**TC ABSTRACT**

**I. Basic Project Data**

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| ▪ Country/Region: | REGIONAL/IDB |
| ▪ TC Name: | InfraDigital - Promoting Digital Transformation for Infrastructure and Energy Sectors in LAC |
| ▪ TC Number: | RG-T4098 |
| ▪ Team Leader/Members: | RIOBO PATINO, JAIRO ALEXANDER (INE/TSP) Team Leader; IRIGOYEN, JOSE LUIS (INE/ENE) Alternate Team Leader; CALDO, ALEJANDRA ANAHI (INE/TSP) Alternate Team Leader; BASANI, MARCELLO (INE/WSA); CALATAYUD, MARIA AGUSTINA (INE/TSP); ADRIANA UNZUETA SAAVEDRA (INE/INE); MARIA PFEIFER (INE/INE); NATALIA ALMEIDA (LEG/SGO); DE AZEVEDO, EDUARDO HENRIQUE (KIC/ICD); EMILIA MOLINA (INE/TSP); GONZALO RODRIGUEZ VALVERDE (INE/TSP) |
| ▪ Taxonomy: | Client Support |
| ▪ Number and name of operation supported by the TC: | N/A |
| ▪ Date of TC Abstract: | 22 Mar 2022 |
| ▪ Beneficiary: | Colombia, Paraguay and Uruguay. |
| ▪ Executing Agency: | INTER-AMERICAN DEVELOPMENT BANK |
| ▪ IDB funding requested: | US$770,000.00 |
| ▪ Local counterpart funding: | US$0.00 |
| ▪ Disbursement period: | 36 months |
| ▪ Types of consultants: | Individuals and firms |
| ▪ Prepared by Unit: | INE-Infrastructure and Energy Sector |
| ▪ Unit of Disbursement Responsibility: | INE/INE-Infrastructure and Energy Sector |
| ▪ TC included in Country Strategy (y/n): ▪ TC included in CPD (y/n): | No No |
| ▪ Alignment to the Update to the Institutional Strategy 2020-2023: | Social inclusion and equality; Productivity and innovation; Economic integration; Institutional capacity and rule of law; Environmental sustainability; Gender equality |

**II. Objective and Justification**

2.1 This Technical Cooperation (TC) aims to promote digital transformation for infrastructure and energy service providers, the public sector, and consumers, combined with the promotion of innovation in the ecosystem. The furtherance initiatives are:   
(i) the framework of digital roadmaps; (ii) open innovation processes;(iii) the incorporation of digital components in operations; and (iv) the development of prototypes, tools, technologies, and digital platforms.

2.2 Digital transformation for infrastructure and energy services in Latin America and the Caribbean (LAC) can improve the provision and increase the coverage of services, with the consequent impact on the citizens' life quality and the opening towards greater social and gender inclusion. Furthermore, investment in new technologies paves the way for a sustainable and resilient infrastructure that supports the following benefits: (i) increased productivity and efficiency of companies involved in the provision of services;   
(ii) automation of activities; (iii) creation of new services and products; (iv) optimization and management of installed assets; (v) cost reduction of the value chain;   
(vi) improvement and transparency with the public sector; (vii) precision and efficiency in decision-making; and (viii) empowerment of users regarding services.

2.3 Understanding the importance and associated risks, this TC will cover the following components to strengthen the digital and innovation transformation: (i) build digital transformation roadmaps for the energy, transportation and water and sanitation sectors; (ii) execute an open call within the open innovation process; (iii) incorporate digital components in infrastructure operations; and (iv) support the development of infrastructure and innovation and technology tools.

2.4 This TC is strategically aligned with the Second Update to the Institutional Strategy 2020-2023 (AB-3190-2) in the development challenge of Productivity and Innovation,   
by helping to improve the innovation capacity of public sector agencies and service providers. It is also aligned with the cross-cutting areas of: (i) Climate Change (CC) and Environmental Sustainability, by promoting innovation and digital technologies that enable projects that reduce pressure on the environment and strength resilience to CC impacts; (ii) Gender Equality and Diversity, by capturing data disaggregated by type of user to ensure that policy recommendations are sensitive to the needs of these groups; and (iii) Institutional Capacity and Rule of Law, by strengthening of planning capacities in the public sector through the availability of more data and more robust models for decision making. In turn, it improves transparency by promoting digital platforms as an information center. It also generates roadmaps as the primary source of direction for planning technological investments and development projects in the region. Likewise, the TC is aligned with the Bank's [Vision 2025. Reinvest the Americas: A Decade of Opportunity](http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=EZSHARE-1618510001-5370&CONTDISP=inline), especially with the priorities of Digital Economy, Support for SMEs, and Regional Integration by incorporating and promoting new and innovative technologies, digital transformation in the public sector and among services providers, and a more thriving innovation ecosystem. By using digital technologies, infrastructure and energy sectors raise their performance by increasing efficiency, associated with task automation and cost reduction, thus generating greater global competitiveness and regional integration.

2.6 The expected results and benefits for the countries include: (i) roadmaps for the implementation of digital transformation of public sector agencies and infrastructure services providers; (ii) identification of entrepreneurs and startups who provide solutions to specific sectorial problems in the infrastructure and energy sectors; (iii) a catalogue of innovative solutions that can be included in INE´s operations; and (iv) digital solutions that provide solutions to specific sectorial problems.

**III. Description of Activities and Outputs**

3.1 **Component I. Build a roadmap for the implementation of digital transformation for the energy, transportation, and water and sanitation sectors (US$130,000.00).**It will finance the diagnostic of digital transformation, identify gaps concerning leading countries worldwide, and propose policy recommendations based on best practices to build an institutional and policy architecture that facilitates early adoption and leapfrogging of technologies applied to the infrastructure and energy sectors. In addition, it will ensure strategic alignment with productivity and innovation, institutional capacity and the rule of law, and environmental sustainability.

3.2 **Component II. Execute an open call within the open innovation process (US$110,000.00).** It will finance an open call to the entrepreneurial community to present innovative solutions to some of the region's main challenges of infrastructure services. In addition, it will analyze the degree of innovation, costs, implementation times, functionality, and impact on social inclusion and gender equality of the proposals. Winning solutions will be financed and accompanied in their adaptation and implementation processes.

3.3 **Component III. Incorporate digital components and activities in the infrastructure and energy sectors operations (US$150,000.00).** It will finance the human resources and Information Technologies (IT) infrastructure needed to provide a continuous repository of innovative solutions that can be included in INE´s operations. In addition, it will create a collaborative tool to track the pipeline and manage the data needed to feed digital components and activities for energy, water and sanitation, and transportation operations.

3.4 **Component IV. Support the development of digital innovation and technology tools (US$380,000.00).** It will finance the development of prototypes of Big Data, Machine Learning, Artificial Intelligence, the Internet of Things, and IT that provide solutions to sectorial problems in the beneficiary countries. In addition, it will finance the development, implementation, training, and dissemination of open-source digital applications that can be replicated in other countries. This will provide productivity gains and contribute to environmental sustainability.

**IV. Budget**

**Indicative Budget (US$)**

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| **Activity/Component** | **IDB/Fund Funding** | **Total Funding** |
| **Component I.** Build a roadmap for the implementation of digital transformation for the energy, transportation, and water and sanitation sectors | 130,000.00 | 130,000.00 |
| **Component II.** Execute an open call within the open innovation process | 110,000.00 | 110,000.00 |
| **Component III.** Incorporate digital components and activities in the infrastructure and energy sectors operations | 150,000.00 | 150,000.00 |
| **Component IV.** Support the development of digital innovation and technology tools | 380,000.00 | 380,000.00 |
| **Total** | **770,000.00** | **770,000.00** |

**V. Executing Agency and Execution Structure**

5.1 The executing agency will be the IDB, which will act in coordination with the relevant stakeholders of the competent bodies of the infrastructure and energy sectors, the private sector and other related stakeholders.

5.2 The IDB's execution is justified by its experience in: (i) institutional strengthening in the infrastructure and energy sectors; (ii) digital transformation and innovation technologies; and (iii) exchange of international experiences and best practices. Therefore, the Bank will be responsible for the procurement of consulting and non-consulting services in accordance with applicable policies and procedures. The INE/INE team in   
Washington D.C. will be in charge of supervision.

**VI. Project Risks and Issues**

6.1 The analysis identified as a risk the eventual low involvement of relevant stakeholders in the design and implementation of digital roadmaps and pilots. This risk is mitigated by close policy dialogue and collaboration between Infrastructure and Energy Sector Department (INE) of the IDB and relevant public stakeholders in the region. Another risk is the eventual low participation of entrepreneurs in the open call. This risk is mitigated by close interaction with the digital ecosystem, leveraged on experience of the Knowledge, Innovation and Communication Sector (KIC) of the IDB. Finally, the development of digital tools involving new technologies presents a risk by its innovative nature. This risk will be mitigated by a thorough review of previous experiences and the use of agile methodologies.

6.2 Additionally, due to the nature of this TC, no environmental or social risks associated with its implementation have been identified.

**VII. Environmental and Social Classification**

7.1 The ESG classification for this operation is "undefined".