

### **Board of Executive Directors Simplified Procedure**

On or after 13 September 2017

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**Public** 

**Simultaneous Disclosure** 

To: The Executive Directors

From: The Secretary

Uruguay. Proposal for a loan for the project "Generation C: Consolidating Subject:

Educational Innovations for 21st-century Skills and Competencies"

Loan type ......Loan Based on Results (LBR) **Basic** Information:

Amount ...... up to US\$30,000,000 Source .......Ordinary Capital

Marcelo Perez Alfaro (telephone Country Office in Uruguay 598-2915-4330) or Inquiries to:

Jesús Duarte (extension 4806)

Remarks: Management has determined that this loan proposal meets the requirements for

> presentation by Simplified Procedure, in accordance with Part III, Section 2 (paragraph 3.29(b)) of the Regulations of the Board of Executive Directors and

document GN-1838-1, paragraph 2.

Reference: GN-1838-1(7/94), DR-398-17(1/15), GN-2884(2/17), CII/GN-341(2/17),

GN-2869-1(11/16)

#### DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

#### **U**RUGUAY

## GENERATION C: CONSOLIDATING EDUCATIONAL INNOVATIONS FOR 21ST-CENTURY SKILLS AND COMPETENCIES

(UR-L1141)

#### LOAN PROPOSAL

This document was prepared by the project team consisting of: Marcelo Pérez Alfaro (EDU/CUR), Program Team Leader; Mariana Alfonso, Elena Arias, and Rafael Contreras (SCL/EDU); Virginia Moreira, Federico Bachino, and Carolina D'Angelo (CSC/CUR); María Fernanda Merino (SPD/SPF); David Salazar, and Abel Cuba (FMP/CUR); and Rodolfo Graham (LEG/SGO).

This document is being released to the public and distributed to the Bank's Board of Executive Directors simultaneously. This document has not been approved by the Board. Should the Board approve the document with amendments, a revised version will be made available to the public, thus superseding and replacing the original version.

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#### **ELECTRONIC LINKS**

#### Required

- 1. Multiyear execution plan
- 2. Monitoring and evaluation plan
- 3. Theory of change and estimated cost

#### Optional

- 1. Economic analysis of the program
- 2. <u>Institutional capacity assessment</u>
- 3. Evaluation of the executing agency's procurement system
- 4. Operating Regulations

#### **ABBREVIATIONS**

ANEP Administración Nacional de Educación Pública [National Public

Education Administration]

BI Business intelligence CEI CEIBAL in English

CEIBAL Conectividad Educativa de Informática Básica para el Aprendizaje en

Línea [Basic Computer Connectivity for Online Learning]

Centro CEIBAL Centro CEIBAL para el Apovo a la Educación de la Niñez y la

Adolescencia [CEIBAL Center for Educational Support for Children and

Adolescents]

CFE Consejo de Formación en Educación [Teacher Training Council]
CIMA Centro de Información para la Mejora de los Aprendizajes [Education]

Statistics Portal of the IDB's Education Division]

CREA Contenidos y Recursos para Enseñanza y Aprendizajes [Digital

educational content management platform]

ICAS Institutional Capacity Assessment System

ICILS International Computer and Information Literacy Study

INEEd Instituto Nacional de Evaluación Educativa [National Institute for

**Educational Assessment**]

MEC Ministry of Education and Culture NPDL New Pedagogies for Deep Learning

OECD Organization for Economic Cooperation and Development

PAM Adaptive Mathematics Platform PCU Program coordination unit

PISA Programme for International Student Assessment

SEA Online learning assessment system

SELE Sistema de Evaluación de Logros Educativos [Educational Achievement

Assessment System]

TBD To be determined

#### **PROJECT SUMMARY**

# URUGUAY GENERATION C: CONSOLIDATING EDUCATIONAL INNOVATIONS FOR 21ST-CENTURY SKILLS AND COMPETENCIES (UR-L1141)

	Fi	nancia	l Term:	s and Conditions					
Barranian Fastara Danid	blic of I language			Flexible Financing Facility <sup>(a)</sup>					
Borrower: Eastern Repul	blic of Oruguay		Amortization period:	25 years					
Executing agency: Centr	o CEIBAL para el Apoyo	a la Ed	Disbursement period:	4 years					
de la Niñez y la Adoleso Support for Children and A			Grace period:	5.5 years <sup>(b)</sup>					
Source	Amount (US\$)	0	%	Interest rate:	LIBOR-based				
IDB (Ordinary Capital)	20 : !!!:	4.	00	Credit fee:	(c)				
	30 million	"	00	Inspection and supervision fee:	(c)				
Total			Weighted average life:	15.25 years					
	30 million	100		Approval currency:	United States dollars from the Ordinary Capital				
		Pro	ogram	at a Glance					
Program objective/deso primary and lower second				n is to improve student learning and	d competencies at the				
between the Ministry of E satisfaction, of evidence	Economics and Finance that the program Opera	(MEF) ting Re	and Ce	d agreement for the execution arentro CEIBAL (paragraph 3.1); and ins have entered into force (paragrats-based disbursement: Contracti	(ii) submission, to the Bank's ph 3.4).				
or firm to perform an exte	ernal verification of resu	lts, in a	ccorda	nce with the terms of reference pre nfirmation (paragraph 3.2).					
Exceptions to Bank pol	icies: None								
		Str	rategic	Alignment					
Challenges:(d)		SI	<b>V</b>	PI 🗆	EI 🗆				
Crosscutting themes:	(e)	GD		cc 🗆	IC 🗆				

- (a) Under the terms of the Flexible Financing Facility (document FN-655-1), the borrower has the option of requesting changes in the amortization schedule as well as currency and interest rate conversions. The Bank will take operational and risk management considerations into account when reviewing such requests.
- (b) Under the flexible repayment options of the Flexible Financing Facility, changes to the grace period are permitted provided that they do not entail any extension of the original weighted average life of the loan or the last payment date as documented in the loan contract.
- (c) The credit fee and the inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with relevant policies.
- (d) SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).
- (e) GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

#### I. PROGRAM DESCRIPTION AND RESULTS MONITORING

#### A. Background, problems addressed, and rationale

- 1.1 Basic public education in Uruguay is the primary responsibility of two institutions: (i) the Ministry of Education and Culture (MEC), as coordinator of education policies; and (ii) the National Public Education Administration (ANEP), an autonomous agency with independent legal status responsible for planning, management, and administration of the public education system at the preschool, primary, secondary, and vocational school levels, as well as teacher training. The ANEP has a governing body, the Central Governing Council (CODICEN), which oversees management of the different levels of education and is organized into four deconcentrated councils: Early Childhood and Primary Education Council (CEIP); the Secondary Education Council (CES); the Technical/Vocational Education Council (CETP), which encompasses vocational higher education (vocational degrees); and the Teacher Training Council (CFE).
- 1.2 Challenges of the education system: learning, curriculum framework, and educational track record. The Uruguayan education system, and by extension Plan CEIBAL, faces the challenge of improving the quality of education in the country. According to the results of the Programme for International Student Assessment (PISA), the average score of Uruguavan students did not improve in any of the three tested subjects between 2000 and 2015. While science and reading scores did improve between 2012 and 2015, the pace of that improvement has not been enough to reach the average of the Organization for Economic Cooperation and Development (OECD). In 2015, 41% of Uruguayan students performed in the lowest achievement levels in science, 52% in the lowest achievement levels in mathematics, and 39% in the lowest achievement levels in reading, as compared to 35%, 49%, and 28% of Chilean students, respectively. PISA also shows learning gaps by socioeconomic level: students in the highest quartile score 84 points higher in science than those in the lowest quartile. This gap is equivalent to 2.8 years of schooling and is one of the largest in the region.3 In addition to the low learning levels, the lower and upper secondary school curricula adopt a classic approach focused on discipline and characterized by a large number of subjects.<sup>4</sup> As a result, the educational offering is not sufficiently attractive to young people, as reflected in the high percentage of young Uruguayans who fail to complete secondary school.5

Bos, S., A. Elías, E. Vegas, and P. Zoido (2016), Note 2, "Latin American and the Caribbean in PISA 2015: How Much Did the Region Improve?" Link.

If fifteen-year-old students have an achievement level of less than 2, it means that (i) in science, they are unable to explain familiar phenomena; (ii) in reading, they are unable to understand or recognize questions requiring more than one direct inference; and (iii) in mathematics, they are unable to apply basic algorithms, formulas, or procedures to solve problems through the use of integers or interpret results literally. Bos, S. et al. (2016). Note 3, Latin America and the Caribbean in PISA 2105: How Many Students are Low Performers? IDB. <u>Link</u>.

Bos, S. et al. (2016). Note, 6 "América Latina y el Caribe en PISA 2015: ¿Cómo se desempeñan los estudiantes pobres y ricos?" Link.

National Institute for Educational Assessment (INEEd) (2014). 2014 report on the state of education in Uruguay.

Education is compulsory at the preschool (4 to 5 years of age), lower primary (grades 1 through 6), middle primary (grades 7 through 9), and upper primary (grades 10 through 12) school levels.

Despite having historically high school attendance rates,<sup>6</sup> barely 38% of Uruguayans between 18 and 20 years of age have completed all 12 years of compulsory education. This compares to an average secondary-school graduation rate of 43.1% for the region and 80.2% for Chile, a country similar to Uruguay in terms of income (CIMA, 2015). Household surveys show that the main reason Uruguayans between 15 and 17 years of age drop out is a lack of interest in the school offering.<sup>7</sup>

- 1.3 **CEIBAL** and its evolution process: With a view to driving an education transformation aimed at helping to improve the quality of learning and social equity, CEIBAL was created as a tool to integrate new information and communication technologies into the Uruguayan education system.<sup>8</sup> In addition to providing access to technological devices, CEIBAL fosters their use in the classroom by deploying educational platforms, creating digital educational content, and training teachers. CEIBAL's track record—from closing the digital gap to this new focus on developing the maximum potential for learning, creativity, and critical thought in Uruguayan children and adolescents—has consolidated the institution's pioneer status both within and beyond the region. This track record, spanning 10 years, is divided into three stages:<sup>9</sup>
  - a. The first stage (2007-2009) consisted in providing devices to children and adolescents and Internet connectivity to schools. As a result, the computer access gap between the highest- and lowest-income quintiles went from 12.8 in 2007 to 1.2 in 2010. Today, 99.9% of students and teachers in Uruguay have wireless Internet access in their respective schools.<sup>10</sup>
  - b. The second stage (2010-2012) emphasized use of the devices by deploying learning and teacher support platforms. The concept of a CEIBAL Support Instructor (MAC) was developed at this stage, along with multiple teacher's work and educational platforms such as the Digital Library, the Adaptive Mathematics Platform (PAM), the digital educational content management platform CREA, CEIBAL in English (CEI), and the Online Learning Assessment System (SEA). The Digital Library has more than 3,000 digital resources (books, audio stories, videos, flashcards, and artworks). PAM offers students more than 100,000 math activities from the fourth grade of primary school to the third year of lower secondary school. These activities can be adapted to each student' pace of learning, allowing teachers to give students individualized attention. CEI is an English language instruction program designed for primary-school grades 4 through 6, with distance-learning teachers who give weekly lessons to groups of students through a

<sup>&</sup>lt;sup>6</sup> Education statistics portal (CIMA), IDB. (2015). Uruguay had the largest early childhood and primary school education coverage in the region (92.4% and 98.5%, respectively, vs. a regional average of 68.3% and 94.2%).

<sup>&</sup>lt;sup>7</sup> INEEd (2014).

Centro CEIBAL was created by Law 18,640 (amended by Law 18,719 approving the national budget for the period 2010-2014), enacted and published in January 2010. Centro CEIBAL is a nongovernmental legal entity subject to public law; it reports directly to the Office of the President of the Republic and has an annual budget of approximately US\$50 million comprised of national government funds.

Fullan, M, N. Watson, and S. Anderson; CEIBAL (2013): Next Steps. Final Report. <u>Link.</u>

<sup>&</sup>lt;sup>10</sup> Centro CEIBAL Strategic Plan 2017-2020 (2017).

videoconferencing link.<sup>11</sup> These English classes are conducted jointly with the classroom teacher. CEI was launched in 2012 as a way of expanding English language instruction coverage, which at the time encompassed barely 27% of enrolled students. While the onsite teaching system serves 32,000 students per year, CEI made it possible to universalize English language instruction, which went from covering 25,000 students in 2013 to 85,000 students in 2016. The adaptive English test administered in 2015 showed that 66% of 6th grade students achieved the expected levels of knowledge for their reading comprehension level.<sup>12</sup> The SEA platform is used by 80% of Uruguayan teachers, conducting assessments with activities designed by teachers.<sup>13</sup> Results are delivered immediately, allowing teachers to reflect on, intervene in, and personalize the learning process, focusing on the difficulties experienced by the students, for example, by using the PAM platform.

- c. Lastly, the third stage (2013-present) emphasizes the use of technologies to leverage new teaching methods and strengthening CEIBAL's assessment capacities.<sup>14</sup> The objective is to transform teaching practices by integrating devices and new resources into the learning process. The challenge for this final stage is threefold: (i) maintain the high level of use of the various platforms over time; (ii) integrate them effectively so as to consolidate their contribution to transforming the pedagogical process in Uruguay; and (iii) promote research, analysis, and knowledge transfer to support decision-making by the education system's various actors.
- 1.4 **Global partnership for deep learning.** To address the challenge of an unattractive educational offering and achieve an impact on teaching practices, CEIBAL and ANEP joined the global partnership known as New Pedagogies for Deep Learning (NPDL).<sup>15</sup> This partnership seeks to create a space for the discussion and implementation of new pedagogies through the transformative drive of technologies. It focuses on two core areas: (i) working on interdisciplinary projects connected to

Provides support in the form of digital materials supplemented by printed materials that are used in the classroom. The program's technology, which is available at all urban public schools, is of high quality: giant high-definition screens, stereo sound system, specialized digital platform for introducing digital materials into the remote classroom, support materials designed for intensive use, and fiber-optic Internet connection.

Annual adaptive assessment (2015). Includes vocabulary, grammar, reading, and writing activities, in accordance with the Common European Framework of Reference, which identifies various levels of vocabulary, reading, and grammar knowledge (<u>Link</u>). The expected level of knowledge for the sixth grade of primary school is A2 (elementary), meaning that the student distinguishes and has a solid comprehension of various everyday expressions in English and recognizes the most common and essential grammatical structures referring to him/herself and his/her activities, likings, and environment (<u>CEI program background</u> and assessment agenda).

Online assessments are conducted using the students' devices. They include language, math, and science. In primary schools, they are conducted from the third to the sixth grades, and in secondary school from the first to the third years.

A monitoring and evaluation technical area was created in 2014, along with Fundación CEIBAL. The latter is an autonomous agency that promotes research, analysis, and knowledge transfer to support decision-making by the various actors in the education system.

NPDL is comprised of seven countries (Australia, Canada, Finland, Netherlands, New Zealand, United States, and Uruguay). Cobo, C., C. Brovetto, and F. Gago, Global Network for Deep Learning: The Case of Uruguay (2016).

real life and student interests;16 and (ii) promoting crosscutting competencies considered essential for creating citizens: creativity, collaboration, citizenship, communication, critical thought, and character, deploying strategies explicitly designed to foster and shape these competencies. NPDL provides a model for analysis and evaluation<sup>17</sup> of student progressions in achieving the various competencies and the teaching practices deployed by each school, thus allowing the schools to improve, expand, and enrich these practices through self-examination. Considering the profile of teachers in the school system, it also offers orientation and support for transforming teaching practices, encouraging those that incorporate deep learning activities. 18 Thus, teachers carry out activities that are shared across the entire education community through the CREA platform and are ultimately evaluated and enhanced by peers and specialized CEIBAL staff. enriching the teaching practice. 19 In 2016, 194 schools 20 began to apply this work and evaluation methodology. In the first measurement cycle, 724 teachers at local NPDL member schools performed more than 80,000 assessments of 17,000 students. This alone is an encouraging scenario: a substantial number of teachers is being trained and working within the framework of this methodology.

- 1.5 **The Bank's experience in Uruguay.** Over the last few decades, the Bank has supported the Uruguayan education sector with various loan operations. Since CEIBAL's inception, the Bank has been a strategic partner through:
  - a. The Support Program for the Consolidation and Expansion of Plan CEIBAL,<sup>21</sup> executed between 2010 and 2014 with the goal of supporting the consolidation of Plan CEIBAL at the primary education level and its expansion into secondary education, as well as building its institutional capacity to contribute to better learning outcomes. Four platforms were launched: Standardized Data and Records Management (GURI) for primary school management; CREA; SEA; and PAM. In addition, the program supported the institutional development of Centro CEIBAL to assess its progress and potential impacts and implemented two pilot projects: one for the improvement of mathematics instruction through the PAM platform and another for English instruction in primary schools (CEI).

<sup>&</sup>lt;sup>16</sup> The evidence suggests that successful programs to improve secondary school learning address the specific challenges faced by adolescents or focus on improving teacher effectiveness (DIA, 2017).

Consists of six rubrics: (i) vision and goals; (ii) leading deep change; (iii) creating a learning culture; (iv) capacity-building; (v) new measures and evaluation; and (vi) leveraging digital.

Those that promote: (i) learning partnerships, coordinating with external actors in the learning process, and strengthening the teacher's role as activator and the student's voice as driver; (ii) teaching practices that include crosscutting curriculum content and competencies and incorporate self-assessment and peer-to-peer assessment practices; (iii) development of learning environments beyond the classroom; and (iv) digital leveraging, integrating technology beyond traditional uses to maximize and encourage learning.

These activities complement others developed by CEIBAL (e.g., face-to-face and virtual training for teachers, principals, and supervisors; specialized teachers at schools; and platform user support) and by ANEP, which is in the process of revising its basic teacher training curriculum to ensure that it incorporates this content.

<sup>&</sup>lt;sup>20</sup> 121 primary schools and 73 secondary schools.

<sup>21 2260/</sup>OC-UR: US\$8.5 million – US\$6 million (loan). Previously, a Multilateral Investment Fund (MIF) technical cooperation operation, Network Deployment Support for Universal Access to Telecommunications (ATN/ME-11077-UR), supported the coordination and strengthening of small and medium-sized providers of technology services for Plan CEIBAL.

- b. Plan CEIBAL II Support for Primary and Secondary Math and English Education,<sup>22</sup> started in 2014 and now in its final execution stage. Its aim is to help improve mathematics and English education at the primary and lower secondary school levels. The program's financing was used to expand both the use of PAM, reaching 119,000 registered platform users, and the use of CEI, universalizing English instruction in primary schools and reaching the expected learning level for 73% of 6th-grade students, as well as develop annually applied adaptive assessment tools for measuring knowledge.
- c. Validation of Korea's Cyber Home Learning Model in Uruguay<sup>23</sup> (IntegraTE), which adapted and implemented a math and (Spanish) language digital support platform accessible from home to reinforce knowledge acquired in the classroom.
- d. Implementation of a monitoring system in learning analytics,<sup>24</sup> now in its initial stage of execution, which through large-scale database analysis techniques will support CEIBAL in the proper and strategic use of its broad array of data and information so as to better understand how, where, and when teachers and students participate in the process of sharing and creating new knowledge.
- 1.6 In addition, the Bank has supported the Uruguayan education sector through other operations, such as:
  - a. The Secondary and Technical Education and Teacher Training Support Program (PAEMFE), approved in 2010 and executed by the ANEP, is now in its final stage.25 The program's overall objective is to contribute to the policy of access to and retention in the lower secondary and vocational education levels. Through this program:<sup>26</sup> (i) 16,000 students in pre-service teacher training benefited from academic and economic support throughout their school program, and 17,000 teachers received support in their professional development;27 (ii) 15 teacher training centers were reconditioned and equipped, additionally receiving institutional and pedagogic support: (iii) 4,300 secondary education students participated in learning progression tracking and support programs that led to a 10% decrease in grade repetition and dropout rates; (iv) 386 secondary school classrooms were built and equipped and 415 secondary schools were supported through projects to strengthen their teaching strategies; and (v) education system management processes were improved, particularly those relating to the management of human resources and inventories and file administration.
  - b. The Program of Support for Secondary Education and Teacher Training: Toward Seamless and Complete Learning Pathways (3773/OC-UR) was approved in late 2016. Its aim is to improve access to and the quality of secondary education in Uruguay with a view to achieving seamless and

<sup>&</sup>lt;sup>22</sup> 3225/OC-UR: US\$6.9 million – US\$6 million (loan).

<sup>&</sup>lt;sup>23</sup> ATN/KP-14301: UR-T1084: US\$0.8 million – US\$0.5 million (technical cooperation operation).

<sup>&</sup>lt;sup>24</sup> ATN/KP-15744: UR-T1143: US\$ 0.51 million -US\$ 0.5 million (technical cooperation operation).

<sup>25 2480/</sup>OC-UR: US\$114.5 million, US\$48 million in loan proceeds (disbursement period: February 2018).

<sup>&</sup>lt;sup>26</sup> 2016 progress monitoring report.

<sup>27</sup> Included actions to strengthen pre-service and ongoing teacher training developed by the Teacher Training Council (CFE).

complete learning pathways. Its main activities include: (i) the definition of graduation and learning progression profiles for the entire secondary education cycle, and the implementation of a new national benchmark curricular framework; (ii) the implementation of a strategy to increase the length of the school day for secondary schools; (iii) the implementation of new teaching approaches through digital classrooms, particularly in subject matter areas where teachers are scarce; (iv) the implementation of a new program of study for pre-service teacher training; (v) the implementation and evaluation of a quality assurance system in secondary education, including the strengthening of practices to regularly provide actors with information on internal efficiency and learning outcomes to promote continuous improvement; (vi) support for the design, implementation, and evaluation of a system to protect student pathways; and (vii) expansion and improvement of the education infrastructure.

1.7 Lessons learned. The main lessons learned are: (i) the importance of including key studies and evaluations in the operations to serve as a contribution to public policy on education. CEIBAL has started to build a rigorous body of evidence on the effects of its programs on learning. The first was an impact assessment showing positive effects of exposure to the CEI program on the English results of fourth- to sixth-grade students, which was used as an input for the design of this operation.<sup>28</sup> Classroom observation<sup>29</sup> suggests that distance-learning teachers have different degrees of effectiveness, which depend on the practices they use and significantly affect academic results but are not determined by more training.<sup>30</sup> In fact, it was found that there is an optimal number of classes taught remotely (between 8 and 15), which led to improvements in the organization of the program. There is an evaluation under way on the effects on learning of intensive use of the PAM, which may yield new guidance on how to make the best use of this tool;31 (ii) related to the preceding point, the progressive strengthening of CEIBAL's assessment capacity (with the aforementioned creation of a monitoring and evaluation technical area and of Fundación CEIBAL), coupled with the availability of information on learning based on national tests as of 2017,32 unprecedented in the Uruguayan education system, and the introduction of learning analytics, offers new opportunities to understand the use of digital technologies in creating and promoting better learning opportunities

Plan CEIBAL (2017). Study on the quality of English instruction: teaching characteristics and practices, classroom interactions, and learning; and Perera, M. (2017), Evaluation of the CEIBAL System of English Instruction: Report on the Econometric Analysis Results.

Ninety-nine videos were observed, corresponding to 98 of the 115 distance-learning teachers that formed part of the research.

Plan CEIBAL (2017). According to initial estimates, the gain in having a teacher ranked in the 75th quality distribution percentile, as opposed to having a teacher ranked in the 25th percentile, is equivalent to the gain obtained by a student when going from one CEI level to a higher one (Perera, 2017).

<sup>&</sup>lt;sup>31</sup> The results should be available in October 2017 upon the completion of program 3225/OC-UR.

The assessment using the Educational Achievement Assessment System (SELE) of the National Education Assessment Institute will be conducted in grades three and six of primary school in 2017 and in year three of lower secondary school in 2018. It will include standard reading and mathematics evaluations and will additionally seek to determine students' socioemotional skills and learn their opinions on school environment, coexistence, and participation. Furthermore, principals and teachers will be surveyed on their customary ways of teaching and their opinions on the school environment and work in the schools. These assessments will be conducted every three years.

and provides feedback both for CEIBAL and for the education system; (iii) leveraging the existing synergies between operation 3773/OC-UR, as relates to the strengthening of practices to regularly provide schools with information on internal efficiency and learning to promote continuous improvement, and activities included in this program, such as NPDL, since the delivery of information on schools provides awareness of the schools' diagnostic assessments and challenges, and SEA, insofar as this platform provides an assessment of and feedback on the teaching and learning process in the schools; and (iv) the existence of effective coordination between CEIBAL on one hand and ANEP and its deconcentrated councils on the other. The expanded board, in which representatives of all councils and the MEC take part, provides a venue for coordination in implementing CEIBAL programs and has proven to be a very effective tool in its 10 years of existence (paragraph 3.1). These experiences have been considered in the design of activities for this operation.

- 1.8 Strategy and rationale for the operation. The Education Program for the 2015-2019 Five-year Period poses three challenges: (i) strengthen early childhood education; (ii) improve primary school graduation conditions; and (iii) make lower secondary school graduation universal and double upper secondary school graduation rates, reaching a 75% rate in both cases by 2020, by focusing on studentcentered learning pathways. This approach: (a) assumes that all children begin attending school at 3 years of age and remain in school until age 17 to 18; (b) conceives of the education path as a single continuum, without regard to the institutional structure of the education system; and (c) assumes that the achievements in learning and competencies defined at each stage of the path are prerequisites for progression in the stages that follow. The approach has six strategic lines of action: (i) strengthening and institutional management of ANEP; (ii) universalizing compulsory education; (iii) improving learning; (iv) strengthening the teaching profession; (v) strengthening professional development of the technical-administrative career; and (vi) professionalizing vocational and technological education. In this context, the Uruguayan government requested the Bank's support for a program, in the form of a results-based investment loan, that can allow CEIBAL to continue to build on its achievements and make strides in transforming teaching practices. This program encompasses actions related to the second aforementioned challenge, as well as to the third challenge as regards achievements in learning and competencies, and is related to the second and third strategic lines of action.
- 1.9 **Theory of change.** Improving student learning and competencies requires transforming teachers' pedagogical practices by introducing and sustaining educational programs that incorporate technology and the use of information into the teaching process.<sup>33</sup> It is assumed that if Uruguayan teachers use pedagogical innovations and platforms and the information on student performance that these platforms periodically generate, they can modify their practices and their students will obtain better learning outcomes (in terms of both content and competencies),

The empirical evidence suggests that successful programs to improve secondary school learning tend to address the specific challenges faced by adolescents and focus on improving teacher effectiveness. Learning Better: Pubic Policy for Skills Development, Development in the Americas 2017, Inter-American Development Bank, Washington, D.C.: Duryea, S., V. Frinsacho, and D. Hincapie. Chapter 8: Skill Development during Adolescence.

will develop greater interest in their education (which will relate more closely to aspects of their lives), and will therefore remain in the school system until completing their education.

- To reach these objectives, the program relies on the following pillars: (i) maintain the 1.10 platforms developed thus far (PAM, CREA, Digital Library, and SEA) in active use through this operation, and by supporting and monitoring their use, and increase the diversity of educational resources available through these platforms to sustain continued interest in their use as a learning improvement strategy, achieving significant utilization of the platforms as a learning resource; and (ii) continue to foster programs such as CEI which, like other programs developed by CEIBAL, satisfy the characteristics of "guided-use"34 technology programs, which have greater potential for improving learning, and ensuring proper implementation and quality, so as to reach all fourth- to sixth-grade primary school students and expand secondary school coverage; (iii) implement activities in the local NPDL member schools that promote linking curriculum content and classroom activities with reallife problems and developing the six crosscutting competencies, as well as projectbased work that combines content and competencies with technology use, to accelerate and deepen learning and collaborative practices between teachers and between schools (paragraph 1.4); and (iv) deepen the monitoring processes, such as by designing indicators that measure the level of CEIBAL intervention in schools and students, assessing digital skills, and developing rigorous evaluations that can capture the transformative effect of CEIBAL on the education process and allow continuous improvement of its plans and programs (see required electronic link 3 for a detailed explanation of the chain of results).
- 1.11 Alignment with IDB strategies in the country and sector. The program is Update to the Institutional consistent with the Strategy 2010-2020 (document AB-3008) and is strategically aligned with the development challenge of reducing social exclusion and inequality, since the program's objective is to improve the quality of public education, which serves students from low-income families, by offering better educational opportunities. In addition, the program contributes to the Corporate Results Framework 2016-2019 (document GN-2727-6) with regard to the number of students benefitting from education projects. It is consistent with the IDB Country Strategy with Uruguay 2016-2020 (document GN-2836), contributing to its strategic objective of increasing the secondary school graduation rate and improving the quality of education. It is also consistent with the Strategy on Social Policy for Equity and Productivity (document GN-2588-4) and with the Education and Early Childhood Development Sector Framework Document (document GN-2708-5) in dimensions of success 1 and 4. Furthermore, it meets the requirements for operations under results-based loans (document GN-2869-1), since it supports a government program in delivering results by financing its expenditure framework. Lastly, the program has gender and diversity additionality, since the assessment of computer and information literacy to be conducted under the program will result in new data to identify significant gender gaps in students' information literacy profiles and performance and carry out comparative studies with other countries, thereby

Guided-use programs—those which clearly define the subject matter, frequency, and technological materials to be used to attain an objective—have an impact on learning up to four times greater than non-guided use programs. Arias Ortiz, E. and J. Cristia (2014), The IDB and Technology in Education: How to Promote Effective Programs, Technical Note, IDB. <u>Link</u>

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providing feedback for CEIBAL programs with a view to closing potential gender gaps. The program is included in the Operational Program Report for 2017 (document GN-2884).

- B. Objectives, components, and cost
- 1.12 **Program objective and components.** The objective of the operation is to improve student learning and competencies at the primary and lower secondary education levels in Uruguay. To achieve this objective, the program will finance the following components:
- 1.13 Component 1. Programs to improve learning and teaching practices (US\$19.83 million). The expected outcomes of this component will be to improve English learning and pedagogical practices. To achieve these outcomes, the component will finance the costs associated with the following activities: (i) implementation and quality monitoring of the CEIBAL in English (CEI) program in primary education for 80,000 students from grades four to six through remote instruction via videoconference. It provides for contracting distance-learning teachers and support consisting of digital materials supplemented by printed materials that are used in the classroom; (ii) implementation and quality monitoring of supplementary English conversation classes for 600 groups of lower secondary school students, using the same technology as in CEI; (iii) development of an achievement test in English conversation for students in the first year of lower secondary school to measure their level of learning; and (iv) onsite and virtual training at the various levels (induction and specialization) for principals and teachers in primary and lower secondary schools that have joined NPDL, provision of tools for assessing competencies and for collaboration and sharing in the CEIBAL platforms, and tracking and evaluation of deep-learning activities. The beneficiaries of the activities are associated with the coverage and characteristics of each activity, as defined in advance by CEIBAL.
- Component 2. Technology platforms and resources to improve learning and 1.14 competencies (US\$8.28 million). The expected outcomes of this component are an increase in significant use of technology platforms<sup>35</sup> and resources to improve learning in the areas of mathematics and reading, and the promotion of collaborative learning. To achieve them, this component will finance costs associated with the following activities: (i) operation and maintenance of the PAM platform for students in fourth grade of primary school through the third year of secondary school; (ii) implementation, operation, and maintenance of the interactive Digital Library platform to encourage reading, making recreational reading materials, textbooks, videos, and images available to students in early childhood and primary school through the third year of lower secondary school; (iii) operation and maintenance of CREA, the digital platform for collaborative learning and communication used by teachers and students in primary and secondary schools and also for ongoing teacher training and thematic interest groups among teachers; and (iv) development of tablet applications for students in grades one to three of primary school, with

In the case of PAM, significant user is defined as one who does 100 exercises per year, this being the minimum number of exercises needed to utilize this platform's potential. At the time of baseline measurement, significant users in primary education accounted for 52% of all users. In the case of CREA, significant use is defined as at least 10 days a year, this being the minimum number of days needed to take advantage of the platform's various functionalities.

educational content in math, language, arts, and natural and social sciences. The four platforms target beneficiaries in various groups: in all cases, the beneficiaries include students in the grades indicated for each platform, while in the case of CREA they also include teachers.

1.15 Component 3. Management, monitoring, and evaluation of results (US\$1.55 million). To achieve the expected outcome of expanding coverage of learning and program evaluation systems and managing lower secondary education enrollment, this component will finance costs associated with the following activities: (i) operation and maintenance of the Online Learning Assessment System (SEA) in all its subject areas, from grade three of primary school through year three of lower secondary school, as a tool for feedback for the teaching-learning process and the class attendance management system in lower secondary education "Uruguay Studies" program;36 (ii) Uruguay's participation in the International Computer and Information Literacy Study (ICILS)37 for students in the second year of lower secondary school; (iii) development and implementation of an index to measure the level of CEIBAL intervention targeting schools and students<sup>38</sup> and an index to measure NPDL intervention targeting schools;39 and (iv) impact assessments of the assignment of effective distance-learning teachers to low-performing students in English language courses and of the use of the PAM platform, and an assessment of the process of implementation of NPDL. The focus of the SEA platform ranges from students who are completing their first schooling cycle (grade three of primary school) to those who are completing their lower secondary education (year three).

This system manages attendance-taking by the teacher or teaching assistant online through a device (tablet or cellular phone). It makes it possible immediately to identify classroom attendance or absence, while also generating information to track students at risk of dropping out of school. Piloted in 2016, implementation of the system began in 2017 in lower secondary schools.

- This index will be measured using the administrative information generated by CEIBAL and ANEP, as well as information on the use of the CEIBAL platform as inputs. The indicators that will comprise the intervention index are: (i) school and student participation in the Aprender Todos [Everyone Learning], Laboratorios Digitales [Digital Laboratories], and CEI initiatives; (ii) presence of the CEIBAL Support Instructor; and (iii) significant use of the PAM, CREA, and Digital Library platforms. In addition, the index will use CEIBAL infrastructure indicators such as connectivity optimization, fiber optic availability, and videoconferencing equipment. Construction of the index will also include gender and socioeconomic disaggregation to examine whether differences exist in the patterns of use of the various platforms.
- Design of this index will take the following indicators into account: (i) number of teachers in a single school participating in NPDL; (ii) number of deep-learning activities proposed by teachers; (iii) number of teachers participating in the proposed deep learning activities; (iv) number of students assessed in any of the six competencies and number of assessments performed on a single student during a school year; (v) number of schools that participate in the self-assessment rubric; and (vi) interrelationship among teachers, between the principal and teachers, and between the school and students' families.

Computer and information literacy refers to the ability to use devices to research, create, and communicate in order to participate effectively at home, at school, in the workplace, and in the community. It combines technical skill with the intellectual capacity to achieve a communicational objective. The participating countries are Canada, Chile, Denmark, Finland, France, Germany, Italy, Kazakhstan, Korea, Luxembourg, Portugal, the Russian Federation, the United States, and Uruguay. The study will make it possible to identify the existence of significant gender gaps, if any, in students' information literacy profiles and performance levels (information gathering; access and evaluation; content production and transformation; communication; secure information use and sharing), as well as conduct comparative studies with other participating countries. It also provides students' socioeconomic background, which will enrich this comparative analysis. Link.

- Uruguay Studies is a program that focuses on lower secondary schools, while ICILS determines the school year in which the study is to be conducted.
- 1.16 The program will also cover the costs of financial audits, external verification of results for each disbursement tranche, and administrative expenses (US\$340,000).

#### C. Key results indicators

- 1.17 The general impact of the program will be measured by means of learning quality and skill acquisition indicators, such as: (i) mathematics results of students in grade six of primary school who make significant use of the PAM platform and those who do not use it; and (ii) improvements in the digital skills of students in year two of lower secondary school (Annex II).
- 1.18 The results indicators that will be used for disbursements are: (i) for Component 1: (a) the percentage of urban students in grade six of primary school participating in CEI and assessed who achieve level A2 in the adaptive test; (b) the number of deep learning activities prepared and shared by teachers participating in NPDL; and (c) assessed deep learning activities; (ii) for Component 2: (a) the number of students in years three through six of primary school and years one through three of lower secondary school registered in the PAM platform who reach a significant use level; and (b) the number of students in years three through six of primary school and years one through three of lower secondary school registered in the CREA platform who reach a significant use level; and (iii) for Component 3, the percentage of students in years one through three of lower secondary school whose attendance is checked—via Uruquay Studies—at least once a day during the school year. The disbursement matrix contained in Annex II specifies the indicators and the amounts associated with each. These indicators were selected for the following reasons: (i) they are critical to fulfillment of the program objectives; (ii) they strike a good balance between intermediate and final indicators; and (iii) there are solid sources of information for monitoring and measuring them.
- 1.19 **Cost/benefit analysis.** This analysis estimated the program's social benefits attributable to the sustained use of educational platforms and programs that use technology to improve learning and skills. The ex ante cost/benefit analysis of this operation shows that it has a social return rate of 14.97%, which is higher than the discount rate used by the Bank (12%), and a positive net present value of US\$9.67 million. Various scenarios demonstrate the program's economic viability under assumptions that are even more conservative than those in the base scenario (optional electronic link 1).

#### II. FINANCING STRUCTURE AND MAIN RISKS

#### A. Financing instrument

2.1 The financing instrument is a results-based loan totaling US\$30 million from the Bank's Ordinary Capital. The program does not provide for a local counterpart contribution. The operation complies with the requirements for a results-based loan (document GN-2869-1) since it: (i) supports a government program such as Uruguay's five-year education program in the delivery of results by financing the expenditure framework of CEIBAL programs; (ii) promotes good management practices, such as through Uruguay Studies attendance-taking, which generates

immediate information for educational pathway projections, and through NPDL, which seeks to introduce project-based learning activities; (iii) promotes improvement in the performance of an existing government program by emphasizing the achievement of results; and (iv) provides for an assessment of CEIBAL using the Institutional Capacity Assessment System (ICAS) (optional electronic link 2) shows that it has the requisite legal authority, governance, and institutional environment, as well as sufficient managerial and technical capacity, to manage and monitor a results-based loan. The assessment of CEIBAL's procurement and financial management systems found that they are consistent with the relevant principles and good practices. Thus, CEIBAL possesses the necessary systems to ensure proper use of the loan proceeds and reliable tracking of the results indicators, making it possible to monitor the targets for each indicator (optional electronic link 3 and Annex III). The project team consulted with the Office of Institutional Integrity and confirmed that based on an analysis of the information that was available at the time of preparation of this document, the integrity risk associated with this program is low. Uruguay chose this instrument for the following reasons: (i) a results-based loan focuses on the achievement of development goals rather than solely on financial progress and progress in associated outputs, resulting in lower transaction costs with the Bank in both the design phase and the execution phase; and (ii) based on its annual performance commitments to the executive branch in which its budgetary allocations are disbursed against fulfillment of agreed upon targets, CEIBAL has experience with this type of instrument. Lastly, results-based loans increase the Bank's added value by changing the nature of the dialogue with the executing agency, ensuring that incentives are aligned to improve the performance of public programs and that the focus is on attaining the results and expanding the scope of the executing agency's technical contribution.

2.2 **Cost and financing.** Table 1 and the estimated cost (<u>required electronic link 3</u>) provide a breakdown of the budget by component and source of financing. The program's disbursement period will be four years. This period is slightly longer than the three years of the CEIBAL operations described in paragraph 1.5. However, it is consistent with the characteristics of the activities involved in this operation and their pace of implementation and achievement of results. Disbursement will be carried out in accordance with the schedule and tranches described in Table 2.

Table 1. Program cost (US\$ millions)

Components	IDB	%
Component 1: Programs to improve learning and teaching practices	19.83	66.1%
Component 2: Technology platforms and resources to improve learning and competencies	8.28	27.6%
Component 3: Management, monitoring, and evaluation of results	1.55	5.2%
Program administration	0.34	1.1%
TOTAL	30.00	100%

Table 2. Disbursement schedule and tranches (US\$ millions)<sup>40</sup>

Years/tranches	1	2	3	4	Total
Component 1 <sup>41</sup>	4.28	5.22	5.31	5.36	20.17
Component 2	0.88	2.51	2.36	2.53	8.28
Component 3	0.23	0.46	0.46	0.40	1.55
	5.39	8.19	8.13	8.29	30.00
Percentage per year – IDB resources	18%	27%	27%	28%	100%

#### B. Environmental and social risks

2.3 According to the Environment and Safeguards Compliance Policy (Operational Policy OP-703), this program has been classified as a category "C" operation (Annex IV), since the execution of its components is not expected to result in any adverse social, environmental, or cultural impacts. The expected social impacts of the operation will be positive. It does not include physical infrastructure or physical modification of the environment.

#### C. Fiduciary risks

2.4 An assessment of CEIBAL using the ICAS system, conducted in compliance with Bank policy GN-2869-1, identified a low level of risk. In addition, it found that the regulatory framework for both financial management and procurement management is adequate (optional electronic link 3 and Annex III). Since 2011, CEIBAL has had certification (ISO-9001:2008) for its key processes and its support processes, which include fiduciary, internal control, procurement, monitoring and evaluation, and ongoing improvement processes. Consequently, the necessary systems are in place to ensure proper use of the loan proceeds and attainment of the results. CEIBAL satisfactorily executed the two programs described in paragraph 1.5,42 fulfilling the terms and conditions set forth in the loan contract.

#### D. Other program risks

2.5 **Development risks.** The following are classified as medium-level development risks: a low number of deep learning activities by teachers; low student participation in the adaptive English test in sixth grade; a low level of use of the platforms; and a low percentage of students whose attendance is taken through Uruguay Estudia. To mitigate these risks, the following actions are envisaged: (i) priority focus by the CEIBAL teams on the schools participating in NPDL and on training teachers in the best use of the platforms; (ii) technical support reinforcement and use of support tools when carrying out the adaptive English tests; (iii) campaigns to boost use of the platforms and other CEIBAL programs; (iv) reinforced monitoring of technical problems in using the platforms; and (v) use of the expanded board meetings as a venue for coordination and problem resolution.

<sup>&</sup>lt;sup>40</sup> Matrix of Disbursement Indicators in Annex II.

<sup>&</sup>lt;sup>41</sup> Consolidates administrative expenses for disbursement purposes.

<sup>&</sup>lt;sup>42</sup> 2260/OC-UR and 3225/OC-UR.

#### III. IMPLEMENTATION AND MANAGEMENT PLAN

#### Α. Summary of implementation arrangements

- 3.1 Borrower and executing agency. The Eastern Republic of Uruguay will be the borrower in the operation with the Bank, and Centro CEIBAL will be the executing agency responsible for program implementation. A special contractual condition precedent to the first disbursement of the financing will be the signing of an agreement for the execution and transfer of loan proceeds between the MEF and Centro CEIBAL. This agreement stipulates the conditions for the transfer of funds from the MEF and describes the responsibilities of Centro CEIBAL as the program's executing agency. The same institutional arrangements used to implement the previous two operations, which worked properly, will also be used in this program.<sup>43</sup> This requires coordination among CEIBAL, ANEP, and their various deconcentrated councils in implementing the activities included under the program in the context of the expanded board. The Centro CEIBAL units directly involved in the execution of this program are its education, information technology, and administration and finance departments; the monitoring and evaluation technical area; the human capital technical area; and Fundación CEIBAL. The first of these is responsible for coordinating CEIBAL's activities in the areas of training, educational materials and platforms, CEIBAL in English (CEI), digital laboratories, and special projects. The administration and finance department and the human capital area are responsible for financial and procurement management and for procurement in general. They are supported by the accounting and administration, planning and management, procurement, treasury, infrastructure, and warehousing technical areas. The monitoring and evaluation area and Fundación CEIBAL are jointly responsible for monitoring and evaluation of the institution's programs. There will be a program coordination unit (PCU), comprised of a coordinator from the education department and permanent members from the administration and finance department and the monitoring and evaluation area. This unit will be directly responsible for heading the implementation of the program, and will work on the programming and organization of activities, evaluation of results, compliance with the terms and conditions of the loan contract, and communications with the Bank.
- 3.2 External verification of results. This will be done by a specialized firm or individual consultant acting as an independent external evaluator of the achievement of results. The evaluator will be required to submit a results verification report to the Bank in advance of each disbursement request. Verification of the achievement of results will focus on two objectives: (i) render an opinion as to the accuracy, reliability, validity, and consistency of the information regarding the results; (ii) determine the values of the results indicators provided for each disbursement tranche. In addition, the evaluator may make recommendations aimed at promoting

43 2260/OC-UR and 3225/OC-UR. Under Law 18.640 (as amended by Law 18.719), Centro CEIBAL is governed by a board of directors comprised of a delegate from the Executive Branch (who serves as chairperson), a delegate from ANEP, a delegate from the MEC, and a delegate from the MEF. The board of directors is the center's highest authority, and performs its functions directly and with the support of the office of the general manager, primarily responsible for overseeing overall management of Centro CEIBAL pursuant to regulations and resolutions issued by the Board of Directors. In addition, Centro CEIBAL has an expanded board comprised of representatives of CODICEN, the deconcentrated councils (CEP, CES, CETP, and CFE), and the MEC. The Office of the Executive Director is supported by seven technical departments, each of which has technical and management support areas.

achievement of the targets based on the evaluation. This individual or firm will be required to have experience in project evaluation and monitoring, in working with results indicators, and in evaluating the reliability of the information sources and the methods used to produce it. The evaluator will be contracted in accordance with the terms of reference previously agreed upon with the Bank, and with the Bank's policies for the selection and contracting of consultants. A special condition precedent to the first results-based disbursement will be the contracting of an individual consultant or firm to provide external verification of results, in accordance with the terms of reference previously agreed upon with the Bank, each disbursement being subject to this independent confirmation.

- Disbursement mechanism. At the end of each year, the following disbursement 3.3 processing procedure will be observed: (i) the PCU will prepare a report on progress made in executing the program and achieving the results indicators to be used each year for disbursements, as listed in paragraph 1.18 (see Annex II: Matrix of Disbursement Indicators), and will submit this report for an external verification of results, which will examine achievement of these results based on the protocols provided in the monitoring and evaluation plan (required electronic link 2) and the Operating Regulations (optional electronic link 4). Information on the stated targets of the disbursement indicators is consolidated at the end of each year: (ii) the independent external evaluator will verify fulfillment of the results based on the objectives described in the previous paragraph and by the deadlines agreed upon in the corresponding terms of reference; and (iii) once achievement of the results has been verified, the PCU will submit the relevant disbursement request and the Bank, following standard procedures and times, will disburse the funds to the account indicated by the borrower; provided, however, that the Bank will disburse the amount corresponding to each indicator if and only if the external verification shows that the value of the indicator in question is equal to or greater than the stated target. If the value is lower, the disbursement will be proportional to the relative achievement of the target. Unused balances may be rescheduled for subsequent disbursements.
- 3.4 **Program Operating Regulations.** The program Operating Regulations, which are currently being prepared, will include the following: (i) the organizational structure of the program; (ii) the technical and operating arrangements for executing it; (iii) the programming arrangements and monitoring and evaluation of results; (iv) the operating guidelines of the results-based loan; and (v) a detailed description of the results indicators, particularly those related to disbursements and their verification protocols (optional electronic link 4). A special condition precedent to the first disbursement is that the borrower submit evidence, to the Bank's satisfaction, of the entry into force of the program Operating Regulations.
- 3.5 **Advance of funds.** Upon fulfillment of the conditions precedent to the first disbursement, the executing agency will have the option of requesting an advance of funds of up to 15% of the operation amount to finance activities needed to achieve the first results that are expected. The amount of the advance will be deducted in equal parts from the third and fourth tranches.
- 3.6 **Fiduciary agreements and requirements.** The financial management and procurement execution guidelines that will apply to the program are described in Annex III. Procurement performed directly by CEIBAL will be guided by the

- executing agency's policies, which have been validated by the Bank.<sup>44</sup> Funds transferred under the program will be managed in accordance with the procedures set forth in the program Operating Regulations.
- 3.7 **Financial audit.** As part of CEIBAL's annual institutional audit, an independent auditing firm will audit the expenses incurred in achieving the results, in accordance with the terms agreed upon with the Bank.

#### B. Summary of results monitoring arrangements

- 3.8 Monitoring arrangements. The program will adopt the Bank's supervision arrangements. The program's monitoring arrangements will include: (i) defining the protocols for external verification of achievement of the disbursement indicators; (ii) holding at least two meetings per year for a technical and operational review of progress on the program, problem resolution, and risk mitigation (including updating the risk analysis to be performed in the final meeting of each year), in which the relevant institutional actors and the Bank will participate and following which the management agreements reached will be duly publicized; (iii) implementing a project management system for purposes of generating the semiannual program report; (iv) semiannual reports on the achievements and problems faced in each of the components and the program's performance according to the agreed-upon results matrix (Annex II), at least as of the second year from the effective date of the program; and (v) use of the management tools described in the monitoring and evaluation plan (required electronic link 2) and agreed upon in the start-up and planning workshop, so as to have instruments in place to plan the activities and processes needed to achieve the physical outputs and the midterm and final outcomes.
- 3.9 Arrangements for evaluating results. The program evaluation plan (required electronic link 2) provides for the following evaluations: (i) evaluation of the assignment of effective distance-learning teachers to low-performing students in English language courses: (ii) evaluation of the use of the PAM platform; and (iii) evaluation of the process of implementation of NPDL. Evaluation of the assignment of distance-learning teachers will be performed using propensity score matching, with differences in differences, to control for potential biases in observable variables between the group of low-performing students in schools operating in critical sociocultural environments who were assigned effective distance-learning teachers (according to their value-added ranking)<sup>45</sup> and all other groups in critical sociocultural environments. The impact of this strategy will be measured by the results obtained in the adaptive English learning tests performed by CEIBAL in 2016 and 2017. Evaluation of the use of the PAM platform is designed to examine whether the students who make significant use of the platform perform better in mathematics than students who do not use it despite its being available to everyone, with an emphasis on gender differences, including an analysis of the differences between boys and girls in terms of use of the platform and mathematics performance. Lastly, there will be a qualitative evaluation of the process of implementation of NPDL to

<sup>44</sup> The guidelines for evaluation of the executing agency's financial management system were used in addition to the ICAS assessment.

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The added value of distance-learning teachers was measured through a model that enables calculation of the differences in the results of standard tests among students who attend the same school but have different teachers, using student results in the 2015 online English test (Perera, 2017).

examine the effects perceived by principals, teachers, and students on the teaching practices in the participating schools, as well as of the knowledge and use of the tools offered by CEIBAL in the classroom.

Development	Effectiveness Matrix					
S	ummary					
I. Corporate and Country Priorities						
1. IDB Development Objectives		Yes				
Development Challenges & Cross-cutting Themes	-Social Inclusion and Equality					
Country Development Results Indicators	-Countries in the region with im -Students benefited by educatio -Teachers trained (#)*	proved learning outcomes according to PISA (%) n projects (#)*				
2. Country Development Objectives		Yes				
Country Strategy Results Matrix	GN-2836	To increase the secondary school graduation rate; to improve the quality of the education.				
Country Program Results Matrix	GN-2884	The intervention is included in the 2017 Operational Program.				
Relevance of this project to country development challenges (If not aligned to country strategy or country program)						
II. Development Outcomes - Evaluability		Evaluable				
3. Evidence-based Assessment & Solution		10.0				
3.1 Program Diagnosis		3.0				
3.2 Proposed Interventions or Solutions		4.0				
3.3 Results Matrix Quality		3.0				
4. Ex ante Economic Analysis		10.0				
4.1 The program has an ERR/NPV, a Cost-Effectiveness Analysis or a General Economic Analysis		4.0				
4.2 Identified and Quantified Benefits		1.5				
4.3 Identified and Quantified Costs		1.5				
4.4 Reasonable Assumptions		1.5 1.5				
4.5 Sensitivity Analysis 5. Monitoring and Evaluation		1.5				
5.1 Monitoring Mechanisms		2.5				
5.1 Worldown Wechanisms 5.2 Evaluation Plan	7.5					
III. Risks & Mitigation Monitoring Matrix		1.0				
Overall risks rate = magnitude of risks*likelihood		Low				
Identified risks have been rated for magnitude and likelihood		Yes				
Mitigation measures have been identified for major risks		Yes				
Mitigation measures have indicators for tracking their implementation						
Environmental & social risk classification		С				
IV. IDB's Role - Additionality						
The project relies on the use of country systems						
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury, Accounting and Reporting, External Control, Internal Audit.				
		Procurement: nformation System, parison, ontracting Individual Consultant, ational Public Bidding.				
Non-Fiduciary						
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:						
Gender Equality	Yes	The computational skills evaluation that will be carried out by the program, will allow identifying significant gender gaps regarding the students' profiles and performances.				
Labor						
Environment						
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project						
The ex-post impact evaluation of the project will produce evidence to close knowledge gaps in the sector that were identified in the project document and/or in the evaluation plan	Yes	The impact evaluation will use a differences in differences and matching methodology. Even if there is already some knowledge on the impact of the assignment of effective teachers to low achievement students, this evaluation incorporates new components since it involves remote teachers.				

 $\label{eq:Note: (*) Indicates contribution to the corresponding CRF's Country Development Results Indicator. \\$ 

The objective of this operation is to improve the learning and skills of elementary and middle school students in Uruguay, by incorporating and strengthening the use of new technologies, accompanied by better pedagogical practices. The operation has three components that include activities aimed at improving English skills and pedagogical teaching practices, increasing the use of platforms and technological resources to improve learning in mathematics, reading, and to promote collaborative learning; and to expand the coverage of the evaluation systems of learning and programs and of the management of the middle school enrollment. The program continues a series of reforms in the education sector that the Bank supported with previous operations. The program is expected to benefit primary and secondary school students across the national territory, although students from schools in vulnerable socio-economic contexts will be expected to benefit more.

The vertical logic presented in the POD is consistent, covering inputs, products, results and impacts. The results matrix includes indicators for the main outputs, results and impacts of the program. The indicators in the results matrix meet the SMART criteria and include baseline and target values. Outcome indicators linked to disbursement have been identified and include indicators from each component. Impact indicators include results in Mathematics in sixth grade of Primary Education measured in standard deviations between students who make significant use of the mathematics platform and those who barely use them, as well as the score on the digital skills test in Basic Education.

The execution of the program will follow the scheme of the previous operations, being the responsibility of the Center Ceibal in coordination with the National Administration of Public Education (ANEP) and its execution agencies. The monitoring will be carried out by the executing agency following the Bank's supervision schemes. The external verification of the achievement of the results linked to disbursement will be carried out by an independent specialized firm or individual consultant who will act as external evaluator independent of the performance of the results.

The Monitoring and Evaluation activities have been planned and budgeted. Data sources for monitoring and evaluation include administrative data generated in the program, reports, standardized tests and evaluation tools developed in the context of the program. The program presents a cost-benefit analysis that supports the economic feasibility of the proposed activities. A quasi-experimental impact evaluation, an evaluation to measure the use of some platforms of the program, and a process evaluation have been planned.

#### RESULTS MATRIX

Program objective:	The objective of the operation is to improve student learning and competencies at the primary and lower secondary education levels in Uruguay.
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#### **EXPECTED IMPACTS OF THE OPERATION**

Indicators	Unit of measure	Baseline value	Baseline year	Final target	Comments
Results in mathematics in the sixth grade of primary school as measured by the difference in standard deviations between students who make significant use of the PAM platform and those who do not use it <sup>1</sup>	Standard deviation	To be determined (TBD)	2017		Will be based on the results of the SELE's mathematics assessment, to be conducted for students in grade six of primary school.  Source: SELE  Responsible institution: CEIBAL
Digital literacy score of students in the second year of lower secondary school	Average score	TBD	2018	TBD	ICILS assessment average score. The baseline and targets will be calculated in 2019 when the results are published. The second measurement will be performed in 2021 and the results will be available the following year to be used in the program completion report.  Source: ICILS Responsible institution: CEIBAL

<sup>&</sup>lt;sup>1</sup> The baseline and target levels of the indicators will be determined when, in the case of the former, the impact assessment baseline is prepared and when, in the case of the latter, the ICILS assessment is conducted.

#### **EXPECTED OUTCOMES**<sup>2</sup>

Indicators	Unit of measure	Baseline value	Baseline year	Year 1	Year 2	Year 3	Year 4	Final target	Means of verification	Disbursement indicator (yes/no)	Comments		
OUTCOME # 1: IMPROVEMENT IN LEARNING													
1.1. Urban sixth-grade students participating in CEI and assessed who achieve level A2 in the adaptive test	%	73	2015/ 2016	74	75	77	78	78	BI report "CEI levels achieved" <sup>3</sup>	Yes	The adaptive test includes reading comprehension, vocabulary, and grammar components.		
1.2. First-year secondary school students participating in the Conversation Class Program <sup>4</sup> who have been assessed and achieve level A2 on the oral test	%	TBD	2019	-	_	TBD	TBD	TBD	BI report "CEI levels achieved"	No	The assessment instrument will be developed in 2017-2018 and applied in 2019.		
1.3. Deep learning activities prepared and shared by teachers in schools that participate in NPDL	Activities	_	2016	200	300	300	400	1.200	BI report "Shared deep learning activities"	Yes (2017-2018)	These activities are designed by teachers in schools that participate in NPDL to stimulate the development of one or more of the six deep learning competencies. Once developed, they are shared in working groups through the CREA platform.		

<sup>&</sup>lt;sup>2</sup> All output indicators referring to students or users will be monitored by gender.

BI refers to CEIBAL's Business Intelligence suite, which is used to manage the control panel and makes it possible to integrate information from different databases, whether managed by CEIBAL or by other providers, depending on the platform that originates the information.

<sup>&</sup>lt;sup>4</sup> Conversation Class is supplementary to the onsite English classes in the school curriculum.

Indicators	Unit of measure	Baseline value	Baseline year	Year 1	Year 2	Year 3	Year 4	Final target	Means of verification	Disbursement indicator (yes/no)	Comments
1.4. Deep learning activities that have been assessed	Activities	I	2016	-	200	300	300	800	BI report "Assessed deep learning activities" <sup>5</sup>	Yes (2019-20)	These activities are assessed on at least one level by a peer school, by the CEIBAL team, or by a peer in another member country.
1.5. Students with an assessment of competency progressions completed for at least one dimension of one competency annually	Students	23,261	2016	25,000	30,000	40,000	50,000	168,261	Report on SEA evaluations	No	The assessment is conducted by the teacher based on a specific rubric for each of the six deep learning competencies.
1.6. Percentage of sixth-grade students attending a school in a critical sociocultural environment who achieve level A2 as a result of the assignment of effective remote instructors to lowperforming schools operating in a critical sociocultural environment	%	48%	2016/ 2015	75%					Impact assessment and adaptive English assessment (reading comprehension, vocabulary, and grammar)	No	

<sup>&</sup>lt;sup>5</sup> This report will be prepared in the first two years of the program (<u>required electronic link 3</u>).

Indicators	Unit of measure	Baseline value	Baseline year	Year 1	Year 2	Year 3	Year 4	Final target	Means of verification	Disbursement indicator (yes/no)	Comments			
OUTCOME # 2: IMPRO	UTCOME # 2: IMPROVEMENT IN TECHNOLOGICAL TOOLS AND SERVICES THAT SUPPORT TEACHING STRATEGIES													
2.1. Students in the third through sixth grades of primary school and the first through third years of secondary school registered in PAM who make significant use of the platform each year	Students	59,393	2016	60,000	61,000	67,000	72,000	319,393	BI report "Mastery of PAM"	Yes	A significant user is one who does 100 exercises per year, this being the minimum number of exercises needed to utilize this platform's potential. <sup>6</sup> At the time of baseline measurement, significant users in primary education accounted for 52% of all users.			
2.2. Students in the third through sixth grades of primary school and the first through third years of secondary school who make significant use of the CREA platform each year	Users	64,961	2016	66,000	70,000	74,000	80,000	354,961	BI report "Mastery of CREA"	Yes	Users are teachers and students. Significant use is defined as at least 10 days a year, this being the threshold for identifying regular users of this tool in its various functionalities.			

PAM offers sequences of activities on a subject based on internal algorithms. On average, it identifies learning gaps after seven exercises and proposes specific exercises. After 20 exercises, adaptive pathways can be created and the learning process becomes personalized.

Indicators	Unit of measure	Baseline value	Baseline year	Year 1	Year 2	Year 3	Year 4	Final target	Means of verification	Disbursement indicator (yes/no)	Comments
2.3. Users who download/view at least five contents in the Digital Library each year	Students		2016	8,000	10,000	15,000	20,000	53,000	BI report "Mastery of Digital Library"	No	Users are teachers and students in third grade of primary school through third year of secondary school. The new digital library platform incorporates other content in addition to books, such as audio stories, videos, flashcards, and educational images. It also adds individual log-in and new search functionalities and recommendations for students. The download target is determined based on experience in the use of similar platforms in other contexts.

Indicators	Unit of measure	Baseline value	Baseline year	Year 1	Year 2	Year 3	Year 4	Final target	Means of verification	Disbursement indicator (yes/no)	Comments			
OUTCOME # 3: IMPRO	DUTCOME # 3: IMPROVEMENT IN MANAGEMENT, MONITORING, AND EVALUATION TOOLS													
3.1. Tests taken by students in third grade of primary school through the third year of secondary school as part of the assessments offered through the SEA platform	Tests	1,062,000	2016	1,097,000	1,107,000	1,117,000	1,127,000	5,510,000	SEA report "Assessments per cycle"	No	SEA offers: (i) formative assessments in English, math, and science for students from grade three of primary school to year three of lower secondary school; (ii) adaptive English tests for students from grade four of primary school to year one of lower secondary school. The formative assessments are conducted twice a year in primary school and once a year in secondary school. The adaptive English tests are given at the end of the school year.			
3.2. Students in the first through third years of secondary school whose attendance is taken at least once a day during the school year through Uruguay Estudia	%	_	2016	55	60	65	70	70	BI report "Mastery of Uruguay Estudia"	Yes	The school year is comprised of the weekdays from 1 April to 30 November.			

#### OUTPUTS

Outputs	Unit of measure	Baseline value	Baseline year	Year 1	Year 2	Year 3	Year 4	Final target	Means of verification	Comments				
Component 1. Programs to improve learning and teaching practices														
1.1. Urban students in grades four through six of primary school who participate in remote CEI classes each year	Students	80,217	2016	80,000	80,000	80,000	80,000	400,217	Enrollment records from the unit management report – CEI	The program covers virtually the entire eligible universe.				
1.2. Number of secondary school student groups who participate in supplementary CEI conversation classes each year	Groups	700	2016	550	575	600	600	3,025	Group records from the unit management report – CEI	These classes supplement the work of the onsite teacher				
Test to assess oral     performance for first-     year secondary school     students developed	Test	_	2016		1	-	-	1	Unit management report – CEI					
1.4. Schools that participate in NPDL	Schools	195	2016	350	400	450	500	500	Unit management report – NPDL	A school participates in NPDL when it: (i) receives visits from trainers; (ii) is invited to participate in online courses for teachers; (iii) has the appropriate platforms for self-assessment and for activity-sharing; and (iv) has a virtual group to share its deep learning activities.				

	Unit of	Baseline	Baseline					Final	Means of						
Outputs	measure	value	year	Year 1	Year 2	Year 3	Year 4	target	verification	Comments					
Component 2. Technology p	Component 2. Technology platforms and resources to improve learning and competencies														
2.1. Primary and secondary school students who register in the PAM platform each year <sup>7</sup>	Students	119,265	2016	120,000	120,000	125,000	130,000	614,265	Unit management report – platforms	Refers to students who did at least one exercise on the platform (one-time users).					
2.2. Annual users of the CREA platform from grade three of primary school through year three of secondary school	Users	155,880	2016	156,000	158,000	160,000	162,000	791,880	Unit management report – platforms	Users include both teachers and students. Unique users are those who logged into the platform at least once.					
2.3. Students in grade four of primary school through year three of secondary school who register in the Digital Library each year	Students	1	2016	20,000	25,000	30,000	35,000	110,000	Unit management report – platforms	Refers to those who logged into the platform (one-time users).					
2.4. New apps with educational content available for tablets (primary school grades one through three)	Applications	-	2016	3	3	3	3	12	Unit management report – content	Include content in math, language, art, natural sciences, and social sciences (43 apps available)					
Component 3. Management,	monitoring, an	d evaluation	for results												
3.1. Hours of development spent in improvements and adaptations of the SEA platform	Hours	1.000	2016	850	850	850	850	4.400	Unit management report – platforms						
3.2. New versions of Uruguay Estudia that involve correction of errors and/or product improvement	Versions	-	2016	2	2	2	2	8	Unit management report – platforms	New applications that allow it to operate on mobile devices and new XO tablet models					

<sup>&</sup>lt;sup>7</sup> Equivalent to the indicator "Students benefitting from education projects." Of the Corporate Results Framework 2016-2019.

Outputs	Unit of measure	Baseline value	Baseline year	Year 1	Year 2	Year 3	Year 4	Final target	Means of verification	Comments
3.3. Digital literacy assessment (ICILS) implemented in at least 170 schools <sup>8</sup>	Assessment	_	2016	1	_	_	1	2	Unit management report – assessment	
3.4. Index on the level of CEIBAL intervention in schools and students developed <sup>9</sup>	Index	_	2016	I	1	_	1	1	Unit management report – assessment	See paragraph 1.15 of the loan proposal
3.4. Index on the level of NPDL intervention in schools developed	Index	_	2016	_	1	_	_	-	Unit management report – assessment	See paragraph 1.15 of the loan proposal

An analysis of this assessment will make it possible to identify the existence of significant gender gaps, if any, in students' information literacy profiles and performance (information gathering; access and evaluation; content production and transformation; communication; secure information use and sharing), as well as conduct comparative studies with other participating countries.

<sup>&</sup>lt;sup>9</sup> Construction of the index will also include gender disaggregation to examine whether differences exist in the patterns of use of the various platforms.

#### MATRIX OF DISBURSEMENT INDICATORS

		Yea	ar 1	Year 2		Year 3		Year 4		Final target			
	Baseline value	Target	Amount in US\$ millions	Target	Amount in US\$ millions	Target	Amount in US\$ millions	Target	Amount in US\$ millions	Target	Amount in US\$ millions		
Outcome # 1: Improvement in learning	outcome # 1: Improvement in learning												
1.1. Percentage of urban sixth-grade students participating in CEIBAL in English and assessed who achieve level A2 in the adaptive test.	73%	74%	3.13	75%	3.70	77%	3.78	78%	3.84	78%	14.45		
Deep learning activities prepared and shared by teachers in schools participating in NPDL.	_	200	1.15	300	1.52					1,200 <sup>10</sup>	2.67		
Deep learning activities that have been assessed.	_					300	1.53	300	1.52	800 <sup>11</sup>	3.05		
Outcome # 2: Improvement in technological	tools and se	ervices that	support tea	aching strat	egies								
2.1. Students in grades three through six of primary school and first to third years of secondary school who are registered in PAM and make significant use of this platform.	59,393			61,000	2.51			72,000	2.53	319,393 <sup>12</sup>	5.04		
2.2. CREA users in grades three through six of primary school and years one through three of secondary school who make significant use of the platform.	64,691	66,000	0.88			74,000	2.36			354,961 <sup>13</sup>	3.24		
Outcome # 3: Improvement in management, monitoring, and evaluation tools													
3.2. Percentage of students in the first through third years of secondary school whose attendance is taken at least once a day during the school year through Uruguay Estudia	-	55	0.23	60	0.46	65	0.46	70	0.40	70	1.55		
Total			5.39		8.19		8.13		8.29		30.0		

• The goals are the same as those set forth in the preceding table.

<sup>&</sup>lt;sup>10</sup> The totals for this goal correspond to the four years of the program (see page 2). Used as a disbursement indicator for years 1 and 2.

The totals for this goal correspond to the four years of the program (see page 3). Used as a disbursement indicator for years 3 and 4.

<sup>&</sup>lt;sup>12</sup> The totals for this goal correspond to the four years of the program (see page 4). Used as a disbursement indicator for years 2 and 4.

<sup>&</sup>lt;sup>13</sup> The totals for this goal correspond to the four years of the program (see page 4). Used as a disbursement indicator for years 1 and 3.

#### FIDUCIARY AGREEMENTS AND REQUIREMENTS

Country: Uruguay

Project number: UR-L1141

Name: Generation C: Consolidating Educational Innovations for

21st-century Skills and Competencies

**Executing agency:** Centro CEIBAL para el Apoyo a la Educación de la Niñez y

la Adolescencia [CEIBAL Center for Educational Support for

Children and Adolescents] (Centro CEIBAL)

**Prepared by:** Abel Cuba and David Salazar (FMP/CUR)

#### I. EXECUTIVE SUMMARY

- 1.1 This operation is a results-based loan. The program is for US\$30 million. The borrower is the Eastern Republic of Uruguay, and the executing agency is Centro CEIBAL, which has the requisite organizational and administrative structure and will be responsible for execution of the operation's loan proceeds.
- 1.2 The fiduciary agreements and requirements established for this program are based on Centro CEIBAL's track record as the executing agency of loans 2260/OC-UR (finalized) and 3225/OC-UR (in the final execution stage), and of technical cooperation operations ATN/KP-14301-UR and ATN-KP-15744-UR.
- 1.3 In addition, the Bank conducted an assessment using the ICAS system, obtaining satisfactory results. Since this is a results-based loan, fiduciary (financial management and procurement administration) assessments were conducted as required for this type of instrument. The results of the various assessments show that CEIBAL has well-developed and sufficient fiduciary systems in place, ensuring proper management in support of program execution and achievement of the expected outcomes (see paragraph 2.4 of the loan proposal).

#### II. FIDUCIARY CONTEXT OF THE EXECUTING AGENCY

- 2.1 Law 18,719 (approving the national budget for the period 2010-2014), enacted on 27 December 2010 and published on 5 January 2011, established Centro CEIBAL as a nongovernmental legal entity subject to public law and reporting directly to the Office of the President of the Eastern Republic of Uruguay.
- 2.2 Based on the results of the institutional assessment, the key considerations are:
  - a. The activities of Centro CEIBAL are supported by a modern organization that has worked internally to strengthen a process-based management system. This has enabled it to incorporate the strengthening support received and develop an ongoing process of updating and improving various aspects of management.

b. The results of the ICAS assessment are consistent with the executing agency's track record in the implementation of the previous operations and backed by the unqualified opinion issued on its audited financial statements. This is further supported by the outcomes of the Bank's supervision activities that were regularly carried out over the course of the aforementioned programs in accordance with Bank policies and other rules the borrower was required to observe under the loan contract.

#### III. FIDUCIARY RISK EVALUATION AND MITIGATION MEASURES.

3.1 In view of the foregoing considerations and the assessments performed, Centro CEIBAL is considered low risk and may only require minor mitigation measures to address its weaknesses. These measures may take the form of suggestions for efficient and effective administration of program resources.

#### IV. FIDUCIARY CONSIDERATIONS FOR THE SPECIAL CONDITIONS OF CONTRACTS

- 4.1 **Exchange rate.** For accounting in dollars, the exchange rate on the effective payment date will be used, specifying the conversion method indicated in General Condition 4.10 of the loan contract.
- 4.2 **Audited financial statements.** The audited financial statements will be presented within 120 days of the close of each fiscal year. The terms of reference are to be agreed upon with the Bank and the auditing firm must be acceptable to the Bank, specifying the time frame for submission indicated in General Condition 7.03 of the loan contract.

#### V. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

#### A. Procurement execution

- 5.1 Based on the relevant assessment, the executing agency's own procurement systems will be used in results-based loans.
  - a. Use of the executing agency's procurement system: The executing agency's procurement system was evaluated by the Bank and deemed consistent with internationally accepted principles, practices, and standards for all procurement methods, allowing participation by bidders from all countries. This system will be used for the procurement of goods, nonconsulting services, and consulting services (firms and individuals). The procedures established in the Policies for Selection and Contracting of Consultants Financed by the IDB (document GN-2350-9) will be applicable only for selecting the team of consultants or consulting firm for independent verification of results.
  - b. Strengthening measures: Based on the conclusions of the assessment report and the agreements with CEIBAL, the general bidding conditions will include adjustments regarding the rules for participation by State-owned companies and determination of the evaluation criteria. In addition, should preference arrangements be applicable, they will be limited to up to 15% of the price.

#### B. Procurement supervision

5.2 Procurements made using the executing agency's procedures will be supervised via the audits planned for the program, a method that precludes ex ante objections or ex post reviews by the Bank. This is one of the advantages of results-based loans.

#### C. Records and files

- 5.3 Centro CEIBAL has a system of filing and recording support documentation for the procurement of works, goods, and consulting services that:
  - a. Enables direct referencing and identification of the procedures followed in the bid opening process;
  - b. Enables direct referencing and identification of transactions performed;
  - Enables control of procurement received and its recording in the inventory system;
     and
  - d. Is available for review.
- 5.4 Centro CEIBAL has an information system computer system that addresses the entire procurement process. While full process traceability is available in the ERP procurement module, a digital and physical record of the entire procurement file is kept at the same time. Centro CEIBAL uses an outsourced operator to manage the document archive.

#### VI. AGREEMENTS AND REQUIREMENTS FOR FINANCIAL MANAGEMENT

#### A. Programming and budget

6.1 Under the execution agreement between CEIBAL and the MEF, the former receives an annual budget allocation. CEIBAL has an integrated management system (ERP), of which the budget module is a part. Its structure reflects the nature of execution of the resources it manages, which are basically defined as projects. The loan proceeds will therefore be listed under a project, which will show the resource and expenditure budget record. Both the MEF allocation and the budget execution are recorded in Uruguay's country's system.

#### B. Accounting and information systems

- 6.2 CEIBAL's accounting is governed by Ordinance 81 issued by the Tribunal de Cuentas [Court of Auditors], the provisions of which are consistent with the International Financial Reporting Standards. The integrated management system is set up so that every accounting record will have an associated account from the chart of accounts and an accounting project, as well as an account and line item in the budget, subject to budget availability.
- 6.3 For purposes of this program, it is agreed that CEIBAL will establish a specific accounting project for the use of the Bank's proceeds, and the financial statements will accordingly include the balances of the affected accounts in the context of program execution.

#### C. Disbursements and cash flow

6.4 CEIBAL's ERP has a budget module that provides traceability of incoming funds in real time and execution of the funds assigned to the project through the use of budget items, projects, and separate bank accounts. This makes it unnecessary to open separate bank accounts to manage the Bank loan. For execution of the program, CEIBAL will use funds from general revenue, applied to the achievement of results, which once verified and

- approved by the Bank, will enable disbursement in accordance with the matrix of disbursement indicators agreed upon with the Bank. In this regard, four disbursements are planned over the course of program execution. Justification of expenditures is not required for processing the respective disbursements.
- The Bank's loan proceeds will be made available to CEIBAL to enable the midterm results to be channeled, with a view to achieving the proposed targets established in the matrix of disbursement indicators.

#### D. Internal control and audit

6.6 CEIBAL maintains a control environment focused on systematizing its processes, supported by computerized management systems and the definition of internal control procedures formalized and available through its intranet portal. In addition, CEIBAL has for more than four years maintained a quality certification of its internal administrative management processes. It also has an internal audit function, which is tasked with evaluating and verifying the systems deployed for using the financial resources it manages. Since this program will be managed using CEIBAL's institutional structure and systems, it is agreed that the reports to be prepared by this unit will be available for Bank supervision and for review under the program's financial audits.

#### E. External control and reports

- 6.7 CEIBAL is subject to annual financial audits, performed by an independent audit firm contracted through a competitive process for periods of at least three years. The audit report is submitted to the Board of Executive Directors in the first quarter of each fiscal year for consideration and approval. These audits have always resulted in an unqualified opinion. In addition, at the request of the institutions that provide financing the projects it executes, CEIBAL has submitted the financial statements of these projects to independent reviews, none of which have resulted in qualified opinions or significant comments.
- 6.8 For purposes of the program, it is agreed that CEIBAL's financial audit report will be sufficient to fulfill the contractual provision required by the Bank, provided that: (i) the auditing firm is deemed eligible by the Bank; (ii) the terms of reference have been agreed upon with the Bank; (iii) international auditing standards are used in the review of the financial statements; and (iv) the report is made to include a paragraph referring to the balances in the accrual accounts recording the use of the Bank's loan proceeds.

#### F. Financial supervision plan

6.9 The financial supervision plan assumes participation in the periodic sessions to monitor the program's risk matrix and a review of the annual audit report that could result in onsite visits to acquire updated knowledge of the internal institutional systems.

#### DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

#### PROPOSED RESOLUTION DE- /17

Uruguay. Loan	/OC-UR to the Eastern Republic of Uruguay. Generation C: Consolidating
Edu	ucational Innovations for 21st Century Skills and Competencies

The Board of Executive Directors

#### **RESOLVES:**

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Eastern Republic of Uruguay, as Borrower, for the purpose of granting it a financing aimed at cooperating in the execution of the Generation C: Consolidating Educational Innovations for 21st Century Skills and Competencies. Such financing will be in the amount of up to US\$30,000,000, from the resources of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

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