OECD Digital Government Studies

Digital Government Review of Argentina

ACCELERATING THE DIGITALISATION OF THE PUBLIC SECTOR



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Foreword

This OECD Digital Government Review assesses the institutional, legal and policy arrangements for digital government in Argentina. It highlights the main achievements and challenges to govern the design, management, monitoring and evaluation of ICT projects, build digital talent in the public sector, and improve public service delivery. The review also discusses overall data governance, including the enabling frameworks that support enhanced data access and sharing across the public sector.

Since 2015, Argentina's government made digitalisation a priority, and the development of the Digital Agenda brought greater clarity to the policy agenda. As part of the Digital Agenda, the central administration designed critical initiatives to build a paperless government, improve public service delivery, reinforce public sector competences, and produce and open up quality government data.

The progress achieved has been impressive, but some challenges remain. Argentina needs now to focus on long-term sustainability of the results achieved so far. The review recommends moving towards a more structured policy framework to foster a more mature digital state. It stresses how a digital government strategy, and a complementary national data strategy, would improve policy accountability, ownership and sustainability. It also highlights opportunities to draw on talent from outside the public sector, while reinforcing public sector digital skills. The review advises scaling up initiatives to design and delivering digital services that focus on citizens' needs, and sustaining efforts to build a public sector that governs, manages and shares data in pursuing good governance, business digital innovation and social impact.

This review was undertaken at the request of the Government Secretariat of Modernisation within the Chief Cabinet Office, as part of OECD work with Argentina to support its national public sector reform agenda.

The review should also help advance the international debate on this topic, as Argentina is an active player in international discussions and fora on digital and open governments. In 2018, Argentina held the Presidency of the G20, and led the development of the G20 Digital Government Principles. In the same year, it took over the role of co-chair of the Open Government Partnership Steering Committee and hosted the International Open Data Conference. The country is an active participant in relevant OECD bodies, including the OECD Working Parties of Senior Digital Government Officials (E-Leaders) and on Open Government, and the OECD Expert Group on Open Government Data.

The review also contributes to the OECD Going Digital Project, an initiative of the OECD to address digitalisation challenges and opportunities across different policy areas, including digital government.

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Jacob Arturo Rivera Pérez, Digital Government and Open Data Policy Analyst, Reform of Public Sector Division, OECD, drafted chapters 1, 3, 4, 5 and 6, and served as the lead coordinator for this project. Jamie Berryhill, Public Sector Innovation Policy Analyst, Reform of Public Sector Division, OECD, drafted Chapter 2. Reginald Dadzie, Junior Policy Analyst, provided data analytical support and contributed with content for all chapters. Liv Gaunt, Jennifer Allain and Raquel Páramo provided editorial and administrative support.

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Table of Contents

Foreword **3**

Acknowledgements **5**

Executive Summary **13**

Assessment and recommendations **15**

Governing the digital transformation of the Argentinian public sector 15
ICT procurement and commissioning for coherent policy implementation 23
Building and attracting talent for the digital transformation of the public sector 27
Public service design and delivery 31
Data-driven public sector 38
Notes 45

Chapter 1. Building the foundations for a digital government in Argentina **47**

Introduction 48
The OECD Digital Government Review of Argentina 48
The road towards a digital government: The OECD approach 49
The Argentinian context: Learning from the past to move forward 51
Notes 58
References 59

Chapter 2. Governing the digital transformation of the Argentinian public sector **61**

Introduction 62
A new administration: A new beginning 63
Policy framework: Establishing a common, strategic and inclusive narrative 65
Institutional governance: Leadership and digital stewardship 79
Leveraging systems approaches to achieve strategic goals 83
Enabling success through the legal and regulatory framework and funding 91
Notes 98
References 99

Chapter 3. ICT procurement and commissioning for coherent policy implementation in Argentina **101**

Introduction 102
From ICT procurement to ICT commissioning 102
Planning and approval of ICT projects 104
ICT Procurement 108
Management of ICT projects 110
Following an agile approach: Towards ICT commissioning 111
Control and evaluation of ICT project expenditures 114
Notes 115
References 117

Chapter 4. Building and attracting talent for the digital transformation of the public sector... 119

Introduction... 120
Building transformational competencies and digital skills: Key institutional players and initiatives... 120
The challenge of sustainability: Retaining and attracting talent... 125
Skills for public sector innovation... 128
Notes... 132
References... 132

Chapter 5. Public service design and delivery in Argentina... 135

Introduction... 136
Building a paperless government... 137
Enabling government as a platform... 141
Key enablers... 143
Public service design... 149
Public service delivery... 153
Digital inclusion... 155
References... 157

6. Governing and enabling government data as a service in Argentina... 161

6.1. Introduction... 162
6.2. The state of data governance in the Argentinian public sector... 163
6.3. Data protection: Balancing openness by default and privacy needs... 170
6.4. Data federation: Enabling greater data sharing and interoperability... 172
6.5. Opening up government data... 180
Notes... 187
References... 188
Annex 6.A. Canada: A data strategy roadmap for the federal public service... 191
Reference... 192
Annex 6.B. United States: Creating a data strategy and infrastructure for the future... 193
Reference... 194
Annex 6.C. The OECD maturity model for open data policies... 195

Annex A. Relevant laws, decrees and resolutions... 197

Tables

Table 1.1. Internet, computer and mobile-phone access by education level... 55
Table 2.1. Examples of alignment between the OECD *Recommendation of the Council for Digital Government Strategies* and Argentina's Digital Agenda... 72
Table 5.1. Enabling frameworks for digital government in Argentina... 144

Figures

Figure 1.1. 2014 OECD Recommendation of the Council on Digital Government Strategies 50
Figure 1.2. The digital transformation of the public sector: From e-government to digital government 50
Figure 1.3. GDP per capita and GDP volatility, Argentina 52
Figure 1.4. GINI Index, Argentina 53
Figure 1.5. ICT service exports 53
Figure 1.6. Cheapest available fixed and mobile access plans as a percentage of GDP per capita, Latin American and Caribbean region 56
Figure 1.7. 2018 E-government Index: Selected Latin American and Caribbean countries 57
Figure 2.1. Governing the digital transformation of the public sector: Contributing factors 62
Figure 2.2. Extent to which respondents agree that a clear vision in terms of digital government is available in Argentina 67
Figure 2.3. Respondents' ranking of the relevance the central/federal strategy direction has for their institution 70
Figure 2.4. Respondents' response to whether they are "fully aware of the content and goals of the digital government policy" 70
Figure 2.5. Extent to which respondents stated that they feel committed and ownership in regard to the digital government policy 71
Figure 2.6. Respondents' opinions on whether there is a relationship between central/federal digital government policy and the political cycle 74
Figure 2.7. Mediums used to conduct external outreach 77
Figure 2.8. Extent to which respondents agreed that there is clear and strong leadership in terms of the co-ordination of the digital government strategy available at the central/federal government 80
Figure 2.9. Main responsibilities of the central policy co-ordinating institution 80
Figure 2.10. Extent to which respondents indicated that their institution regularly coordinates with the central/federal unit responsible for leading and implementing the decisions on the use of IT in central/federal government 86
Figure 2.11. Extent to which respondents indicated that they believe that the current level of inter-institutional co-ordination for policy implementation is sufficient to advance the digital government policy in Argentina 87
Figure 2.12. Extent to which respondents were aware of formal mechanism(s) in place to enable inter-institutional co-ordination between ministries/organisations for the implementation of digital government projects 87
Figure 3.1. Traditional ICT project design and procurement: Main stages 103
Figure 3.2. ICT commissioning: A model for public sector institutions 103
Figure 3.3. Most frequently used procurement methods in Argentina: ICT goods and services 109
Figure 4.1. Secretariat of Public Employment: Competencies framework 121
Figure 4.2. Secretariat of Public Employment: Strategy 122
Figure 4.3. Mobility of ICT professionals from the public sector to the private sector 126
Figure 4.4. Public sector organisations favour improving the skills and competencies of current staff 127
Figure 4.5. Level of priority given to the promotion and development of innovative approaches and skills 131
Figure 5.1. The six dimensions of a digital government and their application to public services 136
Figure 5.2. Electronic Document Management Platform (GDE): Main modules 139
Figure 5.3. Government as a platform: The OECD digital government perspective 143

Figure 5.4. Overarching principles of digital transformation considered within ICT projects and initiatives 150
Figure 5.5. United Kingdom: User research for government services 153
Figure 5.6. Mi Argentina: A web-based and mobile-based platform 154
Figure 5.7. Priority groups for digital inclusion 156
Figure 6.1. Data governance in the public sector 164
Figure 6.2. Data-related capacity-building activities: Number of activities organised between 2016 and 2018 167
Figure 6.3. Government data value chain/cycle 168
Figure 6.4. Argentina: Data interoperability platform (conceptual model) 175
Figure 6.5. 2014 OURdata Index: Open, Useful, Reusable Government Data 181

Annex Figure 6.A.1. Data strategy framework for Canadian federal public service 191
Annex Figure 6.B.1. US Federal Data Strategy 194

Boxes

Box 2.1. Digital government: Argentina's National Direction of Digital Services 64
Box 2.2. Decree 996/2018 – Argentina's Digital Agenda 66
Box 2.3. Objectives of the Digital Agenda 68
Box 2.4. National Office of Information Technologies 78
Box 2.5. Systems approaches 84
Box 2.6. Systems approach for open government data 88
Box 2.7. New Zealand Service Innovation Lab 89
Box 2.8. Federal Council on Modernisation and Innovation for the Public Administration 90
Box 2.9. Project Cruft 92
Box 2.10. Elements of the draft modernisation law 93
Box 2.11. Sample countries with centralised funding for ICT 95
Box 2.12. Panama's National Authority for Government Innovation 97
Box 3.1. ONTI's soft law instruments: The Decálogo Tecnológico 104
Box 3.2. Canada and New Zealand 107
Box 3.3. The PRINCE2 Project Management Model 110
Box 3.4. Building digital marketplaces in New Zealand and the United Kingdom 112
Box 3.5. The 11 plays of the ICT Commissioning Playbook 113
Box 4.1. Secretariat of Public Employment: Key initiatives 122
Box 4.2. The GC Talent platform in Canada 128
Box 4.3. LABgobar 129
Box 5.1. The Electronic Document Management Platform 137
Box 5.2. The Remote Formalities Platform 140
Box 5.3. Government as a platform: A digital government perspective 142
Box 5.4. Exploring the use of digital technologies in the Argentinian public sector 144
Box 5.5. Principles for Digital Services 146
Box 5.6. Norway: The ID-porten digital identification tool 148
Box 5.7. FIRMAR.GOB.AR 149
Box 5.8. APIs in Brazil 151
Box 5.9. The National Digital Driver's License and Digital Identity System: Integrating public service delivery 155
Box 6.1. 2014 OECD *Recommendation of the Council on Digital Government Strategies*: Principle 3 163

Box 6.2. The quality of official statistics in Argentina 165
Box 6.3. 2016 Decree on Data Opening Plans 169
Box 6.4. Initiatives in EU countries to implement the General Data Protection Regulation in practice 171
Box 6.5. Moving from open by default to open by design: The Data as a Service approach 174
Box 6.6. The National Tax and Social Identification System 176
Box 6.7. The GeoRef and Time-Series APIs 177
Box 6.8. France: General Reference Framework for Interoperability 178
Box 6.9. The US Data Federation Project 179
Box 6.10. ONTI's 2018-19 Strategy: Data classification 179
Box 6.11. Data-harvesting functionalities across OECD countries 183
Box 6.12. Open innovation: The Agrotech Hackathon 185
Box 6.13. Engaging with data communities: Examples from OECD member and partner countries 186

Executive Summary

The world is in the midst of a technological revolution that is transforming economies and societies in complex ways. This changes how people live and work and affects their relationship with governments. Governments need to improve governance and public services to be able to respond to changing expectations and increasing demands.

Argentina's adherence to the *OECD Recommendation on Digital Government Strategies* is an important sign of the government's commitment to leverage digital technologies and data to better serve Argentinians. This review will help the country better link digital government efforts to related policies and to broader political agendas, and ensure that it contributes to a more connected society.

Several presidential decrees and laws were issued to reinforce digital efforts, and the guiding policy, known as the Digital Agenda, defines clear and common policy goals for digital government. Although these are significant steps, opportunities remain for developing a dedicated digital government strategy with a roadmap for the achievement of key goals and for better aligning provinces and cities with national targets.

The aforementioned OECD Recommendation underlines the importance of strengthening institutional capabilities, developing digital skills and shifting from traditional procurement to innovative ways to commission ICT services and goods for more efficient policy implementation and delivery. Argentina has focused on increasing institutional capabilities to support the digital transformation, but it still faces challenges in retaining talent and ensuring consistency in its calibre across government. Procurement has become more coherent in some circumstances, but there is room to develop a comprehensive procurement strategy to better plan, execute and evaluate ICT investments from a whole-of-government perspective.

Several important cross-government platforms were developed to make the government increasingly digital and paperless (e.g. a digital identity system and the digital services provided in *MiArgentina*). The challenge in moving forward will be scaling up the adoption of such solutions to improve overall service delivery.

Argentina has also dedicated energy and resources to improving the management of data as an asset in government, from its creation to its release as open data. The government established the necessary policy guidance (e.g. an open data policy) and developed initiatives to improve government data quality and sharing. Nonetheless, data governance in the public sector can be reinforced to scale up data interoperability, management, sharing practices and promote re-use.

In the past few years Argentina has made significant and rapid progress in catalysing its digital transformation. Yet, a number of actions could accelerate the evolution from e-government to digital government. To achieve this, the OECD suggests the implementation of the following policy recommendations:

- Clarify and formalise the governance framework for digital government at the central government and across public sector organisations, and develop a dedicated digital government strategy.

- Move towards ICT commissioning by bringing further control to the overall ICT procurement process (e.g. use of budget thresholds), develop framework agreements for ICT procurement, involve internal and external stakeholders in the development of ICT projects' business cases, and adopt agile approaches in the procurement, management, monitoring and control of ICT products and services.
- Build public sector digital capabilities by clarifying the competencies framework; define job profiles that attract talent, promote career paths, and motivate communities of practice, and implement an agile talent-commissioning model.
- Improve public service design and delivery by supporting the alignment of ICT projects with digital services and data standards; promoting the adoption of central eID system, public sector APIs and the reuse of software developed by government for greater public sector integration; and underpinning citizens' adoption of *Mi Argentina* as priority tool for digital public service delivery.
- Build on digital inclusion efforts, drawing upon the value of mobile-based solutions and multi-channel approaches for public service delivery.
- Reinforce public sector data governance, developing a data strategy and defining clear data leadership roles. Improve data federation, protection, quality and interoperability efforts in the public sector.
- Increase the maturity of open data in the public sector by leveraging existing efforts; prioritising the publication of open government data in high demand by external communities, and engaging users on data re-use for value creation.

Assessment and recommendations

Governing the digital transformation of the Argentinian public sector

- The Argentinian administration is headed by President Mauricio Macri, who was elected on 10 December 2015 and has a four-year term with the possibility for re-election. Previous central administrations did little to construct the necessary structures and systems to support the digital transformation. Throughout government, there is a sense of urgency to ensure a sustainable path to government reform by the end of this term, regardless of the outcome of the next election.
- Argentina is taking a portfolio approach to public sector reform, aiming to build a national public policy framework across many management and policy domains to achieve country-wide priorities and objectives. Digital government is one pillar of a broader reform context that also includes open government, public sector integrity and regulatory policy reform; and it has been signalled as one of the President's top priorities. The OECD has worked with the government of Argentina to carry out near-simultaneous reviews of all of these areas. These reform efforts and reviews have been carried out, in part, to support Argentina's intention to become a member country of the OECD.
- When the President took office in 2015, he created the Ministry of Modernisation (MoM), with a mission to co-ordinate a whole-of-government modernisation framework. The MoM was charged with catalysing digital government by developing cross-cutting technologies and government-wide policies. It housed a new digital services team and an innovation lab (LABgobar) and was staffed with proven experts in relevant digital fields, many of whom led successful digital transformation efforts for the city of Buenos Aires. In September 2018, in order to promote horizontality and reduce fragmentation, the President reorganised the government, placing the MoM at the centre of government and renaming it the Government Secretariat of Modernisation (Secretaría de Gobierno de Modernización, SGM). The SGM (and its predecessor, the MoM) has earned the respect and support of ministries and other public sector organisations across government.
- Argentina has a federated government structure, in which provinces and local governments have significant independence and autonomy. Several federal councils have been created to provide support to, and enable co-ordination and collaboration with, subnational levels of government. For digital government issues, this is done through the Federal Council on Modernisation and Innovation for the Public Administration (COFEMOD). However, ensuring alignment across levels of government is a challenge.

Moving forward together: Establishing a common, strategic and inclusive narrative

Strategic vision and goals

- The key guiding document for Argentina's digital government efforts is its Digital Agenda, which was formally implemented in December 2018 after a development process secured through the participation and support of all relevant ministries. It provides a government-wide project and principles-based vision for the digital transformation of the public sector.
- Across government, there is near-universal awareness of and support for the Digital Agenda.
- The SGM is responsible for overseeing government-wide progress in implementing the Digital Agenda, as well as ensuring it is kept up-to-date.
- The Digital Agenda is an important umbrella policy document and represents a significant step forward in establishing a common vision and goals. It moves Argentina closer to meeting the OECD Recommendation of the Council on Digital Government Strategies; however, it does not constitute a full digital government strategy in itself.
- The Digital Agenda was developed through a process that was inclusive within government. Bringing all relevant government actors to the table is helpful in ensuring goals are aligned and common ownership. However, opportunities were missed to be inclusive with the broader ecosystem of non-governmental actors, including the public.
- Meetings were held with select private sector companies and civil society organisations, but there was not a broad invitation for input and the agenda did not undergo a public consultation. There is an increased need for inclusiveness for future strategy, policy and service development.
- Going forward, a comprehensive and dedicated digital government strategy, developed through an inclusive process, with explicit strategic-level goals and objectives and an action plan and articulated road map for achieving them, could strengthen Argentina's digital government efforts in many ways. For instance, such a strategy could help rally everyone in government to work together towards common goals and advance cultural change to support the sustainability of reform efforts.
- Efforts to implement the Digital Agenda may not be sufficient to trigger the major, broad cultural shift needed ensure long-term sustainability. Interview and workshop participants cited that the public sector is in need of a broad culture shift, and surveys reflect uncertainty that current momentum in digital government would be sustained after a change of administration.

Proposals for action

In light of the above, the government of Argentina should consider implementing the following policy action:

Recommendation 1. Develop a dedicated digital government strategy defining a comprehensive and integrated set of strategic goals and providing a road map for a collaborative, open and inclusive implementation.

- Such a strategy should seek to ensure underlying practices and people across government are aligned under a common vision, fostering a deeper culture shift to help permanently embed the principles and efforts made under the current administration.
- The digital government strategy should be designed with the idea of affecting a cultural shift to help ensure the current administration's practices and approaches are sustainable over the long term, such as through institutionalising frameworks and building formal networks to facilitate implementation.
- Development of the strategy and all related and resulting policies and initiatives should be done in an open and inclusive manner, both inside government and with the broader digital ecosystem, including the public. This includes conducting public consultations for the strategy itself, as well as policies and services that are created in its implementation.
- The strategy should be complemented by an action plan, or roadmap for implementation and a system of indicators to monitor progresses and achievement of results.

Coherent implementation and communications

- Previous administrations had done little to co-ordinate ICT across ministries at the central level of government, creating a potential risk for duplicative, fragmented and overlapping processes and programmes.
- Argentina is increasingly shifting to using numerous channels for external communication, which is a positive change. It has increasingly focused on external communications and storytelling, but opportunities for improvement exist here as well. Documentation and communications challenges exacerbate problems related to fragmented operations and cross-government learning, as well as external storytelling to build citizen trust and support. This can have a negative effect on how the government is perceived by the public (e.g. trust and confidence in government).
- Nevertheless, the government is inconsistent in documenting processes, decisions, plans, progress and problems. This has a negative effect on its ability to share knowledge and lessons learnt, develop and work towards achieving strategies.
- One of the biggest needs for the country is widespread knowledge on what has already been done and sharing good practices and lessons learnt. There is a need to secure that citizens are generally aware of existing government initiatives and progress.

Proposals for action

In light of the above, the government of Argentina should consider implementing the following policy action:

Recommendation 2. Reinforce the National Office of Information Technologies (Oficina Nacional de Tecnologías de la Información, ONTI)'s role in developing common documentation standards and its ability to collect and disseminate best practices, lessons learnt, progress and challenges, both internally and externally.

- ONTI's work in documenting and sharing best practices is relatively recent. This practice is a positive step forward, and the government should reinforce its position in doing so.
- ONTI should be empowered to not only collect and share this information on its own, but to also enforce standards for documentation across government.
- Such standards should also consider external communication with the public, with the goal to increase awareness of digital government progress and services.
- Such reinforcement could be directed towards achieving the objectives of the Digital Agenda and an eventual digital government strategy.

Strengthening roles, responsibilities and structures

- Argentina has reached a level of maturity where ministries and other public sector organisations seek cross-governmental solutions and guidance, rather than taking all decisions from their own organisational perspective. This makes a clear governance structure and roles critical.
- The roles and responsibilities of the SGM (and its predecessor, the MoM) were strengthened since the creation of the MoM in 2015. In workshops, clear central leadership through the SGM was the most frequently raised positive factor of Argentina's digital transformation efforts. Interviews indicate a strong willingness to work and collaborate with the SGM.
- The SGM's position and authority for policy making and oversight are broadly recognised and respected. In interviews and workshops, there was near consensus regarding the major positive impacts and improvements that have come about over the last few years, which have been led by the SGM.
- However, key roles seen in most other governments do not exist in Argentina, or their existence is scattered and inconsistent. This lack of consistent clear roles and responsibilities contributes to siloed approaches, duplication of efforts and collaboration challenges.
- There is no government chief information officer (GCIO) or equivalent, which in other countries has become the most common way to co-ordinate digital government activities.
- The SGM is dedicating significant time and energy to conduct hands-on implementation support for ministries that could be better spent on central co-ordination and oversight.

- Digital governance at the ministry level is inconsistent, with some ministries having CIOs and Chief Data Officers (CDOs) with a positive effect, while others do not. The state of digital governance at the ministry level is siloed, with little ability to understand the authority and scope of other organisations.

Proposals for action

In light of the above, the government of Argentina may consider implementing the following policy action:

Recommendation 3. Clarify and formalise the governance framework for digital government at the central government and organisational levels. This could include the identification of a main position with strategic and co-ordination powers (e.g. GCIO or digital transformation officer) with a corresponding role within public sector organisations (e.g. ministries).

- In formalising governance, Argentina can clarify roles and responsibilities to minimise both gaps and excesses, while also providing clear points of interaction and accountability.
- More clearly formalising the SGM's leadership role and mission would allow it to focus more on central co-ordination, policy making and oversight rather than direct implementation.
- Strengthening digital governance at the level of ministries and other public sector organisations would allow these organisations to be able to better implement on their own the directives and policies put forth by the SGM.
- Creating uniform digital leadership roles at the centre of government and at the organisational level would strengthen the effectiveness of the institutional set-up and related responsibilities within the governance framework.

Connecting the dots: Leveraging a systems approach to achieve strategic goals

- Fostering a systems approach would help to further institutionalise Argentina's Digital Agenda by facilitating the alignment of priorities and actions across the whole administration.
- The has SGM demonstrated leadership in connecting with ministries, but the focus has largely been on bilateral co-operation on a ministry-by-ministry basis, not on bringing all of the relevant players together as a whole.
- Argentina has made progress on building conditions for a systems approach, such as the SGM's co-ordination of an executive board that guides the Digital Agenda, as well as topic-specific points of contact for a variety of digital and non-digital initiatives (e.g. open government, Mi Argentina website content).
- While progress has been made, opportunities exist to further co-ordinate government activities in a holistic, horizontal and joined-up way. Few believe that current inter-institutional co-operation and collaboration are sufficient.

- Although improving, general co-operation and co-ordination across ministries, other public sector organisations and levels of government is often fragmented, not systematic. Co-ordination occurs mainly on specific projects, not around strategic goals.
- For many ICT issues, there is no formal body for co-ordination and co-operation. Such co-ordination issues were frequently raised as challenges in workshops organised by the OECD.
- Beyond the central government, significant challenges remain in considering and involving provincial and local governments in systems approaches.
- The federated nature of the government of Argentina gives sub-national governments significant autonomy in setting their own ICT policies, services and products. Yet, the federal government has few levers to collaborate with subnational governments.
- The SGM relies on its co-ordination with the provinces through COFEMOD, but its decisions are non-binding, and officials are often unaware of COFEMOD. Also, while COFEMOD has had an impact, it may be worth exploring whether other opportunities exist to further align levels of governments, such as through funding incentives or conditions.
- Significant challenges exist in aligning subnational actions with national digital goals and ensuring interoperability and seamless services across levels of government.

Proposals for action

In light of the above, the government of Argentina may consider implementing the following policy actions:

Recommendation 4. Foster existing or create new connection points to promote horizontal (across central government) and transversal (across levels of government) co-ordination, co-operation, collaboration, knowledge sharing and collective action for digital transformation efforts.

- To the extent possible, such connection points should be aimed more towards cross-cutting strategic objectives, and less towards specific projects.
- These connection points should be promoted and heavily marketed, as many challenges are related to a lack of awareness regarding which conduits exist and what they can be used for.

Recommendation 5. Explore methods to further incentivise provincial alignment, such as through funding incentives or conditions for receiving federal funds, to support the achievement of outcomes of multi-level governance policies such as País Digital.

- While provinces have autonomy in setting their own policies and processes, it may be possible to provide incentives to help ensure that their ICT decisions are aligned with national goals and actions.
- In addition, provinces and other subnational governments often receive federal funding for ICT projects. It may be possible to secure alignment through funding conditions tied to the receipt of federal money.

Enabling success with the legal and regulatory framework and funding

Legal and regulatory framework

- The main driver of recent digital efforts has been presidential decrees, which have been successful for kick-starting transformation, but may be challenging for long-term sustainability as they are vulnerable to changes in future political priorities.
- The SGM is universally recognised as the leader in co-ordinating and overseeing digital efforts under the legal and regulatory framework. Argentina's framework provides the SGM with strong authority for making policies, conducting oversight, and co-ordinating the design and delivery of digital services.
- The State Modernisation Plan provides the blueprint for modernising the government. Major components of the plan are directly related to digital transformation, helping to provide a structure and signalling strong intent and priority from the top. The SGM is responsible for its co-ordination and execution.
- Although Argentina has a solid legal and regulatory framework for central leadership of digital government, opportunities exist to modernise the framework and strengthen it to ensure long-term sustainability.
- The SGM is pushing for a new modernisation law, which has been drafted with COFEMOD.
- Some laws and regulations appear outdated, and 91% of survey respondents stated that there is potential for improving the regulatory framework.
- Some areas in Argentina have recently undergone reviews of existing laws and policies in order to eliminate fragmented and unneeded regulations. This helps to understand the landscape of rules and clearing "deadwood". However, it is not clear that this was a comprehensive or horizontal effort, and it is not continuous.
- Few formal oversight mechanisms have been developed to ensure compliance with ICT rules, which hinders implementation and systems approaches.
- Significant and well-crafted guidance from the SGM remains in draft non-binding form, contributing to inconsistent implementation across government.
- Ministries are ready for stronger central guidance and oversight from the SGM.

Proposals for action

In light of the above, the government of Argentina may consider implementing the following policy actions:

Recommendation 6. Build and maintain a digital baseline of all relevant digital laws, policies, decrees and other rules.

- This would help everyone understand all the requirements, and would help to identify how different rules interact.
- This would identify: 1) policy gaps where resources and energy can be prioritised; 2) policy excesses that may hinder efforts and could be targeted through policy or legislative change; 3) areas that are not technology "neutral" and may become quickly outdated.

Recommendation 7. Continue to push for legislative change and develop legislative proposals and draft legal language for consideration by the legislative branch.

- Argentina's efforts to push for legislative change (e.g. the draft modernisation bill) are commendable and should continue. The government should consider dedicating additional resources to this task.
- In seeking legislative change, Argentina will need to ensure laws do not lock in requirements that may become outdated.

Funding the digital transformation

- The funding for the SGM itself is clear: it is financed with funds provided by the National Treasury, supplemented with international loans from the World Bank and the Plata Basin Financial Development Fund.
- The funding model for digital government at the ministry level is a fairly traditional one. Each ministry makes its own ICT budget based on the funding it is allocated from the legislative branch. Each ministry then executes its projects according to the objectives established for that one organisation.
- There are no provisions for funding outside of this siloed structure, limiting the potential for horizontal systems approaches and developing common solutions.
- Each organisation is driven by the mandates of its own mission, with little consideration of potential synergies or commonalities with other organisations.
- A number of countries have developed centralised funding to augment the traditional process, which Argentina could learn from.

Proposals for action

In light of the above, the government of Argentina may consider implementing the following policy action:

Recommendation 8. Consider the establishment of centralised funds to finance strategic ICT projects.

- Competitive centralised funds provide incentives for public institutions to comply with new standards and guidelines, and to align their efforts with the government's strategic objectives.
- Such a fund would not need to replace the traditional process, but rather would supplement it.

ICT procurement and commissioning for coherent policy implementation

Planning and approval of ICT projects

- The current central administration has made an effort to bring some order to how ICT projects are planned and approved at the central level.
- ONTI, under the Secretariat for Digital Government and Innovation Technology, within the SGM, leads these initiatives, focusing mainly on the ICT project planning and approval stages.
- ONTI's activities aim to bring further order and standardisation to the planning and development stages of ICT projects, with a focus on their long-term sustainability.
- ONTI has developed soft law instruments, such as the *Decálogo Tecnológico*, as means to provide greater coherence to the ICT project planning and development process. The *Decálogo* sets ten principles that public sector organisations can follow to better design their ICT project proposals in order to submit them for ONTI's certification in line with ONTI's guidelines.
- Other tools for ICT project planning include the Technological Standards for the National Public Administration (*Estándares Tecnológicos para la Administración Pública Nacional*, ETAP), the Standardised Technical Requirements (*Requerimientos Técnicos Estándar*, RTE), and, the Complex Technical Requirements (*Requerimientos Técnicos Complejos*, RTC).
- These tools intend to promote the adoption of common frameworks to enhance ICT projects' integration, standardise business case models for ICT projects with different levels of complexity, and align ICT project proposals with ONTI's guidelines by providing a non-binding certification, known as the *dictamen técnico*, once business cases are revised and approved by ONTI. The aim is also to promote transparency, improve the management of public funds and optimise economic procedures.
- While ONTI's initiatives have been successful in bringing further coherence and alignment to the ICT project planning and approval stages, its efforts have been greatly focused on the alignment and standardisation of ICT projects, the adoption of technology, and the approval process itself; focusing greatly on compliance with the *Decálogo*'s principles. These principles, rather than on control, focus on alignment with standards for public sector data and digital services (see sections on public services and data-driven public sector), and the overall benefits of ICT projects for citizens (e.g. in terms of public service delivery).
- It is mandatory for public sector institutions to follow ONTI's certification process (through the use of the Standardised Technical Requirements and the Complex Technical Requirements business case models), but the final certification or *dictamen* stands more as a recommendation as it is not of mandatory observance. Also, the central government does not use ICT project budget thresholds to structure the governance process related to the approval of these projects. This is in contrast to OECD practices where data for 2014 show that 80% of OECD countries at the time were using these instruments to better govern ICT projects across the broader public sector.

- Scalability is also missing in terms of how ICT projects are expected to contribute to the overall goals of the Digital Agenda and benefits for citizens. The current focus on the adoption of technology and compliance with ONTI's guidelines misses the value ICT projects can bring to the public sector, businesses and the society as a whole.
- The current ICT project planning and development process ignores the value of involving key actors within the public sector (such as those in charge of digital service design and public sector data standards) early in the development and approval of ICT projects. This would help to ensure alignment of strategic ICT projects with those standards by decreasing the need for implementing corrective measures once projects have been advanced and/or deployed.
- Argentina faces the challenge of involving stakeholders from outside of the public sector in the development of business cases for ICT projects. Doing so would bring further clarity on the expected benefits those projects would have for citizens.

Proposals for action

In light of the above, the government of Argentina should consider implementing the following policy actions:

Recommendation 9. Bring further order, alignment and control to the overall ICT procurement process from earlier stages of the ICT project planning process. This would require setting clear budget thresholds to:

- clearly define when ONTI's recommendations should be mandatory for the approval of digital projects
- make explicit the intervention of the SGM, or its relevant internal bodies, in the approval of mission-critical ICT projects, thus leveraging the location of the SGM in the Cabinet Office (see section on governance).

Recommendation 10. Consider the use of conditional funding models as policy levers to enforce alignment with whole-of-government ICT project standards.

- This may help ensure the alignment of ICT projects with digital government services, public sector data and ONTI's standards such as the Decálogo Tecnológico, the Standards for Digital Services, and those standards for public sector data quality developed by the National Direction of Public Data and Public Information (Dirección Nacional de Datos e Información Pública, DPDI).

Recommendation 11. Involve stakeholders inside and outside the public sector in the development and approval of business cases for ICT projects.

- Moving from a focus on outputs (the adoption of technology) to one that prioritises outcomes (the expected benefits for citizens and the public sector) is crucial to deliver policy results and contribute to the goals of the Digital Agenda. The involvement of all relevant stakeholders can help in this respect.
- This would also help to align digital projects with digital government and data standards (see sections on public service design and delivery and data-driven public sector).

Procurement and management of ICT projects

- ONTI's role starts at the project design and approval stage and stops once the *dictamen* is issued; thus the mandate for the government's public procurement system is the responsibility of the National Contracting Office (Oficina Nacional de Contrataciones, ONC), which is in charge of ensuring that the government's procurement processes comply with national procurement regulations.
- The ONC is also in charge of the management of the Argentinian public procurement platform COMPR.AR (*comprar.gob.ar*). All public procurement projects (including ICT projects) must be published on this public procurement platform. Yet, there is lack of causality tracking that would allow ICT projects to be tracked from the earlier conception stages to their procurement, management, monitoring and finalisation.
- As of March 2019 ONTI was in the process of developing a framework agreement in the context of the use of the cloud in the public sector. Yet, results from the survey carried out for the purpose of this review show the need for scaling up these efforts and following a government-as-one-client approach in regard to the commissioning of other ICT products and services.
- Survey results show that open tenders are the most used method for the procurement of ICT goods and services among those organisations that provided a response to the questionnaire. This evidence is supported by the workshops organised in the context of this review, when stakeholders also expressed the need for "identifying common digital resources and tools to follow a government-as-one client approach for procurement", and to "enable global procurement" through the use of framework agreements that can benefit transversal projects.
- Lack of clarity in relation to the management, monitoring and control of digital project throughout the whole ICT project commissioning cycle (from *ex ante* approval to finalisation). Indeed, there is no standardised model for the management of ICT projects at the central government level.[1]
- The opportunity at this stage is not only related to the further adoption of ICT project management practices in the public sector, but in terms of avoiding adopting and/or duplicating practices that might become obsolete in the medium or long term (e.g. waterfall management).
- The need for a "flexible procurement and management model" (e.g. agile and use of DevOps methods) is as an area of opportunity identified during the OECD workshop organised in Buenos Aires in December 2018.

Proposals for action

In light of the above, the government of Argentina should consider implementing the following policy action

Recommendation 12. Sustain efforts to develop framework agreements for ICT procurement.

- This would help to enable the implementation of a general government-as-one-client approach in relation to the commissioning of ICT products and services,

reducing costs in the procurement of ICT products and services, and enhancing control over ICT expenditures in compliance with central standards.

Recommendation 13. Move towards ICT commissioning in the public sector. This would imply the adoption of:

- A holistic ICT agile project management model for the public sector with a focus on delivery and the adoption of inclusive agile management models to enable greater project accountability and control in a more simplified, efficient and agile fashion.
- A digital marketplace for the public sector to streamline the supplier selection process, open business opportunities for small actors (such as small and medium-sized enterprises), and incentivise a more dynamic market environment.

Control and evaluation of ICT project expenditures

- The absence of a holistic strategy on ICT procurement (or commissioning) also has an impact on how ICT projects are controlled and how results are assessed, if done, by the relevant bodies.
- ONTI's efforts aimed to implement a focus on the sustainability and life cycle of ICT projects, but there is no clear evidence that there are relevant accountability mechanisms in place to control project development and evaluate expectations vs. real results in an iterative fashion. In general terms, project evaluation can take place at the ministerial level, but this does not seem to be the common practice in terms of ICT projects.

Proposals for action

In light of the above, the government of Argentina should consider implementing the following policy action:

Recommendation 14. Support the adoption of a formal and iterative reporting mechanism to reinforce monitoring and control across the whole ICT commissioning process.

- Argentina needs to explore and decide on the level of central control that is needed to ensure the accountability of ICT projects at the operational level and their contribution to the overall digital agenda in the country.
- The role and intervention of actors such as ONTI, the SGM and the Ministry of Finance can be determined based on a project's relevance and value in relation to the objectives of the Digital Agenda.
- At this evaluation stage, it would be necessary, however, to differentiate between minor-scale ICT commissioning projects and those of more strategic value as the accountability and evaluation mechanisms in place and the levels of central control and monitoring would differ based on the strategic value of ICT projects. However, control and alignment with the broader digital government policy is required in both cases.

Building and attracting talent for the digital transformation of the public sector

The recommendations included in this section should be understood in the context of public sector employment and cultural transformation reforms in Argentina in place since December 2015. These reforms include policy measures addressing organisational restructuring, behavioural change, public employment processes, training and development, among other interventions.

Digital transformational competencies and digital skills: Employment data and competency frameworks

- Developing the public sector's competencies is a priority of the current administration, drawing upon the value of such competencies as enablers of a stronger organisational culture within the public sector.
- These efforts are often led by two key players: 1) the Secretariat of Public Employment (Secretaría de Empleo Público, SEP); and 2) the National Institute of Public Administration (Instituto Nacional de la Administración Pública, INAP).
- The SEP, a body within the SGM, has made great strides to enable a culture of change in the public sector by developing a competency framework for the public sector.
- Skill development programmes like *Líderes en Acción* (focused on young officials), *Construyendo Nuestro Futuro* (focused on high-level public managers) and *Protagonistas de Recursos Humanos* (focused on human resource management officials) illustrate the multi-faceted nature of the efforts implemented by the SEP.
- Yet, there is a lack of clarity in terms of how the SEP's competency framework describes what hard and soft digital skills are needed to enable digital transformational change across the whole government. There is a need to define clear digital profiles which can standardise shared roles across the public sector, and describe what hard and soft skills are needed in each specific role, including the need of building a more empathic and citizen-oriented culture.
- The heritage of inaccurate data on public sector employment stresses the need for (re)constructing the basics in terms of good-quality data in this realm, which would be useful for taking evidence-based policy decisions.
- As a result, in 2019 the SEP launched the Integrated Public Employment Database (*Base Integrada de Empleo Público*, BIEP) initiative with the goal of unifying and improving the quality of information and data sources on public sector employment to support decision making, and to avoid duplication of tasks and data inconsistencies. The project consists of the development of software solutions that can serve as an interface to share public sector employment information, and inform other human capital management systems.
- INAP stands as a long-term government ally in terms of building public sector capability, and it benefits from support and credibility from other government institutions and external actors.
- INAP, together with LABgobar, has also been a key ally in the development of data and innovation skills in the public sector (see section on data-driven public sector). But it is necessary to focus the training strategy on those skills that are more in

demand by public officials, instead of sustaining the current "ready-made" top-down approach that does not meet the actual needs or interests of public officials.

Proposals for action

In light of the above, the government of Argentina should consider implementing the following policy actions:

Recommendation 15. Sustain and scale up capacity-building activities related to digital and public sector innovation skills in the public sector, namely those implemented by the SEP, INAP and the innovation lab, LABgobar.

Recommendation 16. Sustain the development and deployment of the BIEP initiative drawing on its value as a source of good-quality and trustworthy employment data.

- The BIEP is and will remain mission-critical to tackle the deficit in terms of the production, sharing and reuse of employment data. Its long-term value should therefore not be ignored, particularly in light of its contribution to informed policy making.

Recommendation 17. Update the SEP's competency framework and job profiles for the public sector.

- This would clarify what hard and soft digital skills are needed in the Argentinian public sector, bring coherence to the talent commissioning process (see Recommendation 21) through standardised and updated job descriptions, and guide capacity-building efforts not led by the current lead bodies.
- The revised competency framework and job descriptions could benefit from crowdsourcing ideas from all relevant actors in the public sector, including those actors not actively working on open government, digital government or public sector innovation.

Recommendation 18. Underline the value of multi-faceted teams, shared knowledge, communities of practice and demand-driven training activities.

- This will be crucial to build intrinsic motivation, enable a digital- and innovation-prone public sector culture, motivate public officials to engage in training activities, and move towards greater maturity in terms of digital competence within the public sector.

The challenge of sustainability: Retaining and attracting talent

- As in many other countries, the Argentinian public sector is not fully protected from political transitions, and faces sustainability challenges in terms of attracting external talent and retaining internal talent. Political changes have a direct implication on the permanence of public officials in high-level positions.
- This context also poses a particular policy challenge considering the fact that in Argentina, several key initiatives are conceived at the director, or top management, level and specific skill-building programmes (such as the SEP's *Construyendo Nuestro Futuro* and the Design Academy of Public Policy's executive programmes) are directed to these managerial levels or above.

- In this light, the long-term value of capacity-building efforts requires taking action to further build up public sector digital competence, and reinforce the civil service skill base in the broad public sector. INAP has already started addressing this challenge by developing a specific programme to build digital competencies within the public sector that will cover areas such as management, communication and innovation.
- Retaining talent is one of the most relevant challenges in the current public sector context. Key bodies within the SGM in charge of digital and innovation have faced employee turnover as job opportunities and salaries in the private sector[2] (together with a more agile and innovation-driven mindset and culture) are simply more attractive to skilled employees – a context which is not endemic to the Argentinian case.
- This reinforces the need to secure and retain an adequately skilled public sector workforce at all levels in order to address instability and human capital turnover, decrease the negative impact of political transitions, increase organisational resilience, and build up long-term public sector collective knowledge.

Proposals for action

In light of the above, the government of Argentina should consider implementing the following policy actions:

Recommendation 19. Stress the value of INAP's initiatives is key to building a digital state that relies on a strong knowledge-based public sector.

- While other leading bodies such as the SEP and LABgobar implement key capacity-building programmes, the sustainability of these initiatives can be linked to the permanence of those public officials behind them. Professionalising hard and soft digital skills can reduce the impact of political transitions by detaching digitalisation efforts from specific political administrations.

Recommendation 20. Enabling the right culture, including public sector employment development and mobility, can help to reduce the turnover of digital talent.

- Cultural factors (such as the possibility of working in agile environments) can also determine the willingness of staff to stay.
- Retaining and attracting skilled human capital to the public sector requires moving from monetary incentives to creating the needed environment and culture to retain and attract talent to the administration (e.g. harnessing civic passion, working environment, public sector challenges).
- Defining clear career development paths and horizontal mobility programmes can motivate and incentivise people to stay in the public service.
- In the short and medium term, a strategy focused on building and retaining internal talent could help to deliver sustained value in light of the current restrictions in place for the recruitment of new staff between July 2018 and December 2019, defined by Presidential Decree 632/2018.3

Balancing public and private partnerships

- The challenges faced by the Argentinian public sector in terms of retaining, recruiting and attracting talent, and the salary gap between the public and private sectors, has led the government to opt for temporary employment models that provide higher compensation when compared to market costs.
- This opens a window of opportunity to streamline government, in line with the current austerity measures, making it more agile by increasing collaboration with the private sector, and defining dynamic talent commissioning models that are appealing to external talent.
- During the workshops organised by the OECD Secretariat in July and December 2018, stakeholders expressed the need for creating stronger bridges, partnerships and synergies between the public and private sectors, creating a digital community, and enabling the exchange of knowledge. Stakeholders also expressed their concerns in terms of the slow and cumbersome processes in place for the commissioning of external talent.

Proposals for action

In light of the above, the government of Argentina should consider implementing the following policy action:

Recommendation 21. Implement an agile talent-commissioning model.

- This would help to attract external talent to work on a project and ad hoc basis, lever the value of proven external talent, and streamline cumbersome hiring processes.
- This approach can also benefit from the definition of pre-approved pools, integrated by talent within and outside the public sector.

Skills for public sector innovation

- The SGM's leadership in terms of public sector innovation was widely acknowledged by public sector organisations during the peer review missions to Buenos Aires and the data collected through the institutional survey.
- The creation of LABgobar – a multi-disciplinary team which depends on the Undersecretariat of Public Innovation and Open Government of the SGM – has been successful in terms of providing project-specific assistance to ministries, provinces, decentralised agencies and municipalities centring on the use of tools that can help foster innovation and bolster a culture of experimentation.
- The Lab's Design Academy of Public Policy – managed in co-ordination with INAP – provides a learning environment to establish and scale up innovation skills and tools in order to drive and grow an innovation-prone culture in public sector organisations.
- There is a missed opportunity in terms of scaling up the activities of the lab. So far, it seems that the lab has been successful at developing innovation skills at the technical level, but challenges remain in relation to connecting the value of public

sector innovation with other policy areas in a broader sense, like, for instance, mainstreaming the use of agile practices for ICT commissioning.

- Results from the institutional survey also point to the fact public sector organisations struggle to make a clear distinction between digital public sector innovation and more traditional modernisation efforts (e.g. e-procurement, the digitisation of formalities, paperless government).

Proposals for action

In light of the above, the government of Argentina should consider implementing the following policy action:

Recommendation 22. Scale up and mainstream the activities of the LABgobar to make explicit the value of public sector innovation to specific policy sectors at the strategic level.

- There is a need for conceiving public sector innovation, including digital innovation, as an activity or mindset exclusive of technicians or mid-level managers.
- Greater collaboration and mutual learning at the top level can help to better influence policy making and the activities of line ministries and other relevant public bodies with innovative ways of designing, implementing and delivering public policy.

Public service design and delivery

- Building a paperless government, improving digital public service delivery and streamlining the government-citizen relationship have been priorities for the central government in Argentina since 2015. Most of these initiatives have been built in a short period of time, from the ground up, at least at the central level.
- While policy achievements are clear, Argentina will face the challenge of ensuring the sustainability of these efforts in the long term, making clear that foundational initiatives supporting the digitisation of processes would eventually leave more room for the digitalisation and transformation of the public sector in the broader sense.

Building a paperless government

- The Electronic Document Management Platform (*Plataforma de Gestión Documental Electrónica*, GDE) did not exist prior to 2015 at the central level and it has undoubtedly generated efficiencies and positive benefits and value for the public sector.
- By March, 2018, 100% of organisational procedures within central ministries had been digitised by the central government. This results from a combination of clear policy goals and political will, and provides a platform to further advance interoperability and modernisation efforts in the public sector.

- The GDE provides a system to communicate, produce official documents and manage document files within the public sector; enables the use of electronic and digital signature within the central government; and provides an underlying platform for the development of government-citizen interaction websites such as the Remote Formalities Platform (*Trámites a Distancia*, TAD).
- The Secretariat of Administrative Modernization gives priority to the digitisation of procedures, leaving re-engineering for a later stage. This approach intends to deliver quick policy results under the argument that re-engineering is easier and resistance to change is lower once processes are digitised.
- Findings of other OECD peer reviews (see the *OECD Review of Regulatory Policy in Argentina*) support this finding. This points to the fact that "while there was a clear improvement and simplification of processes in the conversion from physical procedures to paperless systems, Argentina did not actively seek the re-engineering of processes".
- Yet, there seems to be a conflicting understanding among public officials in relation to whether the abovementioned approach is the way to follow in relation to public sector modernisation. For instance, During the workshops that were organised in Buenos Aires (July 2018), stakeholders expressed that there was a tendency in the public sector to focus on digitising processes first and then re-engineering them later, instead of reconceiving and simplifying processes before building new digital structures on them.

Proposals for action

In line with the analysis and recommendations of the OECD Review of Regulatory Policy in Argentina, the government of Argentina should consider implementing the following policy action:

Recommendation 23. Ensure that modernisation and administrative simplification efforts consider the re-engineering of internal processes whenever needed prior to the adoption and implementation of ICTs.

- Argentina risks creating a public sector infrastructure that replicates the approach followed by the most advanced OECD countries years ago, which are currently struggling to overcome legacy challenges towards the digitalisation of the public sector.
- There is a need for reaching a common ground within the public sector, and the relevant teams involved, to find the best approach that fits the immediate needs of the Argentinian public sector in the short term without compromising digital transformation in the long term.

Key enablers, standards and shared services

- Argentina has made some progress to consolidate the foundations for a digital government.
- The 2016 Register Simplification Decree and Resolution 19/2018, which created the interoperability module INTEROPER.AR, added to advancing interoperability efforts in the public sector and reinforced previous initiatives in place since 2008.
- Some base registers are also available at the central level, including the National Population Register (RENAPER), the National Recidivism Register, the Social Security Register (ANSES) and the Federal Administration of Public Revenues (*Administración Federal de Ingresos Públicos*, AFIP).
- The National Direction of Digital Services (NDDS), within the SGM, has established a series of standards for the development of digital public services.[4] These instruments provide a set of standards for the use of application programming interfaces (APIs) and the development of websites (e.g. the *Poncho* framework)[5] and mobile applications.
- The NDDS has drafted a series of principles that guide the development of digital services. Among other relevant points, these principles highlight the need for prioritising user needs, using data as evidence, and considering multi-channel approaches for public service delivery and access.
- Yet, a hard governance for digital government and greater central control might be required to ensure these guiding frameworks and standards are indeed observed by public sector organisations when developing public services. Control and enforcement from the centre might be needed to ensure that digital government tools and platforms are adopted in a coherent way and in line with central guidelines.
- In July 2018, the SGM launched the Digital Identity System, drawing upon the widespread use of the National Identity Document and the data available on RENAPER. The underlying Biometric Identification System is intended to work using the biometric face recognition information that RENAPER has collected for every Argentinian citizen.
- The development of the citizens' wallet within the Mi Argentina web-based and mobile platforms provides an example of the current use of digital identity applications. The Digital Driver's Licence is already available in the wallet and other credentials, such as the ID card, disability certificate, vaccination certificate and vehicle insurance documents, are expected to be available in the near future.
- The Argentinian government will face two key challenges to the widespread use of one single eID tool: 1) avoiding the proliferation of other digital identification tools in the medium and long term; and 2) ensuring the adoption of one single tool by other public sector organisations, particularly those with identification and/or authentication systems already in place.
- In 2017, Decree 892/2017[6] gave birth to the Platform for Remote Digital Signature. It seems, however, that the uptake of this tool (which allows citizens to sign digital documents in their interactions with public sector organisations) is not widespread across the public sector, and its main use centres on the interaction and signature of official documents among public sector organisations.

Proposals for action

The government of Argentina should consider implementing the following policy actions:

Recommendation 24. Involve the National Direction of Public Services and the National Direction of Public Data and Public Information in the development of business cases for ICT projects.

- This would help to support the alignment of ICT projects with digital services and data standards, the adoption of common components such as eID tools, and highlight how priority projects may contribute to the overall goals of the Digital Agenda.

Recommendation 25. Sustain efforts to promote the adoption of a central eID system as a priority tool in citizens' interaction with public sector organisations.

- This would help to ensure the interconnection of public sector digital services, avoid the proliferation of digital identification systems and streamline government-citizen interactions.
- The availability, uptake and promotion of the use of one single digital identification tool for the public sector would reduce the complexity and streamline government-citizen interactions, unless the whole-of-government solution does not meet the specific business needs of the public sector organisation.
- Transparency and consent in terms of the use and sharing of citizens' biometric information would be needed to build public trust for the implementation of this tool in the public sector.

Public service design

Once-only and integrated services

- The real-world implementation of the once-only principle (the right of citizens to provide the same information only once to governments) is also debatable.
- The NDDS' ability to move forward a "once-only" approach in public service design is limited, as often this body does not own these services (i.e. other bodies deliver them).
- The strategic publication of APIs could help to further integrate data, processes and services in the public sector, and allow greater data exchange with external actors.
- It is not clear how the interaction between the TAD platform, focused on offering formalities (English for *trámites*), and Mi Argentina, focused on digital services *stricto sensu*, works. Currently, the delivery of and access to online formalities and digital services is fragmented.

Proposals for action

The government of Argentina should consider implementing the following policy actions:

Recommendation 26. Advance the integration of Mi Argentina (see section on digital service delivery) with other platforms such as TAD.

- This can reduce the fragmentation of public service delivery and support the implementation of the once-only principle, drawing on the greater integration and interoperability of these platforms in the back end.
- The broader goal should be to simplify users' experience when carrying out any type of interaction with the Argentinian public sector.

Recommendation 27. Scale up efforts in terms of the publication and adoption of public sector APIs and open source software can help to further integrate data, processes and services in the public sector, and allow greater data exchange with external actors.

Citizen-driven services and engagement

- The principles and initiatives developed and implemented by the NDDS are clear in terms of putting the citizen at the centre of public service design and understanding citizens' needs. This body also developed other principles to usher the government-citizen relationship (*Principios de Atención al Ciudadano*). These principles highlight "empathy with the citizen" as a guiding principle to improve the understanding of users' needs. In practice, the digital services team runs usability studies and has set up different tools for users to evaluate their products (e.g. Mi Argentina).[7]
- However, in general terms, while understanding citizens' needs is at the core of the principles guiding the design of digital public services, the focus is more on ensuring the usefulness of public services rather than investing resources on user engagement from early stages. For instance, during the design stage of public services, service designers assume citizens' needs. These assumptions are later tested once the service is already in the alpha or beta version design stages.

Proposals for action

In line with the joint recommendations on digital government and open government provided as part of the *OECD Open Government Review of Argentina,* the government of Argentina should consider implementing the following policy action:

Recommendation 28. Support the comprehensive implementation of user-driven approaches in the design and delivery of public services.

- The Argentinan government is undergoing a crucial learning process, led by the SGM and its relevant bodies, in relation to moving forward a digital agenda in the country. The outcomes of this process will inform how digital government goals are operationalised and will guide digital government initiatives in the coming years.

- The SGM needs to lead by example and ensure that policy guidelines and standards are fully understood, adopted and implemented by service designers and owners across the public sector.
- The adoption of user-driven principles requires moving from a moderate approach to engaging users to an in-depth and immersive application of those principles. Along these lines, the Argentinian government would benefit from involving and promoting users at an earlier stage in the design of public services.

Cross-border services

- Cross-border interoperability efforts are not new to Latin American countries. Recently, the creation of a Digital Agenda Group in the context of the Southern Common Market (MERCOSUR), which is comprised of Argentina, Brazil, Paraguay and Uruguay as active members,[8] reflects the relevance that cross-border co-operation has in the context of a shared digital agenda for the region.
- In April 2018, the Digital Agenda Group defined the interoperability of digital public services as one of the potential priority areas of work for the group.[9] In June 2018, MERCOSUR leaders agreed on the development of an action plan for the region[10] and it is currently (April 2019) working on identifying public services that could be delivered across borders.
- Cross-border approaches appear to be a policy priority, as reported by the SGM, but it is not clear in terms of policy implementation if action is being taken by public sector organisations to move forward in this respect.

Proposals for action

The government of Argentina should consider implementing the following policy actions:

Recommendation 29. Move forward in the definition and implementation of cross-border public services and data sharing with other economies in the region.

- The decisions and outcomes of the Digital Agenda Group of MERCOSUR will aim to guide regional policy in the years to come. Argentina can tap into this opportunity, drawing on the current achievements in the design and delivery of public services (such as the Digital Driver's License).
- Going forward in the definition of cross-border services may require updating the data protection legislation (see section on data-driven public sector), and defining stronger cross-border data governance frameworks that can help to build a trustworthy data-sharing environment in the region.

Public service delivery and access

- Achievements are clear in relation to the delivery of digital public services. Argentina.gob.ar and Mi Argentina are the key pillars of the National Public Sector Digital Platform. These services have been created since 2015.
- Argentina.gob.ar and Mi Argentina are both the responsibility of the NDDS. Argentina.gob.ar enabled the front-end consolidation of scattered government websites into one single platform while MiArgentina streamlined and facilitated the

government-citizen relationship by re-engineering processes and using digital tools to facilitate delivery through online and mobile channels.

- As of October 2018, 1.5 million users had registered on Mi Argentina. Services include advanced booking (*turnos*) for document certification (*apostillamiento*), vaccination appointments and online certifications from ANSES. Recent developments include the Digital Driver's Licence.
- Digital inclusion is a high priority for the central government. Efforts to increase digital inclusion and connectivity include initiatives such as the National Plan of Digital Inclusion (*Plan Nacional de Inclusión Digital*) and *País Digital*.
- The National Plan of Digital Inclusion was launched in March 2017 with the objective of developing the digital literacy and digital skills of the population across the country. It is being implemented in 24 provinces and 152 municipalities and responds to the priorities of the National Digital Agenda in terms of digital inclusion.[11] By March 2019, the Argentinian government had trained 255 000 people under the plan.
- Other initiatives include the Ministry of Education's "*Plan Aprender Conectados*" and "*Núcleos de Aprendizaje*" (both seeking to build the population's digital skills over the long term), and the "+ Simple" (which aims to increase the elderly population's access to digital devices such as tablets).
- Challenges and untapped opportunities remain in terms of digital connectivity and inclusion. In Argentina, less educated households face greater issues to access basic digital tools such as computers or the Internet. However, according to data on mobile phone access for households with no educational background, there is a window of opportunity for investing more resources in the delivery of mobile-based public services (e.g. through the Mi Argentina mobile app). This underlines the importance of continuing to invest in mobile-based solutions while maintaining multi-channel access to public services.

Proposals for action

The government of Argentina should consider implementing the following policy action:

Recommendation 30. Sustain the efforts implemented by the SGM in terms of digital inclusion and connectivity.

- Digital inclusion and connectivity should remain a priority for the current and future administrations in Argentina in order to deliver results in line with the goals of the Digital Agenda, and to promote a civic, government and business innovation that do not create greater social and economic disparities.
- Ensuring multi-channel accessibility to public services can help to democratise policy benefits to all sectors of the population while ensuring progress in relation to the digitalisation of service design and delivery.

Data-driven public sector

The state of data governance in the Argentinian public sector

- In Argentina, a group of public sector organisations has responsibility for defining and implementing different policy elements related to data governance.
- The SGM is in charge of advancing data interoperability and open data efforts in the public sector. Within the SGM, the National Direction of Public Data and Public Information (Dirección Nacional de Datos e Información Pública, DPDI) leads these initiatives.
- The Access to Information Agency (Agencia de Acceso a la Información Pública) is responsible for the implementation and enforcement of the 2017 Freedom of Information Act[12] and the 2000 Data Protection Act.
- Other public bodies also hold important responsibilities in the definition or implementation of key data-related initiatives, such as the management of data registers. These include the National Institute for Statistics and Census (INDEC), the National Geographic Institute, the central tax authority (AFIP), the social security agency (ANSES), and the Ministry of Social Development.
- The National Direction of Public Data and Public Information has acted as a *de facto* chief data officer for the government. First, it focused on the publication of open government data. Second, it brought further control to the data management process and addressed legacy issues related to public sector data integrity and quality.
- The DPDI has taken a "soft" approach to implementation, learning first and regulating second – an approach levered by the need of delivering results fast in the context of four-year political cycles at the central level. While this approach may have contributed to faster, more flexible responses in a changing implementation environment, three years down the road it is now apparent that there is a need to move towards a more solid, institutionalised policy framework.
- While the DPDI has made progress to identify contact points across public sector organisations in the context of open data efforts, evidence suggests the need to scale up this network from a purely technical and operational perspective to include a more comprehensive strategic vision and roles. Yet, Argentina, like many OECD countries, lacks an explicit formal requirement to appoint institutional chief data officers for central/federal line ministries and agencies.[13] When appointed, these roles have mostly focused on complying with data publication regulations.
- Evidence suggests that between 2016 and 2018, Argentina invested heavily in raising awareness and building data-related skills within the public sector, with INAP and the SGM (through different bodies) as the leading public sector organisations in this regard (see section on digital talent).
- Within the DPDI, the Direction of Analytical Services (Dirección de Servicios Analíticos) promotes and assists public sector organisations in the development of evidence-based public policies and services through the use of data science and behavioural economics methodologies, tools and techniques.
- Altogether, these capacity-building exercises target stages of the data value chain *de facto* (e.g. data and information management, data protection and privacy, open

data, and data analytics) and show the willingness of the Argentinian government to address deficits within the public sector related to data competencies in the long term.

Proposals for action

The government of Argentina should consider implementing the following policy actions to reinforce data governance in the public sector:

Recommendation 31. Consider the development of a data strategy/action plan for the public sector. The data strategy:

- Should be understood as a sub-element of a potential digital government strategy. This would imply linking the data strategy with the goals of the Digital Agenda (including public service delivery, the digital economy, business innovation and civic technology), and its contribution to the activities of line ministries (e.g. social development, justice).
- Could help to consolidate scattered data efforts under one single policy umbrella, provide greater coherence to scattered data governance instruments, and inter-connect data policy elements, including data protection, cross-border data sharing and data interoperability efforts.
- Would benefit from the contributions of internal and external actors, and clarify responsibilities, thus avoiding risks in terms of accountability.

Recommendation 32. Formalise a clear and stronger leadership for data in the public sector.

- This leadership role may take the form of one person, or a group of leading front-runner organisations leading data efforts in the public sector, beyond those bodies within the SGM.
- The new location of the SGM within the Cabinet Office (which also oversees data privacy) is an opportunity to better lead and connect different public sector initiatives under a common leadership role with stronger political leverage.

Recommendation 33. Define a formal network of institutional chief data officers/data stewards in line ministries to facilitate the coherent and strategic implementation of data efforts and enhance, or enforce, horizontal collaboration.

- Argentina may benefit from the formalisation of these networks by ensuring that these roles respond to strategic data governance matters instead of mere technical data-related issues. Yet, co-ordination and collaboration is needed at all levels, from strategic to operational layers.

Recommendation 34. Include data skills and competences as part of updated public sector competency frameworks (see section on building and attracting digital talent).

- Argentina would benefit from further clarifying competency and skill frameworks for the public sector, including data profession descriptions.

- Clarity is needed in terms of what skills and competences are required in each different stage of the data value chain (from data interoperability to data openness, science and analytics).

Data protection: Balancing openness by default and privacy

- The state of data protection in Argentina shows clear signs of evolving towards greater maturity. Indeed, privacy and data protection emerged as recurrent issues during the peer review mission and the workshops organised by the OECD in July and December 2018.
- In September 2017, the former Access to Public Information Agency became the Data Protection Authority (DPA). As a result, the DPA gained autonomy – a key element for the protection of personal data according to international standards. The DPA was also granted its own annual budget.
- The DPA is moving forward to better map and control personal data registries across the public sector, and to update the National Direction of Personal Data Protection's (Dirección Nacional de Protección de Datos Personales) Register of Databases.[14]
- On 25 February 2019, Argentina became the 54th Party to the Convention for the protection of individuals with regard to Automatic Processing of Personal Data and its additional Protocol ("Convention 108"), the only existing legally binding international treaty with global relevance in this field.
- Argentina is also an adherent to the 2017 Personal Data Protection Standards developed in the context of the Data Protection Ibero-American Network (Red Iberoamericana de Protección de Datos). These standards, which stand more as a set of common principles, incorporate cross-border data flows and data portability,[15] hence the need of reflecting these principles in national law and clear policy actions.
- Efforts to update the Data Protection Law are already underway under the leadership of the Access to Information Agency and its National Direction of Personal Data Protection.[16]
- On 19 September 2018, the executive sent a proposed bill to change the current data protection law to the Congress. The draft bill is intended to provide a high level of protection of personal data, adapting to the new international standards on the matter and, at the same time, bring new possibilities for innovation and investment in Argentina.

Proposals for action

The government of Argentina should consider implementing the following policy action to reinforce data governance in the public sector:

Recommendation 35. Sustain efforts to update the 2000 Data Protection Law in order to emphasise relevant principles such as citizens' consent, data anonymisation and cross-border data flows.

- The role of the Access to Information Agency, and its close collaboration with the SGM and its relevant sub-bodies, will be crucial to ensure that data protection is rightly balanced with data sharing and data openness practices in the public sector.

Data federation: Enabling greater data sharing and interoperability

- Data sharing and interoperability emerged as one of the most voiced concerns raised by stakeholders during the peer review mission and the workshops organised in July 2018.
- The current administration inherited legacy challenges in terms of data integrity (e.g. in relation to official statistics) and the availability of critical data for a well-functioning public sector (e.g. data on public sector employment). As a result, the production, sharing and interoperability of good-quality public sector data are at the core of the activities of the Argentinian government.
- The DPDI's vision to address these issues is based on a Data as a Service (DaaS) approach. The DaaS follows a quality-from-the-source principle for the production of public sector data. It was designed to ensure that government data can be produced as good quality and interoperable data by design prior to their publication and sharing within and outside the public sector.
- The DaaS facilitates data publishing and data consumption through the development of APIs (web services), based on 100% open data, designed in the open, and to be easily deployed by third-party organisations.
- The Time Series API (*API de Series de Tiempo*), the API for Location Services (*API del Servicio de Normalización de Datos Geográficos de Argentina*), and the Guide for the Identification and Use of Interoperable [data] Entities are clear examples of real-world implementation of the DaaS approach. Together these initiatives support the generation, sharing and reuse of good-quality government data by internal and external data users, and facilitate data analysis practices for informed policies.
- Nevertheless, opportunities remain in different areas, including the wider adoption of technical data standards in public sector organisations (particularly those that might be mission-critical to deliver public value) and ensuring the scalability and flexibility of data federation and interoperability platforms.
- Other areas of opportunity include the replication of data mapping efforts to assess data assets within the public sector (as done by the DPA), and the use of cloud-based services for better data management and sharing, and, consequently, for the design and delivery of services.

Proposals for action

The government of Argentina should consider implementing the following policy actions to reinforce data governance in the public sector:

Recommendation 36. Sustain and scale up data federation, quality, sharing and interoperability efforts in the public sector.

- The greater adoption and promotion of the DaaS approach across the broad public sector, and the scalability of the Data Interoperability Platform, can help to deliver value in terms of policy making, public service design and delivery, as well as public sector efficiency.

Recommendation 37. From a technical perspective, the construction of a data-driven public sector in Argentina can benefit from the long-term sustainability of the following actions:

- Enforcing the implementation of data quality and interoperability standards by ensuring the participation of the DPA and the National Direction of Public Data in the revision and design stages of relevant public sector initiatives that can benefit from data-driven approaches.
- The further deployment of API-driven data-sharing models for the integration of data, services and processes.
- The discoverability of public sector data through mapping and categorisation exercises. This can help to identify data assets and gaps to inform the next steps in terms of a data strategy for the public sector.
- Promote the use of cloud technologies (e.g. through ARSAT cloud services) for data storage, management and analysis in line with data protection and cross-border policy regulations.

In support of the recommendations of the *OECD Integrity Review of Argentina*,

Recommendation 38. Drawing upon the value of current data federation and interoperability platforms, support the collection, discoverability, interoperability, reuse and publication of data for public sector integrity.

- This means connecting key data registers and/or data catalogues (e.g. tax, cadastral registers) across those public sector organisations with a specific role in terms of designing and implementing integrity and anti-corruption initiatives in the public sector (e.g. the Anti-corruption Office, Employment, Treasury Attorney General's Office, Financial Intelligence Unit).

Opening up government data

- The 2016 Decree on Data Opening Plans set the policy basis for the publication of open government data which was then put into practice under the leadership of the then MoM (now the SGM), through the DPDI.
- By 2017, and as part of the DaaS vision, open data efforts had moved from a focus on data publication towards the goal of "cleaning house".

- In terms of data availability, evidence collected during the OECD mission to Buenos Aires in March 2018 shows that efforts have paid off, with an increasing quantity of good-quality government data being published on the central open data portal Datos.gob.ar.
- The DPDI built an informal network of institutional contact points across public sector organisations (including the Ministries of Energy, Justice, Transport, Agroindustry and Production) as means to increase their interest and willingness to collaborate on open data initatives.
- The lack of motivation to open up government data was one of the most voiced concerns by stakeholders during the workshop organised in July 2018. Stakeholders also expressed that data publication is not a priority for public sector organisations, stressing the need for providing further incentives.
- The central open data portal is used as a tool to control the quality of government data. Only those datasets that comply with the DDPI's data and metadata standards can then be federated for publication through the central open data portal. Yet, the DPDI also provides the supporting hard and soft infrastructure (e.g. IT infrastructure and guidelines) to help public sector organisations to catalogue and publish their own datasets. Public sector organisations are also responsible for maintaining their own data catalogues.
- The above-mentioned approach has been useful to bring public sector organisations on board and reduce the burden imposed on them in terms of data publication, but it has also led to fragmented data access due to the proliferation of open data portals.
- There is a need to further promote the publication of open data based on the needs of users. The need for running consultations engaging users in demand identification exercises was frequently voiced by stakeholders during the workshops organised in Buenos Aires.
- While in an earlier stage this consultation exercise might fall under the responsibility of the open data leadership (in Argentina, the DPDI), public sector organisations such as line ministries might need to take a more active role in the medium term (if not before).
- Increasing the reuse of those data published on either datos.gob.ar or institutional open data portals is a challenge. During the OECD mission to Buenos Aires in March 2018 and the workshop organised in July 2018, stakeholders expressed that data, while publicly available, were not used.

Proposals for action

The government of Argentina should consider implementing the following policy actions:

Recommendation 39. Reinforce open data impact by focusing on reuse.

- Investing further resources on prioritising data publication based on the needs of the ecosystem, and increased efforts to engage data users in the reuse of open government data should be a priority in the short term.
- The Argentinian government would also benefit from developing an open data infrastructure for the public sector, inclusive of those datasets of high priority for

the achievement of policy goals (e.g. open data for anti-corruption), and those datasets in high demand by the ecosystem.

- Ensuring the integration of fragmented open data platforms can also increase data discoverability and accessibility and facilitate the user's journey in accessing and reusing data.
- Establishing partnerships and building communities of practice in collaboration with key partners such as journalists, universities, researchers and the private sector country-wide will play a determining factor to ensure that open government data delivers widespread real value for all actors within the ecosystem.

Recommendation 40. Sustain efforts to develop a national plan or strategy for Artificial Intelligence in order to support the goals of current and future Digital Agendas.

- This can help to interconnect digital government, AI and data policy initiatives and strengthen the capacities of public sector organisations to exploit data to generate proactive services and evidence-based public policy.

Notes

1. Question 40: Does a standardised model exist for ICT project management at the central/federal government level?
2. Questions 43: What is the most common scenario for ICT and digital government-related employment in your country's public sector? Private sector employees move to the public sector/ private sector employees move to the public sector/inter-institutional movement from one public sector institution to another (intra-governmental); and Question 43a: In your view, for option 1 (public officials/government employees move to the private sector), what are the main reasons for this happening? There are more/better job opportunities in the private sector/private sector salaries are more competitive.
3. For more information see: http://servicios.infoleg.gob.ar/infolegInternet/anexos/310000-314999/312146/norma.htm.
4. Question 62: Are there government-wide guidelines on designing user-oriented digital services?
5. The *Poncho* framework provides a series of technical standards and components that public sector organisations may consider when developing front-end services. For more information see: https://argob.github.io/poncho.
6. For more information see: https://www.acraiz.gob.ar/Content/Archivos/Normativa/2017-892-PlataformaFDR.pdf.
7. Question 50: Which and how deeply are the following overarching principles of digital transformation considered within your ICT projects and initiatives? Option: Citizen-driven by default
8. Venezuela's full MERCOSUR membership has been suspended since August 2017. For more information see: https://betaweb.mercosur.int/documento/decision-sobre-la-suspension-de-venezuela-en-el-mercosur.
9. For more information see: https://www.senatics.gov.py/noticias/acuerdan-acciones-principales-de-agenda-digital-mercosur.
10. For more information see: www.puntofocal.gov.ar/doc/gmc_02-18.pdf.
11. Question 62: How would you classify the level of priority given to digital inclusion in your country's digital government agenda?
12. For more information see: http://servicios.infoleg.gob.ar/infolegInternet/anexos/265000-269999/265949/norma.htm.
13. Question 88: Does your country have an explicit formal requirement (i.e. written guidance provided in an official government document: laws, directives, regulations, guidelines, action plans, executive order, other) to assign institutional chief data officers for central/federal line ministries and agencies?
14. For more information see: https://www.diariojudicial.com/public/documentos/000/083/091/000083091.pdf.
15. For more information see: http://www.jus.gob.ar/media/3234534/est_ndares_de_protecci_n_de_datos_para_los_estados_iberoamericanos__es_.pdf.
16. For more information see: https://www.argentina.gob.ar/aaip/planificacion2018.

Chapter 1. Building the foundations for a digital government in Argentina

This chapter provides a general a background on the Digital Government Review of Argentina, its structure and development process. It highlights the contribution of this review to other OECD work in Argentina, underlying how this ongoing collaboration is in line with the public sector reform agenda in Argentina. The chapter also provides a set of key indicators on the national economic, connectivity and digital government contexts.

Introduction

The strong and close collaboration between the OECD and the government of Argentina has increasingly grown over the last years. This *Digital Government Review of Argentina* adds to the broader activities of Argentina's OECD Action Plan, which was presented by the Argentinian government to the OECD in the context of the Meeting of G20 Finance Ministers and Central Bank Governors held in Baden-Baden, Germany, on 17-18 March 2017.

In March 2017, Argentina requested to adhere to the *OECD Recommendation of the Council on Digital Government Strategies*. The OECD approved Argentina's request in February 2019. Argentina's adhesion to the aforementioned OECD Recommendation underlines its commitment to adopt OECD principles and follow OECD best practices on digital government.

This review is part of a series of studies carried out by the OECD in Argentina led by the OECD Directorate of Public Governance. These studies include the OECD Reviews of Open Government, Regulatory Policy, and Public Sector Integrity. In this context, this review contributes to the construction of good governance in the country, and reflects the willingness of the Argentinian government to learn from and adapt OECD best practices to its own national context.

This and the above-mentioned reviews support Argentina's holistic efforts to implement public sector reforms, thus fitting into the broader reform agenda for the country, which covers other policy areas such as open government and public sector integrity.

Consequently, the different teams within the OECD Secretariat in charge of the above-mentioned parallel reviews have collaborated to ensure the alignment of policy findings in order to ensure the provision of mutually reinforcing policy messages.

The OECD Digital Government Review of Argentina

This review was prepared in the context of the ongoing restructuration of the government of Argentina (September 2018). The Ministry of Modernisation (MoM), the original main counterpart for this study, was moved to the Chief of Cabinet of Ministers Office in September 2018. As a result, the former MoM was turned into the Government Secretariat of Modernisation (Secretaría de Gobierno de Modernización, SGM).[1] This review will therefore:

- refer to the "Ministry of Modernisation" or "the then MoM" when presenting, discussing and highlighting digital government initiatives that took place prior to the restructuration of September 2018
- refer to the newly established "Government Secretariat of Modernisation" or "SGM" for any future recommended actions and policy interventions provided to the Argentinian government by the OECD.

A series of activities were carried out in the preparation of this review in order to collect knowledge from different actors within and outside the Argentinian public sector, namely:

- **The OECD peer review mission to Buenos Aires, Argentina, 5-9 March 2018.** The peer review mission benefited from the participation of the OECD Secretariat and peers from OECD member countries, namely Mr. Enrique Zapata, Office of the President, Mexico; Mr. Daniel Hernández, Ministry of Public Administration,

Mexico; Mr. Timothy Szlachetko, Ministry of Local Government and Modernisation, Norway; and Ms. Gemma del Rey Almanza, Ministry of Finance and Public Administration, Spain.

- **The organisation of interactive workshops and follow-up meetings in Buenos Aires, 25-27 July 2018 and September 2018.** These workshops aimed to discuss the preliminary findings of the review with actors from inside and outside the public sector. The findings of these workshops were used by the OECD Secretariat to prepare the final key findings of the review.
- **Discussion on the preliminary findings at the OECD Working Party of Senior Digital Government Officials (E-Leaders).** The preliminary findings of the review were presented and discussed with delegates from OECD member and partner countries during the last meeting of the E-leaders, which was held in Seoul, Korea on 30-31 October 2018. The meeting provided an ideal opportunity to discuss the review with high-level public officials in charge of the design and implementation of digital government policies across OECD member and partner countries.
- **The launching of the key findings of the Digital Government Review in December 2018.** The OECD Secretariat presented the key findings of the review to high-level public officials on 13 December 2018. This was also an opportunity to organise an additional workshop to discuss the key findings with different actors and collect more information for the finalisation of the review.
- **Presentation and discussion of the key policy recommendations in April 2019.** The OECD Secretariat presented the key policy recommendations of this review in the margins of the 59th Session of the Public Governance Committee held at the OECD Conference Centre on 15-17 April 2019. The meeting also benefited from the participation and presentation of officials from the Government Secretariat of Modernisation of Argentina.

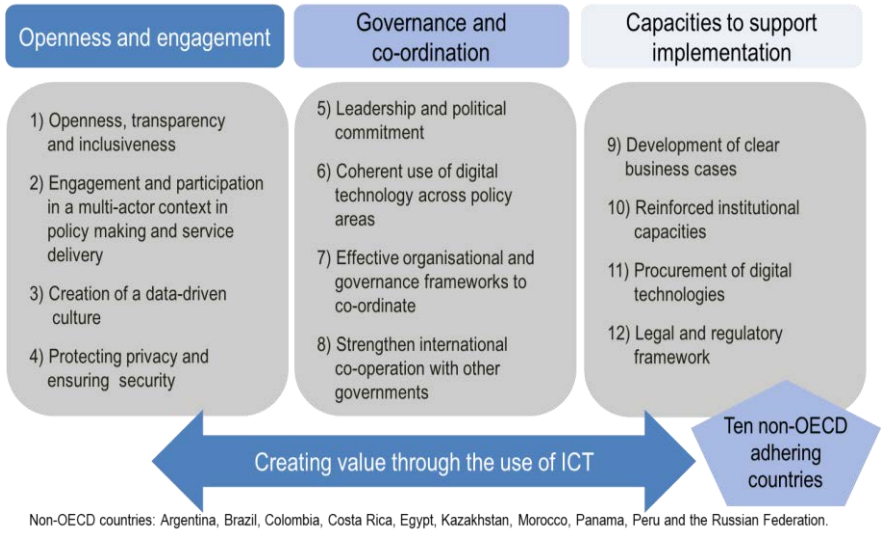
This review focuses on the following strategic policy areas of analysis:

- the governance for digital government in Argentina, including the institutional, legal and policy frameworks (Chapter 2)
- public sector competence for policy implementation, including ICT commissioning (Chapter 3)
- the development of digital innovation skills in the public sector (Chapter 4)
- public service design and delivery, including key enablers, standards and multi-channel access to digital services (Chapter 5)
- data-driven public sector, including data governance, data management practices and open government data (Chapter 6).

The road towards a digital government: The OECD approach

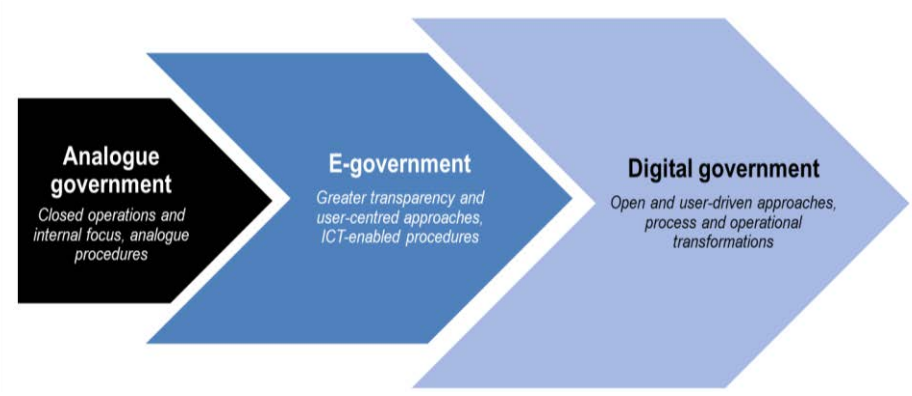
The assessment presented in the following chapters draws upon the *OECD Recommendation of the Council on Digital Government Strategies* (OECD, 2014) (Figure 1.1), which provides a set of 12 strategic recommendations to help governments to move from e-government towards digital government (Figure 1.2).

Figure 1.1. 2014 OECD Recommendation of the Council on Digital Government Strategies



Source: Based on OECD (2014), OECD Recommendation of the Council on Digital Government Strategies, www.oecd.org/gov/digital-government/Recommendation-digital-government-strategies.pdf

Figure 1.2. The digital transformation of the public sector: From e-government to digital government



Source: Based on OECD (2014), *OECD Recommendation of the Council on Digital Government Strategies*, www.oecd.org/gov/digital-government/Recommendation-digital-government-strategies.pdf.

This *Digital Government Review of Argentina* takes stock of the efforts, challenges and achievements of the Argentinian government to date in order to support its transition towards a full digital government.

The analysis presented in the following chapters highlights the key enablers of digital government as identified by the OECD's Framework for Digital Government (OECD, forthcoming):

- **Focused on users:** The extent to which governments are adopting approaches and taking actions that focus on citizens and businesses (i.e. users of the services) letting these express their own needs, which serve to drive the design of policies and public services.

- **Proactiveness:** The extent to which a government reaches out to the public without waiting to react to formal requests. This includes: data disclosure (in open formats), with the exception of data that the government is required to protect due to privacy or security; service delivery to the users before it is requested; governments proactively seeking feedback directly from citizens about the quality of services; and enabling citizens to access real-time information on public services.
- **Data-driven:** The extent to which a government informs and approaches the design, delivery and monitoring of public policies and services through the management and use of data.
- **Digital by design:** The extent to which a government embeds the full potential of digital technologies when formulating policies and designing services. This involves mobilising new technologies to rethink and re-engineer internal processes and simplify internal procedures in order to deliver the same efficient, sustainable and citizen-driven services, regardless of the channel used by the user to interact with the public authorities.
- **Government as a platform:** The extent to which governments use technologies (and data) to harness the creativity of people in groups and create collaborations to address policy challenges.
- **Open by default:** The extent to which a government uses digital technologies to engage and collaborate with all actors and collect insights towards more collaborative, evidence-based, user- and data-driven policy making; share government data in open and machine-readable formats (within the framework of data protection, security, confidentiality and privacy protection legislation); and open up to external knowledge in order to co-design its processes (e.g. policy life cycle, public service delivery and ICT commissioning).

The Argentinian context: Learning from the past to move forward

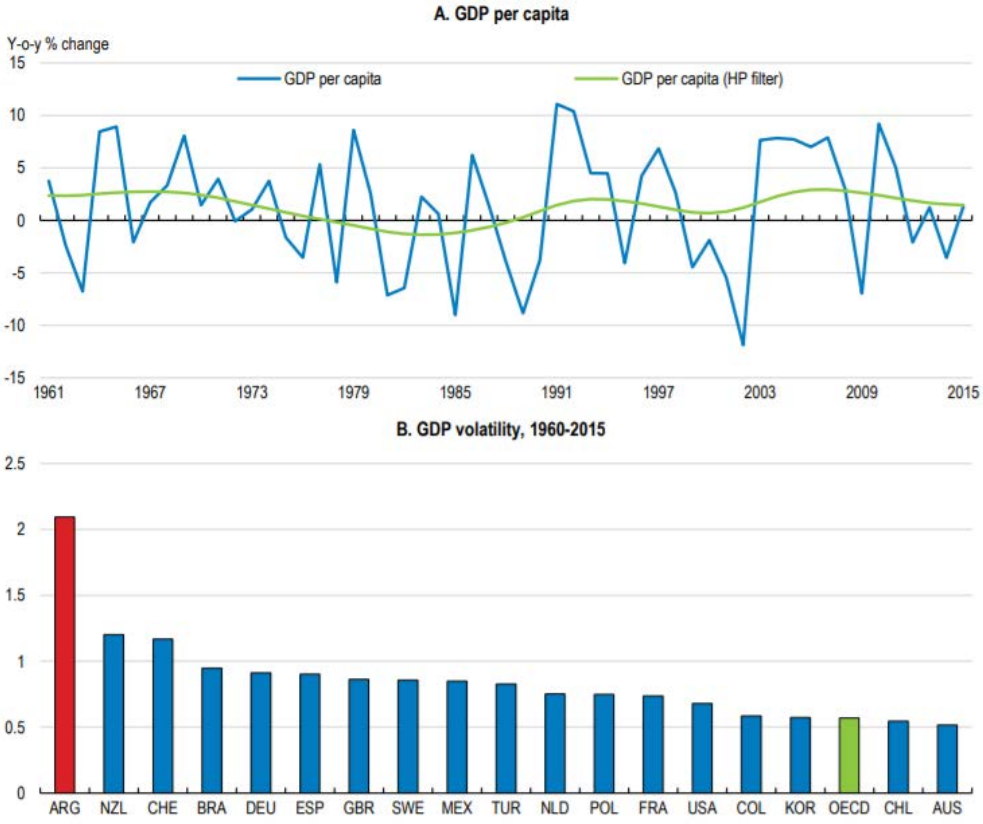
Key economic indicators

Argentina's per capita income was among the top ten in the world a century ago, when it was 92% of the average of the 16 richest economies, but by July 2017, this level had decreased to 43% when compared to those same 16 rich economies (OECD, 2017).

Since the 1960s Argentina has experienced a series of complex economic, social and political challenges. It has faced volatility (Figure 1.3) in terms of economic growth "due to poor economic policies and weak institutions", and has "persistently lost ground relative to OECD countries and also relative to Latin America, hurting living standards and weakening confidence in public institutions" (González Pandiella, 2018).

In the early 2000s, Argentina faced economic crisis and recession aggravated by public debt and the decline of the export prices of its most relevant agricultural products (Salvia, 2015). The fixed US dollar (Argentinian peso convertibility rate, set in the 1990s) contributed to the appreciation of Argentinian exports, and had created commercial deficit by the end of the 1990s (Rapoport, 2000). Altogether, this scenario caused uncertainty in terms of economic stability, resulted in capital outflows at the macro level and a strong government response to prevent bank runs, thus freezing bank accounts and impeding citizens to withdraw their savings in US currency. This context led to political instability in the years that followed.

Figure 1.3. GDP per capita and GDP volatility, Argentina

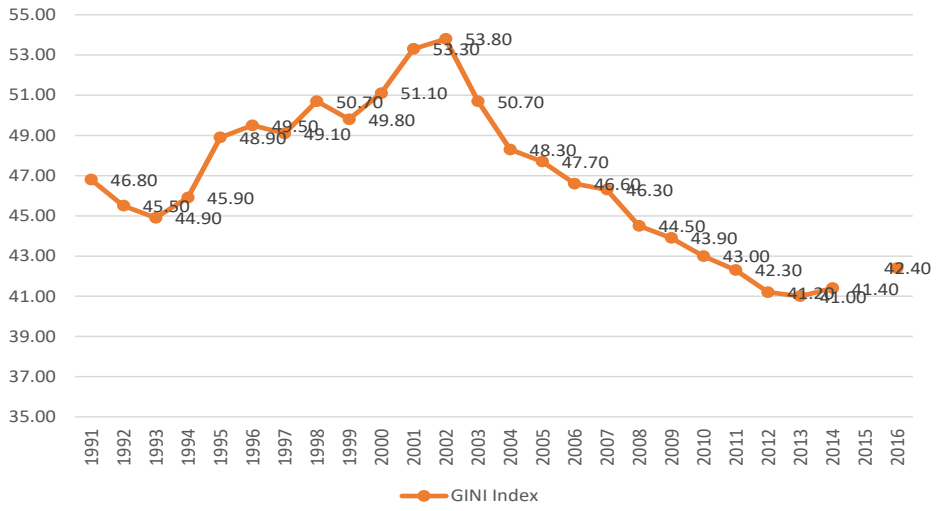


Source: González Pandiella, A. (2018), "Structural reforms to boost growth and living standards in Argentina", https://dx.doi.org/10.1787/53180378-en with data from the *World Bank World Development Indicators Database* and *OECD Economic Outlook 100 Database*.

In addition, a series of government corruption scandals had an impact on public trust in government. Argentina scores 39 in the 2017 Corruption Perception Index developed by Transparency International, close to the average score of 38 in the region but far from the OECD and G20 averages (68 and 54 respectively; on a scale from "0, highly corrupt" to "100, very clean") (OECD, 2019). Still, Argentina's score for 2017 improved by 4 points from 2014 (35).

Yet, despite these challenges, Argentina has managed to move forward in recent years. For instance, estimates from the World Bank indicate that despite growing inequality rates (as measured by the GINI Index) between 1990 and 2001 (from 46.8 to 53.3), with a peak of 53.8 in 2002, the GINI Index for Argentina had decreased to 41.4 in 2014 (Figure 1.4).

Figure 1.4. GINI Index, Argentina



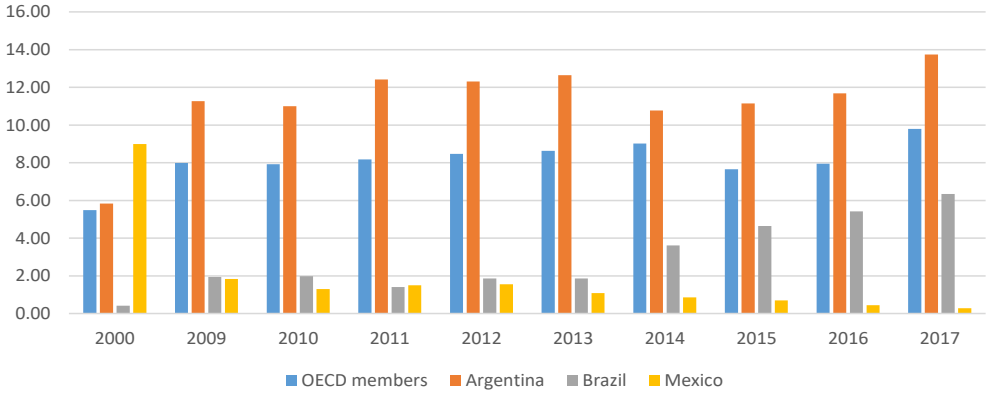
Source: Based on data from the World Bank's Poverty & Equity Data Portal, http://povertydata.worldbank.org/poverty/country/ARG.

In addition, Argentina is following a clear long-term policy to evolve towards a knowledge-based economy and society. By 2008, technology hubs were spreading at the local level. This resulted from the propagation of innovation-driven start-ups propelled by the growing availability of high-skilled technology professionals, and the underlying educational system and policies supporting them (ProsperAr, 2008).

This was confirmed by the OECD during the fact-finding missions to Buenos Aires in March and July 2018. Cities such as Mendoza, Cordoba and Buenos Aires are leading the way in terms of business digital innovation. Altogether, these local initiatives contribute to Argentina's expansive and regional leading role in terms of ICT service exports and to its competitive advantage in this area (especially when compared with other countries in the region, such as Mexico, which has a less diversified export mix) (OECD, 2017).

Figure 1.5. ICT service exports

% of service exports, balance of payments



Note: Information and communication technology service exports include computer and communications services (telecommunications and postal and courier services) and information services (computer data and news-related service transactions).
Source: Based on data from the World International Monetary Fund, Balance of Payments Statistics Yearbook and data files, https://databank.worldbank.org/data/home.aspx.

Connectivity

In October 2018, the central government launched the National Telecommunications and Connectivity Plan (Plan de Telecomunicaciones y Conectividad) in an effort to increase broadband Internet access across the country, with an aim on rural areas.[2]

The three axes of the plan include:

1. infrastructure: deployment of the necessary resources to guarantee the expansion and quality of the services
2. regulatory framework: modernisation and adaptation of regulations to accelerate the development of the sector
3. digital inclusion: development of digital skills to facilitate employment and multiply opportunities for personal growth.

By December 2018, the Telecommunications and Connectivity Plan's achievements included: 702 rural localities and 1 404 rural schools connected to the Federal Fiber Optic Network; and the deployment of 28 772 km of illuminated fibre optic and 697 Wi-Fi points across the country. These results show a considerable improvement in relation to reducing digital connectivity gaps when compared to figures from December 2015, when only 17 localities were connected to the Federal Optic Fibre Network and a total of 6 500 km of illuminated optic fibre were deployed.

Data for 2017/Q4 from the National Statistics Office (INDEC, 2017) show that for households with people aged four years old or more, the rates for home-based Internet access, computer access and mobile-phone accessibility are 74.3%, 44.8% and 81.2% respectively. However, disparities and opportunities arise when these figures are aggregated by educational attainment.

The National Statistics Office's data demonstrate lower levels of home-based Internet access for less educated households in Argentina (no education and basic education). For instance, only 46.8% of households with no educational background have home-based Internet access compared to 80.5% of households that have a complete secondary education and 93.8% of households with a complete tertiary education (Table 5.2).

Disparities also exist when comparing data on home-based computer access by educational attainment. For example, 85.5% of households with a basic education do not have access to computer whereas only 26.8% of homes with a complete tertiary education do not have such access.

Altogether, these results indicate that there are still some challenges in terms of digital inclusion and digital rights in Argentina, with less educated households facing greater challenges to access basic digital tools such as mobile phones, computers or the Internet. However, results also show areas of opportunities for the government to invest further efforts. This could, in turn, lead to a democratisation of digital public service delivery in Argentina.

For instance, figures for mobile phone access progressively increase from 34% to 96.5% between households with no educational background and those with the highest level of educational attainment (incomplete/complete tertiary education).

This therefore provides a window of opportunity for investing more resources in the delivery of mobile-based public services (e.g. through the Mi Argentina mobile app), and underlines the importance of continuing to invest efforts in mobile-based solutions while maintaining multi-channel access to public services.

Table 1.1. Internet, computer and mobile-phone access by education level

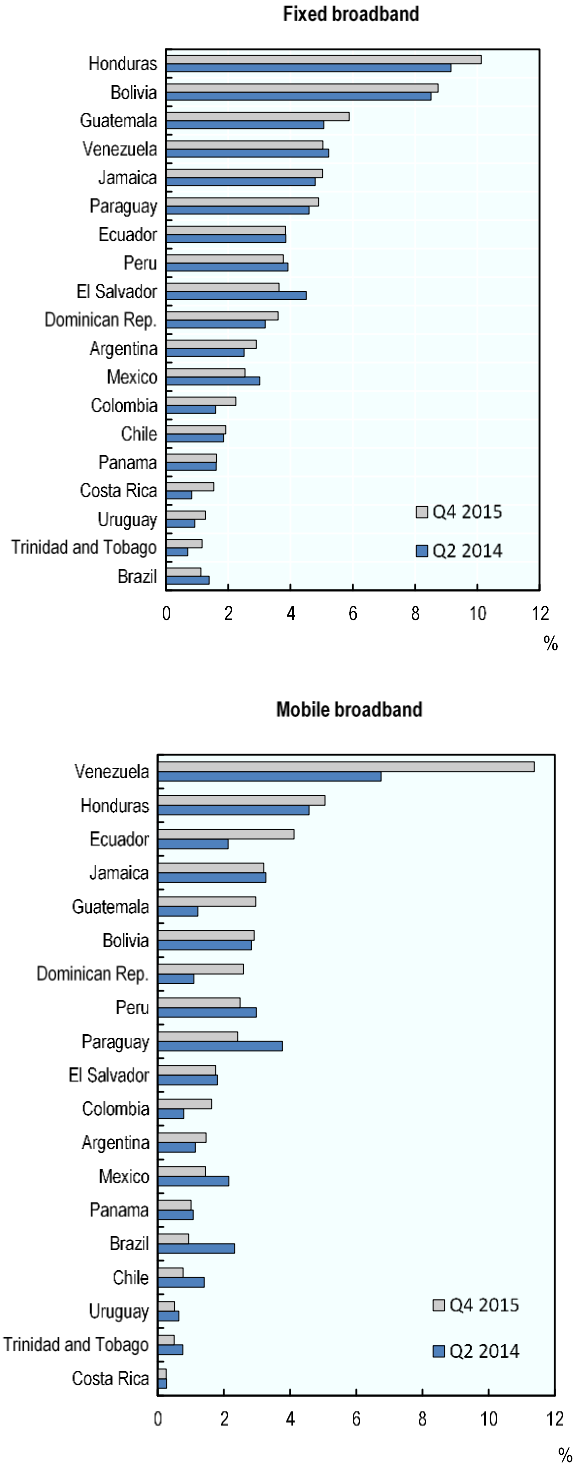
% of households, data for households with population aged 4 years old or more, 2017/Q4

	Internet			Computer			Mobile phone		
	Yes	No	n.a.	Yes	No	n.a.	Yes	No	n.a.
No education	46.8	53.1	0.1	21.9	77.8	0.3	34	65.9	0.1
Basic education (incomplete)	59.7	40.2	0.1	36.7	63.1	0.2	51.6	48.4	0
Basic education (complete)	45.7	54.2	0.1	14.4	85.5	0.1	72	27.9	0
Secondary education (incomplete)	80.9	19	0.1	43.8	56.1	0.1	89.3	10.6	0
Secondary education (complete)	80.5	19.4	0.1	43.3	56.5	0.1	92.4	7.6	0
Tertiary education (university, incomplete)	94	5.9	0.1	72.7	27.2	0.1	97.4	2.6	0
Tertiary education (university, complete)	93.8	6.2	0.1	73.1	26.8	0.1	96.5	3.5	0

Source: INDEC (2017), "Acceso y uso de tecnologías de la información y la comunicación: EPH", https://www.indec.gov.ar/uploads/informesdeprensa/mautic_05_18.pdf.

Also, challenges remain in terms of ensuring the sustained affordability of fixed and mobile broadband access in Argentina. For instance, data for the second quarter of 2014 and 2015 showed an increase of 0.39% and 0.32% in the cost of the cheapest available plans of fixed and mobile broadband access plans respectively (as a percentage of GDP per capita) OECD/IDB (2016) (Figure 1.6). Other countries in the region such as Brazil and Mexico showed a decrease of these costs over the same period. Thus, there is a need to keep investing to ensure all population groups benefit from broadband access policies.

Figure 1.6. Cheapest available fixed and mobile access plans as a percentage of GDP per capita, Latin American and Caribbean region



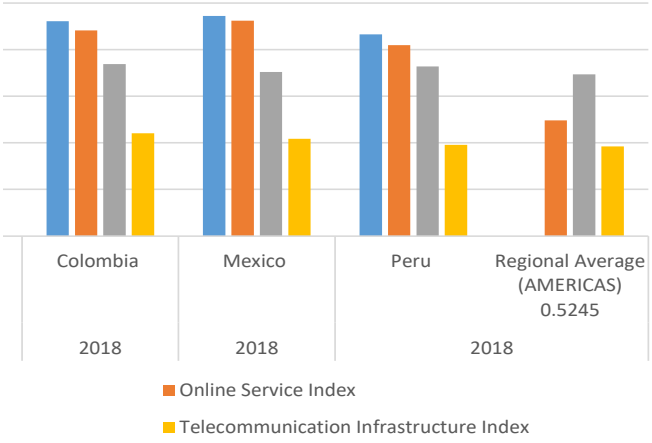
Source: OECD/IDB (2016), *Broadband Policies for Latin America and the Caribbean: A Digital Economy Toolkit*, https://dx.doi.org/10.1787/9789264251823-en, with data from DIRSI (2015), *DIRSI Broadband Price Database*, Dialogo Regional sobre Sociedad de la Información, http://dirsi.net/web/web/en/publicaciones/detalle/broadband-in-latin-america--market-prices-and-trends-.

E-government and open data indicators

In terms of e-government, Argentina ranks 5th in the 2018 edition of the UN E-Government Index among a group of 35 countries in the American continent, after the United States, Canada, Uruguay and Chile (United Nations, 2018).

Argentina indeed shows a clear advantage in terms of human capital (measured in terms of adult literacy, expected and mean years of schooling, and gross enrolment ratio) and telecommunications infrastructure (e.g. access to the Internet, fixed and mobile broadband, telephone) when compared with some of its peers in the region. However, it lags behind in terms of e-participation (e.g. proactive or at-request publication of public sector information, citizen deliberative engagement and co-creation of policy solutions), and online services (including, for instance, the implementation of citizen-centric approaches for public service design and delivery)[3] (United Nations, 2018) (Figure 1.7).

Figure 1.7. 2018 E-government Index: Selected Latin American and Caribbean countries



Source: OECD with data from United Nations (2018), *E-Government Survey 2018*, https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2018.

Argentina has also shown development in areas related to digital government. For instance, it ranked 17th in the Global Open Data Index (GODI) for 2016. While the GODI methodology changed substantively between 2015 and 2016, restricting the possibility of comparing results over time,[4] this represents an improvement of 34 positions when compared to the results for 2015.

Yet, challenges remain in terms of increasing the engagement of users and promoting the reuse of open government data (see Chapter 6) beyond strictly measuring the availability of information and/or data taxonomies; the reuse of open government data in line with the OECD analytical framework for open government data policies, including the OECD Open Government Data Survey and the OECD Open Useful and Re-usable data (OURdata) Index.

Other developments include the launching of MiArgentina, the platform for digital public service delivery, and the development of a paperless government as part of Argentina's modernisation efforts (see Chapter 5).

Also, since 2015, Argentina has aimed to reconnect with the international community. It chaired the G20 during 2018, hosting the G20 summit in Buenos Aires on 30 November-1 December 2018, which was the first time a G20 Summit was organised in Latin America.

Argentina also took over the role of co-chair of the Open Government Partnership Steering Committee in October 2018, and organised the International Open Data Conference in Buenos Aires on 27-28 September 2018.

All of the above-mentioned initiatives underline the commitment of the current administration, in power since 2015, to take forward the digital government and open government agenda in the country, often building these efforts from the ground up.

The analysis provided in the following chapters and the accompanying policy recommendations aim to support the Argentinian government in moving forward in this regard, and in building a public sector where actors from within and outside can be better connected.

Notes

1. See: https://www.boletinoficial.gob.ar/#!DetalleNormaBusquedaAvanzada/190820/20180905.
2. For more information see: https://www.argentina.gob.ar/planconectividad.
3. For more information on the methodology used for the calculation of the UN E-government Index, see: https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2016-Survey/Annexes.pdf.
4. For more information see: https://index.okfn.org/methodology.

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Chapter 2. Governing the digital transformation of the Argentinian public sector

This chapter analyses and discusses the governance of the digital transformation of the public sector in Argentina, based on the OECD Recommendation of the Council on Digital Government Strategies *and the analytical work conducted on the governance of digital government in a number of OECD member and partner countries. The chapter starts by touching on the current governance landscape of the Argentinian public service, and discusses Argentina's recently released Digital Agenda and its associated objectives. It then discusses the government of Argentina's institutional governance frameworks and the leadership of digital transformation efforts, followed by a discussion on its capacity to leverage systems approaches to achieve its digital government objectives and goals. The chapter concludes by exploring the legal and regulatory framework and funding mechanisms that may contribute to enabling the digital transformation of the public sector.*

Introduction

The digital transformation of the public sector can have major cross-cutting and transversal impacts on all levels of government that cascade across all parts of the economy and to citizens. The challenges associated with achieving digital transformation are as significant as its potential for impact. In order to overcome these challenges, a clear, solid and comprehensive governance structure is critical. Such governance generally takes the form institutional arrangements that secure a clear mandate for action and facilitate stakeholder involvement and whole-of-government, cross-government and cross-sector co-ordination and collaboration. It also includes a legal and regulatory framework and funding mechanisms that can be used as policy levers that support moving from analogue or electronic processes to full digital transformation that changes the underlying processes and practices in ways that allow governments to move in a unified fashion toward the achievement of national policy goals and better lives for citizens. In line with the OECD *Recommendation of the Council on Digital Government Strategies* (2014), Figure 2.1 illustrates these and other factors that have been considered as part of this review.

Figure 2.1. Governing the digital transformation of the public sector: Contributing factors



Source: OECD (2017c), *Digital Government Review of Norway: Boosting the Digital Transformation of the Public Sector*, http://dx.doi.org/10.1787/9789264279742-en.

Argentina is taking a portfolio approach to public sector reform with the goal of building a national public policy framework and leadership that moves the country forward in a consistent and united way. The Argentinian administration sees strengthening digital government as a keystone in the broader context of its reform agenda along with open government, public sector integrity and regulatory policy reform. Reflecting these central priorities, the government of Argentina has worked with the OECD to conduct nearly concurrent reviews in the areas of regulatory policy and open government (OECD, 2019;

forthcoming). In terms of digital government efforts, Argentina has defined a number of clear policy priorities, developed relevant initiatives and delivered on specific policy commitments since December 2015.

Argentina has had to build much of its work from the ground-up. All countries face challenges in bringing about the digital transformation of the public sector. However, the challenges that Argentina has had to overcome to begin its digital transformation journey have been particularly acute. Previous central administrations did little to construct and support the necessary strategies, goals, governance structures, organisational arrangements, ecosystems, and legal and regulatory frameworks to build a solid foundation for an effective, responsive and user-driven digital government. For example, only three cross-government information systems existed when the current administration took office in December 2015, and those that did exist only had limited coverage for their respective focus areas across government. All other systems were siloed at ministerial or jurisdictional levels, resulting in many duplicative and often incompatible information systems across the public sector.

Nevertheless, despite this major challenge, the current central administration has made significant and rapid progress in addressing these inherited shortcomings and has put Argentina on a solid path for success.

In the context of this unique challenge, this chapter analyses the governance of digital government in the public sector in Argentina. It first explores the current administration's existing landscape and the factors that have led up to the launch of Argentina's first government Digital Agenda. The second section touches on institutional governance in the public sector of Argentina, with an emphasis on leadership and digital stewardship of the Digital Agenda and initiatives. A related third section explores leveraging systems approaches through cross-government and cross-sector co-ordination to achieve digital transformation goals. Finally, the last section explores policy levers that can be critical enablers of the digital transformation: a legal and regulatory framework and funding mechanisms that facilitate transformation and moving away from the status quo.

A new administration: A new beginning

Despite the major challenge of kick-starting the digital transformation of the public sector when very few enabling conditions had been cultivated by the previous administration, the current government has stepped up to the challenge.

A number of conditions have enabled this progress and provide a context in which continued advancement and success is possible. Arguably the most important, the digital transformation of the public sector is one of the highest priorities on the agenda of President Mauricio Macri, who was inaugurated on 10 December 2015. Political commitment is a prerequisite for policy and institutional changes. The president has demonstrated this commitment through the issuance of numerous presidential decrees, akin to executive orders, a push for new legislation and the creation of a digital service team (the National Direction of Digital Services) (Box 2.1) and an innovation lab (LABgobar). Through one of these decrees,[1] the president created the Ministry of Modernisation (MoM) on his first day in office, which housed the digital services team and LABgobar. Through a series of additional presidential decrees, he empowered the then-MoM to catalyse the digital

transformation of the public sector through the development of cross-cutting technologies and government-wide policies. President Macri established the Undersecretariat of Digital Government within the MoM and charged the ministry with the co-ordination of the whole-of-government modernisation framework. Annex A lists relevant laws and decrees that have been executed during the current administration.

Box 2.1. Digital government: Argentina's National Direction of Digital Services

The president launched the National Direction of Digital Services upon taking office in December 2015. Since then, this team has grown to over 70 technology experts that focus on several key areas:

- developing government-wide platforms
- designing and implementing citizen-centred digital services
- creating digital-assisted tools and services for use in physical environments (e.g. face-to-face service offices).

Some of the key successes of the National Direction of Digital Services include:

- building Argentina.gob.ar, a single domain central website for government information and services
- closing over 1 000 separate government websites to centralise information in Argentina.gob.ar
- developing Mi Argentina, and single sign-on digital identity, citizen profile, and public digital service platform and dashboard
- transforming over 800 business services.

Sources: https://www.argentina.gob.ar/modernizacion/gobiernodigital; https://public.digital/2018/06/01/why-were-so-impressed-by-argentinas-digital-services-team; interviews with government officials.

Within the then-MoM and in several other strategic areas in the federal government, the president assembled a team of proven experts in areas such as digital policy, service design and implementation, public sector innovation, and open data to drive Argentina's digital government efforts. Many of these officials were behind the successful digital transformation of the local government in the city of Buenos Aires, where President Macri served as the Chief of Government from 2007 until his inauguration as president. These experts have managed to launch and accelerate the digitisation of public services, government operations and a paperless government beyond all expectations. The talent of these individuals has enabled the completion of many important initiatives in a very short period of time, in many instances starting from scratch.

In September 2018, the president reorganised the government by presidential decree,[2] which resulted in the renaming of the MoM to the Government Secretariat of Modernisation (Secretaría de Gobierno de Modernización, SGM) and moving this new institution to the Cabinet Office, an office at the centre of government[3] led by the president's chief of staff. Prior to the move, the then-MoM sat in the challenging position

of being charged with government-wide policy-making and oversight responsibilities while also serving in a separate, non-central ministry. The fact that the MoM was a line ministry meant that it had to rely on soft means to convince actors of the benefits of public governance and digital government reforms in order to engage them in its agenda. As a result of the reorganisation, more policy areas now intersect with the SGM at the centre of government, which helps it to promote horizontality, coordination and inclusiveness, and reduces the risk of fragmentation, better enables the SGM to achieve its mission and contributes to the long-term sustainability of efforts. This facilitates the digital transformation of the public sector by sending a clear political message in terms of the relevance of this agenda for the current administration.

Another enabling condition, tied directly to the current administration, is a clear sense of urgency expressed unanimously by the government officials who have interacted with the OECD through the course of this review. The term of office for the presidency in Argentina is four years, with the possibility of re-election. President Marci's current term therefore extends until the end of 2019. Officials believe it is critical to ensure that a sustainable path for the digital transformation is established before the end of the president's term. It is important that these new initiatives and associated governance models reach "escape velocity"[4] for a potential scenario in which the current president is not re-elected in 2019. A key contextual underpinning to Argentina's efforts, and another driver of the sense of urgency that sustained the Government's efforts the last couple of years, is that the country held the Presidency of the G20 in 2018, culminating in the annual G20 Summit on 30 November and 1 December. The digital economy served as a key G20 workstream, with digital government recognised as a key theme.[5]

The effects of the push for digital transformation are cascaded throughout government. An OECD (2018) survey of Argentinian public sector organisations administered within the frame of this review showed that 71% of line ministries have started implementing digital government programmes, and 83% have started implementing open data initiatives. Yet, despite the significant advancements to date, some challenges need to be addressed, particularly if the Government aims to move from a start-up approach to increased maturity and sustainability of the digital government agenda in the country. This necessitates progressing from efforts targeting digitisation (i.e. e-government) to a full shift towards the digitalisation (i.e. digital government) of the administration and of the delivery of public services.

Policy framework: Establishing a common, strategic and inclusive narrative

A clear scenario of "who are we" and "where do we want to go" is one of the basic prerequisites of sound governance. This is often laid out in the form of a digital government strategy. As set out in the OECD (2014) *Recommendation of the Council on Digital Government Strategies*, governments need to develop digital government strategies consistent with a strategic vision and align their capacities, norms, structures and risk management models in order to achieve this vision. When the underlying practices are aligned under a common vision, governments unlock technology as a driver to create open and innovative public sectors, to improve social inclusiveness and accountability, and to bring together government and non-government actors to contribute to national development and long-term sustainable growth. According to the OECD Digital

Government Survey 1.0 (2018b), all OECD countries stated having a national digital government strategy. The composition of the strategy and the institutional frameworks to implement the strategy vary from country to country.

The Digital Agenda

In Argentina, the need to deliver quick results has led to a very dynamic set of individual actions and initiatives since the early inception of the current administration. Until recently, the country's digital vision was not codified in any sort of overarching, guiding governance document. In thinking forward, the government has demonstrated the intent to secure long-term sustainability and provide clarity in terms of policy goals. This intent is reflected in the current development of Argentina's Digital Agenda (Government of Argentina, 2018).

The draft version of the Digital Agenda was discussed and, through negotiation and consensus building, approved by those secretariats and ministries that contributed to its development (Ministries of Production and Labour; Education, Culture, Science and Technology; Foreign Affairs; and Government Secretariats of Modernization; Labour and Employment; Agroindustry; and Science, Technology and Productive Innovation). On 2 November 2018, the president issued a decree that formally approves instituting the Digital Agenda, and sets forth a path and structure for finalising and implementing it, as well as for ensuring it is updated over time as digital norms and technologies evolve (Box 2.2).[6]

Box 2.2. Decree 996/2018 – Argentina's Digital Agenda

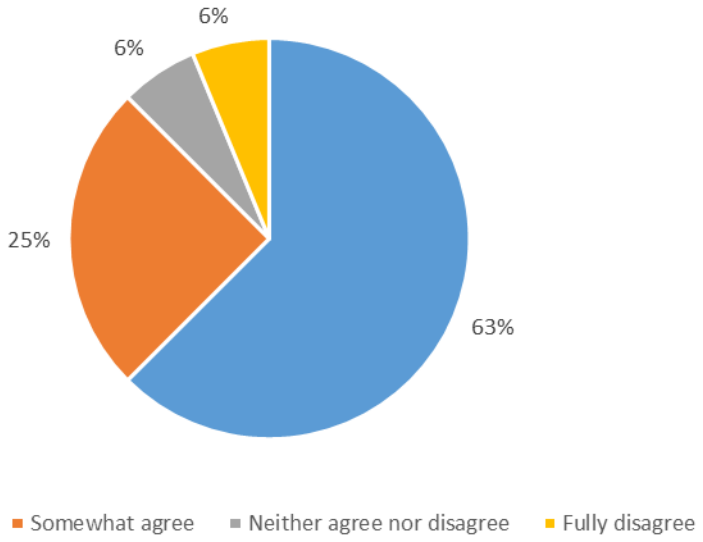
Considering a number of factors, including Argentina's intention to join the OECD and to improve public policies for a stronger positioning in the global context, Decree 996/2018 approved the vision and key pillars of Argentina's Digital Agenda. The key provisions of the decree include:

- The establishment of a Planning and Follow-up Council, comprised of representatives from many ministries and secretariats, responsible for defining strategic guidelines and objectives for managing and co-ordinating digital government efforts across government.
- The creation of an Executive Board, co-ordinated by the Secretariat for Digital Government and Innovation Technology, dependent of the Government Secretariat of Modernisation (SGM), responsible for elaborating and executing an annual action plan for the Digital Agenda, including concrete work plans and projects, goals, and performance indicators. The Executive Board is also charged with reviewing the Digital Agenda on an annual basis and proposing updates to ensure it remains up-to-date. It is also charged with keeping the Planning and Follow-Up Council apprised on progress in meeting objectives.
- Delegation of authority to the SGM to dictate all complementary and supplementary regulations for the decree's implementation.

Source: www.boletinoficial.gob.ar/#!DetalleNorma/195154/20181105.

The Digital Agenda is the Government's key guiding document for digital government. It is designed to help provide government-wide guidance and priorities and to accelerate the digital transformation of Argentina, and adds to the government's priorities in terms of digitalisation in the context of the Argentinian 2018 Presidency of the G20. It also seeks to meet OECD standards for digital government, as described by SGM officials, and identifies a number of priority projects and areas of focus, as well as short- and medium-term goals for them. The Digital Agenda, digital laws and government efforts have resulted in general belief among survey respondents that "a clear vision in terms of digital government is available in Argentina" (Figure 2.2).

Figure 2.2. Extent to which respondents agree that a clear vision in terms of digital government is available in Argentina



Source: OECD (2018), "Digital Government Review of Argentina: Survey for public sector organisations".

Through the issuance of Resolution 138/2018 in December 2018, the SGM formally implemented Decree 996/2018 (Digital Agenda). Shortly after, in January 2019, the SGM issued Resolution 5/2019, which created the Special Temporary Executing Unit within the Secretariat for Digital Government and Digital Innovation. The unit works in a coordinating role for the overall Digital Agenda, and it has been assigned a number of objectives:

- intervene in the definition of initiatives and work proposals within the framework of the Digital Agenda aimed at accelerating the digital transformation of the country
- prepare concrete work plans and projects of the Digital Agenda, and the management goals and indicators applicable to their implementation by the public entities that serve as project leads
- design and implement a monitoring methodology for the different initiatives of the Digital Agenda
- direct studies of international positioning of the digital competitiveness of Argentina in relation to the selected indicators

- assist the Secretariat of Digital Government and Technological Innovation of the SGM in the co-ordination of the actions of the Executive Board
- assist the Executive Board in the formulation of an annual follow-up plan for the Digital Agenda to monitor compliance with the objectives established for it
- intervene, in conjunction with the Executive Board, in the preparation of progress reports for review by the Planning and Follow-up Council
- assist and advise the ministries, agencies and departments as needed on the implementation of the Digital Agenda.

A steering committee – the Ministerial Council for Planning and Monitoring of the Digital Agenda – is chaired by the SGM and oversees the agenda. Its role is to ensure the Digital Agenda is being carried out. A number of ministries that are most crucial to achieving the Digital Agenda are also involved, including the ministries of Production and Labour; Education, Culture, Science and Technology; and Foreign Affairs. An Executive Committee is led by the secretaries and deputy secretaries from these ministries to help implement the Digital Agenda. Subgroups are clustered into working groups by topic and will help co-ordinate individual projects.

The Digital Agenda focuses on the digital transformation of the broad digital economy (see Box 2.3). A number of objectives focus specifically on the digital transformation of the public sector, including those related to promoting an open, transparent, people-centred, and secure digital government.

Box 2.3. Objectives of the Digital Agenda

The Digital Agenda was developed to bring about a unified vision and roadmap for digital transformation in Argentina that achieves digital inclusiveness for all citizens ("zero digital poverty") and a more efficient, effective, citizen-driven public sector that works better at lower costs. It also seeks to enhance the productivity and competitiveness of the economy. The objectives of the Digital Agenda include:

- promote regulatory frameworks that allow taking advantage of digital opportunities, contemplating an adequate treatment of public and private information
- facilitate the development of infrastructure and accessibility that connects everyone in an intelligent way
- foster digital literacy as a driving force for inclusion
- develop an efficient and effective government, oriented to people, with values of openness and transparency
- promote digital education to encourage the employability of citizens in the future
- boost the economic growth of the country through digital development, through a quantitative and qualitative jump in productivity and competitiveness

- develop cybersecurity capacities to build trust in digital environments
- promote the international prominence of Argentina in the digital transformation process.

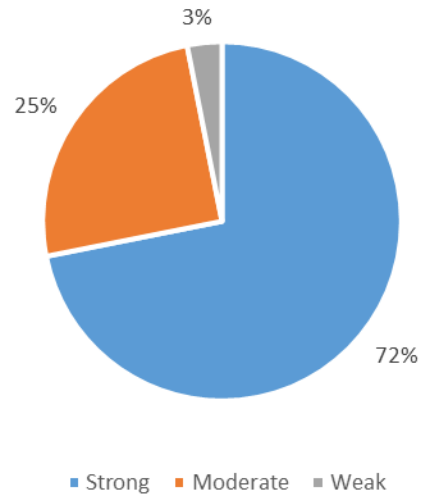
Source: www.boletinoficial.gob.ar/#!DetalleNorma/195154/20181105.

Most stakeholders interviewed during the OECD peer review mission to Argentina (March 2018) were aware of the draft Digital Agenda, there was general enthusiasm for it, and a belief that it would serve as the overall strategy and vision for digital government in the country. In developing the Digital Agenda and getting broad buy-in and engagement across the relevant ministries, Argentina has taken significant steps to set priorities for projects and principles that are of importance to the administration or are mandated in law, which were previously fragmented across various ministries with no central guiding force.

The Digital Agenda is an important umbrella policy document and represents a significant step forward in establishing a common vision, defining leadership roles and responsibilities, fostering co-ordination across government, and setting common strategic digitalisation objectives in a broad sense. It puts in place a high-level vision for where the country wants to be. The Digital Agenda is generally project-based (e.g. digital signature, single window) and principle-based (e.g. openness, co-creation); in the future it will be helpful to guide priority projects, provide unity around key principles and develop specific related strategies (e.g. procurement strategy).

The design and development of the Digital Agenda has also provided crucial opportunities to bring the relevant stakeholders together, enabling discussion about the objectives to be achieved and the institutional tools to be mobilised. In many instances, the development of such a Digital Agenda is a major and necessary step in achieving digital transformation, and it will likely have significant influence throughout the government. This is evidenced by results from an OECD survey administered among Argentinian government organisations for the purpose of this review, where most participants indicated that central/federal direction for digital government has strong relevance for their institution (e.g. mandates, alignment and relevance of the central/federal goals with the institutional goals, etc.) (Figure 2.3), and most are also fully aware of the content and goals of the digital government policy.

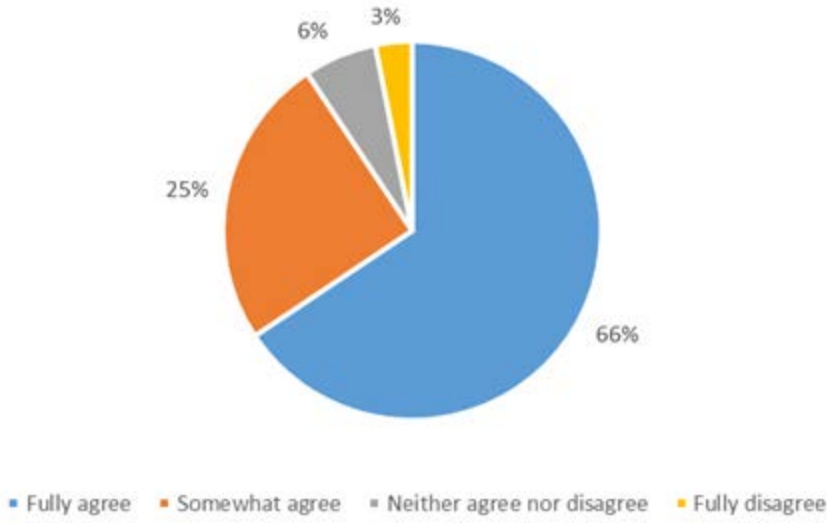
Figure 2.3. Respondents' ranking of the relevance the central/federal strategy direction has for their institution



Source: OECD (2018), "Digital Government Review of Argentina: Survey for public sector organisations".

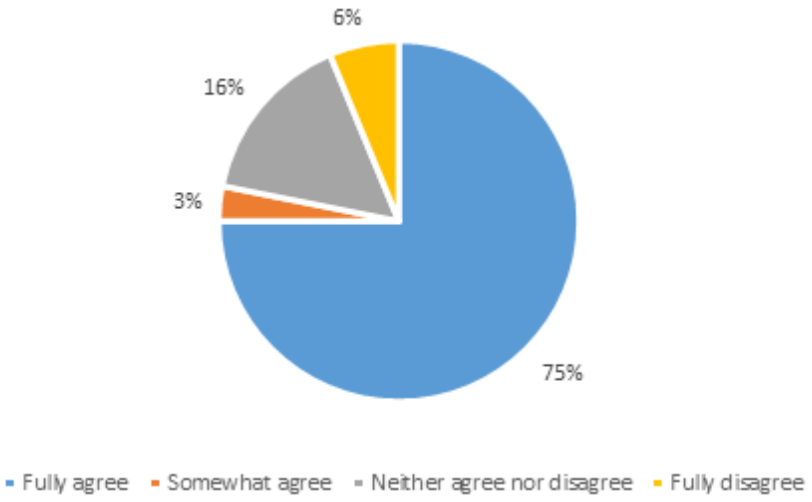
In addition, as evidenced by the OECD survey on government organisations in Argentina, the ecosystem within government provides a positive environment for the adoption of the Digital Agenda and subsequent strategies and policies. As illustrated in Figures 2.4 and 2.5, most respondents are fully aware of, and committed to, the Digital Agenda. This is a good sign that the Digital Agenda will likely be embraced by public officials.

Figure 2.4. Respondents' response to whether they are "fully aware of the content and goals of the digital government policy"



Source: OECD (2018), "Digital Government Review of Argentina: Survey for public sector organisations".

Figure 2.5. Extent to which respondents stated that they feel committed and ownership in regard to the digital government policy



Source: OECD (2018), "Digital Government Review of Argentina: Survey for public sector organisations"

According to SGM officials and backed by the results of the recent OECD digital government survey of the centre of government, however, the Digital Agenda is not intended to constitute a full digital government strategy in itself. It does, however, provide a policy basis to build a comprehensive digital government strategy, which is considered a key element of the governance for a digital government. This is in line with SGM officials' stated intent to first construct the Digital Agenda in order to set forth a broad framework under which a full digital government strategy can be subsequently developed.

Initially creating project and principles-based agendas is a common step as a government seeks to bring about a digital transformation. For example, the first Chief Information Officer (CIO) for the Obama administration in the **United States** began his tenure by launching the "25 point implementation plan to reform federal information technology management" (The White House, 2010), and then subsequently launched a formal Digital Strategy with specific actions and associated time horizons (The White House, 2012), as well as specific sub-strategies, such as the "Federal Cloud Computing Strategy" (The White House, 2011).

Although not intended to serve as the digital government strategy, the Digital Agenda has the potential to better align the country with the OECD *Recommendation of the Council on Digital Government Strategies* in a number of important ways (Table 2.1).

Table 2.1. Examples of alignment between the OECD *Recommendation of the Council for Digital Government Strategies* and Argentina's Digital Agenda

OECD Recommendation	Argentina's Digital Agenda
Efficiency and effectiveness; openness and engagement	– Core objective to "Develop an efficient and effective government, oriented to the citizen, with values of openness and transparency" – Actions to make public initiatives more citizen-focused and to create opportunities for dialogue and co-creation with civil society and citizens – Actions to make information free, open and available for reuse
Data-driven	– Action to promote automatic exchange of data across levels of government – Action to promote an intelligent government that takes decisions based on data
Security and privacy	– Core objective to "develop cybersecurity capabilities to build trust in the digital environments" – Actions to "develop a system for monitoring and managing cyber threats at the national level", "develop a cybersecurity ecosystem" and "strengthen the leadership of the state and public-private co-ordination for the development of policies to safeguard critical infrastructures"
Leadership commitment and co-ordination within and across governments, sectors and countries	– Digital Agenda enacted through presidential decree, signalling political commitment – Core objective to position Argentina as "a protagonist in the digital world" – Action to "promote the adoption of international standards and good practices" – Action to "maintain an active participation in forums and international organizations" – Actions to build an "innovation ecosystem" and a "new business ecosystem"
Processes and capacities to support smart implementation	– Commitment to "establish a system of indicators that provide accurate information" to enable monitoring of Digital Agenda action items – Actions to build foundational enablers: digital identities and signatures and unified and interoperable platforms – Commitment to make services easier for citizens and businesses through one-stop shops, once-only data principles, and process and contract simplification
Legal/regulatory framework and security/privacy	– Core objective to "ensure that legal frameworks allow to seize digital opportunities, while ensuring the appropriate treatment of public and private information" – Supports "updating those regulations that became obsolete in the face of advances in technologies, as well as those that represent obstacles to innovation and progress in ICT" – Action to "establish a legal framework that promotes diversity and competition among providers of communications services to create a convergent and equitable ecosystem" – Action to "maintain updated legal frameworks that allow the adoption and incorporation of new technologies" – Action to establish legal a framework that "comprehensively protects personal data while allowing [people] to obtain the benefits linked to digitization"

Sources: Based on OECD (2014), *Recommendation of the Council on Digital Government Strategies*, www.oecd.org/gov/digital-government/recommendation-on-digital-governmentstrategies.htm; Government of Argentina (2018), Digital Agenda, https://www.boletinoficial.gob.ar/detalleAviso/primera/195154/20181105

While the Digital Agenda brings Argentina more into alignment with the Recommendation, digital government efforts in the country could benefit from a more explicit strategic-level action plan with a medium- and long-term perspective, goals and outputs. In addition, the process of developing such an agenda with the participation of all key players can further the government's goals to build consensus and a sense of shared ownership and accountability for its success or failures.

When thinking ahead to the stated intent of developing a digital government strategy, opportunities exist to set strategic goals with related objectives in a fuller, more detailed way in order to provide an articulated roadmap for digital government that everyone in government can rally behind and work towards together. This will help to secure alignment

and facilitate the engagement of the whole ecosystem. A number of officials from different parts of the government noted this in interviews during the peer review mission in March 2018.

Moving towards collective and sustainable action

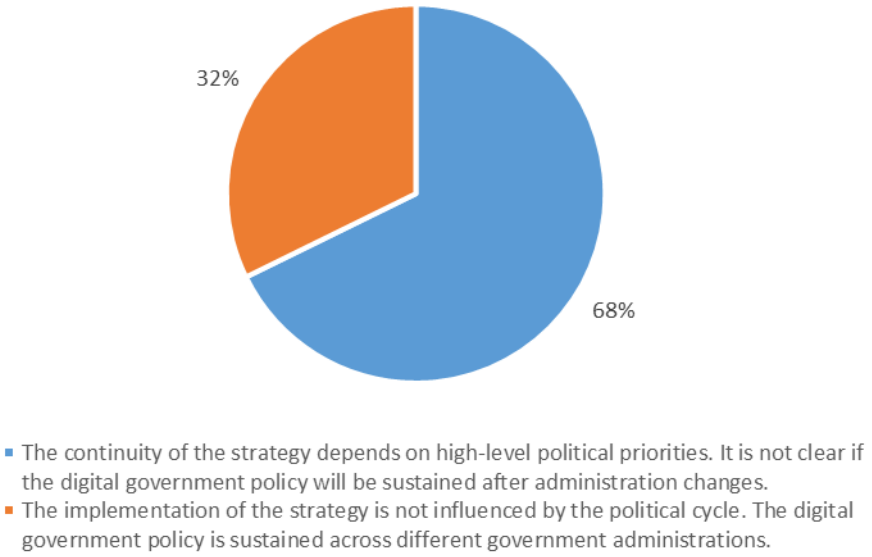
Without an articulated action plan and roadmap to achieve national objectives, all initiatives may appear to be equally important. Over time, this can slow down or limit the potential for leveraging whole-of-government approaches, where ministries advance the Digital Agenda together towards shared strategic purposes rather than driven by individual initiatives and projects. Enabling this whole-of-government approach could help Argentina to continue to advance beyond silo-based approaches. Such horizontality, sharing and integration will be instrumental to fully support the digital transformation of the public sector.

This is not to say that efforts made to-date have not helped make government actions more cohesive. The work carried out under the current administration, including the development of the Digital Agenda, appears to already be contributing to the types of collective drive that could be further enhanced with a digital government strategy. The OECD and peer review team perceived that government officials were starting to strategically advance in a united way under the vision of the Digital Agenda and the priorities of the administration. Many of these officials had previously worked together to advance digital government for the city of Buenos Aires, hence having the advantage of established formal and informal relationships.

This dynamic environment promotes efficient, accelerated collaboration in the short run. These pre-existing relationships have helped Argentina to make immediate and rapid progress. In order to ensure progress is maintained in the long term, it will be important to promote broader cultural change within the public sector to embed the practices and mindsets brought about by the current administration. A long-term strategy and set of actions to lock in a sustainable path for ongoing progress could help amplify and perpetuate current and future successes. This would assist in future-proofing digital government efforts and strengthening them against potentially adverse future scenarios. Many participants of an interdisciplinary OECD workshop held in Argentina in July 2018 also spoke of the need for a broader cultural change across government to sustain the digital transformation.

A full digital government strategy could assist in this, by helping to set the tone for cultural change within and across public sector organisations. This was also stressed in the OECD *Open Government Review of Argentina*, which found that "*while this informal network of contacts has been beneficial to kick off the national open government agenda, it will now be important to institutionalise open government frameworks in Argentina in order to reduce the dependency on personal networks and guarantee continuity in the medium and long term*" (OECD, forthcoming). The OECD survey of public sector organisations in Argentina reflects some uncertainty among officials as to whether digital government policies will be sustained after the administration changes (Figure 2.6).

Figure 2.6. Respondents' opinions on whether there is a relationship between central/federal digital government policy and the political cycle



Source: OECD (2018), "Digital Government Review of Argentina: Survey for public sector organisations"

A key component of this long-term future-proofing is establishing solid foundations that can promote broader cultural change within the public sector. A systems-wide culture that fosters digitalisation would be incredibly valuable for the sustainable evolution towards efficient and effective digital government operations. This would require supporting the existence of networks within the public sector that are resilient to political and government changes (e.g. of careers civil servants) and support sustained change, which will enable systems approaches to the digital transformation (as discussed later).

Enhancing inclusiveness could further drive digital efforts

Even though the Digital Agenda was only recently implemented, it is already clear that the work undertaken to develop and put it in place, and the priorities and objectives that it has signalled, have improved the functioning of government operations. This is due in part to the inclusive nature of how the Digital Agenda was formulated within government. In the survey of Argentinian public sector organisations, 87% of respondents indicated that the "current central/federal strategy/policy was developed as a co-ordinated process between public sector institutions, e.g. ministries". The Digital Agenda has secured the backing of all involved ministries through internal consultations, and the process to finalise and implement the Digital Agenda was through presidential decree and associated resolutions, as discussed previously.

However, the development of the Digital Agenda could have benefited from being more inclusive to those beyond Government. The Government made an effort to involve different public and private representatives and other stakeholders in the design of the Digital Agenda. For example, a meeting in the House of Government (Casa Rosada) was held on 30 October 2018 with digital experts in order to brainstorm and discuss the agenda's roadmap. While this is positive, the Digital Agenda did not undergo an open public

consultation process, or potentially crowdsource new ideas and priorities from the public and other external stakeholders. This is also reflected in the survey of public sector organisations, where more than half (52%) of respondents indicated that the central strategy was not developed in formal consultation with other non-governmental stakeholders. This approach appears to be an example of a broader issue, as the regulatory review (OECD, 2019) also found that the most common way to perform consultation is through ad hoc meetings, without necessarily conscientious effort to reach out to a broad range of target groups, and at a minimum, consultation with the public. Such a consultation could have been carried out on https://consultapublica.argentina.gob.ar, which was implemented in May 2016 as a platform that can be used to undertake public consultation in the development of new rules. Such platforms foster the generation of collaboration spaces between the state, civil society and the private sector, to co design and co-produce public value.

Not bringing in the public early in the process of policy design may represent a missed opportunity for the government to demonstrate its responsiveness and commitment to building a citizen-driven digital government. It also means that a core document that is intended to guide digital efforts for a number of years did not benefit from feedback from the public while the document was still malleable. When consultations are not conducted or are done late in the process, government officials run the risk of being closed off to changes and good ideas that may have been easier to act upon earlier in the process. In the future, processes to ensure public feedback is fully considered would help.

If Argentina takes steps to mitigate this potential missed opportunity, it is unlikely that this will be a major detriment to the success of its digital government efforts, as there are other opportunities to ensure the public's feedback is taken into consideration. In particular, in thinking forward to the development of a digital government strategy, bringing in external perspectives early in the process may add value to the process and the end results, and foster a sense of joint ownership and shared responsibility towards the overall strategic objectives.

Beyond the Digital Agenda, in interviews, there was little discussion among government officials that indicated that they recognise the importance of the broader ecosystem of digital government efforts, including players and stakeholders from the private sector, academia and civil society. The first and second principles of the OECD Recommendation (2014) underline the importance of engaging citizens, businesses and civil society in the design of digital government. Additional emphasis on this area, as discussed in Chapter 5 of this report, would strengthen the Government's strategic ability to secure the commitment and co-responsibility of stakeholders sharing the successes and failures of the agenda, strategies and policies. Inclusive design and implementation processes ensure that the policy output is rooted and grounded in the ecosystem.

A digital government strategy could promote coherent operations based on internal demand

The formulation of a formal stand-alone digital government strategy could also help in promoting policy coherence across government, avoiding fragmentation, shifting efforts to focus more on internal and citizen demands, and providing a path to maturity for digital policies and services. This is critical to ensure that decisions on national digital government priorities are driven by national needs and priorities.

Before the current administration took office, there was little effort to co-ordinate the ICT-related initiatives of the different ministries at the central level of government. Without co-ordination, the government risked the potential that various initiatives across government could operate in duplicative, fragmented or overlapping ways.

The current administration has taken major steps in improving this, especially through its empowerment of the SGM as a central policy-making, co-ordination and enforcement body. The Digital Agenda is also contributing to this. However, a more strategically focused document could reduce this fragmentation over time.

In addition, as often occurs in a country's digital transformation journey, many priorities are being driven by international rankings and indicators. While such metrics are helpful in a general sense, they might focus on areas that are not critical for the unique context of a given country. Opportunities exist for the government to better develop indicators that focus on gaps specific to the context in Argentina. Signals of internal demand from either users, civil servants or other members of the digital government ecosystem could be evaluated to establish such indicators.

Documentation challenges limit learning and storytelling

Argentina's digital government, and perhaps broader, efforts could benefit from improved documentation and communication on the status and progress of efforts and results achieved so far. This issue exists within and across government, as well as externally towards the broader ecosystem. The Digital Agenda may assist over time, as may a formal digital government strategy that further prioritises what is important.

In interviews during the peer review mission, a number of officials expressed that the government could be inconsistent about "writing things down" and documenting processes, decisions, plans, progress and problems. This can have detrimental effects on the government's digital government policies and associated iterative processes, as well as on the public perception on accomplishments and efforts. For instance, reports could be used as potential knowledge sources to inform a formal cross-cutting strategy and guide its planning, implementation, monitoring, reporting and evaluation. Such reports could also be used to inform external communications to keep the public up to date on government activities.

Without documentation enabling recording and storytelling, it is difficult or perhaps even impossible for the country to establish a baseline for a level of consistency across government. These challenges also have affects outside of government, as without storytelling citizens do not see the important and positive work the government is carrying out, and the results and impacts it is achieving to improve the lives of its citizens. This is known to affect the level of trust citizens have in government (OECD, 2017a). Finding ways to enhance trust in government is very much needed in Argentina, where only 26% of the population had faith in the government as of 2018, compared to an average of 43% in OECD countries.[7]

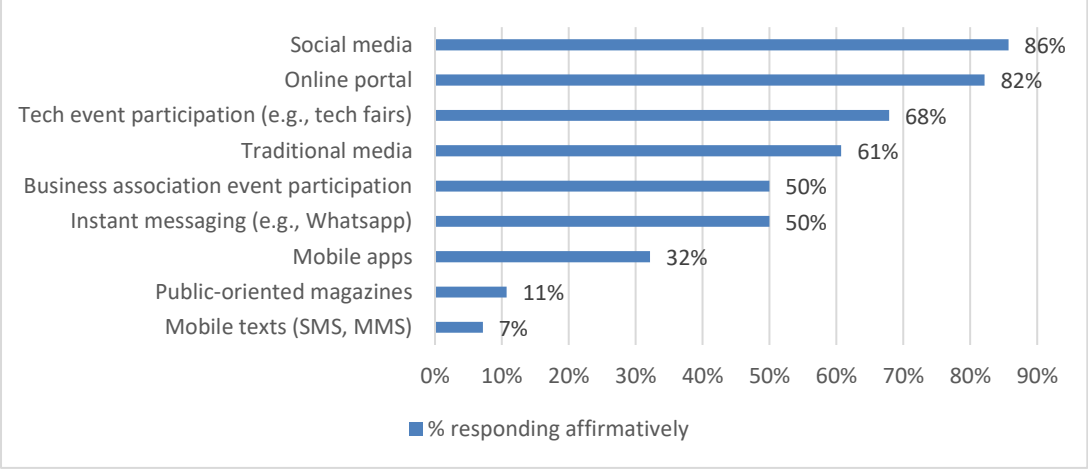
Unless improvements are made in these areas, Argentina will struggle to learn from the problems it encounters and methods devised to overcome them, and to foster the nature of its public sector as a learning organisation – based on knowledge sharing. For example, different public sector organisations are likely to encounter similar issues as they work to

bring about a digital government. If they are not documented and shared, those facing similar problems may waste time devising solutions that have already been identified elsewhere, rather than learning from others' experiences, leveraging synergies and scaling up what works. Likewise, without improvement in storytelling, Argentina may struggle to strengthen the levels of trust citizens have in government. The need for change was clearly recognised by participants of the OECD workshop in July 2018, who stated that one of the biggest needs for the country is widespread knowledge on what has been done already as well as good practices and lessons learnt.

Although challenges exist, Argentina appears to be taking steps in the right direction to improve its documentation and storytelling practices. For instance, Argentina has increasingly focused on the importance of communicating with the public and giving progress updates related to digital government.

This is reflected in the OECD survey of public sector organisations, where 88% of respondents indicated that their institution has a communication strategy in place (i.e. through social media) to inform citizens on the outcomes of the institutional digital strategy/initiatives (e.g. the availability of new digital services). Mediums used for such communications are illustrated in Figure 2.7. This is a positive sign that government organisations are making efforts to communicate on work and progress being made. It is important to note, however, that the OECD (2019) *Open Government Review of Argentina* found somewhat contradictory results from a separate survey, nothing that only 20% of ministries have a specific communication strategy. This may indicate that the strategies that do exist may not be formal.

Figure 2.7. Mediums used to conduct external outreach



Source: OECD (2018), "Digital Government Review of Argentina: Survey for public sector organisations"

An additional example of progress in this area is the regular publication of interesting and insightful public blog posts on a variety of digital government topics.[8] In addition, according to SGM officials, the SGM is currently working on institutionalising frameworks to ensure coherence, including with documentation and communications practices. The Digital Agenda is also driving some progress in this area, as it calls for a communications manager as a senior position in its governance structure. However, many peer review

participants told the peer review team that there is still not enough public-facing reporting and communication on the government's progress, performance and impacts. This was also noted in the OECD (2019) *Open Government Review*, which noted that citizens are generally unaware of existing initiatives and progress towards opening up government, which is a challenge shared by many OECD member and non-member countries.

As an additional step, the National Office of Information Technologies (Oficina Nacional de Tecnologías de la Información, ONTI) is working to overcome documentation challenges for both sharing information inside government and storytelling outside government. This office is well positioned to affect change in this area, and the government of Argentina should evaluate how to best leverage ONTI to drive progress with documentation and storytelling across government. See Box 2.4 and Chapter 3 for additional information on ONTI. It remains to be seen how well Argentina's efforts to improve documentation and communication practices will succeed, but the government's actions are promising.

Box 2.4. National Office of Information Technologies

The National Office of Information Technologies (ONTI) is a sub-component of the Secretariat for Digital Government and Innovation Technology. It promotes the transformation and implementation of technological solutions for the Argentinian national public sector. Its mission is to be a reference in the field of ICT for the public sector by promoting the modernisation of the state through guidelines and regulations together with proactive support for projects and initiatives of the sector.

ONTI launched Argentina's Innovation on New Technologies for Government EXPO on 8 November 2018. This was the government's first event regarding new technologies. It carried out workshops to share experiences and tackle problems in a collaborative way.

The Technological Standards Directorate:

- defines technological standards
- performs reviews of all new or expanded ICT projects in the public sector
- advises and supports entities in ICT projects
- oversees the governance of public software, promotes its diffusion and reuse
- facilitates areas of collaboration in ICT among government agencies.

The Innovation Directorate:

- develops guidelines and assists in the adoption of new technologies applied to government
- develops concept, tests and pilot solutions for government
- audits, analyses and proposes efficiencies in infrastructure and solutions for government ICT
- participates, assists and fosters co-operation in government ICT areas.

ONTI has developed the *Decálogo Tecnológico* (https://www.argentina.gob.ar/onti/decalogo-tecnologico-onti), which gathers and shares best practices for ICT projects across government. It offers a series of guidelines to help public sector organisations design useful and sustainable ICT projects. It has also launched the "Guidelines of Good Practices for the Development of Public Software" (https://www.argentina.gob.ar/onti/codigo-de-buenas-practicas-para-el-desarrollo-de-software-publico) that fosters software development in a sustainable and collaborative way.

Sources: Interview with government officials; https://www.argentina.gob.ar/onti/innovacion-tecnologica.

Institutional governance: Leadership and digital stewardship

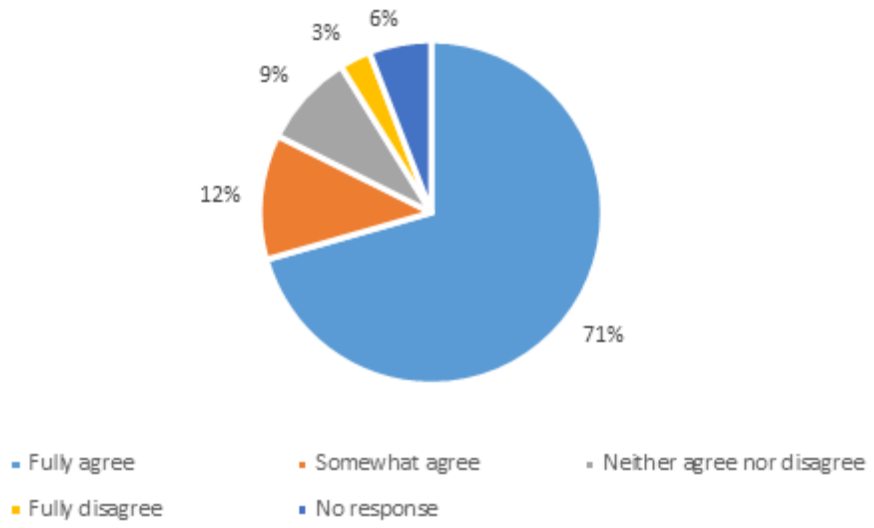
A clear scenario of "who is who" and "who does what" is equally as important as the "who are we" and "where do we want to go" questions discussed earlier. As also highlighted by the OECD (2014) Recommendation, setting clear institutional roles is one of the basic preconditions for sound governance of digital government and to sustainably support the digital transformation of the public sector. Considering the size and complexity of the task at hand to fully enact a shift towards digital government, roles and responsibilities must be clear to the different stakeholders involved. This is especially true in the Argentinian context, where most digital efforts are relatively new.

The SGM is a broadly recognised and respected leader

Governance and authority for the SGM (then-MoM) were formally clarified and strengthened in 2016 by presidential decree.[9] These authorities are broadly recognised and respected. During the peer review mission to Argentina, there was general consensus among the different stakeholders in the central government, as well as in subnational governments, civil society organisations and private sector companies, about the central role of the SGM in bringing about and advancing digital government in Argentina. There was also near consensus regarding the major positive impacts and improvements that have been achieved over the last few years.

This recognition is also mirrored in workshops held by the OECD in Argentina in July and December 2018, where clear central leadership was the most frequently raised positive factor of Argentina's digital transformation efforts. It is also present in the results from the OECD survey of government institutions in Argentina, where 94% of respondents stated that there is a leading public sector institution at the central/federal government level responsible for designing and setting the central/federal digital strategy, and 91% stated that there is a leading public sector institution (ministry or other public sector organisation) at the central/federal government level responsible for leading and co-ordinating the implementation of the decisions on the strategic use of digital technologies in the central/federal government. Nearly all of them specifically named SGM as that leading institution. Respondents also indicated a general belief that digital government leadership was strong (Figure 2.8).

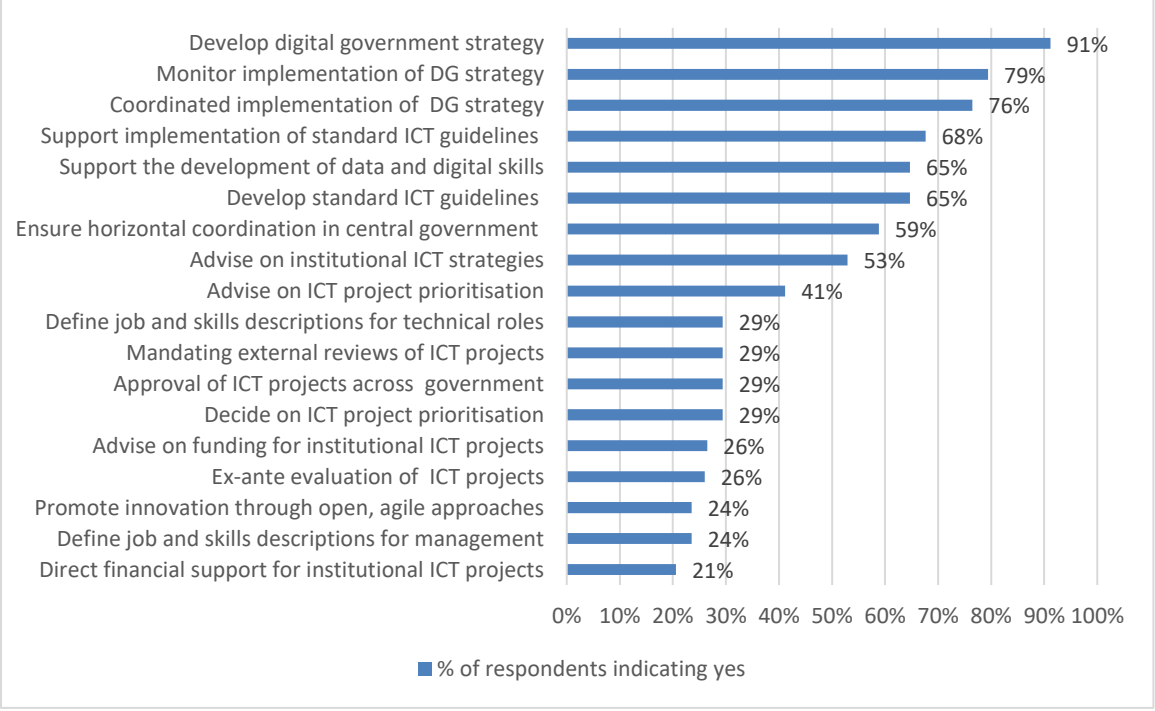
Figure 2.8. Extent to which respondents agreed that there is clear and strong leadership in terms of the co-ordination of the digital government strategy available at the central/federal government



Source: OECD (2018), "Digital Government Review of Argentina: Survey for public sector organisations"

Respondents to the survey perceived a variety of core responsibilities for the SGM, as illustrated in Figure 2.9.

Figure 2.9. Main responsibilities of the central policy co-ordinating institution



Source: OECD (2018), "Digital Government Review of Argentina: Survey for public sector organisations"

Some respondents indicated that some of these responsibilities were more important than others with relation to co-ordinating digital government at the central/federal level.

Not surprisingly, the responsibilities indicated as the highest priority among survey respondents are:

- monitoring the implementation of the central/federal digital government strategy
- leading the co-ordinated implementation of the central/federal digital government strategy across the broad public sector
- promoting public sector innovation through the enhanced use of open, participative, inclusive, agile approaches to policy making and problem solving
- advising on the development and implementation of institutional ICT strategies (e.g. ministries and other public sector organisations)
- co-ordinating with local governments on the development of ICT projects aligned with the objectives of the central/federal digital government strategy.

These recognised priorities are generally aligned with the governance responsibilities set forth. However, it is noteworthy that responsibilities related to defining skills and capabilities and being involved with funding decisions for ICT efforts were not recognised as priorities. This could indicate potential challenges, as discussed later in this report.

In addition to the recognition of the SGM's leadership role in this space, many interviewees from other ministries also expressed a strong willingness to work and collaborate with the SGM. This is a very positive sign that the fairly recent mandates and the centralised authorities within the SGM have been well understood and accepted, that the actions taken by the SGM to-date have been well received, and that the SGM (and its predecessor, the MoM) has taken steps to solidify its authority for overseeing and co-ordinating digital government efforts.

Opportunities exist for clearer roles, responsibilities and structures within and outside the SGM

It is clear that the government of Argentina has matured greatly in terms of digital government in recent years, as has the SGM (and its predecessor, the MoM), which has established itself as the leader of the government's digital transformation. In fact, it appears that digital government in Argentina has reached a level of maturity where ministries and other public sector organisations now seek cross-government solutions and guidance, rather than taking all decisions from their own organisational perspective. In this context, a governance framework that more explicitly delineates the roles and responsibilities of the SGM, and provides for strong leadership across government, would help further advance digital efforts.

At a central co-ordinating level, there is also no government chief information officer (GCIO). The formal identification of a GCIO (or a position with equivalent responsibilities, such as the chief digital transformation officer in some countries) strengthens the effectiveness of the institutional set-up and related responsibilities within the governance framework (OECD, 2016). The figure of the central/federal government CIO or equivalent position has become the most common form of co-ordinating unit or body for digital

government activities. In some cases, the CIO's role is complemented by more experimental institutions, or units, depending on the government's priorities and efforts. Interdisciplinary participants at an OECD workshop held in Argentina in December 2018 stated that creating a government-wide CIO and chief data officer (CDO) could help further digital government efforts.

In addition, the SGM appears to be dedicating significant time and energy to conducting hands-on implementation and development work to help other ministries achieve policy goals and requirements, including through its National Direction of Digital Services and LABgobar. This may have been an important step at the onset of the current administration's digital transformation efforts; however, it appears that the time is right for ministries to dedicate more efforts to implementation and for the SGM to shift more towards a central co-ordination, convening and oversight role. More explicit articulation of the roles and responsibilities of the SGM and the other ministries could help.

The structure of the digital services team and LABgobar could be problematic in the long run. Over the last several years, the concept of digital service teams and innovation labs has grown to be a popular solution in many countries. For instance, the first digital service team was the United Kingdom's Government Digital Service, founded in 2010. As digital teams and labs have grown, they have taken a variety of structures and activities (OECD, 2016). A common challenge of many of these units and innovation labs is that they have been relatively isolated from other parts of government. As a result, while they are able to make significant contributions to government operations, their methods, techniques and culture often fail to permeate to the rest of government and support mainstreaming and scaling up of good practices. The current structure and positioning of the lab and the National Direction of Digital Services resembles those of similar groups whose impact could be further magnified if more integrated with other public sector organisations. Box 2.7, shown later in this chapter, illustrates how New Zealand seeks to achieve this type of integration through its cross-government, cross-funded Service Innovation Lab. The government of Argentina and the SGM should consider whether introducing cross-organisational elements to the National Direction of Digital Services and LABgobar could enhance their potential for systems-wide impact.

Beyond the SGM, peer review interviewees described the current state of digital governance at the ministry level as siloed, and in some cases, project and challenge-based ICT teams within the ministry are themselves siloed, with limited ability to understand the authority and scope of the other teams. For instance, in some cases, different teams wrongly believe they are responsible for an area of work, reportedly resulting in duplication of efforts and potential missed opportunities for synergies. Other times, according to interviewees, no one seemed to be responsible for important areas, leading to gaps. Because each ministry has the ability to independently determine its own governance structure, the SGM may face challenges in co-ordinating the implementation of government-wide policies.

For instance, the digital governance of ministries and other non-central public sector organisations throughout central government remains somewhat fragmented. Ministries and other public sector organisations often lack a clearly identifiable digital champion responsible for leading and steering (e.g. traditional roles like CIOs and CDOs), which would serve as clear points of guidance, leadership and accountability. A few organisations

have, however, established formal governance roles and structures under the current administration. For example, the federal tax (Administración Federal de Ingresos Públicos) and social security (Administración Nacional de la Seguridad Social) administrations have established central CIO positions; put in place their own digital government strategies; and formalised governance structures to develop strategic roadmaps, review ICT and take decisions on ICT projects. Such practices are promising and appear to add significant value; similar positions can help serve as points of guidance and accountability for each organisation in meeting the policy directives set forth by the SGM and the president. However, they are not currently promoted or mandated in a government-wide manner. Similar to their suggestions for central governance, the interdisciplinary participants at the December 2018 workshop stated that creating a ministerial-level CIO, CDO or similar roles could help further digital government efforts and assist in generating collective knowledge.

The combination of ensuring a clear governance structure and actors for the role of the SGM relative to the other ministries, as well as a clear governance structure and actors for each ministry, is a critical enabler of the digital transformation of the public sector. This will increasingly be the case as Argentina seeks to adopt systems approaches and generate a whole-of-government momentum, as further discussed below.

Leveraging systems approaches to achieve strategic goals

Systems approaches are related to, and enabled by, governance frameworks and solid, clear leadership. While a solid governance framework helps all actors in government to focus and move towards the same goals and milestones under clear leadership, systems approaches consider the establishment of appropriate linkages and mechanisms for co-ordination that are also necessary to assure the proper co-operation, engagement and co-responsibility of all the relevant players, whether from a public, private or civil society background.

In a context of modern advances in technology, coupled with the increasing complexity and uncertainty of today's challenges that governments must face, traditional processes, analytical tools and problem-solving methods no longer work or do not produce their intended purpose. Simply put, taking decisions, designing policies and delivering services used to be easier and less complex. In the past, one of the primary ways that decision makers benefited from complexity reduction was in the simplified classification of information into well-delineated silos. This made diagnosing problems much easier. With less information and fewer variables, especially those that could be contradictory, decision making could proceed unencumbered by uncertainty or complexity (OECD, 2017b). These classic approaches no longer work.

Similar to other countries, Argentina will need to adapt by employing systems approaches (Box 2.5). The most significant enabler of systems approaches is the government's capacity and ability to connect and move as one. This includes also connecting with the broader external ecosystems, thus becoming hubs of the system's network.

Box 2.5. Systems approaches

Complexity is a core feature of most policy issues today, yet governments are ill-equipped to deal with complex problems. Governments are confronted with uncertain and complex challenges whose scale and nature call for new approaches to problem solving. Some governments have started to use "systems approaches" in policy making and service delivery to tackle complex challenges.

Such approaches analyse the different elements of the system underlying a policy problem, as well as the dynamics and interactions of these elements that produce a particular outcome. The term denotes a set of processes, methods and practices that aim to affect systems change. This holistic analysis puts the focus on the impacts and outcomes of policies, going beyond the linear logic of "input-output-outcome" of traditional approaches to policy design. It does this through the involvement of all affected actors inside and outside of government, as well as the importance of leaving room for iterative processes to account for the uncertainty associated with today's problems.

Such approaches differ from traditional approaches, in which policy makers address social problems through discrete interventions that are layered on top of one another. Such approaches may shift consequences from one part of the system to another, or address symptoms while ignoring causes. Looking at the whole system rather than the parts allows one to focus on where change can have the greatest impact.

Source: OECD (2017b), *Systems Approaches to Public Sector Challenges: Working with Change*, http://dx.doi.org/10.1787/9789264279865-en.

Fostering systems approaches in the administration should be a central priority for the Argentinian public sector, at the core of the development of digital government. As Argentina strengthens its governance structures and frameworks, the Government will be better positioned to seize the potential of systems approaches.

Identifying or creating connection points among ministries and external entities, finding leading public sector organisations with good examples to scale or replicate in other parts of government, aligning the incentives and the organisational objectives, monitoring practices and identifying long-term and shared necessities for the administration are important contributing factors. Fostering systems approaches would help to further institutionalise Argentina's Digital Agenda as a policy tool to steer decisions, foster innovation and better align priorities across the whole administration in line with the main policy goals.

Argentina has built foundations for systems approaches, but opportunities remain to build upon them

Argentina has made progress on building the conditions that will enable the country to leverage systems approaches. For instance, a Planning and Follow-up Council and an Executive Board, co-ordinated by the SGM's Secretariat of Digital Government and Innovation Technology respectively, have been formed to guide the implementation of the Digital Agenda. The Executive Board contains representatives from relevant jurisdictions

and is responsible for elaborating and executing an annual action plan, including concrete work plans and projects, and for reviewing the Digital Agenda annually in order to make recommendations for updates. In addition, ministries have identified topic-specific points of contact for a variety of digital and non-digital initiatives (e.g. open government, Mi Argentina website content).

Continuing to build on these and new foundations will help to position the Government to take a systems approach to its goals and challenges. Such an approach should also be considered as a strategic effort to bring "all the voices" to the table, enabling a more structured involvement of citizens, companies and general interest groups such as civil society organisations.

Holistic and strategic systems approaches can also accelerate the awareness of the digital journey among the public leaders in order to overcome vertical thinking and increase awareness around the networked role of ICT. Together with a sound governance framework, this approach could ease the endeavour of ensuring the sustained commitment and support to the digital transformation across the top political leadership within and across government.

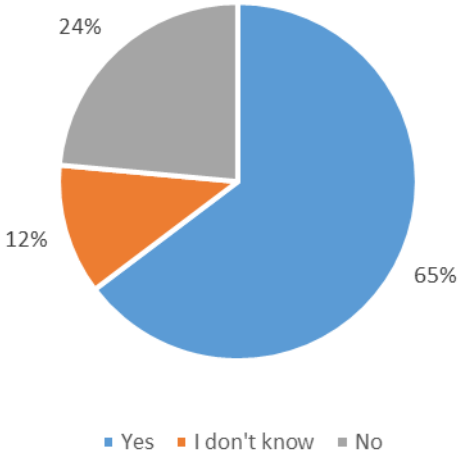
This objective can be achieved by putting in place some basic governance mechanisms that can help in the:

- orchestrated development and use of key building blocks (e.g. eID, e-authentication, e-payments, e-delivery, e-documents, etc.)
- adoption of common standards, architectures and norms
- development of common ICT procurement efforts, aggregating the demand, enabling savings and promoting the adoption of more interoperable solutions across the public sector
- adoption of common guidelines and shared efforts regarding digital service delivery, encouraging the development of more citizen-centred platforms.

While progress has been made, opportunities exist to further co-ordinate government activities in a holistic, horizontal and joined-up way. Although improving, general co-operation and co-ordination across ministries, other public sector organisations and levels of government is often fragmented, not systematic. Co-ordination occurs mainly through specific projects. For many ICT issues, there is no formal co-ordination and co-operation body at the ministry level, and co-ordination and co-operation at the underlying public sector organisation level can be inconsistent. Such co-ordination issues were frequently raised as challenges in interdisciplinary OECD workshops in Argentina in July and December 2018.

The SGM has, however, demonstrated leadership in connecting with ministries. Most of the respondents to the OECD survey indicated that their organisation co-ordinated with the SGM (Figure 2.10). However, these results could be stronger, and the focus has largely been on bilateral co-operation on a ministry-by-ministry basis, not on bringing all of the relevant players together as a whole.

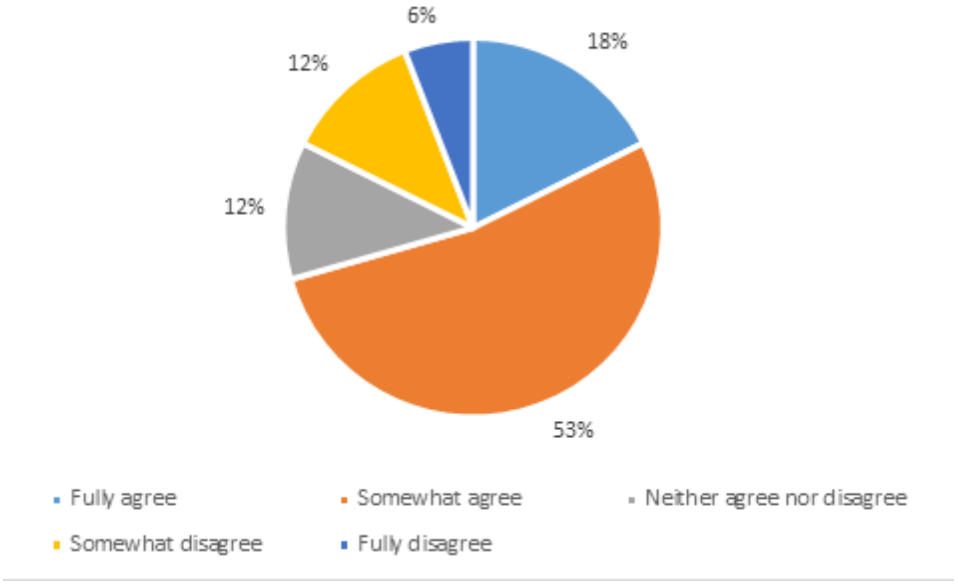
Figure 2.10. Extent to which respondents indicated that their institution regularly coordinates with the central/federal unit responsible for leading and implementing the decisions on the use of IT in central/federal government



Source: OECD (2018), "Digital Government Review of Argentina: Survey for public sector organisations"

Throughout the peer review mission, many leaders in the then-MoM and in line ministries and other public sector organisations highlighted that co-ordination should be strengthened and that an additional focus on the harmonisation and alignment of designing and implementing policies and services would be valuable. Furthermore, nearly all ministries spoke about the need to institutionalise current efforts in a more consistent, unified and collaborative way. This is also reflected in the survey results, in which very few participants found that the current level of inter-institutional co-ordination is sufficient (Figure 2.11). In addition, very few survey participants believed that the current level of inter-institutional co-operation and collaboration for policy implementation is enough.

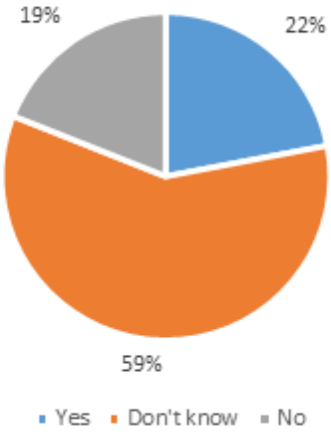
Figure 2.11. Extent to which respondents indicated that they believe that the current level of inter-institutional co-ordination for policy implementation is sufficient to advance the digital government policy in Argentina



Source: OECD (2018), "Digital Government Review of Argentina: Survey for public sector organisations"

Notably, far fewer were aware of formal mechanisms in place to enable inter-institutional co-ordination between ministries for digital government projects (Figure 2.12). The few mentioned examples include the then-MoM, the Federal Council on Modernisation and Innovation for the Public Administration (Consejo Federal de Modernización e Innovación en la Gestión Pública, COFEMOD; discussed below), and the National Direction of Digital Services. A roughly similar proportion were not aware of informal mechanisms.

Figure 2.12. Extent to which respondents were aware of formal mechanism(s) in place to enable inter-institutional co-ordination between ministries/organisations for the implementation of digital government projects



Source: OECD (2018), "Digital Government Review of Argentina: Survey for public sector organisations"

There are some notable exceptions to this challenge, however, where a sustainable model for a systems approach has been reached. Several efforts co-ordinated by the SGM, including Argentina.gob.ar, the Electronic Document Management Platform and the Open Data Policy are key examples of multilateral co-operation across ministries to achieve a systems approach. Box 2.6 provides an overview of how Argentina is taking a systems approach for open government data, and Chapter 6 discusses open government data practices in greater detail. Argentina may look to these instances to apply their most successful elements elsewhere.

Box 2.6. Systems approach for open government data

The Open Data Policy (Plan de Apertura de Datos) was established by Presidential Decree 117/2016 soon after the new administration came into office, setting up a simple but coherent policy framework that helped to ensure government-wide coherence while allowing for flexibility at the ministerial level for achieving open data objectives. The policy generally created three levels of structure.

1. Principles level: Sets overarching principles data should be generated, made available and properly documented by every public entity.
2. Policy level: Established a strict and ambitious timeline for the publication of critical datasets, sets forth a centralised publication scheme and a set of common guidelines and standards for publication, and requires that public data should be published in a proactive, complete and timely way, and through channels that facilitate their accessibility, use, reuse and redistribution through the central open government data portal (Datos.gob.ar).
3. Implementation level: Grants ministerial flexibility and discretion in how to achieve the principles-level and policy-level objectives.

Officials from the Government Secretariat of Modernisation (SGM) state that this flexibility can help promote ministerial proactivity, co-operation and innovation throughout implementation. While ministries had flexibility in implementation, government-wide co-ordination is necessary to ensure centralised principles and policy objectives are met. To achieve this, the SGM developed recommendations, guidelines (e.g. metadata standards) and a number of best practice documents for opening up government data.

As a result of the Open Data Policy and centralised co-ordination, 28 entities within the public sector in Argentina publish their own open data catalogues, which are then "federated" into the central data portal Datos.gob.ar.

Sources: https://datos.gob.ar; http://servicios.infoleg.gob.ar/infolegInternet/anexos/255000-259999/257556/norma.htm; interviews with officials from the SGM.

These positive examples tend to orient around specific projects and goals, which is one successful strategy. Emerging best practices from other countries demonstrate that another successful approach may be to build cross-government connections into the very design of organisations and their structures, as New Zealand has achieved with its Service Innovation Lab (Box 2.7).

Box 2.7. New Zealand Service Innovation Lab

The Service Innovation Lab is an all-of-government neutral space enabling public sector organisations to collaboratively innovate to make it easier for people to access government services. It is a design and development lab to experiment, drive and enable the systemic change of government for the benefit of society. The lab also works to direct public funding to systemic improvements, horizontal efforts around shared goals, high-value reusable components and actionable innovation for all participating public sector organisations.

Importantly, the lab is funded through a cross-organisation innovation fund. The lab's work is prioritised by a cross-organisation Service Innovation Working Group comprised of members from participating organisations across government. Because cross-government connections and inputs are designed into the fabric of the organisation, it is well-positioned to engage with the full ecosystem of players in the systems and champion systems approaches.

Source: https://oecd-opsi.org/innovations/the-service-innovation-lab.

Co-ordination with subnational governments is a challenge

Significant challenges remain in considering and involving provincial and local governments in systems approaches. During the peer review mission, complexity of co-ordinating with subnational government organisations was one of the challenges most frequently raised by interviewees. In addition, as for the OECD regulatory review (OECD, 2019), the OECD and peer review team found that co-ordination between the national and subnational levels of government are generally carried out on an ad hoc basis. These challenges allow for both gaps and inconsistent overlaps in policies. This is largely due to the federated government structure in Argentina, in which provinces and local governments have significant independence and autonomy.

Subnational governments generally have the ability to design and administer their own ICT policies, services and products. As a result, each level of government, and different organisations across those levels, may use different and potentially incompatible technologies and approaches. This limits the potential for information sharing, collaboration and the achievement of a whole-of-government approach to tackle common issues and achieve common goals.

Indeed, even within the specific administrative context, lessons from OECD governments operating in similar environments show that there are few levers that the federal government can use to collaborate with subnational governments. This is important, as the provincial and local levels of government are where the most benefits of any national

strategy can be made tangible and bring concrete value to citizens. While mechanisms are few, the SGM does co-ordinate with the 24 provinces through COFEMOD[10] (Box 2.8).

Box 2.8. Federal Council on Modernisation and Innovation for the Public Administration

The Federal Council on Modernisation and Innovation for the Public Administration (COFEMOD) aims to foster administrative simplification by digitising and streamlining internal and external administrative procedures to facilitate the government's relations with citizens, subnational (namely provincial) governments and businesses.

Chaired by the Government Secretariat of Modernisation (SGM) and comprised of representatives of the provinces and the city of Buenos Aires, members meet four times a year to discuss issues relating to administrative simplification by means of digitising administrative procedures, formalities and services, as well as to share good practices on the governments' management of processes and systems.

COFEMOD is the key and sole element for co-ordination between the national and subnational governments – and its various topical subcommittees. COFEMOD's recommendations and decisions carry significant weight, but they are non-binding.

One significant example of co-ordination through COFEMOD is the creation of the "Federal Commitment to the Modernisation of the State", which is the main instrument for co-ordination across levels of government for ICT and for the other priorities of the SGM. Its objectives are to bring about a "modern state with digital government, transparent and with broad citizen participation, with trained human resources." The commitment was signed in 2017 by 19 provinces and the city of Buenos Aires and sets agreed-upon objectives around several lines of action for modernising provinces, such as administrative modernisation, open government and innovation, and technological infrastructure. The signatories stated their belief that "consolidation of modernization in an adequate manner requires a broad and federal commitment in which the national public sector and the provincial public administrations are fundamentally united."

Also under COFEMOD, public policies are co-ordinated and developed to promote digital government in the provinces, including through innovative means. For example, the "Argentina Innova" competition aims to promote the co-creation of public policies between governments and citizens.

COFEMOD recently developed a draft law on state modernisation, as discussed later in this chapter.

Sources: www.argentina.gob.ar/cofemod; www.argentina.gob.ar/sites/default/files/compromiso_federal_para_la_modernizacion_del_estado_0.pdf; interviews.

While COFEMOD has had significant impact and many successes, central government officials expressed a desire to improve in this area and were often unsure of whether other approaches could assist. It may be worth exploring whether other opportunities may exist to further align levels of governments, such as through funding incentives or conditions. Considering incentives for co-ordination was also recommended more broadly by the

OECD regulatory review of Argentina (OECD, 2019). Argentina could consider exploring how COFEMOD is used and whether officials are fully aware of its programmes. Participants of OECD workshops in July and December 2018 also stated that the government could better leverage COFEMOD for transversal co-ordination and agenda setting.

Enabling success through the legal and regulatory framework and funding

Legal and regulatory framework

A robust legal and regulatory framework forms one of the essential building blocks and necessary pre-conditions for the successful design and implementation of digital government strategies and initiatives. Argentina's legal and regulatory framework for digital government provides the SGM with strong authority for making policies, conducting oversight, co-ordinating the design and delivery of digital services, and prioritising which processes must be digitalised.

One of the key instruments for ICT modernisation is the State Modernisation Plan, set forth by Presidential Decree 434/2016.[11] This plan provides a framework for the modernisation of the government of Argentina and establishes digital government as a key component of the whole-of-government modernisation strategy. The plan has five branches, three of which are heavily related to digital transformation.

1. technology and digital government
2. integral administration of human resources
3. results-oriented administration and public commitments
4. open government and public innovation
5. digital country strategy.

The decree places the then-MoM in the central co-ordination role for executing the plan, including promoting it in provincial and municipal governments, as well as in the city of Buenos Aires. The SGM is also responsible for developing plans, guidance and training programmes for ensuring the plan is implemented.

It was clear from the interviews during the peer review mission that the authority of the SGM in these areas is universally recognised. Major pillars of this framework that support the SGM and promote important aspects of digital government are presented in Annex A.

In discussions with stakeholders during the peer review mission, it seems that some laws and regulations may be out of date, and 91% of survey respondents stated that there is potential for improving the regulatory framework. To address this, policy areas in Argentina have conducted reviews of existing legislation related to core issues. First, to eliminate fragmented and unneeded policies, as part of Presidential Decree 27/2018 on "Simplification and Less Bureaucratic Procedures" (see below), the government conducted consultations with line ministries and public sector organisations to identify legal provisions liable to be eliminated or reformed, which mostly eliminated "deadwood" (OECD, 2019) that was already in disuse.

To help identify areas where new or changed policies could help strengthen transformation efforts, some new legislation has been proposed, illustrating that the Government is taking steps to modernise. For example, a draft law on data protection is now under consideration. If passed into law, it would replace the current Personal Data Protection Law from 2000.

Argentina's efforts in this area could be enhanced by developing a fuller, evolving baseline of the legislative and regulatory landscape to help identify how laws, policies and other rules interact and affect digital transformation efforts, and to surface what needs to change now and on an ongoing basis. Such a baseline would help the Government to identify policy gaps where scarce resources and energy can be prioritised for improvement; policy excesses that may hinder efforts and could be targeted through policy or legislative change; areas that are not technology "neutral" and may become quickly outdated and hinder the government in adapting to future technologies and norms. Such a baseline could be potentially built by developing criteria for reviewing existing laws and policies, as well as for reviewing proposed laws and policies to ensure that they are tech-neutral and digital-ready. Optimally, this would be done at a granular level that breaks down each specific requirement within the various rules and regulations. This would assist in remedying challenges identified also by the regulatory policy review (OECD, 2019), which found that line ministries do not have a list identifying the complete stock of citizen and business formalities under their jurisdictions, which imposes challenges for a programme and an administrative burden reduction for citizens and business, as the first building block is to have an inventory of information obligations clearly defined.

While progress is being pursued, it was not clear to the peer review team whether the Government has carried out a thorough review of all of the existing laws, regulations and decrees to establish a baseline of how they may affect digital transformation efforts. As an example of such an initiative, the United States White House Office of the Federal CIO launched "Project Cruft", as described in Box 2.9.

Box 2.9. Project Cruft

The term "cruft" refers to anything that is left over, redundant and getting in the way. It is used particularly for defective, superseded, useless, superfluous or dysfunctional elements in computer software.

The United States White House Office of the Federal CIO launched Project Cruft as an effort to cross-analyse requirements within all existing policies, in order to identify targets for rescission and revision to reduce burden, particularly in cases where requirements are duplicative, outdated or impede innovation. The backbone of the initiative is a policy schema, which represents government technology policy in a machine-readable format. The schema creates new possibilities for automatically parsing policy and linking it with other related rules. It can also inform the policy-drafting process, helping the Office of the Federal CIO to craft more carefully structured and targeted policies.

Sources: www.techopedia.com/definition/15410/cruft; https://policy.cio.gov/policy-schema.

In looking at current digital government efforts as a whole, one of the main drivers of Argentina's recent digital government focus has been the use of presidential decrees (i.e. executive orders). Such decrees are an easy and efficient method of advancing the Digital Agenda. However, they are not as permanent as some other types of mandates, such as laws. Seeking more permanence of the successful aspects of the decrees could strengthen the long-term sustainability and continuity of efforts.

During the peer review mission, public officials from the SGM and other ministries (e.g. Ministry of Production and Labour) highlighted the difficulty of passing legislation in parliament, which has therefore resulted in the use of executive decrees. While this has been a successful approach in kick-starting and advancing Argentina's digital transformation, it is possible that these decrees, and the efforts carried out under them, could be reduced or eliminated in the future more easily than laws, thus producing a negative impact on long-term sustainability of results.

Government officials have taken steps to push for legislative changes. A clear example of this, though broader than only digital government, is related to the issuance of Presidential Decree 27/2018 in January 2018. This decree specified legal provisions liable to be eliminated or reformed, with the aim of reducing red tape and improving the legal framework. It included 197 measures for reform and simplification. After a push for legislative reform, this decree was replaced by three laws, collectively called the "Law of Simplification and Debureaucratisation", which codify most of the efforts from the decree.

SGM officials are also lobbying for a new modernisation law to help permanently codify the State Modernization Plan and to establish guiding principles and common rules for the modernisation of public management at the federal, provincial and local levels (Box 2.10).

Box 2.10. Elements of the draft modernisation law

COFEMOD has drafted a new modernisation law that seeks to achieve implementation of policies, technological and management tools that provide an efficient and effective response to people's needs, rights and obligations. The draft law defines a number of general criteria and guiding principles for the modernisation of the state, whereof the following are related to digital government principles:

- co-operation between public sector organisations to achieve higher levels of efficiency and security in technological services, generating synergy through the use of shared services
- transparent and open management of information and data through the use of electronic means and systems
- promotion of digital inclusion with the aim of stimulating the use of digital channels for interaction with the state.

The draft law would also mandate:

- the simplification of administrative processes, through the use of electronic systems of document management and processing

- the implementation of open, digital, agile, auditable and accessible public procurement processes and systems
- assistance and training in the use of digital public services, both in-person and through digital media.

Source: Government Secretariat of Modernisation (SGM) officials.

These efforts are showing signs of success, as the draft modernisation bill was recently finalised.[12] While this is a promising sign, it remains unclear whether it will pass, and if so, whether it will fully lock in the positive changes of recent years. SGM officials, and the government more broadly, should continue efforts to push for legislative change to lock in progress made through decrees. Critical to this will be securing the buy-in of the provinces and the city of Buenos Aires. Their adoption of the law is necessary for the effective implementation of the law across all branches and levels of government. This is also noted in the OECD (forthcoming) *Open Government Review of Argentina*, as the draft law also includes elements significantly related to open government.

Nearly universally during mission interviews, public officials expressed recognition of the SGM as the government's policy-making and oversight body for all aspects of ICT. This is a positive and encouraging indicator for Argentina's digital government efforts as a whole. The digital government environment in Argentina appears to have matured to such an extent that stronger policies and additional enforcement and oversight from the SGM could help further digital efforts across government.

Despite the apparent readiness for SGM guidance and oversight, the OECD and peer review found that few formal oversight mechanisms have been developed to ensure compliance with ICT rules (laws, policies, decrees, etc.), especially horizontal mechanisms to ensure consistent and coherent implementation across government. This finding was mirrored by the OECD team conducting a review on regulatory policy (OECD, 2019). This makes implementation difficult and can significantly limit the potential to adopt a consistent whole-of-government approach.

According to SGM officials, they have so far have held off from making more interventions because of concerns related to regulating before fully understanding an issue. To illustrate this, some of the guidance put forth by the SGM is thorough and aligned with best practices, but remains optional for ministries to adopt. For example, the "Guide for the Publication of Data in Open Formats"[13] provides excellent instructions on how to publish open government data. However, the document consists of non-binding recommendations and good practices.

If made mandatory by the SGM, the guide could make discovery of data easier for the government and for the public. In addition, draft "Standards of Attention to the Public",[14] "Services Standards",[15] "Web Standards",[16] "API Standards",[17] and others have been developed to provide guidance to strengthen the quality of services provided by the government and to help bring about the digital transformation of the public sector. However, it does not appear that these have been formally put into action.

The peer review team observed a number of areas where stronger direction from the SGM, and/or mandatory adoption, may be valuable, including general guidelines for the full life cycle of digital projects, and policies for ICT and digital procurement.

Funding for digital government efforts

In addition to a legal and regulatory framework, digital government also requires appropriate considerations for funding, as important policy levers part of the broader governance framework. The funding for the SGM itself is clear – it is financed with funds provided by the National Treasury, supplemented with international loans by the World Bank and the Plata Basin Financial Development Fund FONPLATA.[18]

The funding model for digital government at the level of ministries and other non-central public sector organisations is a fairly traditional one. Each ministry or organisation makes its own budget based on the funding it is allocated from Argentina's legislative branch. Each ministry or organisation then executes its projects according to the objectives established for it. This includes providing for funding related to digital government and ICT. There are no provisions for funding distributions outside of this siloed structure.

This is a common approach; however, leveraging only this approach has the potential to hinder progress in achieving digital transformation that could be obtained through higher coherence, alignment and synergies across the entire public sector. In such a model, because each ministry and public sector organisation are driven by the mandates of their own individual mission, their spending tends to focus on their own mandate without broader consideration for horizontal opportunities and a systems approach to digital government. Opportunities exist to adapt alternative models to better allow for funding in ways that promote horizontality. A number of countries have established centralised funds for ICT. These funds can be an alternative source of funding to finance specific digital government projects, or can complement the national yearly budget for ICT. Relevant examples include the Technology Modernization Fund in the United States and centralised funding for ICT in Portugal (Box 2.11). A combination of financing mechanisms including, for example, an ICT dedicated fund combined with the generic budgeting process for ICT could help agencies in achieving their own individual missions, while leaving room for more strategic cross-cutting initiatives to grow.

Box 2.11. Sample countries with centralised funding for ICT

United States Technology Modernization Fund (TMF)

The TMF was created by the Modernizing Government Technology Act of 2017 in order to improve ICT and strengthen cybersecurity across the central government. Agencies may submit applications for TMF funding through a somewhat competitive process.

A Technology Modernization Board, comprised of experts in digital government and cybersecurity, evaluates applications and makes funding recommendations based on a variety of criteria, such as:

- potential impact

- probability of success
- strong executive support and champions
- clear milestones for success and roadmap for their achievement.

In particular, government organisations are encouraged to submit proposals for common platforms and shared solutions that will serve multiple components within and/or across public sector organisations.

Selected projects receive funding in an incremental manner, tied to specific project milestones and projects. The Board monitors each project for success.

The TMF is structured as a revolving fund. Public sector organisations that receive TMF funding must pay back the money within five years. The funds paid back to the TMF are then available to fund new rounds of projects.

Centralised ICT funding in Portugal

Portugal's Agency for Administrative Modernisation is responsible for the Portuguese digital government strategy, including overall co-ordination and ensuring its implementation. The agency is responsible for the management of European structural funds dedicated to ICT investments. These funds are centralised and complement national budgetary appropriations for ICT investments and represent a very interesting source of funding for public agencies' efforts to digitalise. These funds are a powerful lever to prioritise efforts and investments, ensuring their strategic alignment in support of the digital transformation of the public sector. They also serve to fund innovative initiatives that do not have easy access to the needed capital to be scaled up in order to enhance their impact for citizens, businesses and the public sector.

Sources: https://tmf.cio.gov; OECD (2016), *Digital Government in Chile: Strengthening the Institutional and Governance Framework*, http://dx.doi.org/10.1787/9789264258013-en.

As discussed, a dual approach to funding ICT projects could contribute to success in individual organisational missions while also enhancing flexibility, better achieving a systems approach to digital government and providing room for innovation. When coupled with a comprehensive digital government strategy, it could help Argentina to better direct funding in a way that is aligned to national goals and priorities as set forth by the Digital Agenda.

Finally, as digital government is increasingly relevant for policies, programmes and services across the public sector, the government of Argentina should consider better involving the SGM in the budget deliberations and other high-level discussions related to governmental entities with major digital components or strong potential for digitisation. Panama has successfully adopted such practices (Box 2.12).

Box 2.12. Panama's National Authority for Government Innovation

In Panama, the National Authority for Government Innovation (*Autoridad Nacional para la Innovación Gubernamental*) is the public sector organisation responsible for the design, development, delivery and monitoring of the digital government policy.

As a mechanism to guarantee the whole-of-government alignment in the application of the legal and regulatory framework on digital government, the Authority participates in Cabinet meetings where funding bills are reviewed and approved before submission to the National Assembly.

In addition, the Administrator General of the Authority participates regularly in the meetings of the Council of Ministers. This participation is an important policy lever for the Authority to support the development and implementation of digital government policies across the government, which allows the Authority to ensure strong alignment with the government's strategy and priorities in different policy areas, acquiring a critical oversight capacity on public sector policies underway. Moreover, this facilitates the Authority's access to main decision actors and decision processes, providing a unique opportunity to embed digital technologies from the very start of the policy design process

Source: OECD (2019b), "Digital Government Survey of Panama, Central Version", OECD, Paris.

Notes

1. Presidential Decree 13/2015, 10 December 2015, http://servicios.infoleg.gob.ar/infolegInternet/anexos/255000-259999/256606/norma.htm.

2. Presidential Decree 802/2018, 5 September 2018, http://servicios.infoleg.gob.ar/infolegInternet/anexos/310000-314999/314080/norma.htm.

3. Administrative structure that serves the executive (president or prime minister, and the cabinet collectively). The centre of government has a great variety of names across countries, such as general secretariat, cabinet office, chancellery, office/ministry of the presidency, council of ministers office, etc. In many countries, the centre of government is made up of more than one unit, fulfilling different functions.

4. Reaching escape velocity in this context is to achieve a pace and level of adoption of digital government efforts such that the efforts are capable of sustaining themselves without the constant pressure and drive of the current administration.

5. See: https://qa-g20.argentina.gob.ar/en/g20-argentina/work-streams/digital-economy.

6. Presidential Decree 996/20018, 2 November 2018, https://www.boletinoficial.gob.ar/#!DetalleNorma/195154/20181105.

7. Data are derived from the Gallup World Poll here, which is the most widely used survey instrument to measure trust in government. It is the only survey that collects data on levels of trust in government on an annual basis for OECD countries and other major economies. See: www.oecd.org/gov/trust-in-government.htm.

8. For example, blogs from the Administration Modernisation Secretariat can be found at: https://www.argentina.gob.ar/node/5396/noticias?nodo=5396 and blogs related to digital government can be found at: https://www.argentina.gob.ar/node/2441/noticias?nodo=2441.

9. Presidential Decree 13/16 – 5 January 2016.

10. http://www.argentina.gob.ar/cofemod.

11. Presidential Decree 434/2016 (3 March 2016), http://servicios.infoleg.gob.ar/infolegInternet/anexos/255000-259999/259082/norma.htm.

12. https://www.argentina.gob.ar/noticias/el-comite-ejecutivo-del-cofemod-concluyo-la-redaccion-del-anteproyecto-de-ley-de.

13. https://paquete-apertura-datos.readthedocs.io/es/stable/guia-abiertos.

14. https://github.com/argob/estandares/blob/master/estandares-atencion-al-publico.md.

15. https://github.com/argob/estandares/blob/master/estandares-servicios.md.

16. https://github.com/argob/estandares/blob/master/estandares-web.md.

17. https://github.com/argob/estandares/blob/master/estandares-apis.md.

18. FONPLATA is a multilateral financial organism formed by the five countries of this South American sub-region: Argentina, Bolivia, Brazil, Paraguay and Uruguay. See: http://directorio.sela.org/listado-de-organismos/fonplata.aspx for additional information.

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Chapter 3. ICT procurement and commissioning for coherent policy implementation in Argentina

This chapter assesses the state of ICT procurement and commisioning in the Argentinian public sector as a means to achieve public sector accountability and efficiency in ICT expenditure, as well as their role as frameworks for policy coherence and compliance with digital government standards. The chapter provides evidence-based strategic policy advice to assist the Argentinian government in moving towards a more structured and agile approach to the development, management, procurement and commissioning of ICT projects.

Introduction

Building a digital government requires strong foundations to support the capacity of the government to ensure accountability and efficiency in terms of ICT expenditures, and to build a talented public sector, which is ready and capable of translating policy goals into coherent policy implementation.

Openness and accountability are needed in relation to where, how and on what projects public money is spent. OECD countries like the United Kingdom are leading a new whole-of-government perspective that places iteration at the core of the ICT procurement cycle as means to evolve from traditional public sector procurement approaches to the commissioning of ICT goods and services. This evolution requires a cross-cutting approach supported by the development of common standards for ICT project development, management and evaluation, and agile monitoring and control.

Such an agile environment relies on new forms of collaboration between the public sector and non-governmental actors, thus acknowledging the benefits of involving all relevant players early in project planning and development as a means to ensure that ICT projects comply with central standards and take into consideration the needs of the end user. The goal is to ensure that public funds are invested in ICT projects that create benefits for the public sector, businesses and citizens and help build a capable and responsive public sector.

The 2014 *OECD Recommendation of the Council on Digital Government Strategies* is clear in relation to setting "checks and balances" in the framework of ICT project expenditures; developing business cases to ensure coherent policy implementation and justify public investments; and managing, monitoring and evaluating projects' implementation and results (OECD, 2014a).

This chapter assesses the state of ICT project planning, management and evaluation in the Argentinian public sector in line with the provisions of the OECD Recommendation and provides evidenced-based strategic policy advice to the Argentina government towards a more structured and agile approach to the development, management, procurement and commissioning of ICT projects.

From ICT procurement to ICT commissioning

There is a growing understanding among OECD member and partner countries on the need of moving from traditional approaches on public procurement to one that is more focused on the goals and long-term benefits of public projects beyond economic measures (e.g. the value of ICT projects to public service delivery). This approach:

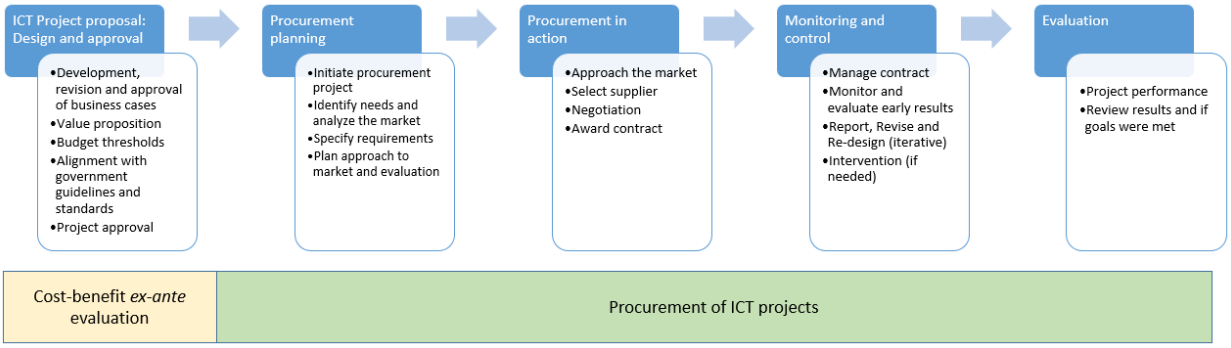
- requires greater investments in the planning stage of the procurement cycle to ensure the realisation of benefits in the longer term, and better prevention and management of the procurement cycle as a whole (OECD, 2017c)
- implies the involvement of different players at the different stages of the traditional ICT project development, procurement and evaluation process (Figure 3.1).

This agile approach, known as ICT commissioning, calls for the implementation of more open, inclusive, iterative and cyclical approaches in the procurement of ICT products and services. This means, for instance, bringing on board all of the relevant stakeholders to jointly design projects and define ICT project priorities together; creating marketplaces to facilitate the pooling of suppliers; and monitoring and reporting on early results in an

iterative fashion, as well as the revision and redesign of the project implementation process when needed (Figure 3.2).

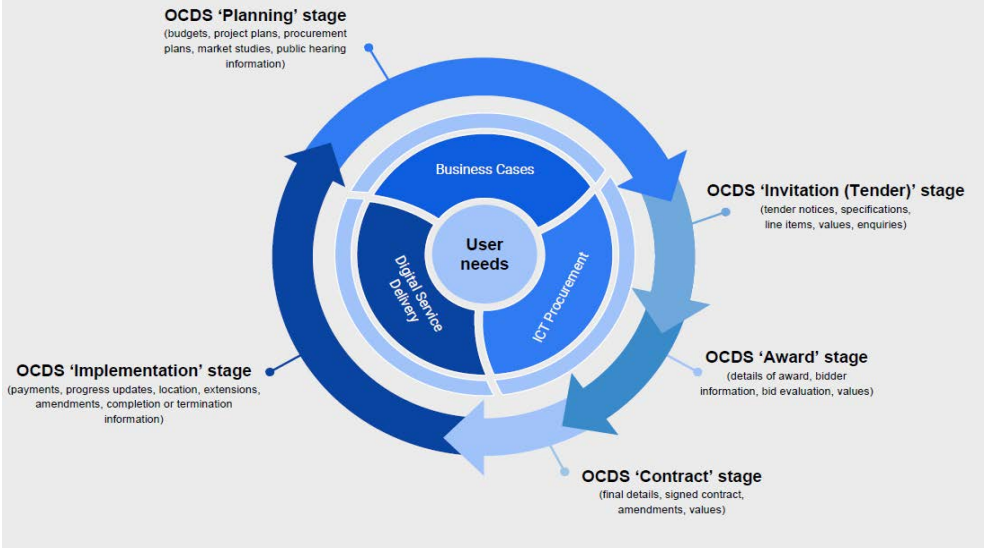
The scale and costs of ICT projects are also factors that affect the level of control and involvement of specific actors, especially those in charge of assessing a project's early benefits, ensuring their compliance with central standards and with power to intervene if needed.

Figure 3.1. Traditional ICT project design and procurement: Main stages



Source: Based on information from OECD (2014a), *Recommendation of the Council on Digital Government Strategies*, www.oecd.org/gov/digital-government/Recommendation-digital-government-strategies.pdf and OECD (2017c), *Public Procurement in Chile: Policy Options for Efficient and Inclusive Framework Agreements*, https://dx.doi.org/10.1787/9789264275188-en.

Figure 3.2. ICT commissioning: A model for public sector institutions



Source: Smith, W. (2018), "ICT commissioning for improved citizen-driven service delivery".

Planning and approval of ICT projects

The current central administration has made an effort to bring some order to how ICT projects are planned and approved at the central level. The National Office of Information Technologies (Oficina Nacional de Tecnologías de la Información, ONTI), under the Secretariat for Digital Government and Innovation Technology, within the Government Secretariat of Modernisation (Secretaría de Gobierno de Modernización, SGM) leads these initiatives, focusing mainly on the project planning and approval stages.

ONTI's activities aim to bring further order and standardisation to the development of ICT projects, with a focus on their long-term sustainability.

Results from the OECD follow-up mission to Buenos Aires in July 2018 and the OECD Surveys on Digital Government, administered for the purpose of this Review (2018) indicate that ONTI has developed soft policy instruments, such as the Decálogo Tecnológico (Box 3.1), as means to provide greater coherence to the ICT project planning and development process. The Decálogo sets ten principles that public sector organisations can follow to better design their ICT project proposals in order to submit them for ONTI's certification in line with ONTI's standards and guidelines (Box 3.1).

Box 3.1. ONTI's soft law instruments: The Decálogo Tecnológico

The Decálogo Tecnológico (Spanish for Tech Decalogue) provides relevant policy principles to be considered by public sector organisations when designing ICT project proposals and offers a series of guidelines to help in their implementation.

Based on Disposition 2/2018, all public sector organisations in Argentina are expected to follow the principles of the Decálogo when submitting their project proposals for ONTI's certification. This is done in an attempt to streamline practices in line with the digital transformation of the state.

The Decálogo's ten principles are:

1. **Develop a solid knowledge base on the project** being implemented in terms of internal capabilities and user needs. Information in terms of the scope, progress and proportions of the project should also be known.
2. **Comply with government regulations and guidelines** in order for the project to remain sustainable in the long term and in line with overarching government strategies.
3. **Opt for solutions that use cloud computing** in order to reduce operating costs and drive internal efficiencies.
4. **Use open standards and interoperable solutions** to better integrate processes and tasks across the public sector, and increase transparency and inter-agency collaboration.
5. **Select shared government platforms and solutions** to avoid the duplication of efforts and promote shared data centres. This can optimise user experience and avoid dependency on single suppliers.
6. **Develop reusable and shared solutions** so that they can be reused by other public sector organisations, enhancing collaboration and preventing duplication.

7. **Ensure accessibility of solutions designed** to make information and technology inclusive for all.
8. **Protect systems and users** to safeguard the confidentiality, integrity and privacy of information, users, solutions and processes.
9. **Consider a sustainable solution from the initial stages of the design** in order to ensure the long-term availability of the solution.
10. **Secure convenient contracting and avoid dependence on suppliers** to ensure efficient provision and optimise resources

Source: Argentina.gob.ar (2018), "Decálogo Tecnológico", https://www.argentina.gob.ar/onti/decalogo-tecnologico-onti (accessed on 14 February 2019).

In addition, ONTI has developed the Technological Standards for the National Public Administration (*Estándares Tecnológicos para la Administración Pública Nacional*, ETAP), which provide a set of guidelines for the development and procurement of digital services and products. These, in turn, are intended to promote the adoption of common ICT equipment in order to enhance integration and sharing across the public sector to improve the efficiency and effectiveness of the provision of digital services. The aim is also to promote transparency, improve the management of public funds and optimise economic procedures.[1]

ONTI has also developed some other requirements to guide and standardise how public sector organisations develop their ICT project proposals, namely the Standardised Technical Requirements (*Requerimientos Técnicos Estándar*, RTE), and the Complex Technical Requirements (*Requerimientos Técnicos Complejos*, RTC).

The RTE and the RTC stand as standardised business case models for ICT projects with different levels of complexity. The RTE format is simpler in terms of the information organisations should submit, while the RTC targets those projects with a higher degree of complexity. These formats explore, for instance, the alignment of ICT project proposals with ONTI's guidelines, the use of cloud services, non-proprietary software, and assess the expected costs, duration of the project, interoperability with other existent services and how the project is expected to share data (e.g. through application programming interfaces) in later implementation stages (OECD, 2018b).

All public sector organisations at the central level are required to submit a business case for their project for review by ONTI using either the RTE and the RTC online formats. Once submitted, ONTI analyses the information and issues a certification on the project (*dictamen técnico*). This process takes from two to ten days depending on the complexity of the project and the need for follow-up.[2] This practice is in line with the OECD Recommendation on Digital Government Strategies, and follows the example of countries with higher levels of digitalisation of their administrations.

Evidence points to the fact that ONTI's activities are largely focused on the alignment and the standardisation of ICT projects, with a focus on the adoption of technology, and the approval process itself in compliance with the Decálogo's principles. Yet, the process overlooks control after the approval stage, alignment with data and digital services standards, and the overall benefits of ICT projects for citizens (e.g. in terms of public service delivery).

For instance, while it is mandatory for public sector institutions to follow ONTI's certification process using either the RTE or RTC formats, the recommendations included on ONTI's final certification or *dictamen* are not of mandatory observance (OECD, 2018[1]).

While one could not expect all projects to be aligned with ONTI's guidelines, the use of thresholds and the early involvement of ONTI could be considered an addition to the current process in order to bring further order, coherence and control to the overall ICT commissioning process.

Results from the survey that was administered for the purpose of this review indicate that to date the central government does not use budgetary thresholds to structure the governance process related to the approval of ICT projects (OECD, 2018b). This is in conflict with OECD practices, where data for 2014 show that 80% of OECD countries at the time were using these instruments to better govern ICT projects across the broad public sector (OECD, 2014b).

For instance, in **France,** the Method of Analysis and Scalation of Value (Méthode d'Analyse et de Remontée de la Valeur, MAREVA2), created in 2007, defined an economic and strategic analytical framework for ICT projects.[3] MAREVA2 focuses on benefits rather than costs. The use of the MAREVA2 framework is mandatory for those projects with an expected cost equal to or higher than EUR 9 million.

A similar case is that of **Portugal**, where all benefits arising from the implementation of potential ICT projects are framed in the scope of the elaboration of the ICT strategy and sectorial plans. Ministerial representatives, in collaboration with the other relevant bodies, quantify not only investment and implementation costs, but also the expected generated savings and benefits of each project using a Standard Cost Model (OECD, 2018c). All ICT projects with a threshold of EUR 10 000 are submitted for a pre-evaluation process, and require the mandatory approval of the Portuguese Agency for Administrative Modernisation, and the related alignment with the guidelines defined by this agency.

It also seems that scalability of impact is missing in terms of how ICT projects are expected to contribute to the overall goals of the Digital Agenda and benefits for citizens, regardless of their alignment with ONTI's guidelines and expected costs (Box 3.2).

For instance, during the workshops organised by the OECD in Buenos Aires in July and December 2018, some stakeholders expressed the need of scaling up current efforts in order to make the development of a yearly ICT investment plan mandatory while ensuring the early involvement of ONTI in the development phase of ICT projects.

Other stakeholders expressed the current focus on the adoption of technology (e.g. aligned with ONTI's guidelines) instead of an approach that focuses on the value that the use of technology by public institutions would bring to the public sector, the economy and the society as a whole.

In the **United Kingdom**, for example, the Government Digital Service established spend control to make sure the needs of the people are considered when defining ICT projects, therefore providing greater value for money. Spend controls also provide greater control and oversight (OECD, 2018c) of ICT expenditures and reinforce the alignment of any new services with the guidelines set by the UK Government Digital Service as any potential new projects related to digital services are assessed by this agency.[4]

Box 3.2. Canada and New Zealand

Canada

To safeguard a common digital foundation across the government, the government of Canada has established the Enterprise Architecture Review Board (GC EARB). The GC EARB is part of the broader governance of digital government in Canada and contributes to its aim to align all digital investment and solutions to the larger digital strategy and policy of the country. By adopting an enterprise approach regarding decisions on digital government investments, Canada aims to overcome silo-based operations that undermine user-driven digital services and perpetuate internal government inefficiencies.

The GC EARB uses digital standards to oversee digital investments and solutions to ensure that all public sector organisations follow a whole-of-government approach to the digital transformation of the public sector. ICT projects at their conception phases are reviewed to ensure they are in line with the government's digital standards and broader vision of the digital government strategy and policy. The GC EARB ensures that the government operates as one enterprise, sharing information and infrastructure, using common IT solutions, aligning initiatives, and providing direction on ICT investments to move together as one single co-ordinated and integrated organisation.

Furthermore, it develops new digital capabilities and innovation opportunities and identifies opportunities across the government to reuse solutions that support similar needs.

New Zealand

The Better Business Cases (BBC) represents a standardised method for public sector organisations in New Zealand to develop and present business cases. The BBC is based on the internationally known Five Case Model that guides public sector organisations to consider each main aspect of a solid investment proposal during the business case development process. The BBC therefore leads public sector organisations to assess the strategic fit of the potential investment, its economic implications, its commercial viability, its financial affordability, and its ability to be successfully managed and implemented.

The BBC is intended to safeguard against a lack of senior management engagement, and to ensure that a systemic approach regarding the project is taken, that external stakeholders are engaged and that other important elements that need to be included in investment projects are included. It guarantees that public sector organisations successfully implement their investment proposals in line with the government's overall strategic vision and policies.

Source: Treasury Board of Canada Secretariat (2017), "Government of Canada Strategic Plan for Information Management and Information Technology 2017 to 2021", https://www.canada.ca/en/treasury-board-secretariat/services/information-technology/strategic-plan-2017-2021.html (accessed on 15 February 2019); New Zealand Treasury (2018b), "Better Business Cases (BBC)", https://treasury.govt.nz/information-and-services/state-sector-leadership/investment-management/better-business-cases-bbc (accessed on 15 February 2019); New Zealand Treasury (2018a), "BBC and the investment management life cycle", https://treasury.govt.nz/information-and-services/state-sector-leadership/investment-management/better-business-cases-bbc/bbc-and-investment-management-life-cycle (accessed on 15 February 2019); New Zealand Treasury (2018c), "The BBC Framework and the annual budget process", https://treasury.govt.nz/information-and-services/state-sector-leadership/investment-management/better-business-cases-bbc/bbc-framework-and-annual-budget-process

Argentina, like many OECD countries, also faces the challenge of involving stakeholders from outside of the public sector in the development of business cases for ICT projects. Doing so would bring further clarity on the expected benefits those projects would have for citizens. The involvement of external actors in the development of ONTI's guidelines (e.g. such as the Cloud Framework Agreement, and the use of artificial intelligence in the public sector) sets a positive precedent in this regard.

For instance, in the **United Kingdom**, the HM Treasury's Green Book provides guidance to public sector organisations on how to involve stakeholders in the formation of a business case,[5] which, as a result, can help build a stronger evidenced-based case of the need for funding one specific project (OECD, 2014b). ONTI's business case model currently does not contemplate such an approach.

ICT Procurement

It seems that beyond ONTI's work, there is a clear lack of a comprehensive ICT procurement or commissioning strategy for the central government, which would scale up ONTI's efforts from the project level to the policy level, and govern the whole ICT commissioning cycle, from ICT project design to procurement, evaluation and realisation of benefits for citizens. There is therefore a need, as also expressed by stakeholders during the OECD workshops, of implementing a unified and holistic vision in terms of the design, procurement, management and evaluation of ICT projects.

ONTI's role starts at the project design and approval stage and stops once the *dictamen* is issued and the mandate related to the government public procurement system falls under the responsibility of the National Contracting Office (Oficina Nacional de Contrataciones, ONC). As such, the ONC is the main agency in charge of ensuring that the government's procurement processes comply with national procurement regulations.

The ONC is also in charge of the management of the Argentinian public procurement platform COMPR.AR (*comprar.gob.ar*). All public tenders (including for ICT projects) must be published on this public procurement platform. Yet, there is lack of causality tracking that allows ICT projects to be followed from the earlier conception stages to their procurement, management, monitoring and finalisation.

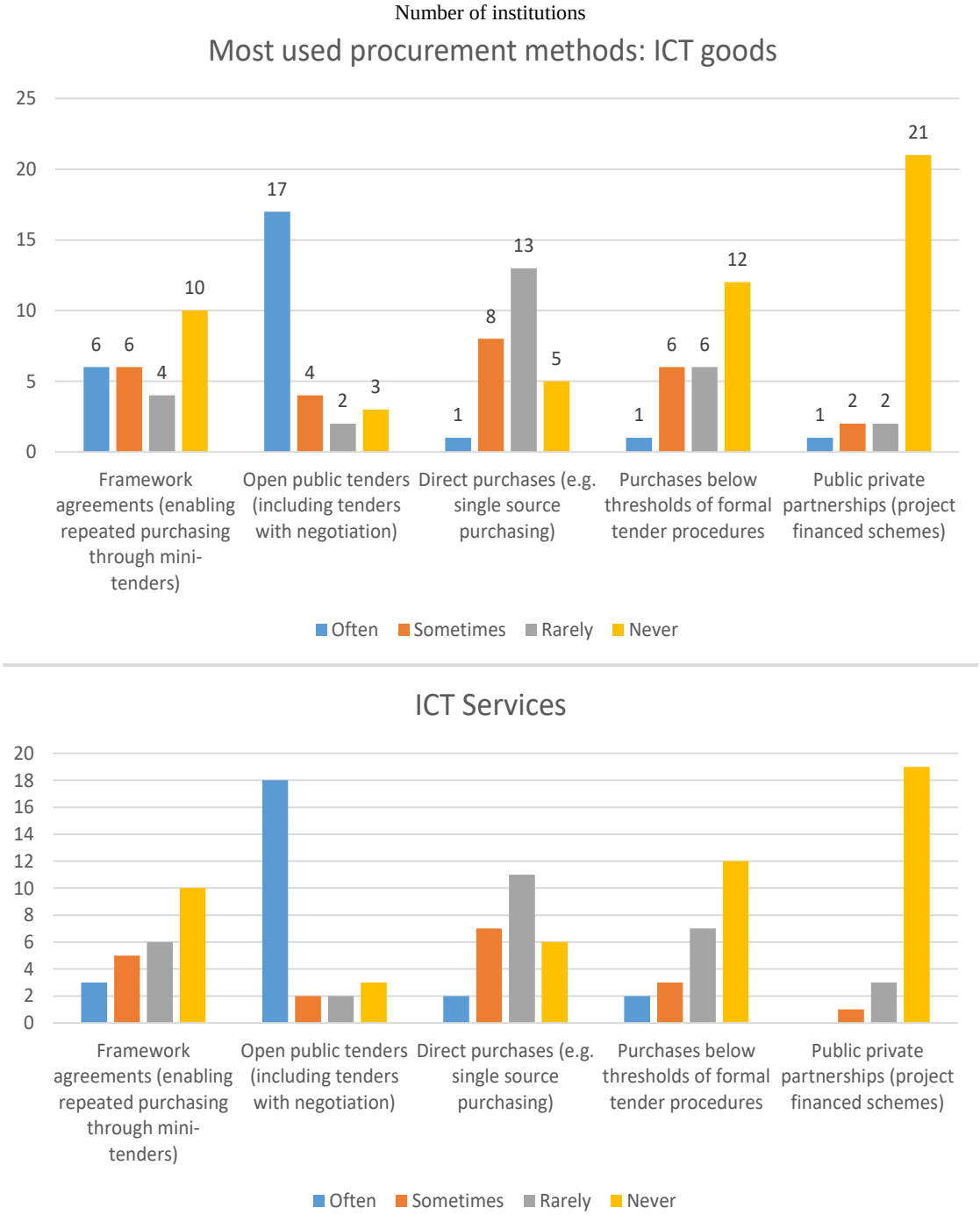
As of February 2019, ONTI and the ONC were exploring the possibility of further linking the two agencies' processes (making the submission of ONTI's certification a mandatory part of the procurement request file submitted to the ONC), but there is still room for improvement. For instance, the RTE and the RTC projects' unique identifiers seem disconnected from those of the procurement platform, therefore making it impossible to track a project's life cycle (from conception to finalisation) and of using standardised data to carry-out advanced data analytics to inform a more evidenced-based and data-driven decision-making process.

Results from the survey administered for the purpose of this review show that open tenders are the most frequently used method for the procurement of ICT goods and services among those organisations that provided a response to the survey (Figure 3.3). Further data indicate that open tenders are mostly focused on the development of capacities inside public sector organisations (e.g. in-house development of products), data analytics, and/or the design of mobile applications or off-the shelf solutions (OECD, 2018a).[6]

Yet, while as of March 2019, ONTI was in the process of developing a framework agreement in the context of the use of the cloud in the public sector, results from the survey also show the need for scaling up these efforts and following a government-as-one-client

approach in regard to the commissioning of ICT products and services. The data indeed highlight wide differences between Argentina and more advanced OECD countries in terms of the use of framework agreements for the procurement of ICT goods and/or services.

Figure 3.3. Most frequently used procurement methods in Argentina: ICT goods and services



Note: Number of institutions providing an answer to the question: Please indicate to what extent your institution uses the below procurement methods to buy ICT goods/ICT services.
Source: OECD (2018a), "Digital Government Review of Argentina: Survey for Public Sector Organisations".

For instance, evidence from the 2017 *OECD Digital Government Review of Norway* revealed the total opposite situation of that present in Argentina. In **Norway**, roughly 90% of public sector organisations reported the use of framework agreements for the acquisition of ICT products and services. Norwegian public sector organisations reported that direct purchases were rarely used (OECD, 2017a).

This challenge was also raised by stakeholders during the workshops organised by the OECD in July and December 2018, when actors from the public sector expressed the need of "identifying common digital resources and tools to follow a government-as-one-client approach for procurement", and to "enable global procurement" through the use of framework agreements that benefit transversal projects.

Management of ICT projects

A lacks of clarity was also observed in terms of management, monitoring and control throughout the whole ICT project commissioning cycle (from *ex ante* approval to finalisation).

Argentina lacks of a standardised model for the management of ICT projects at the central government level (OECD, 2018a)[7]. There are several examples from OECD countries using a standardised management approach that could help the Argentinian government explore the potential adoption, adaptation and implementation of these tools to its specific national context in order to achieve efficiency and agility that are more coherent across the public sector. For instance, in **Denmark**, the Agency of Digitisation created the Cross-governmental ICT Project Model as an effort to harmonise how public sector organisations manage their ICT projects.[8] The Danish model clearly connects all the stages of the whole ICT project life cycle (from the conceptualisation of the project to realisation of benefits), providing clear guidelines on the differences in terms of the requirements that should be fulfilled to move from one stage to the next, and the need of clarity in terms of responsibilities and roles. Other OECD countries such as **Belgium**, **the Czech Republic** and **Ireland** have instead adopted common project management approaches, such as the Projects in Controlled Environments (PRINCE/2) project management model (OECD, 2018d)(Box 3.3).

Box 3.3. The PRINCE2 Project Management Model

The Project in Controlled Environment (PRINCE2) is an international standardised model for ICT project management. It offers a structured methodology to manage a project with clear steps to follow, and well-defined roles and responsibilities for the different actors involved in the project. In order for projects to be successful, the PRINCE2 model establishes that they should be systematically planned, controlled, results-driven and measured. This in turn is intended to make it easy for project managers to oversee a project.

The model therefore offers a series of processes, each having key inputs and outputs, specific objectives, and activities in order to plan effectively. It also divides projects into different stages, assigning roles and responsibilities for each, in order to increase the efficiency of control and monitoring. Furthermore, as PRINCE2 is product-based, the focus of the project is by default on achieving certain specific results. Finally, projects using

PRINCE2 are based on a business case which when being reviewed allows for the success and failures of the project to be measured.

Source: Calder, A. (n.d.), "IT project governance and PRINCE2 project management", https://www.projectsmart.co.uk/pdf/project-governance-and-prince2-project-management.pdf (accessed on 15 February 2019).

Following an agile approach: Towards ICT commissioning

The opportunity at this stage is not only related to the further adoption of ICT project management practices in the public sector, but in terms of avoiding adopting and/or duplicating practices that might become obsolete in the medium- or long term.

OECD countries are increasingly acknowledging that some of the existing ICT procurement management practices and methodologies (e.g. waterfall management) are becoming out of date as new delivery approaches (e.g. agile and DevOps) become the norm in this area. Indeed, during the OECD workshop organised in Buenos Aires in December 2018, stakeholders expressed the need for a "flexible procurement and management model" as an area of opportunity.

For instance, in the **United States**, the introduction of agile contract formats has enabled the US government to create simple, effective contracts that take advantage of post-award agile methods to procurement. This work, led by the US Technology Transformation Services' Office of Acquisition, is focused on increasing the adoption of an agile contract format that changes the commissioning process approach from one that is clear of what suppliers are expected to do in regard to one specific project, instead of prescribing how they should do it (UK GDS, 2018). This gave the commissioning and post-award process greater simplicity, efficiency and agility by making sure a focus on delivery was adopted across the whole project commissioning and management process.[9]

Likewise, both **New Zealand** and the **United Kingdom** (Box 3.4) have adopted more flexible approaches in terms of supplier selection, establishing marketplaces that help suppliers apply to specific project calls easily, cutting costs across government and creating a more dynamic market environment (UK GDS, 2018).

Box 3.4. Building digital marketplaces in New Zealand and the United Kingdom

United Kingdom

In the United Kingdom, the Digital Marketplace is a public portal allowing public sector organisations to find the right people and technology for a given digital project. Three different areas of agreement can be made between a public sector organisation and a supplier:

1. Cloud services: Around 20 000 cloud services are available on the Digital Marketplace through the G-Cloud Framework (such as cloud hosting, cloud software or cloud support).
2. Digital specialist services: More than 1 000 suppliers provide digital specialist services, such as digital outcomes (e.g. accessibility audit), digital specialists (e.g. product developers), user research studios or user research participants.
3. Data centre hosting services: A given supplier provides a data centre hosting to the government.

The technology developed for the UK's Digital Marketplace has been scaled up in the context of the UK's Global Digital Marketplace programme which aims to deploy UK's approach and technology across a range of partner nations around the world to help tackle global corruption. The Global Digital Marketplace Programme includes Argentina and Colombia.

New Zealand

Just as in the United Kingdom, the Marketplace allows public sector organisations in New Zealand to purchase a range of different digital capabilities in a more cost-effective, faster and easier manner. Each possible set of digital capability that can be purchased and consumed is called a "channel". Currently, the first channel available for public sector organisations is for public cloud services. Agencies therefore have the choice between different types of cloud services and can select the one that best suits their needs

Sources: Based on OECD (2018c), *Digital Government Review of Brazil: Towards the Digital Transformation of the Public Sector*, https://doi.org/10.1787/9789264307636-en; Government of New Zealand Internal Affairs (2019), "About the Marketplace", https://marketplace.govt.nz/about-the-marketplace (accessed on 18 February 2019).

The OECD Working Party of Senior Digital Government Officials (E-leaders) is working with OECD countries to explore new ways of commissioning and managing ICT projects in line with the latest developments across OECD countries in this domain. The goal is to equip governments with procurement practices more in line with the needs and trends of the digital age.

For this purpose, the OECD partnered with the UK Government Digital Service to produce the ICT Commissioning Playbook in the context of the E-Leaders Thematic Group on ICT Commissioning. The Playbook provides a set of actionable guidelines (known as plays) that countries can follow to move from traditional procurement methods to the commissioning and management of ICT projects, drawing upon relevant practices across OECD countries (Box 3.5).

Box 3.5. The 11 plays of the ICT Commissioning Playbook

To help public sector organisations transition to more agile procurement processes, the ICT Commissioning Playbook offers a set of 11 actionable guidelines:

1. **Set the context:** Public sector organisations are advised to define the problem to be solved before designing the solution. This means they should understand that procurement processes are part of a larger context and identify what it is intended to achieve in the long run. The possible outcomes of the procurement process should then be defined and should also be measurable. Finally, public sector organisations should engage external stakeholders in setting the context for the procurement and remain open to change if necessary.
2. **Start by understanding user needs:** Public sector organisations should aim to embed user-centred, design-led and data-driven approaches in the public procurement process. This could be done by creating multidisciplinary teams, gathering information about their users and their needs, co-designing for the public service to be delivered, and iterating the procurement process and contract as often as possible.
3. **Design procurements and contracts that meet users' needs:** In a similar line to Action 2, public sector organisations should take a user-centred, design-led and data-driven approach to meeting the needs it identifies. They should, for example, discuss different ways of working and successfully delivering a programme or project, promote speed and simplicity, use data to identify potential gaps, as well as establish a procurement strategy.
4. **Be agile, iterative and incremental:** Public sector organisations should aim for agile procurement in order to fulfil required outcomes and maintain core principles of fairness, openness and transparency. They could use agile methodologies and approaches to manage the procurement process and apply agile principles at each stage of the procurement process.
5. **Work as a multidisciplinary team:** To design user-driven procurement processes and contracts, public sector organisations should form multidisciplinary teams with a set of different capabilities. Teams should ideally include procurement and commercial capabilities as well as user-centred service design and agile delivery capabilities, from the beginning of the commissioning process.
6. **Make things open:** Public sector organisations should keep the public procurement process open in order to promote collaboration. Open standards, open source software and open approaches could be adopted as means to promote collaboration.
7. **Build trusting and collaborative relationships, internally and externally:** To promote co-design in government policies and strategies, public sector organisations should have an open and constant dialogue with suppliers and industry groups. This could be done by working collaboratively across the government, promoting early involvement in commissioning and delivery conversations, or using a strategic framework to manage supplier relationships.
8. **Share what you have with others and reuse what others have:** Public sector organisations should recognise and encourage the power of "GovTech" by encouraging them to share and reuse good practices through centres of excellence

for specific domains. GovTech can also be promoted by setting intellectual property rights for suppliers creating a solution so as to then encourage them to innovate or by investing in international relationships with other jurisdictions to share innovative approaches and models.

9. **Move from specifying solutions to defining outcomes:** Public sector organisations should recognise that technology capability is created and delivered in a completely different way in today's digital landscape. They could consider adopting strategies to outsource commodity ICT capabilities and public cloud business services or to create open market models and moderate these with strong feedback and analytics.
10. **Public procurement for public good:** Governments could use their size and purchasing power to promote positive social outcomes by, for example, adapting their processes to increase accessibility and creating more opportunities for socially or economically disadvantaged groups.
11. **Operate and deliver:** Buyers should create a shared understanding with suppliers so that the focus and real work is on meeting the expected outcomes. This will require that public sector organisations: recognise that the real test and success of a procurement comes after the contract award, focus on intent and outcomes in contract wording and conversations; create a procurement scorecard that drives a focus on best value over best price.

Sources: Based on UK Government Digital Service and OECD (n.d.), "About the playbook", https://playbook-ict-procurement.herokuapp.com (accessed on 18 February 2019).

Control and evaluation of ICT project expenditures

The absence of a holistic strategy on ICT procurement (or commissioning) also has an impact on how ICT projects are controlled and how results are assessed, if done, by the relevant bodies. ONTI's efforts aimed to implement a focus on the sustainability and life cycle of ICT projects, but there is no clear evidence that there are relevant accountability mechanisms in place to control project development and evaluate expectations vs. real results in an iterative fashion.

In general terms, evaluation of projects can take place at the ministerial level of the unit (*unidad ministro*) or in the framework of the activities of the National Audit Office (Auditoría General de la Nación). However, this does not seem to be the common practice in terms of ICT projects. Also, the SGM does not have a specific role in terms of project evaluation, and no other agency has the mandate of monitoring the benefits and impact of ICT projects (OECD, 2018b).

Argentina needs to explore and decide on the level of central control that is needed to ensure the accountability of ICT projects at the operational level and the contribution of those to the overall digital agenda in the country. At this stage, it is necessary to differentiate between minor-scale ICT commissioning projects and those of more strategic value; the level of central control and monitoring could differ from one the other. However, control and alignment with the broader digital government policy is required in both cases.

The Argentinian government could learn from the experience of OECD countries in this regard. For instance, in **Israel**, public sector organisations are expected to fill a specific reporting format to inform the head of the ICT Office on the status of ICT projects. In

Portugal, the *Reporte TIC* online platform[10] is used by public sector organisations to report on the level of development of digital initiatives in line with the operationalisation of the ICT strategy.

In **Norway**, the funding model and source of ICT projects is also a factor defining the reporting mechanism. For those projects that have received funding as part of the regular budgetary cycle, reporting is made through the relevant budget report. However, for those projects receiving funds from the Norwegian Digitalisation Agency, monitoring and reporting are done using the agency's Project Wizard tools and guidelines.[11] The use of conditioned funding gave the Norwegian Digitalisation Agency greater auditing control over ICT projects, making public sector organisations accountable for their results and bringing greater coherence in terms of the overall value of these projects for the digitalisation of the public sector.

In the **United Kingdom**, the Infrastructure Projects Authority monitors those ICT projects that are in the Government Major Projects Portfolio. Projects fall under this description in line with their contribution to four categories, including two specific categories clearly linked to digital government efforts[12] (UK IPA, 2018):

1. transformation and service delivery: "Projects help improve the relationship between citizen and state, harness new technology to improve public services and make government more efficient"
2. information and communications technology: "Projects […] for achieving cost savings and efficiency […]. Many of the ICT projects on the portfolio enable the transition from old, legacy contracts to new ICT provisions".

In Argentina, the SGM, through the relevant sub-body, could also fulfil an important role monitoring and evaluating project performance and helping to allocate ICT budgets for each ministry strategically, which is a point raised by central government respondents to the OECD survey. In the near future, the role of the SGM as an advisory entity could be largely untapped. The value that can be generated by positioning the SGM in such a role will grow as it formalises government-wide strategies that can serve as the criteria and guiding force by which its advisory decisions are based; and in line with OECD good practices, thresholds could be set requiring the SGM's approval.

ICT project monitoring and evaluation at all scales should be a priority, particularly in light of the overall open government and anti-corruption agenda for the country and the need to strengthen a public sector measurement, performance and delivery culture in the long term. The UK has for instance prioritised the modernisation of its procurement process to embed in the entire commissioning open government principles.

Notes

1. For more information see: https://www.argentina.gob.ar/onti/estandares-tecnologicos.
2. For more information see: https://www.argentina.gob.ar/onti/solicitud-de-dictamen-tecnico.
3. For more information see: http://references.modernisation.gouv.fr/mareva-2.
4. For more information see: https://www.gov.uk/service-manual/agile-delivery/spend-controls-check-if-you-need-approval-to-spend-money-on-a-service#why-some-services-must-get-spend-approval.

5. For more information see: https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-governent.

6. Question 39: Please indicate which of the following procurement methods have been used by your institution to acquire the following specific ICT services?

7. Question 40: Does a standardised model exist for ICT project management at the central/federal government level?

8. For more information see: https://en.digst.dk/ict-portfolio-management/ict-project-model.

9. For more information see: https://18f.gsa.gov/2017/11/30/improving-government-outcomes-through-an-agile-contract-format.

10. https://reporte.tic.gov.pt.

11. For more information see: https://www.prosjektveiviseren.no/bibliotek/tverrgaende/gevinstrealisering and https://dfo.no/fagomrader/gevinstrealisering.

12. Additional categories include military capability, and infrastructure and construction.

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Chapter 4. Building and attracting talent for the digital transformation of the public sector

This chapter discussess the efforts the Argentinian government has implmented to date to transform the digital capacity of its public sector. It addresses how leading public sector organisations have played a key role in building compentencies and addressing legacy challenges to better inform public sector employment policies. It explores how updated and standardised competency frameworks and agile talent procurement models can help to reinforce the capacity of the Argentinian public sector to go digital and respond to citizens' needs.

Introduction

Reinforcing the public sector's digital skills and overall competencies is required to increase its capacity (OECD, 2014) to tackle new policy challenges, drawing upon the contribution of technology, data and innovative approaches for public sector transformation.

While the discussion on legacy issues is not foreign to the digital government discourse, it can often be restricted to challenges in terms of "hard" infrastructure (e.g. IT or data infrastructures). Such an approach can oversee the "soft" elements of infrastructure (e.g. skills, competences), or, more importantly, ignore the relevance of building a "value-driven culture" in the public sector (OECD, 2018e) to enable digital transformation.

There is also a risk of perpetuating legacy challenges by focusing on the development of hard basic or more advanced skills (e.g. computation, database management, data analytics). Such an approach ignores that a digital government, together with its accompanying public sector employment policies, is responsive and adaptive (OECD, 2018e), and, as such, goes beyond technology, requiring balancing the aforementioned skills with softer abilities (e.g. creativity and curiosity as skills for innovation competency). In this light, revising competency frameworks and job profiles, reassessing how to develop new skills, or bringing external talent on board to tackle specific skill gaps (e.g. through ad hoc collaboration and partnerships), can help governments to stay relevant *vis-à-vis* changing citizens' expectations.

Skill frameworks that respond to analogue and paper-based or e-government models are key to help transition from analogue to digitised governments, but a strong approach on the latter can represent significant blockages to the digital transformation. Balancing these approaches with additional transformational efforts can increasingly contribute to building public sector capacities and the foundations for a sustainable and mature digital public sector (*digitilisation*).

The analysis presented in this chapter underlines that Argentina is facing a complex scenario in terms of building, retaining and attracting digital talent in the public sector in a macroeconomic context that favours public sector austerity. This is the result of an overall context where, since June 2018, policies have been put in place to reduce public sector employment and expenditure.

Building transformational competencies and digital skills: Key institutional players and initiatives

There are clear efforts in terms of the development of skills in the Argentinian public sector. These initiatives are often led by two key players:

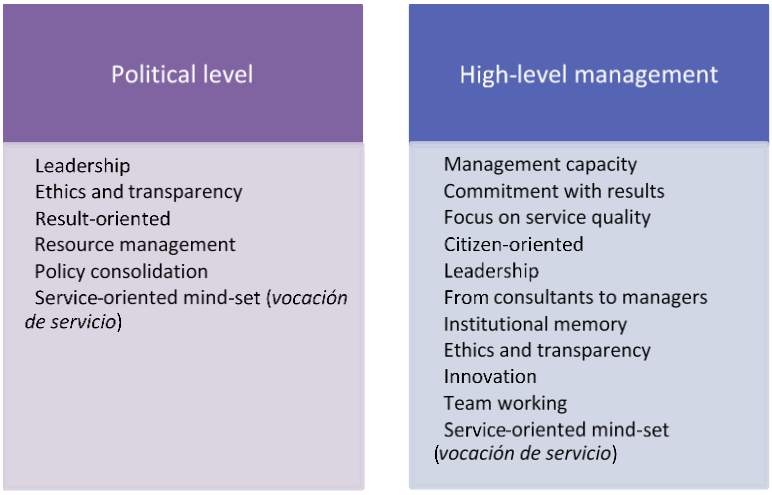
1. The **Secretariat of Public Employment** (Secretaría de Empleo Público, SEP), a body within the Government Secretariat of Modernisation (Secretaría de Gobierno de Modernización, SGM), has made great strides to enable a culture of change in the public sector by developing competencies with a multi-level approach, *i.e.* from politicians to high-level managers and public officials. Skill development programmes like *Líderes en Acción* (focused on young officials), *Construyendo Nuestro Futuro* (focused on high-level public managers) and *Protagonistas de Recursos Humanos* (focused on human resource management officials) illustrate the multi-faceted nature of the efforts implemented by this body.

2. The **National Institute of Public Administration** (Instituto Nacional de la Administración Pública, INAP) stands as a long-term government ally in terms of building public sector capability, even as it benefits from support and credibility from other government institutions and external actors. INAP, created in 1973, has a progressive approach to capacity building, with a clearly defined strategy in terms of reach, scalability, relevance, digital transformation and training quality. The fact that various actors interviewed for this review mentioned INAP's role in providing key support to build capacities points to the fact that the institute is well recognised as a key resource to build a modern public sector in Argentina.

The current administration has established the development of the public sector's competencies as a priority, drawing upon their value as enablers of a stronger organisational culture within the public sector. The SEP's strategy is clear in terms of how the development of specific competencies at different levels (Figure 4.1) can help build a culture that supports transformational change. The initiatives implemented by the SEP aim to put this framework into action.

The focus of the SEP's work is therefore on enabling a culture that can then be adequate to attract and build the required talent that can support the transformation of the public sector. The location of the SEP within the SGM provides an invaluable opportunity to ensure the connection between policies and initiatives on public sector employment, modernisation, digital government, open government, and innovation.

Figure 4.1. Secretariat of Public Employment: Competencies framework



Source: Based on SEP (2018), "Plan Integral de RRHH de la Secretaría de Empleo Público (SEP)".

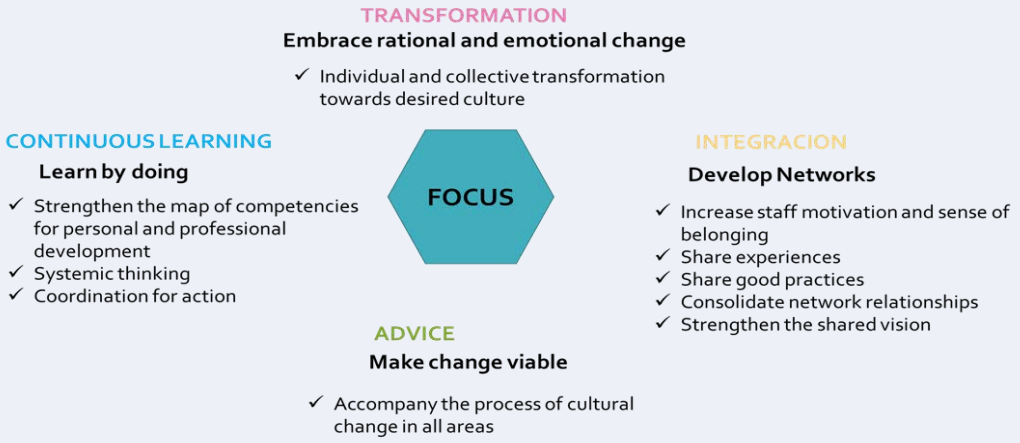
Box 4.1. Secretariat of Public Employment: Key initiatives

The skills development programmes of the Secretariat of Public Employment are in line with the government's ambition to promote a cultural change within the public sector in terms of values, beliefs and competencies. This change is based on four main strategic axes (Figure 4.2).

Based on these axes, the following skill development programmes were developed by the Secretariat of Public Employment:

- ***Líderes en Acción:*** This programme focuses on the process of cultural transformation through the formation of a network of young leaders, training them as agents of change and promoters of innovative initiatives in their teams. The programme concerns young people with more than two years' experience in the public administration and offers a series of modules, promoting values such as teamwork, innovation and a result-driven approach.
- ***Construyendo Nuestro Futuro:*** This programme aims to provide senior public management officials with tools and best practices that promote effective leadership of their teams, aligned with the vision and values of the government.
- ***Protagonistas de Recursos Humanos:*** This programme targets human resource management officials and aims to enhance their role as agents of transformation, motivation and collaboration in work environments within the public sector.
- ***Liderazgo Transformacional:*** This programme aims to develop leaders that foster trust and collaboration and that are focused on sustained superior performance, while sharing the same focus, impulse and direction.

Figure 4.2. Secretariat of Public Employment: Strategy



Source: Based on Ministry of Modernisation (2018), "Plan Integral de RRHH de la Secretaría de Empleo Público – Ministerio de Modernización".

Public sector stakeholders acknowledge these efforts. Out of the 32 public sector organisations, 30 expressed that the current administration has placed either high or medium priority to the improvement of digital skills and competencies among civil servants

as part of the national digital agenda (see Chapter 2) (OECD, 2018b).[1] Some of these institutions also report putting in place their own capacity-building initiatives in line with their own programmes and responsibilities (e.g. the National Contracting Office [Chapter 3], the National Direction of Digital Services [see Chapter 5] or the Undersecretary of Public Innovation and Open Government [see Section 4.4]) (OECD, 2018b).[2]

Stressing the need for public sector employment data

The above-mentioned efforts have been built on a heritage of inaccurate data on public sector employment, therefore highlighting the need of (re)constructing the basics in terms of good quality data in this realm, which would be useful for taking evidence-based policy decisions.

During the OECD peer review mission to Argentina (in March 2018), stakeholders expressed that the provision of data on public sector employment by the Under-secretariat of Planning of Public Employment (for instance, data on the current profile of the public service) would enable comparisons and improve understanding of the current context and forecasting capacities. This would help appraise future needs and develop a forward-looking approach towards skills in the public service for the next five to ten years. In July 2018, stakeholders also expressed their concerns related to the lack of knowledge in terms of the current skills deficit in the public sector.

In order to address these issues, the SEP launched the BIEP initiative in 2019 with the goal of unifying and improving the quality of information and data sources on public sector employment in order to support decision making, and avoid duplication of tasks and data inconsistencies. The project consists of the development of software solutions that can serve as an interface to share public sector employment information, and inform other human capital management systems.

Skill frameworks

There is also a lack of clarity in terms of how the SEP's competencies framework describes what hard and soft digital skills are needed to enable digital transformational change across the whole government. Clarity and granularity in this respect could, for instance, guide action at the organisational level to build, attract or procure specific talent with a strategic mindset.

So far, the activities or initiatives related to building digital and/or innovation skills seem to be fully under the mandate of specific bodies within the SGM (e.g. the National Direction of Digital Services or the Undersecretary of Public Innovation and Open Government through its Lab's Design Academy of Public Policy). Somehow they appear disconnected from the SEP's overall public employment competencies strategy.

Such a digital capability framework would also help shed further light in terms of:

- which hard and soft skills are more foundational (e.g. computing, text processing, data analytics, artificial intelligence), than digital and transformational (e.g. service delivery, focus on users, user and community engagement)
- at what levels (high-level officials, civil servants as per the SEP's classification), those specific skills and competencies are required
- identifying those skills that should be built in-house to develop a public sector digital core and those that can be commissioned.

This holistic approach would help to build skill layers that altogether avoid that digital is sustainably understood as an isolated tech-oriented task specific to technicians (as was expressed by stakeholders in July 2018), rather than a value-oriented strategy, and thus contributing to the delivery of policy goals and the achievement of the Digital Agenda as a whole. This would also be essential to lay a stronger skill base to set the foundations for a more mature digital government.

The above-mentioned findings were also confirmed by the concerns expressed by stakeholders during the workshops organised for the purpose of this review (July and December 2018), namely:

- A clear and strong agreement of the need to define clear digital profiles which can standardise shared roles across the public sector, and describe what hard and soft skills are needed in each specific role, including the need of building a more empathic and citizen-oriented culture.
- Asymmetries in terms of skills' availability and competencies among public officials.
- The need of understanding that digital efforts are multi-faceted and, as such, a multi-disciplinary team with different sets of skills is needed to respond to specific challenges.
- The need of focusing the training strategy on those skills that are needed the most (demand-driven) instead of sustaining the current "ready-made" training approach that does not respond to the actual needs or interests of the trainee.
- The lack of external incentives and low intrinsic motivation necessary to make public officials engage in training activities.

For instance, in the **United Kingdom**, the Digital, Data and Technology (DDaT) Profession Capability Framework defined a set of job profiles for the public sector in an effort to standardise job descriptions and skills. This model has helped to bring clarity in terms of what skills are needed; for instance, to follow a determined career path in government and to better attract talent into the public sector.[3]

The DDaT, led by the UK Government Digital Service is not a stand-alone exercise, it is integrated into the broader UK Civil Service Foundational Model, specifically into the specific core function on digital of this model. Other initiatives, such as the Data Science Campus of the UK Office for National Statistics, and the collaboration between the Office for National Statistics, the Government Digital Service and the Government Office for Science, also deliver on this specific function through joint efforts to build data science capability in the government (UK GDS, 2017).

In **New Zealand**, the central government undertook a Digital Skills Survey in 2016 to understand the state of digital skills in the public sector and identify future needs. It used this information to develop an evidence-based baseline and identify specific actions required within sectors (OECD, 2018d). This approach helped to move from a top-down approach in terms of capacity building to one that took more into consideration the real needs of public officials. Results from this survey show that, according to data collected in 2016, the biggest potential skills shortages for the government were related to "digital leadership, cybersecurity and delivery using a user-centred service delivery approach". Data analytics stood out as one of the most sought-after profiles by government institutions (New Zealand Digital Skills Forum, 2018).

The challenge of sustainability: Retaining and attracting talent

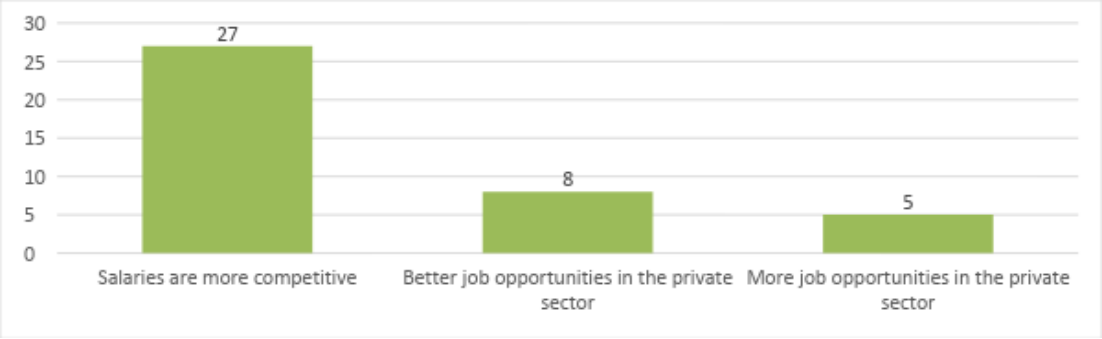
As in many other countries, the Argentinian public sector is not fully protected from political transitions, and it faces sustainability challenges to attract external talent and retain the one internally available. Political changes have a direct implication on the permanence of public officials in high-level positions. In this light, the sustainability of capacity-building efforts of key bodies within the public sector, such as INAP, require taking action to further build up public sector digital competence, and reinforce the civil service skill base in the broad public sector. INAP has already started addressing this challenge by developing a specific programme to build digital competencies within the public sector that will cover areas such as management, communication and innovation. To develop this programme, INAP started with a diagnosis of the current digital capacities of the public sector in Argentina, and the training demands in this area.

Public officials at director level and above, are normally replaced following political elections and subsequent transitions. In this light, public officials interviewed for this review expressed concerns on how these changes could cause instability in terms of the long-term sustainability of actions and results. This poses a policy challenge particularly for digital government considering that in Argentina several key initiatives are decided at the director or top management level. It also creates a problem in terms of human capital losses and long-term effectiveness of skill-building programmes (e.g. such as the SEP's *Construyendo Nuestro Futuro* and the Design Academy of Public Policy's executive programmes).

In addition, during the OECD peer review mission to Buenos Aires (March 2018), public officials indicated that roughly 75% of ICT professionals stay less than two years in the public sector, and in general terms lack formal tertiary education (e.g. university-level degrees). Key bodies within the SGM in charge of digital and innovation efforts have faced employee turnover, as job opportunities and salaries in the private sector[4] (OECD, 2018c), together with a more agile and innovation-driven mindset and culture, are simply more attractive to skilled employees – a context which is not endemic only to the Argentinian case.

During the OECD workshops organised in July 2018, stakeholders confirmed that retaining talent is one of the most relevant challenges in the current public sector context. Findings from the OECD survey indicate that the most common factor affecting human capital mobility from the public to the private sector is higher salaries (Figure 4.3).

Figure 4.3. Mobility of ICT professionals from the public sector to the private sector



Note: Number of public sector organisations providing a response to Question 28: What is the most common scenario for ICT and digital government-related employment in your institution? And Question 28a: In your view, for option 1 (public officials/government employees move to the private sector), what are the main reasons for this happening? Results are indicative.
Source: OECD (2018b), "Digital Government Review of Argentina: Survey for Public Sector Organisations".

However, while relevant, monetary compensation is not the only factor determining the mobility of skilled workforce from the public sector to the private sector. Cultural factors (such as the possibility of working in agile environments) and clear career development paths can also determine the willingness of staff to stay.

Retaining and attracting skilled human capital to the public sector would also require moving from monetary incentives to creating the needed environment and culture to attract talent to the administration (e.g. creating profiles, harnessing civic passion, good working environment), and incentivise human capital to stay through clear career development paths.

For instance, during the workshops in July and December 2018, stakeholders expressed that the professionalisation of the civil service and the definition of clear career development paths, supported by the right training programmes, can facilitate policy sustainability, by increasing motivation, retaining talent, and equipping the state with the needed competencies and skills. This reinforces the need to secure and retain an adequately skilled public sector workforce at all levels in order to address instability and human capital turnover, decrease the negative impact of political transitions, increase organisational resilience, and build up long-term public sector collective knowledge.

In **Denmark**, some public organisations are developing standardised career paths for digital specialists in order to bring further clarity in terms of career development paths. The Danish Agency for Digitisation, for instance, has moved from a general career path to four career paths: for specialists, generalists, programme managers and general managers. For such a purpose, the agency encourages staff to meet with their immediate superiors every six months to discuss skills and competency development and how staff can lever internal or external training for this purpose (OECD, 2018d). In the **United Kingdom**, the internship programmes offered by the Government Digital Service Digital Academy also aim to show the potential for a career in digital, data and technology in government. The traineeship programme comprises an eight-week programme, which includes training, a four-week placement in a digital service and a two-week discovery project (OECD, 2018d).

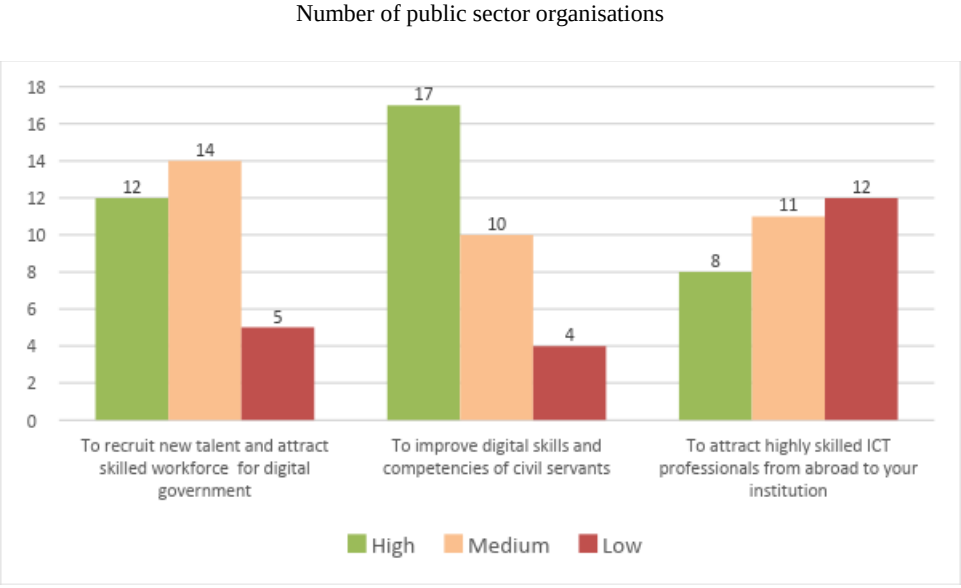
The Argentinian government also faces challenges, as do many OECD countries, in terms of the difficulties faced to bring new talent into the government, as expressed by stakeholders during the OECD workshops organised in July and December 2018.

Results from the central survey indicate that attracting and recruiting new talent is the top priority for the central government, followed by improving the digital skills and competencies of current staff[5] (OECD, 2018c). However, the search for and recruitment of new talent is mostly left to the recruiting body, thus there is no central strategy for the public sector (contrary to the SEP's and INAP's work focused on providing training to current public officials).

Yet, data collected through the survey administered across public sector in Argentina point to the fact that public sector organisations favour improving the skills and competencies of current staff (which adds to the value of the activities of the SEP and INAP), instead of attracting new talent (Figure 4.4).

While these data are just indicative, they might suggest the need for investing more resources on the strategic training of current staff, investing in their talent and supporting their career development, particularly in light of the current restrictions in place for the recruitment of new staff between July 2018 and December 2019, defined by Presidential Decree 632/2018.[6]

Figure 4.4. Public sector organisations favour improving the skills and competencies of current staff



Source: OECD (2018b), "Digital Government Review of Argentina: Survey for Public Sector Organisations".

Balancing public and private partnerships

There are also opportunities related to better levering the existing talent and communities outside the public sector.

The Argentinian government has opted for temporary employment models that provide higher compensation when compared to market costs as means to attract new talent, and counterbalance the salary gap between the public and private sectors. However, a window of opportunity exists to streamline government, in line with the current austerity measures, making it more agile by increasing collaboration with the private sector, and defining dynamic talent commissioning models that are appealing to external talent.

During the workshops organised by the OECD Secretariat in July and December 2018, stakeholders expressed the need for creating stronger bridges, partnerships and synergies between the public and private sectors; creating a digital community; and enabling the exchange of knowledge. Stakeholders suggested, for instance, the definition of public-private agreements and work groups as potential initiatives that could help in the definition of digital talents and profiles, build consensus and partnerships, enable collective solutions, and break down competitive asymmetries in terms of skills gaps.

Stakeholders also expressed concerns related to the current slow and cumbersome processes for commissioning external talent. The lack of agility hinders the possibility of attracting and bringing external talent on board on a temporary and project-based basis. For instance, joining forces with Small and Medium Enterprises (SMEs) and entrepreneurs can help to address policy challenges and develop solutions in an agile fashion without the need of hiring them on a permanent basis.

The Argentinian government could learn from the experience of **Canada** which has been attempting to implement innovative recruiting models to better hire public servants for specific short-term projects (Box 4.2). The agility of this model could be explored in the procurement of external talent.

Box 4.2. The GC Talent platform in Canada

The Government of Canada (GC) Talent Cloud, standing as its first attempt, aims to become a digital repository of pre-qualified talents, with a competency validation process and easy searchability. The repository is intended to allow public sector organisations to select public servants that have the appropriate skills in line with their project while reducing and improving the hiring time procedure, and ensuring the protection of workers' rights.

As a pilot version of the GC Talent Cloud, the government implemented the Free Agents programme. This programme examined and chose public servants based on a set of attributes and behaviours that were considered essential for innovation and problem-solving in project-based work. Upon approval, candidates were assigned to different positions in a special unit of the Natural Resources Canada Innovation Hub. The programme stood as a first test to assess the potential long-term sustainability of the GC Talent Cloud at the federal level, and in particular to draw out potential risks and benefits.

Results from the programme indicated that the Free Agents programme was in general terms successful. Hiring managers and free agents were both satisfied with the programme, and most projects were successfully accomplished in shorter time spans. Furthermore, due to the success of the project, the specific department of Natural Resources Canada that was responsible for implementing the programme had to be scaled up to another department.

Source: OECD (2018a), "Case study: Free agents and GC Talent Cloud – Canada", www.oecd.org/gov/innovative-government/Canada-case-study-UAE-report-2018.pdf.

Skills for public sector innovation

The LABgobar[7] – a multi-disciplinary team which depends on the Undersecretariat of Public Innovation and Open Government of the SGM - provides project-specific assistance to ministries, provinces, decentralised agencies and municipalities to foster public sector

innovation and bolster a culture of experimentation[8] (Box 4.3). Indeed, the SGM's leadership in this area was widely acknowledged by public sector organisations, as shown in the data collected through the institutional survey[9] (OECD, 2018b).

Box 4.3. LABgobar

LABgobar is Argentina's first innovation laboratory at the national level. The lab:

- Aims to equip public servants with the appropriate skills to develop and implement public policies in innovative ways. The aim is for public sector organisations to adopt agile design and prototyping approaches for public policies and promote more open, digital, user-driven and evidence-based policies. Different initiatives have been implemented to increase capabilities within different areas and events are also organised to co-create solutions to various public problems.
- Co-creates public policy solutions with other government teams. The lab had provided assistance in 40 projects as of February 2019.
- Promotes open innovation by helping other public entities to identify challenges and make them open in order to leverage collective intelligence to co-create solutions. The objective is to stimulate creativity and the search for innovative solutions between public organisations and citizens.

The following principles are core to the lab's way of working to carry out research on user needs, advise public sector organisations or design solutions:

- To design **user-driven** policies, the lab carries out ethnographic research focused on studying the habits and behaviour of citizens with the government.
- To guarantee **evidence-based** policy making, the lab creates prototypes to test public interventions to then analyse and document their effect. It then examines potential causes of error as well as the enabling conditions of the successes.
- To foster **collaboration**, the lab identifies and creates working communities in order to strengthen the relationship between public servants and connect them with their common purpose. The lab also provides a cross-sectional view and leverages the specific knowledge of the government teams to build consensus and promote new solutions.
- To increase **learning by doing**, the lab shares and creates new methodologies, concepts and practices within public sector institutions and generates skills, knowledge and motivation that allow innovation processes to be developed within organisations.

As of February 2019, the lab reported the following results:

- number of innovation processes carried out: 21
- number of proposals surveyed: 2 522
- number of people impacted: 47 627
- other areas of government involved: 21

- federal activations (workshops and discussions carried out in different cities to federalise the processes): 61.

Sources: Argentina.gob.ar (n.d.), "LABgobar: Laboratorio de Gobierno", https://www.argentina.gob.ar/laboratoriodegobierno (accessed on 18 February 2019); OECD (2018d), "Digital Government Survey 1.0".

The Lab's Design Academy of Public Policy – managed in co-ordination with INAP – provides a learning environment to establish and scale up innovation skills and tools in order to drive and grow an innovation-prone culture in public sector organisations. The academy has the mission of finding the best way to promote these skills in order to accelerate the transformation of public entities in Argentina.

Roughly 32 000 public officials took training courses at the lab's Design Academy of Public Policy between 2016 and 2019, thereby providing evidence of Argentina's progress towards the construction of an innovation-prone public sector.

The value of the lab, however, is at the moment marginal, as it works at the edge, and its innovations remain isolated best practices considering that they are difficult to mainstream across the whole public sector.

While the lab's academy provides online courses and trainings aiming to democratise this knowledge and methodologies across the national territory, challenges remain in terms of scalability, to make innovation part of "business as usual". Hence the need of reinforcing the role of the lab as a hub and incubator of ideas that can be mainstreamed, scaled up and measured in order to turn innovation capabilities into concrete actions and demonstrate real-world impact, beyond training activities.

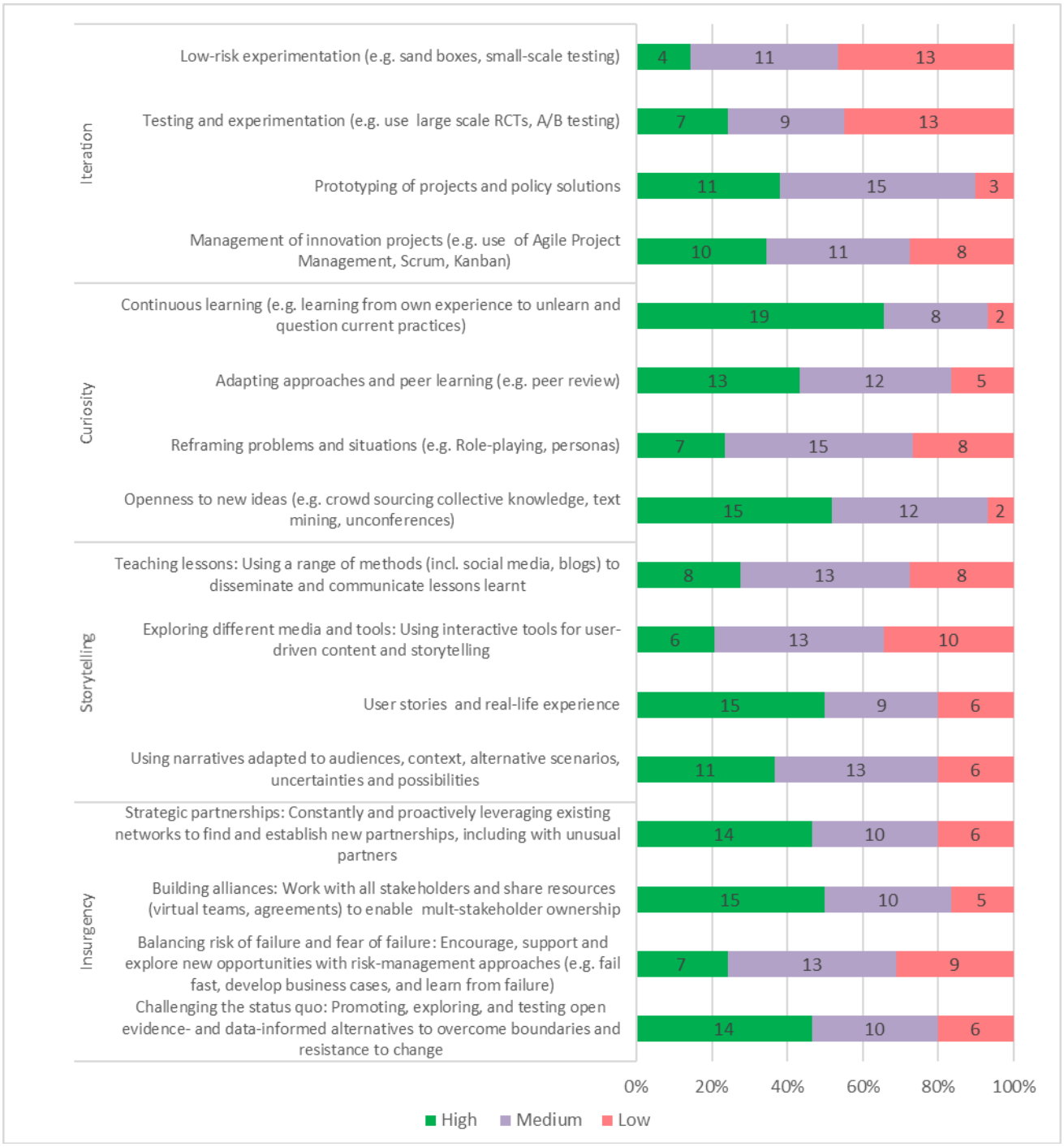
For instance, there is a missed opportunity to further link the activities of the Undersecretary of Innovation and Open Government, including the lab, with the activities of the National Contracting Office to explore, adopt and implement design thinking approaches to the procurement and commissioning of digital services and products (see Chapter 3). So far, it seems that the lab is successful at developing innovation skills at the technical level, but challenges remain in relation to connecting the value of public sector innovation with other policy areas in a broader sense.

There might also be a need for revising what innovation skills are a priority for development. The prototyping of projects and policy solutions, continuous learning, and openness to new ideas are among those skills with either high and/or medium levels of priority for development. Yet, low-risk experimentation and testing on a larger scale could be further developed.

Also, while 18 out of 28 public sector organisations which provided a response to the institutional survey report their involvement on public sector innovation projects, only 2 report carrying out these projects in collaboration with an "innovation lab set up by the central/federal government" (LABgobar). Twelve of those organisations reported carrying out innovation activities in the context of "the innovation lab/department/centre of [their] own institution"[10] (OECD, 2018b).

It is not clear, however, if the above-mentioned organisations make a clear distinction and understand the difference between digital public sector innovation and more traditional modernisation efforts (e.g. e-procurement, the digitisation of formalities, paperless government) as results from the survey suggest.

Figure 4.5. Level of priority given to the promotion and development of innovative approaches and skills



Source: OECD (2018b), "Digital Government Review of Argentina: Survey for Public Sector Organisations".

Notes

1. Question 30: How would you classify the level of priority given to the improvement of digital skills and competencies of civil servants in your country's digital government agenda?
2. Question 31: Does your institution have specific policies in place to develop digital skills among public servants?
3. For more information see: https://www.gov.uk/government/collections/digital-data-and-technology-profession-capability-framework.
4. Questions 43: What is the most common scenario for ICT and digital government-related employment in your country's public sector? Private sector employees move to the public sector/ private sector employees move to the public sector/inter-institutional movement from one public sector institution to another (intra-governmental); and Question 43a: In your view, for option 1 (public officials/government employees move to the private sector), what are the main reasons for this happening? There are more/better job opportunities in the private sector/private sector salaries are more competitive.
5. Questions 41, 41a and 42. Question 41/41a: How would you classify the level of priority given to the following actions as part of the digital agenda?. Question 42: Does your government have specific policies/strategies in place to pursue any of the following objectives?
6. For more information see: http://servicios.infoleg.gob.ar/infolegInternet/anexos/310000-314999/312146/norma.htm.
7. For more information see: https://www.argentina.gob.ar/laboratoriodegobierno.
8. See, for instance: https://apolitical.co/solution_article/in-argentina-public-servants-get-promoted-for-learning-how-to-innovate.
9. Question 32: Is there a public body (e.g. ministry, agency) in charge of promoting innovation inside the public sector?
10. Question 33: Is your institution involved in any projects for public sector innovation? and Question 33a: If yes, in what context(s) do the innovation projects take place?

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Chapter 5. Public service design and delivery in Argentina

This chapter explores the coherence of public services in Argentina and the contribution that digital technologies play in this respect. It stresses the value of key enablers and standards as foundations for a more integrated service delivery in the Country. It also discusses the value of services that focus on the citizens and the contribution that citizen engagement plays for this purpose. The chapter assesses how digital platforms play a key role in the access to public services while highlighting the value of digital inclusion.

Introduction

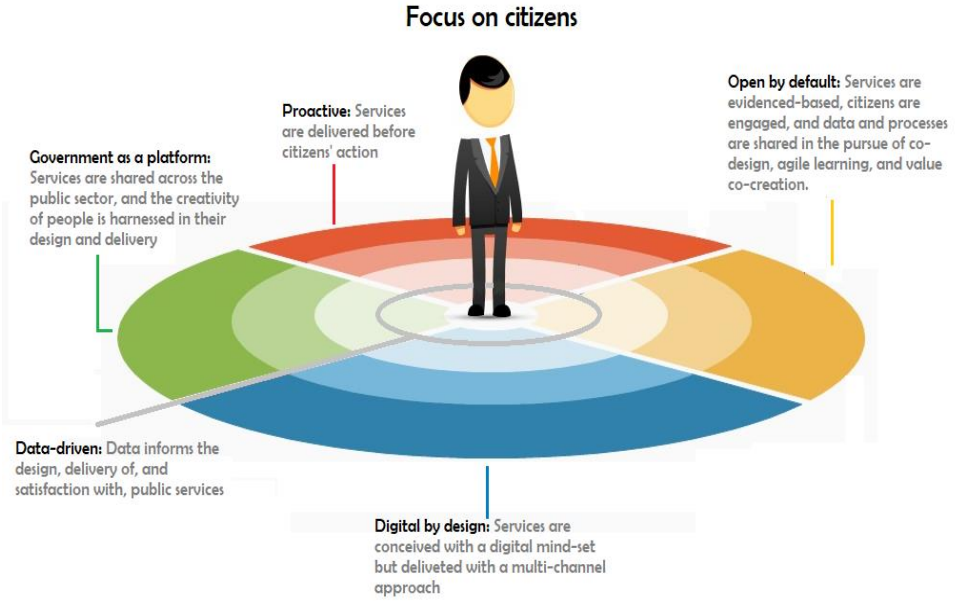
Public services and formalities mainly define the level and channels of interaction between government and citizens. As such, the quality, timeliness and access to public services exert a strong influence on citizens' perception of the government's capacity to deliver results and its reliability and responsiveness to adapt to change (for instance, in light of evolving social, economic and technological contexts). As a result, the level of citizens' satisfaction with public services influences the public's trust in government, thus placing public service design and delivery at the core of the government's efforts that should centre on the people.

OECD governments are increasingly acknowledging that technology is only a tool for better public services. On the one hand, digital technologies can improve how public services are designed, delivered and accessed. Inclusive, multi-channel, proactive, seamless, agile and data-driven public services, conceived with a focus on users, can help to deliver public value and real-world benefits to citizens (Figure 5.1). Yet, the needs of citizens are often assumed by public officials, leaving citizens' contributions out of the creative and value co-creation process.

On the other hand, in the current digital age innovative private sector business models have habituated citizens to services that are accessible, user-friendly and tailored to their specific needs. Governments are therefore facing the challenge of continuously self-adapting to this new context in order to stay relevant.

The public service life cycle includes a whole spectrum of different iterative stages, from prototyping to design, delivery, access, feedback and redesign. Public services are built on foundational layers that ensure the integration and streamlining of processes, the sharing of data, and the seamless interaction between organisations. This underpins the possibility of developing shared services that use common tools, follow guidelines and standards, and decrease silos resulting from legacy systems.

Figure 5.1. The six dimensions of a digital government and their application to public services



Source: Original content developed by author for the review.

Building a paperless government, improving digital public service delivery and streamlining the government-citizen relationship have been priorities for the central government in Argentina since 2015. Most of these initiatives have been built in no time and from the ground up, at least at the central level.

Yet, while policy achievements are clear, Argentina will face the challenge of ensuring the sustainability of these efforts in the long term, making clear that foundational initiatives supporting the digitisation of processes would eventually leave more room for the digitalisation and transformation of the public sector in the broader sense, and proving the real value and benefits brought to the final users.

Building a paperless government

The Electronic Document Management Platform (*Plataforma de Gestión Documental Electrónica*, GDE) (Box 5.1) did not exist prior to 2015 at the central level and has undoubtedly generated efficiencies and positive benefits and value for the public sector.

The GDE is a project of national scope; it is being adopted by some provinces and municipalities in order to enable the exchange documents and files with and among subnational administrations.

By March 2018, 100% of organisational procedures within central ministries and decentralised organisations had been digitised and as of March 2019, the GDE was being used by 191 public sector organisations; 13 provincial governments had signed a collaboration agreement with the central government for its implementation; 7 provinces were in the process of adopting and implementing the platform; and 22 cities were already using it.

These achievements result from a combination of clear policy goals, political strong focus on implementation provide a platform to further advance interoperability and modernisation efforts in the public sector (OECD, 2018c).

Box 5.1. The Electronic Document Management Platform

The Electronic Document Management Platform (*Plataforma de Gestión Documental Electrónica*, GDE) promotes the digitisation of government processes in order to foster a "zero paper public administration". The GDE is accessible through desktop and mobile-based platforms.

It allows for 100% of the documents, procedures and government records to be generated, processed and administered in electronic form, and for the citizen to perform formalities from a remote location. These formalities are secure from a legal and technological point of view.

The GDE intends to increase efficiency, simplify government processes, and improve transparency and accountability. It is an integrated platform comprised of different working modules, which have their respective functions and levels of interaction:

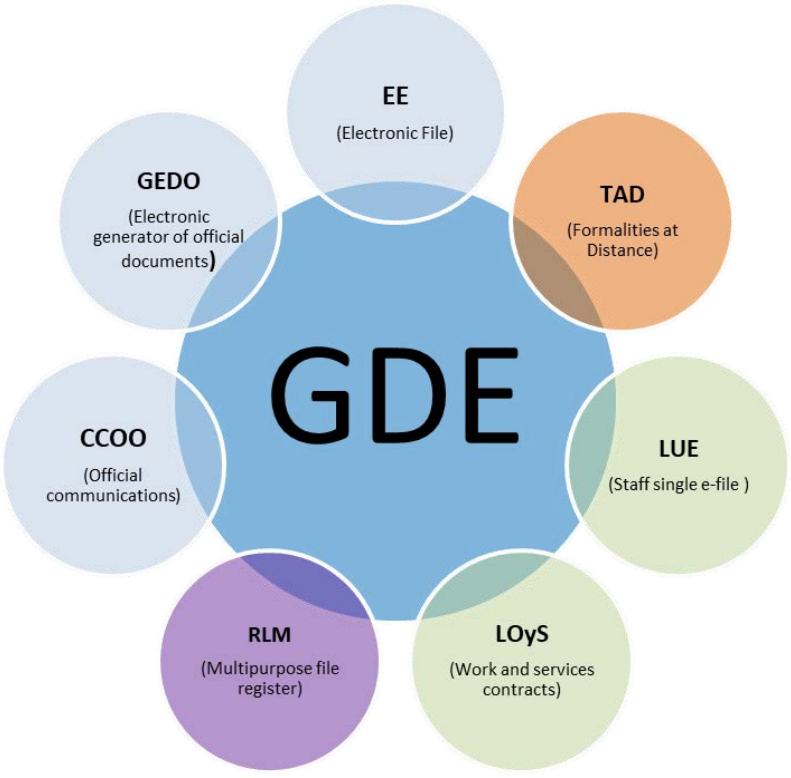
1. **Unique desktop**: provides public sector organisations with direct access to all of the GSE's modules. This gives public sector organisations a better overview of the different procedures they are working on in order to then better manage and monitor them.

2. **Official communications** (*Comunicaciones Oficiales*, CCOO): enables the digital generation, numbering, signing, communication and archiving of all interactions between public sector organisations in a more secure, controlled and automatic manner.
3. **Electronic generator of official documents** (*Generador Eléctrónico de Documentos Oficiales*, GEDO): allows the digital generation, registration and archiving of official documents.
4. **Electronic file**: contains all the digital documents that were generated either though the official communications module or the electronic generator of official documents module.
5. **Signature holder (*Portafirma*):** allows users to stamp and sign large volumes of documents in an easier and faster fashion.
6. **Documentary interoperability**: allows the exchange of documentary and e-record files among different GDE hubs. It also allows the signature of a document between users of the different GDE modules.
7. **Real Estate E-register** (*Registro de la Propiedad Inmueble*): registration and management of real estate records.
8. **Staff single e-file** (*Legajo Único Electrónico, LUE*): digitises files and professional records of public officials.
9. **Work and services contracts** (*Locación de Obras y Servicios*, LOyS): generates and processes public procurement contracts and issues invoices. The LOyS is integrated with the Financial Administration System (eSIDIF).
10. **Multipurpose file register** (*Registro Legajo Multipropósito*, RLM): electronic management and control of different public registers.

Source: Secretaría de Modernización Administrativa (n.d.), Gestión Documental Electrónica, (accessed on 22 February 2019). https://www.argentina.gob.ar/modernizacion/administrativa/gde

The GDE, which is based on experience in the city of Buenos Aires, used a problem-solving approach with the objective of developing a document management layer for the central government. It followed an enterprise resource planning (ERP) principle, thus aiming to develop a system that could not only lead to the dematerialisation of processes and procedures but that could also be used by public sector organisations to communicate, produce official documents and manage document files, among other others, thus improving the overall interactions among organisations. (seeFigure 5.2).

Figure 5.2. Electronic Document Management Platform (GDE): Main modules



Source: Based on MoM (2017), "Gestión documental electrónica: Manual de usuario, gestor de asistencias y transferencias", https://www.argentina.gob.ar/sites/default/files/manual_gat-20170809.pdf (accessed on 19 February 2019).

The GDE enabled the use of electronic and digital signatures within the central government (e.g. through security tokens or using remote digital signature).

As a back-end solution that could be used to better design front-end services, the GDE provides an underlying platform for the development of government-citizen interaction websites such as the Remote Formalities Platform (*Trámites a Distancia*, TAD) (Box 5.2). Indeed, the TAD shows the willingness of the central government to bridge administrative simplification and modernisation efforts using information and communication technologies, and adds to the broader regulatory simplification efforts of the current central administration.[1]

However, evidence from other peer reviews being carried out by the OECD Secretariat (see the *OECD Review of Regulatory Policy in Argentina*) point to the fact that "*while there was a clear improvement and simplification of processes in the conversion from physical procedures to paperless systems, Argentina did not actively seek the reengineering of processes*" (OECD, 2019b). These findings were confirmed by evidence and insights also collected during the workshops that were organised in Buenos Aires (July 2018), when stakeholders expressed that there was a tendency in the public sector to focus on digitising first and re-engineering later, instead of leveraging the use of digital technologies to reconceive and simplify processes (i.e. *digitalisation*) before building new digital structures on them.

The result is potentially missing out to the possibility to promote transformational digital change in the long term.

Box 5.2. The Remote Formalities Platform

The Remote Formalities Platform (*Trámites a Distancia*, TAD) enables public sector organisations to interact with citizens and businesses through a digital platform for some important administrative formalities. Through the platform, citizens and businesses are able to complete important official government formalities as well as obtain official responses. Paperwork that citizens and businesses previously had to fill in by hand and provide to a given public sector organisation can now be submitted on line and provided to different organisations remotely.

The online platform is divided by institution, subject or category, with a search function to allow users to more easily identify the government procedure they need to complete. Users can, for example, apply for postgraduate degree accreditation, or request the financial statements of a government entity.

This digitisation of administrative formalities is intended to centralise different government procedures, quicken them, and simplify citizens' and businesses' interaction with government institutions.

Source: Adapted from OECD (2019b), *Regulatory Policy in Argentina: Tools and Practices for Regulatory Improvement*, https://doi.org/10.1787/d835e540-en.

Yet, a parallel approach, focusing on building a single government digital identity and pursuing the design and delivery of digital services using common tools and shared platforms, is also guiding policy action in the country.

This approach is propelled by the development of the National Public Sector Digital Platform (*Plataforma Digital del Sector Público Nacional*), its interface design and the consolidation of information about, and access to, digital public services, and in particular through Argentina.gob.ar & Mi Argentina (OECD, 2018c) (see Section 5.6). This scenario shows that e-government (e.g. the GDE and the TAD) and digital government tools (e.g. Mi Argentina) co-exist in Argentina as a result of the challenges the current administration inherited from previous governments (neither tool was available at the central level before 2015).

Even though such co-existence is common in many countries, it is not the most efficient way to to unleash the full potential of technologies and data to transform how the public sector functions and delivers public value (OECD, 2018c). The coexistence can lead to further confusion if reinforced by a perceived lack of clarity in terms of policy messages, which can perpetuate the understanding that e-government (a strong focus on efficiency and modernisation) is synonym to digital government (transformational with a strong focus on public value) (see Chapter 1).

Stronger leadership for digital government could accelerate the evolution to digital government (see Chapter 2). Evidence from the different OECD missions to Buenos Aires point to the fact that so far, e-government and modernisation seem to be overshadowing digital government efforts, which would benefit from being mainstreamed and recognised as fundamental to the conceptual reshaping of public sector modernisation in Argentina and not simply functional to its implementation.

The recognition of the transformative potential of digital government for public value creation may help Argentina avoid missing opportunities to "reboot" the administration when needed to better serve the public. This would indeed imply a shift from a focus on efficiency towards one driven by public value creation.

The absence of a digital government strategy (see Chapter 2) does not help to raise full awareness of this or to overcome this situation in order to advance the digital transformation of the public sector, and the underlying processes that the services are built upon.

Without a formal and strategic articulation of what digital government is, and a clear understanding of how government agencies will work together to achieve it, efforts may continue to target e-government rather than channelling resources towards a true digital transformation (OECD, 2018c). Indeed, key soft policy documents such as the National Office of Information Technologies' (Oficina Nacional de Tecnologías de la Información, ONTI) *Decálogo Tecnológico* (see Chapter 3) make a clear distinction between digital government resources (e.g. Mi Argentina) and administrative simplification resources (e.g. the GDE),[2] thus providing a precedent in terms of clarity that can be mainstreamed and scaled up across the broader public sector.

Argentina, as many OECD countries, was not born digital and the public sector clearly holds technical and cultural legacy problems that need to be overcome. A phase of coexistence between e-government and digital government is therefore understandable and not unique to the Argentinian context. Yet, the focus should be to target modernisation efforts that support the transition towards a full digital government in the long run. Argentina can learn from other countries' experiences in this respect in order to leapfrog and avoid creating additional legacy challenges which may result from a persisting coexistence between e-government and digital government efforts, and which may build future barriers for digitalisation.

Enabling government as a platform

Enabling government as a platform can follow a sequence of subsequent, yet related, layers that aim to lever the value of shared resources, tools and knowledge (Box 5.3).

At the technical level, this implies placing the government as a provider of shared solutions and tools that can be reused by public sector organisations to build new services on top of these tools. However, this also implies enabling the government as a habitat for the sharing of knowledge where stakeholders from all sectors can interact and contribute to co-create solutions. In the context of public services, this means bringing the citizen on board in the design of public services so that services are fit for purpose.

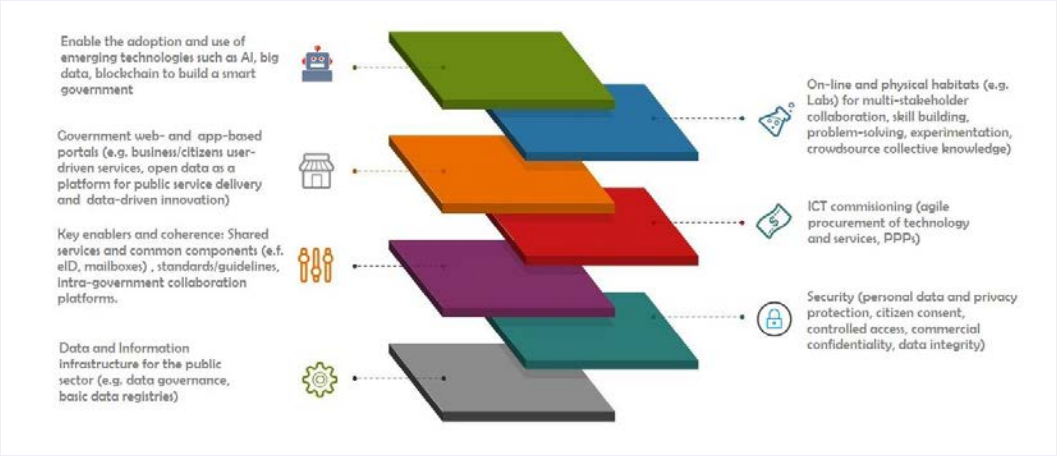
The following sections present the efforts the Argentinian government has made to enable a context where the sharing of resources and knowledge can help advance digital government efforts, and the design and delivery of public services that focus on the citizens in the long term.

Box 5.3. Government as a platform: A digital government perspective

Enabling government as a platform can follow different approaches which comprise a series of supporting layers ranging from technical efforts to citizen-driven and collaborative approaches, for instance, to:

- Construct ICT, data infrastructure/architecture/governance models that serve to perform streamlined and secure data-sharing practices in the public sector. More seamless data sharing within the public sector can help to implement core digital government principles such as once-only (the right of citizens to provide the same information and data to authorities no more than once) (See Chapter 6).
- Define regulations and standards (see Chapter 2), govern and stimulate the development of secured and shared services and common components that can be used by all agencies to improve and facilitate public service delivery (e.g. mailboxes, eID, government-citizen payment systems) (see Section 5.4).
- Procure goods and services in a more agile fashion to bring external talent to solve policy challenges in a timely fashion and explore innovative ways of delivering public services (see Chapters 3 and 4).
- Contribute to greater stakeholder engagement (e.g. women, citizens, minorities, businesses) by enabling spaces for collaboration and public sector innovation with a problem-solving mindset (e.g. policy and datalabs) in order to improve the design and redesign of user-driven policies and services (e.g. through crowdsourcing ideas and feedback from citizens).
- Enable government data as an asset base (or platform) for social and business innovation (see Chapter 6).
- Foresee citizens' needs for public services in advance by using new technologies, such as artificial intelligence, machine-learning and data analytics, in order to build a smart government.

Figure 5.3. Government as a platform: The OECD digital government perspective



Source: Originally published in OECD (2019a), *Digital Government Review of Sweden*, https://doi.org/10.1787/4daf932b-en, with research from different sources, including Brown, A. et al. (2017), "Appraising the impact and role of platform models and government as a platform (GaaP) in UK government public service reform: Towards a platform assessment framework (PAF)", https://doi.org/10.1016/j.giq.2017.03.003; Margetts, H. and A. Naumann (2017), "Government as a platform: What can Estonia show the world?", https://www.politics.ox.ac.uk/materials/publications/16061/government-as-a-platform.pdf; O'Reilly, T. (2011), "Government as a platform", https://doi.org/10.1162/INOV_a_00056; Ubaldi, B. (2013), "Open government data: Towards empirical analysis of open government data initiatives", http://dx.doi.org/10.1787/5k46bj4f03s7-en; UK Government Digital Service (2018), Government as Platform blog, https://governmentasaplatform.blog.gov.uk/about-government-as-a-platform (accessed on 6 April 2018).

Key enablers

Results from the survey that was administered for the purpose of this review show that Argentina has made some advancements to consolidate the foundations for a digital government.

In 2008, the Argentinian government published the E-government Interoperability Component (*Componente de Interoperabilidad para el Gobierno Electrónico*) (Government of Argentina, 2008). Argentina was, together with Brazil's e-Ping Interoperability framework (2004), one of the few Latin American countries which, at that time, had invested in moving forward interoperability efforts at the central level (Criado, Gascó and Jiménez, 2011). More recently, the 2016 Register Simplification Decree and Resolution 19/2018, which created the interoperability module INTEROPER.AR (see Chapter 6), contributed to advancing interoperability efforts in the public sector.

Some base registries are also available at the central level, including the National Population Register (RENAPER), the National Recidivism Register (*Registro Nacional de Reincidencia*), the Social Security Register and the Federal Administration of Public Revenues (Administración Federal de Ingresos Públicos, AFIP) (see Chapter 6).

Table 5.1. Enabling frameworks for digital government in Argentina

	Available to central/federal government institutions	Available to state/county institutions	Available to local/municipal government institutions	Available to private sector institutions
Common interoperability framework	●	○	○	○
Base registries	●	○	○	○
Shared ICT infrastructure (e.g. shared data centres)	●	●	●	○
Shared business processes (e.g. common logistics management)	●	○	○	○
Shared services (e.g. joint software development)	●	○	○	○
Shared framework for ICT and digital services commissioning	○	○	○	○
Support for the use of cloud computing	○	○	○	○
Support for the use of open source software	●	●	●	○
● Available				
○ Not available				

Source: OECD (2018e). Question 76: Please indicate which of the following enabling frameworks for digital government are in place and which organisations can utilise these. Status as of April 2019.

ONTI (see Chapter 3) is also emerging as a key player in terms of digital innovation in the public sector and the potential development of future foundations for a digital government. For instance, ONTI is actively promoting the use of technologies such as blockchain, the Internet of Things, cloud computing and open source software as a means to explore how these tools can improve how the public sector operates (Box 5.4).

Box 5.4. Exploring the use of digital technologies in the Argentinian public sector

Guidelines

The National Office of Information Technologies (ONTI) has implemented a strategy to develop guidelines for the use and adoption of emerging technologies among public sector organisations in order to improve their digital services and products. The goal is to accelerate digital innovation in the public sector and promote peer-to-peer sharing of best practices and use cases across the broader public sector.

ONTI has also published a Code of Good Practices for the Development of Public Software to promote the sustainable development of public sector software[1] and it released guidelines on the Internet of Things in March 2019. Additional guidelines on blockchain, smart contracts and artificial intelligence are expected to be released in the course of 2019.

Blockchain

Blockchain technology is being adopted in Argentina through the Blockchain Federal Argentina (BFA) initiative. The BFA corresponds to an open and participatory multi-service platform which enables actors inside and outside the government to add services and applications on blockchain.

The platform is designed to allow the contributions of different organisations to the public blockchain who can either improve it by adding applications or services, or adapt it to their own specific context and needs, seeing the platform is based on open source.

Cloud computing

ONTI's research highlights the benefits of using a hybrid model for the use of the cloud in the public sector. Following this rationale, ARSAT (a state-owned company) offers a public solution for cloud services, and ONTI and the National Procurement Office are developing a framework agreement to facilitate the procurement of private cloud solutions by public sector organisations. The framework agreement is expected to be in place by the middle of 2019.

Note: 1. For more information see: https://www.argentina.gob.ar/onti/software-publico/buenas-practicas.
Source: Blockchain Federal Argentina (n.d.), "Qué es BFA", https://bfa.ar/bfa/que-es-bfa (accessed on 25 February 2019).

However, it is important to send the right message and ensure that the focus is not on the adoption of technology, but rather on ensuring that these technologies are used in a coherent fashion and to support a rethinking of processes, transactions and ultimately services. This is necessary to avoid the multiplication and duplication of efforts and support integration and transformation.

Interestingly, ONTI's initiatives might indicate that Argentina is trying to move faster and keep up with the pace of other countries in the adoption of new technologies. Although important, this may undermine a good understanding among policy makers of the importance to stop and self-assess progress to date to identify the challenges ahead (e.g. ensure integration), and make sure that adoption of disruptive technologies fits with the broader strategic objectives of digital government in Argentina.

Guidelines and standards

The National Direction of Digital Services (NDDS) within the Government Secretariat of Modernisation (Secretaría de Gobierno de Modernización, SGM) assists other agencies with their service processes, prioritising the provision of assistance for the design and delivery of services that are deemed to be a political priority and that respond to citizens' needs (e.g. healthcare services) (OECD, 2018e).

For instance, the NDDS has established a series of standards for the development of digital public services[3] (OECD, 2018a). These instruments, available through GitHub,[4] provide a set of standards for the use of application programming interfaces (APIs) and the development of websites (e.g. the Poncho framework)[5] (OECD, 2018a) and mobile applications. More importantly, following the example of other countries like the United Kingdom, the NDDS developed a series of principles that guide the development of digital services (Box 5.5).

Box 5.5. Principles for Digital Services

The Principles for Digital Services aim to establish a new public sector culture to foster digital services that are user-driven, using data, iteration and collaborative approaches to meet the changing expectations and needs of citizens and businesses. The principles that are to be adopted when designing and delivering digital services are:

- Prioritise user needs: Public sector organisations should engage citizens and observe the context in which they live to successfully pinpoint their needs and subsequently solve them.
- Base decisions on data: Public sector organisations should design decisions based on the collection and analysis of data.
- Consider multi-channel approaches: Public sector organisations should consider the different channels by which services can be provided, such as through an online platform, by phone or face-to-face.
- Build simple services to use: Public sector organisations should consider the user's experience when delivering services and therefore design and deliver services that are as simple as possible to use, even if they are based on complex processes and systems.
- Build accessible services: Public sector organisations should compensate for any personal, geographical or technological difficulties so as to make sure that digital services are accessible for all citizens with the same level of quality.
- Build digital services by default: Public sector organisations should design services and procedures that can be accessed and used on line, with any digital device.
- Work in an open, transparent and collaborative way: Public sector organisations should collaborate with each other and with external stakeholders to analyse, design and develop digital services.
- Operate in a co-ordinated and unified way: Public sector organisations should operate as one single body, joining services whenever possible.
- Work in short and progressive cycles: Public sector organisations should constantly aim to improve the services provided, focusing on iteration to correct minor problems or better adapt services to users' needs.

Source: Github (n.d.), "Principles of Digital Services", https://github.com/argob/estandares/blob/master/principios.md (accessed on 25 February 2019).

Yet, a hard governance for digital government and greater central control might be required to ensure these guiding frameworks are indeed observed by public sector organisations. Countries where higher maturity levels of digital governments have been achieved are those where policy and delivery efforts have been equally paced and prioritised, thanks to a governance framework that links and aligns them.

The governance (see Chapter 2) and public sector capacity and culture (see Chapter 4) play a key role to enable the right context to advance digital government efforts, but control and enforcement from the centre might be needed to ensure that digital government tools and platforms are adopted in a coherent way and in line with central government guidelines.

For instance, ONTI's certification (*Dictamen técnico)* is not binding. Other countries that faced similar challenges (like Norway) took action and enforced the implementation of key standards through policy levers and conditional funding (OECD, 2018b) (see Chapter 3).

Given the overall absence of strong policy levers supporting the coherent implementation of the digital government initiatives, individual ministries and local authorities may have the leeway to take decisions and implement actions that may not necessarily be in line with central standards. This may result in the development of a tangled digital and data infrastructures or disperse and incoherent efforts in the near future, as the experience of other OECD countries shows. Managing this risk, e.g. by making the use of some of these policy levers mandatory, is a precondition for advancing the shift towards digital government and learning from more digitally advanced countries in order to avoid repeating the mistakes they have made (OECD, 2018b).

Digital identity

Digital identification tools are one of the core enablers for digital government, hence the availability of a common digital identification mechanism streamlines the interaction between public sector organisations and citizens, and provides a shared tool that can be reused across different sectors and levels of government (OECD, 2017).

In Argentina, two systems are being developed to spur the use of digital identification systems. In July 2018, the SGM launched the Digital Identity System (*Sistema de Identidad Digital*, SID),[6] drawing upon the widespread use of the National Identity Document (*Documento Nacional de Identidad*), and the data available in RENAPER (OECD, 2018a). The underlying Biometric Identification System is intended to work using biometric facial recognition information that RENAPER has collected for every Argentinian citizen[7] (OECD, 2018c).

A round table was established with the participation of the banking and financial sector to support the development, implementation and adoption of this eID system. Information provided by the Argentinian government through the survey that was administered for the purpose of this review (OECD, 2018b) indicates that the system will be capable of identifying any person remotely, hence the interest of other stakeholders such as banks and the Fintech community to participate in this project and use the tool. Yet, the public sector will remain the owner of the system, which may help to avoid vendor lock-in, and ensure government control over the system and the protection of personal data (OECD, 2018a).

In April 2019, the National Direction of Processes, Quality and Management Efficiency was also working on the development of a smart ID service.

The development of the citizens' wallet within the Mi Argentina web-based and mobile platforms provides an example of the current use of digital identity applications. The Digital Driver's Licence is already available in the wallet (see Section 5.6), and other credentials, such as the ID card, disability certificate, vaccination certificate and vehicle insurance documents, are expected to be available in the near future.

While the work on the digital signature and eID will help enable digital service delivery, increasing the availability of services for which the eID can be used is a prerequisite to capture its value for citizens and to understand its strategic importance (OECD, 2018c).

The Argentinian government will face two key challenges to the widespread use of one single eID tool. The first is to avoid the proliferation of other digital identification tools in the medium and long term. Indeed, during the OECD workshops organised in July 2018,

stakeholders expressed the need for developing a single digital citizen identity tool for the public sector. The second is to ensure the adoption of one single tool by other public sector organisations, particularly those with identification and/or authentication systems already in place (e.g. the fiscal identification number used by the Federal Administration of Public Revenue and other organisations)[8] (OECD, 2018a).

The availability, uptake and promotion of the use of one single digital identification tool for the public sector would help to reduce the complexity and streamline government-citizen interactions (Box 5.6), unless of course the whole-of-government solution does not meet the specific business needs of the public sector organisation.

Box 5.6. Norway: The ID-porten digital identification tool

The ID-porten digital identification tool was designed to provide citizens in Norway with a co-ordinated and common login solution to digital public services. Through the use of the available electronic IDs citizens are free to use, the ID-porten digital identification tool offers a secure means to login to different public sector organisations' platforms to access their digital public services.

The ID-porten is available on several Norwegian public websites, providing access to more than 1 100 services from over 600 government agencies and with more than 90 million logins in 2016.

Sources: Based on OECD (2017), *Digital Government Review of Norway: Boosting the Digital Transformation of the Public Sector*, https://doi.org/10.1787/9789264279742-en; Agency for Public Management and eGovernment (n.d.), "ID-porten", https://eid.difi.no/en/id-porten (accessed on 25 February 2019).

For instance, in **New Zealand**, the use of the RealMe login service[9] has been mandated by law since 2007 (under its previous name, the Government Logon Service). In April 2007, the Cabinet Office also agreed on prohibiting departments of making investments in additional online identity verification capability outside of the Identity Verification Service. Since 2010, chief executives of public service departments have been directed to use cross-government products and services where available, unless there is a compelling reason not to do so. Any requests for not doing so should be accompanied by a strong case as to why the exemption is requested, particularly why the relevant RealMe service cannot meet the business need.

The RealMe team at New Zealand's Department of Internal Affairs is responsible for setting the direction, uptake and use of RealMe. This includes working with public and private sector organisations to integrate RealMe into their services, and increasing the uptake and use of RealMe. Regular presentations are given to public and private sector stakeholders, and RealMe products are promoted on line (OECD, 2018e).

Digital signature

The 2001 Digital Signature Law[10] set the legal conditions for the use of digital signature in Argentina; however, there was not much development until 2017 when Decree 892/2017[11] gave birth to the Platform for Remote Digital Signature (*Plataforma de Firma Digital Remota*) (Box 5.7).

It seems, however, that the uptake of this tool (which allows citizens to sign digital documents in their interactions with public sector organisations) is not widespread across the public sector.

Results from the survey that was administered across public sector organisations in Argentina provide evidence of the lack of knowledge of this instrument among public sector organisations. Only 1 out of 34 organisations acknowledged the use of digital signature in government-citizen interactions (through the TAD platform; see previous section) while 14 public sector organisations acknowledged the use of digital signatures in interactions between public sector organisations (through the GDE system)[12] (OECD, 2018a).

Box 5.7. FIRMAR.GOB.AR

The Platform for Remote Digital Signature enables citizens to manage and sign official electronic documents in a secure and reliable way. Citizens are able to sign electronic documents of the government and private entities such as banking operations or foreign trade documents. These signatures, in line with the Digital Signature Law, have the same legal validity as handwritten signatures and offer a secured guarantee regarding the authenticity of the signature.

The Platform for Remote Digital Signature offers a series of benefits to its users. It is intended to certify the integrity of official documents. It should also improve efficiency and speed, guarantee legal security, reduce costs and foster electronic commerce. Citizens can process their digital certificate for free and sign electronic documents from the platform. In addition, different organisations (companies, non-governmental organisations) can integrate their systems to the platform and sign digital documents.

Source: Secretaría de Modernización Administrativa (n.d.), "Firmar", https://firmar.gob.ar/#about (accessed on 25 February 2019).

Public service design

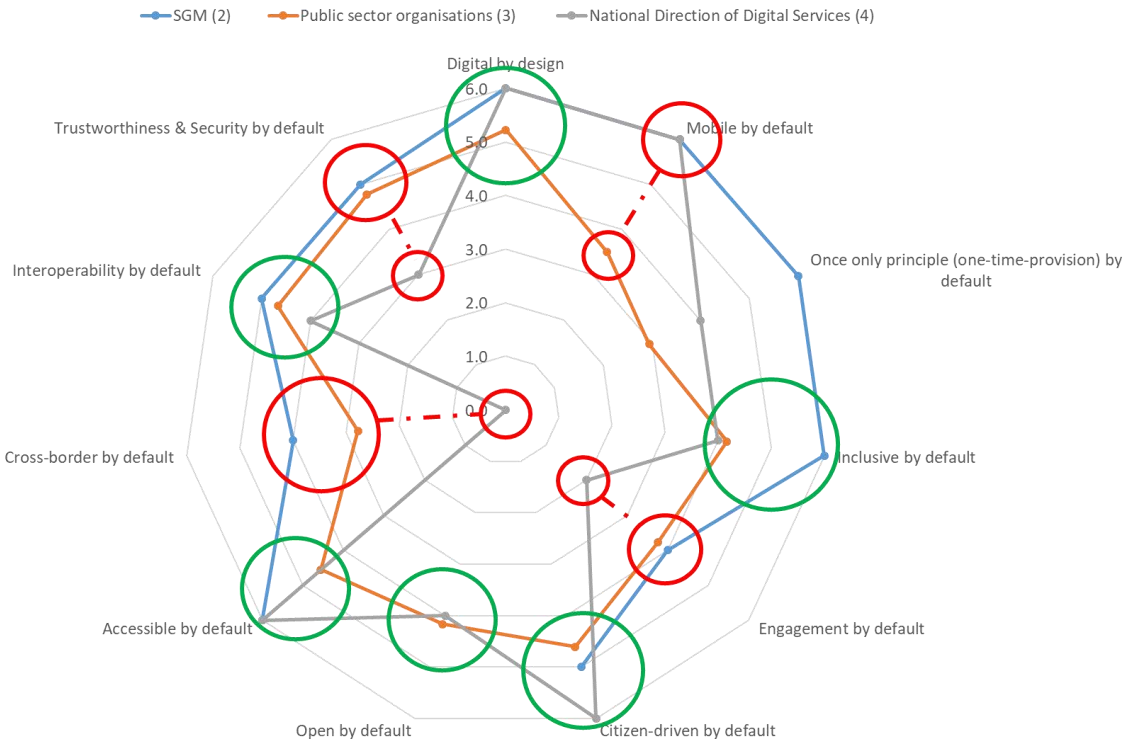
Results from the surveys administered for the purpose of this review provide a glimpse of public sector organisations' priorities in regards to the overarching policy principles that guide the design and development of ICT projects and initiatives, including public services (Figure 5.4).

There is, for instance, clear alignment between the policy co-ordinating institution (the SGM), the NDDS (in charge of Mi Argentina) and other public sector organisations on developing services which are digital by design. A relative alignment can also be observed in terms of the relevance of inclusion (see Section 5.6.1.), citizen-driven approaches (e.g. putting the citizen at the centre of public services, see Section 5.5.2), and the interoperability and accessibility services (see green circles in Figure 5.4). However, discrepancies arise, for instance, in relation to the use of mobile (see Section 5.6) and cross-border approaches, citizens' engagement (see Section 5.5.2), and the implementation of the once-only principle.

Figure 5.4. Overarching principles of digital transformation considered within ICT projects and initiatives

Government Secretariat of Modernisation and other public sector organisations

6: Highly relevant; 0: Not relevant1



Notes:
1. Scoring adapted for the purpose of visualisation. Original scoring: 1: highly relevant; 7: not relevant.
2. Based on information provided through the survey administered for the purpose of this review. Survey for central co-ordinating institution. Question 70.
3. Based on information provided through the survey administered across public sector organisations for the purpose of this review. Question 50. Not including scoring provided by those bodies part of the SGM.
4. Based on information provided through the survey administered across public sector organisations for the purpose of this review. Question 50.
Source: OECD (2018a), "Digital Government Review of Argentina: Survey for Public Sector Organisations", Question 70; and OECD (2018b), "Digital Government Review of Argentina: Survey for the Policy Co ordination Body", Question 50.

Once-only and service integration

The real-world implementation of the once-only principle (the right of citizens to provide the same information only once to governments) is also debatable. For instance, the NDDS' ability to move forward a "once-only" approach in public service design is limited, as often, the National Direction of Digital Services does not own these services, which limits the possibility of making the once-only principle a reality. The lack of service integration in the back-end may also represent a key challenge in this regard.

Indeed, during the workshop organised in July by the OECD Secretariat, stakeholders expressed that the strategic publication of APIs (Box 5.8) could help to further integrate processes and services in the public sector, and allow more data exchange with external actors.

Box 5.8. APIs in Brazil

In line with the Efficient Brazil programme of the National Deburaucratization Council, in 2018 the Brazilian government launched the Conecta.gov platform (www.conecta.gov.br) in order to foster greater levels of interoperability throughout the public sector.

The Conecta.gov.br platform refers to an interoperability platform which includes a catalogue of APIs that can be used to integrate public services and exchange information within the government. Public sector organisations can connect their platforms through the use of APIs and release or consume data in a more efficient and effective way.

Source: OECD (2018d), *Digital Government Review of Brazil: Towards the Digital Transformation of the Public Sector*, https://doi.org/10.1787/9789264307636-en.

It is also not clear how the interaction between the TAD platform, focused on offering formalities, and Mi Argentina, focused on digital services *stricto sensu*, works. For instance, while the Argentinian government plans to further integrate both platforms in the course of 2019, it is not clear if those formalities currently accessible through the TAD will be accessible, connected and/or migrated to Argentina.gob.ar/Mi Argentina. This would help to reduce access fragmentation and simplify the users' experience when contacting or carrying out procedures and/or transactional services with the government.

The focus on delivery speed followed so far by the central government has not helped to slow down and reassess how, if appropriate, these two platforms could be better integrated. This speed delivery model for digital government is paired with the short, four-year mandates of central political administrations and the co-existence of digital government efforts with a strong e-government approach (see Section 5.2).

Citizen-driven services and engagement

There is also a clear incongruence between balancing citizen-driven approaches as a priority and how such a policy guideline is put into practice in the context of digital services.

For instance, as shown in Figure 5.3, results from the survey show a common agreement in terms of understanding citizens' needs when designing digital initiatives (citizen-driven by default as shown in Figure 5.3).

Results from the workshops that were organised in the context of this review in July and December 2018 reinforced the above-mentioned findings. "Knowing your stakeholders" was identified as a clear policy guideline that should guide the design and delivery of public services, and there was a common and strong agreement among stakeholders in terms of building a culture that favours the design of user-driven services, understanding the needs of different communities, and focusing on demand to prioritise service design and delivery. Stakeholders also expressed current undergoing challenges such as focusing on policy objectives that do not meet the needs of citizens, underlying the relevance of moving from a "focus on the solution" to a "focus on the problem", and changing the current mindset from "what should be done" to "what should be done based on user needs".

The Principles for Digital Services (see Section 5.4.1), developed by the NDDS, include a specific principle on the relevance of understanding citizens' needs. This body also developed other principles to guide the government-citizen relationship (*Principios de*

Atención al Ciudadano), which highlight the need for empathy with citizens, understanding their context and needs.[13]

It seems, nonetheless, that the need for delivery and the speed policy model that guided policy action did not favour such an approach, and that policy is not necessarily translated into coherent implementation, at least when it comes to user engagement during the design, testing, delivery and re-engineering policy cycle.

The principles and initiatives developed and implemented by the NDDS put the citizen at the centre in practice. The digital services team runs usability studies and has set up different tools for users to evaluate their products (e.g. Mi Argentina)[14] (OECD, 2018a). For example, meetings were held with users during the development of the "Monotributo" digital service in order to collect comments and adapt the development of the tool to user needs prior to its formal launch.

However, in general terms, while understanding citizens' needs is at the core of the principles guiding the design of digital public services, the focus is more on ensuring the usefulness of the service rather than engaging users from earlier stages. It seems therefore that citizens' needs are assumed during the discovery stage, and citizen engagement takes place for testing purposes once the service is in the alpha or beta version design stages (see Figure 5.5).

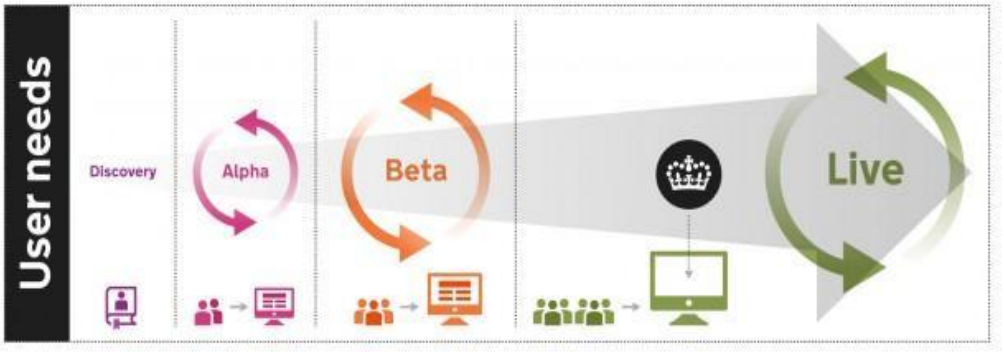
Even more relevant, during the workshop organised in July 2018, stakeholders proposed a series of concrete actions to foster user engagement, for instance:

- use tools such as focus groups and random control trials to collect information on user needs
- define thematic dialogue spaces for communities
- set a core of specific skills which are needed to design and deliver user-oriented services, including a training strategy to build up these skills
- provide incentives for the design of user-driven services
- encourage the development of digital services which are sustainable, useful and efficient for the citizen based on evidence
- group citizens based on their respective needs.

Yet, the challenge lies not so much on how users are engaged (whether through focus groups, working tables or sprints), but when. Therefore, the digital service team may also consider expanding user engagement practices to earlier stages of the public service life cycle whenever feasible and support public sector organisations towards this goal.

For instance, in the **United Kingdom**, the Service Manual of the UK Government Digital Service highlights how user research practices can help design user-driven services in line with the Digital Service Standard. The manual provides public sector organisations with guidance on how to research user needs and engage them not only during the alpha or beta phases of service design, but also in the discovery phase ("before [you] start planning, designing or building the service") (GDS, 2016) (Figure 5.5).

Figure 5.5. United Kingdom: User research for government services



Source: Waterworth, J. (2015]), "User research for government services: 8 strategies that worked for us", https://userresearch.blog.gov.uk/2015/01/21/user-research-for-government-services-8-strategies-that-worked-for-us.

In this respect, as discussed in the joint section published as part of the *OECD Open Government Review of Argentina*, Argentina could benefit by further connecting open government and digital government initiatives for the benefit of mainstreaming open government approaches for the design of public services across the broader public sector.

Cross-border services

Cross-border approaches appear to be a policy priority, as reported by the SGM, but in terms of policy implementation it is not clear if public sector organisations are taking action to move forward in this respect (for instance, by developing cross-border services for citizens in the region). The SGM reports no plans to develop or implement any cross-border services in the near future[15] (OECD, 2018b).

It is worth noting that cross-border interoperability efforts are not new to the region. In 2008, Argentina and Brazil signed an agreement supporting cross-border e-government interoperability in the context of the Technical Co-operation Agreement between the two countries (Criado, Gascó and Jiménez, 2011). More recently, the creation of a Digital Agenda Group in the context of the Southern Common Market (MERCOSUR), which comprises of Argentina, Brazil, Paraguay and Uruguay as active members,[16] reflects the relevance that cross-border co-operation has in the context of a shared digital agenda for the region (OECD, 2018e). In April 2018, the Digital Agenda Group defined the interoperability of digital public services as one of the potential priority areas of work for the group.[17] In June 2018, the MERCOSUR leaders agreed on the development of an action plan for the region[18] and it is currently working (April 2019) on identifying public services that could be delivered across borders.

Public service delivery

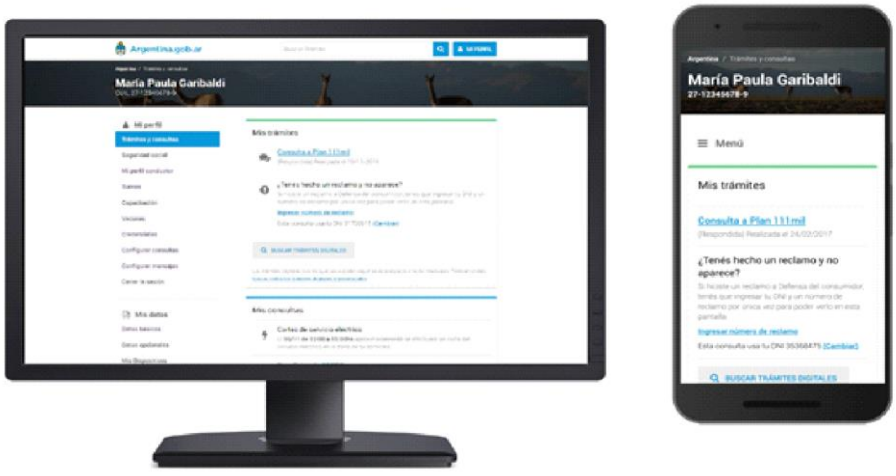
Platforms for digital services

Decree 87/2017[19] gave birth to Argentina.gob.ar and Mi Argentina as key elements of the National Public Sector Digital Platform (OECD, 2018e). These platforms are crucial milestones in terms of digital service delivery in Argentina (Box 5.9). The rationale behind these platforms is the front-end integration of previously dispersed government platforms and websites into one single platform that streamlines and facilitates the government-

citizen relationship. This is supported by the integration of those services in the back-end. These platforms are the responsibility of the NDDS.

Efforts have been fruitful. For instance, as of October 2018, 1.5 million users were registered on Mi Argentina, the digital public service delivery platform. The platform, launched in April 2016, is accessible on line and through mobile phones through a registration process where users can provide either their Facebook or Google accounts to access basic services, or their national ID or passport to access more complex services.

Figure 5.6. Mi Argentina: A web-based and mobile-based platform



Source: OECD (2018c), "Digital Government Review of Argentina: Key findings", www.oecd.org/innovation/digital-government/digital-government-review-argentina-key-findings-2018.htm.

Services provided include advanced booking (*turnos*) for document certification (*apostillamiento*), vaccination appointments and online certifications from the National Administration of Social Services . An early version of a Citizens Folder is also available (*Mis Credenciales*) for users to access and consult documents such as digital driver's permits (available since February 2019),[20] their National Identity Document and disability certificates in one place. Recent developments include the Digital Driver's Licence (Box 5.9).

As of October 2018, the SGM reported a total of 900 000 downloads of Mi Argentina's mobile application, and 310 000 advanced appointments performed through the portal. These results show Mi Argentina's benefits in terms of social value. It was expected that by the end of 2018, 100% of public sector organisations would be migrated to Argentina.gob.ar, unless exempted from migration by the SGM.

The value of Argentina.gob.ar and Mi Argentina as the integrated platform for digital service delivery was acknowledged by some of those public sector organisations who provided a response to the survey: 15 out of 24 public sector organisations reporting using Argentina.gob.ar or Mi Argentina to provide access to digital services[21] (OECD, 2018a).

Box 5.9. The National Digital Driver's License and Digital Identity System: Integrating public service delivery

Citizens can access a digital version of their driver's license through the Mi Argentina mobile application. The digital driver's license has the same legal validity as the hard copy equivalent. This digital license allows for improved controls and reduces the possibility of fraud. Launched in February 2019 by the Government Secretariat of Modernisation and the Ministry of Transport, and approved by the National Agency of Road Safety (Agencia Nacional de Seguridad Vial), the license is at no additional cost and is automatically generated if the citizen already has a valid driver's license.

The National Digital Driver's License marks a turning point in the ecosystem of digital services in Argentina and a crucial step in the way the country is moving towards a digital, closer and agile state.

The National Digital Driver's License is the first public service that uses the Digital Identity System (SID). The SID platform is a joint development of RENAPER and the Government Secretariat of Modernisation to provide remote validation of a citizen's identity using the biometric data captured for every citizen at the time of enrolment in RENAPER (fingerprints and face photography).

The SID service can be used by private or public sector entities, for different purposes, such as for remote onboarding of new clients or products. These formalities used to require the physical presence of the citizens, with long waiting lines. Currently, 27 entities are using this solution at least in one of the different available modalities, providing service to almost 150 000 people per month.

The SID platform is a fundamental piece in the digital maturity curve of services in Argentina. Besides providing citizens with a more agile experience, it also increases the offer of public and private digital services.

More information is available at: https://www.argentina.gob.ar/miargentina/servicios/licencia-digital.

Digital inclusion

There are clear efforts to increase digital inclusion and connectivity (like the National Plan of Digital Inclusion, the National Connectivity Plan, País Digital and ARSAT's work on connectivity in rural schools) (OECD, 2018c). Indeed, 22 out of the 30 public sector organisations which provided a response to the survey considered that digital inclusion is a high priority for the central government[22] (OECD, 2018a).

In March 2017, the then MoM launched the National Plan on Digital Inclusion (*Plan Nacional de Inclusión Digital*)[23], with the objective of developing the digital literacy and digital skills of the population across the country. The plan is being implemented in 24 provinces and 152 municipalities and responds to the priorities of the National Digital Agenda in terms of digital inclusion[24] (OECD, 2018b) (see Chapter 2). By March 2019, the Argentinian government had trained 255 000 people under the plan.

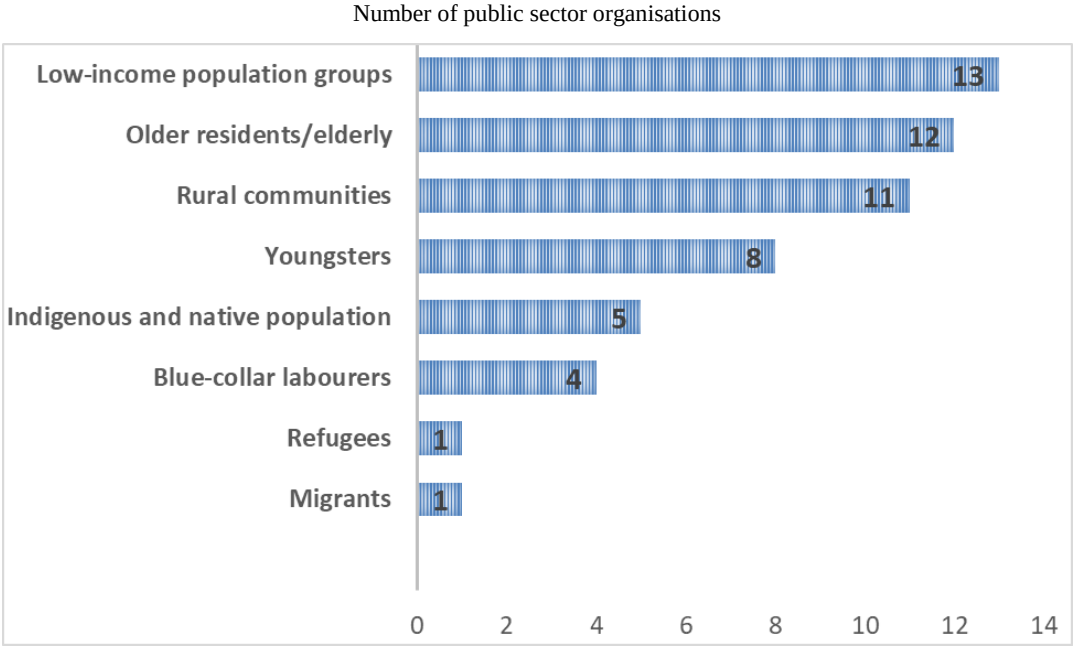
Other initiatives include the Ministry of Education's "*Plan Aprender Conectados*"[25] and "*Núcleos de Aprendizaje*",[26] which seeks to build the population's digital skills over the long term. These plans fit under the umbrella of the 21 projects of the Digital Agenda (see Chapter 4).

These initiatives are a joint effort of the SGM in co-ordination with other ministries, such as the Ministry of Education and the Ministry of Social Development, and are in line with OECD best practices in terms of digital inclusion as observed in **France**'s Digital Society Programme,[27] **Norway**'s Digi-help Programme[28] and **New Zealand**'s Blueprint for Digital Inclusion (OECD, 2018d).[29]

Argentina's National Plan on Digital Inclusion adds to other initiatives implemented at the local level, including the Digital Hubs Plan (*Plan Punto Digital*, PPD).[30] The PPD is framed in the context of the Digital Country Programme (*País Digital*) and aims to provide physical and online training spaces covering a variety of subjects, including cybersecurity and app development.

Other initiatives include, for instance, the "+ Simple"[31] programme, implemented by the National Communications Entity (Ente Nacional de Comunicaciones), which aims to increase the elderly population's access to digital devices such as tablets. The elderly population stands indeed as the second population group in terms of priority among those public sector organisations reporting having implemented any policies and/or initiatives to reduce the digital divide and exclusion, and increase uptake of digital public services among specific user groups (Figure 5.7).

Figure 5.7. Priority groups for digital inclusion



Source: OECD (2018a), "Digital Government Review of Argentina: Survey for Public Sector Organisations", Question 46: Has your institution implemented any policies or initiatives to reduce digital divides and exclusion, and increase uptake of digital public services among specific user groups?

Notes

1. The National Executive Branch has an explicit policy for the simplification of regulations. This policy and good practices in terms of simplification are expressed in Decree 891/2017. As a result, the central government modified (and is still modifying) the rules and regulations to simplify the procedures, remove decrees, resolutions and modifying laws. Some results are three new Laws of Administration Simplification, Production Simplification and Infrastructure (Laws 27,444; 27,445 and 27,446).

2. See, for instance, the resource section (Recursos) in Principle 5 of the Decálogo Tecnológico: https://www.argentina.gob.ar/onti/decalogo-tecnologico-onti/5-elegi-plataformas-y-soluciones-comunes-de-gobierno.

3. Question 62: Are there government-wide guidelines on designing user-oriented digital services?

4. For more information see: https://github.com/argob/estandares.

5. The Poncho framework provides a series of technical standards and components that public sector organisations may consider when developing front-end services. For more information see: https://argob.github.io/poncho.

6. For more information see: https://www.argentina.gob.ar/sid-sistema-de-identidad-digital.

7. Question 77: Are there any tools for digital identity management in your country?; and Question 77a: If yes, which ones? Explain how these mechanisms interoperate.

8. Question 61: Does your institution use tools for digital identity management?

9. For more information see: https://www.realme.govt.nz.

10. For more information see Law 25.506 available at: http://servicios.infoleg.gob.ar/infolegInternet/anexos/70000-74999/70749/norma.htm.

11. For more information see: https://www.acraiz.gob.ar/Content/Archivos/Normativa/2017-892-PlataformaFDR.pdf.

12. Question 59: Does your [institution/authority] make use of digital signatures in transactions with individuals or businesses?

13. For more information see: https://github.com/argob/estandares/blob/master/principios-de-atencion.md.

14. Question 50: Which and how deeply are the following overarching principles of digital transformation considered within your ICT projects and initiatives? Citizen-driven by default

15. Question 81: Has your country implemented any digital public cross-border services?; and Question 82: Does your government have plans to develop new cross-border services?

16. Venezuela's full MERCOSUR membership has been suspended since August 2017. For more information see: https://betaweb.mercosur.int/documento/decision-sobre-la-suspension-de-venezuela-en-el-mercosur.

17. For more information see: https://www.senatics.gov.py/noticias/acuerdan-acciones-principales-de-agenda-digital-mercosur.

18. For more information see: www.puntofocal.gov.ar/doc/gmc_02-18.pdf.

19. For more information see: https://www.argentina.gob.ar/sites/default/files/decreto_publicado_87-2017.pdf.

20. For more information see: https://public.digital/2019/02/12/argentina-just-made-driving-licences-digital.

21. Question 56: Are the digital services of your institution showcased and/or available on the main national citizens and/or businesses one-stop-shop portal for government services?

22. Question 45: How would you classify the level of priority given to digital inclusion in your country's digital government agenda?

23. For more information see: https://www.argentina.gob.ar/modernizacion/inclusiondigital.

24. Question 62: How would you classify the level of priority given to digital inclusion in your country's digital government agenda?

25. For more information see: https://www.argentina.gob.ar/educacion/aprender-conectados.

26. For more information see: www.abc.gob.ar/educacion-digital.

27. For more information see: https://societenumerique.gouv.fr.

28. For more information see: www.ks.no/fagomrader/utvikling/digitalisering/digihjelpen.

29. Question 5: At the central/federal level, do you have a programme or plan that aims to increase the digital skills of citizens?

30. For more information see: http://puntodigital.paisdigital.modernizacion.gob.ar.

31. For more information see: https://www.massimple.gob.ar

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Chapter 6. Governing and enabling government data as a service in Argentina

This chapter presents the efforts the Argentinian government has made to build an enabling context within the public sector to govern and manage data and support its strategic use of inside and outside the public sector for public value co-creation.

Introduction

Over the past two decades, the discussion around the strategic value of data and good data governance has increasingly influenced policy decisions. Recently, data misuse by private companies has triggered government intervention to improve greater personal data protection and the need for giving citizens control over their data.

The understanding of data as an asset is evolving within governments. Data-related initiatives have responded either to external pressure (e.g. opening up government data), or resulted from public sector efficiency measures (e.g. the development of data registers). Yet, often these initiatives run in disconnection to one other hence leading to the realisation that, indeed, further integration and governance improve how governments manage, produce, share, protect and re-use data. These arrangements can improve the design and delivery of public services, fight corruption, and increase public trust as well as governments' performance.

Principle 3 of the 2014 OECD *Recommendation of the Council on Digital Government Strategies* (OECD, 2014b) (Box 6.1) is clear in relation to the relevance of developing frameworks to support the reuse of data, and set the basic foundations that can help transform raw and isolated data into a mission-critical element of public sector business intelligence. Also, the OECD work on Open Government Data [see for instance OECD (2018e), OECD (2018d), OECD (2016)] provides evidence on how the discussion surrounding public sector data is evolving. Open government data is no longer a siloed policy and, while still relevant by its own, it is now understood as an outcome of good public sector data management practices and broader data policies.

In line with the above, balancing open by default approaches with the protection of sensitive and private data, data ethics, and citizens' consent are also emerging as relevant policy topics that require governments' attention and action.

The Argentinian central administration, in power since late 2015, is not oblivious to this context. Efforts are being put in place to advance a forward-looking data agenda in the public sector, seeking to improve how government data are produced and shared either among public sector organisations or with external actors. Nevertheless, there are still opportunities to scale up data initiatives and evolve towards a data-driven public sector that places data governance as a foundation for digital transformation, cohesion and trust.

Box 6.1. 2014 OECD *Recommendation of the Council on Digital Government Strategies*: Principle 3

The [OECD] Council […] on the proposal of the Public Governance Committee […] recommends that governments develop and implement digital government strategies which:

Create a data-driven culture in the public sector, by:

1. Developing frameworks to enable, guide and foster access to, use and reuse of the increasing amount of evidence, statistics and data concerning operations, processes and results to: (a) increase openness and transparency; and (b) incentivise public engagement in policy making, public value creation, service design and delivery.
2. Balancing the need to provide timely official data with the need to deliver trustworthy data, managing risks of data misuse related to the increased availability of data in open formats (i.e. allowing use and reuse, and the possibility for non-governmental actors to reuse and supplement data with a view to maximise public economic and social value).

Source: OECD (2014b), *Recommendation of the Council on Digital Government Strategies*, https://www.oecd.org/gov/digital-government/Recommendation-digital-government-strategies.pdf.

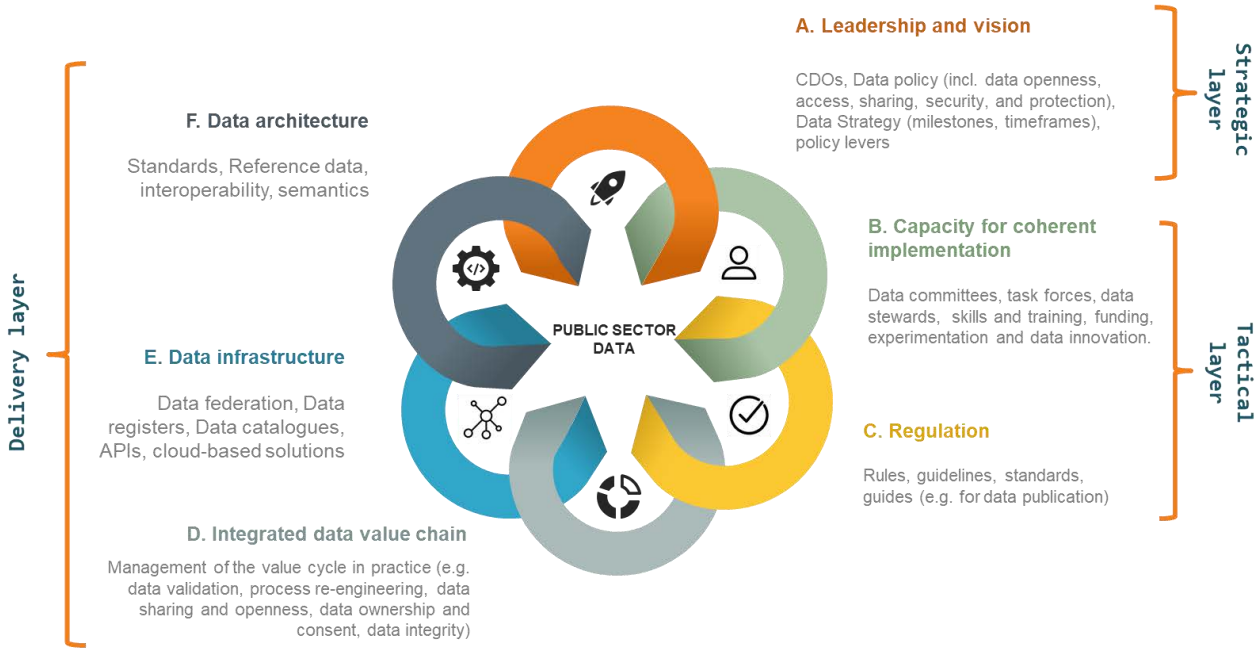
The state of data governance in the Argentinian public sector

Data governance (Figure 6.1) is the exercise of authority, control and shared decision making (planning, monitoring and enforcement) over the management of data assets (Ladley, 2012) either within one organisation or across different organisations that share an interest for common data assets. A data governance model must support existing and new processes to ensure the proper management and protection of data, proper production and usage of data through its life cycle in a collaborative, federated approach to managing valuable data assets (Ghavami, 2015).

Data governance is not a technical task proper of data managers, but more a strategic set of decisions, activities, capacities, roles and instruments that aim to transform data into an asset for business intelligence. Yet, in less mature organisational environments, data governance elements can be in place, but disconnected from each other, reflecting the legacy that still exists in terms of how data are managed and shared across the organisation (e.g. data silos).

Also, those data governance tools already in place may respond more to the technical or operational elements of data management (e.g. data standards) rather than to strategic enterprise-wide matters (data strategy, leadership, stewardship). Thus, understanding data governance as a comprehensive effort that connects dispersed data-related actions is key for managing and sharing data in a strategic, value-oriented fashion.

Figure 6.1. Data governance in the public sector



Source: Author. Original content produced for the purpose of this review. Based on previous and under-going OECD work on Digital Government and Government Data (including OECD (2017**), Digital Government Review of Norway**: Boosting the Digital Transformation of the Public Sector, OECD Digital Government Studies, OECD Publishing, Paris, https://doi.org/10.1787/9789264279742-en ; OECD (2019), **Digital Government Review of Sweden**: Towards a Data-driven Public Sector, OECD Digital Government Studies, OECD Publishing, Paris, https://doi.org/10.1787/4daf932b-en & OECD (2018e), **Open Government Data Report:** Enhancing Policy Maturity for Sustainable Impact, OECD Digital Government Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264305847-en) and on further research including Ghavami, P. (2015), Big Data Governance: Modern Data Management Principles for Hadoop, NoSQL & Big Data Analytics and Ladley, J. (2012), Data Governance: How to Design, Deploy and Sustain an Effective Data Governance Program.

Leadership and vision

In Argentina, different public sector organisations hold responsibilities in relation to the definition and implementation of different policy elements related to data governance (OECD, 2018a):

- Located in the Chief of Cabinet Office (Jefatura del Gabinete de Ministros), the Access to Information Agency (Agencia de Acceso a la Información Pública) was created in 2016 and is responsible for the implementation and enforcement of the 2017 Freedom of Information Act[1] and the 2000 Data Protection Act.[2]
- Decree 434/2016[3] set the responsibilities of the then Ministry of Modernisation (MoM, now the Government Secretariat of Modernisation, SGM) in the context of the State Modernisation Plan (see Chapter 2), including a clear mandate for improving enterprise-wide management systems, setting data interoperability mechanisms, and the co-ordination of open data efforts.
- Decree 117/2016 established shared policy development competencies between the Chief of Cabinet Office and the then MoM, with the latter keeping responsibilities for its co-ordination, implementation and follow up.

- In addition, other public bodies also have important responsibilities in the definition or implementation of key data-related initiatives. These include the National Institute for Statistics and Census (Instituto Nacional de Estadística y Censos, INDEC), the National Geographic Institute, the central tax authority, the social security (ANSES) agency and the Ministry of Social Development. The Ministry of Social Development is in charge of the National Tax and Social Identification System (Sistema de Identificación Nacional Tributario y Social, SINTyS) (see Section 6.4).

In this fragmented context, the National Direction of Public Data and Public Information (Dirección Nacional de Datos e Información Pública, DPDI),[4] a body within the then MoM, has acted as a *de facto* chief data officer for the government data co-ordination efforts. The DPDI's actions first focused on the publication of open government data. However, in a later stage, the DPDI's goal was to bring further control to the data management process to ensure that data are produced and published with a mind-set that prioritises quality, value and re-use. The DPDI has made important strides to set up technological and operational underpinnings of a data infrastructure, helping to address legacy issues in terms of government data integrity (Box 6.2), and supporting the publication of government data as open data (see Section 6.5).

Yet, as observed in other areas related to digital government, such as digital public services (see Chapter 5), the DPDI has taken a "soft" approach to implementation, learning first and regulating second – an approach levered by the need of delivering fast results in the context of four-year political cycles at the central level (OECD, 2018b). While this approach may have contributed to faster, more flexible responses in a changing implementation environment, three years down the road it is now apparent that there is a need to move towards a more solid, institutionalised policy framework to sustain sustainable results in the long term.

Building on this agile initial approach, it is recommended to move towards greater institutionalisation to establish a more solid and stable data governance that would make the management of the data value chain more efficient and results more sustainable in the long term – e.g. including open data efforts in all government institutions (OECD, 2018b).

One important step in this direction may be the development of a government-wide data strategy and governance framework. Unlike some leading OECD countries like **Canada** and the **United States** (see Annexes 6.A and 6.B), Argentina lacks a formal and broader data policy and/or strategy for the public sector[5] (OECD, 2018c), which would provide greater coherence to scattered data governance instruments and consolidate data efforts under one single policy umbrella.

Box 6.2. The quality of official statistics in Argentina

Argentina's statistics deteriorated over 2007-15 amid growing political pressure to show more "positive" data about the economy and society. The number and quality of underlying censuses, surveys and procedures declined and data on international trade, inflation, gross domestic product and poverty levels became unreliable. In July 2011, the International Monetary Fund found Argentina in breach of its minimum reporting requirements because of inaccurate provision of consumer price index and GDP data (IMF, 2013). Since 2016, the national statistics institute INDEC has been completely overhauled and its leadership changed.

Argentina is now working with the OECD to improve the quality of its statistics. A statistical emergency was declared at the end of 2015, putting the production of some indicators on hold until capacity was rebuilt, which limits the scope for drawing comparisons over time. For some series, the quality of historic data could not be improved and therefore remains subject to reservations. This is particularly the case for household data, which are considered unreliable for 2007-15 as the sample composition may have been altered to obtain the desired outcomes.

For some series, reliable data are really only available as of mid-2016, preceded by a six-month data gap due to the statistical emergency. For some variables, notably inflation, having recourse to non-official series for which a longer history is available is the only option. Moreover, poor statistics at the provincial level make comparisons across regions difficult.

Source: OECD (2017d), *Argentina: Multi-dimensional Economic Survey*, https://doi.org/10.1787/eco_surveys-arg-2017-en.

Argentina also lacks solid and clear formal leadership. There is no public body, nor a specific figure formally mandated to lead the definition and coherent implementation of a broader data policy.[6]

In **New Zealand**, for example, the Government Chief Data Steward works across government and is responsible for the development of policy, infrastructure, strategy and planning building capacity on the use of data across government (OECD, 2018c). **France** was the first European country to nominate a Chief Data Officer in 2014 (*administrateur général des données*) in charge of co-ordinating whole-of-government actions to facilitate the production, sharing and reuse of data by public sector organisations.[7]

During the workshop organised in July 2018, stakeholders expressed the need for formalising a leadership position in charge of moving forward a data policy for the government. Nevertheless, the challenge in Argentina is to decide which leadership model best fits the culture of its public administration (e.g. one-person leadership, data committee) and leveraging the opportunities created by the relocation of the then MoM, now the SGM, within the Chief of Cabinet Office.

Improving data stewardship and skill development

Choosing and enabling the right supportive institutional context across the public sector will be paramount for Argentina to move forward any broader data efforts. This means setting up the right networks across public sector organisations able to translate policy goals into real-world action at the organisational level.

While the DPDI has made progress identifying contact points across public sector organisations in the context of open data efforts, evidence suggests the need to scale up this network from a purely technical and operational perspective to include a more comprehensive strategic vision and roles. This is particularly true in light of the approach taken by the DPDI, which focused on better managing the data value chain to ensure the quality of government data from the source, therefore facilitating data reuse within and outside the public sector.

Argentina, as many OECD countries, lacks an explicit formal requirement to appoint institutional chief data officers for central/federal line ministries and agencies.[8] Indeed, across OECD countries, most efforts in this regard have been put in place in the context of

open data policies, and have mainly focused on complying with data publication regulations, therefore creating networks composed of data administrators instead of data strategists and/or stewards (OECD, 2018e).

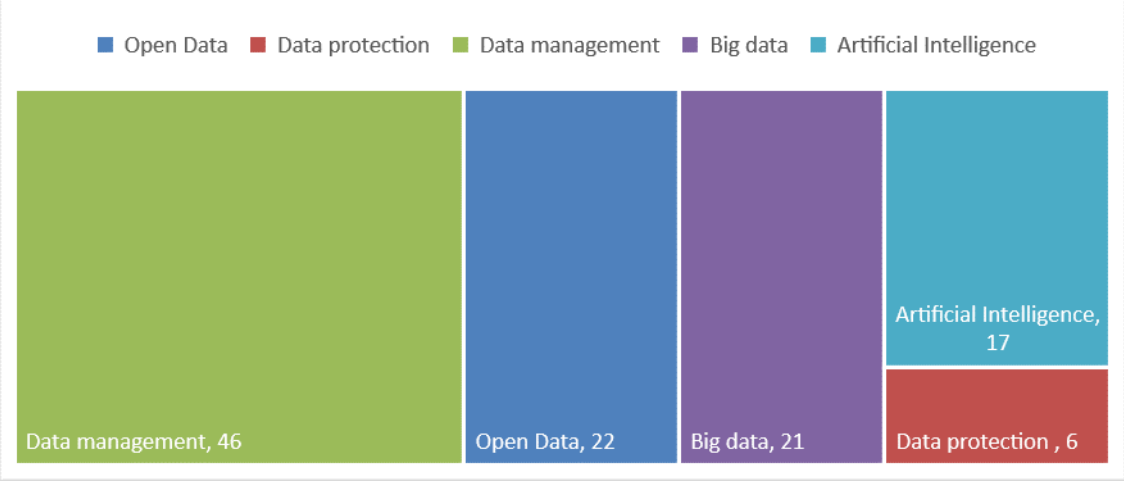
For instance, in the **United States**, the recently approved 2018 Foundations for Evidence-Based Policymaking Act[9] (signed into law by President Trump on 14 January 2019) directs the head of each agency to "designate a non-political appointee employee in the agency as the Chief Data Officer of the agency." The latter is part of the provisions of the Open, Public, Electronic, and Necessary Government Data Act (OPEN Government Data Act), which is one component of the Evidence-Based Policymaking Act.

A permanent network of institutional chief data officers/data stewards can play an important role in contributing to efficient public sector data governance models,facilitate horizontal collaboration and secure sustainable results in the long-term (OECD, 2018e). In this regard, Argentina may benefit by the formalisation of these networks, all the while ensuring they respond to strategic data governance matters instead of mere technical data-related issues. Still, co-ordination and collaboration would be needed at all levels, from strategic to operational layers.

While choosing and enabling the right institutional setup for data governance is key, it may not be sufficient to unleash the full potential of data to transform the policy-making process. Developing and ensuring that data skills are available and widespread across public organisations is also a challenging task, especially if investments in data infrastructure are to be judged in the context of a broader digital transformation strategy.

As mentioned in Chapter 4, Argentina would benefit from further clarifying competency and skill frameworks for the public sector, including data profession descriptions, and from building a basic level of understanding among public sector organisations in relation to digital technologies and data. Evidence suggests that between 2016 and 2018, Argentina invested heavily in raising awareness and building data-related skills within the public sector (Figure 6.2), with National Institute of Public Administration (Instituto Nacional de la Administración Pública, INAP) and the SGM (through different bodies) the lead public sector organisations in this regard.

Figure 6.2. Data-related capacity-building activities: Number of activities organised between 2016 and 2018



Source: Based on data and evidence provided by the Argentinian government.

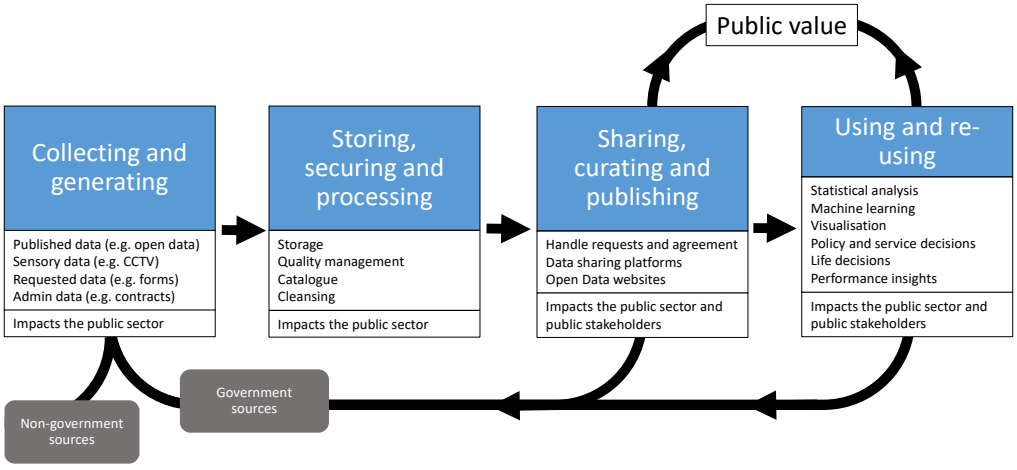
For instance, the INAP curricula includes face-to-face and online training sessions on data management and visualisation, open data, and artificial intelligence.[10]

Indeed, sustaining INAP's capacity-building exercises will play a key role to building those capacities needed to democratise the value of data for non-experts through data visualisations, and exploiting data for the generation of digital and data-driven services (e.g. predictive services) in the medium term.

Within the DNPI, the Direction of Analytical Services (Dirección De Servicios Analíticos) promotes and assists public sector organisations in the development of evidence-based public policies and services through the use of data science and behavioural economics methodologies, tools and techniques. For this purpose, the direction contributes to the generation of the necessary capacities among public sector organisations for the use of techniques and tools for data and information analysis[11] (OECD, 2018c).

These capacity-building exercises target stages of the data value chain *de facto* (e.g. data and information management, data protection and privacy, open data, and data analytics; Figure 6.3) and show the willingness of the Argentinian government to address deficits within the public sector related to data competencies in the long term.

Figure 6.3. Government data value chain/cycle



Source: Van Ooijen, C., B. Ubaldi and B. Welby (2019), "A data-driven public sector: Enabling the strategic use of data for productive, inclusive and trustworthy governance", OECD Working Papers on Public Governance, No. 33, OECD Publishing, Paris, https://doi.org/10.1787/09ab162c-en.

Hard and soft regulatory instruments

Argentina has developed different hard and soft regulatory instruments related to data management, sharing, interoperability, protection and openness (see Annex A), mainly since the current administration took power in 2015. Among those, the following instruments are worth mentioning:

- **2000 Data Protection Law** (*Protección de los Datos Personales*, Law 25,326)[12] (see Section 6.3).
- **2016 Decree on Register Simplification** (*Simplificación Registral*, Decree 1273/2016):[13] Establishing the responsibility of public sector organisations to enable and facilitate the exchange of information with other public sector

organisations. The then MoM had the responsibility for issuing any additional and secondary instruments to enable information and data interoperability (see Section 6.4).

- **2016 Freedom of Information Law (***Derecho de Acceso a la Información Pública*, Law 27,275). Besides establishing the usual freedom of information provisions, the law included a wide range of proactive transparency obligations, and the need to provide data in open formats when applicable.
- **2016 Decree on Data Opening Plans** (*Plan de Apertura de Datos*, Decree 117/2016). This decree established the normative underpinnings of the open data policy at the national level, mandating the publication of key datasets and setting the responsibility for public sector organisations to develop their open data plans within a 90-day period. The decree is also relevant as it connected open data efforts to broader anti-corruption efforts in the public sector (Box 6.3).
- **Resolution 19/2018**, which approved the implementation of the Data Interoperability Platform[14] (INTEROPER.AR) (see Section 6.4).

Box 6.3. 2016 Decree on Data Opening Plans

In January 2016, days after inauguration, President Mauricio Macri passed Decree 117/2016 mandating the immediate publication of key datasets and setting an ambitious timeline for ministries to develop their own institutional open data plans, in accordance with the policy and technical framework developed by the Chief of Cabinet Office and the then Ministry of Modernisation (MoM).

The decree is framed within a broader open data initiative at the central level which involved the then MoM, the Chief of Cabinet, and key partners such as the Anticorruption Office and the Ministry of Finance.

The decree acts as a mechanism to foster the development of institutional open data plans and the Argentinian central open data portal, and defines categories of public sector information to be prioritised by the central government for publication as open data to fight corruption in the country, including:

- the structure of the executive branch
- the salaries and asset disclosure of senior-level authorities of the executive branch
- the salaries of all civil servants and public sector employees
- the salary scales applicable to different public employment regimes
- budgetary credits
- all procurement procedures included in the Electronic Public Procurement System
- access to information requests
- all lobbying meetings held by members of the executive branch.

Source: OECD (2017a), "Compendium of good practices on the use of open data for anti-corruption: Towards data-driven public sector integrity and civic auditing", www.oecd.org/corruption/g20-oecd-compendium-open-data-anti-corruption.htm.

Additional soft instruments include:

- Guidelines for the Identification and Use of Inter-operable [data] Entities (*Guía para la identificación y uso de entidades interoperables*)[15] (see Section 6.4).
- guidelines for the publication of government data in open formats[16]
- guidelines for the publication of metadata.[17]

Data protection: Balancing openness by default and privacy needs

A second challenge faced by Argentina relates to the maturity or the need for sustaining efforts to update data protection frameworks in the country. Indeed, privacy and data protection emerged as recurrent issues during the workshops organised by the OECD in July and December 2018.

As from September 2017, the Access to Public Information Agency, an autarchic and autonomous entity created by law in 2016, has also become the Argentinian Data Protection Authority (DPA) (Decrees No. 746/2017 and No. 899/2017). The DPA gained autonomy as a result of this legislative change – a key element for the protection of personal data according to international standards.

Under the new regulation, the Access to Public Information Agency's Director is appointed by the President and she/he can be dismissed by the President only with the approval of the National Congress and only in case of poor performance of his/her duties. This procedure contrasts to the previous one in which the designation/removal process was a one-person decision taken by the Minister of Justice and Human Rights. Under the new regulation, the agency was also granted its own annual budget.

The agency is also moving forward in terms of better mapping and controlling personal data registries across the public sector and updating the National Direction of Personal Data Protection's (Dirección Nacional de Protección de Datos Personales) Register of Databases.[18] Additionally, on 25 February 2019, Argentina ratified the Council of Europe's Convention for the protection of individuals with regard to Automatic Processing of Personal Data ("Treaty 108") [19] and its additional Protocol. Treaty 108 is the only existing legally binding international treaty with global relevance in this field. Treaty108 entered into force in Argentina on 1 June 2019.

Also, Argentina adhered to the 2017 Personal Data Protection Standards developed in the context of the Data Protection Ibero-American Network (Red Iberoamericana de Protección de Datos). These standards, which stand more as a set of common principles, incorporate cross-border data flows and data portability,[20] hence the need of reflecting these principles in national law. For instance, in **Norway**, the Norwegian 2000 Act on Personal Data (Personopplysningsloven) clearly defines citizens' right to be informed of any requests submitted to access their personal information and data held by government authorities, and includes specific legal provisions to regulate cross-border personal data transfers (OECD, 2017b).

Despite the above-mentioned achievements, there are still some other areas of opportunity to exploit. For instance, the 2000 Data Protection Law seems to be outdated, particularly compared with the provisions of more advanced supranational instruments such as the European Union General Data Protection Regulation (GDPR)[21] (e.g. including citizens' rights related to automated data processing, specific regulations regarding the processing of children's data, the obligation to have a data protection officer for certain types of data

processing, among other differences). Efforts to update the Data Protection Law are already underway under the leadership of the Access to Information Agency and its National Direction of Personal Data Protection.[22]

On 19 September 2018, the executive sent a proposed bill to modify the current data protection law to the Congress. The draft bill is intended to provide a high level of protection of personal data, adapting to the new international standards on the matter and, at the same time, bring new possibilities of innovation and investment to Argentina.

In addition, evidence from the workshops suggests that, beside the need of updating data protection legislation, secondary regulation and further guidance may also be required to ensure an adequate level of understanding and coherent implementation. For instance, stakeholders expressed the following concerns:

- a lack of clarity in terms of the limits of what data can be made available for public access
- the need for developing clear protocols to share public information and data either inside or outside the public sector
- the need for a clear governance for sensitive data (with the right controls in place)
- the need for additional support tools for data anonymisation.

As observed in some OECD countries (Box 6.4), the role of the Access to Information Agency, and its close collaboration with the SGM and its relevant sub-bodies, will be crucial to ensure that data protection is properly balanced with data-sharing and data openness practices in the public sector.

Box 6.4. Initiatives in EU countries to implement the General Data Protection Regulation in practice

The EU General Data Protection Regulation (GDPR) aims to reconcile citizens' ownership and control over their data that organisations hold. It offers a series of requirements to ensure that organisations stand as data custodians of personal data, with the right to collect, store, manage and use the data, while ownership of that data remains in the hands of citizens.

In most EU countries, the GDPR has been transposed into national legislation to ensure legal rights are granted to citizens to safeguard the ownership of their data. Data privacy laws have been updated to allow citizens to restrict the use of their data, to request erasure of their data or to know which organisations hold data concerning them.

Following some obligations of the GDPR, some public sector organisations have implemented specific initiatives to ensure its requirements are applied in practice.

In **France**, the National Commission on Informatics and Liberty established data protection impact assessment software designed to enable data controllers to assess if they are indeed complying with all of the requirements of the GDPR. Public sector organisations using it are able to assess if different data processing is in line with citizens' rights and to design customised assessments in line with different activities.

In the **United Kingdom**, the Information Commissioner's Office issued a series of guidelines for public sector organisations regarding data protection impact assessments.

The guidelines include checklists which public sector organisations are required to obey when carrying out a data protection impact assessment.

In addition, some EU countries have developed other guidelines to help public sector organisations comply with all of the elements of the GDPR.

Spain has established a data anonymisation guideline for public sector organisations to safeguard citizens' personal information. The guidelines offer a series of principles, actions and other elements to consider in order to guarantee the quality of the anonymisation process of personal data.

Norway has followed a similar approach, offering guidelines to help public sector organisations anonymise personal data they have collected in a robust and secure manner. The Norwegian Data Protection Authority offers guidelines for public sector organisations to comply with the requirements of the GDPR. This guide helps public sector organisations to consider matters of data protection regarding software that process data. It offers a series of recommendations and measures that are to be considered for each of the key activities in the process of developing software, such as recommendations regarding the type of training public sector organisations should offer or on the coding of the software.

Sources: Based on research and text from different sources, including CNIL (2018), "The open source PIA software helps to carry out data protection impact assessment", https://www.cnil.fr/en/open-source-pia-software-helps-carry-out-data-protection-impact-assesment; Information Commissioner's Office (n.d.), "Data protection impact assessments", https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/accountability-and-governance/data-protection-impact-assessments; Norwegian Data Protection Authority (2017a), "A guide to the anonymisation of personal data", https://www.datatilsynet.no/en/regulations-and-tools/guidelines/anonymisation; Norwegian Data Protection Authority (2017b), "Software development with data protection by design and by default", https://www.datatilsynet.no/en/regulations-and-tools/guidelines/data-protection-by-design-and-by-default; Spanish Data Protection Agency (2016), "Orientaciones y garantías en los procedimientos de anonimización de datos personales", https://www.aepd.es/media/guias/guia-orientaciones-procedimientos-anonimizacion.pdf.

Data federation: Enabling greater data sharing and interoperability

The challenges that governments can face when aiming to put data policy principles, standards and guidelines into practice are vast. Historically, formal data management is often understood and tends to be a localised function (Ladley, 2012) under the responsibility of technicians and information and/or data managers. This context created legacy challenges in terms of breaking down data silos, enabling greater data interoperability, retrofitting data infrastructures, creating shared data registers, and supporting seamless and real-time data sharing.

Like many OECD countries, Argentina is not exempt of the negative impact this context has on digitalisation efforts (e.g. data interoperability and real-time data sharing can support better public service delivery; see Chapter 4). Unsurprisingly, data sharing and interoperability emerged as one of the most voiced concerns raised by stakeholders during the workshops organised in July 2018. Yet, Argentina also faced legacy challenges in terms of data integrity (e.g. in relation to official statistics) and the availability of information critical for a well-functioning public sector (e.g. data on public sector employment).[23]

The mix of these factors placed the production of good-quality government data and data sharing and interoperability at the core of the activities of the Argentinian government. While the 2016 Decree on Register Simplification (see Section 6.2.3) set the regulatory

basis for greater data exchange and interoperability among public sector organisations, two whole-of-government initiatives stand out in this area.

First is the DPDI's vision to enable Data as a Service (DaaS) (Box 6.5), which is forward looking among Latin American countries, and aims to follow a quality-from-the-source principle in relation to the production of government data. The DPDI's DaaS approach (inclusive of open data) was designed to ensure that government data can be produced as good quality and interoperable data by design prior to their publication and sharing (OECD, 2018b).

Box 6.5. Moving from open by default to open by design: The Data as a Service approach

The National Direction of Public Data and Public Information (DPDI) was created in early 2016 to ensure the implementation of Presidential Decree 117/2016, which established the normative and policy underpinnings for an open data by default approach to public sector information. After setting up the basic technological and operational infrastructure for open data, by mid-2017 it was clear that the easy mile of the open data implementation efforts was well on track. Yet additional efforts had to be made in order to secure the DPDI's vision towards an open by design data infrastructure, focused on users' needs and geared towards data reuse scenarios.

The so-called Data as a Service (DaaS) approach emerged as a complementary effort to bulk data releases, facilitating data publishing and data consumption through the development of a suite of APIs (web services) based on 100% open data, designed in the open, and to be easily deployed by third-party organisations.

Tailored for more skilled users, the approach targets a number of specific use-case scenarios:

- data publishers that want to benefit from a simple, yet more powerful and user-driven approach to data publication and data reuse
- data owners that want to sanitise, normalise, extend or increase the quality at entry of their data assets
- data analysts that use spreadsheets, statistical software and data processing packages to programmatically update data in their work environments
- developers creating either desktop, web or mobile applications that seek to integrate programmatic service requests into their product development cycle.

The DPDI team prioritised the development of two independent APIs, focused on temporal and spatial data respectively (the Time-Series API and the GeoRef API; see Box 6.7), with the vision to extend the approach to budget, people and organisational data in the near future.

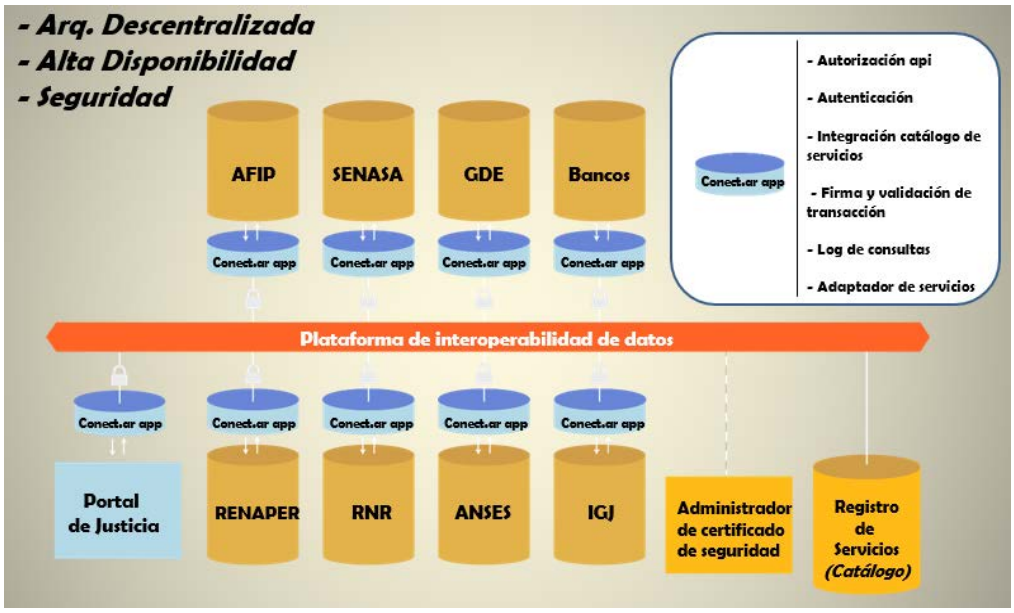
Source: Information provided by the Argentinian government.

Second, the efforts to develop a Data Interoperability Platform for the public sector (see Figure 6.4) as a supportive layer of the Electronic Document Management Platform (*Plataforma de Gestión Documental Electrónica*, GDE; see Chapter 5). The platform, known as INTEROPER.AR, follows the example of Estonia's X-road federated data-sharing model[24] and aims to:

- Inter-connect and enable data sharing between existing data registers such as the National Population Register (RENAPER), the National Recidivism Register (Registro Nacional de Reincidencia), the Social Security Register (ANSES) and data from the General Inspector of Justice (Inspección General de Justicia). Indeed, improving the interaction and interoperability between RENAPER and other data registers was raised as an area of opportunity by stakeholders during the workshops organised in July 2018.

- Facilitate the development of integrated services, and automated data sharing through APIs.

Figure 6.4. Argentina: Data interoperability platform (conceptual model)



Source: Information provided by the Argentinian government, March 2018.

Using the GDE's Data Interoperability Platform, the SGM and the Ministry of Justice developed a specific tool to improve the access to and sharing of personal data in the context of judicial investigation. The tool, known as Smart Judicial Investigation (*Investigación Judicial Inteligente*) allows registered users (e.g. tribunals, prosecutors, courtrooms) to request data from and between those public bodies and data registers connected to INTEROPER.AR. Once registered users submit and sign a data access request through the Remote Formalities Platform (*Trámites a Distancia*, TAD), the system performs a query across inter-connected data registers and systems, and provides the information and data automatically.

However, in line with the analysis presented in the *OECD Integrity Review of Argentina*, opportunities exist to sustain, scale up and use INTEROPER.AR as the underlying data-sharing platform to develop and connect specific public sector data registers and catalogues (e.g. Tax, Cadastral, Anti-corruption Office, Employment, Treasury Attorney General's Office, Financial Intelligence Unit) to support public sector integrity efforts.

Another focalised example includes the National Tax and Social Identification System (SINTyS), which acts as a large clearinghouse for the controlled exchange of personal data across government agencies and jurisdictional levels (Box 6.6).

Box 6.6. The National Tax and Social Identification System

Since its creation in 1998 by the Chief of Cabinet Office and later consolidation by the National Council on the Coordination of Social Policies, the National Tax and Social Identification System (SINTyS) has been acting as a large clearinghouse for the controlled exchange of personal data across government agencies at all jurisdictional levels. Its main function is to achieve the univocal identification of people, through the co-ordination of the exchange of the numerous databases that exist at the national, provincial and municipal levels.

Working within the existing personal data protection policy frameworks, SINTyS allows for both massive data exchanges and single data requests, provided agreements have been signed between participating agencies.

SINTyS' goal is not to generate or provide complete databases, but to sanitise data and enrich attributes of an otherwise fragmented, disjointed, and inconsistent social and fiscal information framework. As such, the SINTyS model assembles themes that group the shared information, allowing cross checks to be simplified, and providing a quicker and simpler answer to the organism, with a homogeneous and protocolised structure.

With more than 400 public entities on board by 2018, SINTyS has managed to establish itself as the tool of choice to validate and incorporate social identification numbers into government databases; perform survival controls; establish controls of incompatibilities and pluri-coverage of social and health insurance programmes, pensions and retirement; and verify the eligibility of beneficiaries for social programmes, among other salient features.

In this way, SINTyS has contributed to achieving an effective and efficient targeting for the implementation and monitoring of social benefits, improving the implementation of social programmes throughout the whole policy cycle.

Source: Information provided by the Argentinian government.

Both the DaaS approach and the development the Data Interoperability Platform (INTEROPER.AR) respond to the need of improving and bringing order in the data management and sharing practices within the public sector. Thus, the need of focusing first on technical matters that could be later scaled up to enable better service delivery and public value co-creation[25] (OECD, 2018b).

The *Guide for the Identification and Use of Inter-operable [data] Entities* also stands as an interesting example on the efforts implemented by the DPDI to move towards greater data interoperability in and exchange with the public sector. The guide is an ongoing effort to ensure both public and private sector organisations can follow simple methods to generate, share and/or consume good-quality government data, therefore putting the DaaS vision in practice.

The guide provides guidance on how to produce simple identifiers for data that are produced by different public sector organisations, but that at the same time are regularly shared among them (e.g. country > country_id). Consistent and increasing efforts have been underway since 2017 to make sure this core-reference framework for government data is available through APIs (OECD, 2018b) (Box 6.7).

Box 6.7. The GeoRef and Time-Series APIs

The Time-Series API

Launched in December 2017, the Time Series API allows public sector organisations to easily publish and document their time-stamped data, while providing a one-stop shop for users seeking a wide range of statistical and non-statistical indicators.

By March 2019, the service had compiled more than 20 000 series from multiple sources (including the National Statistics Office [INDEC], the central bank, ANSES and other data-intensive organisations), covering a wide range of topics, from financial indicators to energy consumption, or social security statistics. It had reached more than 25 000 unique users and 5 million queries; including 400 frequent users that perform an average of 15 000 queries per day.

In 2018, the DNPI conducted a series of in-depth interviews with API users to evaluate its impact and understand users' needs. During the interviews, users identified the following from using APIs:

- Better data access and reuse. Users found it easier to find, access and reuse time series when data were provided by a single data engine that lists thousands of data, including their metadata, together with a unified and well-documented set of API methods.
- Improved data cleansing. All the interviewed users agreed that typical data transformation and data cleansing tasks were drastically simplified, reducing costs and wasted time in their respective use-case scenarios.
- Automated data consumption. Users also agreed that the costs of acquiring and updating data from recurring queries to replicate reports is one of the API's greatest benefits.

Most of the interviewees emphasised that the API allows them to increase the time they spent analysing the data instead of searching for it, downloading it and cleaning it.

An API for location services (GeoRef API)

Another example of the DaaS strategy is the so-called GeoRef API (API del Servicio de Normalización de Datos Geográficos de Argentina), a data service that compiles and delivers official names and identifiers for official territorial units, street-level addresses and a broad range of geographical entities produced by key public sector organisations, such as the INDEC, the National Geographic Institute and the National Register of Popular Settlements, among others.

Launched in the second semester of 2018, the service had an immediate take up among application developers, both within and outside the public sector, either seeking to build standard web forms based on official names and identifiers, perform address normalisation, or embed georeferencing capabilities into their products. Despite the existence of georeferencing services such as Google Maps API or Here, users find it valuable to access an official, public and free API, a particularly relevant issue for public sector organisations dealing with budget limitations and severe bureaucratic restrictions.

By March 2019, the service had reached more than 300 000 unique users making almost 2 million queries, making for tens of millions of data normalisation operations.

Source: Information provided by the Argentinian government.

The *Guide for the Identification and Use of Inter-operable [data] Entities* mirrors similar efforts taken in OECD countries to move towards greater data interoperability and integration. For instance, in **France**, the passage of the 2016 General Reference Framework for Interoperability (Référentiel Général d'Interopérabilité; Box 6.8) demonstrated a government-wide, strategic approach to the interoperability of data and systems, thereby creating a solid foundation for the exchange of data within the country.

Box 6.8. France: General Reference Framework for Interoperability

In France, the General Reference Framework for Interoperability offers a series of recommendations to promote interoperability across information systems within the public sector.

Following the rationale of the European Interoperability Framework, the French framework focuses on different levels of interoperability, setting standards for each level that are to be implemented by public sector organisations. Standards are therefore established for technical, semantic or syntactic interoperability to guarantee that public sector organisations, their dispositions and systems are as interoperable as possible:

- The semantic interoperability refers to the meaning of different words, which often varies among public sector organisations. This interoperability aims to streamline the definition of words across public sector organisations to ensure there is agreement regarding the meaning of data that are exchanged and on the context of the exchange.
- The technical interoperability refers to data formats and data exchange protocols as well as the conditions and formats of storage of these data. This interoperability ensures that data can be properly exchanged among public sector organisations and in the right format.
- The syntactic interoperability stands as a subset of the technical interoperability as it focuses on the technical format data should have in order to be properly exchanged among public sector organisations.

Source: Direction Interministérielle du Numérique et du Système d'Information et de Communication de l'État (2015), *Référentiel Général d'Interopérabilité: Standardiser, s'aligner et se focaliser pour échanger efficacement*, http://references.modernisation.gouv.fr/sites/default/files/Referentiel_General_Interoperabilite_V2.pdf.

Nevertheless, some challenges will remain in terms of moving forward data interoperability and sharing efforts across the public sector:

- Promoting and enforcing wider adoption of technical data standards in public sector organisations, particularly those that might be mission-critical for greater data interoperability within the public sector. Stakeholders also raised this challenge during the workshops organised by the OECD in July 2018, which may signal a window of opportunity for a more aggressive regulatory framework.
- The scalability and transferability of data interoperability platforms will be key to avoid the proliferation of pragmatic, isolated practices in the medium and long term. The Data Interoperability Platform is an ambitious project for it aims to adapt Estonia's X-road experience to the Argentinian context (Estonia's experience is singular as the country was born digital). Hence, it will be important to ensure that

the system and its principles are replicable and scalable in terms of its adoption (Box 6.9). This follows the principle of enabling the government as a platform and a provider of solutions which are replicable, scalable and transferable.

Box 6.9. The US Data Federation Project

The US Data Federation Project aims to bring greater coherence to data federation practices in the US public sector in order to better support policy decisions, increase operational efficiencies, enable the diffusion of shared processes and infrastructures, foster an integrated government, and combat silos.

The proliferation of the different data federated models using different tools, processes and infrastructure could therefore be prevented and gradually replaced with a single and scalable data federation model developed by the central government. This would follow a "Government as a Platform" approach, thus the overall goal is to build a shared tool for data federation that could be adopted across the public sector.

The project will draw upon the collection of best practices regarding efforts to collect, combine and exchange data from disparate sources and across different public sector organisations and levels of government. In addition, it aims to establish data standards, offer guidelines and deliver reusable tools such as for automated aggregation in order to foster knowledge sharing across public sector organisations and effective reuse of government data coming from different sources.

Source: Lindpainter, J. (2019), "The US Data Federation wants to make it easier to collect, combine, and exchange data across government", https://18f.gsa.gov/2019/03/05/the-us-data-federation.

- The mapping, classification and discoverability of already available data is also a challenging step that comes before interoperability. The work being implemented by the Access to Information Agency to update the National Direction of Personal Data Protection's Register of Databases is an example in this regard (see Section 6.3). These exercises might need to be replicated across other policy areas, particularly if the Argentinian government aims to better control and keep track of its data assets. This effort would be in line with the National Offcie of Information Technologies's (Oficina Nacional de Tecnologías de la Información, ONTI) Six Action Pillars as per its strategy for 2018-19 (Box 6.10).

Box 6.10. ONTI's 2018-19 Strategy: Data classification

In order to fulfil its mandate to foster the modernisation of the state through the diffusion and use of digital technologies, the ONTI defined a two-year strategy that established six pillars of action:

1. the Technological Decalogue (*Decálogo Tecnológico*)
2. data classification
3. cloud use in government
4. ICT policies for the national public administration
5. guidelines in innovation technologies

6. communities.

The "data classification" strategic action aims to build a government-as-a-whole approach and policy on the classification of information in the government. It will require public sector organisations to classify the data that they generate, use and eliminate in specific categories in order to then facilitate other data management processes, such as storage, distribution or archiving.

The sound and efficient classification of data across all public sector organisations is an important step to promote a data-driven public sector, as it enables a clear and discoverable overview of all available government data, allows for a standardisation of data, and promotes both sharing and reuse of government data across the public sector.

In this regard, the data classification strategic action builds on the objective to use data as an essential strategic asset within the government to promote the digital transformation of the public sector.

Source: Based on information provided by the Argentinian government.

- The use of cloud-based services for better data management and sharing, and, consequently, for the design and delivery of services. In this respect, the Argentinian government is clear in terms of the need to follow a "hybrid cloud" model approach (see Chapter 5), meaning balancing the benefits of using private cloud service providers with the opportunities of using the public-owned cloud, namely ARSAT's National Data Centre.[26] Increasing the use of cloud-based services is also part of ONTI's 2018-19 Strategy (see Box 6.10), and follows the current trend observed in different OECD countries in terms of scaling up efforts to use cloud technologies in the public sector.

For instance, in **Finland**, the Policy on Management and Location of Government Data (under development as of 2018) will integrate the use of cloud-based data hosting as a tool for better managing government data. The final policy is expected to be agreed upon and approved in the course of 2019[27] (OECD, 2018c).

Another relevant example is that of **Norway**'s Cloud Computing Strategy, which centred the procurement of cloud-based service on five premises, including data protection by default, which states the obligation of contractors to comply with data protection regulations (OECD, 2017b).

Opening up government data

Results from the OECD Open, Useful and Re-usable data (OURdata) Index for the Latin American region showed that, by 2015-16, open data was an area of opportunity that could be further developed by the Argentinian government (OECD, 2017c).Argentina scored below the OECD average at the time (Figure 6.5). The availability of high-level political support from President Macri's administration and the resulting activities carried out by the DPDI have aimed to reverse this trend. The preliminary results of the 2019 OECD OURdata Index[28] provide evidence of these efforts and Argentina's success in championing the open data policy in the country since 2015.

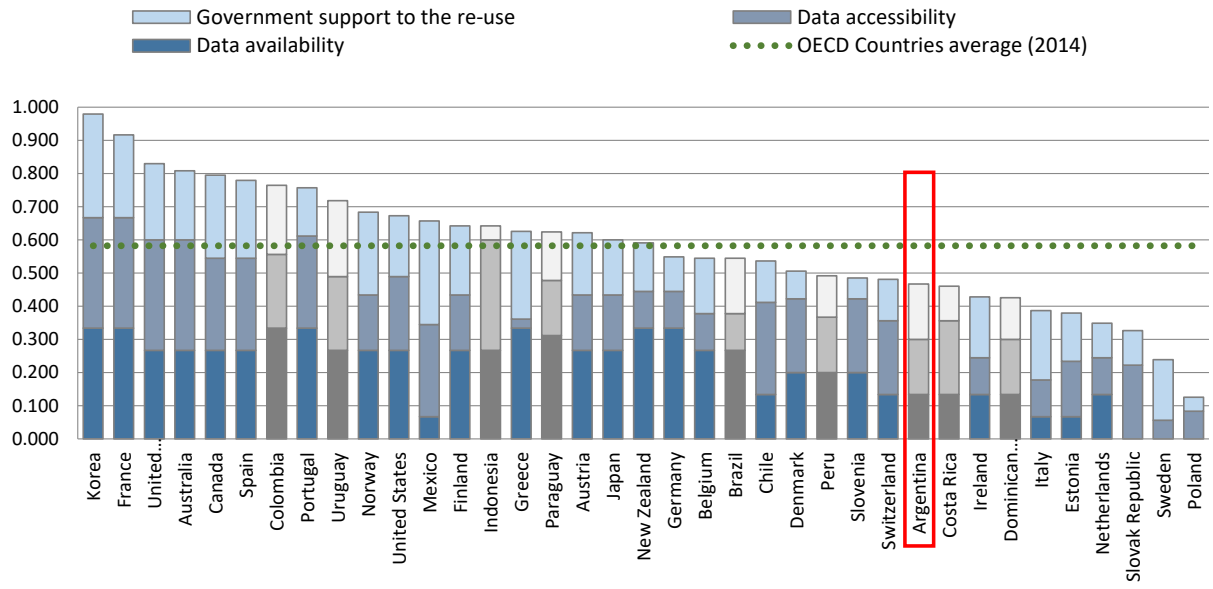
The production and eventual public availability of good-quality open government data is a priority for the current administration. The 2016 Decree on Data Opening Plans (see

Section 6.2.3) set the policy basis for the publication of OGD which was then put into practice under the leadership of the then MoM (now the SGM), through the DPDI.

While by 2016, and a result of the decree, efforts targeted the publication of specific datasets in line with anti-corruption efforts, by 2017, and as part of the DaaS vision, open data efforts had moved from a focus on data publication towards the goal of "cleaning house" (OECD, 2018b). As discussed in the previous sections, these efforts aimed to bring order to the state of government data across the public sector, thus making data control and governance (*idem*) a priority for the current administration.

Figure 6.5. 2014 OURdata Index: Open, Useful, Reusable Government Data

Including data for Latin America and Caribbean countries for 2015-16



Note: OECD countries: a) Data for Australia, Austria, Belgium, Canada, Chile, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Japan, Korea, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, the United Kingdom and the United States are for 2014. b) Data for the Czech Republic, Hungary, Iceland, Israel and Luxembourg are not available. c) Turkey does not have a one-stop shop open data portal. Partner countries: a) Data for Indonesia are for 2015. b) Data for Argentina, Brazil, Colombia, Costa Rica, the Dominican Republic, Paraguay, Peru and Uruguay are for 2016. c) El Salvador, Guatemala and Panama do not have a one-stop shop open data portal.
Source: OECD (2014a), OECD Open Government Data Survey 2.0.

Data availability and accessibility

Data quality is at the core of the DPDI's efforts. The DaaS approach, and the development of specific soft law instruments such as the open data and metadata guides aim to contribute to the production of good-quality government data from the source, thus increasing the accessibility and value of data for users.

In terms of data availability, evidence collected during the OECD mission to Buenos Aires in March 2018 shows that efforts have paid off, with an increasing quantity of good-quality government data being published on the central open data portal Datos.gob.ar.[29] This has been possible thanks to the DPDI's efforts to build an informal network of institutional contact points across public sector organisations (including the Ministries of Energy,

Justice, Transport, Agroindustry and Production) as means to increase their interest and willingness to collaborate (OECD, 2018b). This highlights the opportunities in terms of connecting open data efforts to the activities of specific line ministries.

For instance, the 2017 OECD "Compendium on the use of open data for anti-corruption", (OECD, 2017a) highlighted how, by 2016, the work of Argentina's Ministry of Justice and Human Rights to make civil servants' declarations of assets (*declaraciones juradas patrimoniales integrales*) publicly available could help to further build public sector integrity in the country. These efforts are in line with the Justice 2020 Strategy,[30] which among other objectives seeks to better use open and digital approaches to the judiciary system in the country. Others, like Finance and Production, have moved faster in implementing a DaaS approach, which resulted in the development of innovative data services such as the Time-Series API (see Box 6.7).

The lack of motivation to open up government data was one of the most voiced concerns by stakeholders during the workshop organised in July 2018, hence showing, again, how cultural legacy issues are often among the most difficult challenges to overcome in the context of digital government and open data policies. Stakeholders also expressed that data publication is not a priority for public sector organisations, which stresses the need to provide further incentives to public sector organisations to embark on the data openness journey.

While this provides a window of opportunity to explore the use of incentives towards the publication of open data in the central portal, it also raises questions in terms of what incentives might or might not work in the short or long term in the specific Argentinian public sector context.

Evidence from the OECD *Open Government Data Report* shows that only 10 out of 31 OECD member and partner countries provide specific incentives to public sector organisations to publish OGD. These incentives often focus on the provision of financial resources and awards (OECD, 2018e). Yet, as also discussed in the aforementioned report, while financial incentives can serve as effective motivation tools in the short term, they can also be detrimental in the long term, as they do not target a real cultural change. Hence, the need of further investing efforts to help public officials better understand the potential of open data in practice and in line with their respective policy area.

Building public sector communities of practice could enable knowledge and best practice sharing in the public sector, therefore contributing to increase the interest of public officials to join the public sector open data bandwagon. Nevertheless, this would also require ensuring the support from decision makers inside public sector organisations so that open data initiatives can also benefit from support from the leadership positions.

Open data discoverability and access

In practice, the central open data portal is used as a tool to control the quality of government data, thus following a federated model based on three premises (OECD, 2018b):

1. Through the DPDI, the SGM provides the supporting hard and soft infrastructure (e.g. IT infrastructure and guidelines) to help public sector organisations catalogue and publish their own datasets.
2. Public sector organisations are responsible for maintaining their own data catalogues either based on the "Portal Andino" tool (a CKAN tool developed by the DPDI)[31] or other mechanisms in order to comply with metadata standards.
3. Only those datasets that comply with the DDPI's data and metadata standards can then be federated for publication through the central open data portal.

This approach has been useful to bring public sector organisations on board and reduce the burden imposed on them in terms of data publication, but it also has led to fragmented data access due to the proliferation of open data portals[32] (OECD, 2018b).

The challenge at this stage is not to shut down these portals, but to address discoverability and accessibility issues by ensuring that these platforms are unified (for instance, through data-harvesting functionalities allowing the retrieval of data from different institutional open data portals to the central portal) (Box 6.11) and developed in line with centrally defined standards. This approach can also promote the central open data portal as a "portal for open data", meaning providing access to non-government open data.

Box 6.11. Data-harvesting functionalities across OECD countries

Data-harvesting functionalities are essential if governments wish to create a unified, yet federated, approach to the discoverability and accessibility of open data across the public sector. By harvesting data from different data sources, governments can enable central open data platforms as open data hubs drawing upon the value of machine-to-machine data sharing while adding some flexibility to those public sector organisations willing to maintain single open data portals for strategic purposes.

Examples from the OECD *Open Government Data Report* show how OECD countries are implementing data-harvesting practices:

- In Belgium, the federal open government data (OGD) portal indicates the different harvesting sources of the portal, which are mainly regional portals, the statistics office's portals and other federal portals.
- In Canada, the federal OGD portal harvests datasets from public sector organisations in the federal government. For example, the portal harvests data from both the National Resources Canada's Federal Geospatial Platform and the Natural Resources Canada's Geospatial Portal.
- In Slovenia, the central OGD portal harvests data from the Statistical Office of Slovenia, the Bank of Slovenia, the Slovenian INSPIRE geo-portal and the National Assembly of Slovenia. It is also in the process of harvesting datasets from other portals, such as the National Institute of Public Health portal, the Energy Portal and General Police Directorate portal.

- In Sweden, the central OGD portal harvests metadata from both central and regional public sector organisations. It also harvests metadata from municipalities and non-governmental organisations (e.g. academia, such as the Swedish University of Agricultural Sciences).
- In the United Kingdom, the central OGD portal indicates the different harvesting sources of the portal. In general, government data are harvested from public sector organisations from the central government level, its arm's-length bodies and local public sector organisations.

Source: Adapted from OECD (2018e), *Open Government Data Report: Enhancing Policy Maturity for Sustainable Impact*, https://dx.doi.org/10.1787/9789264305847-en.

User-driven approaches for data publication and reuse

In terms of data publication, OECD work on OGD has identified seven approaches that countries often follow in terms of data publication and that can define their maturity in terms of open data policies (for instance, a strong focus on data supply, early consultations, data as a platform; see Annex 6.C).

In this regard, evidence from the OECD missions to Argentina and the workshops organised in Buenos Aires in July and December 2018 shows that despite the efforts taken to produce and publish open government data, two key additional challenges remain to fully reap the benefits of open data for users.

On the one hand, there is a need to further promote a prioritisation of the publication of open data based on the needs of users. The need for running consultations engaging users in demand identification exercises was frequently voiced by stakeholders during the workshops organised in Buenos Aires.

Yet, while in an earlier stage these consultation exercises might fall under the responsibility of the open data leadership (in Argentina, the DPDI), public sector organisations such as line ministries might need to take a more active role in the medium term (if not before).

For instance, in the **United Kingdom**, the Cabinet Office released the Open Policy Making Toolkit, which provides a set of guidelines for public sector institutions regarding public consultations (OECD, 2018e). The value of the Open Policy Making Toolkit does not reside strictly on this guidance, but on its value as a cross-domain instrument. The toolkit brings together principles and tools touching on open government, digital government, data science, and public sector innovation, hence stressing how these policies and initiatives are mutually reinforcing.

When this rationale is applied to the Argentinian context, there are clear opportunities to draw upon the value of the work of the open government, public sector innovation and digital government teams to implement open-, demand- and user-driven approaches for the publication of OGD; for instance, by stressing how the Principles for Digital Services (see Chapter 5) can also guide the publication and reuse of data.

On the other hand, there is the challenge of increasing the reuse of data published on either datos.gob.ar or institutional open data portals. During the OECD mission to Buenos Aires in March 2018 and the workshop organised in July 2018, stakeholders expressed that data, while publicly available, was not used. While this scenario might be propelled by data discoverability and demand-driven publication issues (see above), this also implies a need

for taking action to promote the reuse of OGD, which would be key to reinforce the business case for open data in the long term.

The Argentinian government has implemented a number of initiatives in this regard. As mentioned in Section 6.4, in 2017 the DPDI started to shift from an open by default to an open by design/DaaS approach, a move that was materialised by the development of two experimental, large-scale data services: the Time-Series API and the GeoRef API.

In addition, the SGM partnered with other public sector organisations to host hackathons and data competitions geared towards the Fintech, Agrotech and HealthTech communities (Box 6.12) as an effort to support the adoption of open innovation and value co-creation methodologies in the public sector (OECD, 2018b). The value of that strategy is that of targeting data reuse efforts drawing upon the availability of those communities already available in the country.

Yet, sustaining and scaling up such efforts requires further identifying and mapping the data communities in Argentina to assess their needs, develop their digital and data skills, and increase data reuse (OECD, 2018e).

Box 6.12. Open innovation: The Agrotech Hackathon

Historically, the agricultural sector has been the engine of the Argentine economy. According to figures from the National Statistics Office (INDEC), this industry represents more than 2.7 million jobs and 40% of the country's total exports. In terms of gross domestic product (GDP), agricultural value chains add to more than 13% of total national GDP (1 out of 8 Argentinian pesos).

In this regard, and following the success of the 2016 edition, in 2017 Argentina's central administration organised a two-day, country-wide Agrotech Hackathon, bringing together participants from the private sector, academia and the public sector. The hackathon aimed to address key challenges faced by the agricultural sector in Argentina drawing upon the value of technology and data.

The hackathon was organised around four main axes:

1. the generation and promotion of good practices for a sustainable agricultural production
2. solving inefficiencies and logistical issues of the agro-industrial sector value chain
3. efficiency in the development and use of the agricultural sector's infrastructure
4. facilitating the establishment, development and management of aquaculture ventures.

A jury of experts from the public and private sectors selected the most outstanding projects developed during the two-day event. The winning solutions included:

- a video-based recognition system for intelligent fumigation propelled by machine learning
- wheat quality detection using artificial intelligence and image recognition
- intelligent irrigation of kiwi plantations according to the reading and data collected through digital tensiometers

- production of electrical energy from organic waste
- measurement of soil environmental variables through wireless nodes and upload of information to web and mobile format.

Source: Based on information provided by the Argentinian government.

Establishing partnerships and building communities of practice in collaboration with key partners such as journalists, universities, researchers and the private sector across the country will be a determining factor to ensure that open government data delivers widespread real value for all actors within the ecosystem (OECD, 2018e). Indeed, evidence from the 2018 OECD *Open Government Data Report* shows that some of these communities (journalists, academia) are not a priority in terms of reach, consultation, capacity building or engagement across OECD countries, which stresses the need to take further action in this regard (Box 6.13).

As stressed in the key findings of this review (OECD, 2018b), these consultation and user engagement exercises can help define a strategic data infrastructure for the country in the medium term.

Box 6.13. Engaging with data communities: Examples from OECD member and partner countries

Australia and New Zealand

In Australia and New Zealand, the Open Data Community Forum of the Cross-Jurisdictional Open Data Working Group of the Australian New Zealand Land Information Council (www.anzlic.gov.au/anzlic-council) is a good example of national and local open government data (OGD) initiatives that also works collaboratively across borders. One of the strategic focus areas of the group under the technology ecosystem is to establish affordable and scalable cloud-based solutions for the delivery of federated spatial data.

Colombia

The Colombian project "Emprende con datos" supports entrepreneurs that use OGD to solve public policy issues. The project offers support to entrepreneurs through mentoring and advice to develop sustainable business models and applications that will address public policy issues. The 2018 "Emprende con datos" event presented different projects of entrepreneurs that have reused OGD to address public policy issues related to health, education, agriculture, mobility, security, territorial planning and sustainable development.

Greece

In Greece, in 2016, the government signed an agreement with the Open Technologies Alliance to promote openness actions in the field of education. The purpose of the agreement is to promote the implementation of open digital technologies that can support the reuse of OGD in the field of education and research.

United States

In the United States, the government has established different partnerships with civil society organisations that work in the field of open data in order to organise roundtables, hackathons or conferences. Partnerships have, for example, been created with the Center

for Open Data Enterprise, the Sunlight Foundation or the Data Foundation, such as for the organisation of the White House Open Data Innovation Summit in 2016.

Source: OECD (2018e), *Open Government Data Report: Enhancing Policy Maturity for Sustainable Impact*, https://dx.doi.org/10.1787/9789264305847-en.

Notes

[1] For more information see: http://servicios.infoleg.gob.ar/infolegInternet/anexos/265000-269999/265949/norma.htm

2. For more information see: https://www.oas.org/juridico/pdfs/arg_ley25326.pdf.

3. For more information see: http://servicios.infoleg.gob.ar/infolegInternet/anexos/255000-259999/259082/norma.htm.

4. For more information see: https://datosgobar.github.io.

5. Question 83: Does the central/federal government currently have a single public sector data policy (i.e. a formal government document – plan, policy or strategy – providing strategic and/or planning directions [e.g. standards and guidelines] on the management and use of data [personal, confidential and/or open] in the public sector for policy making, service design and delivery, and/or organisational management)?

6. Question 86: Is there a single leading institution (ministry or agency) formally responsible for formulating the central/federal public sector data policy?; and Question 87: Does your country currently have a chief data officer in place for the central/federal government?

7. For more information see: https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000029463482&categorieLien=id.

8. Question 80: Does your country have an explicit formal requirement (i.e. written guidance provided in an official government document: laws, directives, regulations, guidelines, action plans, executive order, other) to assign institutional chief data officers for central/federal line ministries and agencies?

9. For more information see: https://www.congress.gov/bill/115th-congress/house-bill/4174.

10. For more information see: https://capacitacion.inap.gob.ar/cursos.

11. Question 47: Does your country have a strategy or policy to develop any of the following skills in the public service workforce and have training sessions been developed for these skills?

12. For more information see: http://servicios.infoleg.gob.ar/infolegInternet/anexos/60000-64999/64790/texact.htm.

13. For more information see: http://servicios.infoleg.gob.ar/infolegInternet/anexos/265000-269999/269242/norma.htm.

14 For more information see: http://servicios.infoleg.gob.ar/infolegInternet/verNorma.do?id=307439.

15. For more information see: https://datosgobar.github.io/paquete-apertura-datos/guia-interoperables.

16. For more information see: http://paquete-apertura-datos.readthedocs.io/es/stable/guia_abiertos.html.

17. For more information see: https://paquete-apertura-datos.readthedocs.io/es/stable/guia_metadatos.html.

18. For more information see: https://www.diariojudicial.com/public/documentos/000/083/091/000083091.pdf.

19 For more information see: https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/108

20. For more information see: www.jus.gob.ar/media/3234534/est_ndares_de_protecci_n_de_datos_para_los_estados_iberoamericanos__es_.pdf.

21. For more information see: https://eugdpr.org.

22. For more information see: https://www.argentina.gob.ar/aaip/planificacion2018.

23. In 2017, as a result of Decree 365/2017, the Argentinian central government launched the Integrated Public Employment Database (Base Integrada de Empleo Público, BIEP) as an effort to unify the source of employment information by improving the quality of public employment data for decision making. For more information see: https://www.argentina.gob.ar/modernizacion/empleopublico/biep/preguntasfrecuentes#1.

24. For more information see: https://e-estonia.com/solutions/interoperability-services/x-road.

25. See, for instance, Annex 2 of Resolution 19/2018 providing technical guidelines for the development and scalability of the INTEROPER.AR platform.

26. For more information see: https://www.arsat.com.ar/servicios.php?serv=centrode.

27. Question 57: Does the National Digital Government Strategy include actions foreseeing the use of cloud computing?

28 Results publicly available during the second quarter of 2019.

29. For more information see: https://datos.gob.ar.

30. For more information see: https://www.justicia2020.gob.ar.

31. For more information see: https://github.com/datosgobar/portal-andino#qu%C3%A9-contiene-el-paquete-de-andino.

32. See, for instance: http://datos.jus.gob.ar/dataset, http://datos.mincyt.gob.ar and https://datos.hcdn.gob.ar.

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Annex 6.A. Canada: A data strategy roadmap for the federal public service

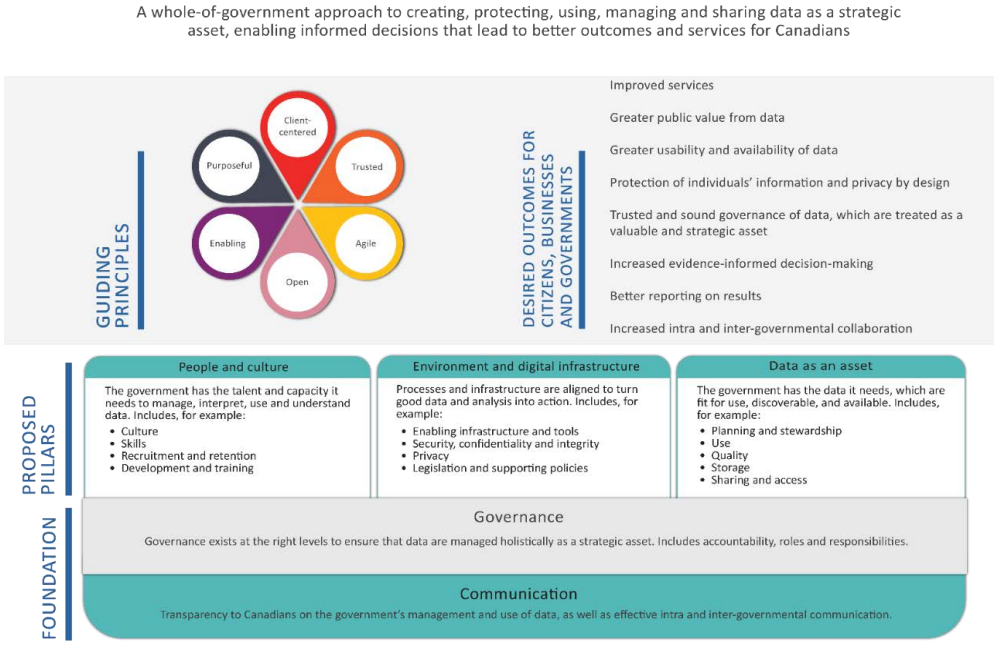
As the volume of data produced globally increases exponentially, governments around the world are trying to grasp what it means to responsibly manage data in such a way that it protects citizens while delivering services more effectively and stimulates economic growth.

Canada has taken this challenge as an opportunity: "This is an opportunity for Canada to position itself as a leading jurisdiction in the data sphere by setting forward-thinking, globally recognized standards that spur innovation and economic growth, and create positive social impact."

The strategy roadmap, which is framed in the context of the digital policy, aims high with longer term transformational goals, yet is grounded by proposing early, ambitious actions. Recommendations are classified into four areas: 1) governance; 2) people and culture; 3) environment and digital infrastructure; and 4) data as an asset. All recommendations are influenced by six guiding principles: client-centred, trusted, agile, open, enabling and purposeful.

The strategy roadmap takes into account a number of intersecting data initiatives that were already underway in Canada, which ensures that the roadmap is grounded in real, tangible results that are now being governed under one umbrella strategy.

Annex Figure 6.A.1. Data strategy framework for Canadian federal public service



Source: Based on Government of Canada (2018), *Report to the Clerk of the Privy Council: Data Strategy Roadmap for the Federal Public Service*, https://www.canada.ca/content/dam/pco-bcp/documents/clk/Data_Strategy_Roadmap_ENG.pdf.

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Annex 6.B. United States: Creating a data strategy and infrastructure for the future

The US government has been developing a Federal Data Strategy in order leverage data as a strategic asset for increasing government efficiency, the oversight of policies, levels of transparency and faster economic growth. The US Data Strategy focuses on four main areas:

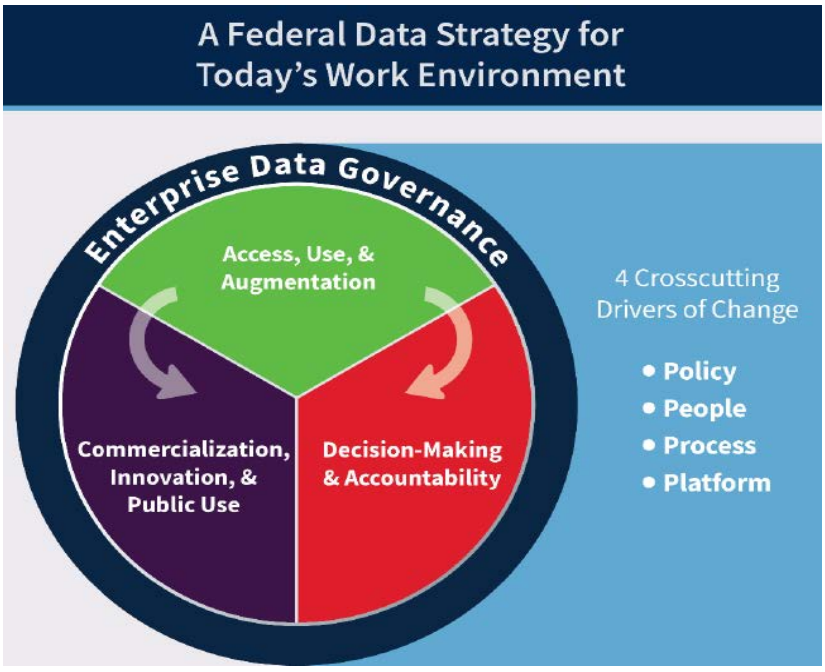
1. **Enterprise data governance:** Focusing on the management of government data, it establishes data policies and specifies the roles and responsibilities for public sector organisations regarding data privacy, security and confidentiality protection. Responsibilities and roles are also defined for monitoring compliance to data standards and policies in place.
2. **Access, use and augmentation:** This action focuses on the development of policies and procedures to ensure public sector organisations and external stakeholders can easily access and reuse government data. This will be achieved by improving data dissemination, increasing the amount of non-sensitive data available on line, and leveraging new technologies and best practices to promote access to sensitive or restricted data while protecting the rights of citizens.
3. **Decision making and accountability:** This aims to improve the use of data for decision-making and accountability purposes. It will focus on the provision of high-quality and timely data for evidence-based decision making or on providing specific datasets such as spending data to foster public sector accountability and transparency. The strategy will also aim to promote the use of data for policy monitoring and evaluation purposes to inform future policy decisions.
4. **Commercialisation, innovation and public use:** This final action will focus on facilitating the use of government data by external stakeholders, making the data more accessible and relevant for commercial purposes, innovation or other public uses. The strategy will foster the use of government data to promote economic, good governance and social value, targeting different groups such as private firms, researchers or citizens.

To ensure the development of a long-term and whole-of-government approach, the Federal Data Strategy pinpoints four different drivers of change that will focus on each of the four different strategies:

1. **Policy:** Laws, policies and procedures will have to be consistent, clear and harmonised.
2. **People:** Specific roles and responsibilities for data management at a whole-of-government level within each public sector organisation will have to be defined, investing in the data capabilities of public servants, and promoting a data management culture that focuses on reuse and stewardship.
3. **Process:** Define effective processes that are able to pinpoint priorities, enhance cross-governmental co-ordination and foster maturity over time for each strategy.

4. **Platform:** Create effective governance frameworks and enablers to facilitate the integration, sharing and use of government data.

Annex Figure 6.B.1. US Federal Data Strategy



Source: President's Management Council and the Executive Office of the President (2018), *President's Management Agenda*, https://www.whitehouse.gov/wp-content/uploads/2018/03/Presidents-Management-Agenda.pdf.

Reference

President's Management Council and the Executive Office of the President (2018), *President's Management Agenda*, President's Management Council and the Executive Office of the President, Washington, DC, https://www.whitehouse.gov/wp-content/uploads/2018/03/Presidents-Management-Agenda.pdf.

Annex 6.C. The OECD maturity model for open data policies

OECD work on open government data, established in 2013, has collected evidence and expertise on specific characteristics that determine the maturity level of open government data policies across OECD member and partner countries. The OECD is developing a seven-stage maturity level model to assess, in general terms, the state of development of an open data policy, including:

1. **The lowest-hanging fruit:** With a strong focus on the supply side, this level of development strictly centres on data publication as the main objective of the open data policy. The government releases those data that are easier to publish, often without a clear strategy behind this decision. Standards and guidelines for data publication and quality are, in most cases, absent. There is not full understanding of the concept of open data among public sector institutions (e.g. proprietary formats, PDFs). Extrinsic drivers motivate data publication (legal compliance, financial incentives).
2. **The transparency approach:** Focus on the supply of data. Data publication is reactive, passive and often opportunities are missed for it to be strategic. While some datasets are available on the portal, user action is needed to request data. Data request tools are often inefficient and build on freedom of information channels (public sector information access requests). There is a strong focus on the publication of aggregated databases in proprietary formats (e.g. the use of APIs [application programming interfaces] is not considered).
3. **Early consultation:** Governments and public sector organisations start showing signs of acknowledging the value of user engagement. Some initiatives to identify data demand are in place. Guidelines and standards are available, but further capacity-building exercises are needed to help public sector organisations understand open data. User engagement and feedback stress the relevance of good-quality data. Metadata emerges as a key element of open government data. There is early discussion on data governance tools (e.g. data catalogues).
4. **User engagement:** The focus shifts from consultation to collaboration. These exercises inform data publication. Initiatives such as hackathons are implemented, but sometimes without a clear purpose. Champions and data stewardship emerge in the public sector. Data request and feedback channels are available on the portal. Developing skills and creating capacities within the external ecosystem emerge as a key element of open data policies. Intrinsic motivation drives open data initiatives.
5. **Problem-solving approach:** In parallel to recognising the relevance of data demand, the government acknowledges the contribution of open government data to the broad policy agenda. The data supply takes a strategic approach. High-value data taxonomies are published on the portal in line with their contribution to the achievement of policy goals and the political agenda. User engagement exercises

centre on the problem to be addressed, not the data. There is a focus on the sustainability of these initiatives and of the open data policy as a whole. Discussion on the impact of open data policies emerges, as well as on the need to establish data causality. Attention to skills development moves from a focus on open government data to broader digital transformation skills development efforts inside the public sector (digital, innovation and data skills). Automated data exchange is in place. Multiple but inter-connected government data sources exist (e.g. data harvesting).

6. **Data as infrastructure (Data as a Platform, DaaP).** The government balances data supply and demand. Open government data is identified as a product of broader data governance efforts in the public sector and a result of the data value chain. Efforts are targeted, and open government data are further embedded in sectoral policies. High-quality and timely open government data are used as an asset for the development of services and products. Open government data emerges as a long-term commitment, not a short-term ad hoc activity.

7. **Government as a Platform (GaaP).** Multi-stakeholder engagement, value co-creation, online and physical collaboration spaces, and data communities are at the centre of this approach. The value of the portal is not only based on the data it provides (DaaP), but also on its value for the ecosystem. The government portal is a driver for data-driven digital innovation and knowledge sharing: The central open government data portal changes to a portal for open data and a community platform. Data are supplied by external users. The discussion is centred on data policies, not on open government data policies, with a clear connection to digital government and public sector digital transformation policies. Open data are clearly acknowledged as a means to reach this ends rather than being seen as an end in itself.

Source: Originally published in OECD (2018), *Open Government Data Report: Enhancing Policy Maturity for Sustainable Impact*, OECD Digital Government Studies, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264305847-en.

Annex A. Relevant laws, decrees and resolutions

- ***Presidential Decree 1172/2003* – 3 December 2003:**[1] "Access to Public Information" decree that aims to strengthen the relationship between the state and civil society by guaranteeing the right of access to public information. The decree also establishes a series of measures that promote stakeholder engagement in the development and revision of rules.
- ***Presidential Decree 512/2009* – 7 May 2009:**[2] Established a multi-sector working to help co-ordinate and promote Argentina's digital agendas and strategies.
- ***Resolution 538/2013* – 18 July 2013:**[3] Orders the development of a national public data portal to allow citizens to easily search and access open government data and provides important definitions and some guidance.
- ***Presidential Decree 13/2015* – 10 December 2015:**[4] Assigned the Ministry of Modernisation (MoM) with the responsibilities to design, co-ordinate and implement consolidated and improved government processes, technologies, infrastructure and systems; act as the enforcer of the digital signature regime; and intervene in the development of technological systems that cut across levels of government.
- ***Presidential Decree 151/2015* – 17 December 2015:**[5] Provides the Secretariat of Public Communication of the Office of the Cabinet of Ministers with the authority to "intervene in the formulation, execution and supervision of public communication policy" and instructs that the secretariat adopt actions that allow contact and personalised interactions with government, as well as to promote citizen participation through technology.
- ***Presidential Decree 13/2016* – 5 January 2016:**[6] Created, under the MoM, an Undersecretariat of Digital Government to: design, implement and monitor the government's digital platform; participate in the creation of guidelines and norms that promote uniformity and relevance to government websites; co-ordinate the development of digital services and online processes; and facilitate connections within government and with the public.
- ***Presidential Decree 434/2016* – 3 March 2016**:[7] "State Modernisation Plan". Provides a framework on modernisation of the government of Argentina and establishes digital government as a key component of the whole-of-government modernisation strategy. The decree places the then-MoM in the central co-ordination role for the framework.
- ***Presidential Decree 561/2016* – 6 April 2016**:[8] "System of Electronic Management of Documentation". Implementation of an Electronic Document Management Platform for integrated government-wide records and documents.

- ***Presidential Decree 725/2016* – 31 May 2016**:[9] Expanded the powers of the Secretariat of Public Communication to intervene in government actions to better connect the central government with citizens, and to promote the use of ICT tools to help identify common social problems and as tools of citizen participation.
- ***Presidential Decree 888/2016* – 22 July 2016:**[10] "System of Electronic Management of Human Resources". Implementation of a Human Resources Management System for an integral administration of human resources in the public administration.
- ***Presidential Decree 1336/2016* – 29 July 2016:**[11] Implementation of a System of Electronic Management of public works contracts, public works concession contracts and public service concessions (Contrat.ar).
- ***National Contracting Office Disposition 65/2016* – 27 September 2016:**[12] Approved the "Electronic Public Administration Procurement System" (Compr.ar).
- ***Law 27275* – 29 September 2016:**[13] Aims to guarantee the full exercise of the right to access to public information (open by default), foster citizen involvement and improve the transparency of public administration. The foundations of the law rely on the principles of publicity, transparency and maximum disclosure, maximum access, opening, dissociation, no discrimination, rapid response, free of charge access, control, responsibility, limited exemptions, easement and good faith.
- **Presidential Decree 1063/2016 – 4 October 2016:**[14] Implements a new module for the Electronic Document Management Platform to make it a means for citizens to interact with the government.
- ***Presidential Decree 117/2016* – 1 December 2016:**[15] Orders each ministry to create a "data opening plan", which must detail the data assets under its jurisdiction as well as the publication schedule applicable to them according to the MoM guidelines. Places responsibility for implementation and follow-up with the MoM.
- ***Presidential Decree 1265/2016* – 15 December 2016:**[16] Creates the Central Electronic Authentication Platform (Plataforma de Autenticación Electrónica Central) that provides a centralised information service regarding the accreditation in virtual environments of the identity of the users of computer systems through a network.
- ***Presidential Decree 1273/2016* – 20 December 2016:**[17] Establishes that public entities must exchange the public information that they produce, obtain or control with any other public body that requests it. The decree states that the then-MoM shall be authorised to issue the interchange protocols; interoperability guidelines; complementary, explanatory, technical and operative rules necessary for compliance with the provisions of the decree.
- ***Presidential Decree 1306/2016* – 26 December 2016:**[18] Implements a new module for the Electronic Document Management Platform for the management of public records (Registro Legajo Multipropósito).
- ***Presidential Decree 87/2017* – 2 February 2017:**[19] "Digital Platform for the National Public Sector". Orders that the MoM create a digital portal (Argentina.gob.ar) incorporating numerous tools, including Internet portals, mobile applications and text messaging (SMS) services. As part of this portal, orders the MoM to create "Mi Argentina" – integrated digital profiles and services for citizens

where they can access services, carry out and check the status of procedures, and access relevant information. The decree provides the MoM with the authority needed to ensure the requirements of the decree are met by all relevant government parties.

- ***MoM Resolution 333/2017* – 4 July 2017:**[20] Approved the web and mobile applications standards for the Digital Platform for the National Public Sector.
- ***MoM Resolution 435/2017*– 26 July 2017:** Created the National Appointment System as an integral part of the Digital Platform for the National Public Sector.
- ***Presidential Decree 577/2017* – 28 July 2017:**[21] Created, under the MoM, the Cyber Security Committee, with the aim of developing a comprehensive national strategy for cybsersecurity in co-ordination with the Ministries of Security and Defense.
- ***Resolution 13345-E/17* – 30 October 2017:**[22] This decree requires that all websites be hosted on the www.argentina.gob.ar website and prohibits all sites other than this portal.
- ***Presidential Decree 891/2017* – 1 November 2017:**[23] "Good Practices in Matters of Simplification" (*Buenas Prácticas en Materia de Simplificación*). It establishes a series of principles and tools to improve the rule-making process in Argentina and the management of the stock of regulation. The decree introduces tools on *ex ante* and *ex post* evaluation of regulation, stakeholder engagement and administrative simplification, among others.
- ***Presidential Decree 892/2017* – 1 November 2017:** Created a "Remote Digital Signature Platform".
- ***Presidential Decree 27/2018* – 1 January 2018**:[24] "Simplification and Less Bureaucratic Procedures". Specified legal provisions liable to be eliminated or reformed, with the aim of reducing red tape and improving the legal framework. It includes 197 measures of reform and simplification. After a push for legislative reform, this decree was replaced by three laws, collectively called the "Law of Simplification and Debureaucratization", which codify most of the efforts from the decree. These laws are:
  - **Law 27,444:**[25] "Simplification and Debureaucratization for the Productive Development of the Country" focuses on regulations relevant for small and medium-sized enterprises and businesses.
  - **Law 27,445:**[26] "Simplification and Debureaucratization for the Development of Infrastructure" addresses the administrative burden in ports, airports and roads.
  - **Law 27,446:**[27] "Simplification and Debureaucratization of the National Public Administration" includes modifications to the administration of public goods and the use of electronic files.
- ***Presidential Decree 733/2018* – 8 August 2018:**[28] Orders the "the complete, remote, simple, automatic and instant digital processing of formalities" and obliges all government processes to be completely digital.
- ***Presidential Decree 802/2018* – 5 September 2018:**[29] Ordered a reorganisation of the public administration. It also created the Government Secretariat of

Modernisation within the Chief of Cabinet of Ministers office, replacing the Ministry of Modernisation.

- ***Presidential Decree 996/2018* – 2 November 2018**:[30] Considering a number of factors, including Argentina's intention to join the OECD and to improve public policies for a stronger positioning in the global context, the decree approved the vision and key pillars of Argentina's Digital Agenda 2030:
  - ***SGM Resolution 138/2018* –28 December 2018:**[31] Approved the Digital Agenda in line with Presidential Decree 996/2018.
  - ***SGM Resolution 5/2019* – 7 January 2019:**[32] Creates a Temporary and Special Executive Unit for Digital Agenda, under the Secretary of Digital Government and Technology Innovation, with the aim of defining initiatives and work proposals to accelerate the digital transformation in Argentina.
- ***Presidential Decree 1169/2018* – 21 December 2018:**[33] Established the National Contracting Office as the governing body of the National System of Public Works Contracts and public works concessions. In addition, it instructed the office to develop and advertise a Governance Programme of the National System of Public Works Contracts and Public Works Concessions.
- ***MoM Resolution 139/2018* – 28 December 2018:**[34] Created the Automated Service of Virtual Assistance for the citizen, as part of the Digital Platform for the National Public Sector

Notes

1. http://servicios.infoleg.gob.ar/infolegInternet/anexos/90000-94999/90763/norma.htm.
2. http://servicios.infoleg.gob.ar/infolegInternet/anexos/150000-154999/153245/norma.htm.
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