GSMA

Colombia 2030: Policies for the Digital (R)evolution

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GSMA

The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry, and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach. This activity includes advancing policy, tackling today's biggest societal challenges, underpinning the technology and interoperability that make mobile work, and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

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Colombia 2030: Policies for the Digital (R)evolution

In the last few years, Colombians have seen the evolution and expansion of connectivity. Telecommunications operators have successfully managed to expand 4G and 5G networks, making crucial progress for society, with mobile services as the main driver. This progress includes the adoption of digital payments, access to educational content, and the automation of economic activities such as precision agriculture. Mobile connectivity has been the foundation for the development and adoption of artificial intelligence solutions, boosting the country's productivity, innovation, and competitiveness.

Like most of Latin America, Colombia is at a digital turning point: **it is time to take action. Without a State policy with clear goals, technology will continue to evolve, with the risk of leaving Colombia out of the enormous benefits of connectivity.**

Mobile coverage in Colombia reaches 96% of the population, showing progress in infrastructure deployment by the mobile industry in the last few years. However, 35% of Colombians do not access the benefits of the internet[1] despite being covered. This usage gap is currently the main obstacle for digital inclusion in the country, caused by barriers such as device affordability, lack of digital skills, or concerns related to safety and privacy, which hinder the effective adoption of mobile services.

Four years ago, the mobile industry came together through the GSMA —a global association representing mobile operators and companies in the digital ecosystem— to put forward a series of public policy proposals for the incoming government. At this time, after the significant progress made, the sector shares its vision on how to expand and strengthen an enabling environment so that Colombia can fully leverage the benefits of connectivity.

1 The Mobile Economy Latin America 2024, GSMA, 2024.

Connectivity should be a State policy and a priority for the new government.

In this context, decision-makers are encouraged to consider the regulatory framework and current situation of the digital ecosystem, with the purpose of taking action and fostering a financially sustainable and competitive industry capable of developing and strengthening the infrastructure needed for user-centric progress.

The digital ecosystem has evolved from the era of SMS and voice to the era of data and ubiquitous internet. We can no longer analyze the sector or make decisions through the same lens as in the past. Mobile connectivity has evolved, the internet value chain has expanded, and the need for investment to support the infrastructure and increase service reach has multiplied.

This document intends to shed light on two complementary priorities to strengthen Colombia's digital ecosystem:

1. The expansion of connectivity infrastructure
2. Digital inclusion as a State policy.

The expansion of connectivity infrastructure

Digital inclusion as a State policy

01.

The expansion of connectivity infrastructure

Investments made by operators since the arrival of mobile communications in Colombia have enabled ongoing coverage expansion and network modernization. Connectivity is critical for the development of technologies such as artificial intelligence and data-based economy. Only with a vision of dynamic markets and robust, resilient networks will it be possible to scale advanced digital services and fully unlock their economic and social benefits.

In addition, the current funding model for connectivity is facing growing tensions. Between 2020 and 2024, mobile traffic increased seven-fold, with an average year-on-year increase of 60%[2]. It is further estimated that by 2030, demand will continue to grow at an annual rate of 20%, tripling current volumes[3]. This growth, highly concentrated in a few platforms and driven by high-definition videos, requires substantial investment to expand network capacity.

2 Data Flash 2025, CRC, 2025.
3 Mobile network usage in Latin America, GSMA, 2024.

It is essential to modernize the regulatory framework with a true digital ecosystem vision, encompassing the entire internet value chain and promoting an efficient, competitive, and sustainable environment where connectivity remains a driver of development and inclusion. Failure to address this issue can risk the potential socio-economic value of 5G in Colombia, which is estimated at USD 4 billion, equivalent to 0.9% of GDP[4].

Reducing regulatory burdens and creating incentives to attract investment through fiscal, regulatory and spectrum policies that recognize the new market dynamics and value chain interactions will drive infrastructure deployment and ensure more Colombians can fully engage in the digital transformation.

Recommendations for the expansion of connectivity infrastructure:

1. **Updating the regulatory framework with a holistic view of the digital ecosystem, promoting modern and efficient regulation that strengthens legal certainty and favors investment.** Colombia's digital transformation requires an updated regulatory framework. In this regard, the country has taken a significant step by prioritizing the discussion on the sustainability of telecommunications network investment, positioning itself as a regional and global example regarding the public policy debate with a digital ecosystem vision. However, the evolution of the regulatory and institutional framework has not kept up with the pace of the technological transformation.

2. **Equipping the regulator with effective capacities to act across the entire internet value chain[5].** To move toward sustainable regulation consistent with the digital transformation, it is fundamental for the regulator to have the authority to act across the entire internet value chain, recognizing the new dynamics in value chains that have an impact on the provision of traditional services.

   Technological convergence has blurred the boundaries between networks, services, platforms, and content, resulting in an interconnected digital ecosystem where multiple actors compete,

4 5G in Latin America, GSMA, 2023.
5 To learn more, see "Opinión jurídica sobre la ruta para la adopción de una regulación que involucre '*grandes generadores de tráfico*' (LTG), en la remuneración para el despliegue, mantenimiento y financiación de la capacidad de las redes de servicios de comunicaciones. Competencia de la Comisión de Regulación de Comunicaciones" Asociación de la Industria Móvil de Colombia (Colombian Mobile Industry Association) – Asomóvil, 2024.

It is essential for the new government to adopt a holistic digital ecosystem approach in its connectivity policies.

cooperate, and complement one another. In this environment, digital platforms relying on telecommunications infrastructure provide services equivalent to traditional ones, without being subject to the same regulatory or financial obligations. This creates asymmetries that affect not only competition and the sustainability of the sector but also users' rights.

Limiting regulatory intervention only to network providers is insufficient to eliminate these distortions. It is necessary to equip the regulator with greater formal capacities to analyze and intervene, in a proportionate and consistent manner, across all the links in the digital ecosystem. This will help protect users, address market failures, promote a level playing field, and maintain the incentives for investment.

3. Balancing regulatory responsibilities and obligations among the multiple actors of the digital ecosystem. Today, everyone from a mother in Chocó to a family in San Andres Island pays monthly for their mobile internet access, contributing to the maintenance of the networks that make connectivity possible. **However, while millions of Colombians pay for their own connectivity, three large platforms that generate more than 60% of local mobile traffic[6] do not contribute equivalently for their intensive network use, creating an asymmetrical burden on operators and, by extension, on users themselves.**

The internet works as a network of networks, made up of multiple links that enable data to travel from content servers to each user's mobile phone. In this ecosystem, mobile operators are the ones who invest the most to deploy, expand, and maintain the access infrastructure that connects citizens directly. Some large traffic generators claim they contribute by investing in datacenters, submarine cables, or content distribution networks (CDNs). However, evidence shows that **the main cost of connectivity falls on the access network, which is responsible for nearly 80% of total infrastructure costs, financed almost exclusively by telecommunications service providers[7].**

6 Estudio de Plataformas de Servicios Digitales OTT 2024, CRC, 2025.
7 Large traffic generators and network usage: myths and realities, GSMA, 2024.

All actors in the digital ecosystem must contribute to the efficient use of networks to ensure their sustainability.

Additionally, the presence of CDNs in the country does not mean that traffic is fully local, nor does it significantly reduce the burden on national networks. When their presence is concentrated in only a few cities, a large portion of the traffic continues to travel across extensive parts of the network —especially in a country with Colombia's diverse geography, where rural and remote areas face greater connectivity challenges. This is why it is key to distinguish between local and national traffic, and assess the actual distribution of these infrastructures, as their main function is to optimize platforms' own services rather than contributing to the sustainability of the network as a whole.

In this context, regulatory responsibilities and obligations need to be equivalent for all digital ecosystem actors. Public policies must recognize that investment in national infrastructure is fundamental to closing the digital divide and ensuring quality of service, promoting access conditions that are equitable, transparent, and focused on the public interest.

Part of this equalization implies promoting mechanisms so that **all digital ecosystem actors provide technical information that enables evidence-based decision-making**. It is also necessary to **establish regulatory conditions that facilitate the voluntary negotiation of balanced contribution mechanisms**[8] between network providers and large traffic generators[9].

Recognizing that the volume of the traffic generated directly impacts operational costs, network expansion, energy consumption, and the digital ecosystem's environmental footprint is key to moving toward more sustainable development.

4. **Modernizing the approach to net neutrality to enable new services with different levels of latency, quality, and reliability, thereby unlocking the socio-economic benefits of 5G.** Technologies like 5G need to be supported by a flexible and technically viable network management, moving beyond rigid approaches that currently limit innovation, quality of service, and preparedness for future

8 Mobile network usage in Latin America, GSMA, 2024; Large traffic generators and network usage: myths and realities, GSMA, 2024.

9 Establishing mechanisms that facilitate negotiation in an environment of structural asymmetry can result in an inability to reach satisfactory agreements for the parties involved. A dispute resolution mechanism should be in place to remedy imbalances and strengthen the incentives to reach mutually beneficial agreements.

generations of connectivity. Operators need to be able to manage their networks, based on the principles of transparency, non-discrimination, necessity, and proportionality, in order to respond to users' needs and promote a more efficient, innovative, and productive digital economy.

5. **Designing a spectrum policy based on reasonable pricing and realistic conditions, prioritizing spectrum availability for the sector.** The spectrum is an essential resource to deploy quality mobile networks. Timely access to spectrum is key to sustaining investment, expanding coverage, and improving services. The spectrum is a critical cost structure component. Therefore, materializing the legal principle of maximizing social welfare through a policy oriented toward promoting investments rather than tax collection will be fundamental to ensuring the sustainability of the ecosystem.

Enabling access to new spectrum and establishing adequate license renewal requirements under predictable conditions will contribute to a spectrum policy consistent with the expansion of connectivity. For this reason, a review of the spectrum pricing valuation process is required, taking into account the results of the 2023 auction, as well as the current high availability of spectrum. High prices and disproportionate in-kind obligations can limit the capacity for investment, affecting quality of service. In turn, a pro-investment framework strengthens network sustainability and competitiveness.

6. **Enabling flexible energy schemes and demand aggregation for digital infrastructure.** Network operation increasingly relies on energy consumption, which is one of the main operational costs for mobile operators. Collaborative efforts should be undertaken with the Energy and Gas Regulatory Commission (CREG, by its Spanish acronym) to update the energy regulatory framework and eliminate restrictions that limit access to the non-regulated market, allowing for the free negotiation of more efficient contracting schemes.

Promoting energy efficiency in an energy-intensive industry will bring down the costs, improve the sector's financial sustainability, enable deployment expansion, and strengthen infrastructure resilience.

02.

Digital inclusion as a State policy

To move toward a more productive, competitive and inclusive Colombia, it is fundamental to **promote the access, adoption and effective use of digital services.** Closing the digital divide should be a strategic priority for national development.

Human capital is one of Colombia's greatest assets, and its full exploitation requires a society that is connected, digitally literate and skilled in key competencies for the 21st century economy, such as artificial intelligence, automation, and digital services. Digital inclusion should be established as a State policy, aligned with a modern fiscal framework, a smart use of public resources, and the creation of actual opportunities in health, employment and productivity.

Despite having 96% of mobile coverage, 35% of Colombians do not access the benefits of connectivity. This is the so-called usage gap: people who have mobile coverage but do not connect to the internet due to multiple barriers, such as the lack of affordability of smartphones and digital skills.

To expand the supply and, in particular, incentivize demand beyond current levels, the options include reducing the technology costs faced by the sector and consumers —for example, through the co-financing of investments in remote areas— or promoting digital training and appropriation programs, tax exemptions for handsets and services, and policies to facilitate access by underprivileged populations[10].

Recommendations to expand digital inclusion:

7. **Reducing sector-specific taxes that raise the price of connectivity, promoting more affordable devices.** Mobile connectivity is no longer a luxury. It is an essential service for social inclusion, access to rights, and economic development. However, in Colombia, some sector-specific taxes persist and drive up the cost of devices and services, disproportionately affecting the lowest-income portion of the population. Anachronistic taxes, like the Telegraph Tax, still in force in some municipalities, or the Consumption Tax (known as "ImpoConsumo"), which continues to treat connectivity as a luxury good, reflect fiscal frameworks designed for technologies of the past. Colombia is the fourth country in Latin America with the highest taxes on connectivity; this burden accounted for nearly 40% of the cost of connectivity in 2023[11].

The evidence is clear. These taxes are regressive, distortionary, and limit digital adoption. Reducing or eliminating these taxes would not only improve affordability —boosting access, digitalization, and economic growth— but, over the medium term, could even strengthen tax collection[12]. Colombia needs a fiscal approach aligned with the current digital ecosystem, recognizing connectivity as an enabler of development, not as an extraordinary source of revenue.

10 Connectivity gaps in Latin America, GSMA, 2023.
11 For 2023, the total cost of connectivity represents the sum of the total revenues of mobile operators in the region's markets, including income generated from monthly service subscriptions and the sale of mobile devices. See "Impuestos específicos al sector móvil en América Latina. Impacto sobre la conectividad y la recaudación fiscal", GSMA, 2025.
12 Impuestos específicos al sector móvil en América Latina. Impacto sobre la conectividad y la recaudación fiscal, GSMA, 2025.

8. Aligning digital inclusion goals with a reform of the Information and Communications Technology Fund (FUTIC) to make it efficient and effective. The Universal Service Funds have been created to close the connectivity gap, especially in rural or remote areas. However, studies in Colombia and Latin America[13] show that these funds have not been fully effective, as they show low execution levels, underused projects, and a lack of clear assessment of results and social impact. Furthermore, their financing model continues to fall almost exclusively on operators, despite the fact that the digital ecosystem is now much broader.

Reforming the FUTIC is necessary to ensure available resources translate into actual connectivity for the communities that need it the most. Doing so includes improving spending efficiency, strengthening transparency and accountability, prioritizing high-impact projects while leveraging the specific allocation of resources, and broadening the contribution base to other actors in the internet value chain to ensure the fund's sustainability without affecting the mobile sector's investment capacity.

Moving beyond revenue-focused policies and decisions must be accompanied by a review of FUTIC's funding sources and initiatives, as well as the implementation of efficiency parameters and indicators for the management, allocation, and use of those resources, leveraging and respecting their specific purpose and allocation.

9. Strengthening digital literacy campaigns, including online safety and fraud prevention. Digital inclusion cannot be achieved only through infrastructure and devices. It also requires skills, trust and a responsible use of technology. In this context, the digitalization of State procedures can act as a key tool for the improvement of efficiency and public management, provided it is supported by policies that bridge the knowledge gap for both citizens and public administration. It cannot be overlooked that many people do not adopt digital services because they do not know how to use them, do not trust them, or fear being victims of fraud and scams. In an increasingly digital environment, these barriers become factors of exclusion.

13 Connectivity gaps in Latin America, GSMA, 2023.

An effective digital inclusion agenda requires a fiscal and regulatory framework that supports the adoption of mobile services.

Strengthening digital literacy campaigns, including online safety, data protection, and fraud prevention, is essential to empower citizens and promote a safe and productive use of connectivity. Investing in digital skills not only protects users but also drives participation in the digital economy, improves employability, and contributes to a more informed, resilient, and inclusive society. Mobile operators represent a strategic ally for a more digitally literate society that makes informed decisions.

10. **Integrating artificial intelligence (AI) into the digital agenda with a focus on enabling infrastructure.** The telecommunications sector drives the development and use of AI, both technologically —through network connectivity, datacenters and cloud capacity— and by enabling access to it. The sector itself uses AI to optimize networks, automate services, and enable a more efficient resource management.

Promoting the transformation of AI for the benefit of society and the economy requires flexible rules, common ethical principles and public-private collaboration that ensures responsible innovation, development and usage.

Today, Colombia needs to reaffirm its commitment to investment in infrastructure and to a modern enabling framework to make the leap toward a more inclusive, safe, and competitive digital economy. Building this innovative and sustainable future requires a genuine partnership between the State and the private sector, with vision and coordination. On this path, the mobile industry is ready to be a strategic ally in the country's digital (r)evolution.

Recommendations for a digital and connected **Colombia**

The expansion of connectivity infrastructure

1. Updating the regulatory framework with a holistic view of the digital ecosystem, promoting modern and efficient regulation that strengthens legal certainty and favors investment.

2. Equipping the regulator with effective capacities to act across the entire internet value chain.

3. Balancing regulatory responsibilities and obligations among the multiple actors of the digital ecosystem.

4. Modernizing the approach to net neutrality to enable new services with different levels of latency, quality, and reliability, thereby unlocking the socio-economic benefits of 5G.

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10. Integrating artificial intelligence (AI) into the digital agenda with a focus on enabling infrastructure.

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