

## *Assessment and recommendations*

### **Governing the digital transformation of the Colombian public sector**

#### ***Key assessments***

##### *Defining a Digital Government Strategy*

Colombia is currently undergoing its most radical transformation process of the last 50 years. The peace process, and the resultant end to conflict, offers unrivalled opportunities to devise solutions to the country's structural problems, such as unequal distribution of land, inclusion of displaced persons, marginalisation of certain communities, urbanisation of reclaimed land and economic development of its communities, to name a few. Expectations are that these opportunities will bring significant social, economic and development benefits in the next few years.

For more than 15 years, the Online Government Strategy defined and implemented clear guidelines which helped to create important organisational and institutional capacities, resulting in significant achievements at an international level in terms of transparent data and the digital participation of citizens, thus laying the foundations for the new Digital Government Policy. Among other practices, implementation guidelines for an online government were developed, a culture of monitoring and measuring was promoted in public institutions and exercises in open innovation were created; this encouraged the use of digital platforms and the opening up of government data by various entities to foster citizen participation. Additionally, good legal and regulatory foundations were established for the use of digital technologies by the State and society, such as the laws on e-commerce and digital signatures, the simplification of processes and procedures, data security and privacy, as well as access and accessibility to public information.

Nevertheless, the current normative framework, as formulated in the Online Government Strategy, represents an e-government approach and not a digital government one. Furthermore, the majority of digital services reproduce analogue processes, which reflects the traditional organisation of the public sector and not a digital design from its very conception, based on the needs of citizens and following a user-driven approach.

Public institutions at the national and territorial level are familiar with the Online Government Strategy and understand the strategic importance of its implementation. However, they differ significantly in their use of current solutions for its implementation, which suggests they have different priorities.

Many initiatives have been implemented in different areas to develop the Online Government Strategy, with different levels of resource allocation. However, they have not been fully harnessed to create synergies, economies of scale and shared learning between public entities.

Furthermore, during this review it was evident that, with the exception of the leadership of the Ministry of Information and Communications Technologies (MinTIC), there is still

no clear understanding among government representatives about the concept of digital government. This situation could be attributed to the fact that until now the country has promoted a policy of e-government, which has resulted in the stakeholders of Colombia's digital government ecosystem having varying degrees of understanding on the differences between online government and digital government. Also evident was the lack of intuition and basic observation of the changing digital needs of citizens in their interactions with the government, and of the new role public institutions must play in order to respond to this situation. The evolution towards a digital government requires greater dissemination efforts and a wider adoption of the deep transformations implicit in this process among most stakeholders.

#### *Strengthening the institutional framework*

Although in general the current institutional set-up was effective for the implementation of the Online Government Strategy at a national level, it appears insufficient to fully enact the transformations which the whole government needs if it wishes to shift to digital government. In particular, the current set-up shows the excessive efforts by MinTIC, and in particular by its Digital Government Directorate (considering its mandate and available resources), which has taken on responsibilities for both planning and implementing the strategy, rather than focusing on planning the strategy and co-ordinating its implementation. It would not be tenable for MinTIC to maintain its current responsibilities in the evolution to a digital government, as this requires co-ordination and collaborative efforts between the various institutions.

The institutional set-up within MinTIC does not fully empower the Digital Government Directorate to carry out co-ordinated, coherent and efficient implementation of the strategy in all fields and sectors. In consequence, no clear and comprehensive efforts to create synergies with a systematic approach have been evident at MinTIC; on the contrary, the approach to developing strategies within MinTIC, as well as to ICT strategies in other ministries, is vertical and isolated. Another consequence is the duplication of efforts across sectors acting at different speeds and taking actions that are not in tune with the overall strategic approach.

Decree 1414/2017 (Government of Colombia, 2017), modified the structure of MinTIC by establishing two vice-ministries: that of the Digital Economy and that of Connectivity and Digitalisation. This restructuring is an important first step to defining an appropriate institutional framework and creating bases for planning and efficient co-ordination of the implementation of the new Digital Government Policy.

As part of the restructuring of MinTIC, the Digital Public Innovation Centre (CIPD) was assimilated into the Digital Government Directorate in the Vice-Ministry for the Digital Economy. This new position strengthens the case of CIPD to become a key ally in promoting the digital transformation of the public sector in Colombia. Its position in the Directorate guarantees that the approach of CIPD in generating public value, driving forward the Sustainable Development Goals (SDG) and creating an ecosystem of digital public innovators will be firmly aligned with the vision and strategy for digital government. The activities of CIPD related to developing prototypes for digital applications which create public value, to strengthening innovative skills throughout the public sector and to creating a network of catalysts for innovation are of great value in the shift to digital government. The position of CIPD within the Digital Government Directorate will also help to promote the necessary change in mentality and culture in public entities to guarantee successful implementation of the Digital Government Policy

and turn technological and organisational innovations into lasting practices on a grand scale.

#### *Establishing co-ordination mechanisms*

National institutions and local authorities have a keen appreciation of the leadership and support offered by MinTIC in the implementation of the Digital Government Policy. Nevertheless, there is no formal co-ordination in strategic or operational terms (for example, mechanisms or organisations) between entities in the public sector. Co-ordination happens on an ad hoc and informal basis; for example, it may be based on ICT consultants and officials at MinTIC having met or worked together previously or on meetings set up for this purpose.<sup>1</sup> As a result:

- There are few formal institutional spaces to co-ordinate and empower CIOs and guarantee their accountability as they participate in the implementation of the Digital Government Policy (previously, the Online Government Strategy).
- There is no strategic alignment with MinTIC, but only vertical, duplicated efforts.
- Opportunities for synergies are being wasted and the benefits from economies of scale, planned growth in IT resources and use of shared resources are being missed.

The current set-up also lacks a formal institutional forum (e.g. an advisory council) to facilitate and promote dialogue and engagement with the whole digital government ecosystem, including representatives from the private sector, academia and civil society, as well as members of the legislative branch. Most links with stakeholders from academia, civil society and the private sector have thus far been established in an ad hoc way and have been short-lived, in a manner typical of an e-government mindset.

Such a forum is essential to ensure a citizen- and demand-driven, inclusive and participatory approach to development and implementation of the strategy and which, at the same time, enables the role of the government as a platform, as a key characteristic of digital government.

#### *Establishing support policies*

It is clear that there are untapped opportunities for integrating and co-ordinating digital government projects. Collaboration between government institutions can be improved, amongst others through legislation to promote collaboration. Moreover, increasing the co-ordination with the legislative and judiciary branch and with the autonomous entities of the State is of utmost importance for planning and implementing ICT projects and for sharing data and information within the government. Sharing resources within the Colombian Government is not yet common practice, which represents a barrier to encouraging whole-of-government approaches to identify integrated solutions.

## Recommendations

### Governing the digital transformation of the Colombian public sector

Based on the assessments described above, which stem from the main findings in Chapter 1 of this review, the Colombian Government could consider the following public policy recommendations:

#### Defining a Digital Government Strategy

1. **Guarantee that the new Digital Government Policy** supports the necessary changes in Colombia in the post-conflict period, contributes to a comprehensive socio-economic development of its society and is oriented to the needs of its citizens. Consequently, the following is recommended:
  - The policy must build on the capacities developed by the Online Government Strategy and define strategic objectives aligned with the necessary changes in the State and in society and which drive forward initiatives of the whole government. In this way the enabling role of the government as a platform would become more concrete in the strategic use of digital technologies for the co-creation of public value as a key characteristic of digital government.
  - The design of the new policy must be based on the *results of citizen engagement practices*, whereby direct participation of citizens helps to identify their needs and preferences as they interact with the State, thus ensuring their inclusion in the goals of the strategy itself. This in turn leads to the use and establishment of the “user-driven” standard.
  - With this in mind, the policy must generate guidelines and specific direction so that public entities link up with citizens —and users in general— by developing policies and services so that citizens can also develop the skills to interact with the State via digital media.
  - Likewise, the policy must consider and prioritise specific needs on a territorial basis which represent the shared and specific needs of regions, departments and municipalities, as well as of vulnerable groups, for which digital government initiatives could generate considerable public value.
  - The programmes defined to attain these goals must be prioritised according to the beneficiaries and the benefits they provide.
  - In order to ensure the efficacy of such changes, the systems to measure them must be based on the needs of citizens and businesses, and not on the needs of institutions as service providers.
  - To ensure accountability of the various entities, the policy must clearly identify its key stakeholders who are to bring about the various goals defined in the strategy itself.
  
2. Establish mechanisms which guarantee that the **Digital Government Policy is adopted correctly** by government leaders in all areas and at all levels so that it becomes integrated in the “fabric” of the State and reaches beyond the current administration. Said mechanisms must consider **efficient communication strategies** capable of reaching citizens and stakeholders.
  - To align the strategic aims defined by the various areas and levels of government, government leaders at the *national* and *territorial* level must be made aware of the foundations and guiding principles of the Digital Government Policy and the need for their active participation in the implementation of the strategy for the attainment of its goals, so that their political support facilitates co-ordinated implementation and monitoring of the initiatives.
  - In particular, the Administrative Department of Public Service (DAFP) must become

a strategic ally to promote the key role of digital technologies in the modernisation of the State and in public sector reform. Transformations must include new standards, such as “digital by design”.

- *A culture must be promoted throughout the whole government that is conducive to the attainment of its targets in each and every one of the political and organisational fields.* The digital government policy and initiatives must support the approach of the government so as to show that the Digital Government Policy can support the implementation of policies in all areas of government, from management and institutional performance in the Integrated Planning and Management Model (MIPG) to specific sectors such as education, health and labour.
- *It is important to communicate to citizens the public value which the policy and its initiatives will generate.* The intention behind this communication is that citizens will adopt the strategy and support its implementation through informed demand. The strategy must be communicated to citizens through their preferred channels so that messages are received clearly and directly. Consequently, the recommendation is to focus on channels such as social networks, videos and communication forums that ensure reaching the largest possible audiences. Accordingly, these messages should be disseminated in public spaces and via mass media outlets.

### **Strengthening the institutional framework**

The effective implementation of the Digital Government Policy requires the appropriate institutional framework. This framework must incorporate mechanisms to break with the traditional culture of working in isolation and encourage a **whole-of-government approach** based on standards of collaboration, co-ordination, integration and sharing. To achieve this, institutional frameworks are needed which promote mainstreaming of issues and collaboration between institutions so as to ensure an integrated provision of services based on a public administration that is fully interoperable.

3. **The new vice-ministries must work together** to drive forward an agenda ensuring that the digital government acts as a tool for progress in two important areas for Colombia: competitiveness and market strengthening; on the one hand, with products and services that contribute to the development of the digital economy, and on the other, developing mechanisms and services to create bonds that restore trust between citizens and public institutions.
4. MinTIC must evaluate the options in order to guarantee a **clear division and empowerment of responsibilities** between public policy design and implementation.
  - Empowerment of the Digital Government Directorate is needed to ensure the strategic alignment of all other areas of government and the adoption of the policy and its guidelines throughout the whole government, as well as to monitor and oversee policy implementation.
  - The body tasked with implementation of the policy (for example, a government agency) must be appropriately empowered, on the basis of legal instruments, to ensure clear strategic leadership and co-ordination of all stakeholders and implementation efforts by the different government entities. This agency will need to have sufficient standing to ensure the necessary political support, a clear mandate, sufficient capacities and resources, the authority to co-ordinate stakeholders and make decisions (regarding standards, for example) throughout the whole government. Clear institutional governance of the agency is required, in a context of overall institutional clarity with respect to key stakeholders in MinTIC.
5. Leveraging the integration of CIPD in the Digital Government Directorate is recommended for designing and developing of the Digital Government Policy:
  - Define a work process to scale successful innovations in a sustainable manner and

thus contribute to progress towards the digital government, taking into account the various contributions from the whole ecosystem of digital government.

- Extend the Innovation Catalysts Programme to strengthen innovative skills and culture for digital transformation in public entities, prioritising territorial entities.
- Secure the position of CIPD within the Digital Government Directorate, at least while the Digital Government Policy continues, in order to turn the necessary large scale technological and organisational innovations into lasting practices.

### Establishing co-ordination mechanisms

The whole-of-government approach motivated by the new Digital Government Policy will only materialise if the digital government ecosystem in Colombia and its co-ordination mechanisms are strengthened. To this end the recommendation is to:

6. Ensure full validity and operability of Decree 415/2016, which defines guidelines for strengthening institutions in terms of ICT and that public entities adapt their organisational structures to **guarantee that the IT leaders in each area support the attainment of every institution's mission and goals**.
7. Establish **co-ordination mechanisms** with two levels of co-ordination to guarantee the appropriate level of performance and coherent use of digital technologies throughout all government:
  - *Strategic co-ordination*, under the responsibility of a collegial body which should involve all the relevant parties to co-ordinate digital government initiatives throughout the whole government. The Council for Management and Institutional Performance could be responsible for providing feedback on the strategic guidelines for digital government compiled by MinTIC and ensure co-ordination with other MIPG policies. Nevertheless, due to the sizeable agenda this Council might have to deal with, mechanisms must be implemented to avoid a shift in digital government policy, such as postponing the issues of digital government in favour of others considered to be of greater priority. To this end, a specialist committee for digital government should be set up within the Council.
  - *Operational co-ordination*, under another collegial body (or similar to the strategic co-ordination mechanism but representing institutions from different levels) responsible for the operational co-ordination of ongoing projects which may be linked to more operational decisions to promote an inclusive and shared approach, which is essential to develop a digital government.

This body could be chaired by the person in charge of the Vice-Ministry for the Digital Economy and include the CIOs from each ministry, who would be members of the existing CIO network in Colombia.

The organisation responsible for operational co-ordination must take responsibility for empowering CIOs in the government as well as their on-going training in digital government and governance practices. To do so, they could use the substructures established in the Digital Government Directorate, by Decree 1414/2017, as working groups on different topics including business architecture, procurement, transparency, information management and cybersecurity, etc. This body could also co-ordinate the institutional actions required under Decree 415/2016 on monitoring and assessing the Digital Government Policy within the framework of MIPG.

8. Establish formal spaces for structured co-ordination with stakeholders in the digital government ecosystem. The **creation of an advisory council** is recommended to act as an intersectoral forum to promote dialogue and commitment between the various stakeholders. The council should be made up of representatives from the private sector, civil society, academia and the legislative branch. It would be advisable for the government to adopt a new role to foster a sustainable digital ecosystem.

9. Collaboration between government institutions must be part of the new culture created by the digital government. Training and network development at the national and territorial level must be promoted. These networks must encourage the dissemination of good practices, experience, solutions and resources. They must also build bridges between public institutions and support the execution of collaborative projects.

#### **Establishing support policies**

10. The new Digital Government Policy will need public policies that support its vision. In particular, **policies must be formulated which promote the whole-of-government approach**; this will encourage institutions to share resources and collaborate in inter-organisational projects that deliver integrated solutions. These policies must establish the concept of whole-of-government resources and put an end to the idea of data, information and resource “ownership” by government institutions.

## **Fostering a more collaborative and citizen-driven Colombian public sector**

### ***Key assessments***

#### *Moving from consultation to citizen-driven collaboration*

When considering the post-conflict context in which Colombia finds itself, reconfiguring the relationship between government and citizens in order to strengthen the legitimacy and trust in governmental institutions is a major challenge, but also a key instrument to stimulate economic growth and social welfare. As a consequence, a guiding principle for this new model of governance to support the digital transformation of the public sector in Colombia should be the re-establishment of trust and legitimacy. This entails reshaping the relationship between citizens and the State in a manner conducive to the greater empowerment of citizens. If Colombia wishes to fully benefit from the opportunities that digital technology offers to create a more transparent, participative, collaborative and inclusive State, it must recognise that trust between State and citizens must be built around the needs and challenges of the post-conflict context the country is entering.

The Peace Agreement and the firm transparency and anti-corruption agenda related to it provide a solid and legitimate foundation to drive forward the digital transparency initiatives and the open government data policy. Nevertheless, the intense debate about transparency could result in greater emphasis being placed on the disclosure of government data and information as the ultimate objective and overshadow the possibilities offered by digital technologies in facilitating a more active role for citizens and civil society organisations in the use of government data and information, and in solving society’s problems through new types of collaboration. Allowing and encouraging this role is key in building up public trust.

In using ICTs to create an open government agenda, Colombia has done more than simply focus on transparency. It has also encouraged public institutions to design digital participation initiatives that capture the opinions of citizens and involve them in institutional decision-making. A key factor in the successful increase in the digital participation of Colombian citizens was the initiative known as Crystal Urn. However, these initiatives are largely driven by public institutions and do not consider facilitating a more active role for citizens or civil society organisations.

The Colombian government took an important step in redefining the relationship with its citizens and society as a whole by inciting the evolution from a top-down rationale, as

part of the e-government approach, to a digital government approach, requiring the government to take up a facilitating role and act as a platform. Initiatives are being developed in several areas of Colombia's digital government that consider a more active role for citizens, but it is not always clear how to encourage this role or how much progress has been made towards this end.

Strong political willingness is evident and is supported by institutional arrangements within the national government —materialised in the Transparency Secretariat— aimed at promoting an agenda for transparency, open government and anti-corruption, all of which has helped to enable various digital initiatives. Although these initiatives envisage active roles for citizens—for example, as anti-corruption auditors or quality monitors for school meals— it remains unclear how these roles can be promoted. Moreover, there is no clear alignment with MinTIC initiatives aimed at participation and open data, which is why potential synergies are lacking, such as the publication of data generated by citizens on the open data platform and initiatives to encourage the re-use of these datasets.

The “Science and ICTs for Peace” initiative led by the Administrative Department for Science, Technology and Innovation (Colciencias), MinTIC and the Unit for the Assistance and Comprehensive Reparations of Victims is an excellent example of the government providing a platform so that society's stakeholders can together devise a digital solution to a problem they believe is worthwhile addressing. This approach is not only relevant for matters related to peacebuilding, but also for other problems in society. “The Biggest Conversation in the World”, is a successful civil society organisation managed on a digital platform allowing conversations between Colombians about their role in the peace process. In both cases, the government provided the platform on which citizens created value via digital technologies. Additionally, initiatives involving user research labs to engage citizens from the very start in the design of digital services are highly valuable to identify their needs as service users and co-create solutions meeting those needs. The challenge will be adopting this approach on a larger scale and ensuring that efforts are maintainable and will therefore contribute to public trust.

#### *Leveraging open government data to create economic and social value*

Over the past years, Colombia has managed to increase significantly the number of open datasets on the Open Data Portal of the Colombian State and has also invested in improving accessibility of datasets. Whilst these efforts should be continued and expanded, Colombia has much to gain from investment activities aimed at fostering the re-use of open government data for the co-creation of public value; this would also strengthen the government's role as facilitator (government as a platform). This is also reflected in the OURdata index of the OECD at the national level, in which Colombia's relatively high scores in comparison with the majority of the countries in the Organisation fall when considering activities focused on encouraging the re-use of open government data (OECD, 2017).

#### *Demonstrating the impact of citizen engagement*

Measuring the results of activities related to digital participation and collaboration, and the dissemination of these results, is characterised by an institutional perspective. In other words, there are few citizen-driven measurement parameters which represent real user experiences or the impact of their contribution on public policies.



## Recommendations

### Promoting a more collaborative and citizen-driven Colombian public sector

Based on the assessments described above, which stem from the main findings in Chapter 2 of this review, the Colombian Government could consider the following public policy recommendations:

#### Moving from consultation to collaboration driven by citizens

11. In order to bring about the necessary engagement of Colombian citizens in rebuilding the country in an era of peace, while overcoming the challenge of low public trust, **efforts must be focused on creating specific value for the population** and on offering forums for collaboration between citizens, civil society organisations and public authorities to jointly develop or identify solutions to public problems and needs. Hence, the recommendation is to create more opportunities so that citizens and civil society organisations can drive collaborative processes and the design of digital public services through the following actions:
  - Strengthen the Crystal Urn as a central platform for digital participation in Colombia in order to switch from a governmental rationale (with categories of open government policy) to an approach driven by the needs and interests of citizens (with public challenges of high interest).
  - Use the Citizen Folder not only as a single access point for citizen e-services, but also as a channel for topics of interest (e.g. health, agriculture) and inferring these from citizen characteristics and the services they use (for example, unemployment benefits). These functionalities would allow the government to better identify the needs of citizens and send personalised invitations for participation and collaboration activities. It is vital to enable mobile access in order to guarantee inclusiveness of the Citizen Folder.
  - Work with the Centre for Digital Public Innovation (CIPD) to promote initiatives and forums for collaboration that would allow national and territorial government institutions to address public policy issues, and allow citizens, businesses and civil society organisations to participate in creating the solutions.
  - Continue to identify instances of public service research and design involving citizens as “digital service users” from the beginning and endeavour to scale up so that these practices become the institutional norm.

#### Leveraging open government data to create economic and social value

12. **Incorporate the re-use of open data as the main pillar of the open data policy**, in line with the efforts aimed at encouraging collaboration driven by citizens:
  - Develop the functionalities and features of the national open data portal for it to become a genuine platform of collaboration between the government and civil society, academia, the media and businesses.
  - Support public institutions in order to guarantee data quality, as set out in the guidelines and standards for data management defined in the Digital Government Policy.
  - Intensify collaboration with civil society organisations to increase the re-use of open data, help vulnerable groups and generate social value.
  - Encourage entrepreneurship and innovation with data through hackathons aimed at generating economic value. It is recommended that CIPD initiatives be scaled at the territorial level.
  - Promote collaboration with civil society and data entrepreneurs to identify needs related to data openness and promotion.

- Consider options for stakeholders to upload datasets to the open data portal so that they may have a more active role in the open data ecosystem.
- Make greater efforts to build up more up-to-date knowledge of the open data ecosystem throughout Colombia and its more active involvement in the re-use of data to increase the impact and value for citizens throughout the country.
- Leverage the national open data portal to empower citizens and civil society organisations in monitoring the inputs, activities, outputs and outcomes of digital government initiatives and holding the government to account regarding the progress on digital government. This could be implemented by publishing administrative and service data in open formats and providing dashboards, visualisations, forms and other tools as accountability mechanisms on digital service improvement.

### **Demonstrating the impact of citizen engagement**

13. **Strengthen measurement and evaluation of digital citizen engagement and delivery of results**, on the one hand, to achieve a better understanding of where to apply efforts in organising activities for citizen involvement, and, on the other hand, to motivate citizens to express themselves and contribute to policies driven by them, through the following actions:

- Measure and communicate not only the achievements related to the process of participation, such as the type of process and its inclusiveness (for example, raising awareness, open innovation or consultation campaigns), the status (e.g. announced, on-going, closed), the number of participants and comments, and the channels used, but also the achievements in terms of political consequences, such as new initiatives, innovative co-operation and changes to existing policies.
- Incorporate the measurement aspect when devising participative processes and standardise aspects to be monitored and their presentation so as to facilitate comparison of participative activities throughout the country and increase their transparency in order to build up the public trust.
- Supplement government-driven indicators (for example, public entities which declare the number of open innovation activities they are organising) with citizen-driven indicators (such as the percentage of participants in open innovation activities per available channel, percentage of citizens who visit the initiative but do not participate or the percentage of participants who express their satisfaction with the open innovation solution implemented).

## **Strategic use of data in the public sector in Colombia**

### ***Key assessments***

In the context of the peer review mission, the use of data emerged as a key issue for stakeholders in the digital government ecosystem.

Colombia can take advantage of its previous achievements in IT architecture, interoperability framework and data reuse by public entities to create a genuinely smart and reliable government. The data produced by the government, citizens and other stakeholders in society have the potential to become the fuel for the digital transformation of the public sector in Colombia, with the support of other key human and monetary resources. The challenge is to create an environment which fully allows the government to identify and capture the strategic value of government data as a key vector in the digital transformation of its entities.

Colombia already has various promising elements to create a data-driven public sector, but lacks foundations in terms of governance, institutional culture and capacities to leverage the knowledge and expertise available in universities, the private sector and some parts of the public sector.

#### *Managing the data value chain in the public sector*

Sharing and using data analytics is far from a wide-spread practice for the Colombian government. Most initiatives, albeit promising, remain limited to a local context and do not transcend sectoral barriers, although this would be essential in order to implement an administration that is really driven by citizens instead of a government-led administration.

Promising initiatives, such as the flood warning system based on data collected in Cali, the Legalapp application from the Ministry of Justice, Agronet from the Ministry of Agriculture and the system for evaluating rights of the Unit for Victims, show that:

- A data-driven public sector is not a matter of data and technology alone, but a facilitating factor so that governments perform better when addressing genuine problems and create value for their citizens.
- Investment in data use and sharing can provide a significant return, both in a financial and non-financial sense (for example, looking at the damage caused by the floods in Putumayo).

The Excellence Route shows how to connect the question of management and data reuse with other priorities through a user-driven approach, as in the case of land restitution and providing comprehensive care and reparations for victims of the conflict. These are examples of services which try to go beyond the rationale of individual institutions and focus on the needs of victims. Working with the eight public institutions involved in land restitution and creating sensible data catalogues and high-quality interoperable data systems not only promotes the efficiency of institutions and citizens (in helping more victims in less time), but also the quality of the process of land restoration.

Public institutions in Colombia do not share data in a proactive manner and the current arrangements for data governance do not encourage them to do so, leaving untapped opportunities for value creation. The current rationale is characterised by requests for access to information, where opening data up to the public or sharing them with other public institutions is only allowed if specific procedures are adhered to. This turns out to be a long and complicated process for public organisations—especially when sensitive data are involved which can be retraced to individuals—when trying to reach government-to-government (G2G) data sharing agreements. Furthermore, inefficiencies emerge on implementing said agreements because the same data can be requested twice if they are not up-to-date when they are used in the institution which requested them.

#### *Guaranteeing legitimate and trustworthy data governance*

The efforts of the Colombian government related to information privacy and security are focused mainly on protecting information systems, managing digital security incidents and training public servants in questions of data privacy. The implementation of this policy has yet to be completed throughout the whole of the public sector and challenges remain in territorial institutions taking ownership of these matters. At this stage of implementation, it is still seen as a matter of internal management and a risk to the reputation of the government. Hence, it is not an open policy which considers a more active role for citizens in the management of their personal data.

#### *Ensuring data management skills throughout the whole public sector*

The practical difficulties and the lack of knowledge about the legal possibilities for exchanging data represent significant obstacles for data use by public institutions. Less advanced organisations face an additional problem: a lack of knowledge and training related to data management both among top management and among public servants. This not only has an impact on the individual institution, but also causes problems for the interoperability of data systems throughout the public sector.

## Recommendations

### Strategic use of data in the public sector in Colombia

Based on the assessments described above, which stem from the main findings in Chapter 3 of this review, the Colombian Government could consider the following public policy recommendations:

#### Managing the data value chain in the public sector

14. **As part of its Digital Government Policy, Colombia must draw up strategic guidelines and standards for the management and use of government data**, both open and not within the public sector, in order to strengthen capacities in the foresight of public challenges, the design and delivery of policies and services and the management of government performance:
  - Connect data guidelines to other strategic priorities for the country —such as SDGs, land restitution and assistance for victims of the conflict— so as to show the public value of data use throughout the public sector.
  - Identify and adopt standards for managing public, reserved or classified data throughout the value chain of government data.
  - Ensure that guidelines and data standards are aligned with the open data policy, the national data policy (CONPES [National Council for Economic and Social Policy] on data use) and the guidelines on access to DANE microdata.
  - Develop basic efficiency indicators for data use by public institutions and the open data ecosystem with the aim of improving measurement of the impact related to this issue.
15. **Establish a data authority with a clear mandate** to support public institutions in the transition.
16. Progress towards a **catalogue of government data**, which includes public, reserved and classified data:
  - In addition to the current prioritisation of datasets with a strategic value for reuse as open data, priority datasets must be created for sharing and use by public institutions and catalogued as a first step.
  - Ensure that all public institutions have data catalogues created according to standards applicable to the whole public sector.
  - Base implementation standards and methods on the good practices of the most advanced sectors.
  - Create a single point of access to catalogues and metadata, connected with the interoperability platform and the open data portal.
17. Facilitate and encourage **sharing by design** and **openness by design** of government data:
  - In addition to the obligation to open up public data in a proactive manner as already included in the regulatory framework, an obligation to evolve from a reactive to a proactive exchange of reserved and classified data is required that respects regulations on personal data protection and national security, and takes into account the different maturity levels of public institutions regarding the necessary capacities and skills.
  - Draw up guidelines and standards to guarantee the interoperability of open and non-open data systems.
  - Implement data management processes designed to facilitate exchange and openness.
  - Provide technical support so that institutions share data by uploading these to the State's interoperability platform.
  - Support public institutions to increase their understanding of the principles of sharing

by design and openness by design, and to combat the culture of not sharing.

### **Guaranteeing legitimate and trustworthy data governance**

18. **Promote public trust in data governance** by the Government of Colombia, in particular:

- Create a digital access point for citizens providing transparency to their personal data. This would facilitate greater transparency on the data recorded by the State, the existing access rights and the use by public entities and other stakeholders, as well as transactions related to these data. This access point could be integrated into the Citizen Folder. It is recommended that a link to this central point be included in each organisation's website to help citizens who are not yet accustomed to central and integrated services.
- Consider empowering citizens in the management of their personal data at the same access point, preceded by appropriate regulations, technical tools for electronic identification and the possibility of uploading supporting documentation.
- Show and explain the general public the results and value created by a better flow and use of data throughout the whole public sector.

### **Ensuring data management skills throughout the whole public sector**

19. **Strengthen leadership and training in data governance.**

- Encourage data officers (iCDOs) (data stewards) to carry out actions addressing the management of the government data chain to facilitate integration and alignment of open data and data use policies by public entities in order to transform services and policies.
- Improve training of public servants in data use and ensure that it is always offered in conjunction with matters related to security, privacy and ethical use of data.

## **Coherent implementation of digital government policies in different contexts in Colombia**

### ***Key assessments***

#### *Recognising territorial differences*

Colombia is characterised by its rich biodiversity, both natural and ethnic; consequently, different ecosystems can be found throughout the country, each with its own special characteristics and needs. The country's regions reveal important differences, and not all are prepared equally in terms of connectivity, accessibility, literacy of the population and access to economic resources, which is why they do not have the same needs.

Although MinTIC has defined and implemented good approaches for e-government development in government institutions at the national and territorial levels, these initiatives concentrate on the governments and capitals of departments and, to a lesser degree, on smaller municipal governments. This creates a gap between national and departmental entities on the one hand, and smaller municipalities on the other. Ensuring the mainstreaming and capillarity of the strategy at all levels and sectors of government is one of the biggest challenges when transitioning from an e-government agenda to one of digital government.

There is a risk of a disconnection between the progressive approach of MinTIC and local needs, which may bring about a discrepancy between a strong political will and an approach to implementation with a forward-looking vision at a national scale, and the

most basic concerns and pressures facing territorial entities throughout the country, such as the need to solve questions of connectivity, accessibility and interoperability.

*Going forward using existing support mechanisms*

The role of MinTIC *vis-a-vis* the territorial entities has been mainly one of advisor and communicator, defining and providing instructions on e-government policy guidelines and standards. It has also provided specific tools and support mechanisms to territorial institutions, such as web platforms, the open data platform, face-to-face workshops and webinars.

MinTIC also supports implementation of the strategy at the territorial level via ICT managers, ICT consultants and other mechanisms. However, support provided by MinTIC to the authorities that are implementing the strategy at a national and territorial level is “supply driven” and based on the agenda of the central government.

Thus, despite the existence of a national strategy, there is a gap between the level of implementation which national and departmental entities achieve and the level achieved by smaller municipalities. This is attributable to a lack of clear support mechanisms for departments and municipalities, such as sharing national infrastructure and software which can be re-used, systematic training of staff, implementation of stand-alone models and integration of a more efficient use of economic and technical resources at territorial levels, among others.

*Creating the necessary human and institutional capacities*

Institutions do not always manage to implement what is set out in the strategy, mostly owing to the lack of appropriately trained human resources and high staff turnover, and to the lack of resources or the ability to obtain them. Particularly in the territorial governments, they are very dependent on MinTIC support to implement the digital government initiatives, although Decree 1078/2015 assigned responsibility to implement the Online Government Strategy to the legal representative of each body. Furthermore, the lack of their own strategy in the majority of the territorial governments was noted.

Furthermore, given the regulatory framework and related policies and compliance, many public institutions at the national or territorial level allocate most of their resources to the implementation of the Online Government Strategy, assigning a large part of their IT budget to recurring costs, such as software licences, and scarcely 20% to projects investing in ICT.

Responsibility of the implementation of the Online Government Strategy is assigned to CIOs in only a small number of public institutions. The profile of the majority of professionals directing implementation is primarily operational, especially at the territorial level. It is difficult to confirm that these persons have the necessary skills to recognise the strategic relevance of digital government and the use of technology, which is essential for carrying out the digital transformation of the public sector in Colombia.

MinTIC drew up an efficient programme to help public institutions adopt the Online Government Strategy. However, these efforts have fallen entirely on the shoulders of MinTIC, which threatens their sustainability as well as the potential for capacity-building among public employees at a local level so as to support the development of skills among local public servants in an independent manner.

MinTIC covers the missing capacities in public institutions to implement the Online Government Strategy and carries out activities, such as building human capacities and

providing financial resources, which other stakeholders should be performing in view of their own mandates, but do not.

Public institutions face difficulties to retain qualified IT staff due to non-competitive salaries, and lack of incentives for recognising their achievements and contributions.

There are untapped opportunities to create networks with the aim of sharing good practices and experiences between municipalities. These networks could help to create a more collaborative culture in public institutions which, in turn, would help in the execution of joint inter-organisational projects, as well as knowledge management in local governments and learning through sharing experiences. All this would help in leveraging current projects and initiatives to create synergies and economies of scale.

### Recommendations

#### Coherent implementation of digital government policies in different contexts in Colombia

Based on the assessments described above, which stem from the main findings in Chapter 4 of this review, the Colombian Government could consider the following public policy recommendations:

#### Recognising territorial differences

20. A **definition of territorial strategies** for the digital government could be based on the level of differences between territories. Similarly, the priority lines of action for each region could be reflected in key objectives of the strategy at a national level.
21. In order to understand clearly the priorities for each region, **working groups** should be organised by region with representatives of the main stakeholders, so as to follow a participatory approach in defining the preparation, needs and specific priorities of each region.
22. MinTIC should **strengthen the efforts to provide access to infrastructure** and act strategically in promoting those territories ready to benefit from access to digital technologies.

#### Going forward using current support mechanisms

23. The expectation is that **MinTIC will help to empower territorial governments**, so they can define their own strategies, so the role of MinTIC must be expanded to help territorial institutions comply with the Digital Government Policy, focusing, for example, on providing shared bases for providing public e-services and training staff.
24. **Defining systems with soft and hard incentives** in order to ensure that all public offices at the national and territorial levels engage in the transformations driven by digital government. The first could consist of public recognition of institutions and persons who achieve results in the form of successful solutions or who contribute to their implementation. The second could be competitive funds to supplement entities' resources for investment projects, or the power to penalise if targets or guidelines are not complied with by these entities.

#### Building the necessary human and institutional capacities

25. Ensure all necessary resources are duly available:
  - In order to comply with new expectations, institutions should review their IT budgets to ensure resources are available for IT investment projects.
  - Review their procurement policy for IT products and services so as to benefit from

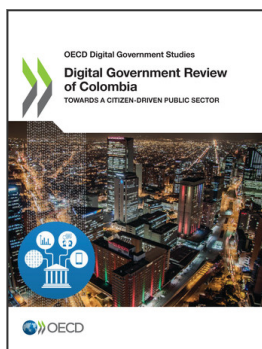


economies of scale, ensure interoperability of the State's systems and strengthen the position of the State as a purchaser of technology. Co-ordination of IT purchases could benefit from the mechanisms provided by the *Colombia Compra Eficiente* system.

26. Define a **holistic capacity-building strategy** as an essential element of the implementation of digital government initiatives. The strategy should consider the needs of the various stakeholders:
  - Help to **create the internal capacities necessary for digital government**, including defining policies to ensure that institutions can count on sufficient human resources, infrastructure and technicians to implement the initiatives. In particular, MinTIC should co-ordinate with DAFP to formulate these policies and ensure they become an integral part of an overarching public sector workforce strategy for Colombia. Special attention should be paid to **consolidating the internal capacity of the government to lead and supervise IT projects**, and not to depend on contractors. **Public institutions should be capable of attracting and retaining human talent.**
  - **Collaborate with universities to create new training programmes on digital skills and update existing ones**, both in the higher education system and internal ones. Training programmes should prepare public servants to be committed to the generation of public value and the associated cultural changes.
  - Ensure IT leadership capacities, as well as for the transformations driven by the digital government initiatives and associated processes of change. This means **relying on IT leaders who are trained and empowered in all institutions**, and on **directors, legal officers and media managers aware** of the aspects of digital government.
  - Guarantee that **directors and media managers act as catalysts for change** focussed on the digital government.
27. Co-operate with the relevant authorities to ensure that **citizens have the necessary IT skills** to use and benefit from e-services. **Institutional solutions** must be devised to develop the digital government:
  - Define **solutions and practices to allow managing and sharing government knowledge** —good practices, solutions, guides, methodologies, standards— with all areas and levels of government.
  - **Define mechanisms to increase efficiency in finding and developing solutions** within the State (for example, to avoid reinventing existing solutions or buying the same solution more than once). This could be achieved through the implementation of government repositories of digital government assets, and an IT procurement process based on a common strategy defined by the whole State and aligned with the priorities of the Digital Government Policy.
  - **Standardising IT management tools and reusing software infrastructure.**

## Note

1. Comments received during the personal interviews with representatives of regional governments, OECD mission in Bogota, 12 to 16 June 2017.



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