

# Colombia country review: Regulation at the forefront of digital transformation



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## Foreword



I am delighted to present this new study, the tenth in the series of Collaborative Digital Regulation Country Reviews.

The digital age has brought about unprecedented advancements in technology and connectivity, but with it comes a host of new challenges for regulators and policymakers. The International Telecommunication Union (ITU) has made it one of our priorities to support countries in enacting effective, collaborative policy and regulation to ensure that the benefits of digital transformation are shared by all.

For over 20 years, ITU and our partners in the wider global regulatory community have made enormous progress in analysing, mapping and understanding the evolving role that regulation plays in society and in economies. Through this effort, we now have a clear-eyed view of the path ahead for all countries, no matter where they are, in their journey towards Fifth generation collaborative digital regulation, or G5, that has emerged as the gold standard for regulators and policymakers seeking to promote an enabling environment for digital transformation. The G5 framework marks a shift of scope beyond a narrow consideration of telecommunications/ICT to a far broader one of each country's readiness to exploit a fully enabled digital economy and society.

Taking the work one step further, ITU has developed a series of national country reviews on collaborative digital regulation, in partnership with government authorities, national stakeholders and recognized experts. Based on ITU's established evidence-based tools, the ICT Regulatory Tracker and the G5 Benchmark, the country reviews offer a comprehensive assessment of the regulatory and governance frameworks, policies, and practices in each studied country.

The country reviews are an important tool for regulators and policymakers as they work to create an environment that promotes investment, competition, digital innovation, protects consumers, and ensures that the benefits of digital transformation are widely shared. They highlight diverse experiences and different policy and regulatory patterns while exploring good practices, challenges and lessons learnt by regulators in navigating digital transformation. The country reviews also help develop a better understanding of the role and impact of collaboration and collaborative governance, and the use of new tools for regulating ICT markets.

Each country assessment is unique in focusing on the specificities of national regulatory and institutional frameworks for digital markets to thrive and on collaborative governance. While all country reviews follow a similar methodology, the process of developing the study is necessarily highly collaborative and tailored to the country's specific needs and priorities. For each country, the reviews capture hard-won gains, and provide actionable insights and pointers of immense value to other countries eyeing a similar path as they navigate the rapidly evolving digital landscape. Equally they deliver a practical and inspiring message of empowerment, of overcoming resistance and securing acceptance of the work's value and of what it can deliver.

First launched in 2021, the Collaborative Digital Regulation Country Reviews series has been leveraging country-specific experiences in moving the global digital agenda forward and aligning it with the 2030 Sustainable Development Goals (SDGs). The series also plays a central role in ITU's efforts to measure the impact and benefits of G5 collaborative digital regulation, and support ITU Members in their journey to achieving SDGs and inclusive, sustainable digital transformation through meaningful policy and regulatory reform that will benefit all.

I hope that this series will serve as a catalyst for further collaboration and the advancement of digital regulation globally. I recommend this study as an enlightening and practical tool together with our regulatory metrics to all national regulators and decision-makers as they work to achieve meaningful connectivity and accelerate an inclusive and sustainable digital transformation through regulation that is open, cross-sector, and above all, collaborative.



Cosmas Luckyson Zavazava  
Director, ITU Telecommunication Development Bureau



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# 1 Introduction

This report reviews collaborative digital regulation and the digital economy in Colombia.

## 1.1 Fighting back from COVID-19

Prompt and decisive actions taken by the Government of Colombia have allowed the national economy to recover quickly from the effects of COVID-19. By June 2021, economic activity had recovered to 2019-levels, with an estimated growth of 9.5 per cent in 2021, according to the Economic Commission for Latin America and the Caribbean (CEPAL).<sup>1</sup> COVID-19 also exacerbated existing income inequalities and expanded the informal labour market. However, the labour market is expected to return to pre-pandemic levels by mid-2023.

Globally, the importance of connectivity for public and private sectors has been magnified by the COVID-19 pandemic. In Colombia, Internet penetration rates and connection speeds remain low and prices for fixed and mobile services are high.

## 1.2 Digital transformation through collaborative digital regulation: The way forward

Digital transformation has become part of the policy agenda of a growing number of countries to drive social development and economic prosperity. Digitalization, as a cross-cutting phenomenon, has a broad social and economic impact. It affects all sectors of the economy from agriculture to industry and trade, from household consumption to public services through its impact on productivity, employment, skills, services on offer and markets. It is changing production, delivery, consumption and lifestyle patterns. Through new means of communication, digital technologies are changing society.

Digital transformation needs a different approach to regulation, and a new regulatory paradigm has emerged that seeks to fast forward digital transformation for all, and that paradigm is embodied in the concept of collaborative digital regulation.

Based on a broad notion of generations of ICT regulation (see Box 2), G5 collaborative digital regulation marks a fundamental shift in the way regulation is executed. The G5 holistic approach brings together a wide range of stakeholders from policy-makers to single-sector and cross-sector regulators, and a wide range of market players. In addition, the focus on regulatory behaviour and its impact on markets, as well as social and economic development, brings to the fore the need to harmonize policy priorities, regulatory rules, and existing institutional frameworks across sectors that will leverage digitalization. This reflects the importance of the interplay between digital infrastructure, services and content across industries and national borders.

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<sup>1</sup> See [Latin America and the Caribbean's Growth Will Slow to 2.1% in 2022 amid Significant Asymmetries between Developed and Emerging Countries | Press Release | Economic Commission for Latin America and the Caribbean \(cepal.org\)](#)

This country review is part of a series of country reviews designed to analyse the current institutional and regulatory framework of countries with different policy landscapes, at various levels of digital development, and from different regions. Country reviews explore how the principles and nature of collaborative digital regulation are enshrined in national policy and regulatory frameworks and how they are implemented.

The country review of Colombia highlights the journey towards digital transformation and improvements through collaborative digital regulation. The analysis and findings are based on publicly available information (reports, legal acts, studies) and information obtained during interviews with stakeholders from Colombia's public and private sectors.

Gathering information from different perspectives spotlights strengths and opportunities in Colombia, while identifying areas for further consideration in view of accelerating digital transformation. These include a mixture of best practice collaborative digital regulation, principles that enhance regulatory maturity, and collaborative digital policy and regulation tools that improve digital market outcomes. While some of these can be achieved with relative ease, others will demand more reflection and time.

### **Box 1: G5 Case study methodology**

To better understand the role and impact of collaboration and collaborative governance, ITU has launched a series of case studies to focus on regulatory and institutional frameworks and collaborative governance across different regions. The case studies detail diverse experiences and policy and regulatory patterns and set out challenges, new ideas and lessons learnt by regulators as they journey towards collaborative digital regulation. Each case study follows a similar methodology, reflects regional needs, and has been achieved through stakeholder involvement and cooperation. Each case study is built on two components:

1. A 70-question survey on collaborative digital regulation that explores collaboration across government agencies and ministries, the scope and patterns for collaboration, and legislative and policy tools and processes.
2. The involvement of other stakeholders, including multiple interviews with key national stakeholders, representatives of the national regulatory authority and the relevant ministry, the private sector and consumer associations where possible. Interviews also explore practical aspects of policy implementation and regulatory reform.

The case studies set out the current policy, regulatory and governance landscape, focus on best practice and highlight areas for future enhancement.

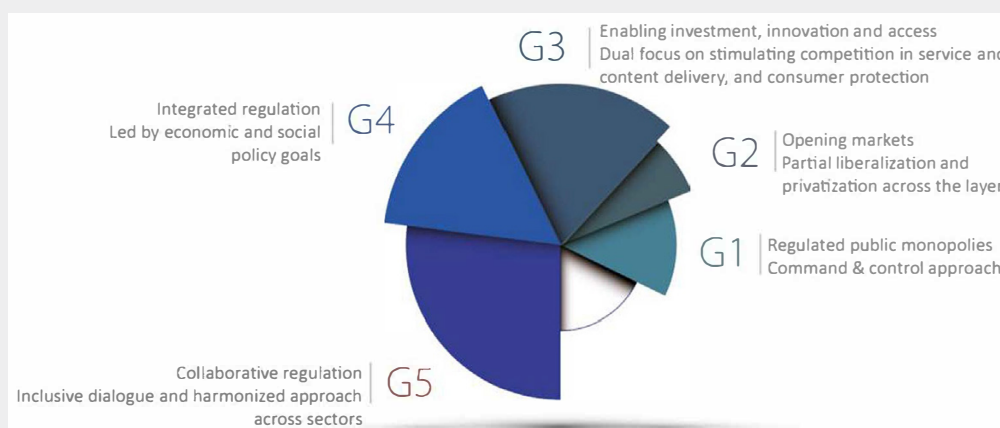
## Box 2: The five Generations of regulation

Regulators and policy-makers need evidence to inform their decisions as they seek to build a competitive, inclusive and resilient digital economy – evidence that helps them compare practices across countries and regions against a universal reference frame for regulatory excellence and good governance.

The ‘generations of regulation’ model enables them to do just that. It sets out, at a glance and across five clearly differentiated generations, how policy and regulation have evolved over recent decades – from a narrow focus on telecom, to the broader perspective on ICTs and then onto the gold standard for collaborative digital governance. The model has been built with the global community of ICT regulators – annually tuned and enhanced since 2003 by the Global Symposium for Regulators (GSR). The gold standard for digital regulation, Gen 5, embodies the guidance of this expert, high-level community and is framed under the premise ‘collaboration across sectors, cooperation across borders, and engagement across the board’.

One of a kind, Gen 5 models how conducive policy, regulatory and governance frameworks for the digital transformation unfold, from Limited, to Transitioning, to Advanced, to Leading.

The model is strategic and practical, enabling analysis of and planning for the evolution of national digital governance capacity and regulation. Two associated tools – the ICT Regulatory Tracker and the G5 Benchmark – underwrite the model in assessing the state of maturity of national legal frameworks and their governance, and tracking their progress over time.



## Box 2: The five generations of regulation (continued)

Building on the Generations of regulation model, ITU has developed two complementary benchmarking tools, the [ICT Regulatory Tracker](#) and the [G5 Benchmark](#) (see also Box 3). These help understand global trends and identify policy and regulatory gaps. The ICT Regulatory Tracker tracks the evolution of generations of telecommunication sector reform. In parallel, the G5 Benchmark charts the digital transformation journey from its inception to building a thriving digital society and helps countries establish roadmaps to navigate the digital transformation.

As digital markets integrate into core telecom infrastructure, legal, policy and regulatory frameworks for telecom and digital have evolved in parallel, at different speeds in countries and across regions.

- In the past, two separate frameworks have addressed issues associated with telecom and digital ecosystems as each of these areas mature – and two different tools are powerful aids in assessing them – the ICT Regulatory Tracker for telecom and the G5 Benchmark for digital markets.
- Increasingly, a new generation of such frameworks, Gen 5, enables digital ecosystems to gain traction and is helping accelerate progress across a broad range of development goals.
- Using both tools mentioned above generates actionable insights and puts national decision-makers in the driving seat as they navigate the digital transformation of their economies and societies.

This integrated, augmented approach to the assessment of digital policy, development and implementation based on best practices – and their localization – is rapidly becoming the gold standard for policy and regulation in the digital transformation.

		1. Regulatory authority	2. Regulatory mandate	3. Regulatory regime	4. Competition framework
<b>RATIONALE FOR GENERATIONS OF REGULATION</b>  Source: ITU	G1	• Consolidated with policy maker and/or industry	• Business as usual	• Doing as we have always done	• State-owned monopoly
	G2	• Separate agency	• First wave of regulatory reform	• Doing more	• Liberalization
	G3	• Separate agency, autonomous in decision making	• Advanced liberalization of ICT sector	• Doing the right things	• Partial competition
	G4	• Separate agency with enforcement power	• Adjacent issues become core mandate	• Doing the things right	• Full competition
	G5	• Separate agency as part of a network of partner regulators	• <b>Active collaboration across the board</b>	• Doing things together	• Intra-modal competition

Source: ITU, [Global Digital Regulatory Outlook 2023](#).

## 2 From ICT to a digital economy and digital regulation

In the 2022 ICT Regulatory Tracker,<sup>2</sup> Colombia was at the G4 level in terms of telecom/ICT regulation, with a separate ICT regulatory agency, autonomous decision making, advanced liberalization of ICT the sector, a strong regulatory regime and a partial competition framework. Recent reforms have provided positive results in enabling the national digital economy, and in 2021, Colombia joined the group of 60 countries to reach an advanced level of preparedness for digital transformation according to the ITU G5 Benchmark, with a network of partner regulators, active collaboration as part of the regulatory mandate, a collaborative regulatory regime for digital markets, and an intra-modal competition framework<sup>3</sup>.

The digital economy diversifies and expands a country's general economy by improving processes and efficiency and by making it more competitive in a global market environment. Collaboration and use of ICTs improves the performance and resilience of national economies, and digital policy and regulation need to engage decision makers beyond ICT authorities (ministries and regulators) to include sectors such as agriculture, transport, infrastructure, energy, consumer protection, and finance.

Colombia has reached an advanced level of preparedness for digital transformation. This means that regulatory authorities have implemented decisive collaborative actions including interaction between authorities, the active and meaningful involvement of industry in the co-creation of regulation, and public consultation. In addition, the ICT regulator has expanded medium and long-term plans and goals to focus beyond the telecommunication/ICT sector, working with other authorities to integrate cross-sector regulations and has adopted a holistic approach to the digital economy to chart Colombia's path to digital transformation.

This country review highlights Colombia's progress in terms of digital transformation and collaborative digital regulation based on Colombia's profile in the G5 Benchmark (see Box 3), as well as interviews with national stakeholders, regulators and industry groups, in addition to independent research. The topics addressed in this report include:

- institutional setup in the ICT sector and across economic sectors;
- main policies for the ICT sector;
- collaborative practices across institutions;
- regulatory processes and evidence-based decision-making;
- social and economic policies for digital development;
- regulatory tools to promote the digital economy and transformation; and
- level of regulatory maturity and policy implementation.

<sup>2</sup> <https://app.gen5.digital/tracker/country-cards/Colombia>

<sup>3</sup> [https://digitalregulation.org/wp-content/uploads/G5Benchmark\\_ReviewBoardReport\\_21062021.pdf](https://digitalregulation.org/wp-content/uploads/G5Benchmark_ReviewBoardReport_21062021.pdf)

### Box 3: Benchmark guiding regulators through uncertainty and disruption

Regulators and policy-makers overseeing telecommunication and digital markets need evidence to inform their decisions on a wide range of issues underpinning the development of a competitive digital economy – evidence that helps them compare practices across countries and regions.

Generations one through five have steadily shaped novel approaches to policy and regulation, the gold standard for collaborative digital governance. The gold standard has been co-created with the global community of information and communication technology (ICT) regulators as part of the annual consultation on best practices by the Global Symposium for Regulators (GSR). Based on this work, the G5 Benchmark assesses the evolution of digital policy and regulatory frameworks, and helps countries establish roadmaps to navigate the digital transformation.

The 2021 edition of the G5 Benchmark is structured around four pillars:

- **Pillar I: National collaborative governance** measures the breadth and depth of cross-sector collaboration between the ICT regulator and its peer regulators and policy-makers. The pillar factors in the institutional set-up (agencies and their mandates) as well as practices around regulatory collaboration, formal and informal, across 16 areas, including consumer protection, spectrum management, education and e-waste.
- **Pillar II: Policy design principles** focuses on the design of frameworks and what keeps them together. As all sectors' regulation shifts from rules to principles, new elements have become paramount to ensure sound outcomes from regulatory processes and the success of policy implementation – from applying tools for evidence-based decision-making, to providing space for regulatory experimentation, to strengthening the accountability of multistakeholder policy initiatives, to ethics.
- **Pillar III: Digital development toolbox** focuses on the tools needed by regulators to stimulate development of a sustainable digital economy. It considers new consumer needs, business models and market dynamics. The G5 toolbox spans areas such as cybersecurity, data protection, emergency telecommunications and infrastructure sharing. The toolbox also includes universal instruments geared towards the achievement of middle- to long-term social and economic goals – such as youth employment and sustainable consumption and production – where digital has a central role to play.
- **Pillar IV: Digital economic policy agenda** features policies and interventions deployed by a country to promote the development of the digital economy, entrepreneurship and investment. The areas covered range from an innovation framework to digital transformation to sector taxation and adherence to international and regional integration initiatives with ICT chapters.

### Box 3: Benchmark guiding regulators through uncertainty and disruption (continued)

The G5 Benchmark features a total of 70 indicators focused on policy and regulatory frameworks that will best enable the digital transformation (see Box 1). According to their score, each of 193 countries is associated with one of four levels of national policy and regulatory framework maturity – these are Leading, Advanced, Transitioning, and Limited.

Tuning the Benchmark and its methodology has been a consultative, iterative process. Our 2020 pilot version benefited from feedback offered by regulators, regulatory experts and data scientists – this led to the expansion and rebalancing to better respond to the needs of national decision-makers. The updated Benchmark was then reviewed by an external independent expert board bringing together academia, international organizations, think tanks, regulatory associations and industry associations. This independent review provided final revisions and marked the coming of age for the G5 Benchmark.

Source: ITU, G5 Accelerator. Available at <https://gen5.digital/>

To increase access to high-quality broadband networks at affordable prices, the Organisation for Economic Co-operation and Development (OECD) has suggested making further efforts to enhance connectivity by reducing barriers to competition in the communication sector and assuring the independence of the ICT regulator. OECD also suggests the need for a deeper reform of the tax system, greater incentives for formal job creation, and measures to reduce trade barriers and strengthen competition.<sup>4</sup> Collaborative digital regulation stands out as an important enabler of advancing all of these reforms and enhancing Colombia's readiness for digital transformation.

## 2.1 Regulatory evolution in Colombia

The telecommunication/ICT sector in Colombia has a differentiated services structure provided through specialized networks and has a legislative framework that covers basic services (carrier, telephony, telegraphy), broadcasting services (radio and TV), and value-added and telematic services. This structure reflects the regulatory evolution of the telecommunication sector in Colombia, including Legislative Decree 3418 of 1954, Law 555 of 2000 (personal communications services, PCS), Decree Law 1900 of 1990<sup>5</sup>, Law 37 of 1993 (cellular mobile telephony) and Law 182 of 1995 (public television service).

<sup>4</sup> See [Colombia-OECD-Economic-Outlook-Dec-2021.pdf](#)

<sup>5</sup> Classification of services, Art. 27 to 33. Decree Law 1900: <https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=2581> , [www.presidencia.gov.co/prensa\\_new/decretoslinea/1990/agosto/19/dec1900191990.pdf](http://www.presidencia.gov.co/prensa_new/decretoslinea/1990/agosto/19/dec1900191990.pdf)



The main milestones in the telecommunication/ICT regulatory evolution in Colombia are:

- The regulatory beginnings (1989-2007)<sup>6</sup> This stage ended the legal monopoly, introduced competition and regulated private participation in the provision of telecommunication services.
- The first structural reform (2009)<sup>7</sup> In this stage, Colombia started to recognize the importance of the ICT sector, a first step towards a digital economy. Its regulation focused on the deployment and efficient use of infrastructure, content, consumer protection and building human capacity. The Ministry of Information and Communication Technologies (MinTIC)<sup>8</sup> was created, as was the National Spectrum Agency (ANE),<sup>9</sup> and the Communications Regulatory Commission (CRC) was strengthened, taking responsibility for television broadcasting regulation and consumer protection regulation.
- The second structural reform (2019): The 2019 ICT Modernization Law focuses on investment to help vulnerable groups connect to the Internet by fostering private investment in the ICT sector. It also provides legal certainty and facilitates high-cost infrastructure deployment.<sup>10</sup> At the same time, it made CRC a truly independent and converged regulator by adding the regulation of radio broadcasting to its mandate.
- Current regulation (2021): Building on the existing framework, Law 2108 of 2021<sup>11</sup> made Internet access 'an essential public telecommunication service', paying special attention to the needs of vulnerable social and ethnic groups and the needs of those living in rural and remote areas.

Colombia started working on regulatory and institutional issues related to digital technologies and markets in 2009. As part of the National Development Plan 2018-2022 (PND),<sup>12</sup> Colombia has since adopted a pact for the digital transformation of Colombia, which has specific goals and targets that are aligned with the United Nations Sustainable Development Goals.

#### **Box 4: Pact for the digital transformation of Colombia (2018-2022)**

Colombia has built a digital mindset across government entities through the 2018-2022 National Development Plan and the pact for the digital transformation of Colombia, which in general terms, targets two main issues: only half of all households are connected to the Internet, and public entities are slow to make services available through safe and user-friendly Internet access. The objective is to bring Internet connectivity to all low-income households and to improve interaction between public entities and citizens.

<sup>6</sup> ECLAC Office in Bogota. (2011). From Telecommunications to ICTs: Colombia's ICT Law (L1341/09): [https://repositorio.cepal.org/bitstream/handle/11362/4818/1/S110124\\_es.pdf](https://repositorio.cepal.org/bitstream/handle/11362/4818/1/S110124_es.pdf)

<sup>7</sup> ECLAC Office in Bogota. (2011). From Telecommunications to ICTs: Colombia's ICT Law (L1341/09): [https://repositorio.cepal.org/bitstream/handle/11362/4818/1/S110124\\_es.pdf](https://repositorio.cepal.org/bitstream/handle/11362/4818/1/S110124_es.pdf)

<sup>8</sup> <https://mintic.gov.co/portal/inicio/>

<sup>9</sup> <https://www.ane.gov.co/SitePages/Inicio.aspx>

<sup>10</sup> [https://micrositios.mintic.gov.co/ley\\_tic/](https://micrositios.mintic.gov.co/ley_tic/)

<sup>11</sup> [https://dapre.presidencia.gov.co/normativa/normativa/LEY\\_2108\\_DEL\\_29\\_DE\\_JULIO\\_DE\\_2021.pdf](https://dapre.presidencia.gov.co/normativa/normativa/LEY_2108_DEL_29_DE_JULIO_DE_2021.pdf)

<sup>12</sup> <https://www.dnp.gov.co/DNPN/Plan-Nacional-de-Desarrollo/Paginas/Pactos-Transversales/Pacto-transformacion-digital-de-Colombia/Transformacion-digital.aspx>

#### Box 4: Pact for the digital transformation of Colombia (2018-2022) (continued)

Internet connectivity in households with low income will ensure that everyone has an active role in the digital economy. According to statistics from the *Dirección Nacional de Estadística* (DANE), in 2020, rural areas had an Internet connection penetration rate of only 24 per cent, compared to urban areas that had over 66 per cent, and a national average of 56 per cent.<sup>1</sup> Today, although more households are connected, and despite some departments requiring more effort, MinTIC reports positive progress in the target of connecting 70 per cent of the country by August 2022.<sup>2</sup>

To enhance the interaction between public entities and citizens, MinTIC has implemented several actions and programmes to foster digital transformation in Colombia. For example, to optimize public services, Decree 2106 of 2019 identified 2 900 administrative procedures that needed to be improved<sup>3</sup>, and by collaborating with other authorities, MinTIC has tried to develop a digital economy mindset across all sectors. In addition, the following strategies, goals and plans have been set:

##### Strategies

- Create an ICT fund and ensure a single converged ICT regulator.
- Accelerate digital inclusion through incentives.
- Develop a sustainable model for public access to the Internet in rural areas.
- Design a national policy for digital transformation.
- Improve Internet quality.
- Digitalization and automatization of public procedures.
- Use big data solutions to counter corruption.

##### Goals by 2022

- Connect 70 per cent (11.8 million) of all households to the Internet: As of September 2021, according to DANE, there were 9.2 million households connected.<sup>4</sup>
- Increase digital transactions from 87 to 290 million: This goal was reached in 2020, with 405 million transactions.<sup>5</sup>

<sup>1</sup> [bol\\_entic\\_hogares\\_2020.pdf](#)

<sup>2</sup> [Colombia avanza en su meta de estar conectada en un 70 % en 2022: DANE \(mintic.gov.co\)](#)

<sup>3</sup> [Balance Resultados 2019.docx \(dnp.gov.co\)](#)

<sup>4</sup> [Colombia avanza en su meta de estar conectada en un 70 % en 2022: DANE \(mintic.gov.co\)](#)

<sup>5</sup> ['Colombia aumentó 44 % sus ventas en línea durante el primer trimestre de 2021': Karen Abudinen, ministra TIC \(mintic.gov.co\)](#)

#### Box 4: Pact for the digital transformation of Colombia (2018-2022) (continued)

- Transform 34 high-impact public services to digital procedures: MinTIC is the lead agency in the digital transformation of government. Decree 088 of 24 January 2022 establishes the guidelines, terms and conditions for the digitalization and automatization of procedures at national and local government levels. The goal is to create digital access for more than 70 000 processes by 2037 in more than 2 000 national and departmental public entities.<sup>1</sup> For this ambitious and far-sighted programme, tracking progress across all public entities will be a major challenge.

#### Long-term planning (2030)

- Create a digital society in Colombia that is fully connected to Internet.
- Transform public administration through the use of data and digital technologies.
- Big data will be a key factor in effective anti-corruption efforts.

#### Relevant Sustainable Development Goals



<sup>1</sup> [Gobierno nacional expidió el Decreto para la digitalización y automatización de trámites \(mintic.gov.co\)](https://www.mintic.gov.co)

## 3 National collaborative governance

When dealing with digital economy matters, it is imperative to involve multiple national stakeholders. Government is one such stakeholder and to achieve a robust balance between people's needs and technology, collaborative regulation between several government agencies is required.

Collaboration is the watermark of collaborative digital regulation for digital transformation, as enshrined in the G5 Benchmark. Pillar 1, *National Collaborative Governance*, measures the breadth and depth of cross-sector collaboration between the ICT regulator and other government agencies. It also measures how institutions are set up: the agencies, mandates and the practices around regulatory collaboration. An ideal scenario would combine the greatest number of agencies collaborating with the highest official status of collaboration. The analysis below explores the current state of collaborative governance in Colombia.

### 3.1 Collaborative digital regulation landscape

There are three main bodies that have a regulatory oversight in Colombia: the National Planning Department (*Departamento Nacional de Planeación (DNP)*), the Administrative Department of Public Service (*Departamento Administrativo de la Función Pública (DAFP)*), and the Ministry of Trade, Industry and Commerce (*Ministro de Comercio, Industria y Turismo (MINCIT)*).

The DNP is responsible for systematic improvement across government, issuing guidance on regulatory management tools and ensuring coordination. DAFP identifies areas for red tape reduction and MINCIT develops technical regulation and oversees public consultation.<sup>13</sup>

The 2018-2022 National Development Plan sets out Colombia's regulatory policy framework. As the coordinator of regulatory management tools, DNP ensures that the National Development Plan is implemented and reports on the results. It has created the platform Sinergia where progress of the main government programmes and policies can be consulted.<sup>14</sup>

According to Sinergia, initiatives in the ICT sector show progress in almost all 20 indicators. Only three have an implementation rate lower than 80 per cent. MinTIC oversees implementation and both industry and regulatory authorities report a high level of coordination with stakeholders, including the private sector. In addition, the Digital Economy and Transformation Committee<sup>15</sup> brings together government entities, as well as academia and the private sector to generate technical and public-private coordination to support decision making in relation to digital transformation matters.

In contrast, public sector financing has an implementation rate above 80 per cent in only six out of 13 indicators. The 2019 telecommunication framework incorporates the need for collaboration with other authorities that has driven positive results in the ICT sector. Law 1978 of 2019<sup>16</sup> states that all agents of the ICT sector shall collaborate to prioritize access and use of ICT

<sup>13</sup> [Colombia | OECD Regulatory Policy Outlook 2021 | OECD iLibrary \(oecd-ilibrary.org\)](#)

<sup>14</sup> [DNP - Sinergia | Seguimiento](#)

<sup>15</sup> <http://www.colombiacompetitiva.gov.co/sneci/ct/comite-transformacion-economia-digital>

<sup>16</sup> <https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=98210>

in the production of goods and services, under non-discriminatory conditions for connectivity, education, content and competitiveness. In complying with this principle, Colombia has given priority to promoting access to ICT for vulnerable groups of the population and the poor, in rural and remote areas of the country. As the public platform for reporting on implementation, Sinergia tracks implementation activities and their impact.

### 3.2 Colombia's actions for digital transformation<sup>17</sup>

Colombia has a collaborative environment among public entities. MinTIC and CRC not only collaborate because both entities have functions related to ICT, but also because the Minister is also a CRC Communications Commissioner. In addition, while the President of Colombia appoints one Communications Commissioner, the other three are elected. This mechanism strengthens CRC independence, which has gained greater decision-making autonomy with each regulatory update of the ICT sector legal framework.

#### Box 5: MinTIC collaborates with the Senate on digital transformation<sup>1</sup>

Colombia's public entities, from a regulatory and political perspective, are working towards digital transformation. In June 2021, MinTIC signed an inter-administrative cooperation agreement with the Senate. Through this agreement, MinTIC will support and accompany the Senate in its digital transformation plan. The aim of this project is to facilitate internal processes, create faster and simpler procedures, and bring the State closer to its citizens.

To achieve this commitment, both entities will work together in the formulation of the Strategic Information Technology Plan (PETI) that will enable MinTIC to assess the technological needs of the Senate. Once areas that need strengthening have been identified, MinTIC can help the Senate to offer more secure technological services. A digital transformation plan will also be prepared to facilitate the implementation of interoperability between Colombia's government entities.

#### CRC approach to collaborative digital regulation

The CRC 2021-2022<sup>2</sup> and 2022-2023<sup>3</sup> regulatory agendas make specific references to the ITU G5 Benchmark and the need for collaborative digital regulation. The 2021-2022 agenda states that synergies between stakeholders require an innovative use of data and the development of strategies to promote the participation of regulated entities and users.

<sup>1</sup> Ministry of Information and Communication Technologies: <https://mintic.gov.co/portal/inicio/Sala-de-prensa/176662:Ministerio-TIC-y-Senado-de-la-Republica-firman-convenio-de-cooperacion-para-la-transformacion-digital>

<sup>2</sup> <https://www.crcom.gov.co/uploads/images/files/201229%20AR%202021-22%20VPUB.pdf>

<sup>3</sup> <https://crcom.gov.co/uploads/images/files/281028%20Agenda%20Regulatoria%202022-23%20para%20publicaci%C3%B3n.pdf>

<sup>17</sup> OECD (2019), OECD Reviews of Digital Transformation: Going Digital in Colombia, OECD Reviews of Digital Transformation, OECD Publishing, Paris, <https://doi.org/10.1787/781185b1-en>

### Box 5: MinTIC collaborates with the Senate on digital transformation (continued)

The 2022-2023 agenda refers to collaborative digital regulation and recognizes that regulators have work with industry and public entity resources through public consultation, collaboration, and conciliation. CRC is working closely with industry, MinTIC, ANE, and the Superintendence of Industry and Commerce (*Superintendencia de Industria y Comercio* (SIC)).

The ICT authorities are actively collaborating with stakeholders across all sectors in Colombia to adopt digital transformation despite the time and effort required. However, best practices involving industry stakeholders in decision-making and policy-making processes have not been widely adopted across Colombian authorities so far.

In addition, regulatory impact assessment indicators for primary legislation only cover processes carried out by the executive branch of government, which is approximately one-fifth of primary legislation in Colombia. Strengthening collaborative practices across all government agencies can contribute towards a more transparent, inclusive and evidence-based public policy cycle. The DNP has created a single government platform for public consultations (*Sistema Único de Información Normativa* (SUCOP)) that promotes standardization, traceability, transparency and citizen participation in the regulation creation process and allows regulated entities and interested third parties to comment and make suggestions.<sup>18</sup>

According to OECD, authorities in Colombia have increased collaboration across sectors, however, SUCOP is not being fully optimized and ministry websites are still being used to seek comments on draft legal documents.<sup>19</sup> Nor is the regulatory impact assessment tool widely used, and despite bringing a valuable, evidence-based perspective to all types of regulations, it is restricted to impact assessment of technical regulations.

Other key OECD recommendations referred to sector diversification and industry stakeholder involvement, and through the 2018-2022 National Development Plan digital transformation efforts have increased.<sup>20</sup> The pact for the digital transformation of Colombia includes government, business, academia, and private households. Not limited to the ICT sector, it focuses on digitalization and automatization of government procedures, use of big data and technology and innovation across multiple sectors. For example, the close collaboration between CRC and the Ministry of Science, Technology and Innovation (*Minciencias*) for several projects, such as financing for R&D projects<sup>21</sup>. This has resulted in some positive science, technology and innovation metrics, with 10 of the 15 indicators showing implementation rates above 80 per cent.<sup>22</sup>

<sup>18</sup> <https://www.sucop.gov.co/>

<sup>19</sup> [Colombia | OECD Regulatory Policy Outlook 2021 | OECD iLibrary \(oecd-ilibrary.org\)](#)

<sup>20</sup> OECD (2019), OECD Reviews of Digital Transformation: Going Digital in Colombia, OECD Reviews of Digital Transformation, OECD Publishing, Paris, <https://doi.org/10.1787/781185b1-en>.

<sup>21</sup> <https://www.crcom.gov.co/es/noticia/con-exito-cerro-la-convocatoria-liderada-por-la-crc-y-minciencias-para-financiar-proyectos-en-investigacion-desarrollo-tecnologico-e-innovacion>

<sup>22</sup> [DNP - Sinergia | Indicadores del sector](#)

## 4 Policy design principles

The design of policy and regulatory frameworks and implementation mechanisms trigger a multiplier effect of digital transformation by providing predictability and direction. This is reflected in Pillar II, Policy Design Principles, of the G5 Benchmark, which considers:

- Regulatory design procedures: Evaluation focuses on how regulation is prepared and adopted including the design and mechanisms of public consultations, the use of regulatory impact assessments (RIA) for major decisions, rolling and ex-post review of regulatory decisions, reconsideration or appeal of decisions, technology and service-neutral regulatory frameworks and the use of regulatory innovation.
- Transparency: This builds trust in regulatory institutions and decisions through access to legislation and information, protection of fundamental freedoms, and the ethical behaviour of regulators.

Colombia has made extensive efforts to shape regulatory policies since 2013, hand in hand with OECD.<sup>23</sup> In 2014, the government issued the policy document CONPES 3816<sup>24</sup>, which along with the 2018-2022 National Development Plan, constitutes the Colombia regulatory policy framework. These documents are the basis for the regulatory impact assessment. In accordance with Decree 270 of 2017, stakeholders must be consulted on the preparation of regulations. Each ministry must publish draft regulation in order to receive opinions, suggestions or alternative proposals. Several entities have implemented this practice, including:

- The Administrative Department of Public Service on a set of normative acts, including regulatory agendas 2021-22 and 2022-2023, and various draft decrees.<sup>25</sup>
- The Ministry of Health and Social Protection on policy and regulatory texts and initiatives.<sup>26</sup>
- The Ministry of Trade, Industry and Tourism on standardization initiatives in various sectors.<sup>27</sup>
- The Communications Regulatory Commission on its regulatory agenda, ongoing market studies and draft regulations.<sup>28</sup>

The Communications Regulatory Commission has been a leader with respect to best practices in the regulatory process in Colombia. The National Planning Department (DNP) and the Latin America Development Bank (CAF) recently carried out the first contest in best regulatory practices for public entities during August and September 2021. There were seven categories and 52 initiatives received. CRC was distinguished in six categories<sup>29</sup>:

<sup>23</sup> OECD (2014), OECD Review of Telecommunication Policy and Regulation in Colombia, OECD Publishing, Paris, <https://doi.org/10.1787/9789264208131-en>.

<sup>24</sup> <https://colaboracion.dnp.gov.co/CDT/Conpes/Econ%C3%B3micos/3816.pdf>

<sup>25</sup> <https://www.funcionpublica.gov.co/proyectos-normativos-de-la-funcion-publica>

<sup>26</sup> <https://www.minsalud.gov.co/Normativa/Paginas/analisis-de-impacto-normativo.aspx>

<sup>27</sup> <https://www.mincit.gov.co/minindustria/temas-de-interes/reglamentos-tecnicos-en-el-mcit/analisis-de-impacto-normativo-ain#:~:text=El%20An%C3%A1lisis%20de%20Impacto%20Normativo,modificaci%C3%B3n%20de%20un%20reglamento%20t%C3%A9cnico>

<sup>28</sup> <https://www.crcom.gov.co/es/proyectos-regulatorios>

<sup>29</sup> <https://www.crcom.gov.co/es/noticias/reconocimientos/crc-recibe-reconocimiento-por-su-compromiso-con-mejora-regulatoria-en-pais> and <https://www.caf.com/es/actualidad/noticias/2021/12/primer-concurso-de-buenas-practicas-regulatorias-de-colombia/>



**Table 1: Best regulatory practices for public entities in Colombia**

Institutional adoption of the policy	Second place
Regulatory impact assessment	First place
Ex post evaluation	First place
Public consultation	First place
Administrative simplification	Second place
Regulatory refinement	First place

These results recognize the efforts started in 2014 and are part of the regulatory design process (as outlined in Box 6).

### Box 6: CRC regulatory design process

The design process is one of the most successful regulatory areas to have been implemented. The CRC regulatory cycle has five main components that contribute to transparency and efficient regulation.<sup>1</sup>



Source: CRC

The cycle graphic (in Spanish) indicates five elements of the CRC regulatory design process including: Problem identification (*Identificación del problema*); Definition and evaluation of alternatives (*Definición y evaluación de alternativas*); Mid-adoption and project closure (*Adopción media y cierre de Proyecto*); Implementation and evaluation ex post (*Implementación y evaluación ex post*); and Regulatory agenda (*Agenda regulatoria*).

<sup>1</sup> Policy Brief #26. *Estados ágiles en América Latina: la estrategia de mejora regulatoria de la Comisión de Regulación de Comunicaciones de Colombia*. CAF - Banco de Desarrollo de América Latina, 2021. [https://scioteca.caf.com/bitstream/handle/123456789/1732/Estados\\_agiles\\_en\\_America\\_Latina\\_la\\_estrategia\\_de\\_mejora\\_regulatoria\\_de\\_la\\_Comision\\_de\\_Regulacion\\_de\\_Comunicaciones\\_de\\_Colombia.pdf?sequence=1&isAllowed=y](https://scioteca.caf.com/bitstream/handle/123456789/1732/Estados_agiles_en_America_Latina_la_estrategia_de_mejora_regulatoria_de_la_Comision_de_Regulacion_de_Comunicaciones_de_Colombia.pdf?sequence=1&isAllowed=y)

### Box 6: CRC regulatory design process (continued)

Regulatory Impact Analysis (AIN)

1. Identification of the problem: At this stage a public policy problem is identified and defined, along with causes and consequences. The scope and objectives of the new regulation are set out. This stage includes the participation of affected and benefited stakeholders.
2. Definition and evaluation of alternatives: Research and draft of the new regulation, identifying possible solution alternatives, including no regulatory response.
3. Decision and closure of project: A decision is taken, and the project is closed. All the information used is filed and an implementation plan is designed, along with the guide for an ex post evaluation.
4. Implementation and ex post evaluation: The implementation plan is executed, as well as the ex post evaluation. These are input documents to the regulatory agenda.
5. Regulatory agenda: Every year the regulatory projects are published so they become public. CRC carries out public consultations and has workshops with stakeholders to define the final version of the annual regulatory agenda.

The design of ICT regulatory experimentation space and the implementation of regulatory sandboxes are two other areas where Colombia is a world leader.

### Box 7: Regulatory sandbox for telecommunication services<sup>1</sup>

One of the most important actions related to the innovation of the design of regulatory policies is the use of regulatory sandboxes. This represents an alternative regulatory mechanism, since it allows the testing of products, services, and solutions in any aspect of the provision of telecommunication networks and services, for a given period, under flexible regulation or with regulatory exemptions, in an environment monitored by the regulator.

The sandbox helps to analyse the need, relevance, and impact of implementing new regulatory measures as well as maintaining, modifying, or eliminating those in force, or implementing differential rules prior to making a final regulatory decision.

The regulatory sandbox mechanism is an effective alternative that promotes innovation and guarantees an open and dynamic participation of value groups, and it encourages the adoption of new technologies and business models by the industry and society.

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<sup>1</sup> Communications Regulatory Commission: <https://www.crcom.gov.co/es/pagina/sandbox-regulatorio>

### **Box 7: Regulatory sandbox for telecommunication services (continued)**

The first regulatory sandbox was carried out in 2020 and it received 23 different proposals. CRC have published the projects that will be part of this regulatory sandbox,<sup>1</sup> such as a project to bring mobile 4G coverage to rural areas using new technologies, a project for a platform for real-time measurement of the mobile Internet user experience, and a project to simplify the contracting process for fixed and mobile services, through a unified service agreement.

CRC is also collaborating with the financial sector and a regulatory sandbox has been piloted for digital financial services.

<sup>1</sup> <https://www.crcm.gov.co/es/noticias/comunicado-prensa/conozca-proyectos-admitidos-para-experimentacion-en-sandbox-regulatorio>

Colombia's process of joining OECD as a member started in 2013 and concluded in 2020<sup>30</sup>. During that time, Colombia implemented a series of policies and structural reforms that equipped the country with modern regulatory instruments in many sectors as well as a regulatory design process that reflects international best practice.

However, according to the OECD more progress on structural reforms is needed, partly related to the lack of a broad consensus on the reforms at hand, such as the reduction of barriers to informal economic activities and to trade, as well as reforms needed to increase competition, equality in education, social programmes to reduce poverty, and increasing digital infrastructure to promote connectivity and make services more affordable. To help chart the way forward, OECD has also provided policy recommendations to implement reform across the economy.<sup>31</sup>

Despite the issues with structural reforms, the ICT sector has made substantial progress over the past decade. The regulatory roadmap to develop Colombia's digital economy<sup>32</sup> seeks to maximize the social and economic benefits of the digital economy. It shows how modern policies drive a national digital transformation and it addresses systemic development issues that underpin further structural reforms.

<sup>30</sup> <https://www.oecd.org/colombia/global-oecd-welcomes-colombia-as-its-37th-member.htm>

<sup>31</sup> [Economic Policy Reforms 2021: Going for Growth \(oecd.org\)](https://www.oecd.org/economic-policy-reforms-2021-going-for-growth/)

<sup>32</sup> <https://crcm.gov.co/es/biblioteca-virtual/hoja-ruta-y-guia-metodologica-hoja-ruta-regulatoria-par-abordar-retos-y>

## 5 Digital development toolbox

Promoting sustainable development through digital transformation has a positive impact on consumers, the entrepreneurial ecosystem, and social and market dynamics. Pillar III (Digital Development Toolbox) of the G5 Benchmark features key elements of legal and regulatory frameworks to switch on digital transformation across the board. These include a digital strategy oriented to achieving social and economic goals, as well as rules and instruments to handle data privacy, e-waste management, cybersecurity, infrastructure sharing, emergency situations, and public services.<sup>33</sup>

In the digital transformation journey, regulation has to address multiple areas at the same time. As issues related to digital technologies and markets across all economic sectors are not exclusive to the telecommunication regulator mandate, implementation requires joint action by multiple authorities. Thus, it is important that regulation addresses the short-to-medium term outlook for national and global markets and includes long-term strategies that involve government agencies along with all stakeholders. Such strategies should be developed with the largest participation of government entities possible. A national plan or strategy should include common goals and implementation mechanisms and serve as a guide for the activities of government entities. Such a national plan also needs to consider cross-cutting themes such as sustainability and inclusiveness and be linked to broader development goals.

The regulatory roadmap to develop Colombia's digital economy is a full-fledged digital strategy that follows many of the best practice guidelines shaped by the global community of regulators and published by ITU<sup>34</sup>, including:

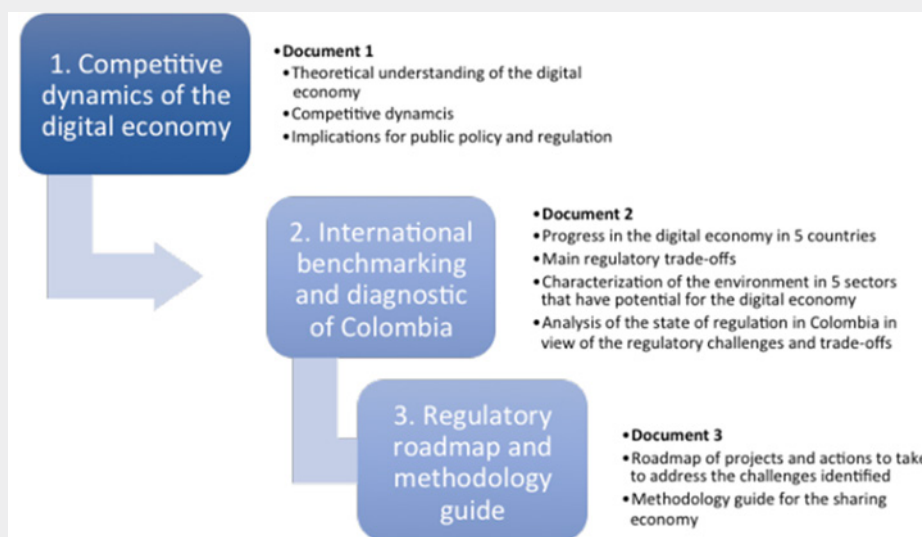
- Adopting an overarching digital transformation strategy augmented with new generation policies for the digital economy, focused on stimulating financing mechanisms for innovation, skills development, job creation and the development of the start-up and SME ecosystems with concrete implementation mechanisms and targets (GSR-21).
- Policy and regulation should be consultation- and collaboration-based (GSR-19).
- Space for digital experimentation can be used to create a dynamic regulatory environment in which digital market failures and opportunities have space and flexibility to address present and future challenges (GSR-19).
- Investment is the cornerstone of the digital transformation (GSR-21).

<sup>33</sup> <https://sdgs.un.org/es/goals>

<sup>34</sup> <https://gen5.digital/best-practice>

### Box 8: Regulatory roadmap to develop Colombia’s digital economy

This roadmap identifies the actions and projects that government agencies need to implement to address the challenges and benefit from the opportunities of the digital economy. It is divided into three sections: competitive dynamics of the digital economy, international benchmarking and diagnostics, and regulatory roadmap and methodology guidelines.



Source: CRC

The roadmap identifies eight challenges and defines the entities responsible and specific actions to address each challenge. The figure below provides a summary of six CRC projects, three MinTIC actions and eleven other stakeholder actions.



Source: Unión Temporal Arthur D Little - TelBroad

### **Box 8: Regulatory roadmap to develop Colombia's digital economy (continued)**

The roadmap defines actions and projects, responsible entities and timelines to adopt a digital economy and lead Colombia to fast growth and economic development. OECD states that to achieve a whole-of-government approach, the Colombia Government should, amongst other things, develop a national digital strategy through a multi-stakeholder process, followed by a public consultation.<sup>1</sup>

This regulatory roadmap was used as an input for several regulatory documents, such as the CRC 2018-2019 regulatory agenda<sup>2</sup>, which identified the most important challenges to new players, innovators and new digital business models. This roadmap set the basis for a change in mentality towards a digital economy mindset.

<sup>1</sup> OECD (2019), OECD Reviews of Digital Transformation: Going Digital in Colombia, OECD Reviews of Digital Transformation, OECD Publishing, Paris, <https://doi.org/10.1787/781185b1-en>.

<sup>2</sup> [https://www.crcm.gov.co/sites/default/files/agenda/agenda\\_final\\_28\\_dic.pdf](https://www.crcm.gov.co/sites/default/files/agenda/agenda_final_28_dic.pdf)

## **5.1 ICT infrastructure and beyond**

The focus on the digital ecosystem in Colombia's regulatory environment has opened the way to digital transformation. Nevertheless, many regulatory basics<sup>35</sup> still apply in the digital economy, such as infrastructure sharing strategies to reduce the cost of infrastructure deployment. Combining the basics with new and innovative concepts can provide not only the right incentives but also a glidepath for digital development.

Colombia has placed great importance on managing infrastructure effectively. Regulations are in place to encourage passive infrastructure sharing, including cross-sector infrastructure sharing. CRC has been working with local authorities to create best practice regulation with favourable conditions for the deployment of ICT infrastructure. A national infrastructure mapping system has also been developed.<sup>36</sup>

### **Box 9: Eliminating local barriers to infrastructure deployment and emergency actions**

CRC recognizes the correlation between economic growth and the inclusiveness of the digital economy, as well as the role infrastructure plays in it. It also recognizes that local authorities require support to develop modern regulation and implement it effectively.

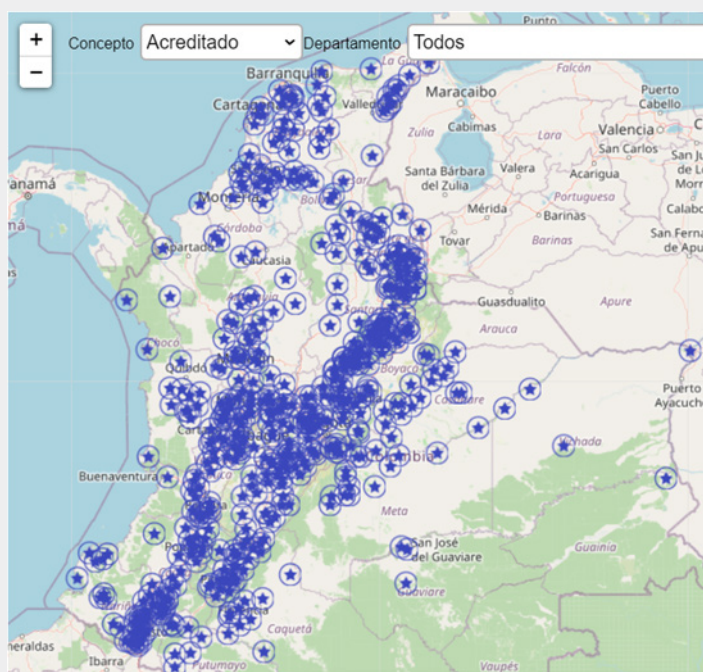
<sup>35</sup> [https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/GSR-21\\_Best-Practice-Guidelines\\_FINAL\\_E\\_V2.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/GSR-21_Best-Practice-Guidelines_FINAL_E_V2.pdf)

<sup>36</sup> <https://www.crcm.gov.co/es/micrositios/despliegue-infraestructura> and <https://mintic.gov.co/portal/inicio/Micrositios/Direccion-de-Promocion-TIC/Normas-despliegue-de-infraestructura/>

### Box 9: Eliminating local barriers to infrastructure deployment and emergency actions (continued)

CRC created a programme<sup>1</sup> that supports local authorities to enhance and streamline local regulation across municipalities and eliminates barriers. CRC has also developed a tool that allows anyone to see which municipalities have implemented regulation based on CRC best practices. The programme works as follows:

1. CRC published a Good Practices Code for the Deployment of Infrastructure. The code provides information to local authorities on why it is important to allow the deployment of infrastructure and it deals with barriers and issues that help local authorities to implement regulation.<sup>2</sup>
2. Municipalities can request CRC to certify that there are no barriers to the deployment of ICT infrastructure. With this certification, MinTIC includes the municipality in the list of possible beneficiaries of social coverage as part of the different licence obligations.
3. The deployment, certification, and barrier-related information is publicly available, and interactive maps show municipalities that are favourable for the deployment of infrastructure, those that have been certified, and those with barriers.



Source: CRC

Note: The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of ITU and of the Secretariat of the ITU concerning the legal status of the country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

<sup>1</sup> Idem

<sup>2</sup> [https://www.crcom.gov.co/uploads/images/files/Buenas\\_Practicas\\_Despliegue\\_2020.pdf](https://www.crcom.gov.co/uploads/images/files/Buenas_Practicas_Despliegue_2020.pdf)



### Box 9: Eliminating local barriers to infrastructure deployment and emergency actions (continued)

This programme is based on a transparent, evidence-driven approach and users can see monthly updates on key indicators.

At the time of release of this report:

- 87 per cent of municipalities have adopted regulation;
- 55 per cent of municipalities are certified as having regulation that promotes infrastructure deployment.<sup>1</sup>

According to some industry stakeholder interviews, this programme may have slowed down and is not producing the same results when first initiated. Some municipalities do not seem to be willing to work towards a regulation that reduces barriers for the deployment of infrastructure. As often happens with government programmes, the initial enthusiasm slows, and less significant results are recorded. This programme requires a boost of further action to bring in further municipalities.

#### More extreme measures

During the COVID-19 emergency, the Government of Colombia found an opportunity to introduce measures that would force municipalities to authorize the deployment of ICT infrastructure. Law 2108 of 29 July 2021<sup>2</sup> recognized Internet access as an essential service. As such, section 4 of the law establishes that telecommunication/ICT service providers cannot stop work related to the installation and maintenance of networks for the provision of Internet access.

During the COVID-19 pandemic, any request related to the construction, connection, installation or operation of any equipment used for the provision of telecommunication/ICT services had to be addressed by the competent authority (local, state or federal) within one month of the request. If a response was not given within that time, it would be considered as approved. During interviews, industry stakeholders recognized that this measure had allowed them to accelerate the installation of infrastructure.

Source: Industry interviews and Law 2108 of 2021.

<sup>1</sup> <https://www.crcom.gov.co/es/micrositios/indice>

<sup>2</sup> [https://normograma.info/crc/docs/ley\\_2108\\_2021.htm](https://normograma.info/crc/docs/ley_2108_2021.htm)

CRC efforts on deployment of infrastructure go beyond working with municipalities to include cross-sector infrastructure sharing, for example, a regulatory framework for sharing electricity infrastructure with telecommunication providers has been enacted. CRC has also published a guide that serves as a tool for the implementation of Resolution 5890<sup>37</sup> on sharing electrical energy infrastructure for the provision of telecommunication networks and services.<sup>38</sup>

<sup>37</sup> <https://www.crcom.gov.co/sites/default/files/normatividad/00005890.pdf>

<sup>38</sup> <https://www.crcom.gov.co/sites/default/files/webcrc/micrositios/documents/guia-juridica-del-regimen-de-comparticion-de-infraestructura-electrica.pdf>

The regulatory framework defines regulatory conditions for electricity infrastructure, establishes the principle of freedom on negotiation, imposes maximum fees and seeks to foster the deployment of networks and the expansion of the coverage of telecommunication services.

Programmes for infrastructure deployment are an important part of building a future-proof regulatory environment and enabling digital transformation. The advanced level of collaboration with municipalities, MinTIC incentives for municipalities, as well as the involvement of the energy sector provide a solid basis for national collaborative governance, focused on collaborative mechanisms between economic sectors and between authorities.

## 5.2 Digital government policy<sup>39</sup>

The constant evolution of e-government in Colombia has underlined the importance of ICTs in improving the management of public entities, as well as in the provision of public services to citizens. In addition, a new trend has emerged: the Digital Government policy is improving existing processes and services and carrying out digital transformation that is modifying government interaction with its citizens. How people obtain a certificate of residence is an example. The process used to take about six weeks and had to be obtained at government offices, but it can now be carried out online in a few minutes.<sup>40</sup>

In this new context, Digital Government is the engine of the digital transformation of Colombia, allowing public entities to meet the needs of citizens more efficiently and allowing those citizens to be part of the process of change by using digital technologies.

Since 2018, the Government of Colombia has worked hard to implement the Digital Government policy, to promote the access and use of ICTs, to consolidate a competitive, proactive, and innovative government, and create a trusted and inclusive digital environment.

The Digital Government policy defines the guidelines, standards and strategic projects that will drive the digital transformation of Colombia. It is improving interaction with users and stakeholders, meeting the needs of citizens, solving public service issues, enabling sustainable development and in general, creating public value.

The Digital Government policy defines guidelines, standards, components, enablers and strategic projects to develop trusted and safe digital services, secure and efficient digital processes. It recognizes the need to provide high quality data and information for decision making, and the technology to empower citizens, smart cities and territories.

<sup>39</sup> Ministry of Information and Communication Technologies. *Política de Gobierno Digital*: <https://gobiernodigital.mintic.gov.co/portal/Politica-de-Gobierno-Digital/>

<sup>40</sup> <https://gobiernodigital.mintic.gov.co/portal/Casos-de-exito/76743:Certificado-de-residencia-en-Castilla-La-Nueva-un-tramite-facil-rapido-y-efectivo>

Figure 1: Components and enablers of Colombia's Digital Government policy



Source: MinTIC<sup>41</sup>

This graphic highlights the two main components of Colombia's Digital Government policy: ICT for society (*TIC para la sociedad*) and ICT for government (*TIC para el estado*); the three crosscutting enablers: security and privacy (*Seguridad y privacidad*), digital citizen services (*Servicios ciudadanos digitales*) and architecture (*Arquitectura*), and five purposes: Quality and trustable digital services (*Servicios Digitales de confianza y calidad*); Efficient and secure internal processes (*Procesos internos seguros y eficientes*); Decisions based on data (*Decisiones basadas en datos*); Citizen empowerment through an open government (*Empoderamiento ciudadano a través de un estado abierto*); Smart cities and territories through ICTs (*Territorios y ciudades inteligentes a través de las TIC*).

The Digital Government policy has two fundamental cross-cutting components:

1. **ICT for society:** It aims to strengthen society and its relationship with the State in the digital environment, so that it is reliable, allows access to and use of public data, collaboration in the development of products and services of public value, the joint design of services, citizen participation in the design of policies and regulations, and the identification of solutions to problems of common interest.
2. **ICT for government:** Aims to improve the functioning of public entities and the relationship between public entities using ICTs. It also seeks to strengthen the digital skills of public servants as a fundamental part of institutional capacity.

The Digital Government policy has five goals:

1. Enable and improve the provision of reliable, high-quality digital services.
2. Achieve secure and efficient internal processes by strengthening information technology management capabilities.
3. Make data-driven decisions based on the increased use and analysis of information.
4. Empower citizens through the consolidation of Open Government.
5. Promote the development of smart territories and cities for the solution of social challenges and problems, through the use of ICT.

Colombia's Digital Government policy has contributed to Colombia's consideration as part of the group of countries with advanced level of readiness for digital transformation, as measured by the G5 Benchmark. Important building blocks of government capacity and commitment in the process are in place, including a sound digital strategy, an e-government strategy, cybersecurity policies, infrastructure sharing programmes, and smart cities initiatives. Colombia is therefore

<sup>41</sup> <https://gobiernodigital.mintic.gov.co/portal/Politica-de-Gobierno-Digital/>

well-equipped and on track towards enabling digital government and a fully-fledged digital economy.

### 5.3 Cybersecurity

The information security strategy is a cross-cutting element that enables the development of other components within the framework of the Digital Government policy.<sup>42</sup> Information security is ensured through digital security risk management and best practice guidelines that support the actions taken by government entities to protect information assets, preserving the confidentiality, integrity, availability, and privacy of data, including management of cyber incidents.

It is composed of three main strategies and/or models:

1. **The Government Security Incident Response Team (CSIRT)** provides assistance and support to state entities, improving security processes, management of cyber incidents and generation of digital security awareness.
2. **The Digital Security Risk Management Model (MGRSD)** provides a framework in which the threats and vulnerabilities are identified in order to promote and maintain the confidence of multiple stakeholders (suppliers, citizens, public and private entities) in the use of the digital environment in their interaction with the government, thus promoting the economic and social prosperity of the country.
3. **The Information Security and Privacy Model (MSPI)** provides guidelines to public entities in terms of implementation and adoption of best practices, taking international standards as a reference, with the aim of guiding the management and proper implementation of the information security life cycle (planning, implementation, evaluation, continuous improvement), enabling the implementation of the Digital Government policy. MSPI is composed of more than 20 implementation guides, including an information security guide aimed at micro, small and medium-sized enterprises (SMEs).<sup>43</sup>

Cybersecurity is an area that requires further development and implementation. Seen as a more complex matter that requires further work and specialization, it is currently not at the top of the national policy agenda. The lack of strong cybersecurity policies can explain Colombia's 81<sup>st</sup> position out of 182 countries in the ITU Global Cybersecurity Index 2020.<sup>44</sup> Developing a clear cybersecurity strategy in the short term can complement government efforts in adjacent areas and making the digital transformation safer and more secure for citizens, businesses and government.

### 5.4 Data privacy

Having formal data protection rules and a separate agency in charge of data protection issues is a key component of building trusted and safe digital environment in Colombia. The Office of Personal Data Protection has been established under the Superintendence of Industry and Commerce (*Superintendencia de Industria y Comercio* (SIC))<sup>45</sup>. The Personal Data Protection Law<sup>46</sup> establishes "*habeas data*", which entitles individuals to update, change, and have access to information collected about them in data banks and files of public and private entities.

<sup>42</sup> <https://gobiernodigital.mintic.gov.co/portal/Politica-de-Gobierno-Digital/#:~:text=Consiste%20en%20lograr%20una%20injerencia,aprovechamiento%20de%20las%20tecnolog%C3%ADas%20digitales>.

<sup>43</sup> <https://gobiernodigital.mintic.gov.co/seguridadyprivacidad/portal/Estrategias/MSPI/>

<sup>44</sup> <https://www.itu.int/epublications/publication/D-STR-GCI.01-2021-HTML-E/>

<sup>45</sup> <https://www.sic.gov.co/sobre-la-proteccion-de-datos-personales>

<sup>46</sup> [https://www.funcionpublica.gov.co/eva/gestornormativo/norma\\_pdf.php?i=49981](https://www.funcionpublica.gov.co/eva/gestornormativo/norma_pdf.php?i=49981)

Colombia has implemented various actions, including a digital application to facilitate the exercise of citizens' rights of access, rectification and revocation of personal data held by public or private entities. Among these actions is the publication of a *Guide with Recommendations for the Treatment of Personal Data through Cloud Computing Services*<sup>47</sup> and a *Guide on Risks Regarding the Processing of Personal Data of Children and Adolescents*, both issued in 2021.

In addition, SIC has implemented various digital mechanisms so that citizens can carry out administrative procedures (such as filing complaints and administrative appeals) related to economic competition, consumer protection, protection of intellectual property rights. Colombia has a strong data protection regulatory regime that started in 2008 with the right to the individual's financial data and has evolved since. Today, there are several regulations<sup>48</sup> and materials<sup>49</sup> that have been developed on this matter.

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<sup>47</sup> For the preparation of this document, the SIC adopted the Personal Data Protection Standards for Ibero-American States of the Ibero-American Data Protection Network (RIPD). <https://www.sic.gov.co/sites/default/files/files/2021/Guia%20cloud%20computing%202021.pdf>

<sup>48</sup> <https://www.sic.gov.co/repositorio-de-normatividad>

<sup>49</sup> [https://www.sic.gov.co/centro-de-publicaciones?field\\_global\\_topic\\_tid=7037&field\\_anos\\_p\\_value=All](https://www.sic.gov.co/centro-de-publicaciones?field_global_topic_tid=7037&field_anos_p_value=All)

## 6 Digital economy policy agenda

The policy landscape for an industry-friendly and investment-inducing digital transformation requires targeted instruments to promote the digital ecosystem and economy, which in turn allows business opportunities for all market players, including SMEs. Pillar IV of the G5 Benchmark, Digital Economy Policy Agenda, focuses on how to achieve a thriving digital economy through policies and interventions that range from an innovation framework to targeted policies for digital transformation, sector taxation, and international linkages. In this regard, Colombia's Roadmap for the Digital Economy<sup>50</sup> addresses transversal challenges in order to achieve enabling policy and regulatory frameworks.

**Table 2: Cross-cutting policy and regulatory challenges for the digital economy in Colombia**

Challenge	Scope	Actions
Digital economy policy and regulation		Having a state policy for the coordinated development of the digital economy across sectors.
Governing body for the digital economy	General to the country	Structuring a national institution to coordinate and lead actions between among national agencies.
Net neutrality	Interdisciplinary	Defining a net neutrality policy in line with the national digital economy policy.
Online consumer protection	Interdisciplinary	Having clear consumer protection regulation in place for the digital environment.
Intellectual property	Interdisciplinary	Having clear intellectual property regulation in place for the digital environment.
Information services, OTT	Interdisciplinary	Defining the regulatory framework for information services and online services and their role in the digital economy.
Ex post, competition	Regulation specific	Deciding the cases in which is it preferable for regulation to be ex post, its relationship to policy, and its jurisdiction over competition in order to be ready for particular developments.

Source: Adapted from Arthur D. Little

There are undoubtedly benefits of industry and government working together in developing policies for specific sectors of the economy, such as the SME sector. GSR-20 best practice guidelines<sup>51</sup> note the importance of rooting digital regulation in several vectors for digital transformation to unfold its full potential. One of those vectors is the focus on business; adopting regulation that can be used as a lever for the development of business opportunities across

<sup>50</sup> [https://www.crcom.gov.co/recursos\\_user/2017/hoja\\_ruta/RegulatoryRoadmap.pdf](https://www.crcom.gov.co/recursos_user/2017/hoja_ruta/RegulatoryRoadmap.pdf)

<sup>51</sup> [https://www.itu.int/en/ITU-D/Conferences/GSR/2020/Documents/GSR-20\\_Best-Practice-Guidelines\\_E.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2020/Documents/GSR-20_Best-Practice-Guidelines_E.pdf)

economic sectors. By placing special focus on connectivity and the digitalization of SMEs, competition and innovation in the Colombia economy can be stimulated. Box 10 is an example of a specific action to help SMEs through collaboration between government and the private sector.

### **Box 10: Industry and government hand-in-hand**

The Digital Economy Observatory of Colombia,<sup>1</sup> established by the Bogota Chamber of Commerce and the Ministry of Information and Communication Technologies (MinTIC), monitors the use of new technologies in the production process that will help the private sector to jump into the digital transformation.

According to the Digital Economy Observatory of Colombia, the use of digital technologies for the production process (supply chain, processing/manufacture and distribution channels) has begun to increase significantly since 2016. The Observatory digitization index of mature technologies jumped from 25 to 54 in just two years, especially SMEs, and the gap between these and large companies has narrowed from 27 to 16 points, although microenterprises still lag behind. The Observatory analysis also detected significant progress at the industrial sectors level. In 2015, few sectors had advanced adoption rates in the infrastructure stage (information and communications, and education), but by 2017, most industrial sectors reached advanced levels in infrastructure, which indicates that digital technologies for the production process were widely adopted.<sup>2</sup>

Although large companies have started to implement advanced digital technologies, regional differences persist. For example, the adoption of artificial intelligence in production processes is centred in the Central Region and Antioquia while adoption in other regions is very limited.

MinTIC promoted the transformation of business models for Colombian SMEs with a technology focus from 2016 to 2018 and has continued with the Business Digital Transformation Centers<sup>3</sup> and Innpulsa Colombia<sup>4</sup>. In collaboration with industry associations and academia, both programmes seek to help SMEs with strategies for digital transformation and implementation of technological solutions. According to Sinergia, the goals for persons trained in ICT programmes and new business generation has reached 98.98 per cent.<sup>5</sup>

<sup>1</sup> <https://bibliotecadigital.ccb.org.co/handle/11520/22589>

<sup>2</sup> <https://bibliotecadigital.ccb.org.co/bitstream/handle/11520/22589/Observatorio%20de%20Econom%c3%ada%20Digital.pdf?sequence=1&isAllowed=y>

<sup>3</sup> <https://www.centrosdetransformaciondigital.gov.co/695/w3-channel.html>

<sup>4</sup> <https://aldeainnpulsa.com/>

<sup>5</sup> <https://sinergiapp.dnp.gov.co/#IndicadorProgEntPS/33/1462/5766>



## 7 Time to assess progress

### 7.1 Colombia National Development Plan 2018-2022

Colombia established diverse planning elements for a public digital transformation in the *National Development Plan 2018-2022* (PND),<sup>52</sup> which seeks to clarify objectives, activate policy enablers, identify mechanisms for sustainable inclusive digital ecosystems, and drive digital transformation. Following instructions from MinTIC, national public entities must incorporate digital transformation components, including international best practice objectives and standards, in their action plans.

Likewise, territorial entities are encouraged to define strategies for smart cities and territories and to incorporate the technical guidelines set by the MinTIC in strategic digital transformation projects. The PND sets out an innovation framework to:

- Optimize the management of public resources in information technology projects through the use of demand aggregation instruments and prioritization of cloud services.
- Promote technologies based on free or open-source software, without prejudice to investment in closed technologies.
- Prioritize emerging technologies that facilitate the provision of public services through new models including disintermediation technologies, distributed ledger technology, massive data analysis (big data), artificial intelligence (AI), and robotics.
- Include programmes for the use of technology for citizen participation and open government in the mission processes of public entities.
- Include and update security and digital trust policies.
- Implement public-private strategies that promote the use of electronic means of payment, following the guidelines established in the program for the digitalization of the economy adopted by the government.
- Promote the use of electronic means of payment in the economy, in accordance with the strategy defined by the government to generate adoption by public and private entities of an electronic payment network.

These elements are reflected in the many MinTIC initiatives<sup>53</sup> and they provide the “transformational leadership to unleash the power of emerging technologies and business models”, as recommended in the GSR 2021 best practice guidelines.<sup>54</sup>

<sup>52</sup> Article 154°- Public Digital Transformation - Definitive text of Law No. 311 - 2019 of the Congress / No. 227 - 2019 of the Senate, which issued the "National Development Plan 2018-2022 - Pact for Colombia, Pact for Equity". <https://colaboracion.dnp.gov.co/CDT/Prensa/Articulado-Segundo-Debate-Plan-Nacional-de-Desarrollo.pdf>

<sup>53</sup> <https://www.mintic.gov.co/portal/inicio/Iniciativas/>

<sup>54</sup> [https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/GSR-21\\_Best-Practice-Guidelines\\_FINAL\\_E\\_V2.pdf](https://www.itu.int/en/ITU-D/Conferences/GSR/2021/Documents/GSR-21_Best-Practice-Guidelines_FINAL_E_V2.pdf)

### Box 11: MinTIC initiatives: Digital future for all



Source: MinTIC <https://www.mintic.gov.co/portal/inicio/Iniciativas/>

## 7.2 Govtech in Colombia

Furthermore, adding to the existing framework for innovation through the MiLAB Govtech<sup>55</sup> initiative, Colombia seeks to accelerate the digital transformation of government by connecting it, through collaboration and open innovation strategies, with entrepreneurs and SMEs that make use of technology and innovation to improve the efficiency of the State and strengthen its digital infrastructure.

The initiative is part of the "Public innovation for a modern country" element of the National Development Plan 2018 - 2022<sup>56</sup>, and its main function is to characterize and connect public challenges with entrepreneurs from the private sector innovation ecosystem to strengthen innovative responses for their implementation.

Managed by INNpuls<sup>57</sup>, MiLAB Govtech is defined as the space in which digital start-ups with public vocation emerge, seeking to improve the efficiency and transparency of public management. These start-ups seek to leverage new technologies and open government data to create public value and social impact. Thus, the Govtech space helps public entrepreneurs who create scalable business models in response to a public demand for innovation and more

<sup>55</sup> <https://innpulsacolombia.com/milab/nosotros>

<sup>56</sup> <https://colaboracion.dnp.gov.co/CDT/Prensa/Resumen-PND2018-2022-final.pdf>

<sup>57</sup> The government entrepreneurship and innovation agency, together with MINCIT, supports the acceleration of high-potential ventures and innovative and financing processes that allow companies to scale in order to generate more economic development, equity and opportunities for all.

advanced technology. Examples include Sentinel, an AI bot that detects fraudulent activities<sup>58</sup> and SkillNet RINO, a platform to manage documents in an organization<sup>59</sup>. More examples of Colombian start-ups, scaleups and SME technical solutions can be found on the MiLAB solutions webpage.<sup>60</sup>

### 7.3 Self-assessment and developing a growth mindset

Implementing successful policies and proper planning require identifying what works and what does not work. Colombia's Digital Government policy provides public entities with a self-diagnostic tool to periodically analyse government processes to identify opportunities, improve specific institutional realities, and allow the preparation of progress reports.

CRC carries out self-diagnostic exercises taking a critical view on its activities, such as its regulatory roadmap. Building on its findings, CRC identifies actions to address implementation challenges.

**Table 3: CRC regulatory roadmap: Implementation challenges and actions<sup>61</sup>**

<b>Comprehensive and coordinated state vision for the digital economy</b>	<ul style="list-style-type: none"> <li>• Structure national policy for the digital economy.</li> <li>• Adopt and promote the digital economy for personal/corporate use.</li> <li>• Develop MinTIC competences to evaluate and define guidelines for the well-functioning of markets, services, contents, and apps.</li> <li>• Strengthen trust in the digital environment to drive digital economy.</li> <li>• Close the digital talent gap.</li> <li>• Promote and drive digital transformation in business, including the digitalization and adoption of technologies (i.e., Industry 4.0).</li> <li>• Develop an ecosystem of investors to foster digital innovation.</li> </ul>
<b>Coordination among stakeholders in the digital economy</b>	<ul style="list-style-type: none"> <li>• Coordination among various state agencies and stakeholders in the private sector, civil society, industry associations, and academia for decision-making that appropriately favours the digital economy.</li> <li>• Establish rules to analyse markets in different sectors.</li> <li>• Determine criteria for ICT-supported service applications (Uber, Airbnb, etc.).</li> <li>• Create a technical specialized body for dispute resolution in the areas of the digital economy.</li> </ul>
<b>Classification criteria for digital economy services</b>	<ul style="list-style-type: none"> <li>• Determine criteria to define and/or classify information services and telecommunication services.</li> <li>• Define rules and criteria to analyse markets associated with information and telecommunication services.</li> <li>• Seek a regulatory balance between traditional services and new services (i.e., telecommunication/media - OTT retail - digital commerce).</li> </ul>

<sup>58</sup> <http://innpulsacolombia.com/milab/soluciones/sentinel?solucionador=705>

<sup>59</sup> <http://innpulsacolombia.com/milab/soluciones/skillnet-rino?solucionador=694>

<sup>60</sup> <http://innpulsacolombia.com/milab/soluciones>

<sup>61</sup> Communications Regulatory Commission. (2017). Regulatory Roadmap - [https://www.crcom.gov.co/recursos\\_user/2017/hoja\\_ruta/RegulatoryRoadmap.pdf](https://www.crcom.gov.co/recursos_user/2017/hoja_ruta/RegulatoryRoadmap.pdf)

**Table 3: CRC regulatory roadmap: Implementation challenges and actions (continued)**

<b>Criteria for determining regulatory action or abstention in dynamic markets</b>	<ul style="list-style-type: none"> <li>• Conduct monitoring and analysis of platforms on multisided markets, including evaluation of competition and ex post/ex ante regulation.</li> <li>• Create incentives for a digital copyright hub.</li> <li>• Review current tax regime and the benefits and disadvantages it presents for the digital economy.</li> <li>• Review and analyse labour rules (employment) for the digital economy.</li> </ul>
<b>Rules for the sale of digital consumer personal data</b>	<ul style="list-style-type: none"> <li>• Ensure the privacy of personal data in digital markets.</li> <li>• Establish the possibility for users to digitally sell their personal data.</li> <li>• Create a digital consumer protection scheme for transnational services (i.e., e-commerce).</li> </ul>
<b>Criteria for foreseeing the dominant role of data in new markets</b>	<ul style="list-style-type: none"> <li>• Understand the role that big data plays in competition and regulation of dynamic markets.</li> <li>• Facilitate business access to data without creating competitive advantages that favour certain companies over others.</li> <li>• Ensure consumer protection in the use and application of big data.</li> </ul>
<b>Criteria to ensure that neutrality and network management support new businesses</b>	<ul style="list-style-type: none"> <li>• Ensure that net neutrality rules do not constitute a barrier for the development of new business models, investments, and innovation, without harming consumer and private company rights.</li> <li>• Generate incentives for to promote investments on high quality broadband connections.</li> </ul>
<b>Mechanisms for promoting and following up on new technologies</b>	<ul style="list-style-type: none"> <li>• Guarantee that Colombia is on the technological frontier by monitoring and fostering new technologies (i.e., IoT, Blockchain, APIs, robotics, etc.).</li> <li>• Foster new business models and promote them, especially in financial services (i.e., Fintech).</li> </ul>

These challenges and actions have been part of Colombia's digital transformation policy and have been implemented through different programmes by MinTIC and CRC since 2018. MinTIC has taken several steps to enable the digital transformation, through the initiatives shown in Box 8 above, such as focusing on developing an ecosystem for innovation, fostering new business models, and closing the digital talent gap. CRC has also done its part carrying out analysis related to the impact of OTT<sup>62</sup>, coordinating regulatory responses with stakeholders, issuing regulations for cross-sector infrastructure and promoting regulatory sandboxes, among others.

Colombia has shown it is willing to move forward towards a digital economy. Analysis, studies, policies, transparency, measurements are in place; however, some results on the ground have failed to meet expectations. According to the OECD 2022 Economic Survey for Colombia, there is still work to do on productivity and competition since productivity growth has fallen behind regional peers and competition in general is weak due to persisting administrative barriers that restrict market entry.<sup>63</sup> The OECD 2022 Economic Survey states that the recent pandemic has also exacerbated inequalities of opportunity, particularly in education.

<sup>62</sup> <https://crcom.gov.co/es/biblioteca-virtual/rol-servicios-ott-en-sector-las-comunicaciones-en-colombia-ano-2019-resumen>

<sup>63</sup> [https://read.oecd-ilibrary.org/economics/oecd-economic-surveys-colombia-2022\\_04bf9377-en#page15](https://read.oecd-ilibrary.org/economics/oecd-economic-surveys-colombia-2022_04bf9377-en#page15)

## 8 Looking ahead

The initiatives set out in the CRC 2022 – 2023 regulatory agenda<sup>64</sup> demonstrate the ambition of achieving a digital economy. It responds to the sector needs in terms of users, competition, innovation, quality, and promotion of investment. A total of 30 initiatives were prioritized by the CRC and 18 give continuity to projects and studies started in previous periods including the cross-sector infrastructure sharing, regulatory simplification, and user and consumer protection.

The regulatory agenda describes four initiatives that are developed continuously, and eight new projects that highlight the importance to the CRC of developing innovative actions. The regulatory agenda has enabled quick responses to the needs of regulated sectors.

The initiatives presented are framed within five strategic axes defined in the CRC Institutional Strategic Plan 2021-2025, related to:

- **Welfare and rights of users and audiences:** Focused on the protection and empowerment of users' rights and quality of service.
- **Markets and competition:** This groups together the strategic objectives of fostering competition in communications services and promoting infrastructure investment.
- **Innovation and regulatory improvement:** As a mechanism to promote innovation and technology adoption both within CRC and with communications service providers. This group of initiatives is focused on strengthening the processes of regulatory improvement and regulatory simplification as a mechanism.
- **Stakeholder engagement:** This area groups together initiatives aimed at characterizing the CRC's agents and stakeholders and improving communication, participation, and interaction processes with each of them.
- **Strengthening institutional:** This axis is dedicated to the development of internal capacities that allow CRC to modernize and streamline its processes, improve decision making, as well as digitalize and simplify the interactions between CRC and the stakeholder groups engaged in the regulatory cycle.

### Colombia's journey to collaborative digital regulation based on interviews conducted for this country review

Building a digital economy mindset across all government agencies is the single most difficult challenge in moving towards collaborative regulation.

#### Key counterparts/interlocutors

- *Ministerio de Tecnologías de la Información y las Comunicaciones (MinTIC)*
- *Departamento Nacional de Planeación (PND)*
- *Comisión de Regulación de Comunicaciones (CRC)*

<sup>64</sup> <https://www.crcom.gov.co/es/proyectos-regulatorios/5000-2022-1>

## Colombia's journey to collaborative digital regulation based on interviews conducted for this country review (continued)

### Top three most important actions a regulator can undertake

- Adopt a national development plan that focuses on the digital economy or develops a national digital strategy applicable across all government sectors.
- Draft a national cybersecurity strategy.
- Elaborate a general law in an open and collaborative process that unifies local regulatory criteria for the deployment of infrastructure.

The single most important lesson learned moving forward is that a collaborative regulatory approach is only possible if all entities are working together towards common objectives defined in a national strategy.

### Advice to regulators engaging on a journey towards digital regulation

- Be mindful of ensuring continuity of policy and regulatory processes and policy implementation beyond election cycles.
- Have a long-term vision and strategy, underpinned by cross-sector goals, implementation milestones and operational mechanisms.
- Build consensus on a digital regulatory agenda.

Colombia's regulatory and policy frameworks have evolved rapidly over the last few years and today illustrate an advanced readiness for digital transformation. CRC, along with MinTIC, have reached institutional maturity reflecting professionalism, the ability for medium and long-term planning, an inclusive attitude to stakeholders views and needs, and strong international commitment. This maturity has made it possible to achieve the highest international standards in terms of modern, forward-looking digital policy and regulation. The digital mindset of government has paved the way for digital transformation in support of the creation of a digital economy through a range of active and planned programmes and regulations.

Colombia has implemented a series of measures over the last five years to enable the digital transformation of the economy and society. A process that has aligned legislation, policies and practices to OECD and international best practice and standards and has identified opportunities and set ambitious and aggressive programmes to address digital opportunities. Nevertheless, Colombia faces important challenges in the implementation of its digital transformation for the digital economy, not least the implementation of multiple regulatory reforms and initiatives to be carried out across all government sectors. The need for long-term goals and the ability of future governments to follow through will be decisive in making a success of the digital transformation of Colombia.

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