

TC Document

I. Basic Information for TC

▪ Country/Region:	REGIONAL
▪ TC Name:	Digital Platform for Municipal Citizen Security Plans
▪ TC Number:	RG-T4208
▪ Team Leader/Members:	Serrano Berthet, Rodrigo (IFD/ICS) Team Leader; Sposito Gutierrez, Ana Laura (KIC/ISU) Alternate Team Leader; Alejandra Aguilar (IFD/ICS); Alvarado, Nathalie Tatiana (IFD/ICS); Doris Henriquez (IFD/ICS); Hugo Angel (ITE/IPS); Julia Dias (KIC/ICD); Laura Rodriguez (IFD/ICS); Mariana Catano Jorgenson (IFD/ICS); Rojas Gonzalez, Sonia Amalia (IFD/ICS); Sara Vila Saintetienne (LEG/SGO); Seabra, Juliano (KIC/ICD).
▪ Taxonomy:	Client Support
▪ Operation Supported by the TC:	.
▪ Date of TC Abstract authorization:	14 Oct 2022.
▪ Beneficiary:	Municipal governments of Florianopolis, Brazil, and a second city in Mexico or Chile.
▪ 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):	24 months
▪ Required start date:	January 2023
▪ Types of consultants:	Individual consultants, and Firms
▪ 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):	N
▪ TC included in CPD (y/n):	N
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Productivity and innovation; Institutional capacity and rule of law; Gender equality; Gender and diversity.

II. Objectives and Justification of the TC

- 2.1 Crime and violence (C&V) are one of the main development challenges in Latin America and the Caribbean (LAC). Sustainable reduction in C&V levels requires an integrated approach that includes not only policing, but also social assistance, education, health, and urban interventions that address the risk and protective factors associated with C&V. This approach follows the Citizen Security and Justice Sector Framework Document (GN-2771-7), which has as one of its main focuses the social prevention of C&V through tackling the multiplicity of risk factors in the life course of an individual.

- 2.2 Following our updated institutional strategy (AB 3190-2), this integrated approach is key to promote social inclusion and equality through a citizen security strategy, responding to the issue through a multi-sectoral and transparency lens. It also furthers the IADB's agenda to promoting state-of-the-art technology and innovation applications to help reduce LAC's technological gaps.
- 2.3 An integrated approach also needs to take place at the local level since C&V is highly concentrated in a few places, people, and behaviors (Chainey et al, 2019). Local governments are best placed to design and implement this integrated local approach since they have the multi-sectoral and local mandate and knowledge required to make it work. Most local governments lack the capacity and tools to lead this process.
- 2.4 The objective of this technical cooperation (TC) is to develop a digital platform that helps local governments design and implement data-driven, evidence-based integrated citizen security municipal plans, thus improving the transparency, effectiveness, and efficiency of municipal spending.
- 2.5 The platform is envisioned to contain six main functionalities: (i) integration of georeferenced data from policing, social services, health, education, city infrastructure, etc. from municipal and state sources; (ii) a data-driven diagnosis of the municipality's crime and violence challenges and probable causes; (iii) suggestions of evidence-based interventions from LAC and around the world that are best suited for the municipality according to its diagnosis; (iv) automatic structuring of the municipality's citizen security plan according to choices made through the platform's steps; (v) collaborative and participative monitoring of the Plan's based on citizen inputs and crime and violence updated data; and (vi) systematization of data security and privacy protocols and ethical assessment of the platform's output.
- 2.6 A partnership between KIC and ICS has allowed the team to develop a prototype ("in paper") of what this digital solution could be, and to start creating (programming) a Minimum Viable Product (MVP) through a partnership with the city of Florianopolis in Brazil. This partnership has allowed the team to make some progress in the first three functionalities. This TC is critical to help the team finalize and consolidate the product in Florianopolis as well as test and adapt it in a second city in Mexico or Chile, to be decided depending on which country offers the best conditions for adoption and sustainability. The second city will be selected based on the following criteria: i. Population size (between 100,000 and 2 million); ii. Local government's institutional capacity (availability of data for main problems/causes); iii. Local leaders' engagement with the project (identification of "champions" that can work as a pivotal counterpart in the city, facilitating the work, especially concerning the data collection and the structuring and monitoring of the citizen security plan); and iv. Last, but not least, we will also consider IDB local representation's priority as well as the national government's priorities.
- 2.7 The support of Korea, which is well known for its cutting-edge innovation and technology efforts as well as its positive citizen security indicators, will be essential to guarantee the platform's success, both in terms of the quality of the platform programming itself, as well as of the evidence-based solutions it suggests.
- 2.8 The IDB will seek to collaborate and establish partnerships with well-established and reputable Korean institutions such as the Korean Institute of Criminology and Justice (KIJC) to facilitate the identification of evidence-based practices and programs that have been successfully implemented by Korean authorities and that can be added to

the list of evidence-based interventions that the platform will suggest to city officials, according to their relevance to the municipality's diagnosis.

- 2.9 The IDB will also seek to establish additional partnerships with Korean governmental and non-governmental entities, which are relevant to assisting the municipalities in building the required capabilities to implement these interventions. An example would be the Seoul Metropolitan Government, which successfully implemented a Crime Prevention Through Environmental Design (CPTED) project. Furthermore, the platform will contribute to the promotion of Korean technologies in LAC, such as those developed by the Korean company One More Security (OMS), which could be incorporated into the platform as tools for enabling and/or facilitating the implementation of the evidence-based policies that the platform will recommend to users. The IDB will maintain active coordination with Korea Trust Funds to identify further opportunities for relevant Korean technological companies and digital products.
- 2.10 This TC is consistent with the Second Update of the Institutional Strategy (UIS) (AB-3190-2) through the objective of Social Inclusion, by promoting access to violence prevention services for women and LGBTQ people as part of municipal citizen security plans. In addition, it is also consistent with the following cross-cutting themes: (i) "Promoting gender equality, diversity and inclusion", through actions focused on incorporating the gender perspective internally and externally in security and justice institutions and providing for improvements in services for women, girls and LGBTQ+ population; and, (ii) "Institutional capacity and rule of law", by strengthening service delivery, public management and integrity in the public security and justice sector. The TC also aligns with the IDB Group's Sector Frameworks on Citizen Security and Justice (2022) and Gender and Diversity (2022). It is also aligned with the IDB Group Gender and Diversity Action Plan 2022-2025.

III. Description of activities/components and budget

- 3.1 **Component I. Product development and consolidation in Florianopolis (US\$175,000).** This component consists of the following activities: (i) Platform's back-end and front-end development, including scalable data treatment models and infrastructure, visualization tools, interactive features based on user experience, etc., to all product components; (ii) evaluation of the effectiveness, usability, and bottlenecks of the platform and all its components; (iii) platform's back-end and front-end improvement based on the evaluation of the initial results at Florianopolis; and (iv) Consolidation of a preliminary business model that will allow Florianopolis to use the platform in the long term. This component's key deliverables/outputs will be a virtual platform designed and a web portal developed. This component's expected result/outcome is a citizen security plan designed through the tools and modules offered by the Safe Cities Platform (in Florianópolis).
- 3.2 **Component II. Product implementation and consolidation in a second city in Mexico or Chile (US\$175,000).** This component consists of the following activities: (i) adaptation of the platform to the second city's context and data; (ii) evaluation of the effectiveness, usability, and bottlenecks of the platform and all its components; and (iii) consolidation of a product and definitive business model that is scalable to medium size cities throughout LAC through IDB's loans, technical cooperation, and fee for services. This component's key deliverables/outputs will be a virtual platform designed and a web portal developed. This component's expected result/outcome is a citizen security plan designed through the tools and modules offered by the Safe Cities Platform (in the second city yet to be determined).

Indicative Timetable

COMPONENT/ ACTIVITY	MONTHS																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
I.i. Platform's back-end and front-end development in Florianopolis	x	x	x	x	x	x	x																	
I.ii. Evaluation of the effectiveness, usability, and bottlenecks of Florianopolis' version								x	x															
I.iii. Platform's back-end and front-end improvement based on the evaluation										x	x	x												
I.iv. Consolidation of a preliminary business model													x	x										
II.i. Adaptation of the platform to the second city															x	x	x	x	x					
II.ii. Evaluation of the effectiveness, usability, and bottlenecks																			x	x				
II.iii. Consolidation of a product and final business model that is scalable to medium size cities throughout LAC																					x	x	x	

- 3.3 All data-science-related and programming-related activities and products will be developed by specialized and high-quality providers/vendors, which will be selected and hired by the executing agency (IDB/IFD/ICS), under the coordination of this TC's team leader and following all relevant procurement policies from the Bank (for further information, see Procurement Plan - Annex IV).
- 3.4 For both components, a critical input will be the hiring of a South Korean consultant for up to two years based in ICD/KIC (one year with a possibility for extending it to one more year). Besides strengthening the ongoing collaboration between Korea and IDB through knowledge sharing, communication, and administrative support, this consultant will support the development and implementation of Safe Cities in the data

analysis pillar of the platform, which includes activities and responsibilities such as data gathering and anonymization; developing scalable data ingestion models; setting up data infrastructure; and programming recommendation algorithms to link crime problems to possible causes and solutions.

- 3.5 Progress reports will be presented to report on progress in the activities and in the intermediate and final results of this TC. The results and products of the TC will be disseminated through hybrid seminars and workshops, as well as through publications and working documents, and the Bank's institutional blogs. The products and results of the TC will be shared with the KPC's appointed focal point(s), and the Fund will be adequately recognized in the knowledge products and dissemination of TC results. An assessment of the achievements and challenges of the TC will be made at the time of its closure. These supervision, monitoring and evaluation arrangements and activities will be financed through the project's budget (see below).
- 3.6 All knowledge products derived from this TC will be the Bank's intellectual property
- 3.7 Some of the resources of this TC will be allocated to developing a business model, which will include the project's long-run sustainability. However, the TC team's initial proposal is that the platform's maintenance (including cloud services and updating the data for problems and causes) will be funded and executed by the client government, which can happen through IADB loans.
- 3.8 The total amount funding amount for this TC is \$500,000 (non-reimbursable) to be financed with resources from the Knowledge Partner Korea Fund (KPK) for Technology and Innovation.

Indicative Budget

Activity/ Component	Description	IDB/Fund Funding	Total Funding
Component I	Product development and consolidation in Florianopolis (includes hiring consultants and firm)	\$175,000	\$175,000
Component II	Product implementation and consolidation in a second city in Mexico/Chile (includes hiring consultants and firm)	\$175,000	\$175,000
South Korean Consultant	Hiring of a South Korean consultant for up to two years based in ICD/KIC	\$150,000	\$150,000
Total		\$500,000	\$500,000

IV. Executing agency and execution structure

- 4.1 Given the nature of the project and the requests from the governments involved (see Annex I the IDB will execute the TC through the Innovation for Citizen Services Division (IFD/ICS). The technical counterpart will be subnational secretaries of citizen security. They will commit to support the provision of required information for the development of the products and to facilitate the Bank's and/or hired parties access to the required databases. The IDB should receive written confirmation of those commitments, in form and content that satisfies the requirements of the Bank before the start of operations in each jurisdiction.
- 4.2 This operation will benefit from the Bank's execution with regards to all the hiring and procurement processes, which will be done directly and exclusively by the Bank given

the comparative advantage to articulate the efforts of different actors and entities involved at the national, state, and municipal level, both in public, civil society, and private sectors.

- 4.3 At the request of the beneficiaries, this TC will be executed by the Bank's Innovation in Citizens Services Division (IFD/ICS) in accordance with the respective Country Office of the participating countries. In accordance with (OP-619-4) Annex 2, Bank execution – including selection and contracting of consultancy services on behalf of the beneficiary – is justified because for several years the Bank has partnered with governments in the region on their challenge to improve the design, implementation, and supervision of citizen security plans and with the development of similar platforms (ex.: *"PROSEG Federativo"*). While interventions have encompassed many sectors, IFD/ICS has been the unit responsible for the management aspects of these interventions.
- 4.4 All activities to be executed under this TC have been included in the Procurement Plan (see Annex IV) and will be contracted in accordance with Bank policies as follows: (a) AM-650 for Individual consultants; (b) GN-2765-4 and Guidelines OP-1155-4 for Consulting Firms for services of an intellectual nature, and (c) GN-2303-28 for logistics and other related services.

V. Major issues

- 5.1 Given the nature of the project, one of the issues that will have to be dealt with is access to data. First, the data used by the platform in its "diagnosis" module will come from databases managed by local government agencies (Security, Education, Health, Social Assistance, Urbanism, etc.). As such, the platform will depend on local agencies being willing to share this data with the executing agency.
- 5.2 A second issue would be data anonymization. Given the scope of this project, much of the data involved in the "data-driven diagnosis" refers to information regarding either perpetration, involvement, or victimization in violent/criminal activities. To ensure compliance with data protection regulations and to protect the identity of the people involved, anonymization procedures will have to be implemented.
- 5.3 To mitigate risk related to data access, security, and privacy, the platform's first prototype is being developed with the municipality of Florianopolis through an already signed agreement with the city for data access, which includes data privacy protocols across implicated secretaries. The same practice will be applied in the second city in Mexico or Chile.
- 5.4 In what concerns anonymization, specifically, a partnership with KIC/ISU's data scientist team has allowed for the development of an anonymization utility/tool which is already being tested by Florianopolis city officials. This digital tool will ensure that city officials can independently work on the anonymization themselves and only share with the executing agency and its partners information that has already been anonymized.
- 5.5 Last but not least, the project might face resistance by public agencies to use the platform, provided that it will promote a change how local governments usually identify and address priorities in the crime and violence prevention field. To mitigate this risk, IDB's team is already building a network of "sponsors" / "champions" with whom constant interaction will be maintained throughout the project. Moreover, this risk will also be mitigated by the provision of technical assistance and by assigning a solid team that will be dedicated to the project. The specific nudges to be developed and

the specific goods to maximize will be determined in close collaboration with each local government, attending to local needs.

VI. Exceptions to Bank policy

- 6.1 This subheading should identify and address any exceptions to Bank policy.

VII. Environmental and Social Strategy

- 7.1 This TC will not finance feasibility or pre-feasibility studies of investment projects or associated environmental and social studies, for which reason it does not have applicable requirements of the Bank's [Environmental and Social Policy Framework \(ESPF\)](#).

Required Annexes:

[Request from the Client - RG-T4208](#)

[Results Matrix - RG-T4208](#)

[Terms of Reference - RG-T4208](#)

[Procurement Plan - RG-T4208](#)