Government digital transformation guide

Executive summary

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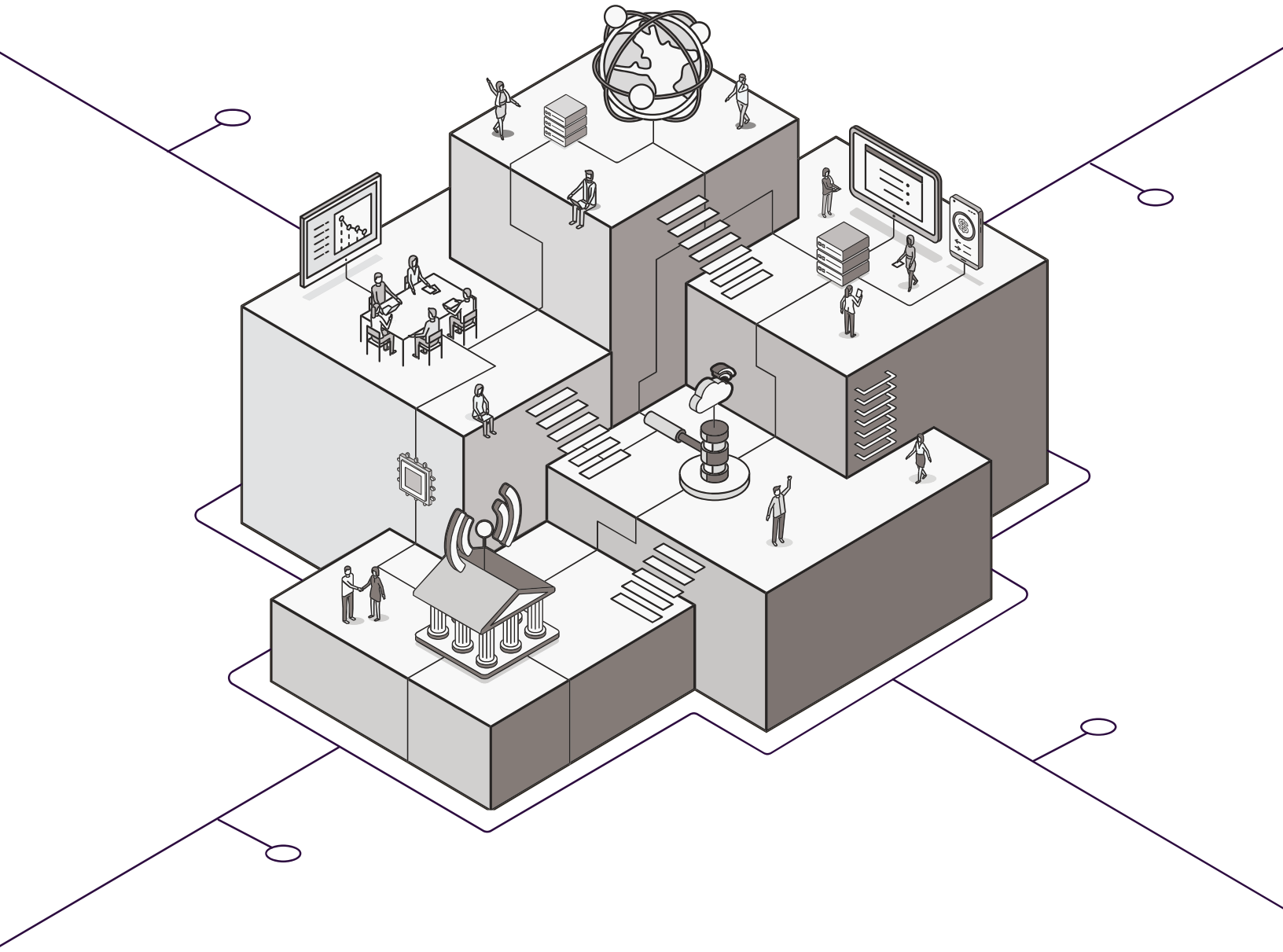

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Data and Digital Government Cluster
Innovation for Citizen Services
Institutions for Development

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Inter-American Development Bank
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Authors
Aitor Cubo, José Luis Hernández Carrión, Miguel Porrúa, Benjamin Roseth.

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Adela Barrio, Alejandro Pareja, Angela Reyes, Antonio García Zaballos, Ariel Nowersztern, Arturo Muente, Darío Kagelmacher, Eduardo Martelli, Elsa Estevez, Estefanía Calderón, Eva María Ortíz Tovar, Evelyn Molina, Florencia Aguirre, Florencia Serale, Francisco Joaquín Martín, Horacio Nemeth, Jesús María Barba Lobatón, José Antonio Mejía, José Clastornik, Julián Inza Aldaz, Julieth Santamaria, Lee Harvey Urquijo, Mar de las Heras Muñoz, Marcelo da Silva, María Inés Vásquez, Mario Cruz Vega, Mildred Rivera, Nuria Simo, Pedro Farías, Rafael Corlazzoni, Sandra Pérez de las Heras, Santiago Paz, Seong Youn Kim, Sheila Grandío and Tomás Sánchez Ochovo.

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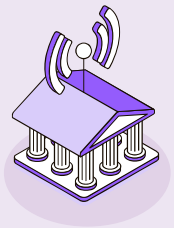

CHAPTER

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Governance and institutional framework

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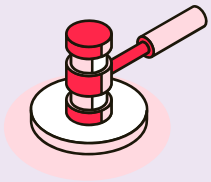

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Prologue

The need for the digital transformation of government is evident in many ways. Citizens want to interact with the government online to access the information and services they need, anytime, without traveling to an office. Public institutions that operate solely on paper are not only more inefficient in their processes, but also less effective in their purpose. A digital government not only exploits the potential of a digital society and economy, but also enables and empowers them.

Achieving digital transformation requires a whole-of-government and citizen-centric approach. It is necessary to: create an institutional framework and governance that guides, drives, and coordinates the effort; develop a regulatory framework that provides the legal basis to new digital processes; design the infrastructure and tools that lay the technological foundations of transformation; promote digital talent; and to create new digital processes and services to transform how the public administration interacts with citizens.

To support the complex process that is the digital transformation of government, the IDB, through the Innovation for Citizen Services division of the Institutions for Development Sector, has developed the Government Digital Transformation Guide. It serves as an "encyclopedia of digital government", as it classifies and summarizes cutting-edge knowledge that, in most cases, is not elsewhere consolidated. All the knowledge in this document was gathered from leaders in the field, who wrote each section to generate the greatest added value for the reader. Like an encyclopedia, it is not necessary to read it from cover to cover - although we recommend doing so.

This Guide allows the reader to go directly to the content that interests him or her. Each section contains examples, links, and self-assessment questions to complement the theoretical description. In short, this guide is designed to be a practical tool that readers can use to drive the digital transformation of government.

I would like to emphasize some principles that underpin the document:

- **Transversality:** Digital government is a resource that can benefit all sectors. Therefore, anything that has applications in multiple contexts (such as sending electronic notifications to citizens) or involves multiple stakeholders (such as interoperability) should be created by a central entity, and only once—to be replicated and expanded across government.

- **Comprehensiveness:** Technology is important, no doubt. But to make the most of it and design it correctly, it is necessary to consider the appropriate regulatory framework, institutional framework, governance, and talent.

- **Technological neutrality:** Technology is most effective when the solution is designed according to the need, and not the other way around. Therefore, the guide adopts a technology-agnostic perspective with respect to specific technologies, emphasizing guiding principles and desired functionalities.

- **Practicality:** Although it is attractive to plan to have all the pieces in place before getting started, we rarely have the ideal conditions for digital transformation. The guide advises on the minimum requirements for a given tool to be feasible, without letting the ideal become the enemy of the possible.

At the IDB we believe in the benefits of open knowledge, especially in the digital field where there is so much to be done. Our goal with this Guide is to empower all policymakers, advisors, consultants, companies, academics, and students to drive the digital transformation of their governments. I invite you to explore it and to join in the journey.

Susana Cordeiro Guerra
Manager
Institutions for Development Department
Inter-American Development Bank

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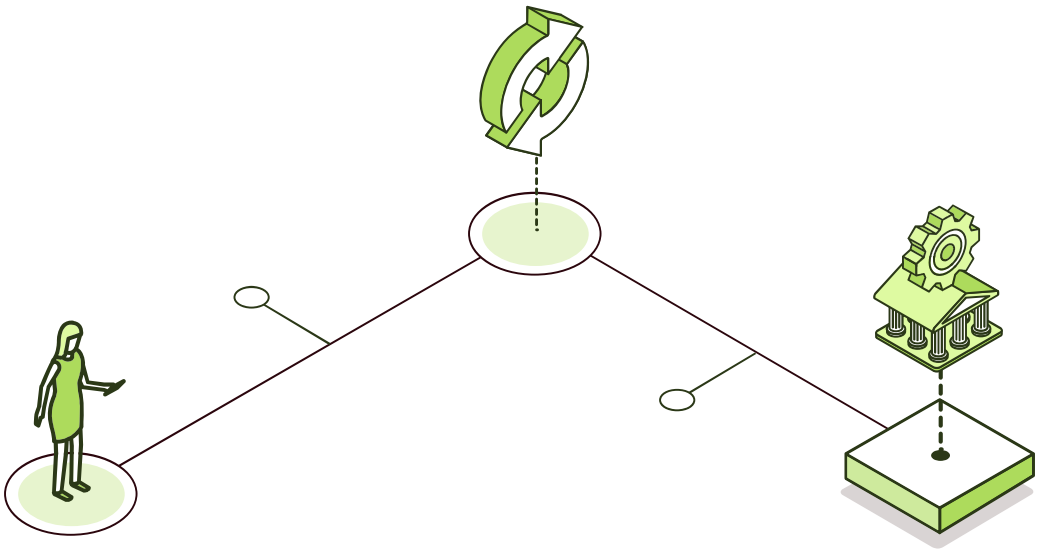


The development of digital technology offers great potential to address the most relentless challenges facing the Latin American and Caribbean (LAC) region, such as lack of trust, low productivity, and persistent inequality. Until March 2020, this phrase could often be read in documents related to the future development of the region as one of the relevant tools to accelerate progress. But with the onset of the COVID-19 pandemic, the expression "digital transformation" became ubiquitous and is almost always associated with two concepts: inclusiveness (i.e., for the benefit of all), and urgency (i.e., for the present).

COVID-19 turned digital transformation from an aspiration to a basic tool in public policy. The concepts, references, and recommendations shared in the guide do not depend on the context of COVID-19, or any other adverse event that limits the capacity for personal interaction of human beings, but they do make the availability of the content of the publication more urgent and surely more valuable for those who have to accelerate the digitization of their countries.

For some people and companies in the region, technology has already changed paradigms: how to communicate, how to buy, how to access public services. However, this progress has been partial for various reasons:

- Paper continues to reign supreme.
- Many people and companies are still unable—or unwilling—to use the internet, let alone access services through it.
- Many institutions continue to function as they did last century.
- Many governments provide digital services through a series of ad hoc efforts, with varying quality and limited use.

To address large-scale challenges, it is necessary to adopt a comprehensive and strategic approach that includes all sectors of society and all levels of government and aims at a cross-cutting paradigm shift.

However, this is not to ignore the great progress that has been made in the digital arena in the region. As proof of the interest shown by governments, more than 70 percent of LAC countries have a digital government strategy.[1] In addition, there are more cell phones than people in the region, and 74 percent of its population is connected to the internet.[2] Some countries have already digitized most of the procedures provided by the central government, in some cases including the use of digital identity and online payments, and already consolidate their entire web presence in a single domain.

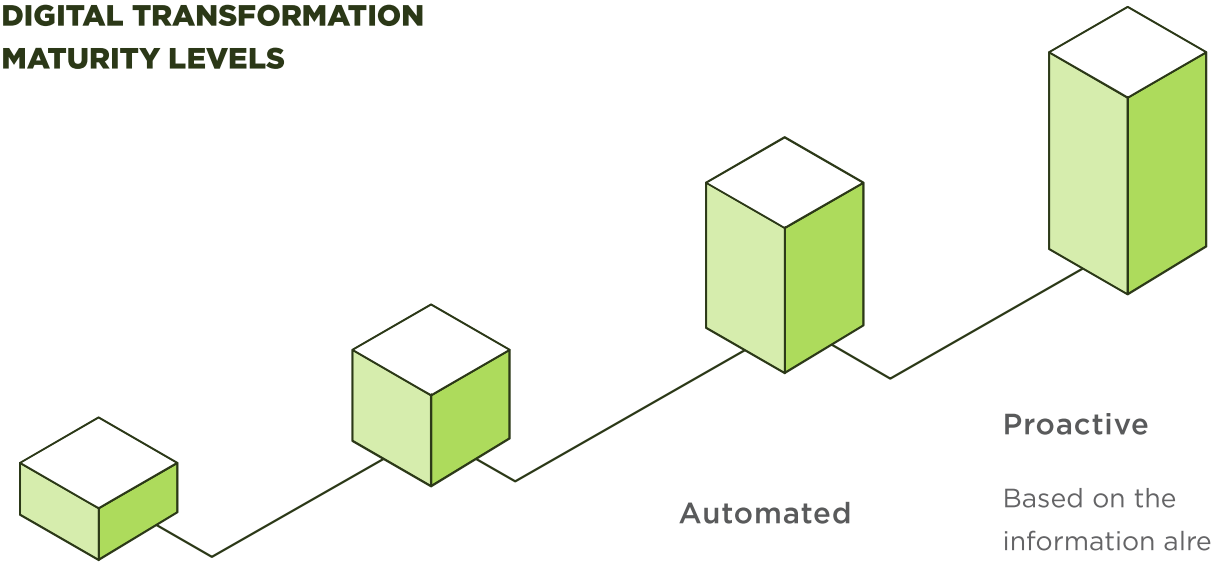
However, it is time to move from isolated efforts to a comprehensive approach and to translate plans into practice. This comprehensive approach—national-level digital transformation—depends largely on the actions of the central government, as no other actor can establish a regulatory framework, create standards, provide common services, and convene all segments of society and all levels of government. Citizens demand it, and the economy needs it: a transversal leveraging of technology and the internet to bring more efficiency, certainty, and transparency to interactions and transactions, both public and private. At the same time, governments in the region also need it to respond to the pressures of fiscal austerity and the hightened expectations they face from citizens.

1. OECD (2017), Government at a Glance 2017, OECD Publishing, Paris.
2. World Bank (2020). World Development Indicators.

Government digital transformation is the change in corporate culture, organizational models, methods, and processes that takes advantage of information and communication technologies (ICT) to enable public institutions to meet the needs of citizens and businesses in an efficient, transparent, and secure manner. It goes without saying, then, that digital transformation is more than creating applications and web pages.

DIGITAL TRANSFORMATION HAS FOUR LEVELS OF MATURITY, RANGING FROM E-GOVERNMENT (ESSENTIALLY, A DIGITAL REPLICA OF PAPER-BASED PROCESSES) TO PROACTIVE ADMINISTRATION (WHICH TAKES ADVANTAGE OF ALL THE INTELLIGENCE, INTERCONNECTION, AND AUTOMATION THAT ICTS OFFER).

DIGITAL TRANSFORMATION MATURITY LEVELS



Electronic

Elimination of paper transactions and the need to visit offices in person. Electronic procedures mirror paper-based ones.

Interoperable

Regulated exchange of data between public institutions, which makes the citizen provide his information only once to any institution (or never provide it, if it comes from a public registry).

Automated

The administrative procedure—including the making of some decisions—is done automatically, eliminating manual intervention by civil servants, with algorithms and criteria that can be traced and explained by human beings.

Proactive

Based on the information already provided by the citizen, the state takes actions proactively and in an automated way so that the citizen does not have to initiate them. This can particularly occur around life events (for citizens) and business episodes (for companies).

A key element of digital transformation is horizontal services, also known as “shared tools” or “platform services.” These are the tools that serve all of government, including citizens and businesses, only needing to be created once. While it sounds natural that there should be a single digital ID that serves all public and private purposes, and a single interoperability platform that serves the entire country, there are other elements that have typically been replicated institution after institution: payment systems, data centers, and notifications, among others. Leveraging economies of scale is key to achieving the goals of digital transformation.

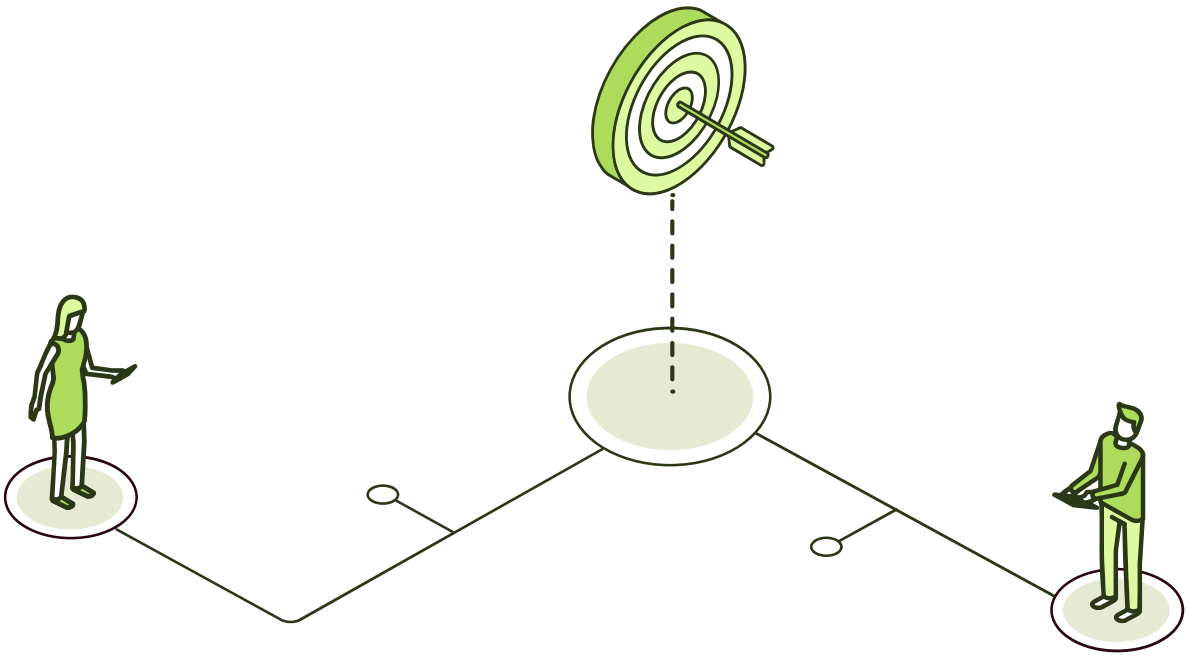
Building reusable tools helps achieve the following:

- **Efficiency gains**
  The cost of repeated development of the same tools is eliminated.

- **Speed**
  No time is lost in development.

- **Compatibility**
  If everyone uses the same tool, they will be compatible by default.

- **Improved user experience**
  Users learn to use a system once, and it is the same regardless of the institution they are interacting with.



THE ROAD TO DIGITAL TRANSFORMATION

It is important that the path to digital transformation be holistic and comprehensive. This is achieved through four key elements:

1. A strong drive from the center that encompasses the whole of government, including the different branches of national government and subnational governments. The central government is ideally positioned to ensure that duplication is avoided and economies of scale are maximized. When digitization efforts are uncoordinated, opportunities are missed. For example:

   - A digital ID is good, but it is better if it is unique and universal.
   - An online service is good, but it is better if it is accessed through a single point of access, where the other services are also located.
   - An electronic court file is good, but it is better if it interoperates with the state's other information systems and administrative records.
   - A digital system of municipal administrative management can be good, but it is better if it is provided free of charge to any municipality that wants it and offers similar functionalities to the municipality next door, even if it is a a fraction of the size.

2. Broad—and active—participation of all segments of society. It is a pity when a service is put online and nobody uses it, or when it is used but does not really solve the most pressing needs. That is why private companies, civil society, academia, and ordinary citizens need to be involved in the design of digital transformation. This is a two-way communication exercise: listening about the needs and also communicating about the changes to come and the shared responsibilities.

3. Inclusion of all levels of government. While the central government is important in coordinating and driving initiatives, it is the subnational governments that generally face citizens. Particularly in Latin America, many municipal governments are in an extremely difficult situation, with great responsibility for spending execution and service delivery on the one hand, and limited administrative capacity on the other. In that sense, digital transformation has immense potential for municipal governments, as it allows those governments to:

   - Improve the provision of services to citizens and businesses;

- Ease administrative burdens;
- Reduce spending on technology.

However, to date, the vast majority of digital government efforts have been made only at the central level. For the digital transformation to be truly national, subnational governments must play a leading role

4. Inclusion by design, so that digital transformation becomes a tool for social equity and does not become an aggravating factor of inequality. The great danger of digital transformation is that it will increase the gaps in society, whether based on income, gender, age, ethnicity, location, or other factors. As the most unequal region in the world, Latin America cannot afford an exclusionary digital transformation. Digital offers a great opportunity to democratize access to information, participation, communications, and services, as long as the closing of gaps is an objective from the beginning.

HOW TO STRUCTURE DIGITAL TRANSFORMATION

In order to have a holistic vision of digital transformation and ensure its success, **it is important to take into account five axes:**[3]

Governance and institutional framework

Legal and regulatory framework

Digital talent and change management

Infrastructure and technological tools

New digital processes and digital services

3. It is essential to point out that the different issues addressed throughout the document—such as digital identity, interoperability, and cybersecurity, among others—often appear in multiple axes. They are mainly addressed in the regulatory framework axis and in the infrastructure and tools axis, due to the weight they have in both of them, but it cannot be forgotten that any of these will be supported by the actions carried out in the other axes, such as the actions of the strategy or operational management, which will serve as a substrate for the generation of the new digital processes of the public administration.

GOVERNANCE AND INSTITUTIONAL FRAMEWORK

Given the need to promote a holistic vision, to coordinate a multiplicity of actors inside and outside government, to create and operate a wide range of horizontal services, to promote and operationalize regulatory changes, and to provide technical assistance to many public institutions, four main elements of a governance and institutional framework are essential:

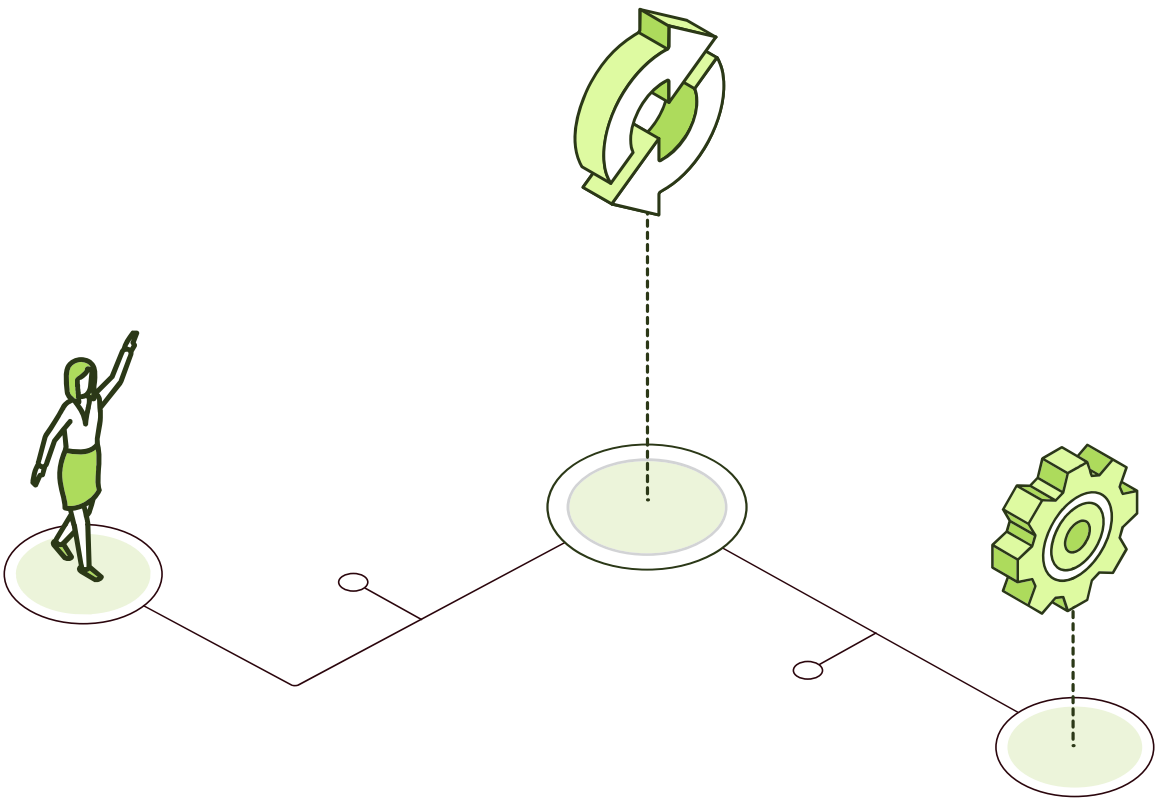
- **A digital transformation strategy** that ensures that
  - The objectives to be achieved are defined.
  - The actions to achieve the objectives are planned.
  - Procurement, communication, cybersecurity, and monitoring plans are aligned to ensure success.
- **A strong lead institution** in charge. This institution, whose remit is general—not tied to any sector—must have the mandate, the powers, the human talent, and the budget to respond to the challenge of driving digital transformation.
- **Governance mechanisms,** which are necessary to respond to the needs of all those involved in a major digital transformation and to ensure that the interests of all are considered.
- **Operational management,** because as the appetite for digital services grows, it is necessary to have perfectly defined and standardized architecture, operation, demand, and portfolio management mechanisms. Operational management cannot be done by brute force to ensure success, so it must be codified.

LEGAL AND REGULATORY FRAMEWORK

The regulatory corpus in many countries is several decades old or more and, in many cases, is not adjusted to the new reality that the digital transformation brings. The incorporation of new laws and regulations serves to provide legal certainty to digital tools and ways of working. Appropriate rules are what makes it possible to:

- Verify identity digitally.
- Sign a document or save transaction records electronically and automatically.
- Regulate new vulnerabilities that arise in the digital environment, such as those associated with data protection and cybersecurity.

It should be borne in mind that, especially in the public sector, legal certainty is essential for carrying out administrative actions. Therefore, it is necessary that all tools, procedures, and systems have a clear legal basis. The regulatory framework encompasses both the legal framework and the organizational regulations, in addition to semantic and technical standards. Depending on the detail of each aspect to be regulated, the level at which it is regulated (law, decree, technical standard, etc.) must be decided in each case.



DIGITAL TALENT AND CHANGE MANAGEMENT

In the twenty-first century, it is not possible to lead the digital transformation of a country or a large sector without the appropriate resources. A common mistake is not having such means and embarking on the process anyway. However, digital transformation cannot be bought. Of course, a large part of it is acquiring goods, whether hardware or software, or hiring people, but a large component of success lies in the internal transformation of the administration itself, of the public employees that make it up. That is why it is necessary to

- Have the right positions to lead this change.
- Train public employees according to their needs.
- Manage change in an orderly manner and based on criteria.

INFRASTRUCTURE AND TECHNOLOGICAL TOOLS

The heart of digital transformation is formed by the different technological tools used. While there are a myriad of sectoral applications of technology that drive digital transformation (e.g., virtual classrooms in education or telemedicine in healthcare), this Guide mainly emphasizes core, shared, and enabling systems. It briefly reviews the infrastructure requirements to enable digital transformation.

NEW DIGITAL PROCESSES AND DIGITAL SERVICES

This is the goal in itself. Digital transformation is not simply having technology, but using it efficiently and intelligently to move from a slow, in-person, paper-based administration to a technology-based one, accessible from the internet, twenty-four hours a day, seven days a week, and without lines. To this end, it is necessary to review administrative processes and

procedures to adapt to the new reality, making use of available technology and the new regulatory frameworks. We must avoid "automating chaos."

There are opportunities for digital transformation in every area of public sector activity. In health, education, transportation, security, environment, taxation, etc., a digital transformation can bring improvements such as greater efficiency, effectiveness, and transparency, which bring benefits for both service users—citizens and businesses—and for the institutions themselves. However, it is important to distinguish two types of changes that can be promoted at the sectoral level:

- Those that are unique to the sector. For example:
  - In the health sector: digital remote surgery, telemedicine, digital health records, and much more.
  - In education: virtual classrooms, digital readers, adaptive learning, etc.

EACH SECTOR MAY ALSO HAVE ITS OWN STRATEGY TO PROMOTE DIGITAL TRANSFORMATION.

- Those that are shared by multiple sectors and/or levels of government. For example:
  - A national interoperability scheme to facilitate the exchange of information
  - A digital identity
  - A digital signature
  - Cloud services

The focus of the guide is on the common elements, which can be used in a variety of sectoral contexts. Throughout the guide, after describing each element, anecdotes are given to illustrate its application in different sectors. It is important to note that the intention is to promote centralized development of the different systems and tools described. This is key for a variety of reasons:

- It generates economies of scale by creating a tool once and reusing it.

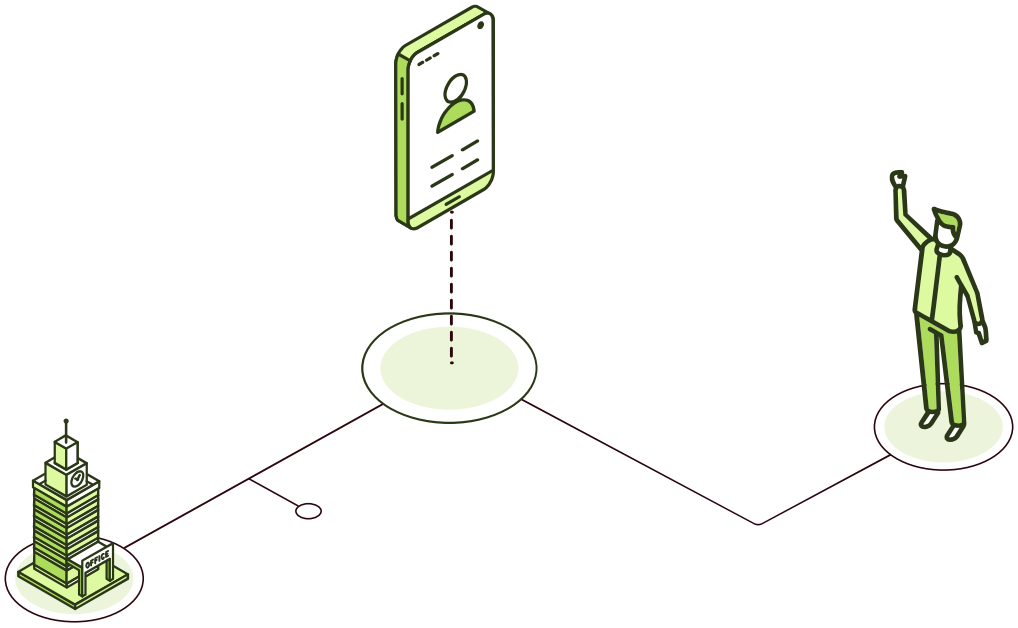
- It ensures compatibility of systems between institutions.

- It allows small institutions (including municipal governments) to benefit without having much capacity of their own.

- It provides a unified experience for both citizens and businesses (e.g., by having a single digital identity instead of one per sector) and officials (e.g., by having a single interoperability scheme instead of many bilateral arrangements).

There are a large number of common elements. Therefore, it is essential to complement them with a regulatory framework and an institutional framework capable of managing the digital transformation in a consolidated way, so that it reaches all public institutions, citizens, and businesses.

Some countries choose emphasize one aspect of digital transformation more than others. If a country has an easier regulatory development path (for example, because the government has a legislative majority), it should take advantage of that path, without neglecting the rest. If a country can develop technological tools that favor transformation, it should not be paralyzed because the other pillars do not advance at the same pace.

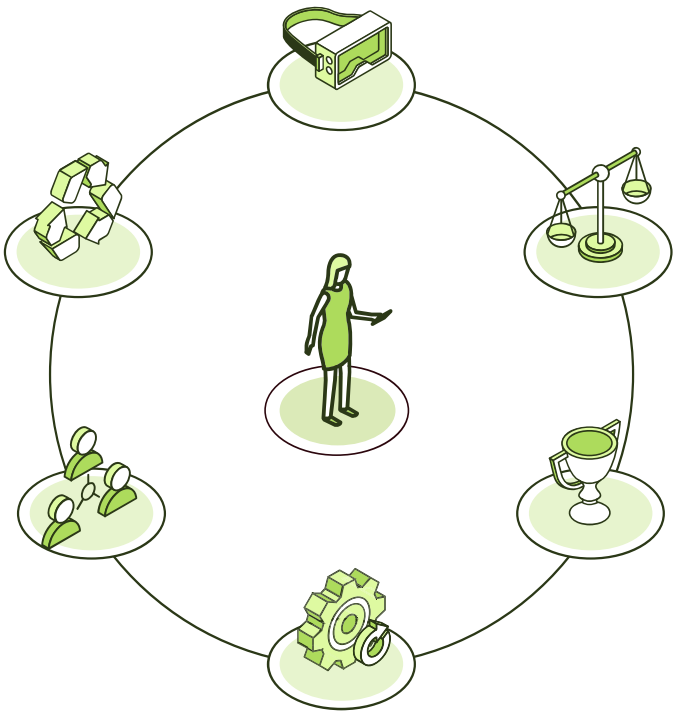


In the long run, however, progress needs to be balanced. For example, a technological solution for digital signatures is of little value if there is no legal framework to give it legal validity. Likewise, it is of little use if there is no lead institution to support its implementation throughout the state.

Similarly, in each element there is also a sequence: it makes no sense, for example, to talk about an electronic file exchange system if the electronic file as such is not first standardized at the country level. Requirements of this type are common to many elements of digital transformation.

Finally, it is important to note that this guide is not intended to be an exhaustive study of each of the topics covered, but rather to offer a general and holistic view of all the levers of change that need to be worked on when addressing the digital transformation of a country.

THE GUIDE SEEKS TO HIGHLIGHT KEY MESSAGES FOR THE SUCCESS OF A DIGITAL TRANSFORMATION:



1. Holistic vision, through a 360-degree strategy
2. Extensive supporting legal and regulatory framework
3. Acquiring the essential human talent
4. Managing change
5. Identifying common components, opportunities for reusability and cross-cutting standardization
6. Reformulating administrative processes to make them digital and citizen-focused

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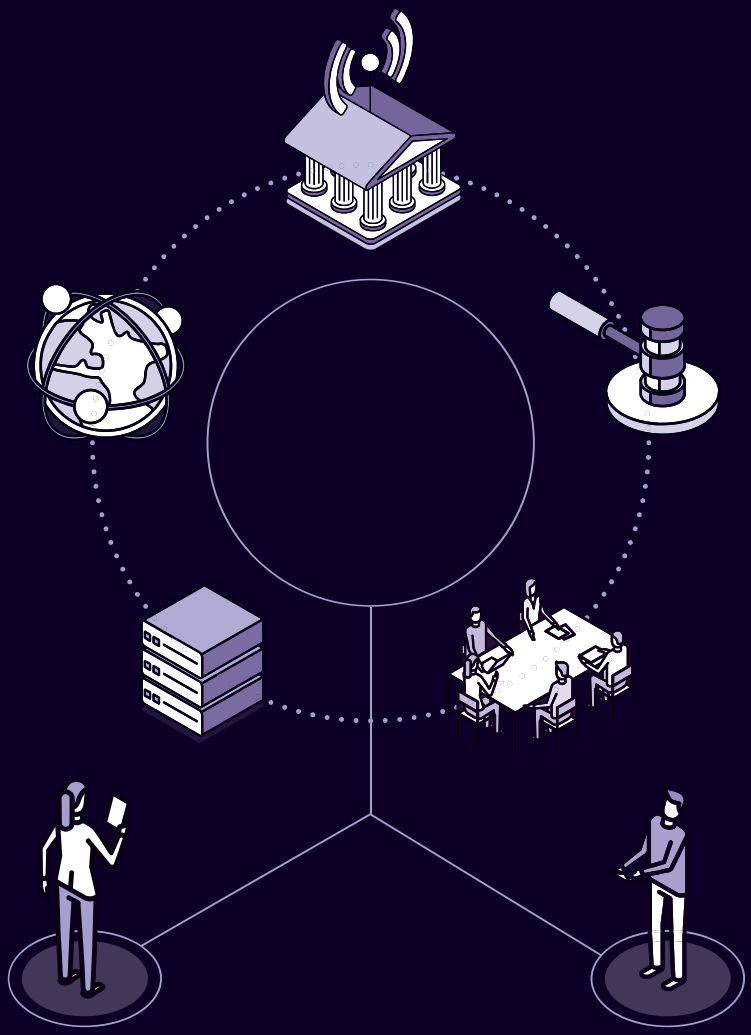

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