

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

URUGUAY

**CONDITIONAL CREDIT LINE FOR INVESTMENT PROJECTS (CCLIP) TO
PROMOTE INNOVATION, ENTREPRENEURSHIP, HUMAN CAPITAL, AND RESEARCH**

(UR-O1153)

**FIRST INDIVIDUAL OPERATION
BUSINESS INNOVATION AND ENTREPRENEURSHIP PROJECT**

(UR-L1142)

LOAN PROPOSAL

This document was prepared by the project team consisting of: Gustavo Crespi (CTI/CUR), Project Team Leader; Pablo Angelelli (CTI/CCH), Alternate Project Team Leader; Gabriel Casaburi (CTI/CAR); Vanderleia Radaelli (CTI/CBR); Federica Gomez (INT/CUT); Ana Castillo (MIF/CUR), Maria Eugenia Roca; Ileana Pinto (VPC/FMP); Yudy Bohorquez; Leslie Stone (SPD/SMO); Maria Fernanda Merino (SPD/SPD); Abel Cuba; David Salazar (FMP/CUR); Gaston Rodriguez; Claudia Di Fabio; Carolina D'Angelo (CSC/CUR); Rodolfo Graham (LEG/SGO); and Adriana Oreamuno (IFD/CTI).

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.

CONTENTS

PROJECT SUMMARY

I.	DESCRIPTION AND RESULTS MONITORING	1
	A. Background, problem to be addressed, and rationale	1
	B. Objectives, components, and cost	8
	C. Key results indicators	13
II.	FINANCING STRUCTURE AND MAIN RISKS	14
	A. Financing instruments	14
	B. Environmental and social safeguard risks	14
	C. Fiduciary risks	15
	D. Other project risks	15
III.	IMPLEMENTATION AND MANAGEMENT PLAN	15
	A. Summary of implementation arrangements	15
	B. Summary of arrangements for monitoring results	17

APPENDIXES

Proposed resolution

ANNEXES

PRINTED ANNEXES

Annex I	Development Effectiveness Matrix (DEM) – Summary
Annex II	Results Matrix
Annex III	Fiduciary Agreements and Requirements

ELECTRONIC LINKS

REQUIRED

1. [Multiyear execution plan](#)
2. [Monitoring and evaluation plan](#)
3. [Environmental and social management report \(ESMR\)](#)
4. [Theory of change and estimated cost](#)

OPTIONAL

1. [Project economic analysis](#)
2. [Draft project Operating Regulations](#)
3. [Institutional analysis / Personnel, procedures, and other aspects of implementation capacity \(including Operating Regulations\)](#)
4. [Evaluation of the executing agency's procurement system](#)
5. [National Strategic Plan for Science, Technology, and Innovation \(PENCTI\)](#)
6. [CCLIP theory of change](#)
7. [Sector Technical Note: Competitiveness and Innovation](#)
8. [Evaluation of the Business Incubators Platform \(PRODEM\)](#)
9. [ANII 2016 Activities Monitoring Report](#)
10. [Final report – LATU Ingenio Venture Fund](#)
11. [Technical assistance to strengthen the Science, Technology, and Innovation System in Uruguay](#)
12. [Technological Development Program II](#)
13. [Impacts of business innovation promotion instruments: the experience of ANII in Uruguay](#)
14. [Evaluation of the Young Entrepreneurs Program \(ANII\)](#)
15. [Midterm evaluation of the Program to Support Future Entrepreneurs \(CINVE\)](#)
16. [Ex post evaluation report on National Postgraduate Scholarship Programs \(ANII\)](#)
17. [Safeguard policy filter \(SPF\)](#)

ABBREVIATIONS

ANII	Agencia Nacional de Investigación e Innovación [National Research and Innovation Agency]
BCU	Banco Central del Uruguay [Central Bank of Uruguay]
CCLIP	Conditional credit line for investment projects
GESPRO	Sistema de Gestión de Proyectos [Project management system]
GII	Global Innovation Index
ICAS	Institutional Capacity Assessment System
ICTs	Information and communication technologies
IPE	Institución patrocinadora de emprendimientos [enterprise sponsoring institution]
IRR	Internal rate of return
IT	Information technology
LBR	Loan based on results
OECD	Organization for Economic Co-operation and Development
PBP	Programmatic policy-based loan
PDL	Préstamo en Función de Resultados [Performance-driven loan]
PENCTI	Plan Estratégico Nacional de Ciencia, Tecnología, e Innovación [National Strategic Plan for Science, Technology, and Innovation]
R&D	Research and development
SIN	Sistema Nacional de Innovación [National Innovation System]
SMEs	Small and medium-sized enterprises
SPF	Safeguard policy filter
STI	Science technology and innovation
TFP	Total factor productivity
WAL	Weighted average life

PROJECT SUMMARY

**URUGUAY
CONDITIONAL CREDIT LINE FOR INVESTMENT PROJECTS (CCLIP) TO
PROMOTE INNOVATION, ENTREPRENEURSHIP, HUMAN CAPITAL, AND RESEARCH
(UR-O1153)**

**FIRST INDIVIDUAL OPERATION
BUSINESS INNOVATION AND ENTREPRENEURSHIP PROJECT
(UR-L1142)**

Financial Terms and Conditions						
Borrower: Eastern Republic of Uruguay			Flexible Financing Facility^(a)			
			Amortization period:	25 years		
Executing agency: National Research and Innovation Agency (ANII)			Disbursement period:	5 years		
			Grace period:	5.5 years ^(b)		
			Interest rate:	LIBOR-based		
Source	CCLIP (US\$)	First loan (US\$)	%	Credit fee:	^(c)	
				Inspection and supervision fee:	^(c)	
IDB (Ordinary Capital):	100 million	25 million	100%	Original WAL:	15.25 years ^(d)	
Total	0	25 million	100%	Currency of approval:	U.S. dollars from the Bank's Ordinary Capital	
Project at a Glance						
Project objective/description:						
The objective of the CCLIP is to make enterprises more productive through greater investment in knowledge, human resources, innovation, and entrepreneurship. The general objective of the first individual operation is to increase private investment in innovation activities by fostering innovative entrepreneurship and strengthening advanced human capital.						
The specific objectives are to: (i) strengthen the supply of early-stage financing for innovative ventures; (ii) increase the supply of advanced human capital attuned to the demands of the productive sector; and (iii) build institutional capacity to meet these objectives.						
Special contractual conditions precedent to the first disbursement of the loan proceeds: (i) entry into force of the execution agreement between the borrower and the executing agency; (ii) evidence that the project Operating Regulations have entered into force under the terms previously agreed upon with the Bank; and (iii) hiring of consulting services for external verification of results (see paragraph 3.7). For special fiduciary contractual conditions precedent to the first disbursement, see paragraph 4.1 of the Fiduciary Agreements and Requirements (Annex III).						
Special contractual conditions for execution: Approval of the incubation and co-investment projects will require the Bank's no objection (see paragraph 3.8).						
Exceptions to Bank policies: None.						
Strategic Alignment						
Challenges:^(e)	SI	<input type="checkbox"/>	PI	<input checked="" type="checkbox"/>	EI	<input type="checkbox"/>
Crosscutting themes:^(f)	GD	<input type="checkbox"/>	CC	<input type="checkbox"/>	IC	<input checked="" type="checkbox"/>

-
- (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 (WAL) 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) The original maximum weighted average life (WAL) of the loan may be shorter, depending on the effective date of loan contract signature.
 - (e) SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).
 - (f) GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

I. DESCRIPTION AND RESULTS MONITORING

A. Background, problem to be addressed, and rationale

- 1.1 **Background.** To meet the challenge of making its recent growth sustainable, Uruguay needs to reduce its productivity deficit relative to the advanced countries.¹ This calls for initiatives to foster productivity growth, partly by boosting business innovation through long-term science, technology, and innovation (STI) policies targeted to the needs of the productive sector.
- 1.2 To boost the innovation drive, as part of the [National Strategic Plan for Science, Technology, and Innovation \(PENCTI\)](#), the Government of Uruguay requested financing for a business innovation and entrepreneurship project that provides technical and financial support to the National Research and Innovation Agency (ANII).² The request is for a conditional credit line for investment projects (CCLIP). This project is the first individual operation under the CCLIP and will be executed through a loan based on results (LBR).
- 1.3 Approved by Decree 1468, PENCTI proclaims knowledge as the key engine of national development and sets the following five objectives for 2010-2030: (i) consolidate the science/technology system; (ii) make the productive sectors more competitive; (iii) develop capabilities for inclusive innovation; (iv) cultivate the human resources required for a knowledge society; and (v) develop a technology foresight system. This project is aligned with objectives (ii) and (iv). The PENCTI budgetary envelope for the period 2016-2020 is US\$1 billion (ANII, 2017).
- 1.4 **Economic context.** The Uruguayan economy has enjoyed a decade of growth averaging 4.9% per year between 2005-2015,³ driven by investment and exports⁴ in a benign international environment. Total factor productivity (TFP) also grew by 2.4% per year.⁵ Maintaining this dynamic is critical for the sustainability of growth, especially in a more adverse external setting,⁶ since while the correlation between productive factor accumulation and GDP growth is 0.46, the correlation between TFP growth and GDP is 0.94.⁷
- 1.5 The challenge for sustaining TFP growth is to increase the contribution made by innovation. Whereas research and development (R&D) investment accounts for 8% of TFP growth in Uruguay, the equivalent share in successful countries was already 40% when they were at the same level of development as Uruguay today.⁸ Recent

¹ In the United States TFP was 30% lower in 2013 than in 1960. IDB (2016): *Competitividad e Innovación: Implicancias para Uruguay* [Competitiveness and Innovation: Implications for Uruguay], IDB-TN-936. TFP is defined as growth that is not explained by factor accumulation. [Sector Technical Note: Competitiveness and Innovation](#).

² ANII is a public corporation created in 2006 under Law 18084. Its main activity is financing scientific research, human capital, innovation, and entrepreneurship for both the private and the public sectors.

³ Central Bank of Uruguay (BCU), *Estadísticas y Estudios* [Statistics and Studies] (BCU, 2017).

⁴ Annual growth was 7.6% for investment, and 4.2% for exports (BCU, 2017).

⁵ IDB, 2016.

⁶ Faltering international demand caused exports and investment to fall 1.2% and 7.8%, respectively, in 2015, while GDP growth slowed to 1% (BCU, 2017).

⁷ IDB, 2016.

⁸ The comparison is with South Korea, Finland, Israel, and Singapore (IDB, 2016).

studies for Uruguay find that firms that innovate achieve TFP levels up to 80% higher than those that do not.⁹

- 1.6 **The problem in Uruguay.** The National Innovation System (SNI)¹⁰ has strengths and weaknesses. Its strengths include political stability, the legal framework, and information technology (IT) infrastructure. Nonetheless, investment in R&D represents just 0.36% of GDP, trailing behind the 3.9% in successful economies¹¹ or 1.9% among its direct competitors.¹² The private sector funds 30% of this investment, compared to over 60% in the above countries.¹³ Only 7% of Uruguayan firms report R&D activities,¹⁴ compared to 30% in developed countries.¹⁵ There are major deficiencies in the SNI that inhibit private R&D investment, such as the lack of funding for innovation and innovative ventures,¹⁶ a limited supply of advanced human capital,¹⁷ weak university/industry collaboration,¹⁸ little research targeting national challenges,¹⁹ and the obsolescence of technological equipment,²⁰ among others.²¹ Addressing these shortcomings requires long-term policies with stable funding to develop institutional capabilities.
- 1.7 The Uruguayan authorities and the Bank believe these problems are best addressed through a CCLIP, with a first individual operation targeting priority issues. Business surveys show that the top two problems are financing for innovation and the limited supply of advanced human capital. The greatest obstacles to innovation are financing (35% of firms report this as a major impediment) and access to advanced human capital (cited by 24% of firms).²² Financial barriers are particularly high for young enterprises (43%),²³ while human capital is biggest obstacle for mature firms (30%). The first tranche of this CCLIP will therefore target early-stage financing for

⁹ Crespi, G. and P. Zuniga (2011): "Innovation and Productivity: Evidence from Six LAC Countries." *World Development* 40.

¹⁰ The SNI is the network of public and private institutions that adopt, improve, and spread new technologies. Freeman (1987): *Technology, Policy, and Economic Performance: Lessons from Japan*, Pinter.

¹¹ South Korea, Finland, Ireland, and Singapore. Cornell-INSEAD-WIPO (2016): *The Global Innovation Index 2016*. (GII, 2016). USA.

¹² Australia and New Zealand (GII, 2016).

¹³ GII, 2016.

¹⁴ ANII (2012a): *Encuesta de Actividades de Innovación en Manufactura y Servicios* [Survey of Innovation Activities in Manufacturing and Services]. Montevideo.

¹⁵ Organization for Economic Co-operation and Development (OECD) (2012): *Innovation in Firms*. Paris.

¹⁶ IDB, 2016.

¹⁷ Advanced human capital means professionals involved in R&D activities.

¹⁸ Only 7% of potentially innovative firms report that ties to universities are important for innovation (ANII, 2012a), whereas 25% do so in developed countries (OECD, 2012).

¹⁹ Only 5% of the research is mission-oriented, whereas in Chile the figure is 18%, and in developed countries it exceeds 60%. Mowery (2010): *Military R&D and Innovation*. Handbook of Economics of Innovation.

²⁰ Half of the technological equipment is obsolete. (ANII, 2012b): *Relevamiento Nacional de Equipamiento Científico* [National Survey of Scientific Equipment]. Montevideo.

²¹ Other weaknesses, such as small market size, international positioning, and the investment climate (GII, 2016) are addressed by the programmatic policy-based loans (PBPs) of the Program of Strategic International Positioning (loans 2920/OC-UR, 3365/OC-UR, and 3418/OC-UR).

²² ANII, 2012a.

²³ Firms under five years old.

innovation, with emphasis on innovative young enterprises,²⁴ and strengthening the supply of advanced human capital through support for postgraduate studies in technology fields.²⁵

- 1.8 **Early-stage financing for innovative enterprises.** Although opportunity entrepreneurship has grown,²⁶ lack of financing means that few firms achieve scale. Financing for innovative entrepreneurship varies according to the enterprise's stage of development: (i) seed capital to structure the business plan; (ii) early-stage investment funding to develop the product; and (iii) bank and investment funding for expansion.²⁷ Innovative startup financing is hampered by information asymmetries, uncertainty, and limited pledgeable assets, which mean that few investors or the financial system are interested in these firms. The problem is more than just financial; entrepreneurs often lack the skills to grow their businesses.²⁸ Uruguay has made some progress in strengthening the seed capital stage through public policies and the emergence of angel investors,²⁹ but this process is far from mature.
- 1.9 In 2011 there was only one business incubator³⁰ in Uruguay and a handful of pre-incubators,³¹ generating about 15 innovative entrepreneurship projects per year. By 2016, the incubation platform involved six incubators,³² generating about 70 projects per year.³³ These incubators advise the entrepreneurs and help them to obtain seed-capital funding. Despite the progress, this platform needs adjustments. First, although the total number of projects incubated is consistent with the size of the country,³⁴ the number of projects per incubator is small, suggesting that the platform may be too large, affecting the quality of services. Second, while all incubators provide basic services, few offer value-added services.³⁵ Third, the incubators are

²⁴ Enterprises with business models that seek to introduce a new product, process, or organizational model in the market (OECD, 2005): *The Oslo Manual*. Paris.

²⁵ Uruguayan data show that the absence of financing and advanced human capital reduce the likelihood that a new firm will invest in innovation by 14% and 5%, respectively (IDB, 2016).

²⁶ Between 7.8% and 11.5% of the working-age population from 2006 to 2015 (Global Entrepreneurship Monitor 2016).

²⁷ OECD (2017): *Financing SMEs and Entrepreneurs*, Paris.

²⁸ IDB (2014): "The Start-Up and Scale-Up of High-Productivity Firms," in *Rethinking Productive Development*, Washington, D.C.

²⁹ In addition to injecting capital, angel investors contribute to enterprises in the form of experience and contacts. In Uruguay there are an estimated 30 angel investors.

³⁰ Ingenio, which specializes in the information and communication technologies (ICT) sector. An incubator offers physical or virtual space to entrepreneurs and provides them with services adapted to their needs and stage of development.

³¹ Pre-incubators, usually at universities, help students turn their final-year projects into enterprises.

³² Ingenio, Sinergia, Da Vinci Labs, Khelm, Biospinn, and Gepian, supported by the Program to Support Future Entrepreneurs (loan 2775/OC-UR).

³³ Demand, as measured by applications, has grown from 40 to 200 projects per year. [Informe de Seguimiento de Actividades 2016](#) [Activities Monitoring Report 2016], ANII.

³⁴ Whereas, in Chile, 16.5 enterprises are incubated per million inhabitants, the figure in Uruguay is 23 per million. Yet the average number of incubated enterprises per incubator is 25 in Chile, but only 12 in Uruguay (Kantis, 2017): [Evaluación de la Plataforma de Incubadoras de Negocios](#) [Evaluation of the Business Incubator Platform], PRODEM. Montevideo.

³⁵ The focus is on supporting the administration and proposal of projects and technical assistance. Few incubators offer access to networks, providers, and financing (Kantis, 2017).

governed by incentives that reward the number of businesses incubated, with little emphasis on their quality.

- 1.10 Early-stage investment funding for innovative ventures is relatively less developed,³⁶ since it requires funds³⁷ that can access capital supplied by individual, institutional, or foreign investors; yet these investors only finance early-stages with experience and a track-record of exits.³⁸ In Uruguay, this experience is uncommon, and the funds have difficulties raising capital, so they fail to build capacity, giving rise to a chicken-and-egg dilemma that creates a funding gap, particularly for investments between US\$100,000 and US\$2 million.³⁹ There are four early-stage investment funds and networks that invest between US\$50,000 and US\$100,000 on average in new ventures.⁴⁰ The small transaction size limits the ability to fund second rounds of investment and makes it hard to offset operating costs. Countries that have solved this dilemma have used hybrid public-private co-investment funds to kickstart the supply of early-stage financing.⁴¹
- 1.11 **Advanced human capital.** Uruguay has taken steps to correct its shortage of advanced human capital. Between 2009 and 2014, the number of researchers in the country grew from 917 to 1,724;⁴² and quality improved, with 53% now possessing a doctorate, compared to 30% in 2009.⁴³ Nonetheless, the critical mass of researchers, with 1.1 per 1,000 workers, remains low;⁴⁴ and only 4.2% of them are employed at firms. Increasing the number of researchers in enterprises requires not only improving the training of advanced human capital for R&D, but adapting the supply of skills to the demands of the productive sector. The mismatch between supply and demand reveals areas of vacancy in computer science, agricultural sciences, and engineering ([Technical Assistance to Strengthen the Innovation, Science and Technology System in Uruguay](#)). In young enterprises, the key demands arise in computer engineering, chemical engineering, design, and management.⁴⁵ These human capital shortages are particularly severe in the

³⁶ Uruguay has business-friendly regulations. In 2016, the investment promotion regime was extended to the financing of ANII-supported business projects.

³⁷ And networks of angel investors.

³⁸ Recovery of investment by selling to other investors.

³⁹ The early-stage financing industry yields increasing returns: the more investors there are with a track record, the smaller the information asymmetries, the less expensive it is to finalize investments, and the greater the expected profitability. Moderzki (2014): [Informe Final LATU Ingenio Venture Fund](#). [Final Report LATU Ingenio Venture Fund]. Montevideo.

⁴⁰ Fondos Ideas, Tokkai Ventures, Piso 40, and IC Ventures.

⁴¹ In Israel, public funds coinvest with angels to build capacity, in order to attract follow-on investors (IDB, 2014). Similar arrangements exist in Germany and the United Kingdom.

⁴² ANII (2016): Indicators of Science, Technology, and Innovation in Uruguay. Montevideo

⁴³ ANII, 2016.

⁴⁴ In South Korea, Finland, Ireland, and Singapore there are seven researchers per 1,000 workers (GII, 2016).

⁴⁵ Uruguayan entrepreneurial teams have a high level of schooling. Most are university graduates, and about half (52%) have someone with postgraduate studies (Kantis, 2017).

- PENCTI strategic areas.⁴⁶ Information asymmetries, externalities, and lack of capabilities at training institutions act as constraints on increasing supply in these areas.
- 1.12 Since its inception, ANII has worked to increase the supply of advanced human capital through its scholarship programs;⁴⁷ however, gradually integrating these resources into enterprises requires adjustments to be made. First, training should be targeted more towards the most important vacancy areas in the productive sector. Second, students in national postgraduate programs should be encouraged to do part of their training inside firms. Third, instruments enabling firms to share the initial risk of hiring these graduates should to be developed.⁴⁸ Additionally, these actions to increase the supply of human capital in the long term need to be combined with short-term strategies to overcome production bottlenecks by harnessing international talent circulation mechanisms.
- 1.13 **The Bank's experience and lessons learned.** The design of the operation draws on lessons from similar projects financed by the Bank in Uruguay and elsewhere in the region. Since last decade, the Bank has supported several entrepreneurship promotion initiatives in Uruguay through the Multilateral Investment Fund (MIF). The two most important were the creation of the Ingenio incubator in 2001 (operation ATN/ME-7423-UR) and the "Emprender" Program (operation ATN/ME-10146-UR), which created the Emprender Network and Fund in 2006. Subsequently, the Technological Development Program II (loan 2004/OC-UR), which started in 2009, piloted the ANII line to support young entrepreneurs, financing 70 startups in 2009-2014.⁴⁹ A quasi-experimental impact assessment found that the support enhances business investment in innovation net of the ANII financing⁵⁰ ([Impacts On Instruments To Promote Business Innovation: The Experience of ANII In Uruguay](#)). Another evaluation showed that, while the program was effective in encouraging the creation and survival of innovative firms, it was not successful in stimulating their growth, identifying an early-stage financing gap ([Evaluation of the Young Entrepreneurs Program \(ANII\)](#)).
- 1.14 More recently, the Program to Support Future Entrepreneurs (loan 2775/OC-UR), has cofinanced six business incubators, 239 startups, and the operation of three early-stage investment funds. This project's midterm evaluation found that sales at the supported firms grew by 28% more than those of the control group ([Midterm](#)

⁴⁶ The PENCTI defines these areas through two criteria: (a) technologies; and (b) sectors. Technology areas are: ICTs, biotechnology, and other emerging technologies with potential, such as nanotechnology. The sectors are: (i) software; IT services and audiovisual production; (ii) healthcare; (iii) agribusiness production; (iv) environment; (v) energy; (vi) education; (vii) logistics; and (viii) tourism.

⁴⁷ Since 2007, some 3,000 scholarships have been funded, out of a total demand for 6,400. Informe de Seguimiento Anual ANII [ANII Annual Monitoring Report], 2016.

⁴⁸ This initial risk stems from the fact that the firm must determine whether the individual in question has the required cognitive abilities, and also possesses the soft skills needed to perform successfully at the firm. Whether he or she stays at the firm may depend on other incentives, such as the existing tax credits or direct subsidies for innovation.

⁴⁹ The Technological Development Program II (loan 2004/OC-UR) was implemented through a performance-driven loan (PDL).

⁵⁰ These results are in line with those of other countries of the region with a development level similar to Uruguay. IDB (2014): "Investing in Ideas: Policies to Foster Innovation" in *Rethinking Productive Development*, Washington, D.C.

- [Evaluation of the Program to Support Future Entrepreneurs \(CINVE\)](#)). Another evaluation of the incubation platform suggests that, while important for stimulating new businesses, the platform faces problems related to the incentives driving it.⁵¹
- 1.15 The interventions described above were crosscutting in that they financed sector-independent innovation activities. Nonetheless, experience shows that 30% of the support was concentrated in the software, IT services, and audiovisual production sectors; 10% in healthcare; and 6% in agribusiness production. A classification by technology shows that 50% of the support is targeted to information and communication technology (ICT) applications, i.e., a large proportion of the projects develop digital applications for other sectors.
 - 1.16 The design of the operation also draws on lessons learned from the Program for Strategic International Positioning (loans 2920/OC-UR, 3365/OC, and 3418/OC-UR), that in small countries it is necessary to act simultaneously on international integration, so as to expand market size and penetrate higher-value market segments, and on innovation capacities, so as to access these markets and realize the full potential of spillovers to the domestic economy.
 - 1.17 In the case of ANII postgraduate scholarship programs, an impact assessment comparing beneficiaries with a control group shows being a scholarship-holder generated an increase of 0.20 publications per year per beneficiary in peer-reviewed international journals. At the same time, the beneficiaries have a higher graduation rate and a better chance of being admitted to the national system of research fellows. Only 9% of the scholarship recipients join companies, suggesting that further action is necessary ([Ex post evaluation report on national postgraduate programs. ANII \(2014\)](#)).⁵²
 - 1.18 These findings are consistent with an analysis of more than 15 Bank interventions in STI, showing their effectiveness in generating the expected outcomes in business innovation and advanced human capital accumulation. This analysis also reveals that continuity in interventions of this type, along with their periodic evaluation, were key factors for success.⁵³ The main lessons learned from these experiences include: (i) their integrated nature, acting simultaneously on each of the stages of the entrepreneurial process, considering both financial factors and support services; (ii) leveraging existing capabilities to support entrepreneurship by strengthening areas where there are weaknesses; (iii) private sector involvement, through angel investors, investment funds, and incubators, in all support mechanisms; and (iv) the need to maintain a gender focus in the interventions, to promote equitable access to the available instruments.⁵⁴

⁵¹ Kantis, 2017.

⁵² Similar results are found in Colombia (Metrica, 2015): Evaluación de Impacto de Programas de Formación de Capital Intelectual Ofertados por Colciencias: Jóvenes Investigadores y Doctorados [Impact Assessment of Intellectual Capital Training Programs Offered by Colciencias: Young Researchers and PhD Students], Bogotá).

⁵³ IDB (2014): Innovation, Science, and Technology Sector Framework Document and IDB (2014): "Investing in Ideas: Policies to Foster Innovation" in *Rethinking Productive Development*, Washington, D.C.

⁵⁴ Program 2775/OC-UR included training actions targeted to women entrepreneurs; and the rules governing postgraduate fellowships in 2004/OC-UR were amended to accommodate the needs of women scholarship holders with children. These actions are continued in this operation.

- 1.19 **Rationale of the CCLIP and its first individual operation.** The CCLIP is an effective instrument for this intervention, since it: (i) provides a programmatic financing framework for ANII to respond effectively to the different innovation financing needs; (ii) creates a framework of action for the Bank and ANII, an executing agency with proven institutional capacity; and (iii) promotes the implementation of an efficient and flexible mechanism for preparation and approval of priority financing operations for the Government of Uruguay. The rationale for the first individual operation under the CCLIP is that TFP growth requires greater private investment in innovation, which means limitations need to be overcome in two areas: (i) early-stage financing for innovative ventures; and (ii) advanced human capital geared to enterprise needs. It also requires institutional capacity-building to implement innovation policies.
- 1.20 **Eligibility of the CCLIP and its first individual operation.** The requirements of the Bank's policy for a CCLIP (document GN-2246-9) are met, since: (i) ANII has successfully implemented three Bank-financed projects within the last five years;⁵⁵ (ii) the Bank has verified ANII's financial and institutional soundness; (iii) the conditions of the loan contracts have been satisfied; (iv) the financial and operational reports have been delivered to an acceptable standard; and (v) the sector is prioritized in the Bank's country strategy with Uruguay (document GN-2836). The first individual operation meets the applicable policy requirements, since: (i) its objectives and components fall within the scope of the CCLIP; (ii) the operation is included in the 2017 Operational Programming Report (OPR) (document GN-2884); (iii) it has the same executing agency, which is part of the institutional structure of the Uruguayan public sector; and (iv) it has strong monitoring and impact assessment capabilities that will be in place during execution.
- 1.21 **Institutional capacity.** In compliance with the Proposal to Establish the Bank's Sovereign-guaranteed Loan Based on Results (document GN-2869-1), an [Institutional Capacity Assessment System \(ICAS\) analysis of ANII](#) found that the agency possesses the proper legal authority, governance, and institutional environment, as well as sufficient managerial and technical capacity, to administer a loan based on results (LBR). The [evaluation of the executing agency's procurement systems](#) and financial management found them to be compatible with fiduciary and procurement principles and good practices. Nonetheless, opportunities were found to update ANII's institutional strategy, strengthen the procurement regulatory framework, and automate IT systems. At the same time, the need was identified to keep in place the team responsible for coordinating the entrepreneurial ecosystem. These recommendations have been incorporated into this operation. The team consulted with the Office of Institutional Integrity and confirmed that, based on the information available when this document was being prepared, integrity risk in the project is low.
- 1.22 **Strategic alignment.** The operation was included in the 2017 Operational Programming Report (OPR) (document GN-2884). Both the CCLIP and the first individual operation are aligned with the IDB country strategy with Uruguay 2016-2020 (document GN-2836) in the priority area of promoting innovation and the

⁵⁵ Technological Development Program II (loan 2004/OC-UR, US\$34 million, completed in 2015), Program for Support to Future Entrepreneurs (loan 2775/OC-UR, US\$8 million, 99% disbursed), and Innovation Program for Productive Development (loans 3315/OC-UR, 3316/CH-UR, US\$40 million, 64% disbursed).

strategic objective of promoting business innovation. It is also aligned with the Update to the Institutional Strategy (UIS) 2010-2020 (document AB-3008), under the challenge of increasing productivity and innovation and the crosscutting theme of institutions and rule of law. The operation is aligned with the indicators of the Corporate Results Framework (CRF) 2016-2019 (document GN-2727-6) for micro, small, and medium-sized enterprises financed; micro, small, and medium-sized enterprises provided with nonfinancial support; students benefited by education projects; and government agencies benefited by projects that strengthen technological and management tools to improve public service delivery. Lastly, the operation is consistent with the Innovation, Science and Technology Sector Framework Document (document GN-2791-3) and the Support to SMEs and Financial Access/Supervision Sector Framework Document (document GN-2768-5); and is also aligned with the Sector Strategy on Institutions for Growth and Social Welfare (document GN-2587-2).

B. Objectives, components, and cost

- 1.23 The objective of the CCLIP is to make enterprises more productive through greater investment in knowledge, human resources, innovation, and entrepreneurship. The projects to be financed will include, without limitation, four main lines of work: support for business innovation and innovative entrepreneurship, advanced human capital formation, creation of new applied knowledge, and institution-strengthening.
- 1.24 The general objective of the first individual operation is to increase private investment in innovation activities by fostering innovative entrepreneurship and strengthening advanced human capital. The specific objectives are to: (i) strengthen the supply of early-stage financing for innovative ventures; (ii) increase the supply of advanced human capital attuned to the demands of the productive sector; and (iii) build institutional capacity to meet these objectives.
- 1.25 **CCLIP theory of change.** The conceptual basis for the CCLIP interventions is the desire to respond effectively to the obstacles inhibiting greater investment in innovation and, in particular, a larger contribution by firms to this process: (i) low levels of public and private financing specialized in innovation and entrepreneurship; (ii) shortage of personnel with advanced technological and scientific capabilities; (iii) limited capacities for targeted R&D; and (iv) partially developed institutional capacities. These obstacles stem from information asymmetries, externalities, technology supply and equipment constraints, and other problems. To address these challenges, financial and nonfinancial instruments will be deployed throughout the CCLIP to address these constraints comprehensively and synergistically, with interventions on both the supply and demand sides ([CCLIP theory of change](#)).
- 1.26 **Theory of change of the first individual operation.** This first individual operation uses a results-based financing model, where the expected changes are achieved with financial and technical support. The conceptual basis of the interventions responds to the two main obstacles inhibiting greater business investment in innovation: (i) lack of early-stage financing for innovative enterprises; and (ii) limited supply of advanced human capital. These obstacles stem from problems such as information asymmetries, externalities, scale, and unpledgeable assets that discourage greater private investment in innovative startups and advanced human capital. Financial and nonfinancial instruments will be deployed to comprehensively address both the development of innovative ventures and the cycle of advanced

human capital formation. Funding will be provided for innovation projects to be implemented by entrepreneurs, incubators, and investment funds, along with training grants and projects to bring human capital into firms, thereby eliciting greater private investment in innovation. While pursuing activities already under way, the proposal also introduces innovations to align incentives with expected outcomes. Three important innovations are: (i) the introduction of a mechanism for co-investment with private investors in innovative entrepreneurship projects; (ii) a system of results-based incentives for incubators; and (iii) a tool to encourage firms to take on advanced human resources. The institutional capacity of ANII to implement a results-based project will also be strengthened ([Theory of change and estimated cost](#)).

- 1.27 **Component 1. Support for innovative ventures (US\$11.62 million).** The expected outcome of this component is an increase in early-stage funding for the creation and development of innovative ventures.⁵⁶ The costs of the following activities will be financed: (i) validation of business ideas and new technologies; (ii) seed capital for the development of innovative startups; (iii) incubation services; (iv) support for the management of private early-stage investment funds; and (v) co-investment in enterprises with private funds. The project [Operating Regulations](#) specify the beneficiary selection and operational criteria for this component.⁵⁷
- 1.28 **Subcomponent 1.1. Validation of business ideas and new technologies (US\$500,000).** This activity supports the validation of a business idea or a new technology. Business idea validation involves testing the idea in the market to gauge the public's response in terms of its usefulness and their willingness to pay. New technology validation involves demonstrating that a minimum viable product can be developed. Nonreimbursable contributions of up to US\$10,000 will be provided on a rolling or competitive basis. The maximum implementation period for these projects will be nine months. The beneficiaries must be individuals of legal age residing in the Eastern Republic of Uruguay, sponsored by an enterprise sponsoring institution (IPE).⁵⁸ Financing will be provided for projects based on ideas for products, processes, or organizational structures that are innovative for the intended market. Expenses eligible for financing include: (i) purchases of materials and supplies; (ii) promotional activities; and (iii) contracting of consulting services. Projects will be selected on the following criteria: (i) relevance; (ii) capacity of the entrepreneurial team; (iii) innovative merit or differential value; and (iv) methodology. Support will be provided for an estimated 110 projects.
- 1.29 **Subcomponent 1.2. Seed capital for the development of innovative startups (US\$6.62 million).** This activity will provide financing for entrepreneurs to launch their business plans. Nonreimbursable contributions (grants) will be offered on a rolling or competitive basis for up to 80% of startup project costs, up to US\$28,500.

⁵⁶ This refers to young and usually small firms that present projects to develop state-of-the-art new products, processes, and organizational models for the market (OECD, 2005).

⁵⁷ Interventions are sequenced throughout the entrepreneurial cycle. Although a successful firm could move along this sequence, each instrument is also open to unsupported firms that have already attained the development level required by each instrument. The transition from one instrument to the next is competitive.

⁵⁸ IPEs comprise incubators or pre-incubators, and other entities.

Ventures that implement the project successfully (in terms of meeting objectives) will be eligible for further support of up to US\$50,000. The beneficiaries will have up to 12 months to implement the project in the first stage, while the duration of the second stage will depend on the project's needs. Funding may be requested by adult entrepreneurs wishing to start a new business in Uruguay, as well as by national firms no older than 36 months that have sufficient funds (their own or from other sources) to justify the counterpart. Applicants must be sponsored by an IPE for the first year, but this will not be a requirement for the second tranche. Expenditures eligible for financing include: (i) training services; (ii) procurement of consulting services, materials, and supplies; (iii) testing equipment or trials; (iv) software; (v) intellectual property protection; and (vi) missions; among others. Projects will be selected on the following criteria: (i) relevance; (ii) capacity of the entrepreneurial team; (iii) innovative merit; (iv) validation of the business; (v) business model; and (vi) potential scalability. In the event of a second stage, priority will be given to projects that demonstrate potential for scaling and leveraging additional private investment. Support is expected to be provided for 167 first-phase and 45 second-phase projects.

1.30 **Subcomponent 1.3. Incubation services (US\$1.6 million).** This activity will finance the startup and strengthening of incubation services to support the development of enterprises that are successful in terms of value creation, sales, and employment. To be supported, incubators must present an organizational development plan that includes details of investments, human resources, and goals in terms of both firms to be incubated and their results in terms of sales, internationalization, and/or private investment, among other factors. ANII will evaluate these plans using the following criteria: (i) quality of the management and technical team; (ii) consistency of the business plan; (iii) expected impacts; and (iv) financial sustainability strategy, among other factors. The financing will consist of up to US\$400,000 in nonreimbursable contributions for up to five years, to be disbursed against outcomes achieved. The items eligible for financing with the nonreimbursable contributions will include: (i) upgrading of physical space and equipment; (ii) technical advisory support; (iii) mentoring; (iv) market research; and (v) operating costs. An estimated five business incubators will be supported, selected through a call for proposals. The selection criteria for firms to access incubation services will be consistent with those for seed capital.

1.31 **Subcomponent 1.4. Support for the management of private early-stage investment funds (US\$360,000).** A competitive process will be held to select and support the management of investment funds devoted to early-stage financing of innovative startups. These funds may also include networks of private investors. The support will consist of a nonreimbursable contribution of up to US\$30,000, renewable annually for up to five years, provided that the recipients can demonstrate at least US\$300,000 in private investment commitments in each fiscal year. The nonreimbursable contributions may cover: (i) operating expenses; (ii) mobilization of investors; and (iii) support to entrepreneurs and other activities aimed at increasing the flow of projects to be financed. The entities will be selected on the following criteria: (i) track record in startup financing; (ii) outcomes and impacts; and (iii) counterpart contribution. Support is expected to be provided to three early-stage investment funds or networks. The selection criteria for the firms supported by the funds will be consistent with those of the ANII innovation financing facilities.

- 1.32 **Subcomponent 1.5. Co-investment with private-sector entities (US\$2.54 million).** This activity promotes the growth of innovative enterprises through co-investment in such ventures by public and private funds. In a first stage, funds, networks, or organizations devoted to early stage investment will be invited to present their track record in venture financing, financial capacity, and business model. They must also demonstrate their managerial and technical capacity to follow up the investments. Each selected organization will form an Entrepreneurs Investment Committee in which an ANII representative will participate. In a second stage, this committee will identify ventures of high growth potential with an innovative model and qualified technical staff. All selected ventures must have financing protocols from private investors, and may also receive financing from ANII, with prior approval by its board of directors, for up to three times the funding provided by those investors. The maximum ANII contribution will be US\$150,000 per project, which can be extended either as nonreimbursable or as reimbursable contingent on the project results, or a combination of the two. The choice between a nonreimbursable or reimbursable contribution will depend on project risk and potential spillovers, among other factors. Each organization will: (i) monitor each investment both financially and technically; and (ii) deliver six-monthly monitoring reports on the supported ventures. Public-private co-investment support is expected to be provided to 17 firms. The selection criteria for the firms will be consistent with those of the ANII innovation financing facilities.
- 1.33 **Component 2. Supply of advanced human capital (US\$11.57 million).** The outcome of this component will be an increase in the supply of advanced human capital aligned with demand from the productive sector. The costs of the following activities will be financed: (i) national postgraduate scholarships and postgraduate scholarships abroad in PENCTI strategic areas; (ii) talent circulation mechanisms; and (iii) integration of advanced human capital into firms. The project [Operating Regulations](#) specify the beneficiary selection criteria and the operation of this component.
- 1.34 **Subcomponent 2.1. National postgraduate scholarships (US\$4.97 million).** This activity will support the completion of master's degrees and doctorates in PENCTI strategic areas at national universities. Uruguayan nationals or residents who have graduated from a university course of study or have equivalent graduate level training will be eligible for funding. Funding will be up to US\$40,000 per beneficiary to support two years for master's degrees and up to three years, with the possibility of extension to four, for doctoral degrees. Candidates will be selected on the following criteria: (i) academic background; (ii) quality of the institution where the scholarship will be used; (iii) work plan; and (iv) contribution to closing gaps in strategic areas. Priority will be given to financing postgraduate theses at firms. A total of 323 professionals will be selected through public competitions.
- 1.35 **Subcomponent 2.2. Postgraduate scholarships abroad (US\$5.56 million).** This activity will support the completion of master's degrees and doctorates in PENCTI strategic areas at internationally recognized universities abroad. Uruguayan nationals or residents who have graduated from a university course of study or have equivalent graduate level training will be eligible for funding. Funding will be up to US\$120,000 per beneficiary to cover tuition, thesis, travel, and living expenses for up to two years for master's degrees and for up to three years, with the possibility of extension to four, for doctoral degrees. Candidates will be selected on the following

- criteria: (i) academic background; (ii) quality of the institution where the scholarship will be used; (iii) work plan; and (iv) contribution to closing gaps in strategic areas. Once the scholarship is completed, graduates must return to Uruguay and reside there for at least twice the length of time spent abroad, or submit a plan approved by the ANII board for working with national institutions. In order to guarantee return, in addition to the contractual conditions,⁵⁹ priority will be given to those candidates who already have a current employment contract with their sponsoring organizations or submit a reintegration plan that meets approval. A total of 140 professionals will be financed, selected through public competitions.
- 1.36 **Subcomponent 2.3. Talent circulation (US\$580,000).** This subcomponent will finance: (i) internships in Uruguay for researchers and technologists based abroad, whether foreign or Uruguayan nationals, to undertake innovative innovation, research, and training projects; and (ii) internships for researchers and technologists residing in Uruguay at technological centers, universities, or firms abroad, to acquire skills to be applied in their specialist area in Uruguay. All national research institutions and firms in the productive sector may apply for funding under this heading. The financing will be up to US\$40,000 per project, lasting up to 24 months, to cover tuition, travel, living expenses, and cost of inputs for R&D activities. An estimated 70 projects will be funded, selected through a window facility.
- 1.37 **Subcomponent 2.4. Integration of advanced human capital at firms (US\$460,000).** This activity will strengthen internal innovation capacity at firms through the integration of advanced human capital. Up to 70% of the cost of the project will be financed, capped at US\$40,000. The funding will be granted through a window facility and may be used to finance the fees of professionals to be hired for up to 24 months. Projects will be selected on the following criteria: (i) relevance; (ii) consistency between the needs of the firm and the project proposal; and (iii) capabilities of the firm. Innovative private enterprises in the productive sector may apply for financing under this heading. An estimated 13 integration projects will be financed.
- 1.38 **Component 3. Institutional capacities and administrative management (US\$1.81 million).** The outcome of this component will be strengthened public-sector capacity for results-based management of the project. The following activities will be financed: (i) enhancement of the ANII institutional strategy; (ii) continuity of the ANII entrepreneurial ecosystem coordination team; (iii) entrepreneurial ecosystem coordination actions; (iv) modernization of IT systems; (v) internal auditor, financial audits, and verification of results; and (vi) project impact evaluation.
- 1.39 The new institutional strategy will stress ANII's role as coordinator of the SNI by linking researchers, business people, entrepreneurs, and investors, and more clearly defining the strategic areas of intervention identified in the PENCTI. Coordination between investors and entrepreneurs is the focus of this project, so it will provide continuity for the ANII coordination team, consisting of three professional staff. Coordination actions include courses, workshops, presentations, meetings between entrepreneurs and investors, and other activities. Three consulting services

⁵⁹ The scholarship recipients sign a contract agreeing to return. If they fail to do so, ANII is empowered to take legal action to have scholarship paid back. ANII tracks the trainees through the ex post survey of graduates and the CvUY electronic résumé service.

will also be financed to modernize IT systems. Lastly, financing will be provided for a part-time internal auditor, ten financial audits, a disbursement milestone verification audit, and a project impact assessment.

C. Key results indicators

- 1.40 **Expected impacts, outcomes, and outputs.** The project will generate positive impacts on private investment in innovation and labor productivity.⁶⁰ The beneficiary firms are expected to increase their labor productivity by approximately 13%. Private investment in R&D is also expected to increase by 220% more than at nonbeneficiaries. In line with these impacts, the expected outcomes are: (i) an increase in the sales of the beneficiary firms; (ii) increase in the salaries of the postgraduate scholarship recipients; and (iii) a reduction in ANII's operating costs as a result of greater efficiency. Two results monitoring indicators have also been included according to the gender of the beneficiaries. Lastly, the expected outputs relate to projects approved and financed for innovative ventures, postgraduate fellowships, talent circulation, integration of advanced human capital at firms and consulting services for a new institutional strategy, integration of IT systems, audits, and impact assessments.
- 1.41 The outcome indicators for disbursements were selected on the following criteria: (i) relevance to achievement of the project objectives; (ii) balance between intermediate and final indicators; and (iii) existence of reliable sources of information for their measurement. The outcome indicators are as follows: (a) for Component 1: (i) entrepreneurs' investment executed under the project; (ii) incubators with sustainability plans associated with results-based incentives; (iii) incubators that meet performance goals; (iv) early-stage investment funds with improvements in management capacities; (v) early-stage investment funds that meet investment targets; (vi) implementation of a co-investment mechanism; and (vii) leveraged investment by private investors; (b) for Component 2: (i) graduates from postgraduate programs; (ii) individuals completing knowledge exchanges; and (iii) firms that hire advanced human resources to improve their technological capacity; (c) for Component 3: (i) a new institutional strategy; (ii) an enterprise resource planning (ERP) system implemented; and (iii) project impact assessment. Although the Component 3 indicators are for outputs, not outcomes, they are considered central for achieving the institutional strengthening outcomes of the project, and so have been included as indicators for disbursements.
- 1.42 **Economic evaluation.** A cost-benefit analysis was conducted for a time horizon of 30 years at both aggregate and component levels. This evaluation shows that the project has a positive net present value (NPV) of US\$20 million and an internal rate of return (IRR) of 24%, above the 12% annual discount rate used by the Bank. The results are robust to a sensitivity analysis for the key project parameters: elasticity of sales with respect to innovation investment, additionality of innovation expenditure, enterprise survival, gross margin, postgraduate graduation rate, discount rate, and GDP growth ([Project economic analysis](#)).

⁶⁰ These impact indicators also serve for the entire CCLIP.

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing instruments

- 2.1 **The CCLIP and the first project.** The amount of the CCLIP will be US\$100 million, to fund three individual operations over a 10-year period.⁶¹ The amount of the first individual operation will be US\$25 million, financed with Ordinary Capital resources and executed through a loan based on results (LBR). The operation complies with the requirements for an LBR (document GN-2869-1), since it: (i) supports an existing government program (PENCTI) in delivering results through the financing ANII's expenditure framework; and (ii) promotes management good practices such as the use of results-based incentives. Uruguay opted for this instrument since: (i) an LBR has lower transaction costs during execution, since it focuses on the achievement of development results; (ii) ANII's budget commitments with the government are governed by similar goals; and (iii) ANII has successfully implemented a policy-driven loan (PDL) (loan 2004/OC-UR). The budget by component and source of financing is presented in Table 1.

Table 1. Project cost (US\$ million)

COMPONENTS	IDB	%
C1: Support for innovative ventures	11.62	46.5%
C2: Supply of advanced human capital	11.57	46.3%
C3: Institutional capacities and administrative management	1.81	7.2%
TOTAL	25.00	100%

- 2.2 The project disbursement period will be five years, according to the schedule shown in Table 2. The Bank will make an initial disbursement of up to US\$3.75 million (15% of the loan amount) to cover the financing necessary to achieve the most immediate outcomes, in particular to finance postgraduate scholarships. This advance will be deducted in equal installments from the last two disbursements of the loan.

Table 2. Disbursement schedule (US\$ million)

	Advance	1	2	3	4	5	Total
Net disbursements	3.75	2.10	7.00	5.80	4.00	2.35	25.00
% advance discount		0.0	0.0	0.0	50.0	50.0	100.0%

B. Environmental and social safeguard risks

- 2.3 Pursuant to Directive B.13 of the Environment and Safeguards Compliance Policy (Operational Policy OP-703), and based on the safeguard policy filter (SPF), this operation does not require impact classification. The project team assessed the project's potential environmental and social risks and ANII's institutional capacity, and confirming that this operation can be regarded as low-risk (FI-3). In executing

⁶¹ Based on demand, the CCLIP is expected to be committed over this period of time ([Informe de Seguimiento de Actividades 2016 \(ANII\)](#) [Activities Monitoring Report 2016 (ANII)]).

the project, ANII will apply the eligibility criteria for activities to be financed according to the Bank's exclusion list, and require a valid environmental license, if necessary. The functioning of the socioenvironmental policy is described in the [Environmental and social management report \(ESMR\)](#) and in the [Operating Regulations](#).

C. Fiduciary risks

- 2.4 A risk workshop was held during project design, attended by ANII executives and the project team, and the following medium fiduciary risks were identified: (i) inadequate management of procurement processes, owing to a failure to update the respective manual, to be mitigated by upgrading the manual;⁶² and (ii) inefficiency in financial management due to partially automated processes, to be mitigated by modernization of the IT system under project Component 3.

D. Other project risks

- 2.5 The high-level development risks are: (i) that the small size of the domestic market will limit the development of innovative businesses, to be mitigated by prioritizing export-oriented firms; and (ii) that advanced human capital formation will not be well integrated into the productive sector, to be mitigated through a mechanism to encourage enterprises to recruit advanced human resources and offer postgraduate fellowships. The medium-level development risks are: (i) lack of capacity at ANII to coordinate the entrepreneurial ecosystem, to be mitigated by strengthening the coordination team; and (ii) lack of interest among investors in submitting co-investment proposals, to be mitigated by an ANII-funded pilot test of the instrument in 2017.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

- 3.1 **Borrower and executing agency.** The borrower will be the Eastern Republic of Uruguay. The executing agency will be the National Research and Innovation Agency (ANII) with its mission to execute the government's strategic guidelines on research and innovation through the promotion, coordination, and capacity-building of the National Innovation System (SNI). ANII is governed by a five-member board representing the public sector, academia, and the private sector, one of whom acts as chairperson. ANII management is headed by an executive secretary who reports to the board and oversees two areas (operations and administration/finance) and four units (technology, evaluation, cooperation, and communication). ANII employs 60 professional staff and executes an annual budget of US\$40 million.
- 3.2 **Execution mechanism.** ANII will be responsible for the implementation of all project activities. The operations area will be in charge of: (i) operating competitive processes and window facilities; (ii) advising beneficiaries; (iii) evaluating the proposals submitted; (iv) formalizing contracts; and (v) monitoring projects. The administration/finance area will be in charge of project fiduciary management. The entrepreneurs supported must sign a three-party contract with ANII and the enterprise sponsoring institution (IPE) involved, specifying their responsibilities. ANII will monitor the projects along with the respective IPE.

⁶² Financed from the preparation budget.

- 3.3 **General aspects of project evaluation.** The proposed projects will be assessed by evaluation and monitoring committees, consisting of external peers designated by the ANII board and approved by the National Innovation, Science, and Technology Council (CONICYT). These members will be selected on the basis of their technical and professional expertise across a wide range of activities and production-related problems. All projects selected by the committees must be approved by the ANII board. Ventures supported under Component 1 will be eligible for additional support under Component 2 activities.
- 3.4 **Mechanisms for coordination with the business sector.** ANII has mechanisms for coordination with the private sector, to ensure the project's alignment with productive-sector needs. The private sector appoints one ANII board member; all projects are evaluated by committees of external experts with the involvement of successful entrepreneurs; and execution is conducted through private intermediaries, such as investment funds and incubators, which identify high-potential projects.
- 3.5 **External verification of results.** A firm or team of specialized consultants will act as independent external evaluators of results. In addition to determining whether results have been achieved ahead of each disbursement, the firm or team must review progress and make recommendations for resolving any divergences in the achievement of results. In determining whether results have been achieved, the firm or team will concentrate on: (i) issuing an opinion on the accuracy, reliability, validity, and consistency of the results data; and (ii) determining the value of the performance indicators established in each disbursement. The team must have experience in monitoring projects, managing results indicators, and assessing the reliability of its methods for producing them.
- 3.6 **Disbursement mechanism.** The following procedure will be used for the processing of disbursements: (i) the executing agency will produce a progress report on the disbursement indicators and send it for external verification of results based on the protocol established in the [monitoring and evaluation plan](#); (ii) the independent external evaluator will verify compliance with the performance indicators as established the preceding paragraph; and (iii) once achievement of the results has been verified, the executing agency will submit the disbursement request to the Bank. The Bank will disburse the amount corresponding to each indicator if, and only if, the external verification finds that the indicator value is at least as high as the target. If the indicator value is lower, the disbursement will be proportional to attainment of the target. Undrawn balances may be reprogrammed in successive disbursements.
- 3.7 **Special contractual conditions precedent to the first disbursement of the loan proceeds.** Entry into force of the execution agreement between the borrower and the executing agency will be required, to guarantee the availability of the loan proceeds. Evidence that the project Operating Regulations have entered into force will also be required, to ensure that the various competitive processes are conducted under the terms agreed upon with the Bank. Lastly, the hiring of consulting services for external verification of results will be required for the retroactive financing of achieved results.

- 3.8 **Special contractual conditions for execution.** The approval of the incubation and co-investment projects will require the Bank's no objection, given the magnitude of the resources committed and the innovative nature of these interventions.
- 3.9 **Fiduciary agreements and requirements.** The guidelines for financial management and procurement execution applicable to the project are described in Annex III. Procurements conducted directly by ANII will be guided by its own systems and policies, validated by the Bank. Transfers of funds under the project will be managed according to the procedures established in the project Operating Regulations.
- 3.10 **Retroactive financing of achieved results.** The Bank will recognize up to 10% of the loan amount (US\$2.5 million) for the financing of results achieved from 23 May 2017 (project profile approval date) until the eligibility date of the loan. These expenditures will be eligible for such financing provided that they are eligible within the project and attributable to the achievement of the corresponding development results, subject to the independent external evaluation mentioned in paragraph 3.5. This financing is justified by the need to keep the seed capital funding window open and to update the institutional strategy prior to the overall start of the project.

B. Summary of arrangements for monitoring results

- 3.11 **Monitoring.** The project will be monitored by the ANII Evaluation and Monitoring Unit. ANII will deliver six-monthly reports to the Bank reflecting achievements in terms of the outputs and intermediate outcomes in the Results Matrix. The reports for the second half of each year will include an annual work plan and revision of project targets.
- 3.12 **Evaluation.** The evaluation will be performed by the ANII Evaluation and Monitoring Unit according to the [monitoring and evaluation plan](#). A final evaluation will be done, once the loan proceeds have been fully disbursed. The final evaluation report will have the following objectives: (i) determine whether the project's objectives have been met; (ii) evaluate execution of the different components; and (iii) identify lessons applicable to future projects.

Development Effectiveness Matrix		
Summary		
I. Corporate and Country Priorities		
1. IDB Development Objectives	Yes	
Development Challenges & Cross-cutting Themes	-Productivity and Innovation -Institutional Capacity and the Rule of Law	
Country Development Results Indicators	-Students benefited by education projects (#)* -Micro / small / medium enterprises financed (#)* -Micro / small / medium enterprises provided with non-financial support (#)* -Government agencies benefited by projects that strengthen technological and managerial tools to improve public service delivery (#)*	
2. Country Development Objectives	Yes	
Country Strategy Results Matrix	GN-2836	To promote business innovation.
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	
4.5 Sensitivity Analysis	1.5	
5. Monitoring and Evaluation	10.0	
5.1 Monitoring Mechanisms	2.5	
5.2 Evaluation Plan	7.5	
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood	Medium	
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	Yes	
Environmental & social risk classification	B.13	
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: Information System, Price Comparison, Contracting Individual Consultant, National Public Bidding.
Non-Fiduciary	Yes	Strategic Planning National System, Monitoring and Evaluation National System, Statistics National System, Environmental Assessment National System.
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Gender Equality		
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	Yes	Two international consultants were hired with supervision funds to redesign entrepreneurship instruments and revise the procurement manual.
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	Impact evaluations based on quasi-experimental techniques will generate evidence on the effectiveness of the support provided to innovative entrepreneurship and advanced human capital, and will therefore contribute to the limited evidence available in the region.

Note: (*) Indicates contribution to the corresponding CRF's Country Development Results Indicator.

The objective of the CCLIP is to increase the productivity of companies by investing in knowledge, human resources, innovation and entrepreneurship. The objective of the first individual operation is to increase private investment in innovation activities by promoting innovative entrepreneurship and strengthening advanced human capital. To this end, a series of activities will be carried out to promote early funding for innovative projects, increase advanced human capital through funding of master's and doctoral studies in productive sectors, and strengthening institutional capacities to achieve these goals.

The project presents a cost-benefit analysis that supports the economic viability of the proposed activities. The vertical logic presented in the loan proposal is consistent with the indicators presented in the results matrix, and includes indicators for the main outputs, outcomes and impacts. Indicators meet SMART criteria and include baseline and target values as well as the sources and means of verification that will be used to measure them. The final impact indicators are labor productivity (sales per worker) and investment in innovation activities. Likewise, as a Results Based Loan, a Disbursement Matrix is included with the outcome indicators and annual targets for disbursement purposes.

The Monitoring and Evaluation Unit of the ANII will be in charge of monitoring the indicators in the results matrix and conducting the program evaluations. The project includes a quasi-experimental impact assessment that will assess the impacts of support for innovative entrepreneurship and advanced human capital formation.

RESULTS MATRIX

Project objective:	The general objective of the first individual operation is to increase private investment in innovation activities by fostering innovative entrepreneurship and strengthening advanced human capital. The specific objectives are to: (i) strengthen the supply of early-stage financing for innovative ventures; (ii) increase the supply of advanced human capital attuned to the demands of the productive sector; and (iii) build institutional capacity to meet these objectives.
---------------------------	--

EXPECTED IMPACT

Indicators	Unit of measure	Baseline value	Base year	End of project	Means of verification	Comments
Labor productivity (approximated by sales per worker), simple average of beneficiary firms	US\$	16,230	2015	18,280	Panel of firms under five years old proposed to ANII in the Survey of Innovation Activities (EAI) 2013-2015/2016-2019/2020-2023	Labor productivity grows by 12.64% more at the supported firms than at unsupported ones. Consistent with the increase in investment in innovation attributable to the project and an elasticity of sales relative to innovation investment of 0.12 according to the 2010-2012 EAI. Project economic analysis.
Investment in innovation activities, simple average of beneficiary firms	US\$	7,431	2015	23,779	Panel of firms under five years old proposed to ANII in the EAI 2013-2015/2016-2019/2020-2023	Investment in innovation activities in the supported firms grows on average by 220% relative to the unsupported ones. Impacts of business innovation promotion instruments: the experience of ANII in Uruguay. Innovation activities are those defined by the EAI.

EXPECTED OUTCOMES

Indicators	Unit of measure	Baseline value	Base year	End of project	Means of verification	Indicator for disbursement (Yes/No)	Comments
OUTCOME 1: CREATION AND DEVELOPMENT OF INNOVATIVE VENTURES							
1.1. Annual billings (sales revenue), simple average at young firms (under five years old at the time of measurement)	US\$	112,958	2015	142,779	Panel of firms proposed to ANII of in the EAI 2013-2015/2016-2019/2020-2023	No	Sales grow by 26% more at beneficiary firms than at unsupported ones, consistent with an elasticity of sales relative to innovation investment of 0.12, according to the 2010-2012 EAI.
1.2. Entrepreneurial teams that include women founding members	%	38,0	2016		Annual Monitoring Report (ISA) (2016-2021)	No	Percentage of enterprises with women in the founding team (gender monitoring indicator)
1.3. Entrepreneurs' investment implemented under the project	US\$	752,000	2016	1,120,000	Financial performance of seed capital contracts in the Project Management System (GESPRO)	Yes	Refers to the cumulative amount of private investment leveraged through seed capital instruments over the loan period.
1.4. Incubators with sustainability plans associated with results incentives	#	0	2016	5	Contracts verified with sustainability plans (GESPRO)	Yes	Refers to number of incubators with sustainability plans approved by ANII's board that include results incentives, verified by the verification firm
1.5. Incubators that achieve the targets set by contract	#	0	2016	4	Closing report verified (GESPRO)	Yes	Refers to the number of incubators that attain the goals in the sustainability plans pre-defined in contracts, verified by the verification firm
1.6. Early-stage investment funds with improved investment management capacities	#	0	2016	3	Hiring of a professional manager for the investment fund. Contract signed by the fund manager (GESPRO)	Yes	Refers to the number of funds with development plans approved by the ANII board and which include management team strengthening, verified by the verification firm

EXPECTED OUTCOMES

Indicators	Unit of measure	Baseline value	Base year	End of project	Means of verification	Indicator for disbursement (Yes/No)	Comments
1.7. Early-stage investment funds that meet investment targets	#	0	2016	2	Closing reports verified (GESPRO)	Yes	Refers to number of funds with development plans implemented that attain investment goals of at least US\$300,000 per year, verified by verification firm
1.8. Co-investment instrument designed and operating	#	0	2016	1	Basis of the instrument approved by the board with at least one fund certified (GESPRO)	Yes	Means that ANII has managed to certify at least one co-investment fund
1.9. Investment mobilized by private investors	US\$	0	2016	750,000	Contracts of ventures that receive investment signed and verified (GESPRO)	Yes	Refers to the cumulative amount of private investment leveraged by the co-investment instrument over the loan period, verified by the verification firm
OUTCOME 2: STRENGTHENING OF THE SUPPLY OF ADVANCED HUMAN CAPITAL							
2.1. Weighted average annual income of postgraduate scholarship recipients	US\$	16,583	2016	27,562	Ex Post Graduate Survey and Ongoing Household Survey for controls	No	The salary of the scholarship recipients at the end of the project is a weighted average of the salaries of master's degree holders and PhDs, using the % of students on master's and doctorate programs as weights
2.2. Percentage of women graduates on postgraduate programs	%	57%	2016		ISA (2016-2021)	No	Refers to the % of women among graduating students (gender tracking indicator)
2.3. Individuals graduating from postgraduate programs	#	0	2016	176	Closing reports verified (GESPRO)	Yes	Refers to the cumulative number of individuals graduating from master's and doctoral programs, as verified by the verification firm. The closing reports include the certification.

EXPECTED OUTCOMES

Indicators	Unit of measure	Baseline value	Base year	End of project	Means of verification	Indicator for disbursement (Yes/No)	Comments
2.4. Individuals completing knowledge exchanges	#	0	2016	70	Exchange project closure reports verified (GESPRO)	Yes	Refers to the cumulative number of individuals who make short-term moves for knowledge exchange, verified by the verification firm. Closing reports include certification
2.5. Firms hiring advanced human resources to improve their technological capacity	#	0	2016	13	HR contracts signed and verified (GESPRO)	Yes	Refers to the cumulative number of firms that hire advanced human resources to start or continue innovation programs, as verified by the verification firm
OUTCOME 3: STRENGTHENING OF PUBLIC-SECTOR CAPACITY FOR RESULTS-BASED MANAGEMENT OF THE PROJECT							
3.1. Cost saving through more efficient information technology systems	US\$	0	2016	1,084,000	Report of the Administration/Finance Area approved by Executive Secretary	No	Savings by reducing labor costs, maintenance services, and licenses

OUTPUTS

Outputs	Unit of measure	Baseline value	Base year	2017	2018	2019	2020	2021	Total	Means of verification
COMPONENT 1: SUPPORT FOR INNOVATIVE VENTURES										
1.1. VIN projects financed	#	36	2016	41	17	17	17	18	110	Signed contracts
1.2. CS-I projects financed	#	16	2016	45	31	31	30	30	167	Idem
1.3. CS-II projects financed	#	4	2016	14	8	8	8	7	45	Idem
1.4. Incubators financed	#	0	2016	0	5	5	5	5	5	Idem
1.5. Investment funds financed	#	0	2016	0	3	3	3	3	3	Idem
1.6. Co-investment projects financed	#	0	2016	0	3	14	0	0	17	Idem
COMPONENT 2: SUPPLY OF ADVANCED HUMAN CAPITAL										
2.1. Scholarships awarded for national master's programs	#	116	2016	0	154	29	29	0	212	Idem
2.2. Scholarships awarded for national doctorate programs	#	48	2016	0	74	37	0	0	111	Idem
2.3. Postgraduate scholarships abroad	#	69	2016	0	28	12	0	0	40	Idem
2.4. Talent circulation scholarships financed	#	17	2016	0	28	14	14	14	70	Idem
2.5. HR projects in firms financed	#	3	2016	0	3	5	5	0	13	Idem
2.6. Scholarships under international agreements	#	48	2016	0	25	25	25	25	100	Idem
COMPONENT 3: INSTITUTIONAL CAPACITIES AND ADMINISTRATIVE MANAGEMENT										
3.1. New institutional strategy presented	#	0	2016	1	0	0	0	0	1	Board minutes
3.2. Coordination staff hired	#	0	2016	0	3	3	3	3	12	Signed contracts
3.3. Coordination actions	#	0	2016	8	12	12	12	12	56	Communication Unit report (workshops, training events, <i>itches</i> and <i>meet-ups</i>)
3.4. Internal auditor hired	#	0	2016	0	1	1	1	1	4	Signed contracts
3.5. IT system modernized	#	0	2016	2	1	0	0	0	3	Systems operating
3.6. Financial audits approved	#	4	2016	2	2	2	2	2	10	SE approved
3.7. Milestone audits completed	#	0	2016	1	1	1	1	1	5	Audit report
3.8. Impact assessments performed	#	0	2016	0	0	0	1	0	1	Board minutes

MATRIX OF INDICATORS FOR DISBURSEMENT

	2017		2018		2019		2020		2021	
	Target	Amount (\$)	Target	Amount (\$)	Target	Amount (\$)	Target	Amount (\$)	Target	Amount (\$)
OUTCOME 1: CREATION AND DEVELOPMENT OF INNOVATIVE VENTURES										
1.3. Entrepreneurs' investment implemented under the project	200,000	1,705,560	235,000	1,377,000	235,000	1,377,000	230,000	1,348,500	220,000	1,304,000
1.4. Incubators with sustainability plans associated with results incentives	0	0	5	960,000	0	0	0	0	0	0
1.5. Incubators that achieve the targets set by contract	0	0	0	0	0	0	4	640,000	0	0
1.6. Early-stage investment funds with improved investment management capacities	0	0	3	216,000	0	0	0	0	0	0
1.7. Early-stage investment funds that meet investment targets	0	0	0	0	0	0	2	144,000	0	0
1.8. Co-investment instrument designed and operating	0	0	0	0	1	750,000	0	0	0	0
1.9. Investment by private investors mobilized	0	0	0	0	0	0	375,000	750,000	375,000	1,050,000

MATRIX OF INDICATORS FOR DISBURSEMENT

	2017		2018		2019		2020		2021	
	Target	Amount (\$)	Target	Amount (\$)	Target	Amount (\$)	Target	Amount (\$)	Target	Amount (\$)
OUTCOME 2: STRENGTHENING OF THE SUPPLY OF ADVANCED HUMAN CAPITAL										
2.3. Individuals graduating from postgraduate programs	0	0	44	3,483,518	44	3,439,278	44	2,020,696	44	1,577,295
2.4. Individuals completing knowledge exchanges	0	0	28	164,092	14	140,000	14	140,000	14	140,000
2.5. Firms hiring advanced human resources to improve their technological capacity	0	0	3	64,800	5	151,200	5	252,000	0	0
COMPONENTE 3: INSTITUTIONAL CAPACITIES AND ADMINISTRATIVE MANAGEMENT										
3.1. New institutional strategy implemented	1	373,000	0	0	0	0	0	0	0	0
3.2. Enterprise resource planning (ERP) system Implemented	0	0	1	787,955	0	0	0	0	0	0
3.3. Impact assessment performed	0	0	0	0	0	0	1	644,107	0	0
TOTAL		2,078,560		7,053,365		5,857,478		5,939,303		4,071,295

FIDUCIARY AGREEMENTS AND REQUIREMENTS

Country: Uruguay
Project number: UR-L1142
Name: Business Innovation and Entrepreneurship Project
Executing agency: National Research and Innovation Agency (ANII)
Prepared by: Abel Cuba and David Salazar (FMP/CUR)

I. EXECUTIVE SUMMARY

- 1.1 This operation is a loan based on results (LBR) of US\$25 million, representing the first individual operation of a Conditional Credit Line for Investment Projects (CCLIP) totaling US\$100 million. The borrower is the Eastern Republic of Uruguay, and the executing agency will be the National Research and Innovation Agency (ANII). This institution has an organizational and administrative structure that will be responsible for the operation's implementation.
- 1.2 The Fiduciary Agreements and Requirements specified for this project are based on ANII's track record as executing agency of loans 2004/OC-UR, 2775/OC-UR, 3315/OC-UR and 3316/CH-UR.
- 1.3 The Bank also made an Institutional Capacity Assessment System (ICAS) analysis of the executing agency, which also reported satisfactory results. In addition, fiduciary assessments (financial management and procurement) were performed, as required for an LBR. The results of the various evaluations show that ANII has well-developed fiduciary systems that are adequate to support attainment of the expected results.

II. FIDUCIARY CONTEXT OF THE EXECUTING AGENCY

- 2.1 Law 18,084, passed in 2006, created ANII with legal status under non-State public law.
- 2.2 The key findings of the institutional analysis are as follows:
 - a. ANII operates on the basis of a modern organization that has taken steps internally to strengthen its process management. This has made it possible to internalize the strengthening received and to develop an updating process and improve aspects of its work.
 - b. The result of the ICAS evaluation is aligned with the executing agency's track record in implementing previous operations, backed by audited financial statements giving an unqualified opinion. The same endorsement arises from

the results of the Bank's supervisory activities, applied in the context of the aforementioned operations.

III. FIDUCIARY RISK EVALUATION AND MITIGATION ACTIONS

- 3.1 Based on the above and on the evaluations performed, ANII is considered low-risk, although two medium fiduciary risks have been identified: (i) inadequate management of procurement processes owing to a failure to update the respective manual, to be mitigated by upgrading the manual, financed out of preparation funds; and (ii) inefficient financial management due to processes that are not fully automated; to be mitigated by modernizing the information system under Component 3 of the project.

IV. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF THE CONTRACT

- 4.1 Special contractual condition precedent to the first disbursement of the loan proceeds: to mitigate the risk mentioned in paragraph 3.1, the Bank's approval will be required to update the ANII Procurement Manual.
- 4.2 Exchange rate: the exchange rate prevailing on the actual payment date will be used for accounting in dollars, specifying the conversion method mentioned in Article 4.10 (b) (ii) of the General Conditions of the Loan Contract.
- 4.3 Audited Financial Statements will be delivered no later than 120 days after the year-end. The corresponding terms of reference must be agreed upon with the Bank, and the audit firm must be acceptable to the Bank, specifying the deadline for submission referred to in Article 7.03 of the General Conditions of the Loan Contract.

V. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

- 5.1 The fiduciary agreements and requirements for procurement specify the provisions applicable for executing the procurements envisaged for the project.

A. Procurement execution

- 5.2 Based on the corresponding evaluation, the LBR will use the executing agency's own procurement and contracting systems.

B. Use of the executing agency's procurement system

- 5.3 The executing agency's procurement system was evaluated by the Bank and deemed compatible with internationally accepted principles, practices and standards for all procurement methods, with the possibility of bidders from all countries participating. This system will be used for procurement of goods, nonconsulting services, and consulting services (both firms and individuals). The team of consultants or independent verification firm will be selected according to the procedures laid down in the Policy for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (document GN-2350-9).

C. Strengthening measures

- 5.4 Pursuant to the conclusions of the evaluation report and the agreements with ANII, the procurement manual will be adjusted to align with the institution's current practices which are not currently documented.

D. Retroactive financing of achieved results

- 5.5 **Retroactive financing of achieved results.** The Bank will recognize up to 10% of the loan amount (US\$2.5 million) for the financing of results achieved from 23 May 2017 (project profile approval date) until the eligibility date of the loan. These expenditures will be eligible for such financing provided that they are eligible within the project and attributable to the achievement of the corresponding development results, subject to the independent external evaluation mentioned in paragraph 3.5 of the loan proposal. This financing is justified by the need to keep the seed capital funding window open and to update the institutional strategy prior to the overall start of the project.

E. Procurement supervision

- 5.6 Procurements will be supervised through the audits provided for in the project.

F. Records and files

- 5.7 ANII has a system for filing and recording documentation supporting procurement and contracting processes, which:
- a. Makes it possible to directly identify the procedures followed during bid opening;
 - b. Makes it possible to directly identify the transactions made;
 - c. Makes it possible to control purchases received and record them in the inventory system; and
 - d. Is available for review.
- 5.8 ANII outsources management of the document file.

VI. FINANCIAL MANAGEMENT AGREEMENTS AND REQUIREMENTS

A. Programming and budget

- 6.1 Under the Implementation Agreement between ANII and the Ministry of Economy and Finance (MEF), the former receives an annual budget allocation. ANII's budget system is integrated with the planning of resources, but not with their execution, so a manual registration and control process is needed, which is parameterized in spreadsheets and has defined control and authorization levels. In 2017 ANII will adopt an enterprise resource planning (ERP) system to enable it to systemize all of its processes. The agency maintains a record of revenues and budgetary expenses for each project, so it will have an independent record for this project. Both the MEF allocation and budget execution are recorded in the country's national system.

B. Accounting and information systems

- 6.2 ANII accounting, based on a Project Management System (GESPRO), is governed by the provisions of Ordinance No. 81 of the State Audit Office (*Tribunal de*

Cuentas), the provisions of which are compatible with International Financial Reporting Standards. The codification of the chart of accounts is related to the budget items and the projects defined in the budget execution system. Accordingly, whenever an accounting record affects available funding, it will have an effect on the execution of the respective budget. This process will be completely systemized once ANII adopts an ERP in the near future.

- 6.3 For the purposes of this project, it has been agreed that ANII will define auxiliary accounts (accruals accounting) for the use of the funds supplied by the Bank; so the institution's financial statements will include the balances on the accounts affected by project execution.

C. Advance, disbursements, and cash flow

- 6.4 The GESPRO system has a treasury module that can track the entry of funds and their execution, through the use of budget items, projects and differentiated accounting records. ANII is not required to open separate bank accounts to manage the proceeds of the Bank loan. ANII will use the loan proceeds exclusively for project execution, with annual disbursements envisaged, together with a request for retroactive financing and an advance totaling US\$5,828,560 (23.3% of the total loan amount). The advance would be deducted in equal installments in the last two years. The following table shows the estimated flow of funds over the project's life:

Table 1. Estimated flow of funds over the project's life

	Execution years					Total
	2017	2018	2019	2020	2021	
Opening balance	0	3,818,596	4,574,776	2,396,677	1,207,347	0
IDB disbursements	5,828,560	7,053,365	5,857,478	3,992,303	2,268,295	25,000,000
Retroactive financing	2,078,560					2,078,560
First disbursement	3,750,000					3,750,000
Disbursements against results		7,053,365	5,857,478	5,867,303	4,143,295	22,921,440
First disbursement discount				-1,875,000	-1,875,000	-3,750,000
Execution of funds	2,009,964	6,297,185	8,035,577	5,181,632	3,475,642	25,000,000
Component 1: Support for innovative ventures	1,674,964	2,347,596	3,967,000	1,838,500	1,794,000	11,622,060
Component 2: Supply of advanced human capital	0	3,529,793	3,671,781	2,993,298	1,377,361	11,572,233
Component 3: Institutional capacities and administrative management	335,000,000	419,796	396,796	349,834	304,281	1,805,707
Balances	3,818,596	4,574,776	2,396,677	1,207,347	0	0

- 6.5 The proceeds of the Bank loan will be made available to ANII, so as to allow for the linking of intermediate results and attain the goals proposed in the Disbursement Indicators Matrix.

D. Internal audit and control

- 6.6 ANII maintains a control environment focused on the systemization of its processes and the definition of internal control procedures that are formalized and published on its intranet portal. It has also had its administrative management processes quality-certified. The short-term plans include hiring an internal auditor to support

operational oversight of the systems provided for applying the funds under management, including those of the project, which will be managed through ANII's structure and systems.

E. External control and reporting

6.7 ANII undergoes an annual financial audit by an independent audit firm, which is hired competitively for periods of at least three years. The audit reports, which are submitted to the Board for approval in the first quarter of each year, have always produced an unqualified opinion. Moreover, at the request of the financiers of the projects it implements, ANII has submitted its financial statements for independent reviews, the results of which have not revealed any qualifications or material issues.

6.8 For the purposes of this project, it has been agreed that the entity's financial audit report will suffice for the contractual compliance required by the Bank, provided that: (i) the audit firm is eligible for the Bank; (ii) the terms of reference were agreed on with the Bank; (iii) International Standards on Auditing are applied in the audit of the financial statements; and (iv) the report contains a section on the balances of accounts that record the use made of the proceeds of the Bank loan.

F. Financial supervision plan

6.9 The financial supervision plan considers the possibility of reviewing the annual audit report in the meetings held to monitor the project's risk matrix. This could result in on-site visits to update knowledge of the entity's internal systems.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/17

Uruguay. Conditional Credit Line for Investment Projects (CCLIP) UR-O1153
Promotion of Innovation, Entrepreneurship, Human Capital,
and Research

The Board of Executive Directors

RESOLVES:

1. To authorize the President of the Bank, or such representative as he shall designate, to enter into such agreement or agreements as may be necessary with the Eastern Republic of Uruguay to establish the Conditional Credit Line for Investment Projects (CCLIP) UR-O1153, for an amount of up to US\$100,000,000 chargeable to the resources of the Ordinary Capital of the Bank, to cooperate in the execution of projects for the Promotion of Innovation, Entrepreneurship, Human Capital, and Research.

2. To determine that the resources allocated to the above-mentioned Conditional Credit Line (CCLIP) UR-O1153 shall be used to finance individual loan operations in accordance with: (a) the objectives and regulations of the Conditional Credit Line for Investment Projects approved by Resolution DE-58/03, as amended by Resolutions DE-10/07, DE-164/07, and DE-86/16; (b) the provisions set forth in documents GN-2246-9 and GN-2564-3; and (c) the terms and conditions included in the Loan Proposal for the corresponding individual operation.

(Adopted on _____ 2017)

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/17

Uruguay. Loan ___/OC-UR to the Eastern Republic of Uruguay. Business Innovation and Entrepreneurship Project. First Individual Operation under the Conditional Credit Line for Investment Projects (CCLIP) UR-O1153

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 Business Innovation and Entrepreneurship Project, which constitutes the first individual operation under the Conditional Credit Line for Investment Projects (CCLIP) UR-O1153 approved on _____ 2017 by Resolution DE-___/17. Such financing will be in the amount of up to US\$25,000,000, 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.

(Adopted on _____ 2017)