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The World Bank
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Report No: PAD2315

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF

US\$12 MILLION

TO THE

ORIENTAL REPUBLIC OF URUGUAY

FOR A

URUGUAY - UY IMPROVING SERVICE DELIVERY TO CITIZENS AND BUSINESSES
THROUGH E-GOVERNMENT PROJECT

July 13, 2017

Governance Global Practice
Latin America And Caribbean Region

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CURRENCY EQUIVALENTS

Exchange Rate Effective June 27, 2017

Currency Unit = Uruguayan peso

28.28 pesos = US\$1

US\$0.04 = 1 peso

FISCAL YEAR

January 1 - December 31

Regional Vice President: Jorge Familiar

Country Director: Jesko Henschel

Senior Global Practice Director: Deborah Wetzel

Practice Manager: Arturo Herrera Gutierrez

Task Team Leader(s): Henry Forero, Carolina Rendon

ABBREVIATIONS AND ACRONYMS

ACG	Anti-Corruption Guidelines
AGESIC	Agency for the Development of Electronic Government Management and an Information and Knowledge Society <i>(Agencia para el Desarrollo del Gobierno de Gestión Electrónica y la Sociedad de la Información y del Conocimiento)</i>
ANII	National Research and Innovation Agency <i>(Agencia Nacional de Investigación e Innovación)</i>
BCU	Central Bank of Uruguay <i>(Banco Central de Uruguay)</i>
BROU	Bank of the Oriental Republic of Uruguay <i>(Banco de la República Oriental del Uruguay)</i>
CFE	Electronic Tax Invoice <i>(Comprobante Fiscal Electrónico)</i>
CGN	General Accounting Office <i>(Contaduría General de la Nación)</i>
CPF	Country Partnership Framework
CSIRT	Computer Security Incident Response Team
DGI	Directorate General of Taxation <i>(Dirección General Impositiva)</i>
DPL	Development Policy Loan
ERP	Enterprise Resource Planning
FM	Financial Management
GDP	Gross Domestic Product
GRS	Grievance Redress Service
IAO	Internal Audit Office
IBRD	International Bank for Reconstruction and Development
IBTAL	Institutions Building Technical Assistance Loan
ICT	Information and Communication Technologies
IDA	International Development Association
IDB	Inter-American Development Bank
IPF	Investment Project Financing
IRR	Internal Rate of Return
IT	Information Technology
MEF	Ministry of Economy and Finance <i>(Ministerio de Economía y Finanzas)</i>
NPV	Net Present Value
OECD	Organization for Economic Cooperation and Development
PA	Preparation Advance
PCU	Project Coordination Unit
PFM	Public Financial Management
PDO	Project Development Objective
SCD	Systemic Country Diagnostic
SIIF	Integrated Financial Information System <i>(Sistema Integrado de Información Financiera)</i>

STEP	Systematic Tracking of Exchanges in Procurement
SW	Staff Weeks
TCR	Supreme Audit Institution (<i>Tribunal de Cuentas de la República</i>)
UN	United Nations
VUCE	International Trade Single Window (<i>Ventanilla Única de Comercio Exterior</i>)
WB	World Bank
WDR	World Development Report

**BASIC INFORMATION**

Is this a regionally tagged project?	Country(ies)	Financing Instrument
No		Investment Project Financing

Situations of Urgent Need of Assistance or Capacity Constraints

Financial Intermediaries

Series of Projects

Approval Date	Closing Date	Environmental Assessment Category
03-Aug-2017	31-Dec-2021	C - Not Required
Bank/IFC Collaboration		
No		

Proposed Development Objective(s)

To improve the quality of selected e-government services for citizens, businesses and the Borrower's public entities, and facilitate their access.

Components

Component Name	Cost (US\$, millions)
Component 1. Improving the Delivery of e-Government Services to Citizens	3.99
Component 2. Improving the Delivery of e-Government Services to Businesses	3.35
Component 3. Improving the Delivery of e-Government Services to Government Entities	2.08
Component 4. Strategic Diagnostics, Activities and Knowledge Sharing, and Project Coordination	1.55
Preparation Advance (P484)	1.03

**Organizations**

Borrower : Oriental Republic of Uruguay
 Implementing Agency : Ministry of Economy and Finance

PROJECT FINANCING DATA (US\$, Millions)

<input type="checkbox"/> Counterpart Funding	<input checked="" type="checkbox"/> IBRD	<input type="checkbox"/> IDA Credit	<input type="checkbox"/> IDA Grant	<input type="checkbox"/> Trust Funds	<input type="checkbox"/> Parallel Financing
Total Project Cost: 12.00	Total Financing: 12.00		Financing Gap: 0.00		
	Of Which Bank Financing (IBRD/IDA): 12.00				

Financing (in US\$, millions)

Financing Source	Amount
IBRD-87780	12.00
Total	12.00

Expected Disbursements (in US\$, millions)

Fiscal Year	2018	2019	2020	2021	2022
Annual	2.87	3.89	2.81	2.00	0.43
Cumulative	2.87	6.75	9.57	11.57	12.00



INSTITUTIONAL DATA

Practice Area (Lead)

Governance

Contributing Practice Areas

Trade & Competitiveness

Gender Tag

Does the project plan to undertake any of the following?

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF

Yes

b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment

No

c. Include Indicators in results framework to monitor outcomes from actions identified in (b)

No

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category

Rating

1. Political and Governance

● Low

2. Macroeconomic

● Low

3. Sector Strategies and Policies

● Low

4. Technical Design of Project or Program

● Moderate

5. Institutional Capacity for Implementation and Sustainability

● Moderate

6. Fiduciary

● Low

7. Environment and Social

● Low

8. Stakeholders

● Moderate

9. Other

10. Overall

● Moderate



COMPLIANCE

Policy

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

Yes No

Does the project require any waivers of Bank policies?

Yes No

Safeguard Policies Triggered by the Project

Yes No

Environmental Assessment OP/BP 4.01

✓

Natural Habitats OP/BP 4.04

✓

Forests OP/BP 4.36

✓

Pest Management OP 4.09

✓

Physical Cultural Resources OP/BP 4.11

✓

Indigenous Peoples OP/BP 4.10

✓

Involuntary Resettlement OP/BP 4.12

✓

Safety of Dams OP/BP 4.37

✓

Projects on International Waterways OP/BP 7.50

✓

Projects in Disputed Areas OP/BP 7.60

✓

Legal Covenants

Sections and Description

Other Arrangements. Schedule 2, Section 1.C. The Borrower shall ensure that the terms of reference for any consultancy related to the technical assistance provided under Parts 1.1 (e), 1.2(e) and 4(a) of the Project, shall be satisfactory to the Bank following its review thereof and, to that end, such terms of reference shall duly incorporate the requirements of the Bank Safeguards Policies then in force, as applied to the advice conveyed through such technical assistance.

Conditions

Type

Effectiveness

Description

Article IV. 4.01. The Additional Condition of Effectiveness consists of the following, namely, that the Borrower has adopted the Operational Manual in a



manner acceptable to the Bank.

PROJECT TEAM

Bank Staff

Name	Role	Specialization	Unit
Henry Forero Ramirez	Team Leader(ADM Responsible)		GGO16
Carolina Rendon	Team Leader		GGO15
Martin Ariel Sabbatella	Procurement Specialist(ADM Responsible)		GGO04
Alejandro Roger Solanot	Financial Management Specialist	Financial Management	GGO22
Adrienne Elizabeth Hathaway	Team Member		GGO16
Alberto Criscuolo	Team Member		GTC04
Daniel Alvarez Estrada	Team Member		GGO28
Fabiola Altimari Montiel	Team Member		LEGLE
Maria Pia Cravero	Team Member		LEGLE
Till Johannes Hartmann	Team Member		GGOOS
Tuuli Johanna Bernardini	Safeguards Specialist	Environment	GEN04

Extended Team

Name	Title	Organization	Location
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URUGUAY
URUGUAY - UY IMPROVING SERVICE DELIVERY TO CITIZENS AND BUSINESSES THROUGH E-
GOVERNMENT

TABLE OF CONTENTS

I. STRATEGIC CONTEXT	1
A. Country Context	1
B. Sectoral and Institutional Context	2
C. Higher Level Objectives to which the Project Contributes	5
II. PROJECT DEVELOPMENT OBJECTIVES	6
A. PDO	6
B. Project Beneficiaries	6
C. PDO-Level Results Indicators	6
III. PROJECT DESCRIPTION	6
A. Project Components	6
B. Project Cost and Financing	11
C. Lessons Learned and Reflected in the Project Design	11
IV. IMPLEMENTATION	12
A. Institutional and Implementation Arrangements	12
B. Results Monitoring and Evaluation	13
C. Sustainability	13
D. Role of Partners	13
V. KEY RISKS	13
A. Overall Risk Rating and Explanation of Key Risks	13
VI. APPRAISAL SUMMARY	14
A. Economic and Financial (if applicable) Analysis	14
B. Technical	15
C. Financial Management	16
D. Procurement	16
E. Social (including Safeguards)	16
F. Environment (including Safeguards)	16



G. World Bank Grievance Redress	17
VII. RESULTS FRAMEWORK AND MONITORING	18
ANNEX 1: DETAILED PROJECT DESCRIPTION	25
ANNEX 2: IMPLEMENTATION ARRANGEMENTS.....	35
ANNEX 3: IMPLEMENTATION SUPPORT PLAN	42
ANNEX 4: ECONOMIC AND FINANCIAL ANALYSIS	45
ANNEX 5:RECENT RESEARCH ON E-GOVERNMENT REFORM	50



I. STRATEGIC CONTEXT¹

A. Country Context

1. **Uruguay is a modern society of 3.4 million people, which has consistently given high priority to achieving broadly-shared economic growth and a sustainable reduction in poverty.** A strong and progressive social compact has been a defining feature of Uruguayan society and politics, with consistent emphasis placed on protecting vulnerable groups, assuring worker dignity and promoting equitable growth. This compact, combined with strong economic growth over the last decade, contributed to the development of a sizeable middle class—at 60 percent, the largest in Latin America as a proportion of the population²—as well as effective institutions, good governance and, in consequence, a high degree of public trust in government. The resultant political stability has been a fundamental element of Uruguay’s success in attaining standards of living—measured by indicators such as life expectancy and institutional quality—that are relatively high compared to countries with similar levels of per capita income across the world.³

2. **Following a decade of rapid and inclusive economic growth Uruguay joined the ranks of high-income countries, and made remarkable inroads in reducing poverty.**⁴ Following the 2002 economic and financial crisis, Uruguay’s economy grew rapidly, achieving an annual average rate of 5.2 percent between 2005 and 2014. Growth over the past decade and a half has been inclusive, contributing to a sharp decline in poverty: the incidence of moderate poverty fell from 32.5 percent in 2006 to 9.4 in 2016 and extreme poverty declined from (an already-low) 2.6 percent to just 0.2 percent by 2016. Uruguay has one of the largest middle classes in the region, and is one of the least unequal countries in the region, with a Gini coefficient of 0.383 in 2016. The decade-and-a-half period of economic expansion and reduction in poverty and inequality were underpinned by the Government’s adherence to sound fiscal and monetary policies, a careful expansion of social programs, and a surge in private investment. Favorable external circumstances, such as high prices for Uruguay’s commodity exports (albeit offset by high prices in oil and other imports) also contributed to the economic and social outcomes.

3. **In the context of current regional deceleration, Uruguay faces a number of challenges that could threaten continued progress towards poverty reduction and shared prosperity, suggesting that structural measures are needed to consolidate and sustain the gains of the past decade.** Over the 2015-2016 period, economic growth decelerated markedly, undermined by recessions in key regional trade partners and weak domestic demand. Rising unemployment, marked deceleration in real income growth and confidence effects have dampened private consumption and investment. The fiscal deficit has widened to 4 percent of gross domestic product (GDP) in 2016, up from 3.6 percent, largely on account of higher spending on pensions, health transfers and wages in the education sector. A fiscal consolidation plan is being implemented starting this year to reduce the fiscal deficit to 2.5 percent by 2019. Meanwhile, in the first quarter of 2017 inflation decelerated to 6.8 percent (year-on-year) and

¹ From this point forward in the document, unless otherwise specified, \$ refers to US\$.

² World Bank (2015). Uruguay: Systematic country diagnostic. Washington, D.C., World Bank Group.

³ OECD/ECLAC (2014), Multi-dimensional Review of Uruguay: Volume 1. Initial Assessment, OECD Development Pathways, OECD Publishing.

⁴ World Bank (2015). Uruguay - Systematic country diagnostic. Washington, D.C., World Bank Group.



entered the target range set by the Central Bank. There are signs that economic deceleration has bottomed out, and growth has accelerated starting in the third quarter of 2016, a trend that is expected to continue. Recent studies show that Uruguay's level of competitiveness remained unchanged in 2016-2017, ranking 73rd in the Global Competitiveness Index, with levels near or below the LAC average in measures of the macroeconomic environment, labor market efficiency, market size, business sophistication and innovation.⁵ The real exchange rate declined 7.9 percent between April 2016 and April 2017, as the peso appreciated by 10.5 percent during the same period. To sustain growth and continue advances in social progress Uruguay will need to implement important structural reforms.

4. **The current administration has a clear vision for the next two years.** It is committed to consolidating the strong social compact, while simultaneously moving more aggressively to unlock the economy's growth potential. High on the administration's agenda are fiscal consolidation, infrastructure reforms, reducing crime and violence and fostering deeper integration into global markets.

B. Sectoral and Institutional Context

5. **Since the 1990s, Uruguay has undertaken a series of reforms aimed at strengthening the public administration.** By the mid-2000s, in the face of continuing efficiency and transparency challenges, the Government made improving core public sector institutions a key element of its reform platform, and in August 2006, it relaunched the State Modernization process. Over the following years, it made important progress in strengthening the public administration, and today, Uruguay is at the regional forefront⁶ in the implementation of public sector reforms promoting transparency, economic development, and social equity. Accompanied by the World Bank through the *Institutions Building Technical Assistance Loan* (IBTAL, P097604), the Government made improvements within a number of the targeted areas, including monitoring and evaluation, procurement, and social program information management, among others.⁷

6. **As part of this effort, over the last decade, Uruguay placed a strong emphasis on reducing the digital divide and improving service delivery using information and communication technologies (ICT), with the accompaniment of the World Bank and the Inter-American Development Bank (IDB).** Following the creation of Uruguay's e-government agency, AGESIC (*Agencia para el Desarrollo del Gobierno de Gestión Electrónica y la Sociedad de la Información y del Conocimiento*) in 2005, under IBTAL, a general e-government strategy was defined and the first applications of online administrative processes launched. This agenda continued to strengthen over the following years, supported by three consecutive Digital Agendas, and has been accompanied by IDB operations targeted at supporting e-government management (UR-L1042⁸, UR-L1065⁹, and UR-L1109¹⁰).

⁵ Schwab, Klaus; Sala i Martin, Xavier; World Economic Forum, "The Global Competitiveness Report 2016-2017", World Economic Forum, 09/2016 Global Competitiveness Index, 2016-2017 edition, p. 358.

⁶ At regional level, Uruguay scored top or in the top three places in the following indicators by 2015: Democracy Index (EIU), Corruption Perception (Transparency International), Rule of Law (World Justice Project), Governance Indicators (World Bank), Economic Freedom Index (Heritage Foundation).

⁷ Luciana López Acosta, 2016, "Evaluación de Cierre del Proyecto, Programa de Asistencia Técnica de Modernización Institucional (MEF/BIRF). Préstamos Nos. 7451-UR y 8116-UR (IBTAL)." Mimeo, December 31, 2016.

⁸ IDB Loan UR-L1042. "E-Government Management Program Assistance in Uruguay" for \$5 million, of which \$5 million is IDB financing and \$2.5 million is country counterpart financing. 2008-2012.

⁹ IDB Loan UR-L1065. "Program to Support E-Government Management in Uruguay II" for \$20 million, of which \$10.85 million is IDB financing and \$9.15 million is country counterpart financing. 2011-present; fully disbursed.



7. **Uruguay has made important advances in connectivity and the introduction of e-government services.** Today, citizens can initiate many administrative procedures online, and in general, government entities are generating electronic information. Eighty-seven percent of people have internet access at home, and 71 percent on their mobile phones.¹¹ Nearly all schools have wireless internet and 96 percent of public school students have access to a personal laptop provided by the State – giving access to online learning materials and a computer to use at home to students and families whom might otherwise lack access - due to work by Centro Ceibal.¹² Since 2009, the National Research and Innovation Agency (*Agencia Nacional de Investigación e Innovación, ANII*), has offered citizens free access to the most relevant scientific and technological publications through *Portal Timbó*. E-invoicing services for large taxpayers have been available from the Directorate General of Taxation, (*Dirección General Impositiva, DGI*) since 2010, and in 2013, Uruguay XXI, Uruguay’s investment and export promotion institute, implemented the *Ventanilla Unica de Comercio Exterior* (International Trade Single Window, VUCE), which allows for the processing of selected export related requirements through a single electronic gateway.

8. **These and other measures taken are reflected in significant improvements in international e-government measures over the period.** From 2005 to 2016, Uruguay rose from 49th (0.5387) to 34th (0.7237) in the United Nations’ e-government development index, in part due to its improved performance in the online services sub-component.¹³ Today, using the conceptual framework set forward in the 2016 World Bank’s *Digital Dividends World Development Report* (WDR), Uruguay can be largely characterized as a “transitioning” country in the second stage of digital reforms, on its way to becoming a “transforming” one undertaking third generation policies, which has succeeded in laying a strong foundation for effective institutions and is now focused on making those institutions more capable, accountable, and collaborative (see Annex 5).

9. **Despite this significant progress, the Government is currently facing supply (i.e. availability, quality, and accessibility of services) and demand (i.e. use) side challenges in the delivery of e-government services, which it is keen to resolve to move to the next stage of digital transformation.** On the supply side, while nearly all schools have wireless internet access, only 60 percent of the schools covered by Plan Ceibal have broadband internet access, with the other 40 percent facing problems with streaming educational content through narrowband connections. Significant work also remains to be done to meet the Government’s goal that all administrative processes be able to be completed online by 2016.¹⁴ To date, of the more than 1,400 administrative processes, approximately 600 can be started online and 400 can be completed entirely online. In the case of processes which are already online, government entities have identified the need for second-generation reforms including further process simplification, more effective utilization of data, and implications of automation for their back-office management. For example, while almost 4,000 taxpayers emit electronic invoices, the State is not

¹⁰ IDB Loan UR-L1109. “Program for Improvement of Public Services and State-Citizen Interaction” for \$40 million, of which \$35 million is IDB financing and \$5 million is country counterpart financing. 2015-present.

¹¹ “Estudio de Conocimientos, Actitudes y Prácticas de Ciudadanía Digital.” Primary results 2016. AGESIC.

¹² Centro Ceibal is the entity responsible for implementing the Government’s program to support integration and equal opportunities in education through ICT. The initiative is called *Plan Conectividad Educativa de Informática Básica para el Aprendizaje en Línea* (Plan Ceibal).

¹³ United Nations (UN). United Nations’ E-Government Survey 2005 and United Nations’ E-Government Survey 2016. <https://publicadministration.un.org/egovkb/en-us/#.WJETHk3fOmQ>

¹⁴ Discurso del Presidente Tabaré Vázquez emitido en transmisión simultánea por radio y televisión. March 1, 2015.



equipped to accept them from its providers, meaning that paper invoices still need to be presented to the Government.

10. **On the demand side, as is observed across countries, there is evidence of low levels of take-up of e-services.**¹⁵ According to recent data, 43 percent of people preferred to go to a public office in order to learn about an administrative process; in contrast, only 27 percent preferred to use the internet for this task.¹⁶ Survey data from 2013 provide some evidence on the factors impacting take-up.¹⁷ The vast majority of individuals who had not used the internet to access any government services cited a preference to appear in person (76 percent) as a reason limiting their use of e-government services. The next most common reasons were concern about information security (33 percent), followed by a lack of knowledge that services could be accessed online (29 percent).

11. **In response to current challenges, the Government is pursuing an ambitious e-government reform agenda.** Founded in the Digital Uruguay Agenda for 2020, AGESIC's Digital Government Plan 2016-2020 lays out a holistic plan that addresses supply and demand side issues by taking advantage of recent technological advances. An important part of this work is advancing under the IDB supported "Program for Improvement of Public Services and State-Citizen Interaction,"¹⁸ which aims to lower transaction costs associated with citizen and business interaction with the government by developing horizontal tools for e-government service simplification and modernization; implementing sectoral transaction simplification and online access (targeting the pending 1,000 processes not yet online (mentioned in paragraph 9)), and supporting the development of a new model for the State-citizen relationship.

12. **The proposed World Bank operation supports a set of highly innovative activities embedded within the Digital Uruguay Agenda.** These are complementary to the Government's ongoing reform effort and its engagement with the IDB to develop the needed horizontal tools for effective e-government and supporting their universal application across the administration. In particular, within the current Project, the Government has prioritized seven agencies (AGESIC, ANII, the General Accounting Office (*Contaduría General de la Nación*, CGN), Centro Ceibal, DGI, the Ministry of Economy and Finance (MEF), and VUCE) with important roles in the e-government agenda. These agencies have already undertaken the first- generation reforms to lay the foundation for more effective institutions by making e-government services available to citizens, businesses, and other government entities, and now face second and third generation challenges (detailed in Annex 1) related to the next stage of the digital transformation (e.g. administrative process improvement, better management and interoperability, take-up, etc.).

¹⁵ Across the world, the need to increase e-government service uptake is a common challenge. While high proportions of individuals (more than 75 percent) in Nordic countries like Denmark, Norway, Sweden and Finland use the internet to obtain information from the government, the Organization for Economic Cooperation and Development (OECD) average is 49 percent, and an even smaller percentage (33 percent) submit forms online. Usage by businesses tends to be higher: on average, 83 percent of businesses use the internet to obtain information, and 78 percent use it to submit information. Source: OECD Government at a Glance. 2015 Edition. Data on individuals' use are for 2014; data on businesses' use are for 2013.

¹⁶ AGESIC, "Estudio de Conocimientos, Actitudes y Prácticas de Ciudadanía Digital, Principales Resultados 2016."

¹⁷ AGESIC and INE (National Statistics Institute, *Instituto Nacional de Estadísticas*), "2013 Survey of ICT Use."

¹⁸ "Program for Improvement of Public Services and State-Citizen Interaction." \$40 million, of which \$35 million is IDB financing and \$5 million is country counterpart financing. 2015-present. UR-L1109.



13. **The planned activities within the Project are well-aligned with global thinking on how to increase e-government service use through supply and demand side interventions.** Across the world, a variety of factors impacting usage have been identified, including basic threshold issues linked to lingering fear and distrust, availability of ICT infrastructure, awareness, digital skills, and difficult to use sites, and differing rates of use observed across types of users, suggesting that factors may play different roles across individuals. A variety of strategies to address these issues are being used, ranging from multi-channel access including use of e-government intermediaries (public kiosks), improved usability and website design (including easily navigable one-stop-shops), usage monitoring and tracking, user feedback and training, usage promotion, and service personalization. See Annex 5 for additional details on recent OECD research on the four main strategies.¹⁹ Currently, the Government agenda, including under the ongoing IDB operation and that planned under the proposed World Bank Project, touches upon all of the main strategies. In particular, under the proposed Project, proactive citizen services, a mobile citizen access point, and the design of new services targeted at specific needs are planned. It also contemplates space for activities to strengthen monitoring and evaluation capacity to research the impact of activities; key for identifying future adjustments to improve effectiveness.

14. **The operation centers on reforms to systems and processes of public sector institutions rendering e-government services to the three core beneficiaries of such reforms—citizens, businesses, and the Government itself—in sectors with the potential to have an important impact on Uruguay’s ability to sustain its development path.** As with the IBTAL operation, which the Government highly valued as a means to concentrate on the most critical aspects of public sector reforms, the proposed operation has been designed to target innovative areas of the Government’s e-government agenda in which the World Bank’s sharing of global expertise and implementation support is expected to have the greatest value-added. The proposed activities are expected to play an important role in the country’s progress in the next stage of e-government reforms by enhancing the capacity of the seven prioritized public sector institutions to improve the quality of the selected e-government services and facilitate their access. They are also expected to provide a channel through which these new and innovative approaches to e-government service delivery can be showcased within and beyond Uruguay to support wider adoption.

C. Higher Level Objectives to which the Project Contributes

15. **The Project is aligned with the Government’s objectives in its Digital Uruguay Agenda for 2020, which targets improved competitiveness through the consolidation of the digital economy and innovation, and advancement in social inclusion through increased digital capacities.** The Project’s focus on selected e-government services provided by entities poised to impact competitiveness and innovation and potentially contribute to social inclusion over the longer term is well-aligned with this agenda. The Project is also consistent with AGESIC’s Digital Government Plan 2016-2020’s strategy for operationalizing the agenda through six key areas of action²⁰—with the activities corresponding with the first four areas.

¹⁹ UN E-Government Survey 2014, OECD e-Government Studies, “Re-thinking e-Government Services: User-Centered Approaches” (http://www.keepeek.com/Digital-Asset-Management/oecd/governance/rethinking-e-government-services_9789264059412-en#.WOfPZU3fOmQ)

²⁰ Close government (*gobierno de cercanía*), intelligent government, integrated government, trustworthy digital government, open government, and efficient government



16. **The Project is also aligned with the Country Partnership Framework (CPF) FY16-FY20²¹.** The Project's work to strengthen competitiveness through improvements in the Government's delivery of e-government services to businesses, is well-aligned with CPF Pillar 3 (Integrating into global value chains), which includes an objective related to increasing research and development opportunities to facilitate integration into global value chains. Its support to strengthening the Government's management and provision of e-government services for citizens also aims to help enable CPF Pillar 2's objective of rebalancing the social compact broadly, and specifically, activities linked to services provided by Centro Ceibal and a subset of those provided by ANII, to the Government's capacity to manage a program aligned with the CPF objective of strengthening quality and access to education to prepare the bottom forty percent to acquire marketable labor skills.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

17. The Project Development Objective (PDO) is to improve the quality of selected e-government services for citizens, businesses and the Borrower's public entities, and facilitate their access.

B. Project Beneficiaries

18. **The Project has three broad groups of intended beneficiaries.** First, citizens and businesses, who will have access to better-managed and more comprehensive e-government services are the ultimate downstream beneficiaries. Second, government entities able to interact with each other more smoothly thanks to advances in government-to-government services will also benefit. Third, the participating entities (AGESIC, ANII, Centro Ceibal, CGN, DGI, MEF, and VUCE) will be the direct beneficiaries, benefitting from enhanced technical and operational capacity, thanks to the implementation of the planned activities.

C. PDO-Level Results Indicators

19. The following PDO level results indicators are proposed:
- Improved delivery of distance learning materials to targeted schools;
 - Reduced processing time of foreign trade related administrative requirements by VUCE;
 - Increased accessibility to online administrative processes, as measured by the number of citizens' administrative processes attended to by the Mobile Citizens Access Point;
 - Increased number of government executing units managing electronic invoices received from their providers.

III. PROJECT DESCRIPTION

A. Project Components

20. Components have been organized based on their downstream beneficiaries: citizens (Component 1), businesses (Component 2), and other government entities (Component 3). Finally, Component 4 supports strategic diagnostics and activities, knowledge sharing, and overall project coordination.

Component 1. Improving the Delivery of e-Government Services to Citizens (Estimated cost: \$ 3.99

²¹ Report No. 97063-UY, December 21, 2015. Discussed by the Board on January 21, 2016.



million)

21. This component aims to improve the quality of selected e-government services to citizens and to facilitate their access through activities primarily focused on support to improvements to entities' delivery systems, provider management and user engagement led by AGESIC and Centro Ceibal.

22. *Subcomponent 1.1. Strengthening AGESIC's e-government service provision.* While many government entities are now producing large amounts of electronic data, AGESIC has identified a series of challenges to the supply and demand of e-government services. Back-end data agglomeration is complicated by the use of different data formats; new tools and methodologies capable of analyzing large volumes of data are necessary to translate information into improved services; and there is a lagging uptake of e-government services. As such, this subcomponent will support several innovative activities which aim to strengthen AGESIC's e-government service provision through, inter alia: (a) the development and implementation of a national government data architecture in alignment with the Government's digital government plan including, inter alia: (i) the preparation of a preliminary design of a data architecture platform; (ii) the carrying out of a technical and regulatory framework assessment; (iii) the issuance of guidelines related to the Government's governance structure, security tools and data privacy protocols needed for the national data architecture platform; (iv) the carrying out of a pilot testing of the new data architecture platform; (v) the provision of support for the implementation of the data architecture platform across the Government's public entities; and (vi) the dissemination of lessons learned; (b) (i) The design of new smart services to enable a proactive engagement with citizens; and (ii) the conceptual design and development of a business analytics and intelligence platform; (c) (i) the development of a framework for citizen participation, transparency and oversight mechanisms to promote effective citizen engagement through electronic means; (ii) the acquisition and implementation of e-participation tools; and (iii) the development of an impact evaluation of the implemented tools; (d) the provision of support for the implementation of the Government's digital government plan through the development and piloting of collaboration mechanisms between the Government's public entities and citizens to address key public challenges and boost the development of new smart and innovative public services; and (e) the facilitation of access to government services and information, and the prioritization of access in remote areas, including, inter alia: (i) the acquisition and operation of a mobile unit for engagement with citizens on the use of e-services; and (ii) the design and implementation of a citizen outreach strategy and training.

23. *Subcomponent 1.2. Strengthening Centro Ceibal's Capacity to Manage its Programs.* Based on its experience offering educational content through digital services since 2010, Centro Ceibal has identified challenges in its internal management processes as well as persisting connectivity challenges. In particular, it recognizes the need to improve the interface through which users interact, to facilitate multichannel interactions with service recipients, and to adapt to a new diversity of recipient profiles and communication sources (e.g. social media and mobile devices). As such, this subcomponent aims to strengthen Centro Ceibal's capacity to manage its e-learning programs through, inter alia: (a) the improvement of tools to manage users' customer service experience including: (i) the development of a proposal for a new customer service model; (ii) the development of a system for the registry of teachers' lessons and the personalization of course offerings; (iii) the development of a system to provide an integrated overview of educational centers; (iv) the design and implementation of a user self-management system; and (v) the automatization of multichannel customer services; (b) the provision of support for the establishment of a computer security incidence response team (CSIRT), including: (i) the carrying out of a diagnostic to deploy a cyber security response strategy; (ii) the definition of initial



policies and procedures; and (iii) the provision of training to Centro Ceibal's personnel to manage the CSIRT's operations; (c) the strengthening of Centro Ceibal's management and back-office systems through the development and implementation of new modules within the Government's enterprise resource planning system, including, but not limited to modules for e-invoicing, human resources management, budget management, framework agreements, procurement, supply planning and monitoring, and business intelligence; (d) the provision of support to improve Centro Ceibal's data management, including: (i) the identification of alternatives and strategies for data management; (ii) the design and implementation of an institutional data management policy and data management methodologies; (iii) the carrying out of an assessment of business intelligence needs; and (iv) the design and implementation of business intelligence tools to integrate various data sources and improve the analysis capacity of Centro Ceibal; (e) the provision of technical assistance and last-mile connectivity to the existing national broadband infrastructure to support the implementation of broadband internet access in approximately 300 rural schools, including, inter alia: (i) the carrying out of an in-situ design survey; (ii) the development of initial and detailed technical specifications; (iii) the acquisition of hardware and the configuration, assembly, and design of the installation strategy; and (f) the provision of support to strengthen Centro Ceibal's strategic planning capacity, including, inter alia: (i) the elaboration of an integrated technology roadmap to enhance strategic decision-making on the development, implementation, maintenance and retirement of technologies critical for service delivery; (ii) the carrying out of technical and academic activities; and (iii) the elaboration of a human resource management strategy to enhance Centro Ceibal's service delivery.

Component 2. Improving the Delivery of e-Government Services to Businesses (Estimated Cost: \$3.35 million)

24. This component aims to improve the quality of selected e-government services to businesses and to facilitate their access through activities supporting improvements to delivery systems (including the scope of services), provider management and cross-entity collaboration within VUCE, DGI, and ANII.

25. *Subcomponent 2.1. Improving Export-Related services for Businesses.* Building from its experience operating the International Trade Single Window since 2013, the team working with VUCE has recognized the need to reengineer some of the processes already within the system to optimize the associated time and costs; to incorporate new processes; and to strengthen its organizational structure, internal processes and user platform to improve the quality and consistency of service delivery. As such, this subcomponent aims to provide support to improve export related services for businesses through, inter alia: (a) the optimization of the administrative processes of the Government's public entities and institutions involved on international trade and which use VUCE, through the provision of technical assistance and training; (b) the institutional strengthening of VUCE, including its quality management system, through: (i) upgrading of VUCE's internal quality management system; (ii) obtaining international quality management certification ISO9001-2015; and (iii) improving VUCE portal's functioning; (c) the provision of support for the implementation of a new interoperability platform for international information exchange, including the carrying out of pilots related to the exchange of phytosanitary certificates and digital origin certificates with selected countries of the Latin America and the Caribbean Region in accordance with the criteria set forth in the Operational Manual; and (d) the



provision of support for the expansion of VUCE's integrated platform coverage and the implementation of an administrative process re-engineering across the value chain for priority exports.²²

26. *Subcomponent 2.2. Implementing e-Invoicing for Small and Medium Businesses.* Over recent years, DGI has recognized the need to expand its e-invoicing services beyond large taxpayers to incorporate taxpayers subject to the CFE (electronic tax invoice, *Comprobante Fiscal Electrónico*) (primarily small and medium firms), underpinned by other institutional reform efforts that are underway within DGI and that would strengthen its capacity to deliver e-government services to businesses. As such, this subcomponent aims to provide support for implementing e-invoicing for small and medium businesses through, inter alia: (a) the development and implementation of an e-invoicing system for small and medium taxpayers which are subject to the Government's electronic tax invoicing regime; (b) the enhancement of DGI's fiscal risk management system to enable the strategic planning of taxpayer compliance plans and programs, as well as the carrying out of audit case management in alignment with DGI's new organizational model; and (c) the provision of support for the operationalization of DGI's new governance model including, inter alia: (i) the design of a human resource management strategic plan to align staff competences with the new governance model; and (ii) the design and implementation of a training program to close capability gaps with DGI's new governance structure, organizational arrangements, tax administration procedures and computer systems.

27. *Subcomponent 2.3. Improving Access to Specialized Information to Businesses.* Since launching Portal Timbó in 2009, ANII has identified challenges including the low use of its services by the business community and the need to reach a wider audience, as well as operational challenges related to its proactive and systematized provision of services. As such, this subcomponent includes the following activities aimed at improving access to specialized information to businesses through, inter alia: (a) the expansion of the services provided through Portal Timbó, including, inter alia: (i) the addition of business and scientific literature based on demand; (ii) the establishment of a national system of digital repositories to preserve and disseminate the Government's scientific output, including the definition of guidelines for streamlined filing and dissemination practices, and the creation of an interoperability layer integrating all databases of national universities and institutes; (iii) the carrying out of an assessment to inform the design of an online database for schoolbooks in Spanish; (iv) the development or acquisition of an information technology solution to launch an online database for schoolbooks and the fostering of its use through public outreach initiatives; (v) the expansion of access to scientific materials based on demand and following a structured testing process to validate take-up of new materials and achieve low per unit costs; and (vi) the design of a new version of Portal Timbó to improve its user-friendliness; and (b) the development of an online knowledge exchange platform containing: (i) a database of projects and ideas of potential interest to investors; (ii) a human resource registry to facilitate firms' access to the specialized labor force; (iii) social network capabilities to facilitate connections among ANII's stakeholders; and (iv) a section to disseminate the online knowledge exchange platform's objectives and results.

Component 3. Improving the Delivery of e-Government Services to Government Entities (Estimated cost: \$2.08 million)

²² Final selection will be determined during implementation. Consultations to date suggest that wood pulp, soy, milk products, and rice could be included.



28. This component aims to improve the quality of selected e-government services to public entities and facilitate their access through activities supporting improvements to monitoring of and payments to providers and provider management, government delivery systems, and cross-entity collaboration with CGN, MEF, and other entities with a direct link to MEF's priorities.

29. *Subcomponent 3.1. Enabling the Receipt of Electronic Invoices by State entities.* Since the launch of electronic invoicing in 2012, use has grown such that currently, 50 percent of tax receipts issued are electronic. However, State entities are still not able to accept electronic receipts from providers. To address this issue, this subcomponent aims to enable the receipt of electronic invoices by the Government's public entities through the provision of support to CGN, including: (a) the development of a system to receive and oversee electronic invoices generated by providers for use by all of the budget executing units within the Borrower's integrated financial information system (*Sistema Integrado de Información Financiera, SIIF*); (b) the acquisition of the software and hardware needed for the system mentioned herein; (c) the installation of the system mentioned herein in about 243 executing units operating within the SIIF, including the provision of training and the creation of a help desk.

30. *Subcomponent 3.2. Strengthening the Ministry of Economy and Finance's Management of Information.* MEF is responsible for managing a variety of economic and financial information for use in policy-making, the volume of which is ever increasing thanks to computerization and process automation. As such, this subcomponent aims to strengthen MEF's capacity to manage information through the provision of technical assistance for the production, processing, analysis and dissemination of information within MEF's priority areas and among other entities responsible for the implementation of activities related to such priority areas, including the strengthening of the national statistics system.

Component 4. Strategic Diagnostics, Activities and Knowledge Sharing, and Project Coordination (Estimated cost: \$1.55 million)

31. Having identified various challenges in the implementation of the reforms, the Government is keen to further strengthen its analytic knowledge base and identify innovative solutions to improve e-government services that could benefit the country's next steps and position Uruguay as a global knowledge provider. This component aims to strengthen the Government's capacity to support strategic reforms in areas that are critical for the achievement of the PDO through, inter alia: (a) the carrying out of activities to strengthen the Government's monitoring and evaluation capacity to carry out research and learn about the impact of Project activities on the take-up of the associated e-government services and identify potential future adjustments to improve their effectiveness; (b) the carrying out of knowledge sharing and learning activities to disseminate lessons learned on e-government service provision across the Borrower's public entities and internationally; (c) the provision of selected technical assistance, training and services for improving the quality of e-government services for citizens, business and the Government's public entities, and for facilitating their access; (d) the definition and implementation of change management strategies related to the areas addressed within the Project, including, inter alia: (i) the preparation of a risk assessment in the areas where new services are being launched to help prioritize interventions and develop well-targeted change management plans; (ii) the carrying out of specific stakeholder analyses; and (iii) the preparation of change management plans; and (e) the provision of support for overall Project coordination and management, including the



strengthening and maintenance of the project coordination unit (PCU) with adequate fiduciary and implementation capacity.

Preparation Advance (PA, P484) (Estimated cost: \$1.03 million)

32. The PA finances activities to facilitate project preparation and enhance implementation readiness. Activities financed through the PA are all consulting services and include preparatory assessments, analyses, and diagnostics related to technical features of the proposed Project activities.

B. Project Cost and Financing

33. **Loan amount, lending instrument, and Project duration, cost and financing.** The proposed operation will be financed by an investment project financing (IPF) loan of \$12 million to the Oriental Republic of Uruguay. The expected duration of this operation is four years. Disbursement arrangements are detailed in Annex 2.

Table 1. Project Cost and Financing by Component (\$ Millions)

	Project cost	IBRD Financing
<i>C1- Improving the Delivery of e-Government Services to Citizens</i>	3.99	100%
<i>C2 - Improving the Delivery of e-Government Services to Businesses</i>	3.35	100%
<i>C3 – Improving the Delivery of e-Government Services to Government Entities</i>	2.08	100%
<i>C4 – Strategic Diagnostics, Activities and Knowledge Sharing, and Project Coordination</i>	1.55	100%
Total Costs	10.97	100%
	Total Project Costs	10.97
	Preparation Advance (P484)	1.03
	Total Financing Required	12.00

C. Lessons Learned and Reflected in the Project Design

34. **Project design reflects important global lessons on the digital transformation process identified in the 2016 WDR, focusing on solutions to pending challenges in the work of the seven targeted entities related to building capable and accountable institutions and the deepening of collaborative institutions, and is aligned with the strategies being used in OECD countries to support service take-up.** Where the need for strengthening of delivery systems has been identified within AGESIC, Centro Ceibal, CGN, and DGI, activities to strengthen front and back office processes are planned. However, in light of Uruguay’s extensive progress on the e-government agenda, other activities go further, supporting the collaborative institutions needed to fully realize the reform’s benefits by increasing use. Like in Uruguay, strong preferences for traditional channels of interaction with the government persist in countries like the Australia, Canada and New Zealand. Project design works to resolve these issues through activities related to the National Data Architecture and inter-entirety/international interoperability supported by VUCE, among others, incorporating lessons learned on



the importance of breaking down agency silos and improving data sharing. Similarly, activities' orientation towards e-service simplification, customization, and participatory processes also corresponds to lessons learned from the private sector on the importance of adapting the user experience to engage customers through processes that align with their priors.²³

35. **The proposed Project also draws heavily upon the Bank's decade-long experience supporting Uruguay's public sector reform agenda, and specifically lessons learned from IBTAL.** Having highly valued IBTAL as a channel through which to dedicate special attention to the most critical aspects of public sector reforms and tap into the Bank's global technical expertise, the Project seeks to replicate this experience by focusing on innovative areas of the Government's e-government agenda where Bank technical assistance is expected to be of greatest value-added. IBTAL's strong implementation history underlines the Government's capacity to manage multi-entity projects - building on a strong culture of collaboration and a stable and highly technical PCU, empowered by top Government authorities to coordinate the execution of activities across diverse public sector institutions (a structure which has been replicated within the proposed operation)-, and speaks to the value of supporting public sector modernization in Uruguay through relatively small but targeted lending operations.

36. **Government commitment and support to policy priorities is key.** IBTAL's implementation benefited from synergies with policy reforms supported by a series of development policy lending (DPLs).²⁴ Given that there are currently no DPLs under preparation, the Project seeks to maintain complementary channels for strategic support to MEF for emerging reform priorities. Both through high level discussions on policy priorities expected to be maintained under MEF's leadership of the Project as well as through the availability of financing for support to strategic activities related to knowledge generation, application, and sharing, Project design seeks to maintain a degree of flexibility to effectively respond to strategic opportunities or challenges that may arise during implementation.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

37. The Project will be implemented over four years by the PCU established within MEF, reporting to the Director of the Multilateral Organizations Relations Unit within General Directorate Secretariat of the MEF. The PCU will be responsible for overseeing implementation in collaboration with the procurement and financial management units within MEF, and in coordination with the project execution units in AGESIC and Centro Ceibal (Component 1); DGI, VUCE, and ANII (Component 2); CGN and MEF (Component 3); and others that may be identified as the activities to be executed under Component 4 unfold. Headed by a Project Coordinator, the PCU will be staffed by: (i) a financial management specialist, (ii) a procurement specialist; (iii) a monitoring and evaluation specialist; and (iv) other technical and administrative support staff as required. An Operational Manual detailing processes and procedures governing the Project will be adopted in a manner acceptable to the Bank before effectiveness. It will include, inter alia, (i) the procedures for carrying out, monitoring and evaluating the Project; (ii) the final format of the Financial Statements, chart of accounts and the interim unaudited

²³ OECD E-government studies; 2016 Digital Dividends World Development Report

²⁴ First and Second Programmatic Reform Development Policy Lending (DPLs) 2007-2012 (P083927; P106724), the First and Second Programmatic Public Sector, Competitiveness and Social Inclusion DPLs 2010-2018 (P116215; P123242), and the Public Sector Management and Social Inclusion DPL 2012-2019 (P131440)



financial reports for the Project; and (iii) the performance indicators to be used for monitoring and evaluating the implementation of the Project.

38. Given the strong culture of collaboration, the PCU's high capacity and substantial experience managing the multi-entity IBTAL operation, as well as MEF's regular coordination with all government entities through the budget process, and AGESIC's well-recognized responsibility for coordinating the e-government agenda, the creation of a distinct coordination body for Project implementation is not deemed necessary.

B. Results Monitoring and Evaluation

39. In accordance with Bank policies, monitoring and supervision of Project implementation will focus on the achievement of expected results. Each agency will be responsible for the collection of the data measuring the progress of the indicators related to their respective activities. The PCU in MEF will be responsible for consolidating the information and reporting to the Bank and MEF through bi-annual progress reports. The Project's overall monitoring and results framework is presented in Section 7 and includes sub-component specific indicators as well as aggregate monitoring indicators agreed upon with the Government for supervision purposes. The Bank will conduct semi-annual supervision missions to evaluate achievement of results and agree on adjustments or corrective measures when necessary. The achievement of the annual targets and implementation progress will be documented in Aide Memoires, and the results framework will be carefully monitored to ensure indicators' continuing relevance.

C. Sustainability

40. The Government has demonstrated a strong commitment to the Project and its development objective. Sustainability of the Project's advances are reinforced by the Government's strong emphasis on promoting the national e-government agenda under AGESIC's leadership, as well as the high level of political support for the participating entities. The advancement of the e-government agenda was presented as one of the President's top five priorities for his second term, and advances to date demonstrate a sustained commitment to such. The participating entities in which specific interventions will be implemented have been prioritized by MEF due to their roles as reform champions, and have already undertaken substantial work on related areas of the e-government agenda. Given that the activities represent integral parts of the entities' agendas and have been identified by each as areas in which they have an interest in collaboration with the World Bank, implementation is expected to proceed smoothly and commitment to be maintained well-beyond the scope of the Project.

D. Role of Partners

41. As discussed above, the proposed Project is complementary to the Government's ongoing work with the IDB. While no co-financing of Project activities is anticipated, close coordination with the IDB will be maintained to ensure that the Government is able to fully maximize any positive externalities resulting from activities' complementarities, as well as proactively manage any potential issues.

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

42. The overall risk rating is moderate due to moderate risks associated with the technical design of the Project, institutional capacity for implementation, and stakeholders.



43. **Technical design.** Risks associated with the Project's technical design are assessed to be moderate. The proposed Project anticipates the involvement of multiple entities within the central administration, a number of whose activities, in turn, will necessitate the involvement of additional entities (e.g. VUCE's work with entities involved in the processing of customs declarations and AGESIC's on intelligent/proactive services). While the involved entities (AGESIC, ANII, Centro Ceibal, CGN, DGI, MEF, and VUCE) all demonstrate high levels of capacity, the need to coordinate amongst so many actors may pose a challenge to implementation, although it is important to note that this risk did not manifest itself within the more broadly scoped IBTAL operation. The Project's thematic focus on e-government reforms, as well as the Government's demonstrated high level of collaboration and focus on consensus building, help to mitigate the associated risks. Additionally, the Preparation Advance (P484) is expected to enhance readiness for implementation following approval.

44. **Institutional capacity for implementation.** The risks associated with institutional capacity for implementation are considered moderate, also due to the number of entities involved, and the significant inter-entity coordination that this implies. Having previously successfully implemented the IBTAL operation, which involved a variety of entities across the Government, the PCU in particular and MEF in general are viewed to be well-equipped to manage the needed coordination. The Bank will maintain close contact with the PCU throughout implementation to proactively identify any potential issues that may arise and provide support to the PCU as needed for their resolution.

45. **Stakeholders.** Risks associated with stakeholders are assessed to be moderate. The deployment of new e-government services may face the risk of generating dissatisfaction and resistance as users adjust to the new processes. This is particularly true in areas where the implementation of new services is planned, such as electronic invoicing for small and medium taxpayers, as well as the digitalization of the exchange of phytosanitary and digital origin certificates. However, the demonstrated benefits associated with similar services (i.e. electronic invoicing for large taxpayers and VUCE's progress to date on process digitalization) and the change management strategy to be developed under Component 4 are expected to help to convince users of the benefits and mitigate stakeholder risks. Work with VUCE on the international exchange of phytosanitary and digital origin certificates faces the additional risk of requiring bilateral agreements with other countries to recognize the digital certificates. This risk is mitigated by targeting pilots to countries where agreements seem most likely to be negotiated, and, if necessary, the counterparts are prepared to advance with the circulation of both digital and paper copies until such agreements can be finalized.

VI. APPRAISAL SUMMARY

A. Economic and Financial (if applicable) Analysis

46. Economic and financial analysis suggests that the Project will generate positive returns. The estimated costs and benefits of introducing electronic invoicing for small and medium sized tax payers is expected to yield a net present value (NPV) of \$546,041 with an internal rate of return (IRR) of 13 percent when the costs of prior investments upon which Project activities build are taken into account together with the cost of planned Project activities. Savings from reduced time spent traveling, reduced travel costs, and reduced paper costs resulting from the automation of additional administrative processes online within VUCE—the other area of the Project in which benefits are able to be quantified—is expected to yield net benefits with a NPV of \$875,202, and an IRR of 14 percent when the costs of prior investments upon which Project activities build are taken into account together with the



cost of planned Project activities. The analysis assumes an exchange rate of 28.7 Uruguayan pesos per US dollar and a 6 percent discount rate over a six-year period (see Annex 4 for details).

B. Technical

47. Project design draws heavily from the successful implementation of IBTAL as well as from international experience in the implementation of e-government reform agendas. The Government places significant value on borrowing for technical assistance from the Bank in support of key public sector reforms. As with IBTAL, the Bank's technical assistance will enable the Government to dedicate special attention to critical aspects of ongoing reforms, provide additional resources through project supervision, and tap into the Bank's technical expertise in e-government.

48. The Project focuses on improving the quality of selected e-government services and facilitating their access through activities that address pending first, second, and third generation challenges within the selected entities. Given entities' advances to date, the Project places a strong emphasis on second and third generation challenges linked to strengthening government delivery systems, supporting integrated digital solutions, and encouraging use through the simplification and customization of e-services. As such, the Project is focused on technical assistance to improve the management and flow of information within and between participating entities - key for the quality of e-government services and use by making integrated, user-friendly services possible. Where needed, activities to strengthen the delivery systems themselves (e.g. integration of additional processes in VUCE, customer service and back-office management in Centro Ceibal, expansion of electronic invoicing, introduction of a mobile citizen service unit, and development of a system for receipt of electronic invoices by Government entities) are contemplated. In particular, the mobile unit's accompaniment of citizens in completing electronic transactions is in line with leading initiatives in places like Singapore and the United Kingdom, which are now moving towards a "Digital by Default" approach in which in-person services support digital transactions rather than serving as a separate channel for manual processing.²⁵ Other activities target more advanced challenges related to inter-entity collaboration and tool simplification. For example, the establishment of data collection and sharing protocols will assist in the creation, circulation, registry, and sharing of information between entities and the development of a business analytics and intelligence platform that uses predictive analytics is expected to improve Government responsiveness and management by taking advantage of data gathered by "internet of things" sensors, and facilitating the cross-checking of multiple sources of information. Other activities, such as VUCE's work related to the system's international interoperability, as well as user-focused tool enhancements to VUCE's and Centro Ceibal's platforms and smart services also are expected to play an important role in encouraging use.

49. Work within Component 4 to diagnose take-up challenges of e-government services within Project activities (which themselves are aligned with the strategies identified in OECD research), and the identification of possible adjustments to increase their effectiveness is an important element of Project design, offering the opportunity for the Government to learn about strategies that could be applied to its broader e-government agenda as well as the opportunity to contribute to the global knowledge base.

²⁵ World Bank Group in collaboration with the Institute of the Information Society, Digital Government 2020: Prospects for Russia. April 2016.



C. Financial Management

50. Project financial management (FM) arrangements in place at the MEF, which will remain similar to those for the IBTAL operation, meet minimum Bank requirements and are acceptable to the Bank. Overall, Uruguay maintains an acceptable Public Financial Management (PFM) system that has contributed to the achievement of substantial economic, financial and social results in the past decade. The country's PFM gives reasonable assurance that fiduciary risks to Bank funds would be low. The Project will make use of country systems in terms of budgeting, internal control, and internal and external audit. Moreover, FM aspects of the previous World Bank financed operation implemented by MEF have been consistently assessed satisfactory and acceptable audits were usually received on time by the Bank.

D. Procurement

51. Procurement for the proposed Project will be conducted according to the World Bank's "Procurement Regulations for IPF Borrowers", issued in July 2016, for the supply of Goods, Non-consulting, and Consulting Services. The PCU within the MEF will be responsible for carrying out procurement activities, and for managing relationships between the procurement, technical, administrative, and financial units. The PCU is currently operating and centralizes the execution of activities related to other projects. A capacity assessment of the PCU, which reviewed its organizational structure and assessed the unit's institutional capacity for procurement concluded that the PCU's experience implementing previous Bank-financed projects suggests that the unit would have reasonable institutional capacity to handle all aspects of procurement. The PCU would maintain current procurement specialized staff during the Project execution, and the activities financed by the Project are foreseen to consist of small contracts. However, the PCU does not have experience applying the new "Procurement Regulations for IPF Borrowers" issued in July 2016. The World Bank will provide necessary capacity building to the PCU to conduct its procurement activities.

E. Social (including Safeguards)

52. The proposed Project does not trigger any social safeguard policies, as it will not finance activities that are expected to pose any social risk or impact protected populations. The Project's focus is expected to have significant positive impacts for all who engage with the Government, and to help to bridge the digital divide by incorporating new services such as electronic tax invoicing for small and medium taxpayers and supporting outreach activities to stimulate the use of services. The Government has strategies and procedures in place to ensure equitable access to online services, including 128 Citizen Access Points across Uruguay which provide support and orientation to online services²⁶ as well as minimum content guidelines for government web portals including accessibility requirements.²⁷ It is also expected that the Project's planned diagnostics and analytical activities under Component 4 will increase the capacity of the Government to better identify the profiles of those benefiting from the implementation of the e-government agenda (including gender disaggregated statistics) and subsequently use this information to make adjustments targeted at tackling identified barriers in accessibility and use.

F. Environment (including Safeguards)

²⁶ <https://agesic.gub.uy/innovaportal/v/3913/4/agesic/puntos-de-atencion-ciudadana.html>

²⁷ https://www.agesic.gub.uy/innovaportal/file/4418/1/contenidos-minimos-para-portales-del-estado-uruguayo_v1.2.pdf



53. Likely environmental impacts have been screened to be limited due to the type and scope of activities to be financed, and the Project is rated as Category C for environmental assessment purposes consistent with OP 4.01. The Project will not finance civil works. The physical footprint of the planned investments will be limited to the purchase of energy efficient ICT equipment. No disposal of ICT equipment is expected to take place during implementation. However, the Project will promote use of relevant good practices in terms of disposal, and applicable legislation and good practices will be reflected in the Operational Manual. In the event that it is needed, relevant consulting service can be covered by the Project funding reserved for the support activities under Component 4.

54. **Climate Change Co-Benefits.** Support to Uruguay's e-government agenda through the proposed Project is expected to have positive climate change co-benefits, including reduced consumption of fossil fuels (needed for citizens to travel to administrative offices) and paper consumption, thanks to the digitalization of selected services (e.g. electronic tax invoicing, expansion of digital export-related processing capabilities) and the ability to access academic publications online.²⁸ In particular, based on conservative estimates of the amount of paper that could be reduced by the automation of new administrative processes within VUCE (consistent with the calculation of benefits in the economic analysis), it is estimated that the automation of new administrative processes within VUCE could reduce paper use by more than 4.85 million pages (9,743 reams) in the second year and 5.65 million (11,240 reams) in the third year. Based on estimates that each ream requires 6 percent of a tree, 150 liters of water, and 28 kilowatt hours of energy to produce, this reduction in paper is estimated to translate into savings of 675 trees, 1.7 million liters of water, and 314,706 kilowatt hours of energy by the third year.

G. World Bank Grievance Redress

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

²⁸ Currently, climate co-benefits are estimated at approximately 30 percent of the Project amount.

VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY : Uruguay

Uruguay - Improving Service Delivery to Citizens and Businesses through E-Government Project

Project Development Objectives

To improve the quality of selected e-government services for citizens, businesses and the Borrower's public entities, and facilitate their access.

Project Development Objective Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: Improved delivery of distance learning materials to targeted schools		Number	0.00	300.00	Annual	Centro Ceibal reports	CEIBAL, PCU
<p><i>Description:</i> This indicator measures the cumulative number of selected rural schools shifting from narrow to broadband internet connectivity through Plan Ceibal. 1,607 of 2,710 schools (60 percent), representing 95.6 of student and teacher beneficiaries, currently have broadband access, with the remainder receiving narrowband access. The Project targets the addition of broadband capacity in 300 rural schools, covering 50 percent of the beneficiary population currently without broadband access.</p>							
Name: Reduced processing time of foreign trade related administrative requirements by VUCE		Hours	50.40	33.00	Semi-annual.	VUCE system.	VUCE, PCU
<p><i>Description:</i> Reduced time to obtain document in VUCE, as the average time that it takes entities to carry out administrative processes.</p>							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: Increased accessibility to online administrative processes, as measured by the number of citizens' administrative processes attended to by the Mobile Citizens Access Point		Number	0.00	15000.00	Annual	AGESIC reports.	AGESIC, PCU
Description: The Mobile Citizen Access Point is expected to visit 20 municipalities over the course of Project implementation.							

Name: Increased number of government executing units managing electronic invoices received from their providers		Number	0.00	243.00	Annual	CGN reports	CGN, PCU
Description: Target of 243 entities represents the total number of government executing units operating within the SIIF.							

Intermediate Results Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: 1.1.1. Increase in users performing research online before carrying out an administrative process		Percentage	27.00	50.00	Annual.	Study of Knowledge, Attitudes and Practices of Digital Citizenship	AGESIC, PCU

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description:							
Name: 1.1.2. Entities using the Government data analysis platform to improve management		Number	0.00	6.00	Annual	AGESIC reports	AGESIC, PCU
Description: This indicator measures the number of Government entities using the Government data analysis platform to improve their management and offer proactive/smart services to citizens.							
Name: 1.1.3. Number of entities which have implemented at least one of the components of the e-Participation solution		Number	0.00	6.00	Annual	AGESIC reports	AGESIC, PCU
Description: The e-participation solution will be a suite of re-usable tools or components that can be used by Government entities to facilitate public consultation, management of citizens' ideas and forums, and online assessments.							
Name: 1.2 1. Increase in productivity of customer service provided by CEIBAL		Text	60 UY pesos	37 UY pesos	Annual	Centro Ceibal reports	CEIBAL, PCU
Description: This indicator will measure the improvement in the cost per interaction through the multi-channel customer service provided by CEIBAL through telephone, social media, etc. An increase in productivity references that while interactions with customers are expected to increase, the unit cost of service will not, and hence no budgetary allocation increase for customer service will be warranted.							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: 1.2.2. User satisfaction with customer service		Text	Pending	80%	Annual	Centro Ceibal reports	CEIBAL, PCU
Description: The indicator will measure the extent to which customer service responses provided by Centro Ceibal meet or surpass user expectations. Baseline expected to be established in the first year.							
Name: 2.1.1. Improved perception of the value added by VUCE		Percentage	89.00	96.00	Semi-annual	VUCE survey	VUCE, PCU
Description: Percentage of users with satisfaction levels of 3 or 4 regarding the value added of VUCE. Measured through a bi-annual survey of users of the platform carried out by VUCE.							
Name: 2.1.2. Increase in the percentage of administrative processes integrated into VUCE's single window platform		Percentage	36.00	90.00	Annual	Lucia system.	VUCE, PCU
Description: Foreign trade related administrative requirements integrated in VUCE/Total number of foreign trade related administrative requirements. Baseline: 121,089/331,835=36%							
Name: 2.2.1. Percentage of taxpayers incorporated into the CFE and issuing e-invoices, as a percent of the total population of taxpayers		Text	50 percent	TBD during implementation	Annual	DGI reports	DGI, PCU

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
to be incorporated into the CFE							
<p>Description: Target values refer to the gradual incorporation of taxpayers into the electronic invoice (Comprobante Fiscal Electronico, CFE) program, according to a phased in program published by DGI. The universe of taxpayers to whom such invoicing will apply is to be defined in detail during implementation, at which point targets will be defined.</p>							
Name: 2.3.1. Number of interactions facilitated through Portal Trama		Text	No platform	70% increase	Annual	Portal Trama reports	ANII, PCU
<p>Description: Interactions are defined as every action a user of the Trama platform undertakes indicating his or her interest to access or create new content on the platform. These actions include the opening, saving, sharing, rating, commenting, and publishing of content. 40% increase in year 3, and 30% increase in year 4 represents a cumulative 70% increase from the baseline, as noted in the final target value.</p>							
Name: 2.3.2. Increased number of registered users using Portal Timbó		Number	40450.00	47782.00	Annual	Portal Timbó reports.	ANII, PCU
<p>Description: Expectation is that 5% of students entering their university studies (1,443) and 5% of those finishing their university studies (390) will register in the portal every year (calculated based on 2015 data). The total number of users to increase at the end of the period amounts to 7,332.</p>							

Target Values

Project Development Objective Indicators

Indicator Name	Baseline	YR1	YR2	YR3	YR4	End Target
Improved delivery of distance learning materials to targeted schools	0.00	30.00	130.00	230.00	300.00	300.00
Reduced processing time of foreign trade related administrative requirements by VUCE	50.40	43.50	40.80	36.60	33.00	33.00
Increased accessibility to online administrative processes, as measured by the number of citizens' administrative processes attended to by the Mobile Citizens Access Point	0.00	0.00	5000.00	10000.00	15000.00	15000.00
Increased number of government executing units managing electronic invoices received from their providers	0.00	0.00	50.00	100.00	243.00	243.00

Intermediate Results Indicators

Indicator Name	Baseline	YR1	YR2	YR3	YR4	End Target
1.1.1. Increase in users performing research online before carrying out an administrative process	27.00	33.00	39.00	45.00	50.00	50.00
1.1.2. Entities using the Government data analysis platform to improve management	0.00	0.00	1.00	3.00	6.00	6.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	End Target
1.1.3. Number of entities which have implemented at least one of the components of the e-Participation solution	0.00	0.00	2.00	4.00	6.00	6.00
1.2 1. Increase in productivity of customer service provided by CEIBAL	60 UY pesos	50 UY pesos	45 UY pesos	40 UY pesos	37 UY pesos	37 UY pesos
1.2.2. User satisfaction with customer service	Pending	80%	80%	80%	80%	80%
2.1.1. Improved perception of the value added by VUCE	89.00	90.00	92.00	94.00	96.00	96.00
2.1.2. Increase in the percentage of administrative processes integrated into VUCE's single window platform	36.00	45.00	60.00	75.00	90.00	90.00
2.2.1. Percentage of taxpayers incorporated into the CFE and issuing e-invoices, as a percent of the total population of taxpayers to be incorporated into the CFE	50 percent	TBD	TBD	TBD	TBD	TBD during implementation
2.3.1. Number of interactions facilitated through Portal Trama	No platform	Trama online	Baseline calc	40% increase	30% increase	70% increase
2.3.2. Increased number of registered users using Portal Timbó	40450.00	42283.00	42283.00	45949.00	47728.00	47782.00



ANNEX 1: DETAILED PROJECT DESCRIPTION

COUNTRY: Uruguay

Uruguay - UY Improving Service Delivery to Citizens and Businesses through e-Government

1. This annex describes the Project's four components which aim to improve the quality of selected e-government services for citizens, businesses and the Borrower's public entities, and facilitate their access.

Component 1: Improving the Delivery of e-Government Services to Citizens (Estimated WB Financing: \$3.99 million)

2. This component aims to improve the quality of selected e-government services to citizens and to facilitate their access through activities primarily focused on support to improvements to entities' delivery systems, provider management and user engagement led by AGESIC and Centro Ceibal.

3. *Subcomponent 1.1. Strengthening AGESIC's e-government service provision.* Since 2008, Uruguay has made important strides in the consolidation of an e-Government Agenda. Through the issuance of three consecutive policy guidance, or Digital Agendas, their e-Government agency, AGESIC, has set the foundations for the use of ICT in order to improve the provision of services to their citizens, putting Uruguay at the regional forefront.²⁹ However, consolidating advances and moving the agenda forward poses new challenges. While many government entities are now producing large amounts of electronic data, different government agencies currently use different formats for similar fields, complicating back-end data agglomeration and exploitation. Taking full advantage of that data, together with information collected from "internet of things" sensors³⁰ requires the development of tools and methodologies capable of analyzing a large volume of data and translating the findings into new government services. In addition to these more supply side issues, as mentioned above, the Government has also identified important demand side challenges, with uptake of electronic government services still lagging in general, and in particular within less educated segments of the population. Overcoming individuals' reticence to use such services, and fostering greater use will be an important part of translating potential benefits from the services' availability into more effective and efficient service delivery.

4. This subcomponent contains several innovative and transversal activities that are key elements of the Digital Government Plan, which aim at improving the quality of e-government services provided to citizens, and services' use through second and third generation reforms to strengthen government delivery systems and provider management, incorporate user feedback and enhance participatory policy making, including:

²⁹ In 2014, for the first time, and again in 2016, according to the UN's e-government ranking, Uruguay ranked first in the region in terms of e-government development.

³⁰ Examples of internet of things sensors being used by entities within Uruguay include real time water quality monitoring by State Sanitary Works through sensors in the Santa Lucia watershed (the main source of potable water for the Montevideo area) and the deployment of smart streetlights by the local government in Montevideo. Potential areas of work under the proposed Project include strategic sectors such as security, transportation, health, tourism, climate, and education, among others.



- a. Development and implementation of a National Government Data Architecture platform in alignment with Uruguay's digital government plan, including (i) the preparation of a preliminary design of a data architecture platform; (ii) the carrying out of a technical and regulatory framework assessment; (iii) the issuance of guidelines related to the Government's governance structure, security and data privacy protocols needed for the national data architecture platform, (iv) pilot testing of the platform and (v) support for its implementation across the Government's public entities, and (vi) dissemination of lessons learned.
 - b. Design of new smart services based on comprehensive data analysis models to enable a proactive engagement with the citizens through new services that take advantage of the high volume of data generated through government interactions with citizens (e.g. early notifications on the expiration of key documents such as identification card, drivers licenses, and income declarations, etc.) and the conceptual design and development of a business analytics and intelligence platform (Government Information Analysis Platform) that uses predictive analytics to improve government responsiveness and management by taking advantage of data gathered by 'internet of things' sensors, and cross checking of multiple sources of information.
 - c. Development of a framework for citizen participation, transparency and oversight mechanisms including processes, methodologies and tools to promote effective citizen engagement through electronic means (e-participation); acquisition and implementation of e-participation tools (including facilitation of consultations, gathering of suggestions and citizen perceptions; and the development of an impact evaluation of the implemented tools.
 - d. Support to the Government's digital government plan through the facilitation co-creation mechanisms to solve key public challenges and boost the development of new smart and innovative public services. It includes the development/procurement of a platform that enables the generation, prioritization, and assessment of citizen generated initiatives, and the implementation of three pilots focused on citizen co-creation initiatives, including the process of creating Uruguay's 4th national open government plan.
 - e. Enhancement of citizens' engagement with the State, by facilitating access to government services and information, and prioritizing access in remote areas. Specifically, it entails the acquisition of a mobile unit with the necessary technology and equipment required for engagement with citizens on the use of the available e-services, the design and implementation of an outreach strategy, and the operation of the unit for one year.
5. By supporting the development of key tools that can be used by different entities across the Government through these activities, the Government is expected to offer more and better designed services to citizens, contributing to improvements in e-service use and citizen satisfaction.
6. *Subcomponent 1.2: Strengthening Centro Ceibal's Capacity to Manage its Programs.* Since its creation in 2010, Centro Ceibal has made important advances towards its goal of promoting more and better access to education and culture through digital inclusion, putting more than a million devices in the hands of end-users and serving as a gateway to education and capacity building platforms for teachers and students across the country. Between 2009 and 2014, the percentage of individuals in the bottom decile with access to a laptop from Ceibal increased from 47.2 percent to 68.8 percent³¹ and

³¹ Plan Ceibal, Departamento de Monitoreo y Evaluación. "Evolución de la brecha de acceso a TIC en Uruguay (2007-2014) y la contribución del Plan Ceibal a disminuir dicha brecha." April 2015.



today, Plan Ceibal provides internet connection to all schools (2,710). However, the Government is now facing several key challenges to maintain and ensure the quality of its services. Only 60 percent of schools have broadband access, complicating service delivery in rural areas with only narrowband access due to losses of connection and freezing content. Other challenges include the need for new customer service protocols, improvements in back-office management, and other reforms. In particular, Centro Ceibal has identified the need to improve the interface through which users interact, facilitate multichannel interaction with service recipients, and adapt to a new diversity of recipient profiles and communication sources such as social media and mobile devices. Additional modules are also needed in its Enterprise Resource Planning (ERP) system to facilitate better back office management, as are tools to more effectively manage and use the large volumes of data being generated through its services and strategically adapt to evolving and increasing demands and technologies. Centro Ceibal also recognizes that the extensive use of ICTs associated with the program comes with the risk of computer-related security incidents which need to be prevented, and while already having taken steps to define the scope of its own computer security incident response team (CSIRT) in collaboration with the National CSIRT and CERTuy-AGESIC, the operationalization of this work is a pending agenda.

7. This subcomponent aims to strengthen Centro Ceibal's capacity to manage e-learning programs, and subsequently provide better quality services, through the following activities focused on second generation reforms to strengthening provider management as well as first generation connectivity solutions for a selected number of underserved rural schools:

- a. Support to improvements to tools to manage users' customer service experience including: (i) the development of a proposal for a new customer service model; (ii) the development of a system for the registry of teachers' lessons and the personalization of course offerings; (iii) development of a system to provide an integrated overview of educational centers; (iv) design and implementation of a user self-management system; and (v) automation of multichannel customer services.
- b. Support to the establishment of CSIRT through (i) the carrying out of a diagnostic to deploy a cyber security response strategy; (ii) the definition of initial policies and procedures, and (iii) the provision of training to Ceibal personnel to manage the CSIRT's operations.
- c. Strengthening of Centro Ceibal's management and back-office systems through the development and implementation of new modules within their Enterprise Resource Planning (ERP) system, including, but not limited to, e-invoicing, human resources management, budget management, framework agreements, procurement, supply planning and monitoring, and business intelligence.
- d. Support to improvements in data management, including: (i) the identification of alternatives and strategies for data management; (ii) the design and implementation of an institutional data management policy and data management methodologies, and (iii) the carrying out of an assessment of business intelligence needs; and (iv) the design and implementation of business intelligence tools to integrate various data sources and improve the analysis capacity of the institution.
- e. Technical assistance and last-mile connectivity to existing national broadband infrastructure, supporting the implementation of broadband Internet access in approximately 300 rural



schools³², through (i) carrying out of in-situ design survey; (ii) development of initial and detailed technical specifications; (iii) the acquisition of hardware and the configuration, assembly, and design of the installation strategy. This activity will be conducted in collaboration with the State-owned telecommunications company (*Administración Nacional de Telecomunicaciones, ANTEL*);

- f. Support to strengthen Centro Ceibal's strategic planning capacity including: (i) the elaboration of an integrated technology roadmap to enhance strategic decision-making on the development, implementation, maintenance, and retirement of technologies critical for service delivery; (ii) technical and academic activities and (iii) the elaboration of a human resource management strategy to enhance Centro Ceibal's service delivery.

8. The provision of broadband connectivity to 300 rural schools, prioritizing those with higher enrollments, will provide students in such localities with better quality learning opportunities by ensuring that they are able to stream content without content freezing or losing their connection (particularly important in the provision of English classes). Work to improve Ceibal's back office management solutions is expected to translate into an increase in the productivity of customer service staff, who will be able to perform their jobs more efficiently and effectively, and subsequently improved user satisfaction with complaint services

Component 2. Improving the Delivery of e-Government Services to Businesses (Estimated WB Financing: \$3.35 million)

9. This component aims to improve the quality of selected e-government services to businesses and to facilitate their access through activities supporting improvements to delivery systems (including the scope of services), provider management and cross-entity collaboration within VUCE, DGI, and ANII.

10. *Subcomponent 2.1 - Improving Export-Related services for Businesses.* Uruguay's exports have experienced a substantial expansion over the last 17 years, becoming key in the country's successful growth model during this period. However, while there has been some product diversification, merchandise exports remain dominated by primary and resource-based products. While export diversification and increased value-added through higher product sophistication remain long-term objectives for Uruguay, ensuring efficient and streamlined export facilitation processes for the current commodity-based export basket remains a top priority in the short term because low-margin high-volume commodity exports are especially susceptible to inefficiencies throughout the export facilitation process which can erode the thin operational margins that exporters rely upon to compete on international markets.

11. The Government's efforts to modernize the rules and procedures associated with international trade began with the digitalization of customs declarations by the National Customs Directorate (*Dirección Nacional de Aduanas*).³³ In 2013, Uruguay XXI, the national investment and export promotion agency, established the International Trade Single Window (*Ventanilla Unica de Comercio Exterior, VUCE*) to enable international trade operators to electronically submit the relevant information on

³² Schools with higher pupil enrollment will be prioritized. Centro Ceibal estimates that with this prioritization criteria, broadband connectivity will reach 50% of the 31,229 potential beneficiaries distribute in rural areas.

³³ While this change eliminated the need for paper forms for the declarations themselves, it did not also contemplate the digitization of all of the accompanying documentation emitted by other entities.



cross-border transactions to the institutions involved in the issuance of the customs declaration, and the National Customs Directorate, via a web portal. Since then, the Government team operating VUCE has made significant progress in streamlining, systematizing, and digitalizing the administrative processes associated with cross-border operations by connecting 17 out of the 30 public institutions and agencies involved in the issuance of the customs declarations to VUCE's platform; automating and digitalizing close to 100 administrative processes; and registering more than 6,000 trade operators as active users of the single-window web-portal. However, significant areas of improvement remain in terms of the quality of services and reduction of compliance costs and time if Uruguay is to continue to benefit from its early reform gains. In particular, the Government has identified the need to (1) undertake a substantial reengineering of processes already within the system to optimize the time and cost associated with each step of the process and improve quality of service; (2) expand the coverage of VUCE's platform to integrate 50 newly identified administrative processes related to cross-border operations; (3) expand from domestic to international interoperability by establishing the interoperability of VUCE with the cross-border single window platforms of Uruguay's main trading partners; and (4) strengthen VUCE's organizational structure and internal processes to improve the quality and consistency of service delivery, and overhaul VUCE's web platform to enable the provision of higher value services, improve users interface, consolidate interoperability with third-party systems, and add business intelligence functions.

12. This subcomponent aims to strengthen VUCE's e-government service provision through the following activities aimed second and third generation policies to strengthen VUCE's delivery systems and provider management and improve cross-entity collaboration:

- a. Optimization of the administrative processes of counterpart public entities and institutions integrated in VUCE through technical assistance and training;
- b. Institutional strengthening of VUCE, including its quality management system, through (i) upgrading VUCE's internal quality management system; (ii) obtaining international quality management certification ISO9001-2015; and (iii) expansion and improvement to the functionality of the VUCE portal, including an improved user interface focused on accessibility and usability, an interconnection module for connection with third party systems, and a data mining and business intelligence module;
- c. Support to the implementation of a new interoperability platform for international information exchange³⁴, including the carrying out of pilots related to the exchange of phytosanitary certificates and digital origin certificates with selected countries in Latin America³⁵; and
- d. Support to the expansion of the coverage of VUCE's integrated platform and implementation of a full administrative process re-engineering across the value chain for priority exports³⁶.

13. Expected results of these actions include better quality service delivery (measured by faster

³⁴ To be coordinated with the Network of Single Windows for Foreign Trade.

³⁵ Countries to be determined during implementation (in accordance with the criteria set forward in the Operational Manual), based on assessed potential for successful implementation.

³⁶ Similar work has already been successfully carried out related to meat exports, mapping and re-engineering not only document emission, but also merchandise flows and coordination among involved actors. Final selection of the exports to be addressed under the Project will be determined by Appraisal. Initial consultations suggest that wood pulp, soy, milk products, and rice might be included.



processing and improvements in users' perceptions of VUCE) and an increase in the share of foreign trade related administrative requirements integrated into the VUCE platform. Over time, this is expected to help to facilitate a more competitive environment for exporters and potential exporters.

14. *Subcomponent 2.2 – Implementing e-Invoicing for Small and Medium Businesses.* Concomitant with leading reforms efforts undertaken recently by leading tax administrations in the Latin America and Caribbean region, since 2010 DGI has been deploying e-invoice solutions envisioned nowadays as the cornerstone of revenue administrations efficiency and effectiveness. In general, e-invoicing systems aim at providing revenue administrations with quality and timely tax documentation from business transactions with final consumers. Better information allows DGI to further enhance tax compliance through: (i) increased self-assessment levels, as the e-invoice system promotes the issue of invoices of sales of goods and services, and therefore the registration of tax liabilities by taxpayers; and ii) better targeted enforcement actions as quality databases from business transactions allows better data cross-checking and the development of tax analysis capabilities to detect non-complying behavior and strength risk management models. The use of e-invoices accrues efficiency gains to domestic businesses through savings in business inputs (i.e. printing, paper), and tax compliance costs (i.e. storage, handling, accounting and authorization of tax documentation). Savings in terms of invoice issuing and tax compliance allow economic units engaged in trade and business in Uruguay a more competitive stance as resources devoted to those inputs could be reassigned to more productive activities, and eventually being passed on to final consumers through better prices, quality services and products.

15. **While more than 4000 taxpayers are currently issuing e-invoices as a result of the e-invoice system introduced in 2012, universal coverage of such requirement requires investments from DGI in the years to come.** The most salient challenge ahead is to incorporate taxpayers subject to the CFE (*Comprobante Fiscal Electrónico*) represented by most of the small and medium firms registered in Uruguay for tax purposes. By doing so, DGI will be able to achieve widespread efficiency gains in terms of saving costs to the critical mass of businesses, enhancing its competitiveness stance and allowing DGI to better allocate enforcement and service actions.

16. However, to be effective, the envisioned roll out of the e-invoice system needs to be underpinned by other institutional reform efforts at DGI. The new governance model embraced by DGI and under implementation since October 2016 entails profound changes in the operation of tax administration procedures. As part of the new governance model, DGI allocates resources and budgets operations following a strategic planning approach based on annual performance agreements with MEF. For DGI to perform along the new governance framework, substantial efforts are needed to close internal gaps between the old and the new model in terms of human resource management, training, deployment of information technology (IT) solutions, and business processes reengineering.

17. This subcomponent targets second generation reforms to strengthen DGI's delivery systems and provider management through the following activities:

- a. Development and implementation of an e-invoicing system for small and medium taxpayers subject to the Government's electronic tax invoicing regime. This is expected to include (i) technical assistance to assess, design and implement the e-invoice platform, in compliance with the functional document issued by DGI to be followed by taxpayers to be subject to the CFE regime, including the following aspects: compliance of pre-requisites and conditions to access the system; simplified and traditional access to the system; issuing of code

confirmation; dataset and exchange of information testing; access certification to the system; and testing running processes; and, (ii) design and deployment of the IT platform's modules, adaptability and interaction capabilities with the DGI/CFE website, access key, and issue of digital certification.

- b. Enhancement of the Fiscal Risk Case Selection System (FIS-T) risk management system to enable the strategic planning of taxpayer compliance plans and programs, as well as audit case management in alignment with DGI's new organizational model. Activities include technical assistance and software licenses.
- c. Support to the operationalization of DGI's recently changed governance model including (i) the design of a human resource management strategic plan to align staff competences with the new governance model, and projections of staff allocation and capabilities in the long term with a focus on key strategic performance areas; and (ii) the design and implementation of training program to close capability gaps with the new DGI governance structure, organizational arrangements, tax administration procedures, and computer systems. Activities include a phased in training program covering broad areas related to the new governance model, such as best practices on strategic management, large taxpayers, and risk management, as well as more focused approach on core tax administration functions, such as data base integrity, filing and payment, dispute resolution, enforcement, and internal audit, and a section on change management.

18. As a result of these actions, DGI expects an increase in electronically issued tax invoices by taxpayers under the CFE regime. Over the medium term, this is expected to result in widespread efficiency gains in terms of saving costs to the critical mass of businesses, enhance the country's competitiveness, and allow DGI to better allocate enforcement and service actions.

19. *Subcomponent 2.3 – Improving Access to Specialized Information to Businesses.* Increased innovation and productivity will be crucial for Uruguay to consolidate its position in the world economy going forward. According to the Global Competitiveness Report (2016-17), Uruguay ranks 83rd out of 138 countries in innovation and, according to United Nations (2014) data, spends only 0.4 percent of GDP on Research and Development (compared to 2.2 percent in OECD countries on average. Since its creation in 2007, the National Agency for Research and Innovation (ANII) has played an important role in redesigning Uruguay's national innovation system and in better ensuring that investments in research and development contribute to improved social and economic outcomes, serving as a key intermediary between the Government, entrepreneurs, and the research community. One of ANII's largest initiatives has been the development of a national system of research and innovation to strengthen Uruguay's capacity to generate, transfer and adapt knowledge and technology, which the Bank supported with a \$26 million loan (UY Promoting Innovation to Enhance Competitiveness, P095520, 2007-2015). This project supported (i) establishing the institutional framework for science, technology, and innovation; (ii) investments in human capital and high-quality research teams; (iii) technology transfer and private sector innovation; and (iv) cross-sectoral and international research collaboration and mobility of researchers between public institutions and the productive sector. In 2009, ANII launched Portal Timbó, a web platform which provides free and full access to the most relevant scientific and technological publications to Uruguay's citizens. Since Portal Timbó's launch, the number of downloaded articles increased from about 123,000 in 2009 to over 418,000 in 2015, while the average cost per article decreased from \$ 9.78 to \$ 4.31, and Portal Timbó currently has more than 39,500 registered users. Later, in 2014, ANII initiated the Trama Project to gather different players connected to ANII including



researchers, entrepreneurs, investors, and government agents, with the main aim of creating opportunities for networking, exchange, and the creation of alliances. So far, the Trama Project has conveyed about 400 persons during past activities. Building on these achievements, the new project focuses on second-generation challenges facing ANII with regards to improving the quality and stimulating the use of services offered online. Recently, ANII has identified several areas of opportunity to improve its provision of services through Portal Timbó, including expanding the variety of materials included within its database to include business literature and an online database of schoolbooks, and the development of service management tools that would enable it to provide proactive services based on an analysis of information on users' needs that it is already gathering. Responding to the challenge of reaching a wider audience through the Trama Project and seeking a way to further systematize its operation, ANII is targeting the development of an online platform to give the Project greater visibility and to facilitate communication among beneficiaries.

20. This subcomponent includes the following activities aimed at improving access to specialized information to businesses and other interested individuals through second and third generation reforms to strengthen ANII's delivery system and improve collaboration across and beyond the government:

- a. Expansion of the services provided through Portal Timbó, including:
 - i. adding business and scientific literature to expand the portal's private sector user base; the selection of content will be driven by private sector demand identified in collaboration with the Chamber of Industries of Uruguay
 - ii. establishing a national system of digital repositories to preserve and disseminate Uruguay's scientific output; including both the definition of guidelines for streamlined filing and dissemination practices as well as the creation of an interoperability layer integrating all databases of national universities and institutes
 - iii. carrying out of an assessment to inform the design of an online database for schoolbooks in Spanish;
 - iv. developing or acquiring an IT solution to launch an online database for schoolbooks and fostering its use through public outreach initiatives
 - v. expanding access to scientific materials; the provision of materials is based on demand and follows a structured testing process to validate take-up of new materials and achieve low per unit costs
 - vi. designing a new version of the Portal to improve user-friendliness; the new version will add social network functionalities and communication channels which will allow ANII to identify individual users' specific interests and pro-actively suggest relevant content
- b. Development of an online knowledge exchange platform for the Trama Project containing:
 - (i) a database of projects and ideas of potential interest to investors;
 - (ii) human resource registry to facilitate firms' access to specialized labor;
 - (iii) social network capabilities to facilitate connections among ANII's stakeholders; and
 - (iv) a section to disseminate the online knowledge exchange platform's objectives and results.

21. Over the longer term, by improving citizens' and businesses access to and use of specialized information and better opportunities for collaboration among firms, investors, and researchers, efforts



are expected to contribute to increased productivity and innovation.

Component 3. Improving the Delivery of e-Government Services to Government Entities (Estimated cost: \$2.08 million)

22. This component aims to improve the quality of selected e-government services to public entities and facilitate their access through activities supporting improvements to monitoring of and payments to providers and provider management, government delivery systems, and cross-entity collaboration with CGN, MEF, and other entities with a direct link to MEF's priorities.

23. *Subcomponent 3.1 –Enabling the Receipt of Electronic Invoices by State entities.* Since the launch of electronic invoicing in 2012, use of such has grown such that currently, 50 percent of tax receipts issued are electronic. However, State entities are still not able to accept electronic receipts from providers. To address this issue, this subcomponent aims to support the CGN in the following activities: (i) development of a system to receive and oversee electronic invoices generated by providers for use by all of the budget executing units within the SIIF; (ii) acquisition of the software and hardware needed for the corresponding system; and (iii) installation of the system in the about 243 executing units operating within the SIIF, including the provision of training and creation of a help desk.

24. By supporting CGN's capacity to provide State entities with the ability to accept electronic invoices from providers, the Government is expected to contribute to the faster processing of such invoices by entities, facilitating a more fluid relationship between entities and their providers, and strengthening CGN's oversight capacity.

25. *Subcomponent 3.2 – Strengthening the Ministry of Economy and Finance's Management of Information.* The Ministry of Economy and Finance is responsible for managing a variety of economic and financial information for use in policy-making, the volume of which is ever increasing thanks to computerization and process automation. As such, this subcomponent aims to strengthen the Ministry's management of this information through technical assistance supporting, inter alia, the production, processing, analysis, and dissemination of information within the Ministry of Economy and Finance's priority areas and among other entities responsible for the implementation of activities related to such priority areas, including the strengthening of the national statistics system.

Component 4. Strategic Diagnostics, Activities and Knowledge Sharing, and Project Coordination (Estimated cost: \$1.55 million)

26. Having identified the various challenges in the implementation of the future reform agenda, the Government is keen to further strengthen its analytic knowledge base and identify innovative solutions to improve e-government services that could benefit both the country's next steps in the area and position Uruguay as a knowledge provider for the broader global community. This component, which will be implemented by MEF, aims to strengthen the Government's capacity to support strategic reforms in areas that are critical for the achievement of the PDO through the following:

- a. activities to strengthen the Government's monitoring and evaluation capacity to carry out research and learn about the impact of Project activities on the take-up of the associated services (including gender-disaggregated statistics) and identify potential future adjustments to improve their effectiveness;



- b. knowledge sharing and learning activities to disseminate lessons learned on service provision across the Government's public entities and internationally;
- c. the provision of selected technical assistance, training and services identified during implementation as important to improving the quality of the -government services provided by other entities for citizens, business, and government-entities and facilitating their access;
- d. the definition and implementation of change management strategies related to the areas addressed within the Project, including inter alia (i) the preparation of a risk assessment in the areas where new services are being launched to help prioritize interventions and develop well-targeted change management plans; (ii) the carrying out of specific stakeholder analyses; and (iii) the preparation of change management plans; and
- e. support for overall Project coordination and management, the strengthening and maintenance of the Project Coordination Unit (PCU) in the MEF with adequate fiduciary and implementation capacity.

Preparation Advance (P484) (Estimated cost: \$1.03 million)

27. The PA finances activities to facilitate project preparation and enhance implementation readiness. Activities financed through the PA are all consulting services and include preparatory assessments, analyses, and diagnostics related to technical features of the proposed Project activities.

ANNEX 2: IMPLEMENTATION ARRANGEMENTS

COUNTRY: Uruguay

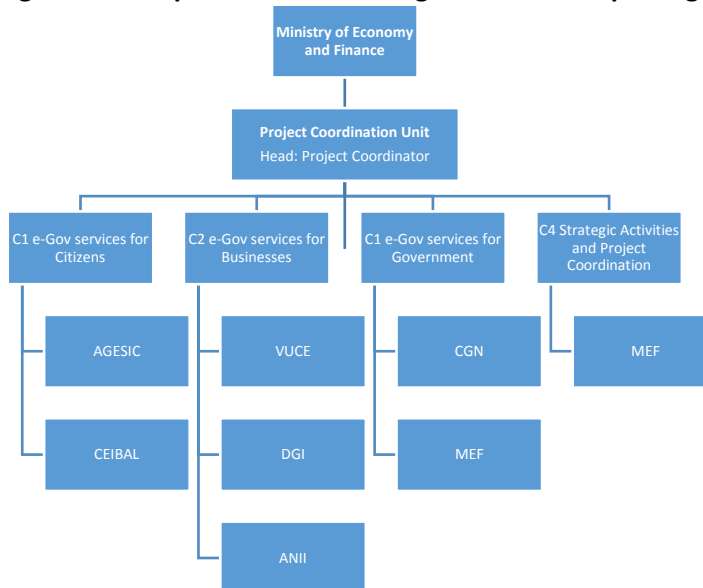
Uruguay - UY Improving Service Delivery to Citizens and Businesses through e-Government

Project Institutional and Implementation Arrangements

1. **Implementation.** The Project will be implemented over a four-year period by the established PCU reporting to the Director of the Multilateral Organizations Relations Unit within General Directorate Secretariat of the MEF. An Operational Manual, that will be adopted by effectiveness in a manner acceptable to the Bank, will include, inter alia, (i) the procedures for carrying out, monitoring and evaluating the Project; (ii) the final format of the Financial Statements, chart of accounts and the interim unaudited financial reports for the Project; and (iii) the performance indicators to be used for monitoring and evaluating the implementation of the Project. See Figure A2.1 below for a summary of implementation arrangements and reporting lines.

2. **Project Coordination Unit.** The PCU has been established within the MEF and is headed by a Project Coordinator, who will be responsible for the everyday management of the overall Project, as well as ensuring that the Project Director’s directives are adequately implemented. In particular, the PCU will be responsible for all administrative aspects of the operation as well as monitoring arrangements, and will also hold fiduciary responsibilities for implementation of the Bank loan. In addition to the Project Coordinator, the PCU will be adequately staffed including, but not limited to: (i) a monitoring and evaluation specialist; (ii) a procurement specialist; (iii) a financial management specialist; and (iv) other technical and administrative support staff, as required. Following Project implementation, Government procedures will be used to transfer the property rights for any physical assets acquired through the Project to the corresponding beneficiary entities.

Figure A2.1 Implementation Arrangements and Reporting Lines





Financial Management³⁷

3. **Project financial management (FM) arrangements in place at the MEF will basically remain the same as for another Bank-supported operation³⁸ and are acceptable to the Bank.** The assessment conclusion indicates that the proposed FM arrangements meet minimum Bank requirements. Overall, Uruguay maintains an acceptable Public Financial Management (PFM) system that contributed to the achievement of substantial economic, financial and social results in the past decade. In addition, the country PFM gives reasonable assurance that fiduciary risks to Bank funds would be low.³⁹ The Project will make use of country's systems in terms of budgeting, internal control and internal and external audit. Moreover, FM aspects of a previous WB-financed operation implemented by MEF have been consistently assessed satisfactory and acceptable audits were timely received by the Bank.

Summary of the FM arrangements

4. **Organization and staffing.** The PCU in the MEF will retain overall financial management responsibility for the project including preparation of interim and annual financial statements, management of the designated account and treasury operations, and the external auditing arrangements. The MEF continues to have qualified FM professionals who are capable of carrying out project FM functions; furthermore, most of the FM staffers have relevant experience implementing Bank-financed projects.

5. **Budgeting.** Uruguay budget system is well-suited for and conducive to the implementation of the proposed operation since it is fundamentally based on government programs covering several areas and approved for a 5 year period coinciding with the term of the elected government. Project transactions will flow through the Government integrated financial information system (SIIF, in Spanish) in order to control the allocated budget. Moreover, the Project is expected to be implemented using a budget appropriation in the MEF budget. Budget implementation distinguishes various stages in the expenditure process, including commitment. Budget operations are accounted for in the SIIF and controlled by the Accountant General Office (CGN, for its Spanish acronym).

6. **Accounting and financial reporting.** The Project will make use of the Memory Conty information technology system. The chart of accounts will reflect the Project's categories, components and sources of funding. This system is already in place and functioning well, although it is important to mention that the budgeting system SIIF is not interfaced with the Memory Conty system. Therefore, the PCU implemented manual controls aimed at ensuring the integrity and accuracy of data between both IT systems. The cash basis of accounting will be used for recording the project's transactions. The PCU will be responsible for Project financial reporting, including semiannual financial reports and annual financial statements that show information by Project component and source of financing in a format acceptable to the Bank. The PCU will ultimately prepare the following annual financial statements in line with the Bank's requirements: (a) Statement of Cash Receipts and Payments by Funding Source (expenditures classified by disbursement category); (b) Statement of Requests for Reimbursement; and (c) the Special Account Statement.

7. **Internal controls and internal audit.** One of the most relevant instruments of the internal control is the

³⁷ This annex documents the status of the Financial Management Assessment (FMA) conducted by Bank staff in accordance with OP/BP 10.00 and Guidelines for Assessment of Financial Management Arrangements in World Bank-Financed Projects..

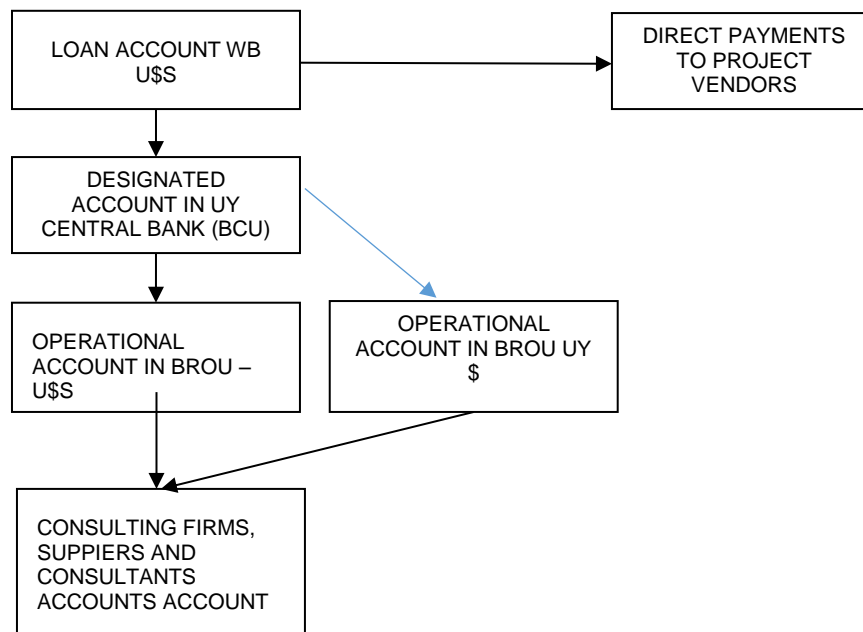
³⁸ UY Building Institutions Project (P097604) Ln 7451-UY \$ 12.1 Million and its Additional Financing Loan 8116-UY \$ 10 Million; both closed on December 31, 2016

³⁹ For further reference on Uruguay PFM system, see UY Public Expenditure and Financial Accountability Review. Report No. ACS 4022. December 18, 2012

Central Accountants. Key internal control functions in each line ministry are in charge of the Central Accountant who reports directly to the Accountant General Office Budget and Accounting Division. Central Accountants review transactions for legality and control the budget costs. The Internal Audit Office (IAO) is responsible for internal audits of the Central Administration. Though it depends functionally and financially on the MEF; it has technical autonomy and unlimited access to financial records. IAO prepares an annual audit plan and periodically progress against the plan is measured.

8. **Flow of funds.** Funds received as advances will be deposited into a segregate Designated Account in the Central Bank of Uruguay (BCU for its acronym in Spanish) controlled by the MEF-PCU. As eligible expenditures arise payments of the Project eligible expenditures will be made in local currency and dollars using 2 separate operational bank accounts to be opened in *Banco de la República Oriental del Uruguay* (BROU) The general flow of funds arrangements are described in Figure A2.2 below.

Figure A2.2. Flow of Funds Arrangements



9. **Auditing arrangements.** The project annual financial statements will be audited by an acceptable auditor, following terms of reference and conducted in accordance with auditing standards acceptable to the Bank as well. It is expected that Uruguay’s Supreme Audit Institution, the “*Tribunal de Cuentas de la República*” (TCR) be the external auditor for the project. TCR has satisfactorily performed external audits of the Bank portfolio in Uruguay. Audited financial statements will be furnished to the Bank no later than six months after the end of each fiscal year—or another period agreed upon with the Bank (not exceeding 18 months)—when, due to project circumstances, it is

more cost effective to join periods to be audited. The following chart identifies the audit reports that will be required to be submitted:

Table A2.1
Audit Reports' Schedule

Audit Report	Due Date
1) Project Specific Financial Statements	June 30
2) Special Opinions	June 30
▪ Statement of Expenditures	June 30
▪ Designated Account (Special Account)	June 30
▪ Internal Control	June 30

10. In accordance with the Bank's Access to Information Policy, upon receipt of the annual audited financial statements of the project, they will be made available to the public by the Bank. The Borrower agrees to disclose the audited financial statements to the public on time.

11. **Risk assessment.** On the basis of the FM assessment, the overall FM residual risk for the Project is low. Main FM risk mitigating measures include: (i) annual financial audit to the Project's financial statements conducted under terms of reference and by auditors acceptable to the Bank, (ii) preparation of a Project operational manual including fiduciary procedures and controls as well as inter-institutional coordination arrangements, (iii) and if applicable, other technical assistance measures aimed at increasing the entity's financial reporting, internal control and oversight institutional capacity.

Table A2.2. Risk Assessment and Mitigation Measures

Risk	Risk Rating	Comments/Risk Mitigating Measures	Residual Risk Rating
Inherent Risk			
▪ Country Level	Low		Low
▪ Project/ Entity Level	Low		Low
Control Risk			
▪ Budgeting	Low	- Overall budget execution at the Central Gov operates well.	
▪ Accounting	Low	- The Project's accounting system is in place and functions properly	
▪ Internal Control	Low	- Administrative procedures relating to project FM aspects are included in the Op. Manual.	
▪ Funds Flow	Low		
▪ Financial Reporting	Low		
▪ Auditing	Low	Project auditing will be conducted by the country's supreme audit institution which is acceptable to the	

		Bank	
Overall Residual Risk	Low		Low

Disbursements

12. Disbursement arrangements⁴⁰ are summarized in the table below:

Table A2.3. Disbursement Arrangements

Method	Disbursement Arrangements
Advances to a segregate designated account will be the primary disbursement method	<ul style="list-style-type: none"> • Advance to a designated account in U.S. dollars managed by the MEF through the PCU, to be opened in the Central Bank of Uruguay, with a \$1 million cap for outstanding advances.
Other disbursement methods	<ul style="list-style-type: none"> • Direct payments to suppliers. • Reimbursement of eligible expenditures to a bank account controlled by the MEF-PCU. The minimum application size for direct payment and requests for reimbursements will be provided in the Disbursement Letter.
Supporting documentation	<ul style="list-style-type: none"> • Statement of Expenditures⁴¹ • Records (supplier contracts, invoices, and receipts)

13. All documentation of expenditures and records will be retained by MEF-PCU for at least two years after the Bank receives the final audited financial statements.

Table A2.4. Disbursements per Expenditure Category

Category	Amount of the Loan Allocated (expressed in USD)	Percentage of Expenditures to be financed (inclusive of Taxes)
(1) Operating Costs, Training, goods, non-consulting services, and consulting services for the Project	10,971,000	100%
(2) Refund of the Preparation Advance	1,029,000	Amount payable pursuant to Section 2.07 (a) of the General Conditions
TOTAL AMOUNT	12,000,000	

⁴⁰ For details, please see the Disbursement Handbook for World Bank Clients.

⁴¹ The Borrower, through the PCU, shall retain all records (contracts, orders, invoices, bills, receipts, and other documents) evidencing expenditures under the project until at least the later of (a) two years after the Bank has received the audited financial statements covering the period during which the last withdrawal from the loan account was made and (b) three years after the closing date. The Borrower and the PCU shall enable the Bank's representatives to examine such records.



14. **Implementation support.** FM implementation support will include on-site and off-site supervision. On-site missions will be carried out at least once a year and later calibrated following assessed risk and project performance. Off-site implementation support will comprise desk reviews of interim financial reports and audited financial statements; and ad-hoc support through email and phone calls as needed.

Procurement

15. Procurement for the Project will be conducted according to the World Bank's "Procurement Regulations for IPF Borrowers", issued in July 2016, for the supply of Goods, Non-consulting Services and Consulting Services. The "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006 and revised in January 2011 and as of July 1, 2016 (World Bank's Anti-Corruption Guidelines, ACG), and sanctions procedure apply with respect to the procurement under the Project.

16. Procurement activities will be undertaken by the PCU within the MEF. A capacity assessment of the PCU reviewed its organizational structure and assessed the unit's institutional capacity for procurement. The assessment concluded that the PCU's experience implementing previous Bank-financed projects suggests that the unit would have reasonable institutional capacity to handle all aspects of procurement. Consequently, the overall project risk for procurement is Moderate.

17. MEF, as the implementing agency, developed a Project Procurement Strategy for Development (PPSD) agreed with the World Bank, which provides the basis for the selection methods and market approaches included in the Procurement Plan for the project implementation:

- a. Procurement of Goods and Non-Consulting Services. Equipment, licenses and services: a) Open national competitive bidding approach is supported by the availability of bidders in the local market and the small contracts planned. The Request for Bids or the Request for Quotations would be the selection methods for these contracts, given that the Borrower is able to specify detailed requirements to which bidders respond by offering bids; and b) Direct market approach and Direct Selection method, when a sole firm with needed capabilities is identified and justified.
- b. Procurement of Consulting Services. Considering that these will be small contracts for Technical Assistance, Developing of Systems and other studies, the suitable market approaches and selection methods would be: a) Open competition in the national market and Quality-Cost- Based Selection or the Consultant's Qualification Based Selection (considering the nature of the services and the need to take into account the quality of the proposals based on the evaluation of the different solutions and the cost of the services); and b) Direct market approach and Direct Selection method, when a sole firm with needed capabilities is identified and justified.
- c. Individual consultants. Will be selected through open competitive selection or on direct selection basis, when the tasks that are a continuation of previous work that the individual consultant has carried out after being selected competitively.

18. The Procurement Plan will be uploaded in the Systematic Tracking of Exchanges in Procurement (STEP). The implementing agency shall use STEP to: (i) prepare and submit the Procurement Plan for World Bank review; and (ii) conduct all procurement transactions with the World Bank. The Procurement Plan will be updated annually in agreement with the World Bank, or as required to reflect actual project needs and improvements in institutional capacity. The World Bank will disclose the Procurement Plan and



all its updates to the public. Additionally, annual implementation support missions will take place to carry out post reviews of procurement actions and review the implementation of the Procurement Plan and action plan.

19. The Bank's Standard Procurement Documents will govern the procurement of World Bank-financed International Competitive Bidding. For procurement involving National Competitive Bidding, the Borrower may use their own procurement documents, acceptable to the World Bank. All Standard Procurement Documents as well as model contracts should be included in the Operational Manual.

Environmental and Social (including safeguards)

20. All Project activities, including environmental and social aspects, will be implemented by the PCU under the MEF. The Project is considered Environmental Category C and none of the safeguards policies have been triggered.

Monitoring and Evaluation

21. The PCU will be responsible for monitoring and reporting to the Bank on Project results, including the Project's PDO and intermediate indicators, and Project implementation biannually. These reports and information will be systematized and used to feed discussions for strategic decision making. Also, incorporating a lesson learned from the IBTAL operation, the PCU for the proposed Project will add a monitoring and evaluation specialist to its staff in order to strengthen its capacity to analyze the information on results received from participating entities.

Role of Partners (if applicable)

22. The proposed Project is complementary to the Government's ongoing work with the IDB on e-government. No co-financing of the specific activities to be included within the Project is anticipated. Close coordination with the IDB will be maintained in order to ensure that the Government is able to fully maximize any positive externalities resulting from activities' complementarities, as well as that any potential issues arising from such are proactively managed and resolved.



ANNEX 3: IMPLEMENTATION SUPPORT PLAN

COUNTRY: Uruguay

Uruguay - UY Improving Service Delivery to Citizens and Businesses through e-Government

Strategy and Approach for Implementation Support

1. The implementation strategy for the Project was developed based on the risks and mitigation measures related to the operation, and targets the provision of flexible and efficient implementation support to the client. It also considers the lessons learned from the Institutions Building Technical Assistance Loan (P097604), incorporating the elements that worked well in the previous operation. The implementation support strategy focuses primarily on the implementation of risk mitigation measures as follows:

- a) **Inter-institutional coordination.** To ensure coordination among MEF and the institutions and agencies involved, the Bank will carry out a close supervision to support planning and results monitoring. Bank supervision will include but will not be limited to semiannual supervision missions. Additionally, a liaison will be identified within each of the entities and agencies involved in order to facilitate direct communication for monitoring and following-up upon each of the components.
- b) **Technical support.** The Bank technical and fiduciary team will have continuous dialogue with the implementing entities and the PCU to support implementation and the use performance information, including progress report mechanisms. Implementation support missions will include public sector specialists to help guide the PCU with project implementation and policy dialogue.
- c) **Procurement.** A Bank procurement specialist will provide timely support and carry out ongoing supervision. The specialist will participate in Project implementation support missions and visits, respond to just-in-time requests, and provide ongoing guidance to the implementing unit based on its procurement activities. The World Bank will also provide any additional capacity building on the new Procurement Framework to facilitate the conduct of procurement activities.
- d) **Financial Management.** During Project implementation, the Bank will supervise the Project's Financial Management arrangements in two main ways: (a) review the project's annual audited financial statements; and (b) during the World Bank's implementation support missions, review the Project's FM and disbursement arrangements to ensure compliance with the World Bank's requirements. An FM specialist will assist in the supervision process as needed.
- e) **Operations.** During Project implementation, the World Bank will provide implementation support to the team members of the PCU to prepare, update, and use the project management tools, including the Operational Manual, annual work plan, procurement plan, and disbursement projections. The task team will track the progress of the Project's indicators, monitor the implementation progress of Project components according to annual action plans.
- f) **Monitoring and evaluation.** The Bank team will provide support to the MEF in collecting and analyzing the information needed to monitor the Project result framework.

**Implementation Support Plan and Resource Requirements**

Time	Focus	Skills Needed	Resource Estimate	Partner Role
First twelve months	Task management	Task team leader/ Public sector specialist	20 Staff Weeks (SWs)	
	Procurement	Procurement specialist	6 SWs	Training and Preparation
	FM	FM specialist	6 SWs	Training and Preparation
	Operations support	Operations officer	2 SWs	Revision of documentation
	Technical support	ICT Policy specialist / Public Sector Specialist	10 SWs	Technical support
12-48 months	Task management	Task team leader/ Public sector specialist	60 SWs	Task Leadership
	Procurement	Procurement specialist	12 SWs	Training and Supervision
	FM	FM specialist	12 SWs	Training and Supervision
	Operations support	Operations officer	3 SWs	Revision of documentation
	Technical support	ICT Policy specialist/ Public Sector Specialist	10 SWs	Technical support
Other				

Skills Mix Required

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Task Team Leader (Public Sector Specialist)	80	8	
Procurement Specialist	22	8	
Financial Management Specialist	22	8	
Operations Officer	5	6	
ICT Policy Specialist/Public Sector Specialist	20	8	



ANNEX 4: ECONOMIC AND FINANCIAL ANALYSIS

COUNTRY: Uruguay

Uruguay - UY Improving Service Delivery to Citizens and Businesses through e-Government

Summary of Cost Benefit Analysis

1. Improving the quality of and facilitating access to selected e-government services offered by Uruguay's public administration is expected to have significant positive economic and financial benefits. However, given the nature of the Project, only a specific subset of benefits is able to be quantified. Due to the fact that investments under the current Project build from prior investments made by the Government in past years, the net benefits and internal rate of return (IRR) are calculated vis-à-vis the sum of estimated past and planned future investments to be made under the present Project. The analysis assumes an exchange rate of 28.7 Uruguayan pesos per \$ and a 6 percent discount rate over a 6-year period, and a 10 percent in price and physical cost contingency for unexpected delays in future activities.
2. Savings from reduced paper needs and time savings in invoicing, resulting from the **implementation of electronic invoicing for small and medium firms** (activity (a), subcomponent 2.2)—one of the areas in which benefits are able to be quantified— are calculated have net benefits with a NPV of \$546,041, and an IRR of 13 percent. Benefits are both financial in terms of reduced purchases of paper needed for invoicing as well as economic in terms of time saved by taxpayers. Since the exact number of small and medium taxpayers impacted is unknown, an estimate of 25,000 is used. Changes made to the number of impacted taxpayers will significantly affect the magnitude of the NPV for the Project. Future costs contemplated within calculations correspond to Project cost amounts for the relevant activity, counterpart costs associated with the activity not financed with loan resources, and estimates of future costs to maintain the invoicing system. Prior (pre-Project) investments are estimated to have cost \$1.5 million, corresponding to the development of the electronic invoicing system for large taxpayers⁴², upon which the implementation of the current work builds. (See Table A4.1 below for a summary.)
3. Savings from reduced time spent traveling, reduced travel costs, and reduced paper costs resulting from the **automation of additional administrative processes online within VUCE** (supported under subcomponent 2.1) - the other area of the Project in which benefits are able to be quantified – is expected to yield net benefits with a NPV of \$875,202 and an IRR of 14 percent. Benefits are both financial in terms of reduced purchases of paper and transport costs as well as economic in terms of time saved by those travelling to submit paperwork, and are assumed to start accruing one year after Project initiation (in 2018).⁴³ Future costs contemplated within calculations correspond to Project cost amounts for all activities carried out with VUCE under the Project (a high estimate of the costs

⁴² Based on discussion with counterparts. For purposes of calculations here, these past costs are all ascribed to the year prior to the beginning of Project implementation.

⁴³ This assumption is a one-year delay from counterparts' estimates; their estimates assumed that benefits would start to accrue in 2017.



associated with this work). Prior (pre-Project) investments are estimated to be \$2.49 million.⁴⁴ (See Table A4.2 below for a summary.)

Implementation of Electronic Invoicing for Small and Medium Taxpayers

4. **Benefits. Reduced paper purchases.** The transition to electronic invoicing for small and medium business taxpayers is assumed to save an average of \$25 per small and medium business taxpayer per year in reduced paper costs.⁴⁵ While the universe of impacted taxpayers is not known at this time, based on the assumption that 25,000 impacted taxpayers is a reasonable proxy, total annual savings from reduced paper costs could amount to \$625,000 million annually. (This assumes universal application of electronic invoicing to the 25,000 taxpayers, and does not take into account savings associated with reduced costs of physical storage.) The analysis here assumes a phased accession of taxpayers to the electronic system in which no users make the shift in the first two years of Project implementation, 10 percent of the identified 25,000 use e-invoicing in 2019, 30 percent in 2020, 60 percent in 2021 and 100 percent in 2022. This yields expected benefits of \$1.25 million between 2019 and 2022.

5. **Time savings for small and medium taxpayers.** The transition to electronic invoicing for small and medium tax payers is also expected to reduce the time related to maintaining the accounting register of transactions (which is considered to be a reasonable proxy for invoicing) by between 25 to 50 percent. Currently, minimum value added tax and NO CEDE personal services taxpayers (the two categories which make up the majority of taxpayers) are estimated to spend an average of 408 minutes per month on average doing such. Assuming that times are reduced by 25 percent, that the universe of impacted taxpayers is the same as above (25,000), and that the average cost of managing accounting registers is \$14.28 a month⁴⁶, total benefits of \$2.14 million are estimated between 2019 and 2022. This assumes the same phased-in implementation of the system from 2019 to 2022 over the universe of 25,000 taxpayers.

6. **Other.** Other benefits associated with the launching of electronic invoicing for small and medium taxpayers could be realized by large taxpayers, as the universalization of electronic invoicing could reduce the need for DGI to request that large taxpayers file informational declarations on the taxpayers with whom they have business relationships. Compliance with these requirements have been estimated to require the equivalent of \$4 million in such taxpayers' time per year, an amount which authorities estimate could be reduced by 25 to 50 percent with the eventual universal use of electronic invoicing. However, as these are indirect benefits that do not directly accrue to small and medium-taxpayers, they have not been contemplated in the calculations here.

⁴⁴ Based on IDB Project Monitoring Reports for January to June 2016 for UR-L1065 and UR-L1060 which financed activities related to VUCE.

⁴⁵ Average annual paper costs before the reform are conservatively estimated to be \$200 per taxpayer. Calculations here assume that before the reform, taxpayers use 25 percent of this paper for invoicing. Under the assumption that the amount of paper used for invoicing is reduced by 50 percent following the introduction of e-invoicing (since taxpayers delivering final goods and services to consumers will still need to print receipts for their customers, but not for their own internal records), paper savings are conservatively estimated to equal \$25 per year.

⁴⁶ This assumes a conservative labor cost of \$2.10 per hour.



7. **Costs.** The total estimated cost for planned activities under the current Project is \$482,525 which includes investments financed through loan resources, the cost of three individuals working part time over eight months to support the system (financed by the Government), and recurring annual costs associated with system maintenance and support to taxpayers (provided by two full time staff) in the years following the Project. Including past investments made to develop electronic invoicing for large commercial taxpayers (valued at approximately \$1.5 million) and upon which Project activities build, overall total costs are \$1.98 million.

Expansion of Processes Covered in VUCE's Integrated Platform

8. **Benefits.** *Time savings associated with travel to turn in and pick up documentation.* The transition to online processing for a set of processes in the following two years is expected to reduce the time that filers need to spend traveling to turn in and pick up documentation. Based on the Government's estimate of the expected number of times that each of these processes is expected to be carried out per year, the assumption that the trips to submit and pick up documentation take a total of 1.5 hours, and a very conservative labor cost of \$2.10 per hour,⁴⁷ it is estimated that up to 455,597 hours of time could be saved in the first year, and 527,447 in the second.⁴⁸ For calculations of benefits, though, here it is assumed that only 40 percent of this time is actually saved, to account for the fact that some people may have previously carried out several processes within the same trip, and that some may continue to prefer to visit the office. Assuming that the same level of benefits from year 2 continue to accrue in the following three years, this yields expected benefits of \$2.16 million between 2018 and 2022.

9. *Reduced travel costs.* The transition to online processing for this set of processes is also expected to eliminate travel costs associated with the submission of documentation. Assuming the same volume of processes expected to be carried out as used above (including the assumption that only 40 percent of the total potential trips that could be saved actually are), two roundtrip trips to turn in and pick up documentation, and a \$1.15 bus ticket saved on each one-way trip, benefits of \$3.15 million are expected between 2018 and 2022, with, similar to above, benefits from Year 2 assumed to continue accruing in the following three years.

10. *Reduced paper purchases.* Finally, reduced paper use thanks to the transition to online processing of new administrative processes is also expected to result in savings. Based on data on the number of pages associated with each administrative process, and the expected volume of each type of process expected to be carried out, it is expected that more than 9.7 million sheets of paper could be saved the first year, and more than 11.2 million the first year. However, for the calculations in the present analysis, it is assumed that only half of these pages are saved as 50 percent of people still continue to print copies of their forms. Assuming a cost of \$0.01 per page, this translates into benefits of approximately \$273,502 between 2018 and 2022 (with the same level of benefits from year 2 again being assumed to accrue in the following three years).

⁴⁷ In their calculations, counterparts assume a higher estimate associated labor costs of approximately \$8 an hour.

⁴⁸ Counterparts assume that these advances will be made in 2017 and 2018. However, under the assumption that Project launching may be a bit later than initially expected, for purposes of this analysis, benefits are assumed to start accruing in 2018, and 2019 benefits are carried forward for the subsequent years of analysis.



11. **Costs.** The total estimated cost for all activities planned under the Project with VUCE is \$1.034 million of investments financed through loan resources. As noted above, this is a high estimate of the costs associated with this work. Including past investment made to develop VUCE (valued at approximately \$2.49 million) and upon which Project activities build, overall total costs are \$3.52 million.

Table A4.1a. Summary of Cost Benefit Analysis, \$, Electronic Invoicing

	pre-2017	2017	2018	2019	2020	2021	2022	Total
Costs								
Direct Project Costs		24,400	64,400	78,725				167,525
Counterpart Financed Costs			15,000					15,000
Maintenance					100,000	100,000	100,000	300,000
Prior Costs	1,500,000							1,500,000
Benefits								
Reduced paper				62,500	187,500	375,000	625,000	1,250,000
Time savings				107,100	321,300	642,600	1,071,000	2,142,000
Total Costs								
	1,500,000.00	24,400	79,400	78,725	100,000	100,000	100,000	1,982,525
Total Benefits								
	-	-	-	169,600	508,800	1,017,600	1,696,000	3,392,000
Cost Contingency (10%)								
		2,440	7,940	7,873	10,000	10,000	10,000	48,253
Net benefits								
	(1,500,000)	(26,840)	(87,340)	83,003	398,800	907,600	1,586,000	1,361,223
NPV								
								546,041
IRR								
								13%

Table A4.2b. Summary of Cost Benefit Analysis, \$, Automation of Additional Processes- VUCE

	pre-2017	2017	2018	2019	2020	2021	2022	Total
Costs								
Direct Project Costs		249,400	418,000	282,000	85,000			1,034,400
	2,485,876							2,485,876
Benefits								
Time savings - Reduced Travel			382,702	443,081	443,081	443,081	443,081	2,155,026
Reduced Travel Costs			558,781	646,941	646,941	646,941	646,941	3,146,545
Reduced Paper Needs			48,711	56,198	56,198	56,198	56,198	273,502
Total Costs								
	2,485,876	249,400	418,000	282,000	85,000	-	-	3,520,276
Total Benefits								
		-	990,195	1,146,219	1,146,219	1,146,219	1,146,219	5,575,072
Cost Contingency (10%)								
		24,940	41,800	28,200	8,500	-	-	103,440
Net benefits								
	(2,485,876)	(274,340)	530,395	836,019	1,052,719	1,146,219	1,146,219	1,951,356
NPV								
								875,202
IRR								
								14%

Other Benefits

12. Other, equally important but not easily quantifiable benefits are expected to be realized by citizens and businesses to whom the Government will be able to offer more efficient and effective services thanks to the improvements in the management of programs such as Portal Timbó, Plan Ceibal, VUCE, and AGESIC. Examples of such potential benefits include, for example, increased awareness by users of Portal Timbó of new journal publications in their areas of research (which could then have a downstream impact on their own research and development efforts), speedier resolution of interface problems that arise for users of Centro Ceibal's programs, easier and more rapid navigation of VUCE's interface, and better targeted offering of e-services to citizen through the e-government portal.

ANNEX 5: Recent Research on E-Government Reform

COUNTRY: Uruguay

Uruguay - Improving Service Delivery to Citizens and Businesses through E-Government

1. The World Bank’s 2016 Digital Dividends World Development Report (WDR) sets forward three characterizations of countries in the digital transformation: “emerging countries”, which are working on laying the foundations for more effective institutions; “transitioning countries”, which are in the next stage of reform, and are focused on building capable and accountable institutions; and “transforming countries”, which are in the third stage of reform and are focused on deepening collaborative institutions. The priority policies for each stage are presented in the table below.

Priority policies for better service delivery (WDR 2016, page 34)

Emerging Countries: Laying the foundation for more effective institutions	Transitioning Countries: Building capable and accountable institutions	Transforming Countries: Deepening collaborative institutions
<ul style="list-style-type: none"> • Improve information services to citizens • Strengthen monitoring of and payment to providers • Establish population registers • Scale up non-state provision of services • Increase electoral accountability 	<ul style="list-style-type: none"> • Strengthening government delivery systems • Strengthen provider management • Get regular feedback on service quality • Increase transparency in priority areas 	<ul style="list-style-type: none"> • Improve collaboration across and beyond government • Enhance participatory policy making

2. As noted in the main text, Uruguay can be largely characterized as a “transitioning” country within the second stage of digital reforms, on its way to becoming a “transforming” one undertaking third generation policies, which has succeeded in laying a strong foundation for effective institutions and is now focused on making those institutions more capable, accountable, and collaborative. Annex 1 maps the activities being carried out within each subcomponent to the corresponding types of priority policies identified within the WDR.

3. In terms of e-government service take-up, as noted in the main text, across the world, a variety of factors impacting usage have been identified, including basic threshold issues linked to lingering fear and distrust, availability of ICT infrastructure, awareness, digital skills, and difficult to use sites, and differing rates of use observed across types of users (for example, by socio-economic profile), suggesting that factors may play different roles across individuals. A variety of strategies to address these issues are being used, ranging from multi-channel access including use of e-government intermediaries (e.g. public kiosks), improved usability and website design (including easily navigable one-stop-shops), usage monitoring and tracking, user feedback and training, usage promotion, and service personalization.

4. OECD research categorizes country approaches to increase take up into four main strategies, a combination of which are commonly used by countries to meet the needs of their specific context:

- a. Organizational and administrative simplification (e.g. single windows services and reduction of administrative burden for citizens);
- b. Situation-bound approaches, which is focused on the design and provision of tailored services for groups of citizens with common needs (e.g. needs of disabled citizens, one-stop



- portal for victims of disasters, etc.);
- c. Participatory and inclusive initiatives whereby the provision of services is oriented to increase citizen engagement (e.g. portals for public consultations or citizen access points in remote areas, etc.); and
 - d. Marketing and channel management, including for instance the dissemination of information on e-government services and their benefits, and the provision of different channels to interact with the government.⁴⁹
5. Currently, the Uruguayan Government's agenda, including work supported by the ongoing IDB operation and that planned under the proposed World Bank Project, touches upon all of the strategies. The Government is now undertaking a massive transition to bring all of its administrative services online and plans to develop proactive services targeted at individuals' user profiles, as well as smart services for particular identified needs. Their agenda also includes citizen participation initiatives, the availability of dispersed citizen access points, and an ongoing massive dissemination campaign. In particular, under the proposed Project, proactive citizen services, smart services, a mobile citizen access point, and the design of new services targeted at specific needs are planned. It also contemplates space for new activities to strengthen the Government's monitoring and evaluation capacity to research the impact of these activities; these are key for assessing the impact and identifying potential future adjustments that may be needed in order to improve effectiveness.

⁴⁹ UN E-Government Survey 2014, OECD e-Government Studies, "Re-thinking e-Government Services: User-Centered Approaches" (http://www.keepeek.com/Digital-Asset-Management/oecd/governance/rethinking-e-government-services_9789264059412-en#.WofPZU3fOmQ)