

## TC Document

### I. Basic Information for TC

▪ Country/Region:	REGIONAL
▪ TC Name:	Accelerating AI Adoption in Latin America and the Caribbean: Aligning Regulations, Deploying Pilots, And Conducting Training
▪ TC Number:	RG-T4439
▪ Team Leader/Members:	Hernandez Carrion, Jose Luis (IFD/ICS) Team Leader; Porrua Vigon, Miguel Angel (IFD/ICS) Alternate Team Leader; Mendoza Benavente, Horacio (LEG/SGO); Koo, Hyo-Sun (IFD/ICS); Muenta Kunigami, Arturo (IFD/ICS); Florencia Baudino (IFD/ICS); Martinez, Ynty Koyllor (IFD/ICS); Rodriguez, Fabricio (IFD/ICS)
▪ Taxonomy:	Client Support
▪ Operation Supported by the TC:	.
▪ Date of TC Abstract authorization:	26 Jan 2024.
▪ Beneficiary:	Latin America and Caribbean borrowing member countries, in particular Bolivia, Colombia, Chile Paraguay, Uruguay.
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	Knowledge Partnership Korea Fund for Technology and Innovation(KPK)
▪ IDB Funding Requested:	US\$500,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	36 months
▪ Required start date:	May 2024
▪ Types of consultants:	Firms and individual consultants
▪ Prepared by Unit:	IFD/ICS-Innovation in Citizen Services Division
▪ Unit of Disbursement Responsibility:	IFD/ICS-Innovation in Citizen Services Division
▪ TC included in Country Strategy (y/n):	No
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2020-2023:	Afro-descendants; Diversity; Gender equality; Indigenous People; Institutional capacity and rule of law; LGBTQ+; Persons with Disabilities; Social inclusion and equality

### II. Objectives and Justification of the TC

The main objective is to boost the Artificial Intelligence (AI) adoption by the public sector in Latin America and the Caribbean (LAC) through developing and implementing an advanced AI based system aim at identifying the gaps in countries' digital government regulatory frameworks. This system covers all regulatory aspects, from legislation to technical standards. In addition, this TC will implement AI pilots to streamlining processes, improve efficiency, and offer citizen-centric and effective public services. Lastly, this TC will equip government officials with the necessary knowledge to effectively utilize AI, thereby enhancing public administration. Ultimately, this TC bridges the gap between a digital government

reference framework and the status of digital government across the region. It seeks to simplify the process of developing and implementing regulatory requirements for its effective operationalization. This initiative will foster a cohesive regional ecosystem for digital government regulatory practices, focusing on evaluating, comparing, and dynamically adapting to the unique needs of each country in the region.

- 2.1 Despite the progress made, LAC is still far below its digital potential. Only five countries are among the top fifty in the UN's 2022 ranking of digital public services, fifteen countries ranked between 51st and 100th, and the rest (14) fell below the top of the list.<sup>1</sup> Similarly, the COVID-19 health crisis impacted regulatory decisions in many sectors, reinforcing the need for instruments that promote transparent, evidence-based, internationally coordinated, and well-enforced regulation.
- 2.2 Regulatory development in the region is heterogeneous. In terms of electronic signatures, a total of 22 out of 26 countries in LAC have regulatory policies in place. Regarding personal data protection law, the situation is that only 18 of the 26 countries have regulations in place<sup>2</sup>. Moreover, only 14 countries in the region have a digital agenda strategy and just 4 countries have an AI strategy<sup>3</sup>. Moreover, there are gaps and challenges in the discussion on specific regulation of AI systems and in regulatory experimentation initiatives<sup>4</sup>.
- 2.3 The absence of frameworks and regulatory obstacles to interoperate exacerbate informality, unemployment, and loss of competitiveness in countries, and is one of the most important challenges facing public sector organizations in LAC<sup>5</sup>. Mere adherence to digital standards is insufficient; successful implementation of such initiatives demands resolving complex technological, semantic, organizational, legal-regulatory, and cultural issues. These challenges often lead to working in isolation and foster the existence of service "islands".
- 2.4 This groundbreaking initiative holds the key to unlocking public value on a grand scale. By enabling every nation within the region to harmonize and establish standardized digital government regulatory procedures, it engenders an environment for cross-border interactions within the LAC landscape and amplifies inter-regional exchanges and best practices but also substantially diminishes the associated transactional complexities.
- 2.5 AI ecosystem is complex, cross-sector and multidimensional. AI offers unique opportunities to promote equal opportunities and improve the quality of life for all people in the region. Beyond the technological possibilities, its responsible and individual-centered use is essential and poses great challenges.
- 2.6 The 2019 Government AI Readiness Index<sup>6</sup> produced with support from Oxford Insights and the International Development Research Centre (IDRC), shows that

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<sup>1</sup> UN E-Government Ranking 2022: <https://publicadministration.un.org/egovkb/en-us/Data-Center>.

<sup>2</sup> <https://www.datasketch.co/bid/datos-personales-y-leyes/>.

<sup>3</sup> [Uso estratégico y responsable de la Inteligencia Artificial.](#)

<sup>4</sup> [ILIA-ENG.pdf \(indicelatam.cl\)](#) .

<sup>5</sup> L. Abramo, "Policies to address the challenges of existing and new forms of informality in Latin America", Social Policy series, No. 240 (LC/TS.2021/137), Santiago, Economic Commission for Latin America and the Caribbean (ECLAC), 2022. Available at: [Policies to address the challenges of existing and new forms of informality in Latin America \(cepal.org\)](#) .

<sup>6</sup> The Government AI Readiness Index is a classification system created by Oxford Insights and the IDRC. The index is the sum of an average normalization of indexed metrics on a scale of 0 to 10 taken from sources including the United Nations, World Economic Forum, Global Open Data Index, and World Bank,

countries of the region face challenges in three areas when trying to benefit from using AI for the common good: adequate policies, capacity, and resources. First, LAC currently has neither a coherent policy nor defined ethical standards, although Mexico, Colombia, Uruguay, and Argentina are in the process of setting out AI policies and strategies.<sup>7</sup> Second, capacity is a challenge for the region and for its governments, in particular.<sup>8</sup> Although there are some LAC enterprises and scholars working in the AI field, there is an absence of thorough knowledge of AI in economic sectors and no clear understanding about its applicability in the public sector.

- 2.7 Moreover, when it comes to the regulatory framework for groundbreaking technologies like AI, the LAC region currently lacks cohesive strategies, commitments, or agreements that foster a shared vision and unified approach for the design, procurement, and implementation of AI within the public sector. The absence of a regional instrument of this nature hinders informed decision-making. However, it is noteworthy that, despite the absence of a unified vision for AI, governments in the region have demonstrated their capacity to coordinate on regional digital governance matters through the Electronic Government Network of Latin America and the Caribbean (Red GEALC)<sup>9</sup>. Establishing a collective vision for AI within this context could further enhance their collaborative efforts and amplify the region's influence in shaping the future of AI policy and practice.
- 2.8 In the context of the increasing adoption of AI techniques, Korea's Digital Government Strategy offers valuable insights for the LAC region. Korea's well-established Digital Platform Government Initiative (2022)<sup>10</sup> serves as a model that the LAC region can draw upon to promote collaborative data sharing. The consultancy activities envisioned here aim to transfer expertise to the region's government workforce, fostering coordination among diverse agencies, particularly in the adoption of Artificial Intelligence and the reduction of isolation among ministries and government departments. Korea's meticulously crafted Legal Framework for Digital Government<sup>11</sup> holds the potential to significantly contribute to the development of the inaugural LAC digital government regulatory reference model.
- 2.9 Recognized as a global leader in online service delivery, LAC's civil servants can reap substantial benefits from Korean expertise. These advantages can be realized through consultancies that focus on harnessing cutting-edge technologies like AI to enhance service delivery while bridging the gaps between different government entities. Our efforts extend to the implementation of targeted capacity-building activities aimed at Digital Agencies in LAC, including organizations like the *Ministerio de Comunicación y Tecnologías de la Información*, *Dirección Nacional de Planeamiento* in Colombia, *Agencia de Gobierno Electrónico y Tecnologías de Información y Comunicación*

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in addition to Gartner, Nesta, and Crunchbase. These metrics are grouped under four high-level topics: governance, infrastructure and data, skills and education, and government and public services.

<sup>7</sup> <https://indicelatam.cl/wp-content/uploads/2023/09/ILIA-ENG.pdf>.

<sup>8</sup> Only three countries in the region have public training programs in AI tools. On the other hand, only Brazil integrates AI elements into the national school curriculum, while the rest of the countries only go as far as digital skills and ICT competencies.

<sup>9</sup> <https://www.redgealc.org/>.

<sup>10</sup> [Digital Government \(dgovkorea.go.kr\)](https://dgovkorea.go.kr/).

<sup>11</sup> [Digital Government e-Government Standard Framework \(dgovkorea.go.kr\)](https://dgovkorea.go.kr/).

(AGETIC) in Bolivia, *Secretaría de Transformación Digital* in Peru, and *Ministerio de Tecnología y Comunicación (MINTIC)* in Paraguay<sup>12</sup>.

- 2.10 Furthermore, in alignment with the core strategies outlined in the Digital Government Public Service, there is significant potential for the LAC region to benefit from international cooperation with digital policy organizations. Such collaboration facilitates the exchange of experiences and expertise, bringing valuable perspectives from Korea on shared themes and bolstering collective efforts. Korea not only possesses extensive expertise within the public sector but also benefits from partnerships with globally renowned tech giants such as Kakao, SK Telecom, NCSOFT, and Naver Corporation. These influential companies can provide valuable insights and foster collaboration, enhancing the project's overall impact<sup>13</sup>.
- 2.11 **Strategic Alignment.** The Program is consistent with the IDB Group Institutional Strategy: Transforming for Scale and Impact (CA-631) and is aligned with the objectives of bolster sustainable regional growth by focusing on accelerating AI agenda in LAC countries by leveraging a shared vision and unified approach for the design, procurement, and implementation of AI within the public sector aligned with the operational focus areas of: (i) Gender Equality and Diversity by integrating targeted training activities designed to foster inclusivity and address gender disparities within its scope, (ii) Institutional Capacity and Rule of Law by strengthening institutional capacity of digital agencies with the mandate of develop a digital transformation governance, (iii) Social Inclusion and Equality by strengthening capacity on education and human capital development in LAC and regional integration by promoting a cohesive regional ecosystem for digital government regulatory practices.
- 2.12 In LAC countries, several digital agencies have begun the process of establishing regulatory frameworks to accelerate the adoption of key services like digital signatures, interoperability buses, and digital identity, among others. Nevertheless, progress remains fragmented and slow. Consequently, the Bank has received significant demand from the region to bolster advancement in this area. Countries such as Uruguay, Colombia, and Paraguay are engaged in advanced discussions with the team, positioning digital agencies as direct beneficiaries, to aid in the design and adaptation of regulatory enablers for digital government. Furthermore, the ultimate beneficiaries will be public officials and citizens who stand to gain from harnessing AI knowledge in the public sector.

### III. Description of activities/components and budget

- 3.1 **Component 1. Establish a digital government regulatory reference model (US\$200,000).** The objective of this component is to design a reference framework for the regulatory of a digital government in LAC. This framework does not focus exclusively on the legal dimension, but reaches the semantic, organizational, and technical dimensions, thus covering much more concrete aspects of the holistic regulatory frameworks of a digital government. Examples are AI strategies, technical regulations on electronic signatures or semantic-technical regulations on interoperability between information systems. To achieve this, the work will be carried out on at least 3 levels: level 1 or norm/legal, level 2 or heading/sections, and level 3 or concept. Through these levels, it will be possible not only to identify gaps in

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<sup>12</sup> We have advance dialogue with these agencies, but the scope of this TC can include any member country.

<sup>13</sup> [\[Photo News\] IDB chief at Naver \(koreaherald.com\).](#)

complete regulations but also in specific headings/sections or themes within them, or in specific labeled concepts or values. The following activities will be funded:

- (i) **Preparation of a list of standard regulations for a digital government.** Standard legal and technical regulations for a digital government will be compiled. To conclude this phase, a meticulous review of the international technical and legal framework will be undertaken, encompassing a benchmark analysis of global best practices in the field. This comprehensive revision aims to ensure alignment with the latest standards and to incorporate insights gleaned from leading-edge approaches worldwide.
- (ii) **Definition and design of thesauri/ontologies** of titles/sections and concepts related to the previous standards: The terms and categories related to the previously identified standards will be created and organized in thesauri and ontologies.
- (iii) **Design and implement an AI based system algorithm** that compares the reference model designed with the current situation of digital government in the countries selected<sup>14</sup> so the system can compare and create reports of the main regulatory digital transformation gaps.

3.2 **Component 2. Pilot projects of systems that incorporate AI based on the Korean experience<sup>15</sup> (US\$200,000).** This component will finance the implementation of at least two pilot projects that leverage AI techniques to improve public digital service delivery. These pilots will consider results and gap diagnosis from the component one and will be building upon Korea's advancements in AI<sup>16,17</sup>. Once the topics for the pilot projects have been identified, a call for interest will be made among LAC countries.<sup>18</sup> The primary aim of this component is to fund and execute projects that serve as tangible exemplars, contributing significantly to the maturation of the LAC region's AI capabilities. These projects will exemplify the successful integration of AI techniques, demonstrating their effectiveness in addressing complex challenges amidst the ongoing digital transformation while fostering innovation across a wide spectrum of public agencies. This component will finance the design, execution and evaluation of each pilot projects once defined topic and countries involved.

3.3 **Strengthening capacity on education and human capital development in LAC (US\$100,000)<sup>19</sup>.** This component will finance:

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<sup>14</sup> The selection of countries will depend on their willingness to participate and commitment with this activity. We will assure a representation of regions in Caribbean, Andean, South and Central countries.

<sup>15</sup> The activities considered in this component will take careful consideration of the following [catalog](#).

<sup>16</sup> [Digital Government Virtual Assistant Service for Citizens \(dgovkorea.go.kr\)](http://dgovkorea.go.kr) .

<sup>17</sup> AI-based voice phishing voice data analysis model's analysis results and utilizing plans.

<sup>18</sup> The selection criteria of these projects will depend on the willingness and interest of LAC countries to support with their institutional capacity to implement and monitor the project The team leader will prioritize support for countries ranking below 50 in the UN E-Government Ranking 2022.

<sup>19</sup> According to LAAIL 2023, there are three group of countries measuring the existence of open-access, non-paid public AI training initiatives. The first, composed of Brazil, Colombia, and Mexico, has non-professional training programs associated with Artificial Intelligence. The second group is made up of Chile, Peru, and Uruguay, which, although they do not have programs associated with AI, do have open courses in programming and digital skills leading to the development of competencies necessary for the use and exploitation of AI. Although all countries in the region have public or private initiatives of some scale, the third group of countries (Argentina, Bolivia, Costa Rica, Ecuador, Panamá, Paraguay) does not have courses that meet the conditions of being open access for the population and of national scope.

- (i) Support of the design of AI educational frameworks in the region: This activity will be encompassing curriculum development of AI, teacher training programs, integration of emerging technologies, and alignment with industry needs and educational standards. This development will be taking special consideration of the results of the Component 1 and 2.
- (ii) Advance AI training from lead institution to create tailor-made training activities with the agencies in charge of the AI public policy. This collaboration can involve the development of specialized courses, workshops, and seminars designed to share best practices with policymakers, regulators, and stakeholders on the latest advancements, ethical considerations, and implications of AI technologies, ensuring informed decision-making and effective policy implementation.
- (iii) AI knowledge material development. This objective of this component is to reduce the knowledge gap among public sector in LAC countries in term of AI. The primary aim of this component is to mitigate the knowledge disparity within the public sector across Latin American and Caribbean (LAC) countries concerning AI. By implementing targeted educational initiatives, capacity-building programs, and knowledge-sharing platforms, this objective seeks to bridge the gap in understanding and proficiency in AI concepts, applications, and implications among public sector stakeholder<sup>20</sup>. By fostering a culture of continuous learning and innovation, this initiative aims to equip LAC countries with the expertise and resources needed to harness the transformative potential of AI for sustainable development, economic growth, and societal advancement.

3.4 **Budget.** The total funding required for the program amounts to US\$500,000 and will be provided by the Knowledge Partnership Korea Fund for Technology and Innovation (KPK). The disbursement period for this technical cooperation is 36 months and the budget is presented in the following table:

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<sup>20</sup> At least one educational activity will be focused on AI and digital transformation with gender and diverse groups perspective.

**Indicative Budget (US\$)**

<b>Component</b>	<b>Description</b>	<b>Total Funding (IDB)</b>
Component 1	Establish a Digital Government Regulatory Reference Model	<b>200,000</b>
Component 2	Pilot projects of systems that incorporate AI based on the Korean experience <sup>21</sup>	<b>200,000</b>
Component 3	Strengthening capacity on education and human capital development in LAC	<b>100,000</b>
	<b>Total</b>	<b>500,000</b>

- 3.5 **Acquisition.** The activities to be financed under this operation have been included in the Procurement Plan (Annex III) and will be executed in accordance with the Bank's established procurement methods, namely: (i) Contracting of individual consultants, as established in the regulations AM-650; (ii) Hiring of consulting firms for services of an intellectual nature according to GN-2765-4 and its associated operational guidelines (OP-1155-4) and (iii) Hiring of logistics services and other services other than consulting, according to the policy GN-2303-28. The team project will present progress in the delivery of planned outputs through the annual and final TC monitoring reports.
- 3.6 All knowledge products derived from this CT will be the intellectual property of the Bank.
- 3.7 **Monitoring and reporting.** Information related to the progress reports and financial reports will be informed annually through the Technical Cooperation Monitoring and Reporting System (OP-1385-4). The Bank through the ICS Division is in the unique position to execute this TC; and its technical capacity, expertise and direct involvement on institutional strengthening will enhance the achievement of the outcomes included in this TC. The coordinator of this TC will be the team leader of the project. The technical counterparts will be the agencies in charge of digital government. Therefore, ICS will assume a coordination role, facilitate the hiring and manage the disbursement processes as it is stated in the Operational Guidelines for Technical Cooperation Products (GN-2629-1). In addition, IFD/ICS has also accumulated considerable experience in implementing the cooperation and convening different stakeholders in the Bank and in LAC countries to achieve fruitful exchanges.

#### **IV. Executing agency and execution structure**

- 4.1 The TC will be executed by the Inter-American Development Bank (IDB), through the Innovation in Citizen Services Division (IFD/ICS). IFD/ICS has a long track record in supporting Latin American and Caribbean countries' digital government reforms. The focal point for the regional execution of this TC from Headquarters will be the Senior Specialist in Digital Government, who will supervise the TC components in coordination with the respective Country Office and IFD/ICS Specialists in the participating countries. Specifically, the Data and Digital Government Cluster in ICS will be responsible for the execution of this TC since it has: (i) a significant demand

<sup>21</sup> The topic of pilot and the country selected may change according to the countries needs and demands identified in the public policy dialogues and conclusions obtained.

from digital agencies to accelerate the digital transformation agenda; (ii) a proven track record in providing technical assistance in these areas, supported by extensive technical and operational expertise in the execution of projects of this kind in the region<sup>22</sup>; and (iii) experience in selecting international experts in this field to successfully implement the envisaged activities.

**4.2 Sustainability and Results.** The outcomes of this initiative are multi-faceted and hold great promise for digital transformation maturity in LAC countries.

- (i) Firstly, the creation and deployment of an advanced AI-based system to underpin digital government development establishes a unified framework for regulatory practices. This system simplifies the development and implementation of regulatory requirements, fostering a cohesive regional ecosystem that adapts to each country's unique needs. As a result, it narrows the gap between digital government ideals and the current state of digital governance in the region.
  - (ii) Secondly, the deployment of AI pilots within public administration significantly enhances citizen services. These initiatives leverage cutting-edge technologies to streamline processes, boost efficiency, and provide citizens with more personalized and effective solutions. By facilitating data-driven decision-making and automating routine tasks, these systems make the public sector more responsive, cost-effective, and citizen-centric, contributing to a more efficient and modernized government.
  - (iii) Lastly, the training programs for both officials and citizens further the initiative's impact. They equip government employees with the knowledge and skills required to leverage AI effectively in public administration, leading to improved governance. Concurrently, educating citizens empowers them to make informed decisions, engage in public discourse, and capitalize on opportunities arising from AI. Through these efforts, the initiative successfully bridges the knowledge gap, creating a well-informed and AI-savvy society, ultimately promoting the widespread adoption of AI throughout the region.
- 4.3** This TC includes a Results Matrix that will reflect the fulfillment of the committed products. The expected result is to assist beneficiary countries to strengthen artificial intelligence public policies at the national and sectorial levels. The sustainability of the project's products will be safeguarded based on the fact that it is the fulfillment of international commitments to which the beneficiary countries have adhered, and the counterparts are technical level institutions that respond to public policies of emerging technologies in the respective public administrations. The Data Governance and Artificial Intelligence thematic group<sup>23</sup> within the Red Gealc will be an integral part of the consultation and decision-making process for the activities under this TC. Given that its members represent key AI teams within LAC government, their expertise and insights will be sought alongside other stakeholders for a comprehensive approach.

## V. Major issues

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<sup>22</sup> Strengthening of Cybersecurity in Uruguay (4843/OC-UR); Strengthening Cybersecurity Capacity in LAC (ATN/FG-16633-RG and ATN/CF-19154-RG); Improving human resources capacity in cybersecurity (ATN/CF-15598-RG); Generation of Knowledge and Support to Governments in LAC in Cybersecurity (ATN/OC-18936-RG), among others.

<sup>23</sup> The Data Governance and Artificial Intelligence [thematic](#) group



- 5.1 The team does not identify any substantial risk associated with the implementation of this TC. However, it is also possible that the national counterparts do not have the technical capacity to implement the digital solutions and the proposed policies that are included in this TC. To this end, the Bank will accompany the teams with specialized profiles that allow the terms of reference and specific products to be achieved to be defined with the counterparts and thus achieve sustainable results. In addition, the implementation of AI projects in the public sector usually could entail risks such as data privacy and security concerns, bias and discrimination in AI algorithms, lack of transparency in decision-making, public acceptance challenges, data quality issues, budgetary constraints, ethical and regulatory compliance considerations, technology dependency, potential job displacement, and uncertainty due to rapid technological advancements and policy changes. Mitigating these risks requires transparent and ethical project design and management, adherence to relevant laws and regulations, community engagement, staff training, and ongoing monitoring to ensure responsible and successful AI adoption in the public sector.

**VI. Exceptions to Bank policy**

- 6.1 No exceptions to Bank Policies apply.

**VII. Environmental and Social Aspects**

- 7.1 This TC is not intended to finance pre-feasibility or feasibility studies of specific investment projects or environmental and social studies associated with them; therefore, this TC does not have applicable requirements of the Banks Environmental and Social Policy Framework (ESPF).

**Required Annexes:**

[Request from the Client\\_18661.pdf](#)

[Results Matrix\\_18142.pdf](#)

[Terms of Reference\\_37809.pdf](#)

[Procurement Plan\\_99999.pdf](#)