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# MEXICO CITY DIGITAL AGENCY FOR PUBLIC INNOVATION:

A PEOPLE-FIRST MODEL FOR CENTRALIZED INNOVATION

Stephen Goldsmith and Christina Nagler

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## About Data-Smart City Solutions

**Data-Smart City Solutions** at the Bloomberg Center for Cities at Harvard University is working to catalyze the adoption of data projects on the local government level by serving as a central resource for city leaders. We highlight best practices, top innovators, and promising case studies while also connecting leading industry, academic, and government officials. Our research focuses on the intersection of government and data and explores innovations in open data, predictive analytics, and civic engagement technology. We seek to discover and preemptively address civic problems by integrating cross-agency data with community data.

## About the Authors

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Mexico City's Digital Agency for Public Innovation and the Llave CDMX effort are supported by Bloomberg Philanthropies' government innovation programs through its Innovation Teams (i-teams) program. This program spreads evidence-based innovation practices that enable mayors to develop and deliver new approaches that help move their cities forward. To date, the [Bloomberg Philanthropies' i-teams program](#) has reached 57 cities across eight countries and four continents, representing over 52 million residents, and inspired hundreds of other cities to embrace innovation tools and approaches.

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Executive Summary

## Executive summary



When we talk about innovation and citizens' rights in Mexico City, we're talking about using cutting-edge technology to bring education, connectivity, and security closer to everyday life while fostering a government that is honest and free of corruption."

- *Claudia Sheinbaum Pardo, Head of Government of Mexico City*<sup>i</sup>

Mexico City's 2018 mayoral election started a new chapter in the city's history. Before the global pandemic cast its long shadow in 2020, the newly elected mayor and her team of changemakers pledged to transform city government through innovative initiatives that centralized historically fragmented operations. To address this goal, Mayor Claudia Sheinbaum Pardo established the city's first public innovation agency. Legislative and organizational advances – and a fierce commitment to improving people's lives – helped to position the mayor's innovation agency for success. Within these pages, we invite you to explore best practices from Mexico City's Digital Agency for Public Innovation around:

- Data-centric leadership
- Effective project planning and execution
- Cross-agency (and -government) data sharing
- Establishing sustainable initiatives

## “Together we will make history.”

In July 2018, Mexico City elected its first female mayor, Claudia Sheinbaum Pardo. After assuming leadership on December 5, 2018, Sheinbaum began enacting her platform for city government: *Together We Will Make History* or *Juntos Haremos Historia*. The Digital Agency for Public Innovation, or Agencia Digital de Innovación Pública (ADIP), was part of Sheinbaum’s original vision for a more inclusive government. With her engineer’s eye for detail, Sheinbaum had spent her career using data to guide decisions and inform her understanding of what was possible. For Sheinbaum and the head of ADIP, José Antonio Peña Merino, data-driven innovation was essential to encourage civic engagement and increase accountability. The three prongs of this work are:

- Simplifying procedures
- Deploying technology to improve public policies
- Reducing corruption

On December 31, 2018, the ADIP was written into law per Mexico City’s Law of Digital Operation.<sup>ii</sup> This milestone would establish the agency’s authority and help ensure its longevity, regardless of future administrations.

Claudia Sheinbaum Pardo, who earned an undergraduate degree in physics and a Ph.D. in energy engineering, does not need to be sold on the power of data. During her doctoral work at the Lawrence Berkeley National Laboratory in Berkeley, California, she analyzed energy usage trends in Mexico’s transportation and building sectors. More than a decade later, in 2007, Sheinbaum joined the Intergovernmental Panel on Climate Change (IPCC) at the United Nations in the field of energy and industry. She contributed to the “Mitigation of climate change” section of the IPCC Fourth Assessment Report, for which she and the team of 11 expert co-contributors later won the Nobel Peace Prize.<sup>iii</sup> In total, Sheinbaum has authored over 100 articles and two books on the topics of energy, the environment, and sustainable development.

## ADIP offers a new model for innovation.



It's a privileged position. Not only because it makes us close to the mayor but to the problems that need solving.”

- José Merino, Founder and Head of ADIP

According to the agency's website, ADIP “is responsible for conducting, designing, and monitoring the implementation of data management, open government, digital government, technological governance, and technological infrastructure governance policies in Mexico City.”

ADIP's ambitious mission required it to operate differently than other government agencies. Boosted by mayoral support, the 750-person agency (made up of 150 innovators and 600 call center operators) needed to borrow from private sector strengths while operating as a citizens-first organization.

**Putting citizens first:** The agency oversees two important policy and procurement functions established to reduce red tape and manage tax-payer costs. By lowering barriers for citizens, ADIP is empowering equal and efficient access for all.

**Operating like a company:** ADIP has redefined the traditional agency emphasis on buying versus building technology solutions, leaning on the latter to create efficiency for taxpayers and offering a new model for government agencies—one that mirrors private sector practices:

- ADIP has sidestepped less efficient legacy systems by applying project management discipline to initiatives, including upfront project definition, timeline accountability, and the clear assignment of stakeholder responsibilities,
- The agency has created meaningful operational cohesion by physically collocating and strategically unifying all data- and technology-related functions.

In conjunction with ADIP's procurement oversight, these alignments have enabled the agency to build more, fail fast, and be discerning about outsourcing investments.



## Operating like a company

The right-sized departmental structure of ADIP includes 150 agency employees and 600 call center operators.

### Production (67 employees)

- Software Factory \*
- Technological and Data Infrastructure
- Connectivity

### Head Office (13 employees)

- Design / UX
- Project management
- Office assistants
- Special projects
- Communication

### Product Owner & Account Manager (46 employees)

- Digital Government
- Data Analysis, Architecture, and Open Government
- Simplification Office

### Governance (26 employees)

- Legal
- Institutional Relations
- Public Relations

### Call Center (600 employees)

- Management
- Open311 employees Locatel – Mexico City's Call Center

\* The Software Factory employs 39 developers, approximately 60 percent of the Production function.

This economical approach is well summarized in the team's unofficial slogan – keep it simple and then scale – or KISS. But before ADIP could make a transformational impact, it had to prove itself.

ADIP founder and leader José Merino has the wide-ranging skillset required to traverse this new terrain. A political scientist, an academic, and a public officer, Merino holds a degree in Political Science and International Relations from the Centro de Investigación y Docencia Económicas, as well as a master's degree in political science from New York University, where he specialized in political economy and quantitative methodology. Merino is also a tech entrepreneur,

founding Data4 in 2013, a company dedicated to data generation, analysis, and visualization. In 2015 he founded Data Civica, a nonprofit that seeks to advance data and technology use by human rights organizations.

In June 2021, Bloomberg Philanthropies awarded a three-year grant to six global cities, including Mexico City. Seventeen million dollars in funding was split among the six cities and intended to build the capacity of innovation teams that support city mayors by using data and digital technologies to enhance public services. ADIP was Mexico City’s beneficiary. Merino credits the financial support for enabling the team to expand, accelerate project work, and operate outside of the frenzy of daily government operations.<sup>iv</sup>

## Bulldozing towards simplification

While ADIP has the unwavering support of Mayor Sheinbaum and a legal mandate, it still needed to prove itself by delivering a series of quick wins and showing how the government could better serve residents. Merino led his team in these trailblazing efforts with what he calls a “bulldozing” style.

In 2019, ADIP delivered a new product every three days. The team identified obvious, easily tackled obstacles, and developed solutions, proving ADIP’s impact and building a reputation based on results. Top-performing initiatives were quickly scaled, and the cycle repeated. Speed was a critical factor.



“If you are going to fail with government money, fail fast.”

- José Merino, Founder and Head of ADIP

The nine-person Simplification Office played a critical role in ADIP’s early workflow. The Office worked through 2,100 trámites, or governmental procedures, and determined the relevance and redundancy of each. Through a process of elimination and consolidation, the Office reduced the number of trámites by 4x to 530 procedural categories. ADIP went on to digitize 190 or 35 percent of the 530 trámites, choosing the more commonly needed services such as renewing a driver’s license. The result was the digitization of 70 percent of citizens’ interactions with the government.

While this example is a standalone feat of efficiency, ADIP’s work serves a greater purpose. Approximately half of Mexico City’s population subsists on daily wages—and giving up even one day of pay to handle in-person government tasks can create significant hardship.

“When you simplify at this magnitude, it is socially progressive. You are saving the most vulnerable people time and money – and giving them what they need.”

- José Merino, Founder and Head of ADIP

In the spirit of social progress, ADIP developed a five-pronged framework for digital service development that puts people first.

## Democratic access to digital services

Autonomy	Prudence	Access	Service	Entitlement
<p><b>Self-Reliance</b></p> <p>Develop an internal repertoire of scalable, sustainable, replicable, and transferable skills.</p>	<p><b>Save, Don't Waste</b></p> <p>Fail fast and build upon agency knowledge. Apply a disciplined approach to using resources most effectively.</p>	<p><b>Reduce Inequalities</b></p> <p>Ensure equal access for all and enable citizens to exercise their rights.</p>	<p><b>Optimize Public Resources</b></p> <p>Prioritize public service with products that simplify, digitize, and operate across government agencies.</p>	<p><b>Exercise Rights</b></p> <p>Provide technology tools that give people a platform to demand their rights and voice their needs.</p>

Taking a closer look:

**Autonomy:** The Software Factory, a team of 39 developers, is a ever-evolving example of self-reliance. Since 2019, the team has produced 290 software projects with a market value of over \$120 million, approximately 10x ADIP’s annual budget.

According to Merino, Mexico City builds more digital products internally than any large city worldwide. He posits that other low- to mid-income municipalities outsource innovation initiatives because they assume contractors can produce work more efficiently. Merino has the scale to allow for a different perspective. The practice of developing digital

products internally does more than save costs; it offers the flexibility to update products and prevent obsolescence—and enables ADIP employees to build for the future economy.

**Prudence:** Merino sees ADIP as a guardian of government spending. On behalf of the agency, he looks to extract the greatest public benefit for the lowest investment – and uses an unexpected unit of measurement to gauge his success. In 2017, Mexico City was hit by an earthquake that measured 7.1 on the Richter scale, leaving devastation in its wake. The government estimated the average cost to rebuild one home would be \$25,000. Merino uses this \$25,000 unit of measurement to assess ADIP spending, asking himself if he can deliver the same value for money as a new home. For example, would a \$1 million software investment deliver the same value to citizens as rebuilding 40 homes? Merino applies this value equation each time the agency considers potential expenditures.

**Access:** Long associated with privilege and power, the idea of access and insight into government operations now has more equitable interpretations. Citizen access begins with free public internet and extends to simplified government solutions. ADIP took four key steps to deliver transformational access for all:

1. Built more equitable public access to digital services by increasing the number of free internet hotspots from under 100 in 2018 to over 34,000 by the end of 2023, making the city of more than 9 million the most connected on Earth.<sup>v</sup>
2. Built digital products that are functional on every kind of mobile device, including the lowest-end cell phones.
3. Covered the mobile data costs of those engaging with the city government online. Thanks to a deal ADIP struck with the local telecoms after two years of negotiation, residents can utilize the city services app, AppCDMX, free of charge.
4. Simplified and digitized government interactions so citizens weren't gated by "*whom they know*" but instead supported based on "*what they need.*"



Technology does not make sense if it isn't for the benefit of the inhabitants, especially the most marginalized of our city.”

- *Claudia Sheinbaum Pardo, Head of Government of Mexico City*<sup>vi</sup>

**Service:** While ADIP may have drawn a spotlight for its innovative initiatives, agency employees never lose sight of the prime directive to serve the people of Mexico City – and their fellow public sector employees. Simplifying, digitizing, and sharing data across government functions removes bureaucratic barriers and enables authorities to do their jobs with greater efficiency and ease.

**Entitlement:** In the past, the monolithic government mechanisms kept citizens at a distance. Today, digital democratization helps remove historical barriers and build a platform for people to voice their needs. Bringing citizens' demands directly to the seat of government creates an opportunity for more accountability and transparency from city leaders.

In addition to empowering citizens, ADIP has reduced corruption by creating transparent and streamlined digital processes that are less susceptible to manipulation. The city's Tianguis Digital procurement process offers the clearest example of this work, enabling an end-to-end system based on gated digital processes. It serves as a space to plan, conduct and supervise all publicly funded projects in an open and transparent digital manner. There are nine different modules that make up the system, including a supplier system registry (there are more than 6,000 companies or providers registered as potential vendors) and an open data public procurement explorer (datasets on public procurement and Tianguis are downloaded hundreds of times a month).

The benefits of Tianguis are seen across industries but have particular impact on construction and transportation initiatives. Previously, complex construction projects required reams of paperwork and were prime targets for extortionary practices. Merino recalls one process that involved securing a government stamp on a document, for which the applicant had to pay \$10,000. The transparency created by digitizing government processes has closed the entry points for corruption risk. Additionally, Mexico City has one of the largest bike-sharing systems in the world, Ecobici.<sup>vii</sup> Tianguis Digital played a key role in the bidding and contracting process.

## The keys to the city

ADIP recognized the need for a digital ID and records repository early on – and got to work. Launched in 2020, Llave CDMX is a system that provides a single access point to multiple digitized services, streamlining the sharing of information between different government departments. Through the digital authenticator, the government can verify the identity of individuals to ensure that the person conducting the procedure is who they claim to be. After verification, the government can generate a digital footprint which allows ADIP to track better performance metrics, management, and attention to citizen requests, which would not be achievable with in-person processes and paper forms. This allows people to complete multiple government procedures quickly, easily, and online. The pandemic helped accelerate adoption as people sought COVID-19 test results and vaccine information.

As of August 2023, Llave CDMX has achieved an impressive milestone with over 5.7 million users, which is more than half of the city’s 7-million-person adult population. Through interoperability, these systems can efficiently share information, creating a unified repository that consolidates a citizen’s information, data, and documents in one centralized location accessible to different platforms. The major benefit for citizens is that they only need to share their information once. This platform allows users to utilize these documents for other procedures, engage in new digital processes, and track the progress and status of their procedures. Furthermore, it eliminates the need for redundant data input and streamlines administrative processes, saving time and effort for individuals interacting with multiple government services -- living up to its goal of access, and its name, by digitally offering *a key to the city*.

## Tech transformation and triumph

ADIP has succeeded in the three dimensions identified for encouraging civic engagement and increasing accountability:

- Simplifying procedures
- Deploying technology to improve public policies
- Reducing corruption

The results speak for themselves.

## By the numbers



Government Procedures

**2,100** trámites,  
**8** were digitized

**530** trámite categories,\*  
**190** are digitized,  
representing 70% of citizens'  
interactions with the government



City Services Apps

**36** separate city service apps,  
the most successful had  
**100,000** users

**1** app for all city services,  
AppCDMX has had **5 million**  
downloads



Public Wi-Fi Spots

**98** spots,  
20 Mbps per spot

**31,361** spots,  
200 Mbps per user



Call Centers

**91** separate, disconnected  
call centers

**1** Open311 unified,  
multichannel resource



Data Centers

**180** processors with 37TB  
storage, used at 20% capacity

**1,400** processors with 500TB  
storage, used at 10% capacity



Open Data for  
Government  
Insight

**0**

**550** data sets in the Ajolote  
open-source system for use  
by city agencies and citizens



Public  
Procurement

Opaque process

**93** purchasing unit and **6,000+**  
suppliers on the procurement  
portal, Tianguis Digital



Software Factory  
Products

**0** products

**290** products

\* There are 700 total trámites or unique procedures that include the subsets of the 530 categories, such as driver's license versions by operator (e.g., individual, livery, or commercial).

## International accolades

2022



*First place in Digital Transformation*

2021 + 2022



*First place at the Digital State Development Index*

2021 + 2022



*The First Latin American City of the Future*

2021



*First place "Netexplor Linking Cities"*

2021



*I-Team Grant Recipient*

2020



*Information and Communication Infrastructure*

2020



*Gold Prize for Safest City*

2019



*"GobernArte 6th" Use of Data in Public Policy*

## Build More, Buy Smartly

ADIP's success is mainly due to its comprehensive model of self-sufficiency. Corraling all city technology and data operations within one agency has fostered an environment for creative collaboration and enabled innovation to flourish. ADIP's operational organization and associated staffing (see **Operating like a company** table, p. 7) illustrate its production-oriented model and offer other city governments a roadmap toward agile innovation, guided by three key takeaways:

1. **The importance of ADIP employees:** ADIP understands that its most valuable asset is human capital. The agency employs more staff than most city governments' innovation offices and invests 40 hours of formal and informal training in employee skills building. In addition to developing staff, the leadership motivates employees



by focusing on ADIP’s commitment to service and the belief that every team member makes a difference. Reinforcing these altruistic angles allows ADIP to offer its staff something the private sector cannot—democracy in action—while simultaneously supporting retention.

*Key takeaway:* Innovation agency leaders play a critical role in building a mission-driven culture with a dual emphasis on employee development and public empowerment.

2. **The right technology for the right-sized solution:** Merino muses that innovation agencies can fall prey to the seduction of solutions such as blockchain, gamification, and data mining. In doing so, agencies may overlook options that are faster and cheaper to deliver and easier to scale. While Merino doesn’t rule out future applications of today’s buzziest options, he cautions cities to begin with the basics.

*Key takeaway:* Always build in a way that includes functionality for low-end phone users, prioritize solutions for ordinary inconveniences, and eliminate the friction in daily wage workers’ lives. The bells and whistles can come later.

3. **The power of political support:** ADIP was able to achieve accelerated early wins thanks to mayoral and legislative support. Moreover, Mayor Sheinbaum’s data advocacy and literacy highlight a now-essential skillset for current mayors and prospective candidates.

*Key takeaway:* Empower internal agencies to transform public data sets into clear insights that inform municipal priorities, policies, and investments—and establish legislative tethers to ensure cities’ commitment to innovation outlasts administrations.

## Conclusion

Mayoral terms run for six years in Mexico, making 2024 an election year. However, Merino believes that regardless of who holds the mayorship in the future, ADIP will continue to thrive. That's because the wide-scale usage of its digital products and services has established the agency as an essential tool of governance used by most adults in Mexico City, particularly among lower-income populations.

Of ADIP's many achievements, Merino and team's **solution simplicity** and **citizens-first orientation** are at the heart of the agency's success. By enabling tech access across all mobile devices and through free Wi-Fi and waived data fees, ADIP has digitized democracy. Streamlining internal data and technology functions and accelerating the pace of external solution development supports this next generation of civic engagement.

Comparing ADIP to other prominent municipal innovation agencies, specifically New York City, New York (8.5 million total population), and Dallas, Texas (1.3 million total population), highlights Mexico City's extraordinary achievements.

New York's Office of Technology and Innovation (OTI) underwent a similar consolidation exercise to ADIP, bringing together formerly independent agencies, including the Department of Information Technology and Telecommunications, NYC Cyber Command, the Office of Information Privacy, the Mayor's Office of Data Analytics, NYC311, and the city's algorithms management and policy officer. However, unlike ADIP, OTI has primarily applied its new-found scale to internal efficiency, raising the critique that government reforms should improve residents' quality of life, not bolster bureaucratic accomplishments.<sup>viii</sup>

The Dallas Office of Data Analytics and Business Intelligence (DBI), boasting 50 employees across 40 agencies, proves the adage that everything is bigger in Texas. Similarly sized to ADIP's Software Factory, DBI has also chased quick and visible wins, gained cost savings from building not buying services, and secured internal authority with the help of a senior sponsor—Dallas' Chief Financial Officer. While DBI focuses more on outward-facing projects than OTI, it still works to legitimize its agency's size. Using a transparent scorecard, DBI intends to validate its cost of operation against its long-term municipal value.<sup>ix</sup>

So, what's next for ADIP? Merino is still thinking about scale. He has identified 15 collaborations with other cities in Mexico and across Latin America as he seeks to develop a regional repository of publicly funded technology—with a focus on simple applications, built, not bought, that best meet citizens' needs.

ADIP offers a model for city innovation offices worldwide, one that is informed by both pragmatism and passion and can be instructive for both large, well-capitalized municipalities and those forced to do more with less.

## Endnotes

<sup>i</sup> (2021, June 29). Bloomberg Philanthropies to Help Six Global Cities Harness Digital Innovation to ‘Build Back Better’. *Bloomberg Philanthropies*.

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<sup>iii</sup> “Climate Change 2007 - Mitigation of Climate Change: Working Group III”. IPCC. Retrieved 2 July 2018.

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<sup>vi</sup> Ibid.

<sup>vii</sup> Sklar, K., Hernandez, O., Lopez, M. (2022, January 27). Peddling Openness: Mexico City’s Journey to Procure a Better Bike Share System. *Open Contracting Partnership*. <https://www.open-contracting.org/2022/01/27/peddling-openness-mexico-citys-journey-to-procure-a-better-bike-share-system/>

<sup>viii</sup> S. Goldsmith. (2023, February 16). New York City’s Big Bet on Customer Focus. *Governing*.  
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