

Document of  
**The World Bank**  
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Report No: ICR00006202

IMPLEMENTATION COMPLETION AND RESULTS REPORT

(BIRF 8778-UY)

ON A

LOAN

IN THE AMOUNT OF US\$12 MILLION

TO THE

Oriental Republic of Uruguay

FOR THE

URUGUAY - IMPROVING SERVICE DELIVERY TO CITIZENS AND BUSINESSES THROUGH  
E-GOVERNMENT PROJECT ( P161989 )

June 15, 2024

Governance Global Practice  
Latin America And Caribbean Region

## CURRENCY EQUIVALENTS

(Exchange Rate Effective May 15, 2024)

Currency Unit = Uruguayan Peso

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UY 38.73 = US\$ 1

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US\$ 0.026 = UY 1

## FISCAL YEAR

January 1 - December 31

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Country Director: Marianne Fay

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## ABBREVIATIONS AND ACRONYMS

<b>AGESIC</b>	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> )
<b>ANII</b>	National Research and Innovation Agency ( <i>Agencia Nacional de Investigación e Innovación</i> )
<b>ANTEL</b>	National Telecommunications Company
<b>CFE</b>	Electronic Tax Invoice ( <i>Comprobante Fiscal Electrónico</i> )
<b>CGN</b>	General Accounting Office ( <i>Contaduría General de la Nación</i> )
<b>COVID-19</b>	Coronavirus Disease 2019
<b>CPF</b>	Country Partnership Framework
<b>DGI</b>	Directorate General of Taxation ( <i>Dirección General Impositiva</i> )
<b>EUTIC</b>	Survey on the Uses of Information and Communication Technologies ( <i>Encuesta de Usos de las Tecnologías de la Información y las Comunicaciones</i> )
<b>GDP</b>	Gross Domestic Product
<b>ICR</b>	Implementation Completion and Results Report
<b>ICT</b>	Information and Communications Technologies
<b>IDB</b>	Interamerican Development Bank
<b>IFMIS</b>	Integrated Financial Management Information System
<b>IPF</b>	Investment Project Financing
<b>IRI</b>	Intermediate Results Indicator
<b>IRR</b>	Internal Rate of Return
<b>ISR</b>	Implementation Status Report
<b>FM</b>	Financial Management
<b>MEF</b>	Ministry of Economy and Finance
<b>NPV</b>	Net Present Value
<b>OECD</b>	Organization for Economic Co-operation and Development
<b>PAC</b>	Citizen Access Points ( <i>Puntos de Atención a la Ciudadanía</i> )
<b>PAD</b>	Project Appraisal Document
<b>PCU</b>	Project Coordination Unit
<b>PDO</b>	Project Development Objective
<b>SIRFE</b>	Electronic System for the Receipt of E-invoices ( <i>Sistema de Recepción de Factura Electrónica</i> )
<b>STEP</b>	Systematic Tracking of Exchanges in Procurement
<b>TOC</b>	Theory of Change
<b>TTL</b>	Task Team Leader
<b>VUCE</b>	International Trade Single Window ( <i>Ventanilla Única de Comercio Exterior</i> )

## TABLE OF CONTENTS

<b>DATA SHEET .....</b>	<b>1</b>
<b>I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES.....</b>	<b>5</b>
<b>A. CONTEXT AT APPRAISAL .....</b>	<b>5</b>
<b>B. SIGNIFICANT CHANGES DURING IMPLEMENTATION .....</b>	<b>8</b>
<b>II. OUTCOME .....</b>	<b>9</b>
<b>A. RELEVANCE OF PDOs .....</b>	<b>9</b>
<b>B. ACHIEVEMENT OF PDOs (EFFICACY) .....</b>	<b>10</b>
<b>C. EFFICIENCY .....</b>	<b>14</b>
<b>D. JUSTIFICATION OF OVERALL OUTCOME RATING .....</b>	<b>15</b>
<b>E. OTHER OUTCOMES AND IMPACTS (IF ANY).....</b>	<b>16</b>
<b>III. KEY FACTORS THAT AFFECTED IMPLEMENTATION AND OUTCOME .....</b>	<b>18</b>
<b>A. KEY FACTORS DURING PREPARATION .....</b>	<b>18</b>
<b>B. KEY FACTORS DURING IMPLEMENTATION .....</b>	<b>18</b>
<b>IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME ..</b>	<b>18</b>
<b>A. QUALITY OF MONITORING AND EVALUATION (M&amp;E) .....</b>	<b>18</b>
<b>B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE .....</b>	<b>19</b>
<b>C. BANK PERFORMANCE .....</b>	<b>19</b>
<b>D. RISK TO DEVELOPMENT OUTCOME .....</b>	<b>20</b>
<b>V. LESSONS AND RECOMMENDATIONS .....</b>	<b>20</b>
<b>ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS.....</b>	<b>22</b>
<b>ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION .....</b>	<b>32</b>
<b>ANNEX 3. PROJECT COST BY COMPONENT .....</b>	<b>34</b>
<b>ANNEX 4. EFFICIENCY ANALYSIS.....</b>	<b>35</b>
<b>ANNEX 5. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS ...</b>	<b>37</b>
<b>ANNEX 6. SUPPORTING DOCUMENTS (IF ANY) .....</b>	<b>40</b>

**DATA SHEET**

**BASIC INFORMATION**

**Product Information**

Project ID	Project Name
P161989	Uruguay - Improving Service Delivery to Citizens and Businesses through E-Government Project
Country	Financing Instrument
Uruguay	Investment Project Financing
Original EA Category	Revised EA Category
Not Required (C)	Not Required (C)

**Organizations**

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

**Project Development Objective (PDO)**

Original PDO

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

## FINANCING

	Original Amount (US\$)	Revised Amount (US\$)	Actual Disbursed (US\$)
<b>World Bank Financing</b>			
IBRD-87780	12,000,000	12,000,000	11,913,680
<b>Total</b>	<b>12,000,000</b>	<b>12,000,000</b>	<b>11,913,680</b>
<b>Non-World Bank Financing</b>			
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Project Cost</b>	<b>12,000,000</b>	<b>12,000,000</b>	<b>11,913,680</b>

## KEY DATES

Approval	Effectiveness	MTR Review	Original Closing	Actual Closing
03-Aug-2017	28-Dec-2017	01-Jun-2022	31-Dec-2021	15-Dec-2023

## RESTRUCTURING AND/OR ADDITIONAL FINANCING

Date(s)	Amount Disbursed (US\$M)	Key Revisions
30-Aug-2021	7.36	Change in Loan Closing Date(s)
23-May-2023	10.52	Change in Loan Closing Date(s)

## KEY RATINGS

Outcome	Bank Performance	M&E Quality
Satisfactory	Satisfactory	Substantial

## RATINGS OF PROJECT PERFORMANCE IN ISRs

No.	Date ISR Archived	DO Rating	IP Rating	Actual Disbursements (US\$M)
01	15-Nov-2017	Satisfactory	Satisfactory	.41
02	17-May-2018	Satisfactory	Satisfactory	.72
03	31-Dec-2018	Satisfactory	Satisfactory	1.64

04	07-Jul-2019	Satisfactory	Satisfactory	2.85
05	03-Feb-2020	Satisfactory	Satisfactory	4.25
06	17-Aug-2020	Satisfactory	Satisfactory	6.31
07	24-Feb-2021	Moderately Satisfactory	Moderately Satisfactory	7.10
08	31-Aug-2021	Moderately Satisfactory	Moderately Satisfactory	7.36
09	11-Mar-2022	Moderately Satisfactory	Moderately Satisfactory	8.11
10	26-Sep-2022	Satisfactory	Satisfactory	8.94
11	04-Apr-2023	Satisfactory	Satisfactory	10.52
12	16-Oct-2023	Satisfactory	Satisfactory	11.91

## SECTORS AND THEMES

### Sectors

Major Sector/Sector (%)

**Public Administration 33**

Central Government (Central Agencies) 33

**Information and Communications Technologies 67**

ICT Infrastructure 9

ICT Services 58

### Themes

Major Theme/ Theme (Level 2)/ Theme (Level 3) (%)

**Private Sector Development 100**

Enterprise Development 45

MSME Development 45

ICT 100

ICT Solutions 87



<b>Public Sector Management</b>	<b>100</b>
Public Administration	100
E-Government, incl. e-services	100

**ADM STAFF**

<b>Role</b>	<b>At Approval</b>	<b>At ICR</b>
Regional Vice President:	Jorge Familiar Calderon	Carlos Felipe Jaramillo
Country Director:	Jesko S. Hentschel	Marianne Fay
Director:	Deborah L. Wetzel	Oscar Calvo-Gonzalez
Practice Manager:	Arturo Herrera Gutierrez	Alberto Leyton
Task Team Leader(s):	Henry Forero Ramirez, Carolina Rendon	Silvana Kostenbaum, Henry Forero Ramirez
ICR Contributing Author:		Marieta Fall





## I. PROJECT CONTEXT AND DEVELOPMENT OBJECTIVES

### A. CONTEXT AT APPRAISAL

#### Context

1. **Uruguay is a high-income country of 3.4 million people, which has consistently prioritized achieving broadly shared economic growth and sustainable poverty reduction.** The country has enjoyed a strong and progressive social compact, with consistent emphasis placed on protecting vulnerable groups, assuring worker dignity, and promoting equitable growth. Over the decade prior to appraisal, this compact, combined with strong economic growth, contributed to the development of a sizeable middle class—at 60 percent, the largest in Latin America as a proportion of the population<sup>1</sup>—and to effective institutions, good governance and, consequently, a high degree of public trust in government. At the time of appraisal, Uruguay had joined the ranks of high-income countries with its economy growing at an average annual rate of 5.2 percent between 2005 and 2014 following the 2002 economic and financial crisis. That growth was inclusive and contributed to a sharp decline in poverty from 32.5 percent in 2006 to 9.4 percent in 2016 under the national poverty line, making Uruguay one of the least unequal countries in the region. The resulting 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.<sup>2</sup>

2. **However, at the time of appraisal, Uruguay, like many other Latin American countries, faced challenges that threatened its continued progress, and there was a need for structural measures 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 partner countries and weak domestic demand. Rising unemployment, marked deceleration in real income growth and confidence effects in turn dampened private consumption and investment. The fiscal deficit reached 2.7 percent of gross domestic product (GDP) in 2016, up from 1.9 percent in 2015, largely on account of higher spending on pensions, health transfers and wages in the education sector, along with a relatively flat revenue. The Government embarked on a fiscal consolidation plan with the goal of reducing the fiscal deficit. The World Bank’s collaboration with the Government aimed to fortify and perpetuate the advancements achieved by the country through a series of structural reforms in the following years. High on the administration’s agenda were fiscal consolidation, infrastructure reforms, reducing crime and violence and fostering deeper integration into global markets.

3. **As part of its reforms efforts, Uruguay placed a strong emphasis on reducing the digital divide and improving service delivery using information and communication technologies (ICT).** The country made important advances in connectivity and the introduction of e-government services. In 2016, 87 percent of people had internet access at home (71 percent on their mobile phones), nearly all schools had wireless internet, and 96 percent of public school students had access to a personal laptop provided by the State.<sup>3</sup> Citizens were able to initiate many administrative procedures online, and in general, government entities were generating electronic information including in education, tax and customs. In 2017, out of more than 1,400 administrative processes, approximately 600 could be started online and 400 completed entirely online. Uruguay was thus considered a “transitioning” country in the second stage of digital reforms, on its way to becoming a “transforming” one undertaking third generation policies. Having succeeded in laying a strong foundation for effective institutions, the country was now focused on making those institutions more capable, accountable, and collaborative.

<sup>1</sup> World Bank (2015). Uruguay: Systematic country diagnostic. Washington, D.C., World Bank Group.

<sup>2</sup> OECD/ECLAC (2014), Multi-dimensional Review of Uruguay: Volume 1. Initial Assessment, OECD Development Pathways, OECD Publishing.

<sup>3</sup> Annual study on Knowledge, Attitudes and Practices of Digital Citizenship. Primary results 2016. AGESIC.



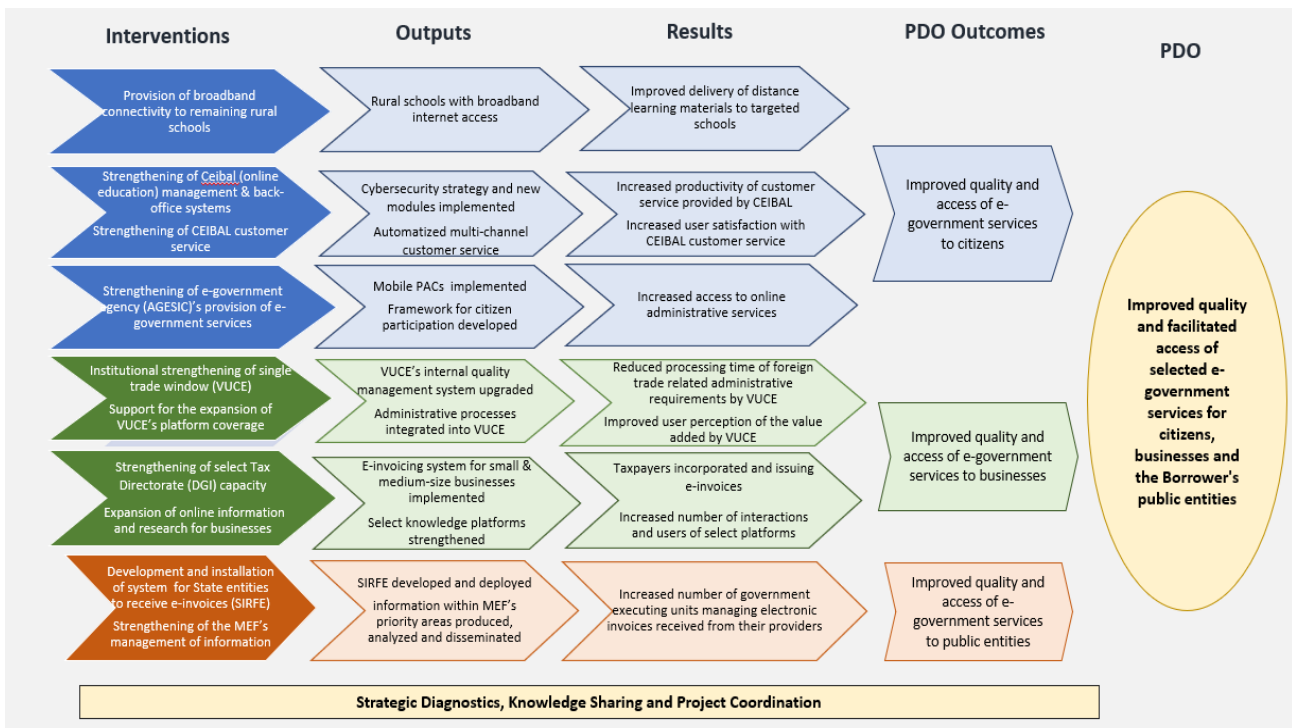
4. To reach that new phase, the Government embarked on an ambitious e-government agenda aimed at addressing remaining and persistent supply and demand-side challenges. On the demand side, there had been evidence of low levels of take-up with only 27 percent of citizens indicating a preference for e-government services (over in-person services), concerns over information security and a general lack of knowledge that many services could be accessed online. The Digital Government Plan of 2016-2020 aimed to lower transaction costs for citizens and businesses through e-government service simplification and modernization; bring online the remaining administrative processes; and support the development of a new model for the State-citizen relationship.

5. The project was thus designed to support a set of innovative activities embedded within the Digital Uruguay Agenda that would be complementary to the Government and other donors' efforts such as the InterAmerican Development Bank (IDB). The project's activities were expected to play an important role in the country's progress in the second and third stages of e-government. By focusing on enhancing the capabilities of seven key public sector institutions prioritized by the Government, it aimed to improve the quality and accessibility of selected e-government services. The operation was strategically designed to address aspects of the Digital Government Plan through complementary financing. The project was to contribute to the objectives of the Country Partnership Framework (CPF) FY16-FY20 by: i) impacting competitiveness through improvements in the Government's delivery of e-government services to businesses (Pillar 3 - Integrating into global value chains); and ii) supporting the management and provision of e-government services for citizens (Pillar 2 - Rebalancing the social compact and more specifically objective 4 of strengthening quality and access to education) through the project's support to strengthening the capacity of Uruguay's digital technology center for public education innovation (Centro Ceibal or CEIBAL).

Theory of Change (Results Chain)

6. The Project Appraisal Document (PAD) did not include an explicit Theory of Change (TOC), so the following results chain was derived from it. The TOC aims to focus on key project interventions and targeted outcomes at appraisal.

Figure 1. Results Chain



### Project Development Objectives (PDOs)

7. The Project Development Objective was to improve the quality of selected e-government services for citizens, businesses, and the Borrower's public entities, and facilitate their access. The PDO remained unchanged during the project's lifetime.

### Key Expected Outcomes and Outcome Indicators

8. The PDO can be unpacked into three main outcomes to be assessed through four key PDO indicators per the following table.

**Table 1. Key expected outcomes and indicators**

Outcomes	Key PDO indicators
1. Improving the quality and access of e-government Services to Citizens	PDO 1.1. Improved delivery of distance learning materials to targeted schools (number) PDO 1.2. Increased accessibility to online administrative processes (number of citizens' administrative processes attended to through the Mobile Citizens Access Point)
2. Improving the quality and access of e-government Services to Businesses	PDO 2. Reduced processing time of foreign trade related administrative requirements by the International Trade Single Window
3. Improving the quality and access of e-government Services to public entities	PDO 3. Increased number of government executing units managing electronic invoices received from their providers

### Components

9. The project consisted of four components. Components were organized based on their downstream beneficiaries: citizens (Component 1), businesses (Component 2), and government entities (Component 3). Component 4 supported strategic diagnostics and activities, knowledge sharing, and overall project coordination.

#### Component 1. Improving the Delivery of e-Government Services to Citizens

10. This component aimed to improve the quality of selected e-government services to citizens and to facilitate their access through activities focused on improving the delivery systems, provider management and user engagement of two public entities: i) the Agency for the Development of Electronic Government Management and the Information and Knowledge Society (*Agencia para el Desarrollo del Gobierno de Gestión Electrónica y la Sociedad de la Información y del Conocimiento* – AGESIC) in charge of implementing the 2016-2020 Digital Government Plan; and ii) CEIBAL. The component was to strengthen AGESIC's e-government service provision through an extensive array of activities to address challenges identified for the supply and demand of e-government services; and to strengthen CEIBAL's capacity to manage its programs with a focus on improving its customer service and facilitating multichannel interactions with users.

#### Component 2. Improving the Delivery of e-Government Services to Businesses

11. This component aimed to improve the quality of selected e-government services to businesses and to facilitate their access through activities focused on improving the delivery systems, scope of services, and provider management of three public entities: i) the International Trade Single Window (*Ventanilla Única de Comercio Exterior*, VUCE), which allows for the processing of selected export related requirements through a single electronic gateway; ii) the Directorate General of Taxation (*Dirección General Impositiva*, DGI); and iii) the National Research and Innovation Agency (*Agencia Nacional de Investigación e Innovación*, ANII), which offers citizens free online access to the most relevant scientific and technological publications. In particular, the component aimed to strengthen VUCE to improve export-related services for

businesses, as well as to implement e-invoicing for small and medium businesses within DGI to facilitate the fulfillment of their tax obligations. Activities with ANII aimed to improve access to specialized information for businesses.

### Component 3. Improving the Delivery of e-Government Services to Government Entities

12. This component aimed to improve the quality of selected e-government services to government agencies and facilitate their access through activities focused on improving the monitoring of payments to providers, as well as on provider management and government delivery systems. As such, it supported cross-entity collaboration with the General Accounting Office (*Contaduría General de la Nación*, CGN), the Ministry of Economy and Finance (*Ministerio de Economía y Finanzas*, MEF), and other entities with a direct link to MEF's priorities. Interventions were focused on enabling the receipt of electronic invoices by state entities and strengthening MEF's management of information.

### Component 4. Strategic Diagnostics, Activities and Knowledge Sharing, and Project Coordination

13. This component aimed to strengthen the Government's capacity to support strategic reforms in areas critical for the achievement of the PDO through: i) activities to strengthen the Government's monitoring and evaluation (M&E) capacity to track the impact of project activities on the take-up of the associated e-government services; ii) knowledge sharing to disseminate lessons learned on e-government service provision across Uruguay's public entities and internationally; iii) the provision of technical assistance and training to improve the quality of e-government services; and iv) the definition and implementation of change management strategies for the project's areas of intervention.

**Table 2. Project Components (estimated and actual cost)**

Component	Cost (US\$ Million)	
	Estimated	Actual
1. Improving the Delivery of e-Government Services to Citizens	3.99	3.75
2. Improving the Delivery of e-Government Services to Businesses	3.35	2.23
3. Improving the Delivery of e-Government Services to Government Entities	2.08	5.26
4. Strategic Diagnostics, Activities and Knowledge Sharing, and Project Coordination	1.55	0.76
Total Project Costs	10.97	12.00
Preparation Advance	1.03	0.00
Total Financing	12.00	12.00

## B. SIGNIFICANT CHANGES DURING IMPLEMENTATION

14. The project was approved by the World Bank's Board of Executive Directors on August 3, 2017, and declared effective on December 28, 2017. Two restructurings took place as follows:

**Table 3. Project Restructurings**

Restructuring	Date	Rationale	Key changes
<b>Restructuring 1 (Level 2)</b>	August 30, 2021	Due to the election of a new government on March 1, 2020, shortly followed by the onset of the COVID-19 pandemic, which led to the issuance of new fiscal discipline measures, project activities were stalled for 18 months. An extension was processed to compensate for the lost time.	Extended loan closing date by 18 months (to June 31, 2023).
<b>Restructuring 2 (Level 2)</b>	May 23, 2023	To allow time to complete key ongoing activities, finalize a procurement process that was crucial to the achievement of PDO indicator #2, <sup>4</sup> and provide a bridge for the preparation of a follow up operation (P180638).	Extended loan closing date by 5.5 months (to December 15, 2023).

<sup>4</sup> The development of an additional functionality in the Electronic System for the Receipt of E-invoices to enable their issuance as well.



### Revised PDOs and Outcome Targets

None.

### Revised PDO Indicators

None.

### Revised Components

None.

### Other Changes

15. A six-month Project Preparation Advance was granted in May 2017 and extended until December 2017. It was however not used and was absorbed into Component 3 (Improving Delivery of e-Government Services to Government Entities) which allocation increased significantly from US\$2.08 million to US\$5.26 million during project implementation.

### Rationale for Changes and Their Implication on the Original Theory of Change

16. **The increased allocation under Component 3 came from reductions in Components 4 and 2 and did not impact the project's results chain.** Funds were reallocated from Component 2 after the project targets for the reduction of VUCE's processing times were reached. At the time of the first extension of the closing date, the Government requested that remaining funds destined to VUCE be allocated to the MEF because VUCE had other sources of funding. Those funds supported the production, analysis, and dissemination of information, as well as technical assistance in priority areas of the MEF including activities with the Investment Promotion Agency to review tax exemptions. Approximately half of the funds financed the standardization of government web portals and today, with support also from other sources of funding, there are dozens of public institutions with standardized portals using the same information architecture.

## II. OUTCOME

### A. RELEVANCE OF PDOs

#### Assessment of Relevance of PDOs and Rating

17. **The relevance of the PDOs is rated High.** The Project Development Objectives to improve the quality and access of selected e-government services for citizens, businesses and public government entities are consistent with the World Bank's CPF objectives at both appraisal and closure. Pillar II of the FY16-FY20 CPF (Report No. 97063-UY) supported bolstering government initiatives aimed at reorienting the social contract toward the youth. Specifically, it prioritized pre-school education and strengthening the quality of primary and secondary education in Uruguay to align with the standards observed in other high-income countries. By targeting rural schools to improve their connectivity, the project aimed to directly contribute to upgrading their standards and reducing barriers to the social mobility of students through modernization. Pillar III of the CPF supported Uruguay's continued integration into the global economy and notably the country's competitiveness regarding exports including through making logistics and services more efficient. The project's focus on trade e-services to improve both their access and efficiency through bolstering the single trade window was highly relevant to this CPF objective.

18. **The PDOs remain aligned with the objectives of the FY23-27 Uruguay CPF (Report No. IDU-CPF-0000009).** The current CPF incorporated lessons learned from previous World Bank engagements in the country by prioritizing the delivery of global goods that can help achieve public institutional transformation and gain more global knowledge such as through technological progress. In particular, the PDO is highly relevant to the Higher-Level Outcome 3/objective 5 of the current CPF to improve access to quality services through improving the capacity of the Uruguayan public



administration to implement policies and deliver services. The COVID-19 pandemic made the acceleration of the digitalization of service delivery even more imperative for the Government driven by its stated objective to improve cost efficiency and transparency in the delivery of public services. The FY23-27 CPF highlights how COVID-19 evidenced that previous investments in digital government systems paid off for the country, underscoring the need to further support e-government initiatives. The project is at the heart of such efforts.

## B. ACHIEVEMENT OF PDOs (EFFICACY)

### Assessment of Achievement of Each Objective/Outcome

19. The project had three separate and equally important objectives, the achievement of which is assessed below.

**Outcome 1: Improving the quality and access of e-government Services to Citizens** is assessed through two PDO level indicators and five Intermediate Results Indicators (IRIs) which achieved or exceeded their end targets.

20. **The project helped improve access to online education services in rural schools.** The first category of targeted e-government services for citizens under the project was in education and specifically the delivery of distance learning materials to targeted public schools (PDO 1.1). This indicator measured the number of additional rural schools that shifted from narrow to broadband internet connectivity. At project appraisal, 1,607 out of 2,710 schools (60 percent) had broadband internet access. The project targeted the addition of broadband capacity in 300 rural schools. The Government, with funds from the project, contracted the National Telecommunications Company (ANTEL) to provide broadband connectivity to targeted schools so they could connect to the CEIBAL online platform for distance learning and overachieved the target under its flagship initiative (Plan CEIBAL) which also provided computers to each student. During the project's lifespan, 1,235 schools in total (urban and rural)<sup>5</sup> were covered including all remaining rural schools (1027). Out of the 1,235 connections, 236 were made with project funds and the rest with CEIBAL's own funds. The project's contribution was fundamental, as it enabled the hiring of ANTEL.

21. **Users expressed satisfaction with both CEIBAL and its customer service which is an indication of the quality of the services offered.** Both the access to online education services and the quality of those services has improved, as evidenced by a satisfaction survey (IRI 1.2.2) that CEIBAL carries out annually among its users. This survey gauges satisfaction with customer service, using a daily random sample of calls received. User satisfaction remained above 80 percent (the baseline and target), peaked at 94 percent in 2022 and was 90 percent in 2023 at project end. Satisfaction with CEIBAL itself was 87 percent in 2023. The project provided direct support to CEIBAL to strengthen its management and back-office systems, cybersecurity standards, and customer service through the incorporation of new channels of attention (WhatsApp, Chatbot). CEIBAL also reported an increase in productivity of its customer service (IRI 1.2.1) and reduced cost per interaction to UY 21.03, down from a baseline of UY 60, explained by an increase in the number of interactions that was not accompanied by an increase in the budget allocated for the operation of its customer service. Indeed, demand for CEIBAL's customer support increased dramatically during the COVID-19 pandemic.<sup>6</sup>

22. **The project improved access to administrative services through the strengthening of non-face-to-face channels for the Citizen Access Points.** The second category of targeted e-government services for citizens were the administrative services facilitated by the Government (AGESIC) through a single government portal (gub.uy) and Citizens Access Points (*Puntos de Atención a la Ciudadanía*, PAC), captured by PDO 1.2. At the project's inception, there were 100 face-to-face PACs, with the aim of servicing citizens unable or reluctant to access online services on their own. Such PACs were designed to be places to provide a first level of attention and where citizens could enquire about public services and

<sup>5</sup> There are now 2858 schools in the country.

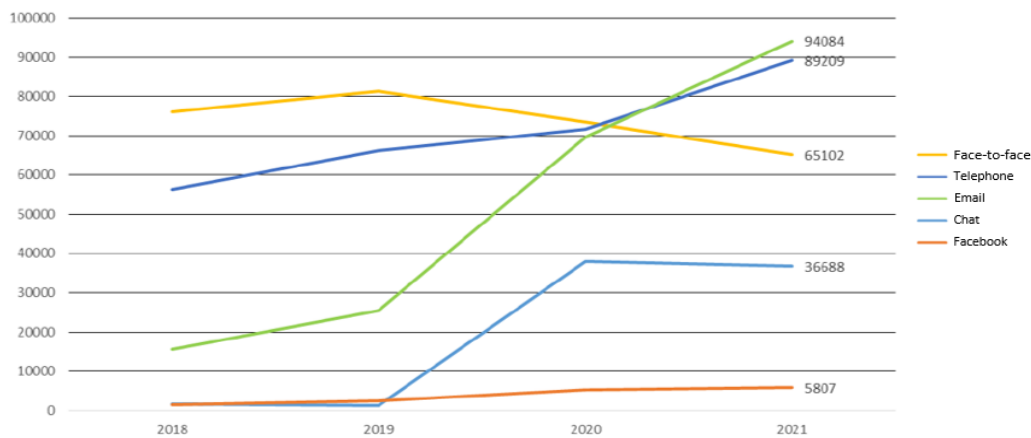
<sup>6</sup> 70 percent of calls and requests had to do with passwords issues which were much quickly resolved through the launch of an automatic password reset chatbot. For details of key outputs of the project's support to CEIBAL, see Annex 1.B.



procedures or request support to carry out a process online. Access by phone and email was integrated in 2014 and the management of all channels centralized in 2016-2017. Under the project, AGESIC initially set out to create mobile PACs but, due to the pandemic, chose to focus on strengthening the channels not requiring the physical presence of users. As a result, online chat and social media (Facebook) access were piloted and incorporated between 2020 and 2023, as well as videocalls. The change in strategy due to the pandemic led to the measurement for PDO 1.2 differing slightly from the original pre-pandemic indicator definition, by covering all citizen administrative requests processed online through the existing PACs. Uptake of non-face-to-face channels was significant, with 175,771 citizens' requests being processed online (including by phone) during the project lifetime – compared to 15,000 targeted for mobile PACs.

23. **The introduction of more online channels through which to access the PACs in light of the COVID-19 pandemic and the strengthening of existing channels allowed the Government to expand the use of e-government services significantly.** Under the project, AGESIC also strengthened the capacity of government agencies to administer the various PAC channels through training. At the peak of the pandemic in 2021, 24,241 requests were processed, and the Government set for itself a new end of project objective of 150,000 requests in 2022, which was also surpassed. In 2021, non-face-to-face channels (e-mail in particular) became the leading mechanisms of interaction with the citizens (see Figure 2) and today their use has stabilized, with phone channels leading the way. There are 2,565 administrative processes that are listed on the government portal including 1,748 that can be processed online.

**Figure 2. Evolution of requests per type of channel**



Source: AGESIC

24. **While these achievements are evidence of improved access of e-government services for citizens, the quality dimension is assessed through user satisfaction, which although not tracked by the project, improved.** There was an increase in the percentage of users performing research online before carrying out an administrative process (27 percent to 56 percent, IRI 1.1.1)<sup>7</sup>; and 12 public entities started using the government data analysis platform to improve their management (against a target of six, IRI 1.1.2). This data analysis platform consists of digital tools that aim to enable the analysis and visualization of their own and other agencies' data.<sup>8</sup> Furthermore, the Government, with its own funds and IDB co-financing, acquired the e-participation tool "Decidim." This platform offers modules that enable public entities to conduct a range of consultations, with its utilization slated to become mandatory. Twelve entities implemented at least

<sup>7</sup> Measured as the weighted average number of respondents who performed specific activities (such as searched for information, paid online, or made appointments on gub.uy) before carrying out an administrative process. Survey on the use of ICTs conducted by AGESIC every three years.

<sup>8</sup> The project funded specifically the development of a data analysis framework in support of the various digital tools.

one of the components of *Decidim* against a project target of six (IRI 1.1.3).<sup>9</sup> These intermediate results were thus achieved but it is unclear to what extent they demonstrate improved quality of the targeted services. An indicator on user satisfaction, which AGESIC did track, would be a better indicator of quality. This measure shows that, on average, users prefer to use online rather than face-to-face channels for their requests (56 percent vs 23 percent in 2022), with 88 percent reporting satisfaction with the use of digital channels to access e-government services in 2022, compared to 85 percent for the last request conducted face-face, and up from 80 percent in 2016.<sup>10</sup>

**Table 4. Outcomes under PDO 1**

Outcomes	Level of achievement (% of target)
PDO 1.1. Improved delivery of distance learning materials (number of rural schools with access to broadband internet)	Exceeded – 342% (79% of target through project funds)
IRI 1.2.1. Increase in productivity of customer service provided by CEIBAL	Exceeded – 143%
IRI 1.2.2. User satisfaction with CEIBAL customer service	Exceeded – 112%
PDO 1.2. Increased access to online administrative processes (number of citizens' administrative processes attended to by the Mobile Citizens Access Point)*	Exceeded 1171% (against project target) 117% (against government target)
IRI 1.1.1. Users performing research online before carrying out an administrative process	Exceeded – 112%
IRI 1.1.2. Public entities using the government data analysis platform to improve their management	Exceeded – 200%
IRI 1.1.3. Public entities have implemented at least one of the components of the E-participation tool	Exceeded – 200%

Mobile PACs were not implemented due to the pandemic, but online channels of access were added, and existing PACs strengthened.

**Outcome 2: Improving the quality and access of e-government Services to Businesses** is assessed through PDO 2 (target achieved) and five IRIs that either exceeded (3) or largely achieved (2) their targets.

25. **The project helped reduce the average processing time of foreign trade related administrative requirements, improving access and quality of trade e-services.** Established in 2011, VUCE targets the organizations that intervene the most in foreign trade in the form of the issuance of administrative documents. VUCE implemented several activities aimed at reducing processing times and improving services. It leveraged project funds specifically for the following: i) expanding the coverage of procedures that can be accessed through the Single Window and strengthening the participating organizations by providing human and financial resources necessary for carrying out these procedures; ii) strengthening interoperability with the International Trade Single Windows of other countries to expedite the exchange of documentation; and iii) supporting institutional strengthening. The processing time for related administrative requirements (PDO 2) reached 27.37 hours on average at project end, vs. a target of 33 hours (baseline of 50.4 hours). There was an 83 percent increase in the administrative processes integrated into VUCE (IRI 2.1.2), which falls short of the targeted 90 percent increase, but still represents a significant improvement over the 2016 baseline of 36 percent.

26. **Businesses using VUCE reported an improved perception of its value-added.** The project supported the development of an implementation plan for VUCE's management quality system to obtain the relevant ISO certification (9001-2015). VUCE focused on incorporating the Ministry of Industry, Energy and Mining, the Ministry of Public Health, and the Ministry of Livestock, Agriculture and Fisheries to the platform in terms of interoperability. These ministries collectively issue 90 percent of the export and import certificates needed for trade transactions. According to businesses

<sup>9</sup> Although this was not financed through project funds, it is reported as it constituted a project IRI.

<sup>10</sup> In addition, 76 percent of those who performed a request online said they would do it again. Annual study on Knowledge, Attitudes and Practices of Digital Citizenship conducted by AGESIC since 2013.



surveyed (IRI 2.1.1), the perceived value added by VUCE increased from 89 to 95 percent (just shy of the project's end target of 96 percent), which underscores satisfaction with the quality and effectiveness of the services provided.

27. **The project enabled the DGI to expand the use of electronic tax invoices to all taxpayers and strengthen its fiscal risk management system for greater efficiency and control – in support of its strategic plan.** The project supported the expansion of DGI's e-invoicing services beyond large taxpayers to incorporate all taxpayers subject to the electronic tax invoice (*Comprobante Fiscal Electrónico*, CFE). This expansion primarily targeted small and medium firms, in an effort to reduce fraud while fostering voluntary compliance. The expansion was underpinned by other institutional reform efforts to strengthen DGI's capacity to deliver e-government services to businesses. The targeted project result (IRI 2.2.1) was successfully achieved, with 99.2 percent of taxpayers integrated into the CFE and using e-invoices. This exceeded the end target of 96 percent.<sup>11</sup> The project primarily financed the hiring of a firm to expand e-invoices services to small businesses and the related training for DGI (electronic billing). DGI was also able to enhance its fiscal risk management system with project funds, notably with the formulation of a centralized taxation plan and a new comprehensive risk rating matrix through the development of new functionalities of the Fiscal Intelligence Integrated Technological Solution (FIS-T). DGI is calibrating its new risk management system and has started deploying it to all its offices.

28. **The project supported greater access to national scientific content deemed relevant to businesses and entrepreneurs.** The project supported select interventions led by ANII, which serves as a key intermediary between the Government, entrepreneurs, and the research community. In 2009, ANII launched *Portal Timbó*, a web platform that provides free and full access to relevant scientific and technological publications. In 2014, ANII also launched the *Trama* project, which aimed to gather researchers, entrepreneurs, investors, and government officials to foster networking and the exchange of information. The project focused on supporting ANII's provision of services through *Portal Timbó* and helped *Trama* reach a wider audience through the development of an online portal. Although the project was only able to finance the first related consultancy to assess needs,<sup>12</sup> ANII's 2023 annual report indicates that the *Trama* portal facilitated 1,354 interactions since its inception (an 83 percent increase from the first year against a 70 percent end of project target – IRI 2.3.1). The platform has however remained a pilot and is now at a standstill due to a lack of funds.

29. **ANII aimed to tailor the content of its platforms specifically for businesses, focusing on applied scientific literature, but uptake has been low.** In relation to *Portal Timbó*, uptake from businesses has been low, as the platform continues to be primarily oriented towards academic users. 85,498 registered users were reported as using *Portal Timbó* (IRI 2.3.2) in 2023 against a project target of 47,782, but most of those users are from academia. The project also focused on supporting the development of a national repository system to address concerns that international publications were easier to access through *Portal Timbó* than national research. The repository received 31,426 visits from 23,596 users from April 2023 to April 2024 and is viewed as a successful initiative by ANII.

**Table 5. Outcomes under PDO 2**

Outcomes	Level of achievement (% of target)
PDO 2.1. Reduced processing time of foreign trade related administrative requirements by VUCE	Exceeded – 117%
IRI 2.1.1. Perception of value-added of VUCE	Largely Achieved – 99%
IRI 2.1.2. Increase in the administrative processes integrated into VUCE	Largely Achieved – 92%
IRI 2.2.1. Taxpayers incorporated into the CFE and issuing e-invoices (as a percentage of the total population of taxpayers to be incorporated into	Exceeded – 103%

<sup>11</sup> The calculation method for this indicator was revised as the original baseline (50 percent) referred to the percentage of electronic vs paper invoice rather than of taxpayers using e-invoicing. Starting in January 2025, all relevant taxpayers must use the e-invoicing system.

<sup>12</sup> Because of procurement delays and incompatibilities between the World Bank and the Government's procurement methods, the Government funded the rest of the activities related to the development of the *Trama* Portal with own funds.

the CFE)	
IRI 2.3.1. Number of interactions facilitated through Portal Trama	Exceeded – 119%
IRI 2.3.2. Number of registered users using Portal Timbó	Exceeded – 179%

### Outcome 3: Improving the quality and access of e-government Services to public entities.

30. **The project deployed electronic invoicing for government entities, streamlining the payment process and enhancing its efficiency.** Since 2012, the government has initiated electronic invoicing with businesses, with 50 percent of tax receipts being electronic. However, state entities were still not able to accept electronic receipts from their business providers. DGI defined the regulatory and technical requirements, while the General Accounting Office (CGN) was tasked with developing a system to receive electronic invoices for use by the budget executing units within the Government’s Integrated Financial Management Information System, that is also interoperable with DGI’s system. The project thus financed the development of the Electronic System for the Receipt of E-invoices (*Sistema de Recepción de Factura Electrónica, SIRFE*) and its deployment at large starting in late 2022, as well as the related training of users framed by change management activities. CGN set up a change management team that conducted a diagnostic of needs and worked hand-in-hand with a contracted firm to develop a resulting strategy which relied heavily on in-person communication and capacity building for the executing units. By project end, 156 government executing units were able to receive electronic invoices against a target of 243 (PDO 3). The rollout continued after the project closed through a new World Bank-financed project<sup>13</sup> with SIRFE rolled-out to 190 executing units which cover 97 percent of the national budget as of April 2024. Additionally, CGN is pursuing a more ambitious objective by providing approximately 100 entities with the capability to issue electronic invoices – through the incorporation of an additional module in SIRFE. In terms of quality assurance, a helpdesk with a maintenance service for SIRFE was established to provide support to public entities.

**Table 6. Outcomes under PDO 3**

Outcomes	Level of achievement (% of target)
PDO 3. Number of government executing units managing electronic invoices received from their providers	Partially Achieved – 64% (78% as of April 2024)

### Justification of Overall Efficacy Rating

31. **Project efficacy is rated Substantial.** The project successfully achieved nearly all its objectives. The objective of “improving the quality and access of e-government Services to Citizens” for public education and administrative e-services was met. The two related PDO-level indicators and relevant associated IRIs exceeded their end targets. The project met its objective of “Improving the quality and access of e-government Services to Businesses” in trade and taxation e-services. The PDO indicator on processing times for VUCE and the IRI on the incorporation of small and medium taxpayers in the use of e-invoicing exceeded their targets. IRIs for trade e-services were just shy of their final targets, but progress was significant. Finally, on “improving the quality and access of e-government Services to public entities,” the project enabled 64 percent of the targeted public executing entities to receive electronic invoices. Under the new project, the indicator had reached 78 percent of the target, and will likely be fully achieved during the project’s lifespan.

## C. EFFICIENCY

### Assessment of Efficiency and Rating

32. **Project efficiency is rated Substantial.** Results are on par with what would be expected of operations aimed at further digitalizing services, as the benefits of such efforts typically accumulate gradually over time. Enhancing access to selected e-government services for businesses and citizens in Uruguay, along with improving their quality, was expected

<sup>13</sup> Institutional Strengthening for Greater Competitiveness in Uruguay (P180638) was approved by the Board in November 2023.



to have significant positive economic and financial benefits. At appraisal, an economic and financial analysis was conducted, with a focus on estimating the expected benefits of the project that could be quantified. This analysis primarily centered on the two main subsets of activities intended to benefit businesses. The analysis is replicated at project closure using conservative assumptions and the numbers actually achieved during implementation. Annex 4 presents the methodology and detailed cost-benefit analysis of these two interventions, as well as the set of assumptions used to partially assess the project’s efficiency. Results can be summarized as follows:

- **The introduction of electronic invoicing for small and medium sized taxpayers.** The estimated costs and benefits yield a net present value (NPV) of \$9,084,356 with an internal rate of return (IRR) of 55 percent. Benefits were estimated both financially, in terms of reduced purchases of paper needed for invoicing, and economically, in terms of time saved by taxpayers through reduced travel costs. The calculated benefits are significantly higher than those estimated at appraisal (NPV of \$546,041 and IRR of 13 percent), which assumed a much lower number of taxpayers being incorporated in the CFE (25,000 vs ~ 82,600 in actuality). The cost analysis considers the costs of prior investments that served as the foundation for relevant project activities, as well as the actual costs of related project activities.
- **The automation of additional administrative processes online within the single trade window.** Savings are estimated primarily from the resulting reduced travel and paper costs and yield a NPV of \$1,140,644 and an IRR of 17 percent with the overall costs of developing VUCE with co-financing from the government and other sources estimated as high. The estimated NPV and IRR at appraisal were respectively \$875,202 and 14 percent.

33. **On activities aimed to benefit citizens, results from CEIBAL show significant savings.** CEIBAL estimates savings of between 20 to 30 percent annually for its operations between 2020 and 2022, given more automation and the introduction of additional digital channels of access to its customer service.

34. **The delays caused by the COVID-19 pandemic did not significantly affect the achievement of the project’s main objectives.** The onset of the pandemic coincided with the arrival of the new administration and led to the project stalling for 18 months. However, the impact of the lost time on the project’s efficiency is mitigated by the 23-month extension which allowed for the completion of most project activities, exceeding several end targets, and undertaking activities to help ensure the sustainability of project interventions and the gains made. Furthermore, despite the fiscal discipline measures introduced by the new government upon its arrival, there remained a substantial amount of government co-financing or financing from other sources during the pandemic. This enabled the continuity of select activities deemed high priorities for the government, such as the single trade window (VUCE).

**D. JUSTIFICATION OF OVERALL OUTCOME RATING**

35. **The overall outcome rating for the project is Satisfactory.** This combines the ratings for Relevance (High), Efficacy (Substantial), and Efficiency (Substantial), per World Bank guidelines for ICRs for Investment Project Financing (IPF) Operations. Overall, the project achieved its objectives with minor shortcomings in efficacy (one PDO and one relevant IRI target – increase in the administrative processes integrated into VUCE – not fully reached) while exceeding several of its targets. Although a comprehensive efficiency analysis could not be conducted given the vast universe of services the project encompasses, it can be reasonably concluded that the benefits deriving from the project are significant. This is particularly evident through the project's investments in e-government administrative services for citizens and in education, and the ongoing benefits anticipated from the use of e-invoicing by more businesses and government entities. These benefits are balanced by the costs of the investments made.

**Table 7. Combined Assessment of Overall Outcome**

OUTCOME	RATING
Relevance	High



Efficacy	Substantial
<i>PDO/Outcome 1</i>	<i>High</i>
<i>PDO/Outcome 2</i>	<i>Substantial</i>
<i>PDO/Outcome 3</i>	<i>Substantial</i>
Efficiency	Substantial
<b>Overall Outcome Rating</b>	<b>Satisfactory</b>

**E. OTHER OUTCOMES AND IMPACTS (IF ANY)**

**Gender**

36. **The services supported by the project have a high and growing uptake among women.** Gender gaps in Uruguay are lower than in many countries but remain significant in some areas of economic opportunity such as female labor force participation (56.6 percent vs 70.9 for males in 2022) and leadership and management. Women also receive 78.4 percent of the total income that men receive. Further inclusion of women into the process of economic growth in Uruguay is crucial as 71.8 percent of poor children live in female-led households.<sup>14</sup> Uruguay’s National Strategy for Gender Equality by 2030 envisions access to equal opportunities in the productive, business and labor fields, areas where digitalization can play a major role. Concurrently, the country's digital strategy, led by AGESIC, prioritizes digital inclusion, particularly targeting women and the rural population. AGESIC has been assessing citizen’s access and satisfaction with the digital services supported by the project, which shows that levels of usage of digital channels among women continue to grow and grew especially for the use of government digital services.<sup>15</sup> When it comes to the online education services supported by the project, it is important to note that the large majority of respondents of the annual satisfaction survey conducted by CEIBAL – which reported high levels of satisfaction – are women (81 percent in 2022).

**Institutional Strengthening**

37. **The project enabled the strengthening of individual government institutions' capacity and impacted the longer-term development of Uruguay's public institutions through a comprehensive, whole-of-government approach.** The strengthening of government institutions to enable them to deliver e-services was at the core of the project. The project notably strengthened the capacity of AGESIC to spearhead and develop more cost effective and efficient innovations in the delivery of services to citizens. These innovations were tested and refined for broader deployment through collaborative efforts. This was demonstrated in the strengthening of the PACs through various non-face-to face channels and the development of a common framework for the analysis of data made available through the government’s various platforms. Under the project, AGESIC also led the standardization of web portals across the government, enhancing citizen orientation. Initiatives like VUCE also strengthen the overall institutional capacity of participating entities. Moreover, the ability to use e-invoices afforded by the project has brought efficiency gains to public institutions. Such initiatives provide the foundations for the longer-term development of participating institutions through: i) testing of innovations and knowledge sharing; ii) lowering the costs of delivering the impacted services through digitalization and cost sharing; and, most importantly, iii) facilitating access through standardization and unification of services. Institutions like ANII also highlighted how the project helped develop a more expanded view of its role as not just to finance but also provide access to research and innovation – which led to the creation of a digital services unit within the agency. Component 4 also facilitated knowledge exchange activities on the provision of e-government services with lessons from the project shared with other countries and being incorporated in the design of their projects. In particular, AGESIC shared its experience under the project at the World Bank GovTech Forum in 2023 and on digital health with the

<sup>14</sup> Statista Research Department (December 2023) and World Bank EFI poverty and Equity briefs for LAC (April 2024).

<sup>15</sup> Women usage of government online channels (gub.uy) to make appointments or pay for certificates grew from 53% (2016) to 80% (2022) and is similar to men’s levels of usage. EUTIC data, AGESIC.



government of Chile. A new Bank financed project for the Dominican Republic on public administration modernization (P180302) also incorporated lessons from the project regarding the use of interoperable systems, data exchange across institutions and applications and standardization for a rapid roll-out of digital services.

### Mobilizing Private Sector Financing

38. **There was no guarantee under the operation.** However, the savings that the businesses in Uruguay experience through the integration of trade services and e-taxation represent potential financing for greater private investments leading to job creation and economic growth. Furthermore, simplification and more effective services provided from government to businesses are known to improve the overall business environment and therefore promoting private investment and private capital mobilization.

### Poverty Reduction and Shared Prosperity

39. **Although Uruguay has made great strides in poverty reduction over the last two decades, some gaps remain that the project helped address.** Childhood poverty especially in the rural inland areas remains significant and income inequality pronounced.<sup>16</sup> The project's focus on bringing broadband internet access to rural schools allowed to reach some of the most vulnerable segments of the population and help close the opportunity gap through more equitable access to learning between rural and urban areas. This was especially timely and important in the context of the pandemic which restricted in-person learning and in order to reduce potential learning losses in rural areas. The returns to investments in education access are also far-reaching in terms of earnings that directly affect poverty reduction and shared prosperity, as well as in terms of productivity and innovation.<sup>17</sup> Over the years, gaps in internet access between those in the lowest and highest income quintiles has narrowed, largely due to government efforts. Additionally, the utilization of government digital services has risen for users across all income levels and has greatly increased for the bottom 20 percent between 2019 and 2022 while the project was being implemented.<sup>18</sup>

### Other Unintended Outcomes and Impacts

40. **The project participating agencies reported several unintended positive outcomes, the impacts of which they expect will continue in the long term.** DGI highlighted how the expansion of e-invoicing initially for efficiency gains, is also significantly reducing errors and fraud. This is achieved through cross-verification and early detection, with nearly all pending and long-standing fraud cases traced back to paper invoices. The data collected through e-invoicing also allowed DGI to develop a monitoring tool to assess the impact of the COVID-19 pandemic on businesses and specific sectors and for government agencies to implement relief measures. DGI is planning to use the e-invoicing data to identify further uses that can improve taxpayer experience. Project funds were also channeled in low cost but high impact activities. These include the development of a governance framework for managing its operations, which DGI is implementing through workshops with its directors. DGI also cites the internal efficiency gained from a more targeted risk-based approach to tax audits. Those efficiency gains have been particularly important to DGI in a context of staff attrition and a reduced budget.<sup>19</sup> CGN reports unexpected but positive outcomes such as the ongoing development of the functionality in SIRFE (started under the project) to allow relevant public entities to issue e-invoices. They view SIRFE as a powerful tool that they will continue to leverage and improve, notably through interoperability with other key platforms such as in tax and procurement, to produce useful statistics and better account for and audit public expenditures.<sup>20</sup> Finally, there is the impact of reduced paper use on the environment from the e-invoicing initiatives.

<sup>16</sup> Gini index of 40.6 in 2022. Poverty and Equity Brief, Latin America and the Caribbean, Uruguay. World Bank, April 2024.

<sup>17</sup> Every year of learning/education is estimated to generate about 9-10 percent increase in earnings annually. Harry Patrinos, World Bank, 2023.

<sup>18</sup> From 11% to 60% of those surveyed. Survey reports on the use of ICTs, AGESIC. Today, 96 percent of adults in Uruguay have access to the internet.

<sup>19</sup> Since 2020, between departures and more recent hiring, DGI has lost on balance 10 percent of its staff.

<sup>20</sup> CGN and DGI also report the introduction of product coding, modifying the DGI invoice model to support the item codes used for State Purchases and therefore SIRFE. This allows SIRFE users to verify that purchase order information matches the billing received at the product level.





### III. KEY FACTORS THAT AFFECTED IMPLEMENTATION AND OUTCOME

#### A. KEY FACTORS DURING PREPARATION

41. **The primary factor during preparation was the setting of clear and attainable objectives supported by a simple project design.** During preparation, three clear and distinct objectives were set in terms of improving the access and quality of e-government services respectively for citizens, businesses, and government entities. In light of the Government's prior significant investments in reducing the digital divide and improving service delivery through digitalization, the project's objective to help Uruguay move to the next stage of digital transformation through strategic complementary financing was realistic and attainable. Three corresponding project components were subsequently designed, focusing on 2-3 interventions per type of beneficiary. These aimed to address pending delivery and uptake challenges in sectors with significant potential to impact Uruguay's ability to sustain its development path, such as education, trade, and taxation. The public entities prioritized were chosen for their pivotal roles in the e-government agenda. Having already implemented first-generation reforms to provide e-government services, they were facing second and third-generation challenges, including administrative process improvements, interoperability, and service uptake.

#### B. KEY FACTORS DURING IMPLEMENTATION

42. **The government's commitment and capacity and the COVID-19 pandemic were key factors that greatly impacted implementation.** Two sets of factors largely affected project implementation: i) government's commitment, leadership, and organizational capacity and ii) the onset of the pandemic which provided renewed urgency and accelerated the uptake of e-services. Although some project activities stalled in 2020 due to the pandemic and the transition to a new government, the incoming administration was quick to identify priority areas where other funding existed. This allowed to continue activities and the freeing up of project funds for other priorities. One such priority was the standardization of government web portals for ease of access by users. For a few activities, the Government provided a significant amount of co-financing to ensure they were fully implemented or tested, such as VUCE and Portal *Trama*. While alternative sources of funding were sought when procedures were deemed too slow,<sup>21</sup> the overall lost time was compensated for by the proactive efforts of the Government and the World Bank. Extensions were requested and processed, ensuring the continuity of activities. The onset of the pandemic is another key factor that impacted project implementation positively. This is illustrated by the remarkable uptake of the e-services provided through the PACs from 2020 leading to a significant increase in the related project target by the Government, which was also surpassed.

### IV. BANK PERFORMANCE, COMPLIANCE ISSUES, AND RISK TO DEVELOPMENT OUTCOME

#### A. QUALITY OF MONITORING AND EVALUATION (M&E)

##### M&E Design

43. **There was no formal theory of change elaborated at design, as it was not a requirement at the time, but the PDO indicators selected were adequate to monitor progress toward improved access to select e-government services.** The quality dimension was however not sufficiently captured at the PDO level but through several IRIs, the relevance of which was not always clear. This is especially true for the assessment of quality of the administrative e-services delivered to citizens. An increase in the percentage of users performing research online before carrying out an administrative process is not sufficiently indicative of the quality of the services provided. Similarly, an IRI measuring the number of public entities using the government data analysis platform(s) to improve their management does not indicate how said

<sup>21</sup> DGI in particular reports that overall processes from the government and the Bank were often slow, leading them to at times seek alternatives.



management was improved. The IRIs needed to go a step further to determine their impact on the quality of the services provided. In addition, the IRI related to the use of the Portal *Timbó* is not necessarily reflective of increased access for businesses given the platform's orientation towards academic users.

44. **Each participating agency was responsible for collecting the data to measure progress on indicators with a Project Coordination Unit (PCU) within the MEF responsible for consolidating the information and reporting to the World Bank through bi-annual progress reports.** That arrangement made sense given: i) the PCU's high capacity and experience managing the World Bank-financed *Institutions Building Technical Assistance Loan* operation (which closed in 2016); and ii) the agencies' experience and use of their websites to report on their activities and results publicly.

#### M&E Implementation

45. **The PCU was adequately staffed and regularly submitted bi-annual progress reports to the World Bank.** Project M&E was rated satisfactory throughout implementation due to proactive and regular data collection and reporting during World Bank missions with minimum supervision required.

#### M&E Utilization

46. **Project M&E data was used to inform project decision-making to a certain extent but could have reflected more ambition.** In the case of VUCE, the government and the World Bank decided to redirect project funds to other activities once the end target of increasing the number of administrative processes incorporated was met. At the same time, more ambitious targets could have been set for the project indicators that were quickly largely surpassed.

#### Justification of Overall Rating of Quality of M&E

47. **The quality of project M&E is rated Substantial.** The M&E system was adequate to assess the achievement of the project's objectives and M&E data was regularly collected through existing sound methods. However, there were moderate shortcomings in the design of the IRIs meant to capture the improved access and especially quality of the e-services offered to citizens, which were not always relevant and in M&E utilization.

### B. ENVIRONMENTAL, SOCIAL, AND FIDUCIARY COMPLIANCE

48. **There were no key environmental, social, and fiduciary issues during project implementation.** This was a Category C project with the environmental and social risks of the project rated low and no issues reported during implementation. Financial Management (FM) and procurement performance were rated satisfactory throughout the project's lifetime. The PCU was described as having adequate FM arrangements in place and providing timely and reliable financial reports to monitor project implementation. The PCU had extensive procurement experience and staff with experience in World Bank-financed projects. Notwithstanding the delays in planning and implementing project activities experienced during the COVID-19 pandemic, procurement steps were properly documented, and implementation progress updated in the World Bank's Systematic Tracking of Exchanges in Procurement (STEP) platform on a regular basis. The PCU followed the procurement procedures as defined in the Operational Manual, in addition to the government procurement regulations applicable to the project. Moderate fiduciary supervision was therefore needed with the project holding regular meetings with the World Bank when needed.

### C. BANK PERFORMANCE

#### Quality at Entry

49. **The project was strategically designed to align with the Government's priorities as outlined in its Digital Uruguay Agenda and incorporated lessons from global practices as well as adequate provisions for its successful implementation.** As elaborated in previous sections, activities were selected to support key institutions regarding the digital agenda, strategically complementing the Government's own reform efforts and its engagement with the IDB. The



design of the activities was also informed by global thinking on how to increase e-government service use through both supply (e.g., strengthening single window services) and demand side interventions (e.g., the use of multi-channels of access and user feedback on services to improve impact). FM and procurement arrangements were assessed as providing reasonable assurance at appraisal and included the use of country systems for budgeting, internal control, and internal and external audit given the low fiduciary risk profile of the project. Project risks were assessed at appraisal and adequate mitigating measures identified where needed. It was assessed that there was no need to create a new or distinct project coordination body. This decision was informed by the existing capacity within the MEF for coordinating the e-government agenda. The moderate weaknesses in the project's M&E quality are highlighted in the corresponding section of this ICR.

### Quality of Supervision

50. **The World Bank provided the expected level of supervision and demonstrated flexibility in support of the Government in project implementation.** The task team conducted regular implementation support missions, virtually during the pandemic, to monitor progress as well as specific complementary missions on fiduciary and safeguards compliance. Implementation Status Reports (ISRs) focused on highlighting key issues for management's attention but could have provided more detailed narrative on project implementation progress and systematic explanations around the results being reported. The project benefited from a relatively stable leadership team with only two Task Team Leaders (TTLs) over six years of implementation. The World Bank demonstrated flexibility and adaptability in approving project extensions and redirecting funds as proposed by the government. Based on the Government's interest, the World Bank engaged in the preparation of a follow-up project before the operation's closure which relied on the existing project management arrangements to advance and ensure there was no gap in support. For example, the full attainment of the PDO indicator on the number of public executing agencies managing electronic invoices received from their providers is being pursued under the new project. The Bank team did miss the opportunity to: i) formally revise PDO indicator 1.2 to account for the well justified change in focus on the implementation of the Citizen Access Points (PACs) from mobile PACs to the strengthening of online channels due to the pandemic; ii) include a formal indicator to capture the investment in the standardization of government portals, which ended up consuming a significant proportion of the project's funds.

### Justification of Overall Rating on Bank Performance

51. **Bank performance is rated Satisfactory.** Although moderate shortcomings were identified related to the quality of entry and supervision, they did not significantly impact the achievement of the project's main outcomes.

### D. RISK TO DEVELOPMENT OUTCOME

52. **The risk to development outcome is assessed as Low.** Activities to maintain and expand the access and quality of select e-government services facilitated by the project are continuing as they are an integral part of the Government's digital agenda. The Government has demonstrated its commitment to the implementation of these initiatives through its co-financing before, during and after the project. The use of e-invoicing for businesses and public entities is mandatory and cannot be reversed. In addition, the follow-up project is already active and aims to strengthen the MEF's institutional capacity in data analytics, climate change governance and market institutions. The new project will continue to work with DGI and CGN and to strengthen SIRFE. Citizen uptake of e-services grew considerably in recent years aided by the pandemic with users expressing a clear preference for non-face-to-face channels to carry out the needed procedures.

## V. LESSONS AND RECOMMENDATIONS

53. **The value proposition of the World Bank when dealing with a client with relatively high capacity is that of an enabler that can create the space for innovation and testing to respond to challenges, notably through flexibility.** The project created the space to jumpstart key activities (e.g., the expansion of broadband access to rural schools) while demonstrating flexibility in design and the reallocation of project funds as needed during implementation. That flexibility





afforded to the Government allowed them to respond to unexpected challenges and external shocks (e.g., strengthening of online channels due to the pandemic) and to use project funds strategically and to test innovations. AGESIC and ANII especially highlighted that approach as a form of seed funding – notably for activities without allocated resources – that allowed to test initiatives and their viability or conceptualize the first steps of possible future interventions to improve citizen engagement and access and data analysis. Underlying enablers of success were the government capacity with clearly defined objectives and an e-government strategic plan and high penetration rates of ICT.

54. **Limited project funds can be leveraged strategically and in a complementary manner to IDB and other co-financing to have an important impact on outcomes.** Government institutions like DGI made strategic use of the project funds to invest in low cost but high impact activities or complement Government and IDB financing of key interventions. In particular, the nearly universal expansion of the use of e-invoices by businesses is having a significant impact on efficiency and fraud reduction. Similarly, the use of the SIRFE by government agencies is producing a wealth of data, and with further integration with relevant budget functions and systems, will allow for a better accounting and allocation of public resources. DGI also invested in the elaboration of a governance framework for the management of its operations and low-cost project funded adoption activities. CEIBAL also complemented the project funds to expand broadband internet access to almost all the rural schools in the country. Relevant institutions defined clearly the financing expected from the World Bank and the IDB in a complementary manner. The experience of the project has led to the follow-up US\$16 million Institutional Strengthening for Greater Competitiveness project, highlighting that supporting public sector modernization in Uruguay through targeted lending operations that are relatively small in scale can still be effective.

55. **Change and knowledge management activities are important to digital transformation and can benefit from a clear strategy and dedicated team.** The CGN credits the development and implementation of a defined organizational change management strategy for the gradual adoption of e-invoicing among state entities – with an emphasis on the sectors with the most offices to integrate into the new system. Similarly, AGESIC has established a dedicated change management division to ensure its integration across all projects. Knowledge management is an important part of its work notably through a community of practice that shares information on change management in digital transformation. Recognizing its pivotal role, AGESIC views change management as essential to overcoming potential resistance and effectively navigating transformation within public entities responsible for delivering administrative services to citizens.

## ANNEX 1. RESULTS FRAMEWORK AND KEY OUTPUTS

### A. RESULTS INDICATORS

#### A.1 PDO Indicators

**Objective/Outcome:** Improve the quality of selected e-government services for citizens, businesses and public entities

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Improved delivery of distance learning materials to targeted schools	Number	0.00 30-Dec-2016	300.00 30-Jun-2017		1,027.00 15-Dec-2023

**Comments (achievements against targets):**

1235 schools in total added during the project duration with access to broadband internet including 1027 rural schools (against the project target of 300 rural schools) .

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Increased number of government executing units managing electronic invoices	Number	0.00 30-Dec-2016	243.00 30-Jun-2017		156.00 15-Dec-2023

received from their providers

Comments (achievements against targets):

**Objective/Outcome:** Facilitate the access of selected e-government services

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
Reduced processing time of foreign trade related administrative requirements by VUCE	Hours	50.40	33.00		27.37
		30-Dec-2016	30-Jun-2017		15-Dec-2023

Comments (achievements against targets):

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
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	15,000.00		175,771.00
		30-Dec-2016	30-Jun-2017		15-Dec-2023

Comments (achievements against targets):

In 2021, the government internally revised the target for administrative requests processed online through all PACs to 150,000.

## A.2 Intermediate Results Indicators

**Component:** Component 1. Improving the Delivery of e-Government Services to Citizens

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
1.1.1. Increase in users performing research online before carrying out an administrative process	Percentage	27.00 30-Dec-2016	50.00 30-Jun-2017		56.00 15-Dec-2023

**Comments (achievements against targets):**

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
1.1.2. Entities using the Government data analysis platform to improve management	Number	0.00 30-Dec-2016	6.00 30-Jun-2017		12.00 15-Dec-2023

**Comments (achievements against targets):**



Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
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		12.00
		30-Dec-2016	30-Jun-2017		15-Dec-2023

Comments (achievements against targets):

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
1.2 1. Increase in productivity of customer service provided by CEIBAL	Text	60 UY pesos	37 UY pesos		21.03 UY pesos
		20-Jan-2017	30-Jun-2017		15-Dec-2023

Comments (achievements against targets):

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
1.2.2. User satisfaction with customer service	Text	80%	80%		90%
		20-Jan-2017	30-Jun-2017		15-Dec-2023

Comments (achievements against targets):

**Component:** Component 2. Improving the Delivery of e-Government Services to Businesses

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
2.1.1. Improved perception of the value added by VUCE	Percentage	89.00 30-Dec-2016	96.00 30-Jun-2017		95.00 15-Dec-2023
<b>Comments (achievements against targets):</b>					

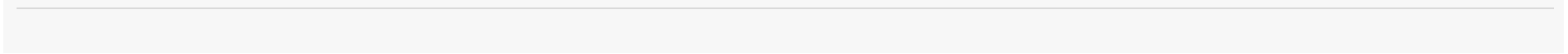
Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
2.1.2. Increase in the percentage of administrative processes integrated into VUCE's single window platform	Percentage	36.00 30-Dec-2016	90.00 30-Jun-2017		83.00 15-Dec-2023
<b>Comments (achievements against targets):</b>					

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
2.2.1. Percentage of	Percentage	50.00	96.00		99.16

taxpayers incorporated into the CFE and issuing e-invoices, as a percent of the total population of taxpayers to be incorporated into the CFE		30-Dec-2016	30-Jun-2017		15-Dec-2023
<b>Comments (achievements against targets):</b>					

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
2.3.1. Number of interactions facilitated through Portal Trama	Text	No platform 30-Dec-2016	70% increase 30-Jun-2017		83% increase 15-Dec-2023
<b>Comments (achievements against targets):</b>					

Indicator Name	Unit of Measure	Baseline	Original Target	Formally Revised Target	Actual Achieved at Completion
2.3.2. Increased number of registered users using Portal Timbó	Number	40,450.00 30-Dec-2016	47,782.00 30-Jun-2017		85,498.00 15-Dec-2023
<b>Comments (achievements against targets):</b>					







**B. KEY OUTPUTS BY COMPONENT**

<b>Objective/Outcome 1: Improving the quality and access of e-government Services to Citizens</b>	
Outcome Indicators	<ol style="list-style-type: none"> <li>1. Improved delivery of distance learning materials to targeted schools (number of schools with access to broadband internet)</li> <li>2. Increased accessibility to online administrative processes (number of citizens' administrative processes attended to through the Mobile Citizens Access Point)</li> </ol>
Intermediate Results Indicators	<ol style="list-style-type: none"> <li>1. Increase in productivity of customer service provided by CEIBAL</li> <li>2. User satisfaction with CEIBAL's customer service</li> <li>3. Increase in users performing research online before carrying out an administrative process</li> <li>4. Entities using the Government data analysis platform to improve management</li> <li>5. Number of entities which have implemented at least one of the components of the e-Participation solution</li> </ol>
Key Outputs by Component (linked to the achievement of the Objective/Outcome 1)	<ol style="list-style-type: none"> <li>1. Provision of broadband internet connections in rural schools</li> <li>2. Incorporation of additional channels in CEIBAL's customer service (WhatsApp, Chatbot)</li> <li>3. Strengthening of the Computer Security Incident Response Center and cybersecurity standards (management of IT risks, agreements with AGESIC for training, information security audits, vulnerability analysis system)</li> <li>4. Strengthening of CEIBAL's back-office systems and data center (implementation of <i>Work Adaptive</i> tool for planning, training in <i>DevOps</i> methodology for collaborative management software products)</li> <li>5. Incorporation of online channels of access to Citizens Access Points (online chat, social media (Facebook), videocalls)</li> <li>6. Development of information architecture for standardized web government portals</li> <li>7. Development of a data analysis framework</li> </ol>



<b>Objective/Outcome 2: Improving the quality and access of e-government Services to Businesses</b>	
Outcome Indicators	1. Reduced processing time of foreign trade related administrative requirements by the International Trade Single Window (VUCE)
Intermediate Results Indicators	<ol style="list-style-type: none"> <li>1. Increase in the percentage of administrative processes integrated into VUCE’s single window platform</li> <li>2. Improved perception of the value added by VUCE</li> <li>3. 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</li> <li>4. Number of interactions facilitated through Portal Trama</li> <li>5. Increased number of registered users using Portal Timbó</li> </ol>
Key Outputs by Component (linked to the achievement of the Objective/Outcome 2)	<ol style="list-style-type: none"> <li>1. Implementation of a new interoperability platform for exchange of information between VUCE and other countries</li> <li>2. Development of a data exchange platform with three targeted ministries (Industries; Public Health; Livestock, Agriculture and Fisheries)</li> <li>3. Hiring of technicians to boost the capacity of targeted ministries for the integration</li> <li>4. Implementation plan and obtention of ISO91 certification for VUCE platform</li> <li>5. Development of functionalities to expand e-invoices services to small and medium businesses</li> <li>6. Development of a new comprehensive tax risk rating model and matrix</li> <li>7. Development of an online portal for the Trama Project</li> <li>8. Development of a national repository system of scientific literature</li> </ol>
<b>Objective/Outcome 3: Improving the quality and access of e-government Services to public entities</b>	
Outcome Indicators	1. Increased number of government executing units managing electronic invoices received from their providers.
Intermediate Results Indicators	



Key Outputs by Component  
(linked to the achievement of the Objective/Outcome 3)

1. Development of the Electronic System for the Receipt of E-invoices (*Sistema de Recepción de Factura Electrónica*, SIRFE)
2. Deployment of SIRFE, training and establishment of a helpdesk

## ANNEX 2. BANK LENDING AND IMPLEMENTATION SUPPORT/SUPERVISION

### A. TASK TEAM MEMBERS

Name	Role
<b>Preparation</b>	
Henry Forero Ramirez, Carolina Rendon, Carolina Rendon	Task Team Leader(s)
Martin Ariel Sabbatella	Procurement Specialist(s)
Alejandro Roger Solanot	Financial Management Specialist
Henry Forero Ramirez	Team Member
Fabiola Altimari Montiel	Team Member
Alberto Criscuolo	Team Member
Daniel Alvarez Estrada	Team Member
Tuuli Johanna Bernardini	Social Specialist
Maria Pia Cravero	Team Member
Adrienne Elizabeth Hathaway-Nuton	Team Member
Johannes Till Hartmann	Team Member
<b>Supervision/ICR</b>	
Silvana Kostenbaum, Henry Forero Ramirez	Task Team Leader(s)
Antonella Celeste Perila, Francisco Rodriguez, Claudio Alvaro Mentasti	Procurement Specialist(s)
Luz Maria Meyer	Financial Management Specialist
Santiago Manuel D Agostino Fontaine	Team Member
Fernando Andres Lencina	Team Member
Eric Braian Arias	Team Member
Maria Gracia Lanata Briones	Social Specialist
Maria Pia Cravero	Team Member
Elba Lydia Gaggero	Environmental Specialist

Jose Eduardo Gutierrez Ossio	Team Member
Maria Emilia Sparks	Social Specialist
Santiago Scialabba	Social Specialist
Rahmoune Essalhi	Procurement Team
Marieta Fall	ICR
Angela Nieves Marques Porto	ICR
Melissa Paola Arango Escorcía	ICR

## B. STAFF TIME AND COST

Stage of Project Cycle	Staff Time and Cost	
	No. of staff weeks	US\$ (including travel and consultant costs)
<b>Preparation</b>		
FY17	60.035	303,238.35
FY18	2.025	8,216.55
FY19	5.550	24,233.52
FY20	0	0.00
<b>Total</b>	<b>67.61</b>	<b>335,688.42</b>
<b>Supervision/ICR</b>		
FY18	21.563	95,477.08
FY19	25.308	100,041.57
FY20	22.468	100,735.14
FY21	17.650	98,694.00
FY22	19.632	95,632.45
FY23	17.131	82,856.82
FY24	13.386	73,171.35
<b>Total</b>	<b>137.14</b>	<b>646,608.41</b>

### ANNEX 3. PROJECT COST BY COMPONENT

Components	Amount at Approval (US\$M)	Actual at Project Closing (US\$M)	Percentage of Approval
Component 1. Improving the Delivery of e-Government Services to Citizens	3.99	3.75	33.2
Component 2. Improving the Delivery of e-Government Services to Businesses	3.35	2.23	27.9
Component 3. Improving the Delivery of e-Government Services to Government Entities	2.08	5.26	17.3
Component 4. Strategic Diagnostics, Activities and Knowledge Sharing, and Project Coordination	1.55	1.55	12.9
Preparation Advance (P484)	1.03	0.0	8.6
<b>Total</b>	<b>12.00</b>	<b>12.00</b>	<b>12.00</b>

## ANNEX 4. EFFICIENCY ANALYSIS

1. **Methodology.** At project closing, a similar cost-benefits analysis to the one conducted at appraisal was conducted using estimated numbers of beneficiaries reached during project implementation for the relevant interventions and actual final costs for the related activities (including estimations of prior government investments). Indeed, given their nature and type of results targeted, only the benefits of the interventions to facilitate e-taxation and e-trade services can be quantified. The benefits arising to the citizens in the form of greater access to a number of administrative services – notably through strengthening the citizen access points – are harder to quantify because they involve hundreds of procedures and services, the majority of which the benefits cannot be quantified. Similarly, the benefits that could accrue to businesses from greater access to relevant research and collaboration are hypothetical and cannot be specified nor quantified. Finally, the ability for government agencies to receive electronic invoices from providers does have cost savings implications for both parties but cannot be quantified without information on the universe of providers affected. The analysis uses similar conservative assumptions to the ones underlying the economic and financial analysis conducted at appraisal in so far as they still hold (see table A4.1). A discount rate of 6 percent over a 7-year period (2017-2023) is used.<sup>22</sup>

- **The introduction of electronic invoicing for small and medium sized taxpayers.** The estimated costs and benefits were expected to yield a NPV of \$9,084,356 with an IRR of 55 percent. Benefits were estimated both financially in terms of reduced purchases of paper needed for invoicing as well as economically in terms of time saved by taxpayers through reduced travel costs (with an estimated 82,622 small and medium taxpayers who started using e-invoicing from 2019-2023). See table A4.2 for details of phased accession.
- **The automation of additional administrative processes online within the single trade window.** Savings were also estimated here primarily from the resulting reduced travel costs and paper costs and to yield a NPV of \$1,140,644 and an IRR of 17 percent. The analysis uses the direct project costs until 2020 when they stopped as well as estimates of government and other co-financing<sup>23</sup> and includes prior estimated costs to develop VUCE.

**Table A4.1 Assumptions used in cost-benefits analysis**

Reduced paper purchases (e-invoicing)	Time savings (e-invoicing)	Reduced paper purchases (VUCE)	Time savings (VUCE)
Average savings of \$25 per taxpayer <sup>24</sup>	25 percent reduction in times. <sup>25</sup> Average cost of managing accounting registers: \$14.28/month.	9.7 million sheets of paper saved the first year, and more than 11.2 million the second year. <sup>26</sup> 50 percent of that paper saved. Cost of \$0.01/ page.	40 percent of transactions now done through VUCE. \$1.15 savings on each one-way trip. Labor cost: \$2.10/ hour (conservative estimate).

<sup>22</sup> Based on Uruguay's average per capita growth rate and using the upper bound of Ramsey's formula. Discounting Costs and Benefits in Economic Analysis of World Bank Projects. World Bank, May 2016.

<sup>23</sup> Actual amount of government and other financing during implementation (from 2020 when the project funds stopped) was not available so it was estimated as the financing gap needed to reach the high direct project costs estimated at appraisal.

<sup>24</sup> Average annual paper costs before the reform were conservatively estimated to be \$200 per taxpayer by the government. Calculations here assume that before the reform, taxpayers used 25 percent of this paper for invoicing. Assuming that the amount of paper used was 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.

<sup>25</sup> At the time of appraisal, the majority of taxpayers were estimated by the government to spend an average of 408 minutes per month on average maintaining the accounting register of transactions (which is considered to be a reasonable proxy for invoicing).

<sup>26</sup> 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.

**Table A4.2. Phased accession to electronic invoicing at Tax Directorate**

Enterprises	2019	2020	2021	2022	2023	
Large	1,444	762	687	340	160	
SMEs	16,910	17,092	13,251	11,358	12,128	
Small	21	89	2,687	1,944	2,041	
<b>Total (small and medium)</b>	<b>16,931</b>	<b>17,181</b>	<b>15,938</b>	<b>13,302</b>	<b>14,169</b>	<b>82,622</b>

**Table A4.3. Summary of Cost-Benefit Analysis: Expansion of electronic invoicing**

	pre-2017	2017	2018	2019	2020	2021	2022	2023	Total
<b>Costs</b>									
Direct Project Costs				141,945	141,945	141,945	141,945	141,945	709,729
Counterpart Financed Costs			15,000						15,000
Maintenance					100,000	100,000	100,000	100,000	400,000
Prior Costs	1,500,000								1,500,000
<b>Benefits</b>									
Reduced paper				423,275	852,800	1,251,250	1,583,800	1,938,025	6,049,150
Time savings				725,326	1,461,360	2,144,143	2,714,000	3,321,000	10,365,829
<b>Total costs</b>	<b>1,500,000</b>	<b>-</b>	<b>15,000</b>	<b>141,945</b>	<b>241,945</b>	<b>241,945</b>	<b>241,945</b>	<b>241,945</b>	<b>2,624,729</b>
<b>Total Benefits</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,148,601</b>	<b>2,314,160</b>	<b>3,393,395</b>	<b>4,297,800</b>	<b>5,529,025</b>	<b>16,682,981</b>
Cost Contingency (10%)			1,500	14,195	24,195	24,195	24,195	10,000	98,278
<b>Net benefits</b>	<b>(1,500,000)</b>	<b>-</b>	<b>(16,500)</b>	<b>992,462</b>	<b>2,048,021</b>	<b>3,127,256</b>	<b>4,031,661</b>	<b>5,277,080</b>	<b>13,959,978</b>
<b>NPV</b>									<b>\$9,084,355.96</b>
<b>IRR</b>									<b>55%</b>

**Table A4.4: Summary of Cost-Benefit Analysis: integration of additional processes – Single Trade Window**

	pre-2017	2017	2018	2019	2020	2021	2022	2023	Total
<b>Costs</b>									
Direct Project Costs			203,407	203,407					406,814
Counterpart financed costs						209,195	209,195	209,195	627,586
Prior Costs	2,485,876								2,485,876
<b>Benefits</b>									
Time savings - reduced travel			382,702	443,081	443,081	443,081	443,081	443,081	2,155,026
Reduced travel costs			558,781	646,941	646,941	646,941	646,941	646,941	3,793,486
Reduced paper needs			48711	56198	56198	56198	56198	56198	329,701
<b>Total costs</b>	<b>2,485,876</b>	<b>-</b>	<b>203,407</b>	<b>203,407</b>	<b>-</b>	<b>209,195</b>	<b>209,195</b>	<b>209,195</b>	<b>3,520,275</b>
<b>Total Benefits</b>	<b>-</b>	<b>-</b>	<b>990,194</b>	<b>1,146,220</b>	<b>1,146,220</b>	<b>1,146,220</b>	<b>1,146,220</b>	<b>1,146,220</b>	<b>5,575,074</b>
Cost Contingency (10%)			20,341	20,341	-	20,920	20,920	20,920	82,520
<b>Net benefits</b>	<b>(2,485,876)</b>	<b>-</b>	<b>766,446</b>	<b>922,472</b>	<b>1,146,220</b>	<b>916,106</b>	<b>916,106</b>	<b>916,105</b>	<b>3,097,579</b>
<b>NPV</b>									<b>\$1,140,644.49</b>
<b>IRR</b>									<b>17%</b>



## ANNEX 5. BORROWER, CO-FINANCIER AND OTHER PARTNER/STAKEHOLDER COMMENTS

The ICR was shared with relevant counterparts in the government of Uruguay on May 21<sup>st</sup>, 2024. The following comments were received from the Ministry of Finance (translated from Spanish):

*In line with your email, I join in your expression of gratitude to all those involved who have been part of this project. THANK YOU! We request that you please move forward with the finalizing the (ICR) report document according to what was discussed with our internal staff.*

In addition, the Project Coordination Unit prepared a set of conclusions and recommendations on the project that the MEF authorized the Bank team to share in this section of the ICR (translated from Spanish):

The overall results of the project were achieved as planned, notwithstanding unforeseeable external shocks during its design phase. The project's four main indicators confirm advancements across the four focal areas envisioned in the PROMESeG design, effectively addressing challenges inherent in its conceptualization and anticipated outcomes.

First, the objective of narrowing the opportunity gap by ensuring equal access to knowledge in rural and urban areas was largely attained. Nearly 100% of the country's schools were equipped with broadband technology, enabling access to online classes in subjects like English and mathematics, among other benefits. These benefits were especially noticeable amid pandemic-related mobility restrictions.

Second, progress towards fostering better international integration of companies operating from Uruguay through more efficient public services was notable. Project development indicators and other data collected through interviews of actors demonstrated significant reductions in processing times for foreign trade procedures, surpassing initial targets. Moreover, a substantial percentage of small and medium-sized enterprises (SMEs) were integrated into the electronic invoicing system, and actions were taken by the DGI to streamline declarations for these companies, enhancing efficiency. For instance, the expansion of CFE usage facilitated quicker VAT refunds to agricultural producers for diesel consumption in productive tasks, enabling monthly deductions from bills.

Third, advancements were also made towards enhancing proximity between the State and citizens. The indicator, measured by the number of citizen administrative processes provided via government channels in the subcomponent managed by AGESIC, far exceeded the planned goal despite project delays and strategy changes. Overall, all executing units involved in service evaluation managed to improve service ratings (AGESIC, Ceibal, VUCE).

Finally, although the full adoption of the electronic invoicing reception system, an indicator tied to the objective of improving State efficiency, was not achieved, significant progress was made. 80% of eligible entities have been incorporated into the system, covering 97% of National Budget Sections. Delays in this aspect of the project, along with modifications during implementation to accommodate new functionalities like electronic invoice issuance in addition to reception, necessitated postponing goals to the first quarter of 2024.

The project also generated positive externalities, challenging to quantify but noteworthy due to their scale. Particularly, the extension of electronic invoicing enabled the DGI to access nearly real-time information on economic activity, aiding economic monitoring efforts by the Central Bank of Uruguay and the MEF. This timely information proved crucial during the pandemic, facilitating agile decision-making and targeted support for various sectors.

The project struck a balance between interventions targeting back-end infrastructure (e.g., Data Architecture in AGESIC projects, Ceibal) and those focused on public-facing communication (e.g., AGESIC portal and PAC, ANII portals, DGI communication tools), both critical during the pandemic.

Moreover, the project exhibited a balanced approach to innovation across planned interventions. This is evident in loan documents mentioning three levels of digital transformation targeted (first, second, and third generation reforms). Notably, interactions between project-funded actions and agency guidelines, objectives, or management goals led to diverse outcomes. In some cases, the project facilitated experimental phases (e.g., ANII, AGESIC) in areas lacking prior financing or facing delays. In others, it complemented or expanded coverage in established areas (e.g., DGI, VUCE). Additionally, the program enabled innovative changes in routine operations (e.g., CEIBAL), enhancing service quality and efficiency.

E-government services require continual improvement to meet evolving demands and technological advancements. Hence, it's imperative to plan for maintaining existing investments while investing in incremental changes to update services as per supply and demand requirements. Encouragingly, most actions have the potential for this continuity, either due to departments aligning their goals with project objectives or, in some cases, achieving budgetary independence for initiated actions.

The report has highlighted several weaknesses and areas requiring enhancement. First, it pinpointed certain rigidity issues within the procurement processes for goods and services, which are associated with procedural delays that fail to align with the more adaptable timelines of flexible organizations (operating beyond the purview of the Central Government). While these rigidity concerns may not pose significant hurdles in some projects, they could impede the execution of resources, particularly in endeavors involving innovation or exploration. In such cases, exploring the feasibility of adopting procurement procedures akin to those utilized by agencies functioning outside the Government, such as ANII, could be beneficial. Such an approach would enable a much more streamlined and agile workflow.

On the other hand, in the design of the instruments and the timing of their implementation, it should be considered that the development of an e-government system is influenced by both internal and external factors. This dependency extends beyond just the availability of resources, also encompassing the political will of the government to pursue such development. With regard in particular to the project undertaken by the CGN, the adherence to the status quo within public organizations can serve as an impediment to the acceptance of new working methods, even when, as demonstrated in the present project, they lead to future improvements in work quality. In anticipation of such eventualities, it may prove useful to anticipate the need for designing mechanisms that either compel agencies to participate early in the project (through laws, decrees, or ordinances mandating such involvement) or make participation appealing to them. This becomes especially relevant when the bodies slated for inclusion in the system occupy similar positions within the public organizational hierarchy.

As political climates evolve regarding the establishment of a regulatory framework conducive to change, it can prove particularly beneficial to assemble a multidisciplinary team comprising experts from various fields to facilitate organizational change management efforts. This includes activities at both the managerial and operational levels, as well as training and awareness initiatives aimed at enhancing receptiveness to technological advancements. The CGN undertook this approach through a multidisciplinary team, achieving success by swiftly integrating a significant number of stakeholders into the SIRFE.

Third, certain opportunities for improvement have been identified regarding the flexibility of metrics used for project evaluation and monitoring of results. Specifically, some pivotal activities crucial to the project's evolution were not linked to result indicators. For instance, the integration and standardization of public portals undertaken by AGSIC constituted a significant portion of the agency's efforts within the framework of

PROMESeG, yet lacked corresponding indicators. Additionally, certain indicators appeared to necessitate adjustment upon identification of baseline values, but these adjustments were not made, thereby defeating the purpose of such indicators, which should reflect reference values associated with an achievable optimum. For instance, Ceibal's customer satisfaction indicator surpassed the set goal in the initial measurement, indicating a need to adjust the goal or the indicator itself, yet it remained unchanged. Similarly, the goal value for adherence to DGI's CFE system indicator was not updated, remaining as TBD until the end, despite the correction of data reporting criteria. Equally noteworthy is the absence of results indicators for subcomponent 3.2, despite its utilization of one-third of the project's resources following fund reallocation and the term extension requested in 2021.

In another area, the co-financing of the World Bank with other organizations, such as the IDB (Ceibal, AGESIC, ANII) in complementary areas or even those that reinforce the same area of action, is recurrent in several of the subcomponents analyzed. Coordination between multilateral organizations through national actors seems fundamental in this case.

For potential future agreements between the World Bank and the national government in the field of e-government, it could be pertinent to prioritize activities related to the recruitment and retention of skilled human resources. The challenge, associated with the high turnover rate of technology personnel due to global demand for such resources, compounded by the effects of the pandemic, was underscored by two executing units of this project: Ceibal and VUCE. In the latter's case, although operations have achieved self-sustainability, they encounter difficulties in retaining trained talents within their offices. Consequently, they struggle to address projects outlined in their roadmap due to staffing shortages and the perpetual need for training. Similarly, Ceibal faces a comparable situation, exacerbated by the allocation of a portion of project resources to staff training. Therefore, in the event of continued financing, reinforcing human resources, training initiatives, and implementing mechanisms to foster retention in these institutions could prove beneficial in hiring more qualified personnel.

#### ANNEX 6. SUPPORTING DOCUMENTS (IF ANY)

- Project Appraisal Document. Uruguay - Improving Service Delivery to Citizens and Businesses through E-Government Project. Report No. PAD2315. World Bank, July 13, 2017.
- Restructuring Paper on a Proposed Project Restructuring of Uruguay - Improving Service Delivery to Citizens and Businesses through E-Government Project. Report No. RES47670. World Bank, August 30, 2021.
- Restructuring Paper on a Proposed Project Restructuring of Uruguay - Improving Service Delivery to Citizens and Businesses through E-Government Project. Report No RES56230. World Bank, May 23, 2023.
- Implementation Status Reports. Uruguay - Improving Service Delivery to Citizens and Businesses through E-Government Project. Sequence 1-12. World Bank.
- Aide-Memoires. Uruguay - Improving Service Delivery to Citizens and Businesses through E-Government Project. 2017-2023.
- Uruguay Country Partnership Framework FY16-FY20: Report No. 97063-UY. World Bank, December 21, 2015.
- Uruguay Country Partnership Framework FY23-FY27: Report No. IDU-CPF-0000009. World Bank, November 4, 2022.
- Annual study on Knowledge, Attitudes and Practices of Digital Citizenship. Primary results 2016. Agency for the Development of Electronic Government Management and an Information and Knowledge Society (AGESIC).
- Annual study on Knowledge, Attitudes and Practices of Digital Citizenship. AGESIC, 2022.
- Survey on the Uses of Information and Communication Technologies (EUTIC), AGESIC, 2010-2022.
- Rovira, Flavia. Final Evaluation of the Uruguay - Improving Service Delivery to Citizens and Businesses through E-Government Project. November 30, 2023.