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IDB LAB

REGIONAL

PERU, BRAZIL, CHILE, AND MEXICO

DIGITAL TRANSFORMATION WITH INCLUSION IN LATIN AMERICA

(RG-T3510)

DONORS MEMORANDUM

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ABBREVIATIONS

CAF	Corporación Andina de Fomento [Development Bank of Latin America]
IT	Information technologies
LGBTIQ	Lesbian, gay, bisexual, transgender/transsexual, intersex, and queer/questioning
OECD	Organisation for Economic Co-operation and Development
SDG	Sustainable development goal
SMEs	Small and medium-sized enterprises
USAID	United States Agency for International Development
WEF	World Economic Forum

PROJECT SUMMARY
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The fourth industrial revolution is characterized by the speed at which major changes and transformations are occurring in social and economic relations. The IDB calls the accelerated adoption of new technologies such as artificial intelligence and robotics “a technological tsunami.” Latin America and the Caribbean are behind other regions in adopting these new technologies, and one of the most critical obstacles is the lack of capacities and skills to face this technological revolution. On the one hand, there is little awareness in the business sector that digital transformation entails structural changes in a company’s business strategy. On the other, there is a clear skills gap among workers in the region, and an even greater shortage of digital talent, where there is also a gender and diversity gap.

Laboratoria is a pioneering social enterprise in the region since it is the first bootcamp that teaches digital skills to low-income young women. Through the IDB Lab operation (ATN/ME-13849-PE) executed from 2015 to 2018, Laboratoria was able to train 1,000 women in Peru, Chile, Mexico, and recently Brazil, launching their careers in programming where they earn three times more than they did prior to entering the program. Although the bootcamp for women has had excellent results, its reach is still limited and its model needs to be updated so that it can grow in a sustainable manner and have a greater impact in the market. For this reason, in 2018 Laboratoria started to experiment with a new line of corporate courses at its head office in Lima, this time supporting management and employees on the path toward digital transformation.

This new operation seeks to add innovative features to a social enterprise that has gained traction and is having a high social impact in the region and incorporates sustainability mechanisms that will enable it to grow independently and have greater scalability potential. This operation aims to boost the growth of a competitive and inclusive digital economy that will provide opportunities to people who are currently a minority in the technology sector. The project’s objective is to prepare companies, especially small and medium-sized enterprises (SMEs), so that they can move forward in their digital transformation processes with a commitment to diversity and inclusion, and provide job opportunities to young women who are low-income and/or have no college degree, forced migrants, and the LGBTIQ community in Peru, Mexico, Chile, and Brazil.

This project’s innovation lies in the diversity and inclusion focus in the corporate training courses, the development of digital transformation courses for SMEs, the development of a new platform for placing diverse talent, including Laboratoria graduates as well as graduates of other similar programs, and in the use of contingency recovery technical cooperation funds to expand Laboratoria’s new line of corporate training courses to its other offices, thereby contributing to its financial sustainability.

The project will directly benefit 1,500 women and other groups currently underrepresented in the technology sector, who will have access to quality job opportunities in the digital sector (800 young women from Laboratoria and the remainder from similar programs in the region). It will also benefit 208 companies, including at least 130 SMEs, and 1,820 employees of these companies who will be trained in digital leadership, innovative methodologies, etc. Lastly, a work community will be created to support diversity and inclusion, thus driving change in the region through commitments and public events.

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EXECUTIVE SUMMARY

Country and geographic location:	Peru, Brazil, Chile, and Mexico																	
Executing agency:	Laboratoria																	
Focus area:	Knowledge economy																	
Coordination with other donors/ Bank operations:	The project will contribute to the IDB Group's institutional strategy in the area of the future of work, by promoting the adoption of new mentalities, organizational cultures, methodologies, and technologies in companies in the region, as well as the inclusion of diverse talent in information technology teams. The project will create synergies with the Bank's Social Sector in the areas of equitable and diverse development, the closing of gender gaps in the technology sector, the Gender Parity Initiative, skills for the 21st century, and jobs of the future with the Competitiveness, Technology, and Innovation Division, which promotes digital transformation processes in SMEs.																	
Project beneficiaries:	The project will directly benefit 1,500 women and other groups who are underrepresented in the technology sector (low-income youth and/or youth with no college degrees, forced migrants, and the LGBTIQ population) who will have access to quality job opportunities in the digital industry. It will also benefit 208 companies in different sectors (at least 130 SMEs and 78 large companies that lag behind in their digital transformation processes) and more than 1,800 management personnel and employees of those companies.																	
Financing:	<table><tr><td>TOTAL IDB Lab nonreimbursable technical cooperation</td><td>US\$ 500,000</td><td>33%</td></tr><tr><td>TOTAL IDB Lab contingency recovery technical cooperation</td><td>US\$ 250,000</td><td>17%</td></tr><tr><td>TOTAL IDB Lab contribution</td><td>US\$ 750,000</td><td>50%</td></tr><tr><td>TOTAL Counterpart</td><td>US\$ 750,000</td><td>50%</td></tr><tr><td>TOTAL project budget</td><td>US\$ 1,500,000</td><td>100%</td></tr></table>			TOTAL IDB Lab nonreimbursable technical cooperation	US\$ 500,000	33%	TOTAL IDB Lab contingency recovery technical cooperation	US\$ 250,000	17%	TOTAL IDB Lab contribution	US\$ 750,000	50%	TOTAL Counterpart	US\$ 750,000	50%	TOTAL project budget	US\$ 1,500,000	100%
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TOTAL Counterpart	US\$ 750,000	50%																
TOTAL project budget	US\$ 1,500,000	100%																
Execution and disbursement period:	Execution: 36 months Disbursement: 42 months																	
Special contractual conditions:	<p>The following will be conditions precedent to the first disbursement:</p> <ul style="list-style-type: none">(i) Selection of the project coordinator(ii) Submission of the first annual work plan <p>US\$250,000 in reimbursable financing will be used for early stage ventures¹ executed as contingency recovery technical cooperation. This instrument will be used to enhance the financial sustainability and scalability of Laboratoria and to develop digital content for corporate training courses. Under this system, Laboratoria will only be required to repay the amount of the instrument if the initiative is successful and achieves “minimum commercial viability.” A discount mechanism for commercial and social performance will serve as an incentive, where the executing agency will receive a 15% discount on the</p>																	

¹ This instrument is part of IDB Lab's expanded range of products presented to the Donors Committee (document MIF/GN-209-3).

	US\$250,000 for on-time repayment. Details can be found in Annex IV.
Environmental and social impact review:	This operation has been screened and classified in accordance with the requirements of the IDB's Environment and Safeguards Compliance Policy (operational policy OP-703). Given the limited nature of impacts and risks, the proposed category for this project is "C."

I. PROBLEM ADDRESSED

A. Description

- 1.1 **Digital, social, and economic transformation.** The fourth industrial revolution, unlike previous ones, is characterized by the speed at which major changes and transformations are occurring in social and economic relations. The IDB calls the accelerated adoption of new technologies such as artificial intelligence and robotics “a technological tsunami.”² In *The Future of Work 2018*, the World Economic Forum (WEF) says that more than 80% of surveyed companies plan to invest significant resources in major innovations such as big data, the internet of things, or cloud services by 2022. However, there are enormous differences in the productivity of the companies driven by these changes, i.e., the companies that have been at the global frontier in terms of adopting digital technologies and those that lag behind when it comes to adopting the latest technologies and business practices. Part of the problem is that the latecomers often do not have the required capacities. In fact, the WEF says that the fourth industrial revolution goes well beyond the mere adoption of new technologies and digitization of products or services, and that innovation is based on an in-depth understanding of the user or end consumer, which forces companies to reexamine how they do business. Leaders in the different sectors must understand a changing environment, question how operational teams work, and constantly innovate.
- 1.2 **Adoption of technologies and diverse digital talent.** Although there has been significant progress in the region in terms of the adoption of technology and digitization in recent years, the rate of digitization of production in Latin America and the Caribbean is still 24% below the average in OECD countries. In addition to the lack of emphasis on increasing the use of digital technologies, there is a mismatch in the region between the deployment of infrastructure and the adoption of digital technologies on the one hand, and the development of business strategies and the human capital required to move forward on innovation in different industries. There are significant obstacles that make it difficult for Latin America and the Caribbean to quickly absorb this “technological tsunami” and benefit from the momentum. The biggest determining factor is that “the region does not have the skills and capacities to fully deal with this technological revolution.” On the one hand, there is little awareness in the business sector that digital transformation entails making structural changes in a company’s business strategy. On the other, there is a clear shortage of skilled workers in the region. A study by ManpowerGroup in 2018 shows that in the last 20 years, Latin America and the Caribbean has become the region with the widest skills gap in the world: there is a mismatch between current labor force skills and the skills required in the productive sectors. There is also a problem in terms of having access to new digital job opportunities on the part of women and other groups that represent a minority in the technology sector and could provide greater talent diversity in a sector dominated by white males. For example, women account for barely 10% of the workforce of the technology sector in Mexico and 7% in Peru, and in Brazil only one in ten candidates for information technology (IT) positions are women. Low levels of adaptation and talent

² <https://www.iadb.org/es/noticias/el-tsunami-tecnologico-y-el-envejecimiento-de-la-poblacion-marcaran-el-futuro-del-trabajo>.

diversity in this new “technological tsunami” context will keep companies from being more productive and competitive in the near future.

- 1.3 Given this context of such radical, sweeping transformation, change must begin by betting on human talent, which will provide greater diversity in the technology teams that are so vital to innovation, and is something that companies in the region, as well as the rest of the world, are lacking.

B. Causes

- 1.4 **Lack of a business culture to address the new digital era.** While enormous resources (over US\$1.2 trillion this year) are being spent on digital transformation programs by the private sector, the WEF estimates that only 1% of these efforts will actually help achieve transformation in the companies.³ Besides adopting technologies, digital transformation requires large companies and small businesses to adapt their business strategies, work methods and processes, culture, and employee skills⁴ in a volatile, changing environment where the needs of the end user are constantly evolving (intangible investments that complement technology). Digital transformation is the result of an organizational change where the people, processes, and business model see technology as a tool for creating value between consumers and workers. According to a PricewaterhouseCoopers (PwC) report in 2019 on the reconfiguration of organizations' vision,⁵ slightly more than a quarter of the management of different companies in Mexico feel that digital, even more than investments or technology, is a mentality that embraces constant innovation, while one quarter still see it as a synonymous with information technologies.
- 1.5 **Various obstacles prevent vulnerable groups from accessing opportunities in the digital economy.** The gaps and barriers to accessing these opportunities are enormous for women. Many technology companies are unaware of the value that diversity in experiences and profiles brings to their teams. Intel's report “Decoding Diversity: The Financial and Economic Returns to Diversity in Tech”⁶ (one of many such reports in the United States) demonstrates the economic benefits of building a diverse and inclusive workspace and clearly correlates a more diverse workforce in the technology sector with higher revenues, profits, and market value. For example, increasing the global participation of women in the workforce in the technology sector to levels in proportion to the general population could add between 0.5% and 0.6% to total GDP. This represents a US\$430 billion to US\$530 billion dollar increase in overall productivity.⁷ This is concerning since in the context of a skills shortage, also having a diversity gap

³ <https://es.weforum.org/reports/the-digital-enterprise-moving-from-experimentation-to-transformation>.

⁴ <https://es.weforum.org/reports/the-digital-enterprise-moving-from-experimentation-to-transformation>.

⁵ <https://www.pwc.com/mx/es/ceosurvey.html>.

⁶ https://simplecore.intel.com/newsroom/wp-content/uploads/sites/11/2016/07/Diversity_report_7.7.16_web-1.pdf.

⁷ In the United States alone, improvements in the level of ethnic and gender diversity in the technology workforce represents a massive economic opportunity: it would generate US\$470 billion to US\$570 billion in value in the technology industry and would add 1.2% to 1.6% to GDP. Furthermore, the data show that a one-percentage point increase in African American and Latino populations in this sector is associated with a three percentage point increase in revenues, which could generate an additional US\$300 billion to US\$370 billion per year for the country's economy.

hurts the business and could undermine the companies' capacities. When artificial intelligence or another technology is built without diverse talent, products are developed that reproduce discrimination mechanisms and cannot be used by all people. Having a more diverse workforce leads to a better understanding of the needs of users and end consumers, and ultimately to more innovation.

1.6 Little investment and knowledge to develop and hire talent in the company.

Along the same lines, according to the CEO Outlook global survey by KPMG, 68% of the CEOs surveyed say that in order to improve their organization's recovery capacity, they prefer to invest in technology over developing their workforce.⁸ These responses reflect an unpromising trend, especially considering that the WEF urges companies to train their employees, and not just hire experts, to close the gap. In addition, limiting their strategy to new hires is unlikely to be the best solution because it can create a two-tier workforce: well-paid technology experts and non-technical employees with little value added.⁹

In the case of Latin America and the Caribbean, according to a CAF study¹⁰ one of the most important factors that keeps the digital economy from taking off is human resources: Mexico's human resources are poorly prepared for the digital economy, and a significant decrease in investment in the next two years by the public sector may push the country even farther behind the rest of the world. Brazil's digital ecosystem has an advanced level of development with a large base of software development and services companies; however, it cannot move forward at the required pace because it is so far behind in human capital. Chile is one of the most advanced countries in the region in terms of digitizing production, as a result of the government promoting digital innovation (through organizations such as CORFO and Startup Chile), but it is experiencing a bottleneck in developing its industry caused by inadequate training of human resources. The rest of the world is not much better: the WEF estimates that by 2022 more than 50% of workers will need reskilling and upskilling in order to adapt to changes in the workplace,¹¹ and that soft skills are the area in which they will need the most training.

1.7 Finding ways to bring more women and underrepresented groups (low-income youth or those with no college degree, forced migrants, the LGBTIQ population) into the technology sector will not only help close the skills gap in this sector but, according to recent studies, will lead to more efficient teams that will develop better products. The fourth industrial revolution offers an opportunity that the region must seize. The great promise of all of these advances is that they will boost economic productivity and ultimately improve the lives of people. How much of an improvement this makes will depend in part on how transformative the new technologies are, as well as the pace at which the companies and workers are able to understand, adapt to, and absorb them. This will be possible provided actions are taken to adopt the most promising technologies,

⁸ <https://www.delineandoestrategias.com.mx/2019-global-ceo-outlook>.

⁹ http://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf.

¹⁰ "Hacia la digital transformation de América Latina y el Caribe: el observatorio CAF del ecosistema digital" published in 2017 <http://scioteca.caf.com/bitstream/handle/123456789/1059/Observatorio%20CAF%20del%20ecosistema%20digital.pdf?sequence=7&isAllowed=y>.

¹¹ http://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf.

investments are made in people to support these changes, and opportunities are provided to people from all walks of life.

II. THE PROPOSED INNOVATION

A. Description

- 2.1 Laboratoria is a pioneering social enterprise in the region since it is the first bootcamp focused on teaching digital skills to low-income young women in Latin America and the Caribbean. Through the IDB Lab operation (ATN/ME-13849-PE) executed from 2015 to 2018, Laboratoria successfully trained 1,000 low-income women in Peru, Chile, Mexico, and recently Brazil, launching their careers in programming and placing 80% of its graduates in jobs where they earn three times the minimum wage they earned prior to entering the program.¹² The training is free to the women, who go through a rigorous selection process to identify potential talent (no previous knowledge required) and verify that they are low income and vulnerable.¹³ What is most important is that they want to better themselves, have a learning-to-learn capacity, and the determination to complete the course. The course's methodology consists of project-based learning, peer learning, the simulation of actual work-related problems and situations, and mentoring from facilitators and psychologists. Once they finish the intensive six-month course, Laboratoria helps graduates find a job and, when they get one, they must repay the cost of the training. The hiring company must also pay a fee to Laboratoria. The repayment arrangements for students has been and continues to be one of the model's biggest challenges. Different tools have been tested such as income sharing agreements, repayment groups that did not work out, and the current repayment system that is handled directly by Laboratoria. Despite the high social impact that the bootcamp has on women, the model still has significant limitations in terms of being expanded and scaled up. In the end, Laboratoria has not managed to become self-sustainable and grow at a faster pace because the repayment system is based on commitment, and because of the difficulties that graduates face when they enter the job market (debt, lack of financial knowledge, family commitments, etc.)
- 2.2 In 2017, companies from different sectors in Peru turned to Laboratoria for help with their organizational development, by training leaders and management groups in digital leadership and cultural transformation and supporting employees in a culture of experimentation to solve problems using user-focused technology tools. This pilot experience with corporate training shows promise in many ways:
- It promotes a change in the mentality of company leaders and their employees so that they are more open to digital transformation,

¹² In 2018, the minimum wage in Peru, for example, was S/930 with a poverty line of S/344, and the average salary of women before the Laboratoria program was approximately S/850. In Mexico, the poverty line was approximately equivalent to US\$155 and the average salary of women before joining the Laboratoria program was approximately US\$180.

¹³ Although Laboratoria's focus is on low-income young women with no college degree, in recent years there has been an increasing number of female forced migrants (primarily from Venezuela). Laboratoria has also worked with the LGBTIQ population.

- It reconciles the traditional world with the world of innovation,
 - It accelerates digital transformation in the region,
 - It promotes new employment opportunities for diverse talent by opening a discussion on hiring and inclusion policies with the companies,
 - It creates more positions for graduates of the Laboratoria bootcamp, and
 - It may become a profitable line of business and support the bootcamp for women, which has a more social purpose but is not yet self-sustainable.
- 2.3 To date, corporate training courses have been developed with large companies such as Alicorp and Interbank, primarily in Lima, and some recently started up in Santiago, Chile. The results in Lima after one year have been quite positive. For example, it was demonstrated that 84% of the companies with IT teams that took the corporate courses hire women from Laboratoria, and these types of courses have generated 40% of the Lima office's revenues. However, Laboratoria in Lima is still not self-sustainable, because income from the corporate courses is used to cover the losses incurred by the bootcamp.
- 2.4 The pioneering, catalytic role and the recognition and visibility that Laboratoria is having to empower low-income young women by giving them access to education and quality jobs in the digital sector in Latin America and the Caribbean is indisputable. Although it is also extremely relevant and necessary, its reach is still limited, and the model needs to be updated so that it can sustainably grow and have a greater impact in the market. This second operation seeks to add innovative features to a social enterprise that has gained traction and had a high social impact in the region. It also seeks to add sustainability mechanisms that will enable Laboratoria to grow independently, based on its own revenues, with minimal dependence on donations.
- 2.5 **Innovation.** The proposal is innovative because it supports the digital transformation process in the region in a comprehensive and inclusive manner. This new operation is innovative since: (1) it addresses digital transformation from a unique perspective, i.e., the importance of including young women who are low-income and/or have no college degree, migrants, and the LGBTIQ population in the technology teams of companies; (2) it generates new products to support the digital transformation of SMEs and develops practical methodologies based on actual experience¹⁴ with the bootcamp for working with large companies in different sectors, (3) it develops a job placement platform with diverse talent, connecting companies that are looking for qualified employees with diverse talent that best meet the companies' needs, which can benefit not only the young female graduates of the Laboratoria bootcamp but also graduates of other similar programs in the region¹⁵ that lack Laboratoria's visibility and years of experience to attract more companies to the cause of diversity, gender, and inclusion in the digital transformation process, and (4) it supports the expansion

¹⁴ El ADN atrás del impacto de Laboratoria. <https://medium.com/laboratoria/el-adn-atr%C3%A1s-del-impacto-de-laboratoria-5c63e11394bf>.

¹⁵ Laboratoria and IDB Lab have identified at least 15 schools or bootcamps that work with vulnerable groups to place them in the IT sector.

of corporate training courses to Laboratoria's offices in Chile, Mexico, and Brazil through financial arrangements (contingency recovery grant) intended to at least partially increase the sustainability of Laboratoria offices that, if successful, could be an important pillar for future scalability.

- 2.6 This operation seeks to accelerate the growth of a competitive and inclusive digital economy that creates opportunities for people who are currently a minority in the technology sector. Therefore, the project's objective is to prepare companies, especially SMEs, so that they can move forward in their digital transformation processes with a commitment to diversity and inclusion and provide job opportunities to women, low-income youth and/or youth with no college degree, forced migrants, and the LGBTIQ population in Peru, Mexico, Chile, and Brazil.

- 2.7 **Proposed model.** The problem will be addressed through three strategic lines; first, the project will work with SMEs and large companies in different sectors by providing digital skills training to management and employees, which will enable them to optimize their processes, continuously innovate, and boost their productivity. At the same time, it will work with the companies that contract digital services to increase their demand for talent, including more women, low-income youth and/or those with no college degree, forced migrants, and the LGBTIQ population, which are under-represented groups in the technology sector. The companies will be given the opportunity to hire diverse talent through a digital platform that connects job openings with the best diverse talent from Laboratoria and other high-quality educational institutions that have emerged in recent years in the region. In addition, work communities will be created to share experiences and make commitments to diversity and inclusion, both on the part of the organizations that need talent, as well as the organizations that train it, thereby creating an inclusive training and digital work ecosystem.

Component I: Accelerating digital transformation in companies (IDB Lab technical cooperation US\$17,935, IDB Lab contingency recovery technical cooperation US\$250,000; Counterpart US\$223,615)

- 2.8 The objective of this component is to support the digital transformation process in Latin America by training SMEs and large companies in the region, giving them the skills they need to face the new digital era. The project will work with large companies in different nontechnology sectors, such as banking, insurance, and trade, that employ thousands of workers and that need to adapt their culture, strategy, and products to the digital age.
- 2.9 The project will also work with SMEs to internally build the capacities they need to adapt to the digital age and be able to benefit from opportunities to increase their revenues and remain in the market. The training will be very practical, with employees building new projects based on the specific technology platforms of each company.¹⁶ Corporate training will be offered at two levels:
- a. The first will seek to change the mentality of company leaders so that they make structural changes in their companies. The leaders will realize that incremental innovation exists with respect to current products and clients and

¹⁶ <https://es.weforum.org/reports/the-digital-enterprise-moving-from-experimentation-to-transformation>.

is based on continuous improvement. In this way, small initiatives will be identified that can be developed in “traditional” areas (finance, human resources, operations, products, etc.) so that employees can independently implement them with technology, for example, using existing software applications and programs to improve processes, work as a team, relate to customers, etc. It will be possible to determine how strategically important it is for a company to focus on the development of workers if it wants to have a culture of learning and continuous improvement that leads to innovation. A blended learning course will be offered, which will be more accessible for all of the organization’s workers. This will not only have an impact on company leaders, but the entire organization as well.

- b. The company’s employees will be trained to develop digital products that will improve the user’s experience, optimize their processes and enhance their productivity. The objective is to give them the tools needed to be able to solve daily problems, develop an experimentation mentality, and identify continuous learning strategies in a context of transformation and constant change. The aim is to empower the company’s inhouse teams so that they can become change agents. Furthermore, developing these skills is necessary to ensure that the changes promoted by leadership are actually effective.
- 2.10 In both cases, skills will be developed around experimentation, a culture of continuous learning, user-centered design, and the use of simple digital tools, while highlighting the importance of diversity and inclusion in teams. Impact metrics will be based on the number of participating workers, the number of successful experiments, and the level of empowerment and alignment of staff in their organizations. In addition, the progress made by these organizations will be measured six months after the course, using Forrester’s digital maturity model (more details in paragraph 2.12).
 - 2.11 The main activities of this component will be: (a) adaptation of the courses offered to large companies in Mexico, Chile, and Brazil; (b) development of content specifically for SMEs; (c) development of an online course platform for SMEs to share with all companies; (d) sale of courses in all markets; (e) training of workers of large companies in Mexico, Peru, Chile, and Brazil; and (f) training of employers in large companies and SMEs in Mexico, Peru, Chile, and Brazil.
 - 2.12 A total of 208 companies (including 130 SMEs) and more than 1,800 workers will be trained and prepared to face the challenges of the digital age. It is estimated that the sale of these courses will pay for at least 25% of the operating expenses of Laboratoria’s offices in Mexico City, Guadalajara, Santiago, and São Paulo, thus ensuring that Laboratoria’s bootcamp will continue to train thousands of young women who are low-income and/or have no college degree, forced migrants, and the LGBTIQ population in the region in technology. The content will be tested in Peru and subsequently implemented in the other countries, which will make more efficient use of resources for this line of work. With these services, the companies will be prepared to innovate in a changing environment, which will increase their demand for technological talent, providing more opportunities to the graduates of Laboratoria and other similar programs.

Component II: Promoting the employability of women and other groups underrepresented in technology, in a scalable manner (IDB Lab technical cooperation US\$165,205; Counterpart US\$165,205)

- 2.13 The objective of this component is to promote the employability of women, low-income youth and/or those without a college degree, forced migrants, and the LGBTIQ population, in a scalable manner. Laboratoria intends to work with the largest employers of digital talent—large firms, multinational software companies, and tech startups—in order to increase their demand for talent so that they will include groups that have not been considered for reasons of gender, educational level, job history, etc. A technology platform will be developed where women and other groups who are underrepresented in the sector but are ready to start a career in technology can upload their profiles, which the companies can review and then use the tool to handle the entire hiring process. Laboratoria's team will explore the use of machine learning to facilitate matching talent with companies using big data that includes Laboratoria graduates, as well as women and diverse talent from other high-quality educational institutions that have emerged in recent years.¹⁷
- 2.14 The main activities under this component will be: (a) the development, updating, and continuous upgrading of the talent platform; (b) building partnerships with edutech bootcamps and educational institutions in the region that train underrepresented groups so that they can be included in the platform; and (c) a business and marketing plan for the platform to position it as the main source of diverse talent in Latin America.
- 2.15 The project is expected to place 1,500 women, low-income youth or youth with no college degree, forced migrants, and the LGBTIQ population in the digital industry through the talent platform (800 from Laboratoria and 700 from other similar programs). To achieve this, partnerships will be established with 15 high-quality educational institutions that provide technology training so that this diverse talent can be included in the platform.

Component III – Promoting an ecosystem of companies and organizations committed to diversity and inclusion (IDB Lab US\$147,970; Counterpart US\$242,290)

- 2.16 The project aims to have a high-impact component by promoting work communities to share experiences and align commitments, both on the part of the organizations that need talent, as well as those that provide it. The objective of this component is to promote an ecosystem of companies and organizations committed to change. Employers will be asked to build an inclusive and diverse digital sector, to ensure that Latin America prospers in the knowledge economy with equity and diversity. In addition, the project seeks to organize a work community to share knowledge and experiences with the organizations that train populations that are underrepresented in the technology sector in conjunction with Laboratoria, inviting them to the platform, and will encourage alignment between the different stakeholders in this growing market. It will promote

¹⁷ Potential partners could be Toti in Brazil, which works with refugees, [HolaCode](#) in Mexico, which focuses on forced migrants, CodiGo in Peru, which works with low-income youth, or HackGirls, which encourages women to join the world of programming and technology.

collaboration among stakeholders in the sector to achieve harmonious growth and will publicly share impact outcomes and lessons learned, establish high quality standards, and influence public labor policies so that they include diversity and inclusion in the technology sector. Laboratoria will also work with the Bank's Gender Parity Initiative spearheaded by the Gender and Diversity Division.

- 2.17 The main activities under this component will be: (a) development of a diagnostic assessment on the status of inclusion and diversity in the technology sector, in order to obtain information and data relevant to the digital ecosystem; (b) creation of work communities with companies and organizations committed to change in the four countries that are part of the project; (c) support for the process of creating public documents on pro-diversity and inclusion commitments made by the communities; and (d) organization of public events to position and disseminate the communities' efforts.
- 2.18 The outcome will be a community of at least 100 companies committed to implementing concrete pro-diversity and inclusion actions, which will make them leaders in the region.

B. Project beneficiaries

- 2.19 The project will benefit 1,500 low-income women and other people underrepresented in the labor market who are trained by Laboratoria and other similar programs and will have access to quality job opportunities in the digital industry via a job placement platform for diverse talent. The typical women who attend Laboratoria's bootcamp (estimated at around 800) will be young (average age of 26), low-income, and earning a minimum wage salary or slightly above. Sixty percent (60%) of them will be students with no college degree. The women who have gone to college have tended to graduate from poor-quality universities or have limited job market opportunities, and currently have insecure jobs, generally earning around the minimum wage in their countries of residence or are unemployed. Since 2018 there has also been an increase in the number of female forced migrants, especially in the Lima and Santiago offices. Laboratoria has also worked with the LGBTIQ population, but like the women who are forced migrants, they were not initially identified and monitored to watch their performance and determine whether or not being part of this collective has an impact on outcomes.
- 2.20 The project will directly benefit 208 companies in different sectors, at least 130 of which will be SMEs (60%), and will also benefit 1,820 workers and management staff in these companies.

C. Project outcomes, impact, monitoring, and evaluation

- 2.21 In three years, the project will help accelerate the digital transformation process in 208 companies in Latin America (including 130 SMEs), training 1,820 of their workers and management staff in the skills needed to deal with digital transformation. In this way, the demand for talent will grow, with 432 companies in the region adding around 1,500 women who are low-income and/or have no college degree, forced migrants, and the LGBTIQ population to their teams. Partnerships will be established with 15 educational institutions so that in addition to Laboratoria graduates, diverse talent from other programs can be added to the digital job placement platform. Lastly, 100 companies will become part of the

pro-diversity and inclusion work communities that are driving change in the region through commitments and public events.

2.22 The project's indicators directly contribute to the achievement of Sustainable Development Goal (SDG) 5 on equality and gender and SDG 8 on decent work and growth as follows:

- It contributes to gender equality by connecting companies in the region with female talent and promoting inclusive hiring practices and internal policies to create more and better opportunities for women in the region.
- It promotes economic growth by accelerating the digital transformation of more than 200 companies in Latin America in an inclusive and sustainable manner, creating high-quality job opportunities for all.

2.23 Laboratoria has a robust monitoring system for its interventions to evaluate their impact:

- In terms of the bootcamp, data is collected throughout the program to measure progress and evaluate its impact. Women interested in applying for the bootcamp fill out a basic form online with socioeconomic information. After they graduate, this information is compared with post-program data collected 3, 6, 12, 18, 24, and 36 months after the bootcamp ends. Income, career development, satisfaction, and skills are some of the indicators measured.
- Regarding corporate trainings, Forrester's digital maturity model will be used, which measures four areas to gauge a company's level of digital transformation (culture, technology, organization, and data). At the beginning of each course, a survey will be sent to participants to determine their perception of the company's level of digital maturity. The results will be used to begin a conversation with the participants and stress the importance of the training. The same survey will be sent to the participants six months later to identify the progress made in the same tool. At the end of the course, the number of experiments carried out will be measured, if applicable to the workshop: the level of alignment (agreement with the strategy proposed by management), as well as the applicability of the content viewed to evaluate the level of empowerment they feel in the area of digital transformation. The information collected will help gradually improve the content and teaching practices of instructors and will also identify areas for improving the methodology that is adapted.
- In terms of the talent platform, the number of hiring processes carried out through the platform will be measured, along with the number of companies that publish job openings and hire through the platform. The experience of all platform users will be analyzed so that it can be continuously improved and its design adapted to their needs.
- Lastly, the number of companies that join work communities and the events held and commitments made as a result of the project will be measured.

III. ALIGNMENT WITH THE IDB GROUP, SCALABILITY, AND RISKS

A. Alignment with the IDB Group

- 3.1 **IDB Lab's knowledge economy.** The initiative ties in with IDB Lab's knowledge economy focus, since it seeks to train workers and company leaders to give them the digital skills, tools, and culture they need in their work, while creating more opportunities for low-income women and young people in technology careers and skilled jobs. This is one of the few projects in IDB Lab's digital skills portfolio that is entirely focused on gender and diversity, providing lessons learned and knowledge in that area. One of the main lessons learned from the first operation with IDB Lab was the need to work on boosting and having an impact on demand in order to continue to increase Laboratoria's impact on low-income women. This lesson can also be found in the IDB Lab operation in Guatemala with the Valentina bootcamp (ATN/ME-15897-GU). To continue to increase the demand for junior digital talent and ensure that the young people who are placed are able to grow in the industry, employers must be educated and trained so that they continue to move forward on the path to digital transformation and provide suitable conditions for diverse talent. The project is also related to IDB Lab's bootcamp challenge, where Laboratoria may play an important role in creating a practical community that could include other IDB Lab operations such as Valentina/GU and Plan Ceibal/UR (ATN/ME-16123-UR), in addition to the new proposals selected in the IDB Lab bootcamp challenge—Dev.f and HolaCode—that are currently in the design stage.
- 3.2 **IDB Group.** The project will contribute to the IDB Group's institutional strategy in the area of the future of work, by promoting the adoption of new mentalities, organizational cultures, methodologies, and technologies in the companies in the region, as well as the inclusion of diverse talent in their IT teams. The project creates synergies with the Bank's Social Sector in the areas of equitable and diverse development, closing of gender gaps in the technology sector, the Gender Parity Initiative, skills for the 21st century, and jobs of the future. It will also dovetail with the Competitiveness, Technology, and Innovation Division (CTI) through an operation currently being designed with the Ministry of Production in order to draft a digital technology roadmap, thus accelerating the digital transformation process and boosting the productivity of SMEs. A human capital component is being developed for innovation in the companies, and the Laboratoria project may contribute to the design of courses as part of the project. In the education sector in Peru, bill PL-1227 will establish the national qualifications framework and the Laboratoria project may help identify the digital competencies needed for jobs in the future.
- 3.3 **Alignment with country strategies.** In Peru (2017-2021)¹⁸ the operation is aligned with the productivity objective with an emphasis on the labor market, business climate, business development, and infrastructure; in Brazil (2019-2022)¹⁹ it is aligned with the crosscutting areas of: (a) gender and diversity; and (b) innovation and digital transformation; in Mexico (2013-2018)²⁰ it is aligned

¹⁸ <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=EZSHARE-338576828-10>.

¹⁹ <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=EZSHARE-750030607-13>.

²⁰ <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=38276070>.

with the productivity area which includes the labor market and business competitiveness, and in Chile (2019-2022)²¹ it is aligned with the objective of increasing investment and productivity, and also contributes to the crosscutting area of gender and diversity.

B. Scalability

- 3.4 Over the last five years, Laboratoria has become an important participant in the conversation on diversity and inclusion in the technology sector in Latin America, with proven training and job placement models. Laboratoria currently has a community of more than 1,000 graduates who are working in the technology sector and have become inclusion leaders and ambassadors. Laboratoria has also worked with more than 450 companies, helping them to find talent. This work has made it possible to identify the demands for labor and other digital talent needs of companies of different sizes and in different sectors.

Since it is already a leading training organization thanks to its close relationship with the private and public sectors and other training organizations, Laboratoria is in an ideal position to advance to a new level of impact. Laboratoria plans to develop its corporate training program, which has already been successful in Peru, in other countries in the region in order to continue growing the digital strategy of the companies and in turn promote the inclusion of women and diverse talent in each industry in a scalable manner.

- 3.5 Laboratoria would like to use its network of partners and give more structure to the conversation on diversity and inclusion so that it will continue to gain strength. Through the communities of practice involving the public and private sectors and civil society, concrete action plans will be developed with measurable indicators of the progress made in diversity and inclusion. They will be an important contribution to the coordination and alignment of technological talent supply and demand initiatives, thereby ensuring that diverse talent is taken into consideration. To ensure that the impact continues to grow, it will be based on the success of the communities in progressively building relations with different ministries of labor, technology, and education, and having a national impact on countries where Laboratoria already has a formal presence.

In addition to the support provided by IDB Lab, Laboratoria has already secured funds and support from organizations such as Blackrock and USAID, thereby consolidating its position as a leader in the area of diversity and inclusion in the region in the next few years.

- 3.6 The project will be executed from Laboratoria's head office in Lima, Peru. Nonetheless, it will be regional in scope, and its impact will extend to at least three more countries in the region where it has a presence: Chile, Mexico, and Brazil. Laboratoria has training centers in these countries and has already established a significant network with the public and private sectors, as well as with the technology sector, impact investment, and startups ecosystem.

²¹ <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=EZSHARE-1420960835-7>.

C. Project and institutional risks

- 3.7 An initial risk could be slower growth in the demand for digital talent due to an economic downturn in the region. To mitigate this risk, the project will have a portfolio of graduates at five offices (Lima, Santiago, Mexico City, Guadalajara, and São Paulo), thereby maximizing the potential of each market and mitigating the risk if one of them is impaired. In addition, given that the technology job placement platform is open to other quality schools and programs that work with potential diverse talent, women and other groups in regions where Laboratoria does not necessarily have a physical presence could be included. Moreover, the project will invest in convincing business leaders of the importance of investing in digital and making it a priority even in less favorable times.
- 3.8 A second risk could be a lack of political will of the companies and governments to commit to a growth, inclusion, and diversity agenda in the technology sector. To mitigate this risk, the project will seek to ensure that there is sufficient data and well-documented cases on the risks of not addressing this problem, and the benefits of making a change. It will also seek to develop a network of diverse partners in the public and private sectors, the business world, and civil society in order to add diverse voices to give more strength to the movement.

IV. INSTRUMENT AND PROPOSED BUDGET

- 4.1 The project's total cost is US\$1.5 million, of which US\$500,000 will be contributed as nonreimbursable funds (IDB Lab), US\$250,000 will be contributed by IDB Lab as contingency recovery technical cooperation, and US\$750,000 (50%) will be counterpart funds.
- The amount that will be used as early innovation recoverable financing²² will be executed as contingency recovery technical cooperation funds. Under this arrangement, Laboratoria must repay the instrument only if the initiative is successful and achieves "minimum commercial viability."
- 4.2 **Contingency recovery mechanism.** The amount of US\$250,000 will be considered traditional technical cooperation funds until Laboratoria reports cumulative revenue from corporate training greater than or equal to a level of "minimum commercial viability," as agreed with Laboratoria prior to beginning the project. Once that level is reached, Laboratoria will be obligated to reimburse the resources received to IDB Lab. These repayment obligations may be staggered as Laboratoria reaches pre-established revenue milestones during the project's specified timeline.
- 4.3 **Discounts for commercial and social performance.** If Laboratoria achieves "minimum commercial viability" and reimburses IDB Lab before the end of the 60-month execution period, it will receive a 15% discount on the total amount of the instrument (in other words, the repayment obligation will be 85%). The terms and conditions of the financing can be found in Annex VII.

²² This instrument is part of the MIF's expanded line of products presented to the Donors Committee (document MIF/GN-209-3).

Components	IDB Lab		Counterpart		Total
	Non-reimbursable	Contingency recovery	In cash	In kind	
Component I: Accelerating digital transformation in companies	17,935	250,000	111,815	111,800	491,550
Component II: Promoting the employability of women and other groups underrepresented in technology, in a scalable manner	165,205	0	82,600	82,605	330,410
Component III: Promoting an ecosystem of companies and organizations committed to diversity and inclusion	147,970	0	121,150	121,140	390,260
Executing agency	118,890	0	59,450	59,440	237,780
Audits, systematization, and evaluations	50,000	0	0	0	50,000
Subtotal	500,000 33%	250,000 17%	375,015 25%	374,985 25%	1,500,000
Grand total	750,000		750,000		1,500,000
% financing	50%		50%		100%

V. PROJECT PARTNERS AND IMPLEMENTATION STRUCTURE

A. Description of the executing agency

- 5.1 Laboratoria is a social enterprise (nonprofit organization) that has been working in the region for the past four years to give thousands of young low-income Latin American women a career in the technology sector. It has continuously improved, refining and enhancing its model with each bootcamp cohort. This has enabled it to increase its impact and attract the interest of various donors to expand its model. Laboratoria has been recognized as a pioneering, disruptive organization in the project's subject area, by preparing young women for the jobs of the future. It has the support of leading international organizations and companies such as Google, Microsoft, and Citibank, as well as the support and recognition of governments and multilateral institutions in the region. It has worked with IDB Lab since 2015, training more than 1,000 women and placing more than 80% of them in jobs that provide social mobility.
- 5.2 Laboratoria is organized as a civil association in the four countries in which it operates (Mexico, Peru, Chile, and Brazil). Its head office is located in Lima, Peru. It has 100 employees and an annual budget of approximately US\$4.2 million.

B. Implementation structure and mechanism

- 5.3 The project will be administered at Laboratoria's head office in Lima, Peru where the regional team is located, which provides services to the other offices, and it will have an impact in all of the countries in which it operates. Laboratoria will set up the structure required to execute all of the project's activities and will manage its resources in an efficient and effective manner. Laboratoria will be responsible for submitting status reports on project execution, which will include the targets and indicators achieved in each country.

- 5.4 **Project coordination unit.** The project coordination unit will be formed by an inhouse team at Laboratoria and will include a project coordinator and administrative-financial assistant based in Lima. The project coordinator will be responsible for executing the project activities and will coordinate tasks with the rest of the team. The administrative-financial assistant will be responsible for the financial and accounting control of the operation and will be supported by Laboratoria's financial team for that purpose.
- 5.5 Periodic coordination meetings will be held to determine action and implementation strategies from the head office in Lima, Peru. IDB Lab will support the executing agency with project implementation and will be involved in strategic decisions. The IDB Lab offices will also be involved with our operations in Mexico, Chile, and Brazil to execute the project.

VI. COMPLIANCE WITH MILESTONES AND SPECIAL FIDUCIARY AGREEMENTS

- 6.1 **Results-based disbursements and fiduciary agreements.** The executing agency will agree to comply with IDB Lab's arrangements regarding results-based disbursements and its procurement policies and financial management guidelines applicable to private sector organizations, in accordance with the Financial Management Guidelines for IDB-financed Projects (document OP-273-12)²³ and the Guidelines for Management of Milestones and Financial Supervision of IDB Lab and SEP Technical Cooperation Projects. The results of the diagnostic needs assessment of the executing agency reflect a low level of risk (Annex IV); therefore, Laboratoria's financial management system is acceptable to IDB Lab, and its structure for tracking and rendering accounts is suitable for the submission of its annual institutional financial statements to the Bank.
- 6.2 **Risk- and performance-based project management.** Under this modality, the amounts of disbursements for the project will be determined based on the estimated liquidity needs of the project for a maximum period of six months. These needs will be mutually determined by IDB Lab and the executing agency and will reflect the activities and costs programmed in the annual planning exercise.
- 6.3 **Disbursements.** The first disbursement will be contingent on fulfillment of conditions precedent, and successive disbursements will be made provided the following two conditions are met: (i) verification by IDB Lab that the milestones have been achieved as stipulated in the annual planning exercise; and (ii) the executing agency has justified at least 80% of the cumulative advance funds received. In the event the disbursement milestones are not achieved, the executing agency will submit an action plan for achieving them, subject to the Bank's no objection. If the action plan does not yield results, the Bank may cancel the remaining undisbursed balance of the project funds.

²³ Link to Financial Management Guidelines for IDB-financed Projects (document OP-273-12). http://sec.iadb.org/Site/Documents/DOC_Detail.aspx?pSecRegN=GN-2811-1.

VII. ACCESS TO INFORMATION AND INTELLECTUAL PROPERTY

- 7.1 **Access to information.** The information contained in this document is classified as public upon approval by virtue of the Bank's Access to Information Policy.²⁴
- 7.2 **Intellectual property.** The project will be carried out using the know-how and methodologies previously developed by the executing agency, which will remain its property. The executing agency will also own any know-how, methodologies, and products developed in the course of the project, including online courses, platforms, and/or any adaptations or updates thereto. IDB Lab may disseminate and share with third parties the lessons learned during the design, development, and management of these products and may also disseminate and publicize the outcomes and impacts of the project, as well as its participation in the financing thereof.

²⁴ Link to the Bank's [Access to Information Policy](#).