:

***Subcomponent 2.1: Development of learning outcomes and curriculum***

39. While Bachelor's and Master's programs have been formally introduced in Belarus, the new system will need to be brought to life and programs modernized through the establishment of learning outcomes (statements of what a student knows and is able to do at the end of a period of learning) and related curriculum reform. These steps are needed to align provision in Belarus with good European practice established under the Bologna Process and needs of the labor market. Taking the EFO work on learning outcomes (and the resulting handbook) as one starting point, academics will need to be trained and supported through advisory work (consultant services) under this subcomponent to ensure that the learning outcomes approach is successfully implemented throughout the higher education system and that it makes a real and permanent contribution to teaching, learning and assessment.

40. Further, universities will need to modernize their programs (and develop new programs) in accordance with the established learning outcomes which reflect the needs of the labor market. This work will be guided through the newly established GTS. The GTS will provide important information via a public website which will guide these revisions. New programs should, inter alia, contain modules on entrepreneurship; entrepreneurial training, in general, will be strengthened under this subcomponent as part of teaching and learning and through practical applications and interaction with companies (internships, involvement of practitioners in teaching, etc.). In summary, this subcomponent will support the development and introduction of the GTS, the establishment of learning outcomes at the program level and related curriculum reforms.

41. Subcomponent 2.1. will finance the design and further development of higher education curricula to bring them closer to labor market needs and European Higher Education Area practices. This will be achieved through procuring consulting services, training, goods and travels. Direct outputs of these activities will be new methodologies and tools to support the update of the higher education curriculum.

***Subcomponent 2.2: Internationalization of higher education***

42. Internationalization is an important goal of Belarus' higher education sector. There is a strong interest in good practices in other countries and a willingness to share local experience. Internationalization does not only support the modernization of higher education institutions and the teaching and learning process, it can also be an important income source for higher education institutions. Finally, internationalization and the introduction of mobility tools (like ECTS) play an important role in the Bologna Process and thus form part of Belarus' Bologna commitments.

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<sup>7</sup> Further referred to as EFO – Externally Funded Output.



43. Activities under this subcomponent revolve around the strengthening of incoming and outgoing mobility of academics and students and increasing the attractiveness of Belarusian universities in an international setting. ECTS as a transparency and accumulation tool certifying successful periods of learning, will be strengthened under the subcomponent, easing recognition of study periods abroad. This will make results of learning more transparent and also support mobility.<sup>8</sup> The attractiveness of Belarusian universities will be further supported by better branding and “welcome structures” for international students and academics. This work will be accompanied by training and consultant services (expert advice) as well as possible peer learning events and cooperation with experienced academics and institutions in Europe. The subcomponent will finally support mobility programs for students and academic as well as the strengthening of language learning (including English) and support for research publishing.
44. In addition to internationalization-related training activities and expert advice (consulting service), this subcomponent will support twinning projects involving Belarus and foreign universities, peer learning events and study visits to countries and institutions featuring best practice examples, as well as support pan-European activities like participation in EUROSTUDENT<sup>9</sup>.
45. Subcomponent 2.2. will finance increase in internationalization activities, including staff and students’ mobility, language training and research publishing, through procuring consulting services, training, events and travels. Direct output of these activities will be a new level of internationalization in Belarus universities that will bring them closer to the European benchmarks.

### ***Subcomponent 2.3: Flexible delivery modes***

46. Tertiary education systems across the globe see rapid technological change and content- as well as delivery-related innovations. Modern delivery modes, approaches and instruments like online technology, use of artificial intelligence, virtual and augmented reality, etc. provide important opportunities to modernize teaching and learning, reach students in remote areas and create more inclusive tertiary education systems. Flexible delivery modes can be attractive especially for non-traditional learners.
47. Belarus clearly understand the importance of digitalization in the education sector. A new concept of development of technology-enhanced teaching and learning’ in the Republic of Belarus until 2025 has been prepared and includes tertiary education. Subcomponent 2.3 sets out to support related activities and in particular the strengthening of flexible delivery modes with a view to regional and non-traditional learners on the tertiary level. This is also needed since a substantial number of Belarusian HE students are enrolled in evening-classes, some of which already incorporate aspects of blended learning, combining campus-based and online learning. In addition, several HEIs active in the field of distance learning apply ICTs in their programs to varying degrees. Finally, Belarusian HEIs are increasingly intensifying their ties with industry (‘University 3.0’) including the development and offering of continuous professional development (CPD) programs. The use of ICTs in such CPD offerings greatly contributes to their flexibility as requested by the working professionals served through such programs.
48. However, the tertiary education system level currently lacks a clear strategy for how proposed digitalization activities under the BHEMP will transform into above mentioned goals. For example, more consideration will need to be given to how modern technology can assist present correspondence students in Belarus to enter the digital age and become

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<sup>8</sup> The Diploma Supplement will be developed and subsequently issued for all students; however, this activity will be implemented by the Government of Belarus (i.e. outside the project).

<sup>9</sup> <http://www.eurostudent.eu/>



distance learners. At present, about a mere 3,000 out of more than 80,000 distance learners can be considered as 'e-learners'; others still study under the traditional 'correspondence' model, with e-mail as the main communication channel. It was thus agreed that the project will initially only finance consulting services and possibly training in support of the following activities:

- Development of flexible delivery modes and a strategy for digitalization including for distance learning and internationalization.

49. These steps will need to be completed, assessed jointly by the MoE and the World Bank and – if it is concluded that they provide a suitable strategic basis – would enable the design and support of additional activities under this subcomponent.

50. Subcomponent 2.3. will finance the development of the strategies for flexible delivery modes and how they can enhance access, learning process and outcomes in higher education through procuring consulting services, training and potentially study tours. Direct output of these activities will be a national concept (strategy) for the introduction of digital tools in higher education teaching and learning.

51. Overall, component 2 will reinforce key effects of the activities under component 1 with regard to the modernization of the Belarusian tertiary education system and, at the same time, yield additional benefits for various stakeholders. With regard to students, the accessibility, quality and relevance of higher education will be improved, as will their possibilities for gaining valuable experiences through international mobility. Academics will also benefit in terms of enhanced possibilities for mobility, which supports them with the development of their educational and research programs and their integration into the international academic community. The greater mobility of students and academics will ultimately benefit the higher education system as a whole and the economy via an enhanced influx of ideas and talent. In addition, an expansion of the information and data available as well as more intense exchanges with actors from abroad will enhance the decision-making and planning capacities of policy makers and HEIs' leaders. Activities under subcomponents 2.2 (internationalization) and 2.3 (flexible delivery modes) will go hand in hand with results-related curriculum reforms under 2.1 (learning outcomes and curriculum reform).

### **Component 3: Quality Assurance (QA) (estimated cost: \$3 million equivalent)**

52. Internal and external quality assurance are key aspects of the Bologna Process and, overall, of well-functioning tertiary education systems as they ensure and promote that the activities of individuals within HEIs are oriented toward a process of continuous quality enhancement. While external quality assurance serves accountability purposes – but also within the framework of a more formative approach supports enhancement of provision – the main responsibility for quality assurance lies with higher education institutions themselves (Berlin Communiqué, 2003). Thus, external QA needs to be complemented by internal QA to avoid overly bureaucratic systems, ensure ownership and effective improvement.<sup>10</sup> Accordingly, the aim of this component is i) to establish an independent and efficient mechanism for external quality assurance and ii) to strengthen university-internal quality assurance.

#### ***Subcomponent 3.1: External quality assurance***

53. Work under this subcomponent will support the establishment of a European Standards and Guidelines on Quality

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<sup>10</sup> Options and modalities for the establishment of an external quality assurance agency were discussed at a QA workshop co-organized by MoE, RIVSh and the World Bank on 05 June 2018 and subsequent events.





Assurance (ESG-2015)-compatible National Quality Assurance Agency (BQAA). The subcomponent will include the development of a legal framework for the external quality assurance system in tertiary education in line with ESG-2015<sup>11</sup>. In particular, the project will support the development of the concept and bylaws for the new quality assurance agency that would spell out the responsibilities of the agency, the composition of the Board of the agency, its decision-making process, and how it will be accountable to Belarus' higher education sector and society.

54. Other activities cover the development of new guidelines for the external quality assurance process and the principles for selecting external peers and their training. In parallel, peer learning events focused on the agency staff will discuss how to develop accreditation guidelines and experts training and other requirements of setting up an agency such as: a document management system, a website, the required staff to support the future Board of the agency, and the accreditation visits, and the activities required to ensure that the agency and the universities are working together to improve quality in Belarus. The project will also fund infrastructure and equipment of the new body. This will include housing the agency (rehabilitation of a currently unused building) and developing the IT infrastructure.
55. Following up on earlier consensus-building activities and to ensure ownership of QA development, the project foresees study visits to well-established European QAAs and to associated universities. Participants in those visits will involve the agency senior staff and staff from a few universities. The project will, further, fund events to develop consensus on the best approach for external quality assurance in Belarus from an early stage on. These events will bring together the higher education community and will provide an opportunity for participants in the international visits to disseminate their knowledge and insights.
56. Subcomponent 3.1. will finance the creation and development of a fully operational Quality Assurance Agency that will cover higher education as a specific level of the national education system through procuring consulting services, civil works, training, goods and travels. Direct outputs of these activities will be an operational national external quality assurance system.

### ***Subcomponent 3.2: Internal quality assurance***

57. Work under this subcomponent will include the development of internal quality assurance in line with the ESG-2015. It will provide support to higher education institutions for the development and adoption of the internal quality assurance systems in line with ESG-2015 e.g. through capacity building measures, peer learning and trainings. Specifically, this will include supporting the development and implementation of internal quality assurance policies in universities and related implementation questions.
58. The main beneficiaries of the activities under subcomponent 3.2 will be students, whose needs in terms of high-quality and relevant studies will receive greater attention in the design and implementation of HEIs' activities; however, related activities will benefit the entire higher education sector as well as employers and will help making Belarusian universities more performance-oriented and attractive.
59. Subcomponent 3.2. will finance developments in internal quality assurance mechanisms of Belarus universities through procuring consulting services, training, events and travels. Direct output of these activities will be updated institutional quality assurance practices in universities.

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<sup>11</sup> [https://enqa.eu/wp-content/uploads/2015/11/ESG\\_2015.pdf](https://enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf)



**Component 4: Project Management (*estimated cost: \$0.5 million equivalent*)**

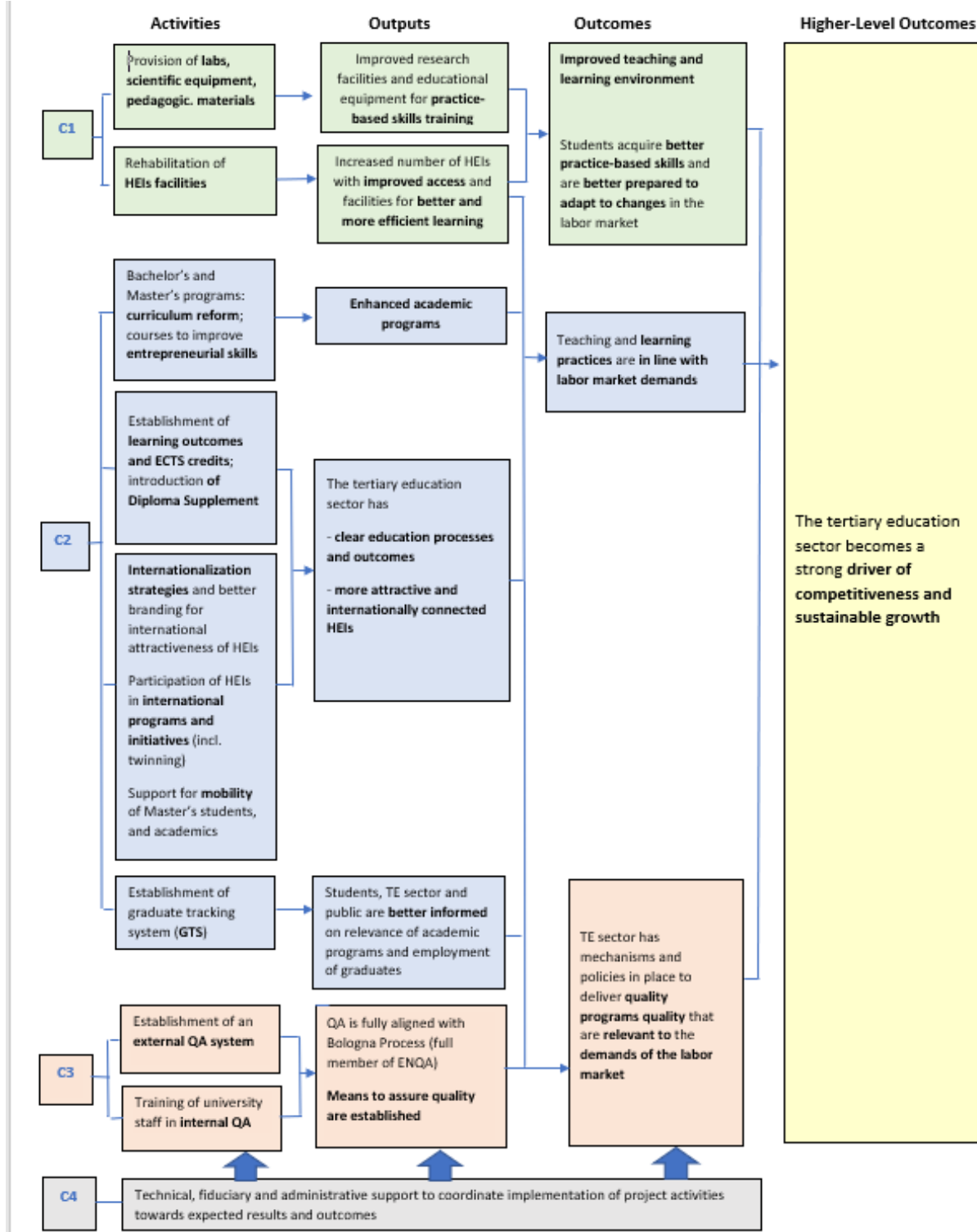
60. The objective of this component is to support project management, monitoring and evaluation (M&E), and technical assistance (TA) in order to ensure efficient and effective management of project implementation. To this end, the proposed project would finance consultant services to adequately staff the PIU (the project would finance, *inter alia*, the recruitment of consultants in procurement, financial management, contract management, as well as M&E), as well as training and capacity building for PIU staff. The project would also cover expenses directly related to project implementation, financial audits, monitoring and evaluation (M&E) - including the monitoring of environmental and social aspects - and selected PIU operating expenses.
61. Component 4 will finance management and implementation of the BHEM project through procuring consulting services, training, and, possibly, goods and travels. Direct output of these activities will be a successful implementation of the BHEMP.

**C. Project Beneficiaries**

62. The main project beneficiaries are students enrolled in tertiary education as well as academic staff, who will benefit from improved facilities, revised curricula and enhanced teaching, training and learning practices. The modernization of educational facilities and purchase of new scientific and equipment under Component 1 will benefit about 150,000 students. Also, students and graduates will benefit from study programs that are better linked to the labor market and from improved entrepreneurial skills. This will furthermore benefit employers – and the economy more broadly – since graduates will have acquired skills that fit better employers’ needs, since training costs for new employees will be reduced, and since companies will profit from an overall enhanced innovation potential. Finally, the project will also benefit the wider public – including secondary education students - by providing more information about academic programs, their relevance to the labor market, and employment of graduates.



D. Results Chain





## E. Rationale for Bank Involvement and Role of Partners

63. The World Bank has been active in the tertiary education sector since 1963 through a variety of lending, analytical and advisory tasks. In terms of project volume, it is, worldwide, the largest actor in tertiary education. Based on this long-standing experience, the World Bank is uniquely positioned to advise on policy and implementation issues and bring best practice to Belarus in a variety of technical fields related to the sector. The World Bank team will work closely with European and international partners like the European Commissions and bilateral actors active in the sector, like the Government of the United Kingdom. It will follow closely European developments in the higher education sector, given Belarus' participation in the Bologna Process, and will consult with the respective actors as needed. For "Rationale for Bank Involvement" see also Annex 3.

## F. Lessons Learned and Reflected in the Project Design

64. Important lessons which the team considered in project design stem from tertiary education projects in other countries, the World Bank engagement in the pre-tertiary education sector in Belarus and earlier work on tertiary education in Belarus under the EFO and Technical Assistance. They include the following:

- *University reforms affect entire institutions.* It needs to be ensured that not only academic but also administrative staff is informed about ongoing activities and receives training, as needed.
- *The PIU capacity and level of salaries needs to be maintained at a competitive level* as noted by the BEMP team and discussed during BHEMP project preparation.
- *Complex procurement of laboratory equipment can cause delays.* One major delay within the BEMP has been the procurement of laboratory equipment. Such issues should be mitigated inter alia through (i) preparing a Project Procurement Strategy for Development (PPSD), including the preparation of a Procurement Plan and (ii) intensifying staff training on how to conduct an international competitive bidding process and to procure goods, works, non-consulting services, and consulting services under the World Bank's Procurement Regulations.

## III. IMPLEMENTATION ARRANGEMENTS

### A. Institutional and Implementation Arrangements

65. **Project implementation, coordination and oversight.** The project will be implemented over a five-year period. The Ministry of Education (MoE) is the Government's entity responsible for implementing project activities with the administrative and fiduciary support of the Project Implementation Unit (PIU). As such, the MoE is ultimately accountable for meeting the project objectives, providing strategic guidance and project oversight, and ensuring compliance with World Bank procedures, as well as providing technical support to the various implementing entities within MoE, as needed.

66. Technical expertise and responsibility for the implementation of project components and subcomponents will be delegated to the relevant entities at MoE, i.e. directorates and technical departments, as well as other subordinate entities - such as the Republican Institute for Higher Education (RIVSh) - within their functional missions which include the preparation of budget action plans, terms of reference (TORs), technical reports, etc. RIVSh is a key stakeholder



of the project, being a main national think tank and policy advisor to the Government of Belarus for the higher education sector. These entities are part of the Working Group<sup>12</sup> nominated by MoE and have been deeply involved in the project design and preparation. The MoED departments, directorates and RIVSh will work closely with the PIU who will provide guidance on fiduciary (procurement and financial management) and social and environmental aspects that fall under World Bank procedures. Given the specificity of equipment to acquire under the project (mainly scientific equipment and labs), it is envisaged, under the proposed project, to finance consultancies as needed to help MoE implementing entities develop technical specifications for the acquisition of equipment and other tenders of complex nature.

67. **Project Management Unit (PIU).** The MoE will delegate the responsibility for managing the day-to-day project management, including overall fiduciary responsibilities (procurement and financial management) and safeguards (social and environmental) - to the existing PIU which is located at the National Institute for Education (NIE). This PIU is currently in charge of managing the World Bank (WB)-financed Basic Education Modernization Project (BEMP) and as such, has acquired experience in WB-financed projects as well as WB procedures. The PIU will also be responsible for preparing and issuing all project progress reports, Interim Financial Reports (IFRs) and annual audited financial reports. During project preparation, it was assessed that the capacity of the PIU would need to be reinforced with the recruitment of additional staff in order to manage additional workload. For this, the proposed project will finance key PIU positions in procurement, financial management, contract management, and monitoring and evaluation, as well as capacity building and training for PIU staff, as needed.

## **B. Results Monitoring and Evaluation Arrangements**

68. The Project Development Objective (PDO) level and Intermediate Result (IR) Indicators will be monitored using the following data collection instruments: (i) regular surveys and data collection processes; (ii) administrative data and data from the education management and information system (EMIS) once the system is operational; and (iii) monitoring reports prepared by the PIU.
69. The PIU will carry out the day-to-day coordination of monitoring and evaluation of project activities. To achieve this task, the PIU will bring together the representatives of the relevant MoE directorates and departments to monitor the project's objectives and results and will communicate with the World Bank according to the frequency of reports described in Annex 1. Entities that are subordinate to the MoE —such as RIVSh—will be responsible for the provision of timely and accurate information required for monitoring the project's objectives and results achieved under their respective component.
70. The Main Information Analytical Center at MoE (GIAC) is the main entity responsible for the collection, processing, and analysis of education data, using EMIS. Currently, the ongoing World Bank-financed BEMP project and related Additional Financing are supporting the development and operationalization of an enhanced, integrated EMIS at MoE that would include data for all levels of education (i.e. preschool, general secondary, vocational, secondary special, higher, and postgraduate), and would also be interconnected with the labor market information system. The EMIS is expected to be fully operational by June 2020.

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<sup>12</sup> The Working Group was composed of representatives of the following entities: Vocational Education Directorate at MoE, Development of the Material and Technical Base Department, Quality Assurance Department, Main Information and Analytical Center, and Republican Institute of Higher Education (RIVSh).



### C. Sustainability

71. The project was designed to modernize the physical environment within institutions, and to set up a permanent system that would enhance the quality and relevance of programs to the labor market as well as the internationalization of the higher education sector. Sustainability of the project will be supported by infrastructure investments that will make educational buildings more energy efficient, thus yielding to a high potential for energy savings that will reduce HEI's recurrent expenditures. Further, the Government is committed to promote the internationalization of the higher education sector: the implementation of the Bologna process supplemented by the introduction of the ECTS, and programs to ensure the mobility of students and academic staff would facilitate the recognition of the Belarus higher education sector abroad could represent a potential source of revenues for HEIs in the future. Sustainability of the BHEMP and the early impact of its implementation will be supported by targeted advice and technical support to the MoE, especially during the first years of BHEMP implementation. All project activities will be implemented through existing structures of the education sector and thus, they will become an integral part of their normal plan of activities and programs.

## IV. PROJECT APPRAISAL SUMMARY

### A. Technical, Economic and Financial Analysis (if applicable)

72. The proposed project is to be implemented over a five-year period between 2020 and 2025. Upon completion, it is estimated that circa 300,000 students will benefit from the improved teaching and learning environment yearly (including circa 150,000 from investments under Component 1). By enhancing the relevance of degrees and programs in the labor market, a reduction in the skill gap is expected and thus an improvement in firm-graduate matching, which will lead to better labor market outcomes in terms of employment, worker fulfilment, and income tax revenue. Internal and external quality assurance will improve the functioning of the Belarusian tertiary education system to ensure effective improvements in the future. For details see Annex 2 and 3.

### B. Fiduciary

#### (i) Financial Management

73. The existing PIU at the National Institute for Education (NIE) will be in charge of financial management (FM) and disbursements in this new operation. The FM risk is assessed as **moderate**, given that the PIU has built capacity during the implementation of the ongoing Belarus Education Modernization Project (BEMP), and its FM performance has been confirmed satisfactory. FM and disbursement arrangements in this project will be similar to those in place in the BEMP.

74. The PIU has two qualified FM staff who attended World Bank training in the course of the past years. The NIE PIU FM staff will work closely with the other relevant entities and departments on the technical matters. The NIE PIU Project Operations Manual (POM) details the FM and disbursement procedures, including internal controls for project implementation. The existing POM would need to be updated for this new operation. Project accounting and reporting will be maintained in the automated accounting system, available at NIE, on a segregated set of accounts. The project will submit quarterly Interim Financial Reports (IFRs) to the World Bank and carry out annual audits of the project financial statements. Audit reports will undergo public disclosure.



75. A separate designated account (DA) will be opened for this project, in the currency of a loan, in a commercial bank acceptable to the World Bank. The ceiling of the DA as well as disbursement methods will be outlined in the disbursement and financial information letter (DIFL).

**(ii) Procurement**

76. Procurement will be conducted according to the New Procurement Framework (NPF) – Procurement Regulations for Procurement in Investment Project Financing: Goods, Works, Non-Consulting and Consulting Services dated July 2016 (revised November 2017 and August 2018), World Bank Standard Procurement Documents, with the latest ‘Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants’ and in accordance with the provisions of the Loan Agreement and the Project Operations Manual (POM). With regard to each contract financed by the Loans of International Bank for Reconstruction and Development, the various procurement methods, the estimated cost, and the respective implementation dates will be agreed by the Borrower and the World Bank in the Procurement Plan. The Procurement Plan will be updated at least once a year or as the need arises, taking into account real needs and institutional capacity.

77. **Procurement capacity and risk assessment.** The MoE with the support of PIU National Institute for Education will be responsible for all project-related procurement. Assessment of the project procurement capacity of the PIU showed that it is experienced in procurement and contract execution of goods, works and consulting services under the Bank’s Procurement Guidelines (dated January 2011 and revised July 2014), but needs further strengthening with special focus on NPF, procurement process from planning to contract management, complaint management and dispute resolution, etc. It is also planned that a technical unit within PIU will be established to expand its capacities.

78. Overall risk is rated **moderate** based on the capacity of the implementing agency. The following risks are identified: (a) limited knowledge and experience with the new World Bank Procurement Framework; (b) limited knowledge of the new approach to procurement and specifically on Procurement Regulations and the Systematic Tracking of Exchange in Procurement (STEP); (c) delays in preparation of technical specifications, qualifications, and requirements; (d) delays in evaluation process; (e) delays in implementation of signed contracts; (f) delays in contract signing with successful bidders due to the Borrower’s disagreement with proposed prices which exceed estimated costs approved by the State Construction Expertise Agency. To mitigate these risks, measures are incorporated into the Project Procurement Strategy for Development (PPSD) which was developed with support from the Bank.

79. **Project Procurement Strategy for Development (PPSD).** Based on the project requirements, operational context, economic aspects, technical solutions and market analysis, a PPSD has been developed for the project. The PPSD identifies the following types of activities: (a) civil works contracts for renovation of buildings, reconstruction and technical modernization of the engineering systems of the buildings; (b) goods contracts for supply installation equipment; (c) consulting services for detailed design of works, construction supervision, technical surveys, etc. The recommended approach to the planned procurement activities is summarized in the PPSD.

80. **World Bank’s procurement oversight.** The Bank will exercise its procurement oversight through a risk-based approach comprising ex-ante and ex-post procurement due diligence and independent procurement reviews, as appropriate. Procurement supervision visits will be carried out at least twice per year. These will include special procurement supervision for ex-post-review on procurement processes undertaken by the PIU to determine whether they comply with the requirements of the Legal Agreement. More details on procurement implementation arrangements are included in Annex 1.



## C. Safeguards

### (i) Environmental Safeguards

81. The proposed activities proposed under subcomponent 1.1 “Modernization of the physical environment for teaching and learning” which will support rehabilitation of buildings and premises of higher education institution and improving their energy efficiency, as well as under subcomponent 1.2 “Enabling high quality practical training” aimed at supporting investments in modernization of laboratories and research facilities targeted at energy efficiency, renewable energy and low-carbon technologies if not properly managed, might generate a series of adverse social and environmental impacts, such as: (a) dust and noise due to rehabilitation activities; (b) dumping of construction wastes, accidental spillage of machine oil, lubricants, paints, and solvents, etc.; (c) groundwater and surface water contamination; (d) asbestos which might be a real health concern for the construction workers and general public in the vicinity of the rehabilitated premises, in particular when it is inhaled; (e) labor & safety impacts; and (f) air pollution. Additionally, while conducting rehabilitation civil works the structural integrity of buildings might be affected and this requires a careful assessment of projects design prior to approving any subproject activities and buildings retrofitting. Furthermore, in cases when rehabilitation works would be performed at facilities marked as Physical Cultural Resources by the national legislation, the project might have adverse impacts on them and, respectively, the proposed civil works at such sites requires to be done in accordance with principles of good practice in the cultural heritage field. All these environmental and social risks are typical for medium-scale construction or rehabilitation of buildings, well-known upfront, short term, site specific and can be easy mitigated by applying best construction practices and mitigation and/or avoidance measures.
82. **Safeguards policies.** As project activities might generate specified environmental and social impacts, the WB OP 4.01 Environmental Assessment is triggered. Also, considering that potentially the project might finance rehabilitation of facilities included in National and/or Regional Lists of Physical Cultural Resources, it was decided to trigger the OP 4.11 on such resources and respectively to follow all its rules and procedures while implementing such projects. At the same time, as all proposed activities are to be implemented within existing settlement boundaries and within land already used by universities, the project will not have an impact on wildlife and natural habitats, and thus OP/BP 4.04 Natural habitats are not triggered. Additionally, project funds will not support any activities requiring the involuntary displacement of existing occupants or economic users of any plot of land, regardless of its current ownership, or loss of or damage to assets including kiosks, fences and others and, respectively, the project does not trigger OP/BP 4.12 Involuntary Resettlement.
83. **Environmental and Social Management Framework (ESMF).** To address potential adverse impacts the Borrower prepared the Environmental and Social Management Framework (ESMF) which provides criteria to determine when Environmental and Social Impact Assessments (ESIAs), and/or Environmental and Social Management Plans (ESMPs)/ESMP Checklists) should be prepared, as well as requirements for their preparation, implementation and monitoring arrangements. The ESMF also includes Environmental Guidelines for different types of proposed building and laboratory rehabilitation and improvement of their energy efficiency, providing guidance on potential impacts and generic mitigation measures to be undertaken at all stages – from identification and selection, through the design and implementation phase, to the monitoring of results. Furthermore, the ESMF provides a monitoring plan format that includes monitoring indicators, timing, methods, and institutional responsibilities. ESMF implementation arrangements are detailed in Annex 1.
84. **Environmental screening.** All civil works to be supported under the project will be subject to environmental screening as per criteria laid down in the ESMF. Those subprojects which are expected to have significant environmental





impacts and requiring a full Environmental and Social Impact Assessment (ESIA) (considered as Category “A” by the World Bank) will not be eligible to be financed by the project, - the ESMF provides information on the types of works that would fall under this category. Most of the rehabilitations are expected to fall under Category “B”, which will require preparing an Environmental and Social Management Plan (ESMP) Checklist. It is also expected that many sub-projects related to refurbishing and rehabilitation activities will have insignificant environmental impact and will fall under Category C, which will not require any further EA activities. The ESMF will be integrated into the POM. ESMP requirements will be used as part of and included in the contracts for conducting civil works.

#### **(ii) Social Safeguards**

85. Project funds will not support any activities requiring the involuntary displacement of existing occupants or economic users of any plot of land, regardless of its current ownership, or loss of or damage to assets including kiosks, fences and others and, respectively, the project does not trigger OP/BP 4.12 Involuntary Resettlement. Thus, no resettlement-related social safeguards instruments are required for the project. No negative social safeguards impacts are expected to result from project activities, and the ESMF includes detailed description of the Grievance Redress Mechanism that can be used by any stakeholders and project-affected people. The ESMF has been disclosed in country on August 26, 2019, and on the World Bank website on October 30, 2019.

#### **(iii) Climate co-benefits**

86. Climate and disaster risks have been identified as not having low to no risk to the project. According to the Climate Co-Benefits Dashboard, Climate Co-Benefits for the project amount to US\$26.2 million (26.1%). The project has potential for increasing climate co-benefits, mostly through its subcomponent 1.2. The project will support the rehabilitation and renovation of HEIs premises that will integrate climate resilient design considerations and Project investments in infrastructure are expected to improve the energy efficiency of higher education buildings, which will reduce their recurrent expenditures and contributes to Belarus’ engagement in climate change mitigation.

87. Improvement of energy efficiency of building and premises is eligible for mitigation co-benefits under 3.2: *Energy efficiency improvements in existing commercial, public and residential buildings* of the MDB List of Eligible Mitigation Activities. The rehabilitation of buildings and premises of higher education institutions is an important opportunity to increase energy efficiency. Energy efficiency measures to ensure the naturalness (natural light, optimal temperature, and quality air) of learning environments will be introduced in the project activities and will include the following: (i) replacing old windows with new energy-efficient glazing; (ii) installing thermal insulation into exterior walls and roofs; and (iii) installing automatic controls for heating and efficient lighting systems (iv) outfitting buildings with an autonomous systems of power supply from alternative energy sources. The project would also support improvements in selected universities buildings rooves’ resistance to heavy rains (ice rains included) and high winds.

#### **(iv) Citizen Engagement, Gender and Social Inclusion**

88. **Citizen Engagement.** The project will incorporate several citizen engagement mechanisms that will be mainstreamed into different subcomponents. These mechanisms are: (i) participatory planning through frequent focus group discussions (female and male students and teachers, as well as students and teachers with disability will be specifically consulted to discuss their opinions regarding modernization of the physical environment, internationalization efforts and mobility tools and to give them a voice and opportunity to influence and prioritize related actions in the project); (ii) annual online student surveys through University 3.0 program; this program, piloted in seven universities, aims to develop entrepreneurial skills of students through courses and events promoting



and supporting entrepreneurship, and includes annual online students' surveys assessing students' opinions on the learning environment for entrepreneurship. The project will utilize these surveys to gather female and male students' views on changes in the general learning environment and enable them to give recommendations); and (iii) a grievance redress mechanism (GRM) which will rely on the national grievance system (The GRM will be well promoted and easily accessible through the project. Its results will be reported annually).

89. The procedure for the national grievance system, addressed through the Ministry of Education, is governed by the Law "On Petitions of Citizens" (2011). Grievances are responded to within fifteen days; when they require additional review, they are addressed within one month. In 2018, the Head of the Department of Higher Education met 16 persons in personal meetings to discuss grievances (in 2017 - 23 persons) and 647 citizens' grievances were submitted for consideration to the Department (in 2017 - 914). In 2018, mainly students and graduates of higher education institutions submitted grievances related to (re-)admission, dismissal, organization of practical training, confirmation of educational documents, transfer of marks, recognition of educational documents, etc. The project's grievance redress mechanism (GRM) will be closely linked to this national grievance system. It will be promoted through the project and will be easily accessible through the project. Its results will be reported annually.
90. **Gender and Social Inclusion.** While women continue to be more represented in higher education (men's enrollment levels are 26 percentage points lower than women's, who have reached universal enrollment), their returns to such education in the labor market remain lower than men's.<sup>13</sup> Professional pathways linked to academic profiles remain strongly differentiated by gender. Indeed, women appear to be concentrated in specific occupations and sectors and are less likely to be entrepreneurs and manage firms. In tertiary education, among the ten areas that concentrate most students, the share of female students is the highest in non-STEM (science, technology, engineering and math) areas. Seventy percent of female students are in the most popular sector (communications, law, economics, management and business administration), but only 26 percent are in engineering and technology, which is the second largest field of study.
91. This project and in particular Component 2 would support the organization of events that would encourage gender and social inclusion aspects in its future events, such as: (i) gender-sensitive and socially inclusive training and peer learning events in cooperation with the annual International Forum "MIR", which is organized by the students' assembly of the Belarus State University and invites youth leaders and young entrepreneurs who share their experiences and provide career guidance to improve students' employability. The project will cooperate with this Forum to invite female role models and successful businesswomen, including women employed in STEM professions, to talk about their experiences and career decisions, as well as people with disabilities who became entrepreneurs. Additionally, gender-sensitive and socially inclusive discussions in cooperation with the Council of Women of the Belarus State University will be supported, to reach female students and provide information and career guidance on opportunities in the STEM areas. The project's intermediate indicator "Number of students who participate in national and international competitions related to entrepreneurial activities" will measure the number of female entrepreneurs who participate in these events.

#### (v) Grievance Redress Mechanisms

92. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress

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<sup>13</sup> World Bank. Belarus Country Gender Profile. Update 2016.



Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).

## V. KEY RISKS

93. The overall implementation risk is **moderate**. The three main **substantial** risks to the outcomes of the project pertain to:
- (a) **Macroeconomic.** Belarus is vulnerable to macroeconomic risks and these risks may affect program areas. Macroeconomic vulnerabilities relate largely to debt sustainability, balance of payment pressures and reduced fiscal space in a lower-growth context. Through the CPF (2019-2022), the Bank and IFC, in cooperation with the IMF, will seek to address macroeconomic and structural weaknesses through advice and coordinated programs for structural reforms. The Belarus Higher Education Project, in particular, will support reforms for a modern tertiary education system that will be more adapted to new labor market reality and help the country return on a path of sustainable economic growth.
  - (b) **Institutional Capacity for Implementation and Sustainability.** While Belarus has shown strong commitment to developing and implementing ambitious reforms, this is the first investment loan for the Belarus tertiary education sector. To minimize and mitigate risks – for example those associated with the volume of procurement, the project will use the existing PIU in charge of implementing BEMP and its Additional Financing (AF). This PIU staff has acquired extensive experience in managing World-Bank financed projects and will be reinforced with additional staff (mostly in procurement, FM, monitoring and evaluation) to be financed under the project. In addition, the project will finance training and capacity building as needed. The project will also finance additional experts to help with the development of technical specifications for rehabilitating buildings and procure complex scientific equipment to higher education institutions.
  - (c) **Stakeholders.** While stakeholders generally showed appreciation for the project during preparation, some academics or officials may be reluctant to support some new reforms such as the establishment of an external quality assurance agency, which is quite a new approach in Belarus. To mitigate this risk, the development and implementation of the external quality assurance system will be carefully sequenced to advance mutual interests. The organization of a series of workshops and events will take place to sensitize key actors of the higher education in this reform. Further, adequate legislation will need to be in place to ensure the operations of the new agency as of 2022.



**VI. RESULTS FRAMEWORK AND MONITORING**

**Results Framework**

**COUNTRY: Belarus**

**Belarus Higher Education Modernization Project**

**Project Development Objectives(s)**

The Project Development Objectives (PDO) are to improve the teaching and learning environment and the information on labor market relevance of higher education.

**Project Development Objective Indicators**

<b>Indicator Name</b>	<b>DLI</b>	<b>Baseline</b>	<b>End Target</b>
<b>Modernization of the teaching and learning environment</b>			
Number of higher education institutions with improved research facilities (Number)		0.00	18.00
<b>Innovations in teaching and learning</b>			
Percentage of Bachelor’s programs with established learning outcomes (Percentage)		0.00	100.00
Percentage of Master’s programs with established learning outcomes (Percentage)		0.00	100.00
A national system to regularly trace higher education graduates (graduate tracer system – GTS) is established (Text)		No GTS	GTS fully established
<b>Quality assurance</b>			
The newly established Belarus quality assurance agency is a full member of the European Association for Quality Assurance in Higher Education (ENQA) (Yes/No)		No	Yes



**Intermediate Results Indicators by Components**

Indicator Name	DLI	Baseline	End Target
<b>Modernization of the teaching and learning environment</b>			
Number of targeted higher education institutions with improved teaching and learning facilities (Sub-component 1.2.) (Number)		0.00	18.00
Number of entrepreneurial university (“University 3.0”) projects completed out of the targeted entrepreneurial (“3.0”) projects (Sub-component 1.2.) (Number)		0.00	7.00
<b>Innovations in teaching and learning</b>			
Students benefiting from direct interventions to enhance learning (CRI, Number)		0.00	300,000.00
Students benefiting from direct interventions to enhance learning - Female (CRI, Number)		0.00	50.00
Beneficiaries that assess that project investments reflected their needs (Sub-component 2.1. and 2.2.) (Percentage)		0.00	90
Number of students who participate in national and international competitions related to entrepreneurial activities (Text)		0.00	(Increase from baseline).
Of which number of female students (Text)		0.00	(Increase from baseline)
Number of new twinning projects involving Belarus and foreign universities (Sub-component 2.2.) (Number)		0.00	21.00
Number of Master’s students participating in mobility programs supported under the project (Number)		0.00	250
<b>Quality assurance</b>			
External quality assurance agency in place and operational (Sub-component 3.1.) (Text)		No standalone QA agency.	External Quality Assurance Agency (QAA) in place and, operational and in accordance with European Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).



Indicator Name	DLI	Baseline	End Target
Number of training events on internal quality assurance (Sub-component 3.2.) (Text)		0.00	10.00

### Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Number of higher education institutions with improved research facilities	Number of institutions selected under the project that have set up or modernized laboratory and research facilities; or (ii) outfitted classrooms with modern educational equipment; or (iii) set up or modernized centers for shared use of unique educational and scientific equipment.	Twice a year	MoE (Tertiary Education Department, Vocational Education Directorate)	Implementation reports / Project progress reports	MoE/PIU
Percentage of Bachelor's programs with established learning outcomes	Percentage of Bachelor's degree programs that have been improved with established learning outcomes under the project.	Annually	MoE/RIVSh	Implementation reports/Project progress reports	MoE/PIU
Percentage of Master's programs with established learning outcomes	Percentage of Master's degree programs that have	Annually	MoE/RIVSh	Implementation reports / Project progress	MoE/PIU



	been improved with established learning outcomes under the project.			reports	
A national system to regularly trace higher education graduates (graduate tracer system – GTS) is established	The GTS model that has been developed through an earlier grant. The GTS model will be piloted in Year 1 with graduates’ databases being developed in HEIs. In Year 2, the first cohort of graduates will be studied, using the new GTS, with data being published. In Year 3, the second cohort will be studied, using the new GTS, with data being published. In Year 4, two cohorts will be studied in parallel and with data being published. In Year 5, the GTS will be fully established.	Once a year, starting Year 1	MoE/RIVSh	Implementation reports / Project progress reports / MoE’s reports	MoE/PIU
The newly established Belarus quality assurance agency is a full member of the European Association for Quality Assurance in Higher Education (ENQA)	The quality assurance agency, which manages its resources and operations independently, is in place and operating with sufficient financial and human resources. The agency is a full member of ENQA ( <a href="http://www.enqa.eu/">http://www.enqa.eu/</a> )	Twice a year	MoE/RIVSh	Legislation/decreed/operating procedures	MoE/PIU



	<p>As indicated in the ENQA statutes approved by the General Assembly in 2015, it is a condition of membership that all members of ENQA undergo an external review at least once every five years. Before being accepted or being re-confirmed as a member, an applicant agency must satisfy to the Board that it meets the criteria for membership: the European Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).”</p> <p><a href="https://enqa.eu/index.php/enqa-agencies/membership-criteria/">https://enqa.eu/index.php/enqa-agencies/membership-criteria/</a></p>				
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**Monitoring & Evaluation Plan: Intermediate Results Indicators**

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Number of targeted higher education institutions with improved teaching and learning facilities (Sub-component 1.2.)	Number of higher education institutions selected under the project (eighteen [18]) that have been	Twice a year	MoE (Department for the Development	Implementation reports / Project progress reports	MoE/PIU





	rehabilitated, renovated, set up or modernized with centers for shared use of unique educational and scientific equipment.		of the Material and Technical Base)		
Number of entrepreneurial university (“University 3.0”) projects completed out of the targeted entrepreneurial (“3.0”) projects (Sub-component 1.2.)	Number of projects developed by entrepreneurial higher education institutions (“University 3.0”) selected under the project (seven [7]) that have been completed to: (i) improve the overall conditions for teaching and learning; (ii) create a barrier-free environment for learning and improving access and working and learning conditions of staff and students with disabilities by creating an inclusive learning and working environment; and (ii) to improve energy efficiency of buildings and premises.	Twice a year	MoE (Department for the Development of the Material and Technical Base)	Implementation reports / Project progress reports	MoE/PIU
Students benefiting from direct interventions to enhance learning		Number of students benefitting from enhanced Bachelor’s	MOE/RIVSh	Surveys, MoE reports	MoE/PIU



		and Master's programs with established learning outcomes (of which number of female) under the project (Corporate Result Indicator, CRI) Annually			
Students benefiting from direct interventions to enhance learning - Female		Annually	MoE/RIVSh	Surveys/MoE reports (Unit of measure is percentage)	MoE/PIU
Beneficiaries that assess that project investments reflected their needs (Sub-component 2.1. and 2.2.)	Annual online student surveys through "University 3.0" program: The "University 3.0" program is piloted in 7 universities and aims to develop entrepreneurial skills of students through courses and events promoting and	Years 3, 4 and 5	MoE/RIVSh	Surveys, MoE reports	MoE/PIU



	<p>supporting entrepreneurship. The program includes annual online students' surveys assessing students' opinions on the learning environment for entrepreneurship. In addition, the project will use the surveys to gather female and male students' views on changes in the general learning environment and enable them to make recommendations. Satisfaction surveys would be designed to collect feedback from: (i) students benefiting from improved degrees, and (ii) staff and employers benefiting from all project interventions.</p>				
<p>Number of students who participate in national and international competitions related to entrepreneurial activities</p>	<p>Students who have benefitted from upgraded entrepreneurial programs under the project who participate in national and international competitions. This indicator will also inform on the number of female entrepreneurs who participate.</p>	<p>Once a year</p>	<p>MoE/RIVSh</p>	<p>Reports from higher education institutions/MoE</p>	<p>MoE/PIU</p>



Of which number of female students	Number of female students who have benefitted from upgraded entrepreneurial programs under the project who participate in national and international competitions.	Once a year.	MOE/RVISH.	Reports from higher education institutions/MOE.	MOE/PIU.
Number of new twinning projects involving Belarus and foreign universities (Sub-component 2.2.)	The project will support twinning projects i.e. close cooperation in teaching and/or research but potentially also governance, quality assurance, etc. involving Belarus and foreign universities.	Once a year, starting Year 1	MoE/RIVSh	Implementation reports / Project progress reports / MoE reports	MoE/PIU
Number of Master’s students participating in mobility programs supported under the project	Number of Master’s students who participate in mobility programs supported under the project.	Once a year, starting Year 2	MoE/RIVSh	Implementation reports / Project progress reports / MoE reports	MoE/PIU
External quality assurance agency in place and operational (Sub-component 3.1.)	A quality assurance agency, in accordance with ESG and which manages its resources and operations independently, is in place and operating with sufficient financial and human resources.	Once a year: Year 1: capacity building events Years 1 & 2: establishment of the agency, developme	MoE	Decree(s), legislative documents, semi-annual and annual project progress reports	MoE/PIU



		<p>nt of the required documents (such as guidelines to the experts) and documents to guide the work of agency staff</p> <p>Years 3 &amp; 4: piloting the new QA approach (including agreed operations and approach of the agency) in academic year 2022-23</p> <p>Year 4: Applying for ENQA membershi</p>			
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Number of training events on internal quality assurance (Sub-component 3.2.)	Training events that support universities in developing their internal quality assurance arrangements.	Twice a year	MoE (Vocational Education Directorate)	Semi-annual and annual project progress reports	MoE/PIU

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## ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Belarus

Belarus Higher Education Modernization Project

### Project Implementation, Coordination and Oversight

1. The project will be implemented over a five-year period. The Ministry of Education (MoE) is the Government's entity responsible for implementing project activities with the administrative and fiduciary support of the Project Implementation Unit (PIU). As such, the MoE is ultimately accountable for meeting the project objectives, providing strategic guidance and project oversight, and ensuring compliance with World Bank procedures, as well as providing technical support to the various implementing entities within MoE, as needed.
2. Technical expertise and responsibility for the implementation of project components and subcomponents will be delegated to the relevant entities at MoE (see Table 1 below), i.e. directorates and technical departments, as well as other subordinate entities - such as the Republican Institute for Higher Education (RIVSh) - within their functional missions which include the preparation of budget action plans, terms of reference (TORs), technical reports, etc. These entities are part of the Working Group<sup>14</sup> nominated by MoE and have been deeply involved in the project design and preparation. The MoE departments, directorates and RIVSh will work closely with the PIU who will provide guidance on fiduciary (procurement and financial management) and social and environmental aspects that fall under World Bank procedures. Given the specificity of equipment to acquire under the project (mainly scientific equipment and labs), it is envisaged, under the proposed project, to finance consultancies as needed to help MoE implementing entities develop technical specifications for the acquisition of equipment and other tenders of complex nature.
3. *Project Management Unit.* The MoE will delegate the responsibility for managing the day-to-day project management, including overall fiduciary responsibilities (procurement and financial management) and safeguards (social and environmental) - to the existing PIU which is located at the National Institute for Education (NIE). This PIU is currently in charge of managing the World Bank (WB)-financed Basic Education Modernization Project (BEMP) and as such, has acquired experience in WB-financed projects as well as WB procedures. The PIU will also be responsible for preparing and issuing all project progress reports, Interim Financial Reports (IFRs) and annual audited financial reports. During project preparation, it was assessed that the capacity of the PIU would need to be reinforced with the recruitment of additional staff in order to manage additional workload. For this, the proposed project will finance key PIU positions in procurement, financial management, contract management, and monitoring and evaluation, as well as capacity building and training for PIU staff, as needed.

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<sup>14</sup> The Working Group was composed of representatives of the following entities: Vocational Education Directorate at MoE, Development of the Material and Technical Base Department, Quality Assurance Department, Main Information and Analytical Center, and Republican Institute of Higher Education (RIVSh).



**Table 1. Planned Leading Public Entities for Project Implementation by Component/Subcomponent**

Component/ Subcomponent	Responsible Public Entity	Role	Comments
<b>Component 1: Modernization of the teaching and learning environment</b>			
<i>Subcomponent 1.1: Enabling high quality practical training</i>	Department of Professional Education (DPE) at MoE, HEIs	The DPE and DMTB will be responsible, with the support of universities, to develop TORs related to activities to be carried out under these Subcomponents. The DMTB and DPE will be responsible for monitoring activities and collecting data from HEIs to inform MoE and the PIU, and for the preparation of progress reports.	Under the project, technical assistance (TA) will be provided to support as needed HEIs and DMTB and DPE in the development of TORs for the purchase of complex scientific equipment and/or rehabilitation works.
<i>Subcomponent 1.2: Modernization of the physical environment for teaching and learning</i>	DPE at MoE & Development of the Material and Technical Base (DMTB), MoE, HEIs		
<b>Component 2: Innovations in teaching and learning</b>			
<b>Subcomponent 2.1: Development of learning outcomes and curriculum</b>			
<i>Subcomponent 2.1: Development of learning outcomes and curriculum</i>	MoE, RIVSh, HEIs	RIVSh will be responsible for developing TORs related to activities to be carried out under these Subcomponents, as well as for monitoring activities and collecting data to inform MoE and the PIU, and for the preparation of progress reports.	The project will finance technical support to RIVSh as needed to develop and carry-out activities.
<i>Subcomponent 2.2: Internationalization of higher education</i>	MoE, RIVSh, HEIs		
<i>Subcomponent 2.3: Flexible delivery modes</i>	MoE, RIVSh (Information and Technology in Education Department)		
<b>Component 3: Quality Assurance</b>			
<i>Subcomponent 3.1: External quality assurance</i>	Education Quality Control Department (EQCD) at MoE, DMTB	EQCD, as well as DMTB (for Subcomponent 1 only) and DPE (for Subcomponent 2 only), will be responsible for developing TORs related to activities to be carried out under these Subcomponents as well as for monitoring activities and collecting data to inform MoE and the PIU, and for the preparation of progress reports.	The project will finance technical support to EQCD as needed to develop and carry-out activities.
<i>Subcomponent 3.2: Internal quality assurance</i>	DPE at MoE and EQCD, HEIs,		
<b>Component 4: Project Management</b>			
	MoE, PIU	The project is anchored at the MoE. Under the authority of MoE, the PIU will be in charge of coordinating the implementation of project activities and will work closely with the above implementing structures.	





### **Financial Management (FM) and disbursement arrangements**

4. The existing PIU at the National Institute for Education (NIE) will be in charge of financial management and disbursements in this project. Other relevant entities and departments will contribute in the technical aspects but will not be in charge of flow of funds. The FM risk is assessed as moderate, given that the PIU has built capacity during the implementation of ongoing Belarus Education Modernization Project, and its FM performance has been confirmed satisfactory.
5. The PIU has two qualified FM staff who attended various World Bank training in the course of the past years. The NIE PIU FM staff will work closely with the other relevant entities and departments on the technical matters. NIE PIU POM details the FM and disbursement procedures, including internal controls for project implementation. The existing POM would need to be updated for this new operation.
6. Project accounting and reporting will be maintained in the automated accounting system I-C, available at NIE, on a segregate set of accounts. The system has the necessary functionality to allow fully automated project accounting and reporting. The project will submit quarterly Interim Financial Reports (IFRs) to the World Bank within 45 days from the end of each quarter. Audits of project financial statements will be carried out annually, by acceptable auditors, based on approved TORs. The audit reports and accompanying management letters will be due 6 months after the end of each fiscal year. Audit reports will undergo public disclosure.
7. Loan funds will be disbursed via direct payments, issuance of Special Commitments and disbursements through the Designated account. A separate designated account will be opened for this project, in the currency of a loan, in a commercial bank acceptable to the World Bank. The ceiling of the DA as well as disbursement methods will be outlined in DIFL. If required, additional account in BYR will be opened in the same bank for payments in local currency.

### **Procurement arrangements**

8. The MoE with the support of PIU National Institute for Education will be responsible for all project-related procurement. Assessment of the project procurement capacity of the PIU showed that it is experienced in procurement and contract execution of goods, works and consulting services under the Bank's Procurement Guidelines (dated January 2011 and revised July 2014), but needs further strengthening with special focus on NPF, procurement process from planning to contract management, complaint management and dispute resolution, etc. It is also planned that a technical unit within PIU will be established to expand its capacities.
9. All procurement staff, members of Evaluation Committees, Project Coordinators will attend several training courses on World Bank procurement. The Bank will offer a more in-depth training on using Procurement Regulations and STEP as well. The World Bank Team noticed that one of the four procurement specialists of the PIU who is the most qualified and experienced under the NPF is temporarily not available due to long-term leave. If the respective procurement capacity has not become available again by the end of calendar 2019 the Borrower will select additional procurement specialists.
10. *Project Procurement Strategy for Development (PPSD)*. Based on the project requirements, operational context, economic aspects, technical solutions and market analysis, a PPSD has been developed for the project. The PPSD



identifies the following types of activities: (a) civil works contracts for renovation of buildings, reconstruction and technical modernization of the engineering systems of the buildings; (b) goods contracts for supply installation equipment; (c) consulting services for detailed design of works, construction supervision, technical surveys, etc. The recommended approach to the planned procurement activities is summarized in the PPSD.

11. *Procurement Plan (PP)*. The PP, including its updates, shall include for each contract: (i) a brief description of the activities/contracts; (ii) selection methods to be applied; (iii) cost estimates; (iv) time schedules; (v) the Bank's review requirements; (vi) any other relevant procurement information. The Procurement Plan covering the first 18 months of the Project implementation will be prepared based on PPSD and approved before negotiations date. Any updates of the Procurement Plan will be submitted for the Bank's no objection. STEP will be used to prepare, clear and update the Procurement Plan (PP) and conduct all procurement transactions for the Project. Accordingly, all the procurement activities under the Project will be entered, tracked and monitored online through the system. Once approved by the Bank, the PP will be published on the Bank's website.
12. *World Bank's procurement oversight*. The Bank will exercise its procurement oversight through a risk-based approach comprising ex-ante and ex-post procurement due diligence and independent procurement reviews, as appropriate. Procurement supervision visits will be carried out at least twice per year. These will include special procurement supervision for ex-post-review on procurement processes undertaken by the PIU to determine whether they comply with the requirements of the Legal Agreement.

#### **Environmental and social safeguards arrangements**

13. The responsibilities in terms of ESMF implementation lies with the MoE who will delegate the day-to-day project management, including overall fiduciary responsibilities (procurement and financial management) and safeguards (social and environmental) to the existing PIU which is located at the National Institute for Education (NIE). This PIU is currently in charge of managing the World Bank (WB)-financed Basic Education Modernization Project (BEMP) and as such, has acquired experience in WB-financed projects as well as WB procedures. The PIU will hire an Environmental Specialist which will be responsible for the following: (i) providing assistance to the project's beneficiaries to determine the exact impacts that can be generated by proposed activities supported under the project as well as prescribe the required mitigation actions to be taken; (ii) conducting screening and ensure that due environmental work (ESIAs/ESMPs) are prepared for the proposed investments; and, (iii) monitoring and reporting on a regular basis the effects on the environment that financed activities may provoke and ensure that mitigation is carried out. The Environmental Specialist will also have to selectively visit sub-projects and ensure proper supervision for all ESMPs implementation for Cat B sub-projects.

#### **Results Monitoring and Evaluation arrangements**

14. The Project Development Objective (PDO) level and Intermediate Result (IR) Indicators will be monitored using the following data collection instruments: (i) regular surveys and data collection processes; (ii) administrative data and data from the education management and information system (EMIS) once the system is operational; and (iii) monitoring reports prepared by the PIU.
15. The PIU will carry out the day-to-day coordination of monitoring and evaluation of project activities. To achieve this task, the PIU will bring together the representatives of the relevant MoE directorates and departments to monitor the project's objectives and results and will communicate with the World Bank according to the frequency of reports described in paragraph 21 in this Annex. Entities that are subordinate to the MoE —such as RIVSh—will be



responsible for the provision of timely and accurate information required for monitoring the project's objectives and results achieved under their respective component.

16. The Main Information Analytical Center at MoE (GIAC) is the main entity responsible for the collection, processing, and analysis of education data, using EMIS. Currently, the ongoing World Bank-financed BEMP project and related Additional Financing are supporting the development and operationalization of an enhanced, integrated EMIS at MoE that would include data for all levels of education (i.e. preschool, general secondary, vocational, secondary special, higher, and postgraduate), and would also be interconnected with the labor market information system. The EMIS is expected to be fully operational by June 2020.

### **Project Operations Manual (POM)**

17. A POM for the project will be developed before project effectiveness. The POM will describe the detailed responsibilities, implementation and coordination arrangements, detailed fiduciary and disbursement arrangements, action plans, implementation schedule, result indicators, and monitoring and evaluation processes. The POM will be updated as needed during project implementation.

### **Strategy and approach for implementation support**

18. The implementation support plan for the project has been developed based on the specific nature of the project activities, lessons learned from the ongoing education operation in the country, and the project's risk profile and implementation arrangements. The plan will be reviewed once a year to ensure that it continues to meet the implementation support needs of the project.

### **Implementation support**

19. Before project effectiveness, it will be critical to ensure that project staff resources and technical capacity (especially at the PIU) are already in place to effectively start implementation. During implementation, the project will support, based on identified needs, the recruitment of additional experts to assist the PIU and MoE entities in the coordination and implementation of project activities. The project also includes a number of activities that will contribute to build the capacity of PIU and MoE entities as needed.
20. The task team, including one senior education specialist (and Task Team Leader), one education specialist, environmental and social safeguards, procurement and FM specialists, will play an active role during implementation to support the full implementation and participation of beneficiaries. In collaboration with the task team, other World Bank specialists/consultants are also expected to join the team to provide timely, effective, specific technical expertise to the client. In terms of local support, most task team members are currently based in the country or in region and will frequently be in Belarus to ensure regular and consistent technical and fiduciary support.

### **Semi-annual and annual reviews**

21. The project will have semi-annual and annual implementation support reviews – or more if needed – which will take place in the country and involve key national stakeholders and development partners. These reviews will be to evaluate the progress made in project implementation, identify potential or actual bottlenecks and make recommendations for improvement. The reviews will also monitor project toward achievement of project indicators.



All findings will be documented in aide-memoires and policy papers, as needed. A project launch mission will take place shortly after project effectiveness (expected the first semester of calendar year 2020) during which will consist of confirming the Government and stakeholders' roles and responsibilities in project coordination, implementation, and monitoring and evaluation, and agreeing on the annual work plan for the first year of the project. A comprehensive mid-term review will take place and is also included in the Bank and MoE's implementation support plan.

**Table 2: Main Focus for Support to Implementation**

Project Timeline	Focus	Skills needed	Estimated Staff Week
Year 1	• Preparation of civil works, including review of design, plans, costs	• Architect/Engineer	4
	• Review of technical specifications for acquisition of scientific equipment and labs, including costs	• HE specialist/Expert on lab equipment	4
	• Information systems / Development of GTS	• IT specialist • HE specialist	3 3
	• Procurement	• Procurement specialist	4
	• Financial Management / Internal audits	• FM specialist	3
	• External audits	• FM specialist	
	• Development of internationalization of HE and mobility	• HE specialist	3
	• Development and revision of curricula and learning outcomes	• HE specialist	4
	• Development of an external QA system • Development of an internal QA system	• HE/QA specialist	4
	• Social and environmental safeguards	• Social and environmental safeguards specialists	4
Years 2-5	• Supervision of civil works and installation of equipment	• Architect/Engineer	8
	• Information systems / Implementation of GTS	• IT specialist • Education specialist	6 6
	• Procurement	• Procurement specialist	16
	• Financial Management / Internal audits	• FM specialist	10
	• External audits	• FM specialist	
	• Supervision internationalization of HE and mobility	• HE specialist	16
	• Development and revision of curricula and learning outcomes	• HE specialist	16
	• Development of an external QA system • Development of an internal QA system	• HE/QA specialist	16
	• Social and environmental safeguards reviewing screening, documentation and mitigation measures, monitoring GBV risks	• Social and environmental safeguards specialists	10



## ANNEX 2: The Tertiary Education Sector of Belarus

COUNTRY: Belarus

Belarus Higher Education Modernization Project

### 1 Sector Overview<sup>15</sup>

#### 1.1 Legal Framework

1. **The Education Code is the most important legal document for higher education<sup>16</sup> in Belarus.** The code covers all levels of education. It contains a separate chapter on higher education but refers to this educational level in other sections as well. Issues addressed in the code include:

- The scope and purpose of higher education, and its position within the overall education system;
- Definitions of key terminology;
- Levels of higher education and types of programs;
- Modes of higher education provision;
- Processes of establishing and closing higher education institutions (HEIs);
- Quality assurance and requirements concerning higher education programs;
- The relation between higher education and public and private enterprises (in particular, the job placement system);
- Organizational matters related to the education process;
- Matters of funding and governance on the system and institutional level.

The version of the Education Code that is currently in force has been approved in 2011. However, there is a draft of a new version, which awaits discussion in the National Assembly.

2. **Additional laws and by-laws complement the Education Code.** Several issues not addressed in detail in the Education Code are regulated via by-laws. In addition, research, which is hardly covered by the Education Code, is regulated via the Law on Scientific Activity.

#### 1.2 Higher Education Institutions

3. **There are three types of HEIs in Belarus:**

- Universities, which offer higher education in a broader range of subject areas;
- Academies or conservatories, which offer programs in one subject area (music and theatre in the case of conservatories);
- Institutes, which offer higher education in only one or a few close specialties of one or a few fields of education.

Institutions of all three types can offer higher education at the undergraduate, graduate and postgraduate (that is,

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<sup>15</sup> In addition to publicly available information and data, this annex draws heavily on information and data provided by the Republican Institute of Higher Education (RIVSh) and on exchanges with representatives and stakeholders of the Belarusian tertiary education sector, including various representatives of the Government of Belarus.

<sup>16</sup> In this annex, the terms “tertiary education” and “higher education” are used interchangeably, even though the term “higher education” is often used to refer to university education, while “tertiary education” is used to refer to all forms of formal education following and building upon (upper) secondary education, including, for example, education delivered via short-cycle programs.



doctoral) level and can conduct applied and basic research (European Union, 2017, p. 9). In addition, education provided by specialized secondary education institutions can be integrated with subsequent higher education programs.<sup>17</sup>

4. **Currently, the higher education sector consists of 51 HEIs, over half of them located in Minsk.** Of these 51 HEIs, 9 are privately owned and 42 state HEIs (National Statistical Committee, 2017, p. 154). Among the 42 state HEIs, there are 31 universities, 9 academies and 2 institutes. Their affiliation to the different line ministries is as follows:
- Ministry of Education (MoE) = 21;
  - Ministry of Agriculture and Food = 4;
  - Ministry of Health = 4;
  - Ministry of Culture = 3;
  - Ministry of Internal Affairs = 2;
  - Ministry of Transport and Communications = 2;
  - Ministry of Communications and Informatization = 1;
  - Administration of the President of the Republic of Belarus = 1;
  - Ministry of Sport and Tourism = 1;
  - Ministry of Defense = 1;
  - Ministry for Emergency Situations = 1;
  - State Border Committee = 1.

Of the 42 state HEIs, 20 are located in Minsk, as are 8 of the 9 private HEIs (see Table 1).

**Table 1. Higher Education Institutions in Belarus by Region, 2016/17**

Region	State HEIs			Private HEIs	Total
	Universities	Academies	Institutes		
Brest	4	0	0	0	4
Vitebsk	4	1	0	0	5
Gomel	5	0	0	1	6
Grodno	3	0	0	0	3
City of Minsk	12	7	1	8	28
Mogilev	3	1	1	0	5
<b>Total</b>	<b>31</b>	<b>9</b>	<b>2</b>	<b>9</b>	<b>51</b>

Source: Azheronok, Denishchik, and Nesterov, 2018, p.54.

Note: HEI = higher education institution.

### 1.3 Programs and Forms of Provision

5. **The degree structure of Belarusian higher education is in a phase of transition toward greater alignment with the Bologna Process three-cycle degree structure.** Traditionally, higher education consisted mostly of programs leading

<sup>17</sup> An additional institution in the field of higher education is the Graduate School of the National Academy of Sciences of the Republic of Belarus.



to the Specialist Diploma, which had a duration from 4.5 to 5 years. In addition, long undergraduate programs lasting 5 to 6 years were offered in fields such as engineering and medicine, and there were some graduate programs lasting 1 to 2 years. Related to Belarus' accession to the Bologna Process in 2015, changes to this structure are envisaged, some of which have already been implemented. At the undergraduate level, programs with a duration of less than 4.5 years were introduced and there is the intent to shorten the duration of additional programs as well. As stipulated in the draft Education Code, the Specialist Diploma is supposed to be replaced by the Bachelor's degree. The programs at the graduate level, which lead to the Master's degree<sup>18</sup> and have an academic or professional orientation, are supposed to be expanded.

6. **With regard to the subjects offered, study programs can only be opened for specialties listed in the “National Classifier of the Republic of Belarus OKRB 011-2001 – Specialties and Qualifications” developed by the Government.**<sup>19</sup> This classification is revised annually taking into account the demand for certain specialties and feedback from HEIs. In relation to this classification, higher education programs are systematized based on 15 educational profiles, 387 areas of expertise at the undergraduate level, and 179 areas of expertise at the graduate level as well as over 1,000 specializations (Veramejchyk, 2017, p. 16).
7. **There are two stages at the postgraduate level.** The first stage leads to the Candidate of Science, which would be considered the equivalent of a doctoral degree in other countries. The second one leads to the Doctor of Science. Both stages usually last three years and are formally not a part of the higher education system, yet (European Union, 2017, p. 8).
8. **Higher education programs are offered in three different forms, which all lead to the same type of degrees.** These three forms are:
  - Daytime education, where students attend classes each day of the week;
  - Evening education, where students attend classes at 2 to 3 times per week in the evening;
  - Correspondence education, where teaching at a distance is combined with face-to-face classes.

There are furthermore possibilities for part-time studying.

#### 1.4 Educational Pathways

9. **The education system of Belarus consists of four main levels of education: pre-school, primary, secondary, and higher education (see Figure 1).** Primary education starts at the age of six and lasts four years. Lower secondary education lasts for five years and can be followed by general upper secondary education lasting two years or vocational upper secondary education in vocational-technical or secondary specialized institutions of varying duration. Education for students with disabilities is provided as specialized education at all pre-tertiary educational levels, and there are possibilities for learners outside of the formal education system at all levels of education in the form of supplementary education.

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<sup>19</sup> The current version was approved and put into effect by the Resolution of the State Committee for Standardization of the Republic of Belarus No. 3 dd. January 26, 2001 and amended later on, among others, by the Amendments in the National Classifier of the Republic of Belarus OKRB 011-2001 — Specialties and Qualifications approved by Resolution of the Ministry of Education of the Republic of Belarus dd. June 2, 2009 No. 36.







11. **Military service is compulsory in Belarus until the age of 27.** Based on new legal provisions which came into effect on August 10, 2019, a deferment of military service in order to pursue studies at any level of education is granted only once. Time spent by a graduate performing military service is included in the time of mandatory job placement in case the graduate has been subject to placement.
12. **In the case of students who have their studies funded by the state or future employers, also labor market entrance takes place under the aegis of HEIs, via the job placement system.** Under this system, graduates are assigned to a public or private enterprise at which they have to work for a certain period of time. The greatest share of graduates participating in the placement system are those who studied on state-funded study places. Based on requests for graduates by public enterprises and bodies as well as labor market forecasts, a certain number of these places is determined for each year by the Ministry of Labor and Social Protection (MoLSP) in consultation with the MoE. Employers can also enter into other forms of contractual relations with HEIs to have specialists trained for their labor force needs.<sup>20</sup> Toward the end of their studies, students under the placement system are assigned a company by their HEI at which they have to work for two years. These placements are in many cases preceded by direct contacts between students and prospective employers (for example, in the form of internships), since employers can request a specific graduate from a HEI. For the two years of employment, graduates receive the status of *Young Specialist*, which grants them special working conditions in terms of, among others, a statutory salary and contract security. Periods of military service count toward the two years of mandatory employment. There can, furthermore, be complementary relations between the requesting organization and the HEI such as cooperation with respect to the acquisition of practical skills by students and the participation of employers in final exams. In addition, students who studied on a fee-paying basis can participate in the placement system voluntarily.
13. **Most of the graduates under the placement system are employed by public enterprises in fields that directly relate to their study program.** From the 2017 cohort, 26,300 out of a total of 81,000 graduates (that is, 32.5 percent) had their studies financed by the state or employers and, therefore, participated in the job placement scheme (Lis, 2018; National Statistical Committee 2018a, 23). Of the 26,300 graduates under the job placement scheme, 23,200 (88.2 percent) were employed in fields that correspond to the discipline of their studies, 200 (0.8 percent) were employed without such a correspondence, 2,600 (9.9 percent) were unemployed, and 300 (1.1 percent) were eligible for self-employment (that is, graduated in disciplines such as sport, where self-employment is common). Public organizations accounted for 74.4 percent of the placements, private organizations for 25.6 percent.

## 2 Students

14. **The enrolment ratio in Belarus is high, but demographic developments have led to a marked decrease in student numbers.**<sup>21</sup> At 87.0 percent in 2016, Belarus' tertiary education gross enrolment ratio exceeded significantly the average for the Central and Eastern Europe region of 80.0 percent.<sup>22</sup> The enrolment ratio is higher for females (98.4 percent) than for males (76.3 percent). Total student numbers, however, decreased from 371,755 in 2014/15 to 299,247 in 2017/18 (National Statistical Committee, 2018b; see Figure 2). In 2017/18, 284,300 students were enrolled at the undergraduate level, and only 14,947 in Master's degree programs. At the undergraduate level, enrolment in private HEIs accounted for 6.8 percent of the total. In general, private enrolment tends to be located mainly in the social sciences, economics and management, and law (European Union, 2017, p. 6). International mobility among

<sup>20</sup> Another option for employers is to pay the tuition fees for a specific student. In these cases, assignment to the firm does not take place under the placement system and the period of obligatory employment can be up to five years.

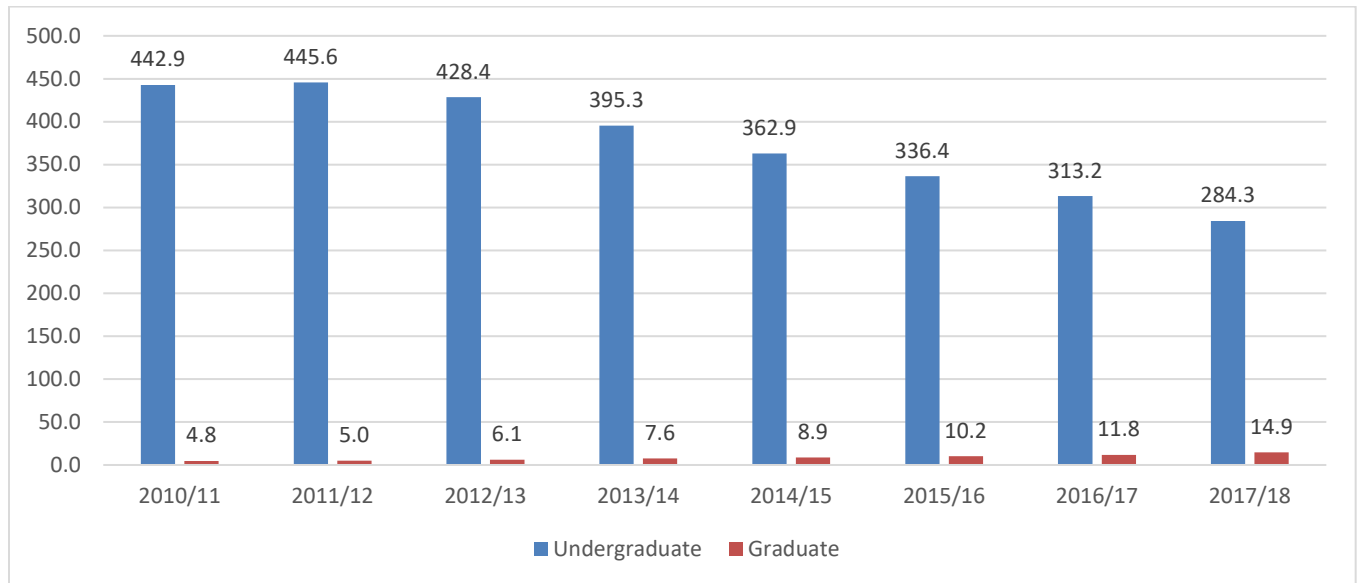
<sup>21</sup> Even though there has been a rebound in fertility rates, which will lead to a transitory increase in the pool of potential students, this trend will prevail in the long run.

<sup>22</sup> UNESCO Institute for Statistics (UIS) data.



Belarusian students is very limited (European Union, 2017, p. 22). The number of drop-outs (due to a lack of performance) at state HEIs amounted to 12,789 in 2016/17 (Zhygalo and Trusilo, 2017, p. 5).

**Figure 2. Student Numbers in Belarus at the Undergraduate and Graduate Level, 2010/11–17/18 (in thousands)**



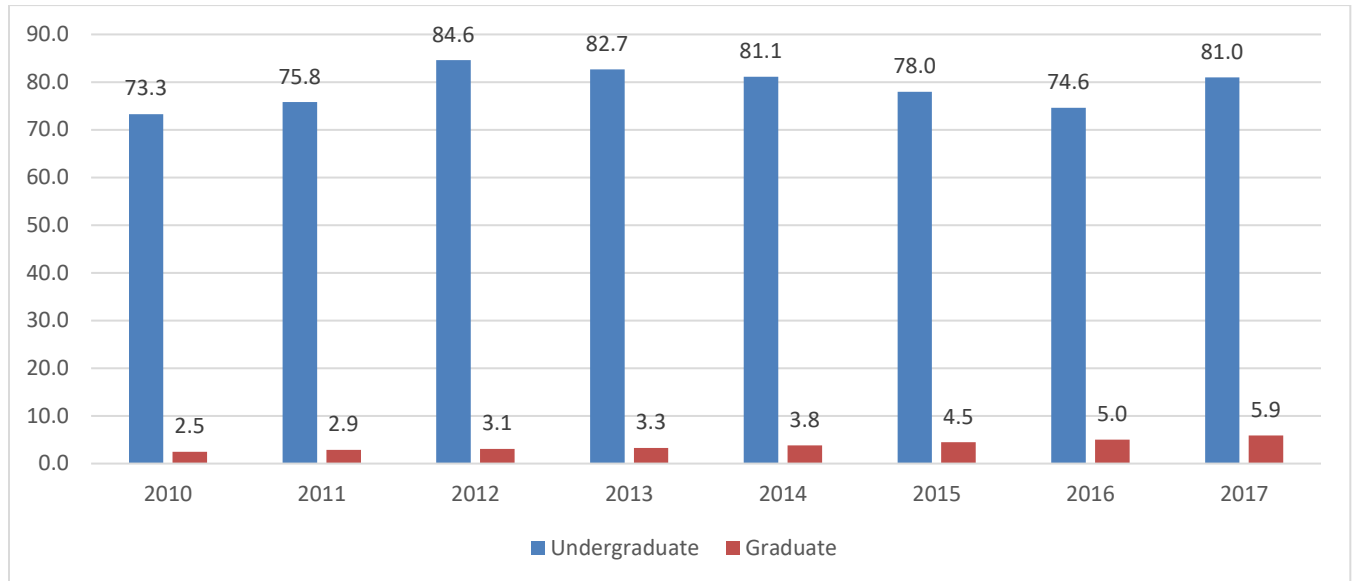
Source: Authors based on National Statistical Committee, 2018b, p. 146 & 151.

## 2.1 Graduates

- Graduate numbers have shown some volatility in recent years, but have not been affected by the decline in student numbers, yet.** As shown in Figure 3, there were 81,000 graduates at the undergraduate level in 2017, a number below a peak in 2012 but still higher than that of 2010. In terms of disciplines, about half of the graduates at the undergraduate level in 2017 came from the social sciences, whereas around 29 percent graduated in the natural and engineering sciences (see Figure 4).

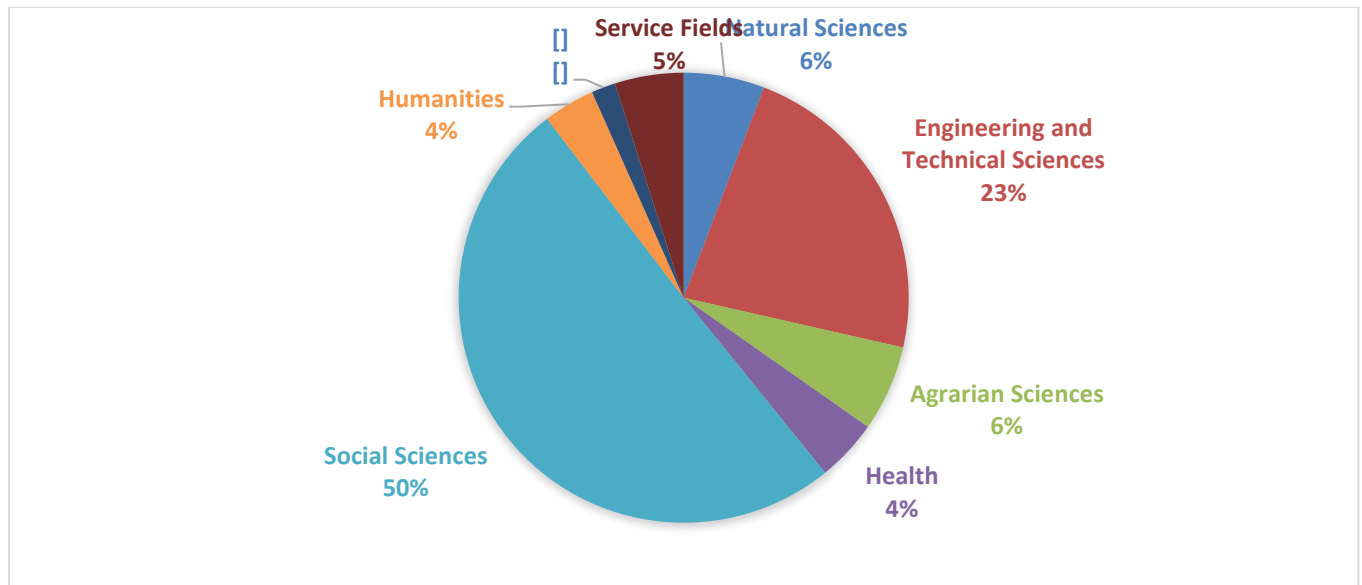


Figure 3. Graduate Numbers in Belarus at the Undergraduate and Graduate Level, 2010–17 (in thousands)



Source: Authors based on National Statistical Committee 2018b, p. 148 & 150.

Figure 4. Graduates in Belarus at the Undergraduate Level by Discipline, 2017 (in percent)



Source: Authors based on National Statistical Committee, 2018b, p. 150.

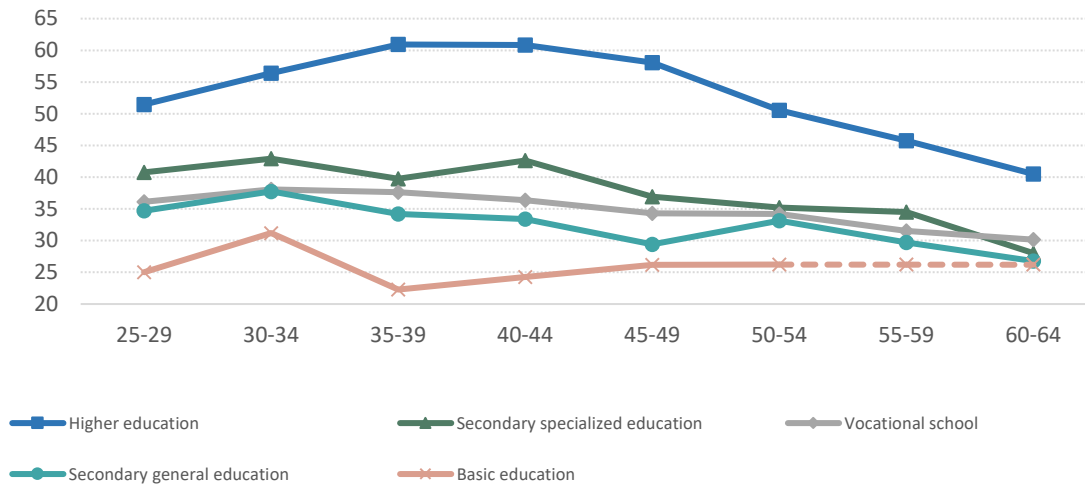
Note: Categorization of disciplines by authors.

16. The high gross enrolment ratio and related graduate numbers have led to high levels of education within the Belarusian population. Among the 25-34 year-olds, 41 percent had attained tertiary education in 2016 and 28 percent of the 25-64 year-olds (Belarus PER). With respect to the first age group, Belarus reaches similar shares as Estonia (41 percent) and Latvia (42 percent) as well as the average of the EU8 countries of 40 percent.



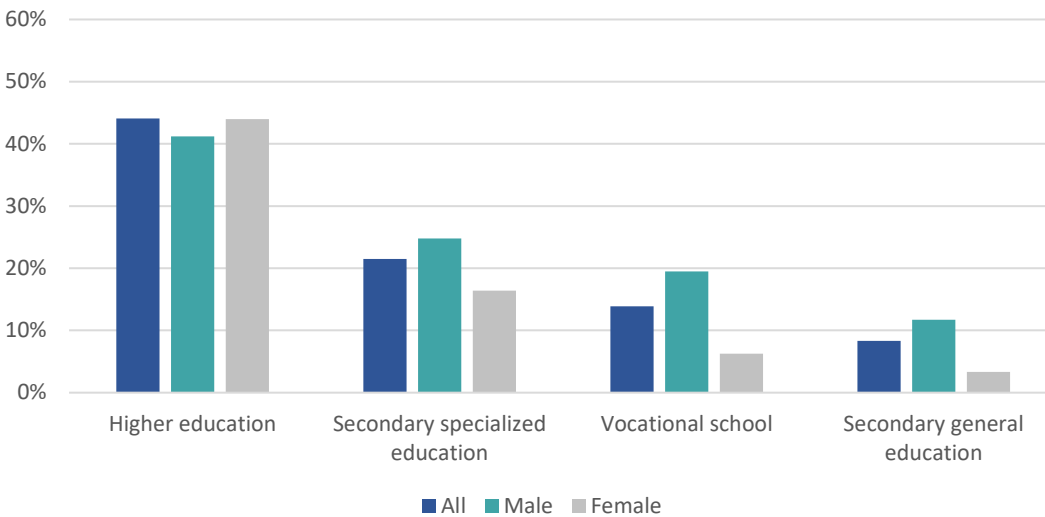
17. **Despite the quantitative expansion of the sector, higher education still yields significant benefits for graduates.** The probability of employment increases with the educational level and the wages of tertiary education graduates are significantly higher than those of graduates from all other educational levels (see Figure 5). During the 2011–15 period, the average increase in wages with basic education or lower as the reference group amounted to 44.1 percent for tertiary education, compared to 8.3 percent for secondary general education, 13.9 percent for education at vocational schools, and 21.5 percent for secondary specialized education (see Figure 6).

Figure 5. Age-Earning Profile for Belarus: Monthly Wages from Main Job by Level of Education, 2016 (in ???)



Source: Belarus PER.

Figure 6. Average Increase in Wages in Belarus, 2011–15 Average



Source: Belarus PER.

Note: Basic education or lower is the group of reference.



18. **Moreover, state and especially private enterprises frequently report a lack of qualified graduates. In the 2013 Business Environment and Enterprise Performance Survey (BEEPS) conducted by the International Finance Corporation (IFC), for instance, more than 20 percent of employers reported skills gaps as a key constraint for their business (World Bank 2018b). A lack of qualified candidates seems to be particularly pronounced in potential growth areas such as computer sciences. Mismatches with regard to the specific skills acquired by graduates aggravate the misalignment between higher education and the labor market. A lack of soft skills among graduates was reported by 43 percent of enterprises in the field of information technology in a recent survey (World Bank 2018b).**
19. **In 2017, Belarus experienced a migration loss among those with higher education.** The overall number of immigrants in 2017 amounted to 15,295, whereas 13,273 individuals emigrated (National Statistical Committee, 2018c). Among those with higher education, however, there were 4,347 immigrants and 5,310 emigrants, leading to a migration loss of 963 individuals. This followed two years of migration gain in this group, which amounted to 3,536 in 2015 and 483 in 2016.

### 3 Teaching and Learning

#### 3.1 Program Development and Implementation

20. **In Belarus, higher education programs are developed partly at the system and partly at the institutional level.** All programs are framed by so-called “educational standards” developed at the system level, which stipulate minimum requirements vis-à-vis the profile of a graduate in a specific specialty. These educational standards include a specification of the competences that a graduate is supposed to possess. They furthermore contain the core curriculum of a program (the so-called “national component”), descriptions of specific courses that focus mainly on related inputs, and additional requirements (for example, related to program documentation, program duration, and final exams). Educational standards were first introduced in 1998, but the underlying approach has been revised several times since (Titovitch, 2018). Currently, a new approach with a view to Bachelor’s and Master’s degree programs, the “3+ Generation” of educational standards, is under development and part of the draft Education Code.
21. **A certain share of each program’s curriculum is determined on the system level, while the rest can be determined by HEIs.** The “national component” of curricula amounts to 65 percent for undergraduate programs and 30 percent of Master’s degree programs. For undergraduate programs to be developed in the future, its amount has been reduced to 50 percent. This component is developed via the following process, which is supposed to be conducted at least every five years to continuously revise curricula:
- (i) The MoE selects experts from within academia for the specialty in question, who form a Methodological Guidance Association, which develops a first draft;
  - (ii) The draft is then checked for compliance with relevant regulations (for example, with regard to the share of classroom and individual learning, workload, and the scheduling of exams) by RIVSh;
  - (iii) The (potentially, revised) draft then requires approval by the MoE and by RIVSh.
- While this process is supposed to include the involvement of employers, this seems to be rarely the case. The final outcomes of this process are stored in a database, which HEIs are supposed to use for developing the final curricula. This finalization is done by the Pedagogical Units within HEIs.
22. **With regard to the implementation of curricula, academics are required to submit implementation plans in advance of teaching a course and to update their didactical qualifications regularly.** At the beginning of each semester, academics have to prepare a “didactical roadmap” for the courses they teach, which is submitted to the



respective department. With regard to didactical skills, academics have to engage in continuing education at least every five years. Academics have to provide evidence of this training to their HEI, among others, as it is covered by the accreditation procedures. Training can be provided by RIVSh, which also offers state-funded study places in this area.

23. **Doctoral education is primarily based on research, but also serves the preparation of highly-skilled professionals.** At the first stage of doctoral education, which leads to the Candidate of Science, there is a limited taught component comprising philosophy, foreign languages and selected classes in the respective specialty. The main part, however, consists of the doctoral candidate's research. The related research agenda needs to be approved by the central-level governing body of a HEI, the Higher Education Institution Council, and research workshops are conducted to assess the quality of the research outcomes. The second stage of doctoral education, which leads to the Doctor of Science, comprises exclusively research. The degree itself is awarded by a HEI's Academic Council. Engagement in doctoral education is very limited (European Union, 2017, p. 14). In 2014, 4,900 students were working toward a Candidate of Science at the 119 institutions eligible to operate at this level of education, and there were 282 individuals working toward the Doctor of Science at 55 eligible institutions. Despite the strong focus on research, obtaining a doctoral degree can yield great benefits on the labor market (European Union, 2017, p. 15), and some employers take over the costs for their employees.
24. **Some HEIs are also engaged in continuing professional education, including at the request of companies.**

### 3.2 Distance Education and Digitalization

25. **Belarus has a well-established segment of forms of higher education provision other than the traditional full-time mode, including elements of distance education.** In the academic year 2017/18, 1,300 of the 284,300 undergraduate students attended evening education programs and another 123,200 attended blended learning formats combining distance education elements and face-to-face courses (National Statistical Committee, 2018b, p. 146). There are some institutions that are particularly active in the field of distance learning, including the Belarusian National Technical University, the Belarusian State University of Informatics and Radioelectronics, and the Belarusian State University. Some HEIs have also undertaken first steps of introducing digital forms of provision such as online courses and started to provide support to their academics in this respect.

### 3.3 Student Finances and Support

26. **State and private institutions charge similar levels of tuition fees.** In 2015 (European Union, 2017, p. 5-6), annual tuition fees at state HEIs for citizens of Belarus at the undergraduate level amounted to around EUR 600 to 1,370 for full-time and around EUR 240 to 480 for part-time students. The fees at the graduate level amounted to around EUR 420 to 1,450 and EUR 180 to 1,100 respectively. The fees charged by private HEIs were similar to those charged by state institutions. The fees that foreign students have to pay at both types of institutions were significantly higher.
27. **Students can benefit from various forms of financial support.** In the case of students who pay tuition fees, this includes an income tax break for those who study for their first degree (or their parents), and access to special loans for students at state HEIs whose family income is lower than a certain threshold (European Union, 2017, p. 6). For those enrolled on state-funded study places, financial support in the form of scholarships includes (European Union, 2017, p. 6-7): academic scholarships based on study progress and performance; presidential scholarships in certain field granted based on performance; personal scholarships based on performance; social scholarships for, among others, orphans, children whose parents served in the army, disabled students, and persons with children under the



age of 18; and special scholarships for, among others, veterans. Other forms of support include subsidized meals and public transport, and support with housing (European Union, 2017, p. 7). The procedures and amounts awarded under the different scholarships are determined by the President of the Republic of Belarus.

28. **Non-financial forms of support are provided by Belarusian HEIs as well.** All “training groups” (that is, groups to which higher education entrants are assigned at the beginning of their studies) are supported by designated individuals called “curators” (European Union, 2017, p. 21). Students can also benefit from introductory classes related to career guidance, and more elaborated forms of study and career support at some HEIs. In addition, the legal framework foresees some support for vulnerable groups when it comes to admission to higher education (and specialized secondary education)<sup>23</sup>, including:

- Access to the competitive exams for state-funded study places for refugees;
- Appropriate forms of entrance exams for individuals with visual, hearing, and mobility impairments as well as the provision of specialized learning materials;
- Study-place quota reserved for orphans and children deprived of parental care, who are furthermore provided with free dormitory places for the duration of their studies.

### 3.4 Bologna Process

29. **Following its accession to the Bologna Process in 2015, Belarus has started to implement key requirements.** Those requirements that have been addressed so far include the introduction of the European Credit Transfer and Accumulation System (ECTS) and the development of a National Qualifications Framework (NQF). With respect to the NQF, there is a draft section for the higher education sector developed by the MoE already. The overall responsibility for the NQF, however, lies with the MoLSP, which will develop the remaining parts and fuse these with the one for higher education. In the field of learning outcomes, there have been deliberations on the side of the MoE on adjusting the framework for programs and curricula accordingly. Other issues closely connected to the Bologna Process such as sector skills councils and occupational standards have been addressed by the MoLSP. Some support measures for HEIs and academics in the field of Bologna Process-related developments are provided by the MoE. This includes targeted trainings on selected issues, events involving external experts, and visits of Belarusian academics abroad.

## 4 Research and Innovation

30. **Research activities by Belarusian HEIs are framed strategically on the system level and, in some cases, also on the institutional level.** Research priorities on the national level are devised by the National Academy of Sciences of Belarus and approved by the Council of Ministers of the Republic of Belarus. In this process, reviews on the current state of scientific and technological development and related forecasts are taken into account in order to focus public financing on priorities for socio-economic development and for scientific and technological progress. Accordingly, research funding is allocated in line with these priorities, even though the major share of research funding goes to the Academy of Science. Some HEIs have also developed research strategies, which are based on the proposals from within the institution and approved by the Higher Education Institution Council based on the Resolution of the Council of Ministers of the Republic of Belarus dd. March 12, 2015 No. 190 on Research Priorities of the Republic of Belarus in 2016–2020.

<sup>23</sup> Rules of Admission to Higher Education Institutions – Decree of the President of the Republic of Belarus dd. February 7, 2006 No. 80, last updated on January 9, 2017.



31. **HEIs use several forms of internal support for research and innovation.** This comprises: a reduction in workload for teaching staff engaged in research; the opportunity for special leave for academics engaged in writing papers leading toward an academic degree; skills development opportunities related to, among others, the management of intellectual property rights and the commercialization of research; and assistance with grant applications. There are furthermore opportunities for joint research, for example, in the context of so-called “Shared Knowledge Centers” that own specific scientific equipment, which can comprise also cooperation between HEIs and institutes of the Academy of Science.
32. **There are various forms of cooperation between HEIs and the economy. These collaborations can take place via** organizational sub-units of HEIs, joint laboratories, and joint facilities such as science and technology parks. These activities are in some HEIs supported by technology transfer or marketing centers. With regard to entrepreneurship, some HEIs have established business incubators. The relation between the science and the economy sector is furthermore promoted by policies revolving around the “University 3.0” model,<sup>24</sup> which aims at promoting entrepreneurial universities, including via support for joint facilities and entrepreneurship education for students.

## 5 Governance

### 5.1 System-Level Governance

33. **The main actors in higher education governance on the system level comprise the President of the Republic of Belarus, the MoE, and the RIVSh.** The President of the Republic of Belarus is directly involved in higher education governance in various ways. This includes the right to develop certain parts of the legal framework and to approve the rectors of state HEIs. The MoE carries the main responsibility for the higher education sector, especially via the Main Department of Professional Education, which is responsible for higher education, vocational education and training (VET) and special higher education, and adult education.<sup>25</sup> Key fields of activity include policy and strategy development, sector management, staffing issues, program development, and quality assurance. In this, it acts in close cooperation with the RIVSh, which is organized as a HEI, but also assumes responsibility for, among others, preparing relevant legislative acts, contributing to policy development and implementation, and parts of the program development processes (European Union, 2017, p. 4).
34. **With regard to the higher education sector itself, there are different bodies representing key stakeholders.** The rectors of HEIs are organized in the form of the Republican Council of Rectors on the national level, which contributes to policy and strategy development. Students are organized at the national level in the form of the Public National Students’ Council under the Minister of Education (European Union, 2017, p. 4). Additional bodies comprise representatives of various constituencies, such as the Public Advisory Council for Education under the MoE, which includes representatives of society and the economy, and different forms of conferences and round tables involving the MoE, rectors and employer representatives.
35. **While there is no singular sector strategy for higher education, several national-level strategic policy documents address higher education, in particular, its relation to societal and economic development in Belarus.** This includes:

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<sup>24</sup> The main legislative act in this regard is the Order of the Minister of Education dd. December 1, 2017 No. 757 on Improving Activities of Higher Education Institutions Based on the University 3.0 Model.

<sup>25</sup> Additional relevant departments of the MoE include the Department for Education Quality Control and the Department of Science and Innovation Activity.





- The *Program of Activities of the Government of the Republic of Belarus for 2016-2020*, with promoting innovation-based growth and developing human potential and the quality of life as two of four main program areas;
- The *Belarus National Strategy of Sustainable Socio-Economic Development till 2030*;
- The *Belarus Program for the Social and Economic Development 2016-2020*;
- The *State Program for the Development of the Digital Economy and Information Society 2016-2020*, which touches upon the use of ICT in education;
- The *Education and Youth Policy National Program 2016-2020*, whose implementation is supported with an own budget, which has a separate section on higher education and which covers matters as diverse as developing an effective lifelong learning system, establishing centers at HEIs to bring closer to each other science and industry in innovative fields and knowledge and technology transfer more generally, promoting online distance education, and student and staff mobility;
- The *Conceptual Approaches to the Development of the Education System of the Republic of Belarus till 2020 and in 2030 Perspective*, which covers the practice orientation and labor market relevance of higher education, the creation of a lifelong learning system, the promotion of entrepreneurial (“University 3.0”) universities, inter-institutional cooperation in program provision, international research cooperation, non-labor market-related outcomes of higher education, digitalization of education provision, improving student support and counselling, and the international competitiveness of Belarusian HEIs;
- The *State Innovation Development Program of Belarus for 2016-2020*, which, among other activities, envisages the development of support infrastructure to ensure the integration of science, education and production;
- The *Belarus’ Science and Technology Strategy for 2018–2040*;
- The *Strategy of Improvement of the National Qualifications System of the Republic of Belarus*.

36. **Data relevant for steering the sector are provided by the Main Information and Analytical Center of the Ministry of Education (GIAC).** Covering the entire education sector, GIAC also collects information on higher education. This includes data on graduates who studied on state-funded study places and, therefore, participate in the job placement scheme, covering, for example, their employment status, the correspondence of employment with the discipline studied, the type of job placement, and the organization of job placement. The data collected by GIAC also feeds into licensing and accreditation processes. Matters of labor market demand and supply are monitored by the MoLSP, in cooperation with the MoE, the Ministry of Economic Development and employers.

37. **Information gathering on the higher education sector and the economy is closely linked to the job placement system.** The underlying legislation of this system is the Regulation on the Procedure for Labor Demand Forecasting to Make Training Requests for Professionals, Workers, and Employees (Government Resolution No. 972 dd. July 19, 2011). Key ingredients of the placement system with regard to the number of state-funded study places offered is the analysis of future labor market demand and a country-wide online system for requests for graduates toward HEIs. Since 2018, a working group consisting of representatives of the MoE and the MoLSP are engaged in developing new procedures for these requests.

## 5.2 Institutional Governance

38. **The main actor with respect to the governance of a HEI is the rector.** The rector has the overall responsibility for developing the strategic direction of a HEI and its management, represents the HEI, and heads to two main councils on the central institutional level (European Union, 2017, p. 18-19). The work of the rector can be supported by several



vice-rectors. The ministers of the respective line ministries appoint and dismiss the rector of a state HEI, requiring approval from the President. Rectors of private HEIs are appointed by the Minister of Education, following a proposal by the founder of the institution. Faculties, institutes and departments within HEIs are headed by a dean, a director and a head of department respectively. The governance structures at these levels mirror that of the central institutional level.

39. **Additional governing bodies on the central institutional level are the Academic Council, responsible for academic matters, and the Higher Education Institution Council, responsible for strategic, financial, personnel and infrastructure-related matters.** The rights and competences, composition and working procedures of the Higher Education Institution Council are determined by the Government via the Regulations on the Educational Institution Council (Resolution of the Ministry of Education dd. July 18, 2011 No. 84) and additional legislative acts, which are complemented by the charter of a HEI. The main rights and responsibility of this council pertain to:

- The general development of a HEI, including devising and approving activity plans;
- Teaching and learning activities (the organization of the education process, curricula, other program-related documents);
- Links with employers;
- Nominating the candidates for deanships and institute heads (for those institutes that are not a separate legal entity);
- Electing professors and department heads;
- Supervision of the institutional leadership and the leadership of sub-units (for example, via approving reports).

40. Members of the council include student representatives (25 percent) as well as heads of sub-units, other employees and, possibly, external representatives from the state and private sectors. The overall number of members is determined by a HEI's charter. The student representatives are elected by the students based on a procedure stipulated in a HEI's charter. The same applies to the election of other representatives by their constituencies. External representatives are proposed by the heads of their organizations. The head of the HEI approves the composition of the council and has to approve all its decisions. The charter also determines the length of office of council members, which cannot be more than five years.

41. **HEIs are obliged to develop strategic documents and engage in some forms of internal information gathering.** The Government requires HEIs to devise development programs and also provides HEIs with a related template. The programs address medium- and long-term objectives and benchmarks for strategic development, and are updated annually. A key source of information on internal processes is the ISO 9001 system that many HEIs use as a quality assurance mechanism.

## 6 Funding

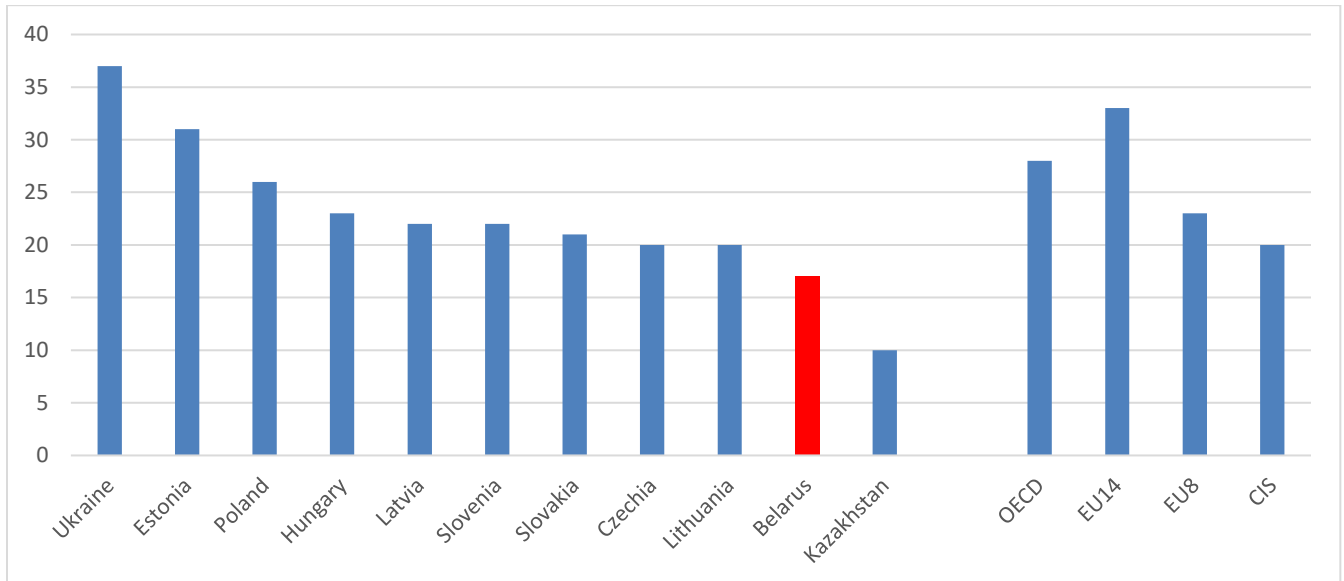
### 6.1 System-Level Funding

42. **Even though overall levels of public funding for education are comparatively high in Belarus, only a small share goes to higher education.** In 2016, Belarus spent 5.0 percent of GDP on education, which compares well to the Commonwealth of Independent State (CIS) country average of 4.6 percent but was below the OECD average of 5.3 percent (Belarus PER). However, only around 11 percent of the education budget went to higher education. In 2017, higher education expenditure amounted to 0.56 percent of GDP, following a decrease from the level of 0.68 percent



in 2008.<sup>26</sup> If compared to other countries from the region and a CIS country average of 20 percent, this leads to a comparatively low per student expenditure measured as share of GDP per capita of 17 percent (see Figure 7).

**Figure 7. Per Student Expenditure in Belarus and Comparator Countries, 2014 or latest (as percentage of GDP per capita)**



Source: Belarus PER.

43. **Public funding for HEIs is used as a steering instrument mainly via discretionary allocations.** The budgetary allocations from the Government to HEIs is based for the most part on line-item budgets drafted by HEIs for each fiscal year, in which HEIs express their funding demands (European Union, 2017, p. 4-5). The decisions on funding are then made by the Government, taking into account the number of students at a HEI and their distribution among fields as well as the staff structure. Additional funding instruments comprise discretionary allocations for specific purposes (for example, certain research areas) and competitive grants for research funding.

## 6.2 Institutional Funding

44. **In addition to state funding, HEIs can also generate their own income.** The main income sources of state HEIs include the state budget, local budgets, sponsoring, tuition fees, and revenue-generating activities, whereas private HEIs do not receive state or local funding. The main forms of generating revenues are pre-study courses, tuition fees, consulting, research and development for external partners, continuing education, renting out land, premises and equipment, commercial projects, and other paid services (for example, in the field of wellness and printing). The revenues that state HEIs generate themselves can be spent at their discretion and carried over to the next year, whereas state funding follows a line-item budgeting approach (European Union, 2017, p. 4). With respect to research, funding can come also from public bodies that commission research, competitive funding from the Belarusian Republican Foundation for Fundamental Research, funding from State Scientific and Technical Research Programs, and competitive funding from the Belarusian Republican Innovative Foundation. An indirect form of state support

<sup>26</sup> Data provided by RIVSh.



for both state and private HEIs are certain exemptions from value added and profit tax (European Union, 2017, p. 4).

## 7 Quality Assurance

### 7.1 External Quality Assurance

45. **Procedures in the field of external quality assurance in Belarus comprise licensing and accreditation by the state.** Both processes are performed by the Department of Education Quality Control of the Ministry of Education. According to the Education Code, quality in general is defined as conformity with the requirements of the education standards and other relevant provisions. The overall responsibility for determining the related procedures lies with the President of the Republic of Belarus. Direct links between these forms of external quality assurance and institution-internal quality assurance do not exist. In addition, HEIs that use ISO 9001 as a mechanism in the field of internal quality assurance undergo external certification processes.

46. **The licensing process required for opening a HEI covers basic matters of infrastructure and personnel.** The criteria on which this process is based cover, among others:

- A minimum share of teaching staff with a HEI as their primary employer;
- The proper documentation of curricula (in relation to the educational standards);
- Library facilities;
- Physical infrastructure requirements;
- The suitability of rooms, offices, laboratories, workshops, and other facilities.

The license issued after the process covers specific fields and subjects, which are the only ones that a HEI can engage in. A maximum student number is also set in the license. The licensing process can comprise, at order of the Minister of Education, a check of compliance by the MoE conducted by a group of at least five members. Since 2016, licenses do not expire anymore.

47. **Accreditation comprises program as well as institutional accreditation.** The accreditation process addresses the compliance of HEIs with education laws, the requirements of educational standards, and additional requirements stipulated in the relevant legislation. As the result of the accreditation process, the type of a HEI (that is, university, academy / conservatory, or institute) is confirmed and HEIs receive a certificate granting them the right to issue state-approved degrees for each specialty. The accreditation process takes place every five years, as well as when new HEIs are founded or when new programs are introduced. The procedure includes a self-evaluation report by the HEI and site visits by a commission consisting of academic and administrative representatives of several HEIs and other sector stakeholders (European Union, 2017, p. 19). The commission checks, among others, the facilities, equipment and training materials of HEIs, attends lectures of academics, and tests the knowledge of students based on the educational standards and curricula. The work of the commission is concluded by a report that feeds into the decision of the Department of Education Quality Control, which is then approved by the MoE.

### 7.2 Internal Quality Assurance

48. **Belarusian HEIs can decide which approach to internal quality assurance they want to implement.** The decision on the internal quality assurance system can be made by the rector of a HEI. Against the backdrop of a broader development toward ISO 9001 certification in Belarus that started in 2009, many HEIs opted for this system. However, many HEIs consider this process-driven approach as unsuitable for their type of institution. Additional measures in the field of quality assurance comprise staff evaluations. These are based on visits to the classes of teaching staff by other teaching staff members that feed into reports to be discussed within departments, and student evaluations.



Additional processes in the field at some HEIs include surveys of graduates.



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### ANNEX 3: Economic Analysis

#### COUNTRY: Belarus Belarus Higher Education Modernization Project

##### INTRODUCTION

49. The Belarus Higher Education Modernization Project (BHEMP) will strengthen the tertiary education system in the Republic of Belarus by: (i) improving the teaching and learning environment; (ii) promoting the flexibility of provision and innovative approaches in the field of teaching and learning; and (iii) fostering quality through the establishment of a comprehensive quality assurance system.
50. This annex presents the economic analysis of the rationale for human capital investment and the World Bank's involvement in this project, followed by the cost-benefit analysis that justify said investment.

##### *Expected development impact*

51. The proposed project is to be implemented over a five-year period between 2020 and 2025. Upon completion, it is estimated that circa 300,000 students will benefit from the improved teaching and learning environment yearly. By enhancing the relevance of degrees and programs in the labor market, a reduction in the skill gap is expected and thus an improvement in firm-graduate matching, which will lead to better labor market outcomes in terms of employment, worker fulfilment, and income tax revenue. Internal and external quality assurance will improve the functioning of Belarusian tertiary education system to ensure effective improvements in the future.
52. The impact of the BHEMP is well aligned with the World Bank Group's Systematic Country Diagnosis (SCD), which identifies maintaining Belarus' human capital edge as one of the six priorities to achieve sustainable economic development, further reduce poverty, and increase shared prosperity.

##### *Rationale for human capital investment*

53. From an economic perspective, accumulating human capital improves labor productivity; facilitates technological innovations; increases returns to capital; and makes growth more sustainable, which, in turn, supports poverty reduction (Son, 2010). Although investment in economic infrastructure is often a popular choice when it comes to economic development and poverty reduction, studies increasingly show that investment in social infrastructure and human capital is even more effective (Atolia, Li, Marto, & Melina, 2017). The following briefly outlines the various benefits of investing in human capital and evidence for the same:
- i. **Benefits to economic growth (enterprises)** - Economic growth is due mainly to growth in labor productivity and employment, and investment in human capital is directly linked to both (Son, 2010). Skills have been found to explain a substantial part of the difference in growth rates among OECD countries. Therefore, accumulating human capital through education and training leads to economic growth and poverty reduction, particularly when the skills acquired are those currently needed in the labor market (Son, 2010). A mismatch between skills acquired through education and skills needed in the labor market can result in highly educated workers doing low-productivity jobs or being excluded from the labor market



entirely. This is a particularly important observation for economies in emerging Europe, where this mismatch of skills increasingly constrains the growth and productivity of firms (World Bank, 2012).

- ii. **Benefits to poverty reduction (individuals)** - Empirical research shows that building skills (whether cognitive, socio-emotional, or technical) can drastically improve employment and social outcomes, as well as civic engagement. In almost all countries worldwide, individuals with higher levels of education enjoy higher employment rates, are more often formally employed, and have higher earnings, with positive changes in earnings being the largest contributor to poverty reduction (World Bank, 2013).
- iii. **Benefits to the government (efficiency and accountability)** - In many countries, education and training are, to a large extent, financed with public funds, and public expenditures in education and training often make up a large share of the national budget. This economic investment makes it particularly important for these funds to be allocated as efficiently as possible: increases in the efficiency and accountability of education expenditures allow the sector to achieve higher, or even additional, objectives, which can result in: 1) larger number of individuals with better skills for the same amount of financing achieving higher or additional objectives within the education sector; and/or 2) savings being redirected.

***Rationale for World Bank involvement***

54. The World Bank has been actively engaged in supporting projects in the Republic of Belarus since 1992, and thus has over 25 years of experience within the country. As such, it has acquired extensive knowledge of the country’s specific challenges and opportunities. During this time, it has participated in a number of projects that helped to strengthen public infrastructure—including improving the energy efficiency of school buildings—and to develop more effective public management systems, such as the national statistics and treasury systems. Meanwhile, the Bank has been a worldwide leader in the strengthening of education systems, having assisted in the development of such systems in more than 70 countries. In the Europe and Central Asia region, the World Bank has supported operations to help governments address education sector governance, equity, efficiency, relevance, and sustainability. As such, the World Bank is well-positioned to add value to the modernization of the tertiary education system in the Republic of Belarus.

***Rates of return and benefit-cost ratios from interventions elsewhere***

55. Examples of World Bank projects with similar interventions to those proposed in Belarus, as well as the estimated results they have yielded, or are expected to yield, can be found in Table 2. The principal benefits displayed are those suitable to cost-benefit analyses, i.e. actions that create measurable results which can be credibly attributed to the project in the short and medium term. Such actions are improvements in employment, earnings, and value added to the economy due to interventions in higher education.

**Table 2: Rates of return and benefit-cost ratios from interventions in other countries**

Project	Results	Principal benefits
	Rate of Return	
<b>Uzbekistan Modernizing Higher Education Project (\$42.2 mln, FY17-23).</b> <i>Financing to modernize laboratories; Higher Education</i>	26%	Increased earnings of graduates; added value to economy from innovation





<i>Market Information System, industry-university partnerships to improve higher education.</i>		
<b>Nepal Second Higher Education Project (\$60 mln, FY08-14)</b> <i>Includes grants to universities, capacity building (quality assurance and accreditation, EMIS)</i>	35%	Efficiency gains (higher student retention); higher wage-premium
<b>Vietnam Higher Education Project II (\$59 mln, FY08-12)</b> <i>Includes: grants to universities to support teaching and research, capacity building for universities and policymakers</i>	34%	Productivity gains of graduates, efficiency gains in universities, and return from R&D investments
	<b>Benefit-Cost ratio</b>	
<b>Armenia Education Improvement (\$15 mln, FY15-20)</b> <i>For Innovation and Higher Education Fund to improve quality, relevance, efficiency, equity and access of programs.</i>	> 3.5 to 1	Efficiency gains (lower drop-outs); increased earnings of graduates, higher firm productivity
	<b>Other</b>	
<b>Chile Tertiary Education Finance for Results III (\$40 mln, FY13-17)</b> <i>Improved quality and relevance via accountability and financing mechanism</i>	Net Present Value: > \$114 mln	Efficiency gains (student retention and graduation); higher earnings

## 2. COST-BENEFIT ANALYSIS

56. The benefit-cost ratio calculation that follows is from an economic model that accounts for the cash flow generated by a person over the course of his or her productive lifetime. The underlying assumption is that an enhanced learning environment at the university (including school infrastructure, equipment, technology, and learning materials) has a positive impact on student achievement (Brooks, 2010; Ahmed et al., 2018). In turn, higher student achievement leads to higher earning for individuals over the course of their lifetimes and faster economic growth for nations (Hanushek & Woessmann, 2008). Moreover, the model takes into account the reduction in the training cost firms need to undertake due to the skills mismatch between the skill supply— provided by the education system— and the skills demanded in the labor market by firms.

### *Expected benefits from the improved quality of higher education*

57. Components I and II of the Belarus Higher Education Modernization Project aim to enhance the quality and relevance of higher education through the modernization of the tertiary education teaching and learning environment, and fostering innovations in teaching and learning, respectively. If the quality of higher education improves and skill levels of graduates improve—and also match better the skills demanded by firms— wage premiums for higher education graduates may increase as well since employers will be willing to pay higher wage premiums. Component III of the Belarus Higher Education Modernization Project in Belarus will foster quality enhancement through the establishment of a comprehensive and suitable quality assurance system.



**Expected benefits from the improved relevance of higher education**

58. Employers stand to benefit from being able to access and hire a more qualified workforce. Moreover, the modernization of HE curricula, and innovations associated with Component II, will reduce the skill gap between the skills supply and demand. Firms incur substantial costs training new employees, and these costs are higher the more sophisticated the required skills are. For young workers in the US, the average duration in apprenticeships was 63 weeks while on-the-job training averaged 32 weeks (Lynch, 1992). The project aims to reduce the training period needed to prepare recent hires for their new jobs which is reflected in the benefits. Reducing the training period will lower the amount of time spent by experienced workers training their new colleagues. Table 3 shows that only 63 percent of the labor force in Belarus had a job matching their qualifications. This finding suggests that there exists a substantial skill gap, a mismatch between skills supply and demand.

**Table 3: Belarus Labor Force Survey 2011: Does your job match your qualifications?**

	Frequency	Percent
Yes	18,153	<b>62.66</b>
Below my qualifications	5,126	17.69
Above my qualifications	1,083	3.74
Same but not related	4,610	15.91
Total	28,972	100

Source: World Bank staff calculations based on the Republic of Belarus Labor Force Survey 2011

59. The benefit-to-cost ratio calculation follows from an economic model that accounts for the cash flow generated by a person in his or her productive lifetime. The underlying assumption is that an enhanced learning environment (including school infrastructure, equipment, technology, and learning materials) has a positive impact on student achievement<sup>27</sup>. Student learning, in turn, leads to higher earnings for individuals throughout their lifetime and faster economic growth for nations<sup>28</sup>. The parameters used in the model are drawn from the empirical microeconomic literature, as well as labor market indicators from Belarus. The model also accommodates gender differences in lifetime earnings. Table 4 lists some of the parameters used in the model, defined as the difference between the gains under the proposed project and what would be expected to happen in its absence. A discount rate of 3percent is used to calculate the net present value of the cash flows in the baseline model<sup>29</sup>.

<sup>27</sup>Brooks (2010); Ahmed et al. (2018)

<sup>28</sup>Hanushek and Woessmann (2008)

<sup>29</sup>The depreciation rate is calculated using a straight-line method. Belarus legislation allows for useful life of 125 years for buildings and construction. Our analysis uses the annual depreciation calculation for a 75-year duration.

**Table 4: Parameters for the estimation of discounted cash flows**

	<b>Base Case</b>	<b>Low-High</b>
<i>Student achievement – Returns to improved environment (SD)</i>	0.12	0.06-0.15
	<b>Male</b>	<b>Female</b>
<i>Lifetime Earnings – Returns to 1 SD increase in achievement<sup>30</sup></i>	11.04%	13.21%
	<b>Male</b>	<b>Female</b>
<i>Higher Education Enrolment</i>	156,047	206,853
<i>Number of graduations</i>	34,873	46,227
	<b>Base Case</b>	<b>Low-High</b>
<i>Annual earnings growth</i>	3%	0-5%
<i>Earnings per year (November 2018)</i>	\$5,524.78	-
<i>Exchange rate (BYR/USD)</i>	2.16	-

Sources: National Statistical Committee of the Republic of Belarus; World Bank, “Belarus: Country Gender Profile” (2014).

### ***Expected net benefit***

60. Table 5 displays the net present value (NPV) of the total quantifiable benefits and costs associated with the project. The analysis accounts for the project direct costs and loan servicing fees, and the long-term indirect costs such as maintenance and depreciation expenses that the Republic of Belarus would incur to safeguard the benefits associated with the Belarus Higher Education Modernization Project.
61. Components I and II aim to provide modernized curricula, teaching and learning environment, as well as foster innovations in teaching and learning. The number of beneficiaries of the overall project is approximately 300,000 new students yearly, which translates into 81,000 graduates every year. Graduate numbers have shown some volatility in recent years but have not been affected by the decline in student numbers, yet. There were 81,000 graduates at the undergraduate level in 2017, a number below a peak in 2012 but still higher than that of 2010. The volume of beneficiaries increases over time as more students graduate from higher education institutions.
62. The benefits are derived from the increased lifelong earnings associated with a better set of skills of those who benefit from the project’s impact, adjusted for employment rates. The benefits for the employers are the decreased training costs for new hires as we have assumed the training duration for new hires to be reduced by 8 weeks as a result of the Belarus Higher Education Modernization Project (BHEMP). The length of the benefit stream for the increase in lifelong earnings is 30 years, and 10 years for the decreased training costs incurred by the firms recruiting new hires. The length of the cost stream is 30 years for the maintenance and sustainability costs, and 5 years for the direct project costs and fees.
63. The baseline scenario presents a net present value of USD 639.83 million, and a benefit-to-cost ratio of 4.19, which indicates that the proposed project is a promising investment in higher education. It is important to note that the

<sup>30</sup> Author’s calculations using PIAAC



model utilized in the analysis captures only part of the BHEMP benefits and therefore underestimates overall gains. Better cognitive and non-cognitive skills are strongly associated with better outcomes in the labor market and adult life indicators such as better health, lower criminality or better-informed voters. The long-term economic impact of Component III (Quality Assurance) which will allow the HE system to design better future policy to further improve is not included in the analysis.

**Table 5: Summary of Costs and Benefits**

<b>Benefits (USD)</b>	
<i>Lifelong increased earnings: males</i>	196,793,939.48
<i>Lifelong from increased earnings: females</i>	315,989,179.20
<i>Employer decreased training costs (10 years)</i>	523,823,790.23
<b>NPV of total benefits</b>	<b>1,036,606,908.91</b>
<b>Costs (USD)</b>	
<i>Direct project costs</i>	87,750,942.42
<i>Indirect project costs (30 years)</i>	146,952,233.01
<i>Loan servicing and fees</i>	1,488,638.56
<b>NPV of total costs</b>	<b>244,946,677.78</b>
<i>NPV (benefits minus costs)</i>	791,660,231.13
<b>Benefit to cost ratio</b>	<b>4.23</b>
<b>IRR</b>	<b>10.99%</b>

**Sensitivity Analysis**

64. Table 6 displays the results of the sensitivity analysis for the following scenarios: (i) Different parameters for the impact of the project on student achievement; (ii) Different wage growth rates; and (iii) Different discount rates.

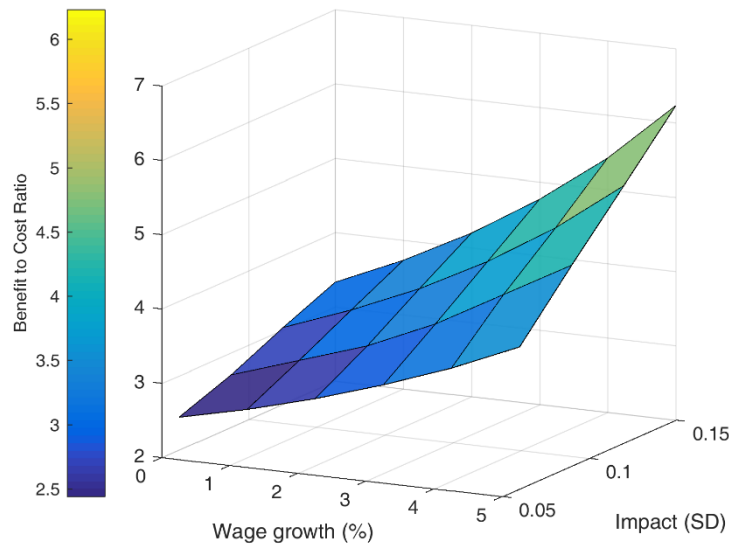
**Table 6: Sensitivity analysis (millions of USD)**

	<b>Net benefit (NPV \$M)</b>	<b>Benefit-to-cost ratio</b>
<b>Baseline</b>	<b>792.66</b>	<b>4.23</b>
<i>Low estimate for student achievement (0.06 SD)</i>	535.27	3.19
<i>High estimate for student achievement (0.14 SD)</i>	919.86	4.76
<i>Low estimate for earnings growth rate (0%)</i>	497.57	3.03
<i>High estimate for earnings growth rate (5%)</i>	1091.29	5.46
<i>Discount rate 5%</i>	612.99	4.07
<i>Discount rate 1%</i>	1059.09	4.41



65. Figure 8 displays a graphical representation of the sensitivity analysis plotting the benefit-to-cost ratio as a function of different parameters for the policy impact on student achievement, and earnings growth rates. The figure shows that higher values of earnings growth rate and student achievement are complementary and positively associated with a higher benefit-to-cost ratio.

**Figure 8: Benefit-to-Cost Ratio Sensitivity Analysis**



66. The sensitivity analysis confirms that the project is a good investment for Belarus in all the cases considered, contributing to higher earnings for graduates with an improved learning environment and lower training costs for employers.

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