



CorLab

Córdoba Govtech
Innovation Lab



Building **MODERN** Cities through Govtech

The case of Córdoba City,
Argentina

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Introduction

New exponential technologies have generated unprecedented changes in the environment, in which local governments operate. In this new context, citizens have changed habits of consumption, mobility, education, and health, among others.

These changes have created new demands from citizens and, therefore, new public challenges for local governments, especially linked to improving, through technology, the quality and scope of public services, such as transportation, lightning, and waste management, among others. However, local governments generally do not have sufficient knowledgeable talent within their organizations to successfully face these new challenges.

On the other hand, exponential technologies have also generated the emergence of a powerful ecosystem of high-impact startups with scalable solutions that innovatively could solve local and global challenges. This entrepreneurial ecosystem represents a great opportunity for governments. The possibility of forming alliances between the public and the private sectors through an open innovation strategy allows governments to have in the short-term innovative solutions already developed by entrepreneurs.

These startups that offer governments solutions through B2G business models and that contribute to the transformation of cities into smart cities, are part of the so-called Govtech Ecosystem. The significant development of this ecosystem allows governments to think about the possibility of a new paradigm in the way of conducting public policies to promote innovation. Thanks to these govtech startups, governments could transform into exponential organizations, that is, organizations that improve the scope and quality of their public services by leveraging new technologies, talents and assets that reside in the ecosystem and that are external to the public organization itself.

Resistance to change in public sector

In local governments of Latin America, we observe high levels of resistance to change. Traditional public organizations characterized by being top-down, bureaucratic, and closed culture see difficulties in adapting to changes in the environment. Among the main causes we can mention the following:

- Bureaucracy and rigid structures.
- Outdated procedures and regulations.
- Risk-averse organizational culture.

- Lack of incentives for innovation.
- Limited resources and talents.

Governments that maintain closed culture, and not very agile organisations, fail to adapt their public programs and services to the main needs of citizens. In this way, we generally find local governments characterised by: a) lack of adaptation to changes in the environment; b) public services unconnected from new technologies; c) operational inefficiencies; d) bad reputation with the public opinion; e) low level of citizen participation; and, f) difficulties in attracting new talent to the public sector seeking to perform in challenging activities.

The govtech ecosystem represents a great opportunity for these governments to open to up innovation and begin to co-design, co-create and implement innovative solutions in alliance with high impact entrepreneurs.

Next, we are going to present the case of the local government of Córdoba in Argentina. In 2020, the highest political authorities of the local government, Martín Llaryora and Daniel Passerini, implemented a govtech strategy to accelerate public innovation processes with the objective of transforming Córdoba into a more intelligent, inclusive, and sustainable city.

9 actions for openness to change: the Córdoba City's govtech strategy

In 2020, the Government of the city of Córdoba began to implement a comprehensive govtech strategy under an open innovation approach with the aim of generating openness to change, that would allow to accelerate public innovation processes to solve new city challenges, in terms of social, environmental, and economic issues.

Below is a brief description of the 9 main actions implemented by the Government of Córdoba City between January 2020 and December 2023:

Action 1: Creation of the Govtech Innovation Laboratory, CorLab.

CorLab, the first Govtech Innovation Lab in Argentina, was launched in May 2020 with the objective of building a bridge between the new public and social challenges that arose in the city, and the technological solutions developed by the govtech ecosystem in Latin America. CorLab arises as a government program under the scope of Córdoba's Board of Innovation. This area within the government had an interdisciplinary work team initially composed of five people (nowadays there are twelve people) with high technical profiles specialised in public policies and the entrepreneurship and innovation ecosystem.

Action 2: Mapping the Govtech Ecosystem

Once CorLab was created, the Lab's first project was to research and list entrepreneurial support institutions, such as startup incubators and accelerators: 20 local institutions were found. In association with these, the startups began to be mapped, 290 local startups were found. Then, knowing the technological products of mapped companies, these startups were classified according to their potential to offer public value through their solutions: 90 govtech startups were found.

With this information, the Córdoba Govtech Solutions Radar was created to allow different areas of public management to conduct technological surveillance. Here, public officials can search innovative solutions in different areas, like mobility, accessibility, circular economy, governance, education, health, culture, communication, and competitiveness, among others.

Action 3: Govtech Demo Days

The govtech startups periodically present their innovative solutions to public officials from the different areas of public sector in these events called Demo Days. This facilitates the public-private partnerships in pursuit of solving public challenges of the city.

Demo days are very important to bring innovation opportunities from the entrepreneurial ecosystem to the public sector. CorLab has organised around five Govtech Demo Days per year, having presented over 60 govtech startups to public authorities during the last four years.

Action 4: Public Innovation Challenges

CorLab has launched different Innovation Challenges in collaboration with different areas of Government. These calls for startups allow them to present proposals of innovative solutions. The most relevant proposals received financing and technical support for their implementation.

In three years, there were six Innovation Challenges launched by CorLab. This allow more than 80 public and social innovation projects to be implemented in the city of Córdoba under a public-private partnership.

Action 5: Public Procurement of Innovative Solutions

CorLab has designed a new regulatory framework to promote public procurement of innovation (PPI) and entrepreneurial public procurement (PPE). Traditionally, public procurement documents oblige the public agent to describe in detail the solution to be acquired. But what happens if the Government knows the challenge to be solved but not the solution it should contract? These new regulatory frameworks precisely collaborate in

contracting schemes that foment competitive dialogue and private initiative, allowing governments to publish in documents the challenges to be resolved before the solutions are contracted.

Furthermore, to promote the local entrepreneurial ecosystem, these new frameworks allow specifying characteristics or criteria that potential suppliers must meet, for example, that they be early-stage technology companies (startups).

Action 6: Innovative Culture in Public Sector

To strengthen govtech demand, CorLab is training public servants from the different areas of the Municipality in partnership with National University of Córdoba. More than 400 public officials and agents have been trained on innovation, govtech and smart cities.

This action is highly relevant because it allows the "innovation culture" to be spread in the public organisation, making it more inclined to work together with the private sector on innovative projects. For example, we are working not only on learning new methodologies, but also on knowledge and practice in posting public innovation challenges.

Action 7: Promote Govtech Entrepreneurship

CorLab has supported more than 80 startups for their growth through bootcamp, incubation and acceleration programs provided by the Incutex Entrepreneurship Accelerator.

This is an important initiative to develop more and better govtech startups. They must be prepared to work with the public sector. In this case, the aim is to strengthen the offer of govtech solutions.

Action 8: Govtech Startup Investment Fund

The Córdoba Smart City Fund is the first experience of a Government in Latin America investing in startups through venture capital. The main objective of this Fund is to implement an open innovation strategy in the Government, promoting public-private partnerships for the implementation of innovative solutions in the city. Invested startups implement their solutions in the city and these solutions contribute to transform Córdoba in a smarter city. Meanwhile, it boosts the city's entrepreneurship and innovation ecosystem because startups not only receive funds, but also, they receive technical support and the possibility to validate their innovative products.

This is a smart program because when the govtech startups implement their solutions in Córdoba with the local government, the value of them increases, and therefore the value of the Fund increases as well.

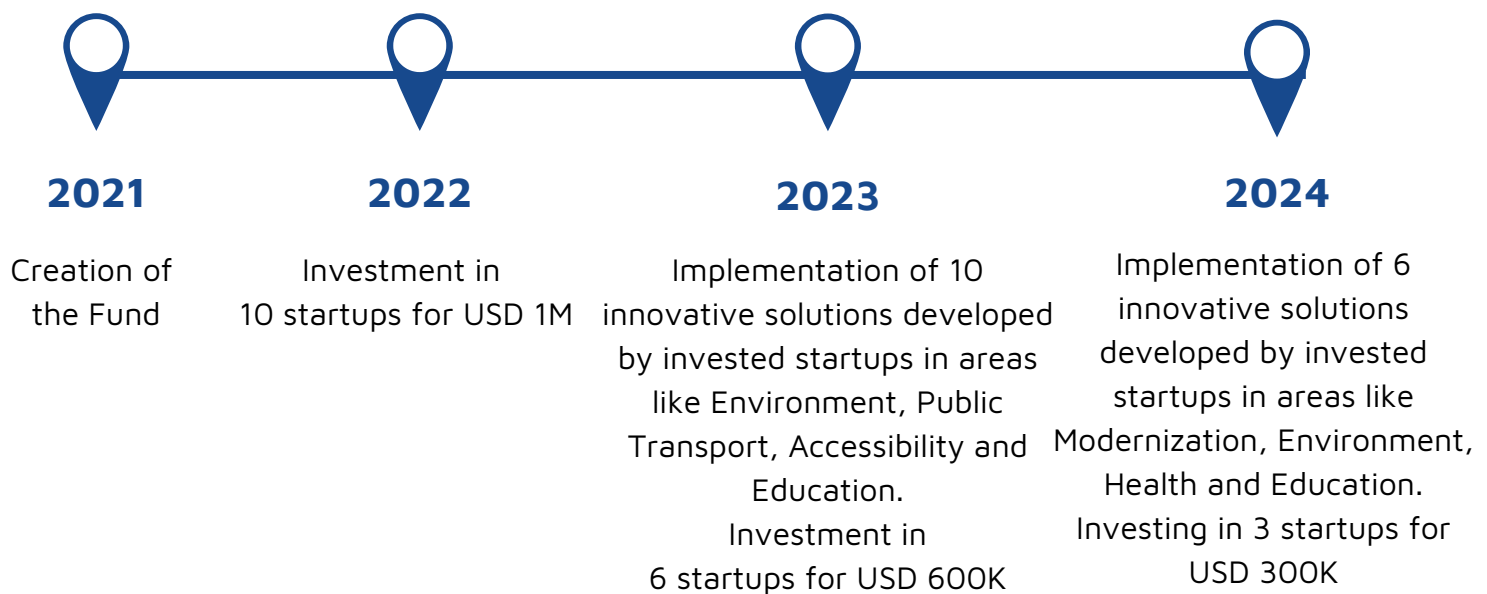
In 2021, the Development Bank for Latin America (CAF) provided technical assistance to CorLab for the design of the Córdoba Smart City Fund. Later, this Fund was created through local legislative regulation. It is funded with 1% of the city's commercial and industrial taxes annually.

As the Fund allows the incorporation of external investors, IDB Lab provided funding of USD 600K to co-invest with the Local Government of Córdoba.

Finally, the Fund also works like a soft-landing program for foreign startups who want to operate in Córdoba. The Fund can invest not only in startups from Córdoba, but also from Latin-America.

For the last 2 years, the Local Government of Córdoba has invested through this Fund in 16 govtech startups (14 from Argentina, 1 from Chile and 1 from Colombia) the amount of USD 1.6 million. BID Lab has joined co-financing these projects.

Córdoba Smart City Fund Chronology



Action 9: Implementing Govtech Solutions

The govtech startups invested by the Fund have to implement their innovative solutions in the city working together with public agents of the local government. The scale of these solutions is a pilot where startups can validate the public value of their products. Also, authorities of the local government can see the impact of the solutions. So, the Fund is not only promoting the growth of the govtech startup ecosystem, but it is also building and strengthening links between technological entrepreneurs and public agents in order to accelerate public innovation in the city and improve the quality of life for the citizens.

There are some examples of these implemented solutions from invested govtech startups that we can show. Here there are the cases of Procer Inclusive Technologies, Carbon Neutral Plus, Loopfarms and Alpha-G.



Technological innovation for the inclusion and independence of people with visual disabilities.

DESCRIPTION: It develops innovative solutions for people with visual disabilities and difficulties in accessing reading, which facilitates daily life tasks and improves performance in educational and work settings.

These are technological devices that allow the user to read on any surface, handwritten text and digital content.

IMPLEMENTATION: Twelve technological devices were delivered to local educational institutions, twenty teachers were trained, benefiting three hundred and sixty students. For people who have not accessed conventional reading or writing methods, the device offers other forms of representation and access to the cultural world, through audible reading and the production of texts from voice dictation. It also enables pedagogical intervention strategies on the group through collaborative activities.

ODS
4,10 y 17

CEO: [Manuel Díaz Ferreiro](#)

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DESCRIPTION: Climatech, which provides through a platform a comprehensive solution to measure, reduce and offset greenhouse gas emissions generated by organizations, allowing to obtain an indicator on the direct and indirect environmental impact of their operations in pursuit of achieving carbon neutrality under international certification and positive socio-environmental impact.

IMPLEMENTATION: The carbon footprint was measured, reduced and compensated in four local public spaces, registering 737.27 tons of CO2 equivalent. Environmental greenhouse gas (GHG) indicators were established, environmental impact variables were analyzed and significant emission points were identified. To offset these emissions, measures were implemented such as technological mitigation, use of renewable energy through I-REC certificates and photovoltaic panels, redemption of certified carbon credits and reforestation with 118 white carob trees.

ODS
11, 12, 13 y 17

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Loopfarms
Circular Urban Farming

DESCRIPTION: Generates Smart Urban Farms to produce superfoods through renewable energy and biofertilizers from the recycling of organic food waste.

IMPLEMENTATION: Two Renewable Urban Farms have been installed in two gastronomic hubs in the city. "LoopFarms" treats food waste generated by restaurants and converts it into vegetable superfoods through renewable energy from Biogas.

Thanks to this, during 2023 it was possible to recycle 7000 Kg of processed organic matter, generate 14 M Kcal of energy with biogas (thermal and electrical), and produce 1200 Kg of vegetables superfoods.

ODS
4,10 y 17

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DESCRIPTION: It provides technological solutions that combine Augmented Reality (AR) and Virtual Reality (VR) to help users and organizations better interact with public spaces. This type of combined technology has great benefits when applied in the field of training and in the transformation of physical spaces into digital spaces. user to read on any surface, handwritten text and digital content.

IMPLEMENTATION: The digital solution called "CiudadDigital" is a Culture and Tourism 4.0 platform where Virtual and Augmented Reality is implemented in iconic spaces in the city of Córdoba. Users can access this platform from any device with an Internet connection and take virtual tours with a 360° experience through a friendly and intuitive interface. Additionally, you can access cultural information for educational purposes and general interest. The impact generated by this implementation is cultural, touristic, educational, and social. The solution has an accessibility benefit as well, since this technology allows communicating, for example, access points to places for people with disabilities.

ODS
4,9 y 17

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