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Collaborative regulation for digital transformation in Kenya: A country review

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Foreword

I am delighted to present this study 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 established evidence-based tools, the ITU ICT Regulatory Tracker and the ITU 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 series of collaborative digital regulation country reviews 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 efforts to measure the impact and benefits of G5 collaborative digital regulation, and support ITU Member States 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.

Dr. Cosmas Luckyson Zavazava
Director, Telecommunication Development Bureau (BDT)
International Telecommunication union (ITU)

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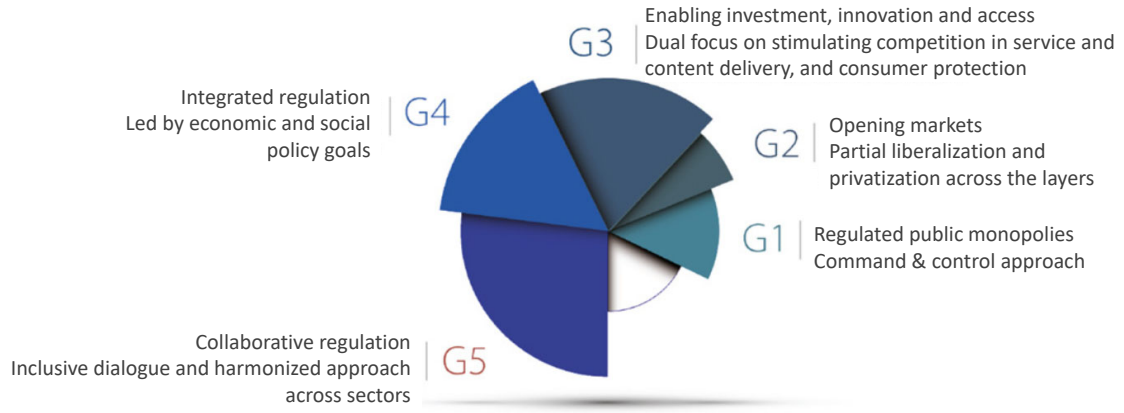
Introduction

Kenya is currently modernizing its information and communications technology (ICT) sector, adopting various high-level policies and strategies to better embrace digital transformation. As noted in interviews with public and private sector entities, those efforts have been marked by multiple success stories and by opportunities for improvement, in terms of collaboration among sector ministries and authorities, consistency in cross-sectoral policies and increased stakeholder engagement.

Under its "generations of regulation" model, the International Telecommunication Union (ITU) has identified Kenya as a "generation 4" (G4) country in terms of legal and regulatory frameworks for the ICT sector.[1] Kenya has been particularly skillful in prioritizing regulatory reforms of benefit to the broader digital economy, rather than the ICT sector alone.[2] In terms of its level of readiness for the digital transformation beyond the ICT sector, Kenya has been recognized as an advanced G5 country thanks to the "regulatory initiatives enabling digital markets to deliver better services and higher value to consumers".[3] Other countries that have attained this distinction include Brazil, Canada, Japan, Morocco, Saudi Arabia and Singapore.

Under the generations of regulation model, G5 regulatory frameworks take a collaborative approach to the regulations needed to support digital transformation. The aim is to harmonize sector frameworks (see Figure 1) by engaging public and private sector stakeholders across sectors. This includes the ICT regulator working with other sector authorities to coordinate on overlapping digital economy issues; it also includes working closely with industry and civil society to be more inclusive as new policies and regulations are developed.

Figure 1: Generations of ICT regulation – conceptual framework



Source: ITU

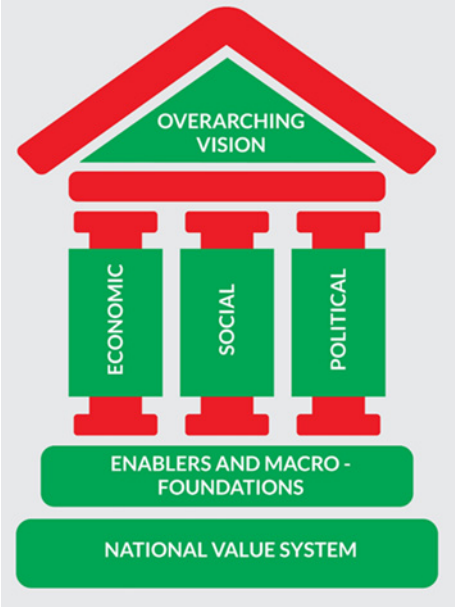
Also crucial to G5 collaborative digital regulation is more agile governmental organization, to improve efficiency, effectiveness and the speed of decision-making. This involves establishing clearer links between policy decisions, implementation and performance monitoring, taking an evidence-based approach to decision-making processes.

1 ITU, ICT Regulatory Tracker.
2 ITU, Global ICT Regulatory Outlook 2020.
3 Ibid.

Kenya's advances under the generations of regulation model are part of a broader national policy, Kenya Vision 2030.[4] First launched in 2008, Vision 2030 is a long-term, overarching "vehicle for accelerating transformation" by the year 2030. As shown in Figure 2, it has three pillars – economic, social and political – built on foundations of enablers and macroeconomic stability to encourage development across all sectors, including the ICT sector.

ICT sector initiatives seek to develop ICT infrastructure, provide low-cost computers and tablets to universities and schools, position Kenya as an ICT hub in Africa, improve e-government and other public services, and introduce policy and legal reforms to promote ICTs.

Figure 2: Kenya's Vision 2030 pillars



Source: Kenya Vision 2030

Because coordination across sectors is essential to achieving the Vision 2030 goals, the policy establishes various mechanisms for collaboration, including the Vision 2030 Delivery Secretariat and the Vision 2030 Delivery Board.

The Delivery Secretariat "closely collaborate[s] with line ministries in developing the five-year medium-term plans for the realization of the Vision".[5] It is headed by a director general, along with the directors responsible for each of the four pillars. There are also clear mechanisms for coordination of sector reform.[6] The National Council on the Administration of Justice and the National Collaboration for Oversight and Accountability, which are high-level national policy-making, implementation and oversight coordinating mechanisms, handle coordination and implementation of overall sector policy reform.

The Delivery Board advises the Delivery Secretariat. Its members include both private sector representatives and government officials from various sectors, such as the ministers for ICT, transport, treasury, labour, industry, international trade and education.

4 Kenya Vision 2030.
5 Kenya Vision 2030, Vision Delivery Secretariat.
6 Kenya Vision 2030, VDS Coordination of Sector Reforms.

The Government publishes regular progress reports to provide transparency and accountability, and to monitor how targets are being met.[7] During the first 10 years of implementation, Kenya made significant progress towards fulfilling Vision 2030 under medium-term plans 1 and 2. Plan 1 focused on higher and sustainable economic growth, while plan 2 identified the policy actions, reforms, programmes and projects needed for equitable socio-economic development, including the introduction of the Digital Learning Programme.[8] The Government is currently implementing medium-term plan 3 (2018 – 2022), with the most recent progress report published for the fiscal year 2019 – 2020. ICT initiatives under plan 3 include improving universal access to ICT services – particularly broadband – under the National ICT Infrastructure Programme. By 2020, the Government had met many of the ICT targets, including:[9]

- extending the national fibre-optic backbone to meet the goal of building out a total of 2 500 km of fibre;
- interconnecting all 47 counties through last-mile wired and wireless networks; and
- creating an integrated unified government communication system that enables government officials to share information more securely, effectively and efficiently.

With its clearly stated goals, execution and monitoring, Vision 2030 reflects international best practices, which call for transformation strategies and digital economy policies to include "concrete implementation mechanisms and targets".[10] The ongoing tracking of progress under Vision 2030 demonstrates Kenya's adherence to established global standards.[11]

This case study examines Kenya's progress under Vision 2030, identifying initiatives and actions leading to digital transformation and more collaborative regulatory approaches. Inputs include Kenya's responses to the ITU G5 questionnaire, virtual and written interviews with various Kenyan authorities and private sector players, and independent research. On the public sector side, virtual and written interviews were conducted with the Communications Authority of Kenya (formerly the Communications Commission of Kenya), the ICT Authority, the National Communications Secretariat, and the Konza Technopolis Development Authority. From the private sector, interviews were conducted with Airtel Networks Kenya, Safaricom Kenya and the industry group Technology Service Providers of Kenya. The topics addressed are:

- the institutional set-up of the ICT sector and across economic sectors;
- the main ICT sector policies;
- cross-sector policies for the digital economy and digital transformation;
- collaborative practices across institutions;
- regulatory tools to promote the digital economy and digital transformation;
- the level of regulatory maturity and policy implementation.

7 Kenya Vision 2030, Kenya Vision 2030 Flagship Programmes and Projects Progress Reports.
8 Kenya Vision 2030, Marking 10 years.
9 Kenya Vision 2030, Flagship Projects Project Report FY 2019-2020.
10 ITU, Best Practice Guidelines: Regulatory uplift for financing digital infrastructure, access and use (June 2021), p. 3.
11 Ibid.

1 Institutional set-up of the ICT sector and across economic sectors

Kenya has a strong institutional framework with established and effective regulatory authorities for the ICT sector and across economic sectors. A crucial component for digital transformation will be to improve affordable and universal access to ICT infrastructure, both for last-mile and backbone connectivity. This section highlights the current state of play in Kenya's ICT and related markets, and describes the Communications Authority and other sector authorities involved in the digital economy.

1.1 State of ICT markets

On the journey to digital transformation, it is critical that governments design and implement demand creation for broadband services and digital literacy programmes for all.[12] Kenya has adopted such programmes and continues to work to improve Internet access. It had 41 mobile broadband subscriptions per 100 inhabitants as of 2019 and 0.72 fixed-line broadband subscriptions per 100 inhabitants as of 2020, according to the ITU ICT-Eye.[13] Although further progress is needed, these figures mark an improvement since 2016, when Kenya reported a mobile broadband penetration rate of 25.6 subscriptions per 100 inhabitants and a fixed-line broadband penetration rate of 0.31 per 100 inhabitants. Notably, the penetration rate for mobile cellular subscriptions was 103 per cent in 2020, compared to 78.77 per cent in 2016.

Consumer prices for fixed and mobile broadband services have dropped sharply.[14] Fixed broadband prices for 5 GB of data declined sharply from USD 95.70 in 2009 to USD 63.33 in 2021, while the price for data-only mobile broadband (2 GB of data) fell from USD 25.28 in 2013 (the first year for which price information is available) to USD 10.92 in 2021. In comparison, the 2021 median price for fixed broadband (5 GB) across Africa was USD 63 – about the same as in Kenya – whereas the global price was far lower at USD 43.48. For data-only mobile broadband (2 GB), the median prices were USD 17.40 across Africa and USD 17.22 globally, making Kenya far more affordable than other countries in Africa and worldwide (all prices are based on purchasing power parity). Figures 3 and 4 show how Kenya's fixed and mobile broadband prices compare across the continent and the world, with steep declines since 2009 and 2013, respectively.

12 Ibid, p. 5.
13 ITU Data Hub, 2020 data.
14 ITU and Alliance for Affordable Internet, Policy Brief – The Affordability of ICT Services in 2021 (March 2022).

Figure 3: Prices for fixed broadband in Kenya, Africa and the world, based on purchasing power parity (2009 – 2021)

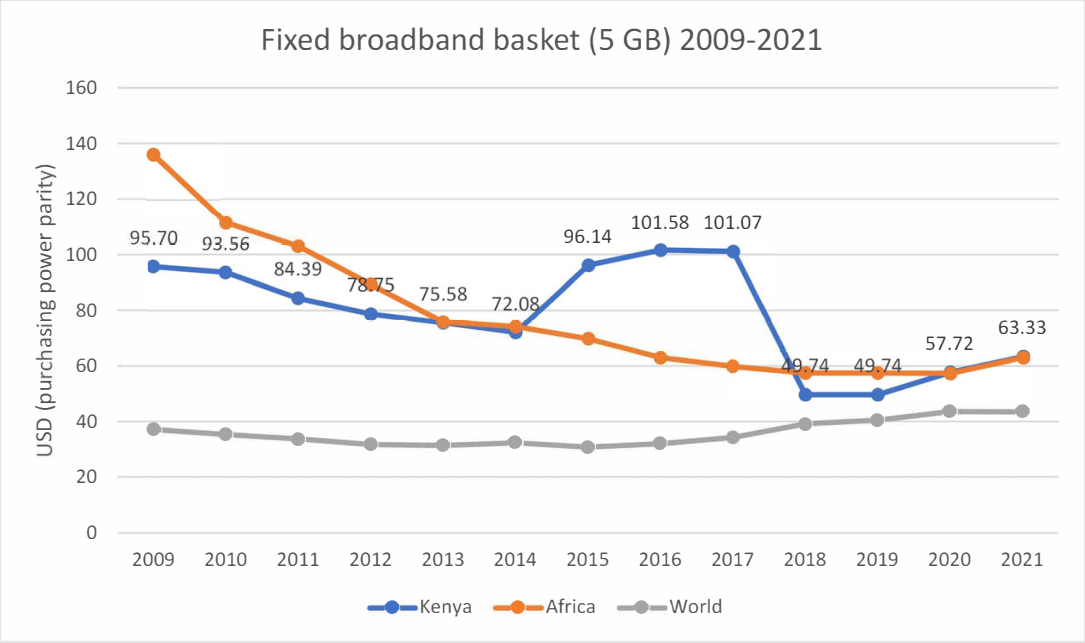
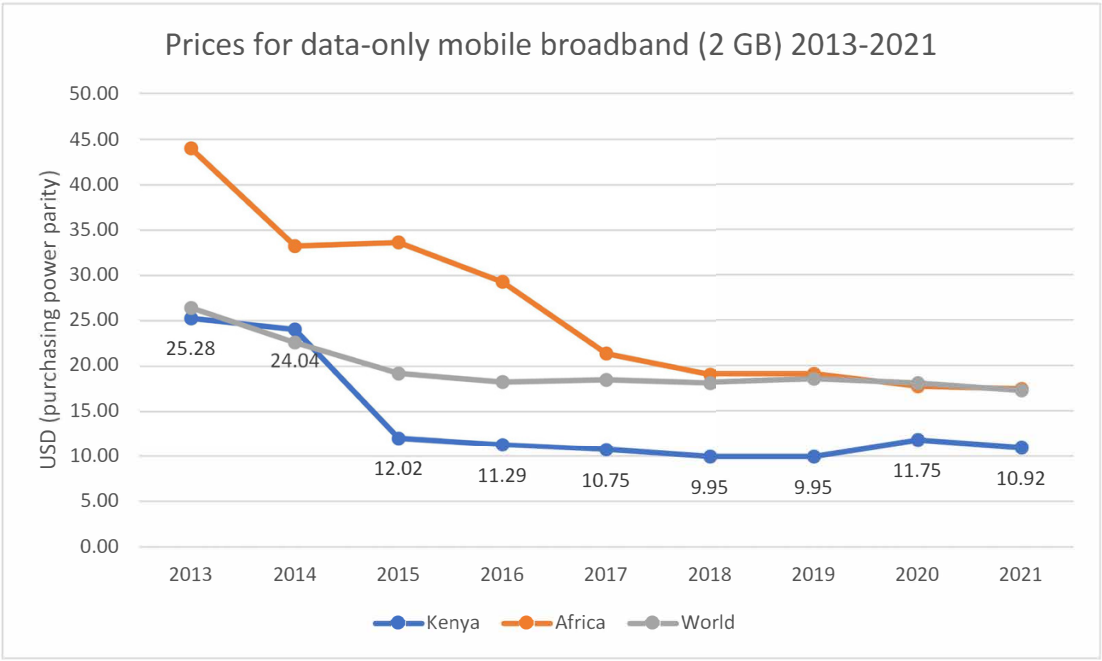


Figure 4: Prices for mobile broadband in Kenya, Africa and the world, based on purchasing power parity (2013 – 2021)



Kenya's mobile broadband and fixed-line markets are considered fully competitive.[15] However, foreign ownership restrictions are in place, requiring licensees to issue at least 30 per cent of their shares to Kenyans within three years of receiving a telecommunication licence.[16] As

[15] ITU, Data Hub, 2020 data.
[16] Communications Authority, Telecommunications Licensing Procedures.

detailed in Table 1, Kenya has adopted a type of unified licensing framework that establishes three main types of telecommunication licence, namely network facilities provider (divided into three subcategories), application service provider and content service provider, with multiple additional licences for international gateways, submarine cable landing rights and others.[17] Companies must obtain separate licences for each type of activity in which they engage. For example, Airtel Networks Kenya holds four different licences: network facilities provider Tier 1, application service provider, content service provider and international gateway.

Table 1: Kenya's telecommunication licensing framework

Licence	Description	No. of licensees[18]
Network facilities provider	Establish/operate communication infrastructure using any technology for the purpose of leasing it to application service providers. • Tier 1 allows nationwide deployment using national spectrum resources. • Tier 2 allows nationwide deployment, but spectrum allocation is regional and not national. • Tier 3 allows deployment in specific regions only and does not authorize satellite communications.	Tier 1: 3 Tier 2: 35 Tier 3: 65
Applications service provider	Offer any type of telecommunications to end users (e.g. voice, data, Internet) using infrastructure leased from a network facilities provider licensee.	407
Content service provider	Provide content-related services to end users who are customers of application service providers, using network licensee infrastructure and application licensee systems. Services may be information-, entertainment- or education-related and can be text, voice or video.	631
International gateway systems and service	Establish/operate international gateway systems and provide international gateway services using satellite.	12
Submarine cable landing rights	Establish submarine cable systems for international connectivity.	3
Satellite licences	Includes private very small aperture terminal licences and global mobile personal communication service landing rights authorization.	Not identified in the licence register
Dot KE domain name registrars	Dot KE domain name registry service providers and dot KE subdomain name registrar licensing.	143
Terminal equipment provider	Includes licences for telecommunication terminal equipment contractors, vendors and technical personnel.	1500+

[17] Communications Authority, Telecommunication Market Structure.
[18] Communications Authority, Register of Unified Licensing Framework Licenses (October 2022).

In addition to commercial licensees, the Communications Authority introduced a licensing and shared spectrum framework for community networks in May 2021.[19] In the near term, it seeks to integrate a new licence category – the community network service provider licence for community networks – within the unified licensing framework and to review spectrum policies so as to expand licence-exempt use in various bands. To qualify as a community network, an entity must be fully controlled by a non-profit entity and operate for non-profitable purposes; serve a particular community; encourage community members to participate in service governance, design and operationalization; and be funded by donations, grants, sponsorships and/or memberships.

The Communications Authority promotes transparency by regularly publishing market statistics, with the latest report covering the first quarter of the 2021–2022 period.[20] Safaricom currently owns 64.6 per cent of the mobile market, Airtel Networks Kenya 26.4 per cent and Telkom Kenya 6.4 per cent. Jamil Telecom and Finserve own the remaining 2.6 per cent.[21] For fixed data/Internet, Safaricom has a 37 per cent share of the market, followed by Wanachi Group (29.2 per cent), Jamil Telecom (18.9 per cent) and Poa Internet (9.1 per cent), with the remaining shares split between seven providers.

In response to the COVID-19 pandemic, the Communications Authority worked on its own and in close coordination with ministries, other authorities and the private sector to ease compliance requirements and mitigate the negative impact. For example:

- it offered additional spectrum resources to mobile operators to meet increased demand for data and Internet services, and waived regulatory fees for public and private entities using toll-free numbers to offer COVID-19 advisories;[22]
- it expedited the application procedure for type approval of certain equipment to enable entities to introduce digital health technologies more quickly;[23]
- it and the Kenya Defence Force collaborated with private sector operators to secure ICT infrastructure and ensure service availability throughout the lockdown.

The Ministry of Information, Communication and the Digital Economy, also established the COVID-19 Advisory Committee to coordinate ICT-specific responses to the pandemic across various sectors, including health, the economy, food, livelihoods, logistics/transport and security.[24] The committee engages in cross-sectoral collaboration with the Ministry of ICT, the Communications Authority, the Ministry of Health, the Ministry of Education, the ICT Authority and the Kenya Institute of Curriculum Development. Its purpose is to identify and support local ICT solutions that combat the pandemic's effects, particularly innovations that can be scaled up to stimulate economic development in the COVID-19 recovery. Further information on these initiatives is provided in section 6.1 below.

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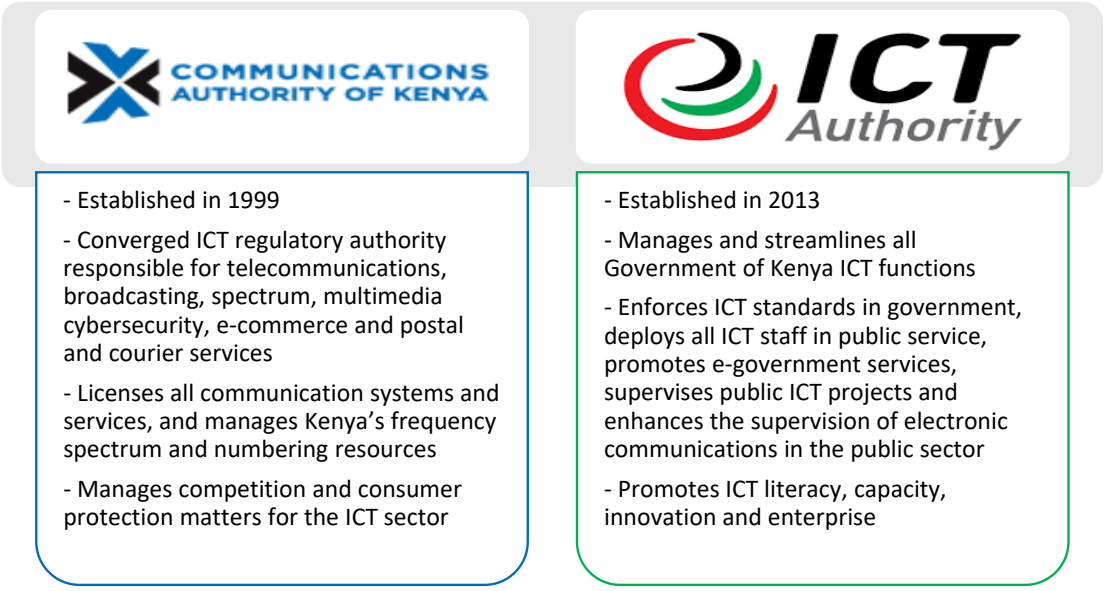
19 Communications Authority, Licensing and Shared Spectrum Framework for Community Networks (May 2021).
20 Communications Authority, Industry Statistics.
21 Communications Authority, First Quarter Sector Statistics Report for the Financial Year 2021/2022 (July–September 2021).
22 Communications Authority, Leveraging ICTs In the Fight Against COVID-19 Pandemic (30 April 2020).
23 Communications Authority, Public Notice on Introduction of Simplified Type Acceptance Procedure during the COVID-19 Pandemic Period.
24 Communications Authority, ICT Advisory Committee on COVID-19.

1.1.1 The Ministry of ICT and the ICT authorities governing the private and public sectors

The Ministry of ICT houses multiple authorities and bodies that advise, implement policies on and regulate the ICT sector, including the Communications Authority and the ICT Authority. As described in Figure 5, whereas the Communications Authority is largely tasked with licensing and regulation of ICT activities in Kenya,[25] the ICT Authority manages all governmental ICT functions[26]. The two entities thus have complementary roles in infrastructure development and sectoral policy implementation.

Figure 5: Mandates of the Communications Authority and the ICT Authority



Under the Kenya Information and Communications Act, the Communications Authority is "independent and free of control by government, political, or commercial interests".[27] It is also identified as having autonomous decision-making powers in the ICT-Eye,[28] which means that it is independent in terms of finance, structure and decision-making from operators and the sectoral ministry.[29] This designation also means that its decisions are made impartially, to increase efficiency and allow it to serve as a neutral broker in the market.[30]

The Communications Authority Board of Directors is made up of Principal Secretaries from the Ministry of ICT, the State Department for the Interior and the National Treasury.[31] Further, the Kenya Information and Communications Act empowers the Cabinet Secretary to issue it with general policy guidelines. Although the involvement of various ministries may limit the Communications Authority's autonomy, it can also promote intersectoral coordination.

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25 Communications Authority, About Us: What We Do.
26 ICT Authority, About Us.
27 Kenya Information and Communications Act, Article 5A-5C.
28 ITU, Data Hub.
29 ITU, ICT Regulatory Tracker.
30 Ibid.
31 Communications Authority, Board of Directors.

1.1.2 Other sectoral authorities involved in the digital economy

Numerous other sectoral authorities and bodies are involved in Kenya's ICT sector and digital economy. As summarized in Table 2, examples include the Competition Authority of Kenya, the National Communications Secretariat, the Central Bank of Kenya and the Office of the Data Protection Commissioner.

Table 2: Other sectoral authorities involved in the digital economy

Authority/body	Overview of authority	Examples of role in the digital economy
Competition Authority of Kenya	Issues/implements general consumer protection and competition rules[32]	Recently examined the digital credit market in terms of how policy can support consumer protection and competition[33]
National Communications Secretariat	Provides advisory services to the Ministry of ICT on ICT policies[34]	Published the second Draft Digital Economy Strategy in October 2020[35]
Central Bank of Kenya	Formulates monetary policy, issues currency and is the government's banker[36]	In February 2022, launched a consultation on the creation of a central bank digital currency[37]
Office of the Data Protection Commissioner	Protects data privacy and regulates the collection and processing of personal data[38]	Strategic Plan 2022–2025 on enabling a digital ecosystem that promotes data protection[39]

[32] Competition Authority of Kenya, About Us.
[33] Competition Authority of Kenya, A decade later, how can policy support consumer protection and competition in Kenya's digital credit market? (30 November 2021).
[34] National Communications Secretariat, About Us.
[35] National Communications Secretariat, Draft Digital Economy Strategy.
[36] Central Bank of Kenya.
[37] Central Bank of Kenya, Discussion Paper on Central Bank Digital Currency (10 February 2022).
[38] Office of the Data Protection Commissioner, Mandate of the Office.
[39] Office of the Data Protection Commissioner, Strategic Plan 2022/3 – 2024/5.

2 Key ICT sector policies

The Communications and the ICT Authorities often work with other sectoral bodies to develop policies and strategies that strengthen Kenya's position in the digital economy, frequently centered on promoting ICT infrastructure deployment, access and innovation in digital technologies. Key policies aimed at achieving Kenya's Vision 2030 include the Digital Economy Blueprint (2019), the National ICT Policy Guidelines (2020), the Digital Economy Strategy (2020) and the National Broadband Strategy (2018 – 2023). As shown in Figure 6, the Ministry of ICT has published each of these policies, with inputs from subordinate authorities and other sectoral ministries and bodies.

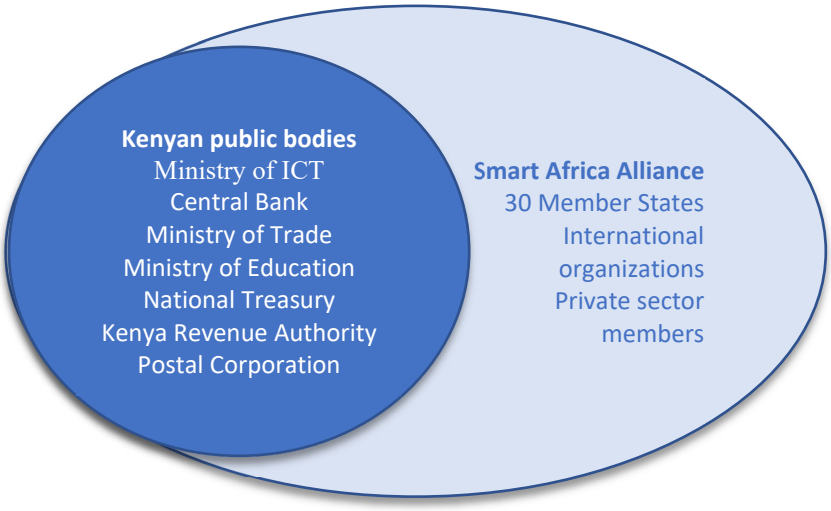
Figure 6: Ministry-led policies to promote the ICT sector and digital transformation

2.1 Digital Economy Blueprint

The Ministry of Information, Communication and the Digital Economy developed the Digital Economy Blueprint in collaboration with the Communications Authority, the National Communications Secretariat and the Konza Technopolis Development Authority (all of which answer to it), along with the Central Bank, the Ministry of Trade, the Ministry of Education, the National Treasury, the Kenya Revenue Authority and the Postal Corporation of Kenya. Private sector stakeholders were also consulted, including the Technology Service Providers of Kenya. The Blueprint defines the digital economy as "the entirety of sectors that operate using digitally-enabled communications and networks leveraging internet, mobile and other technologies, irrespective of industry".[40] Beyond Kenya, the Blueprint contributes to the Smart Africa Alliance initiative, which aims to digitize the economies and trade of 30 countries across the continent in order to create a single digital market.[41] The 30 Member States are expected to adopt the Blueprint and develop their respective country strategies. Figure 7 shows the wide range of national public bodies and international players responsible for developing and implementing the Blueprint.

[40] Ministry of ICT, Digital Economy Blueprint, Executive Summary (2019).
[41] Communications Authority, Kenya Launches Digital Economy Blueprint (19 May 2019).

Figure 7: National and international bodies involved in the Digital Economy Blueprint



The Blueprint establishes a five-pillar framework for a successful and sustainable digital economy in Kenya, recognizing that all sectors and industries are concerned. The five pillars and their underlying objectives are:

1. **Digital government** – improve government services and enhance government revenues, productivity and cost reduction through digitized and streamlined processes;
2. **Digital business** – adopt secure, affordable, open and efficient digital payment systems and financial services that protect consumers and encourage cross-border trade;
3. **Infrastructure** – provide every Kenyan individual, business and government or public facility with a broadband connection and improve critical broadband infrastructure, such as the national fibre-optic backbone, subsea fibre cables and data centres;
4. **Innovation-driven entrepreneurship** – boost the contribution of digital products and services to the Kenyan economy and develop a sustainable support system for innovation through industry/academic research collaboration and access to funding;
5. **Digital skills and values** – increase the number of graduates trained in advanced digital skills.

2.2 National ICT Policy Guidelines

In August 2020, the Ministry of ICT published the National ICT Policy Guidelines pursuant to the Kenya Vision 2030 development goals.[42] The Guidelines reflect the Blueprint's objectives but set more specific targets, including to increase the contribution of ICT to the economy to 10 per cent by 2030 and create the infrastructure conditions for ubiquitous, high-speed, wireless Internet access nationwide. Other policy objectives include supporting the growth of data centres, over-the-top services, the Internet of Things, machine learning and local manufacturing, promoting digital skills, fostering innovation and improving government services.

The Policy raised the cap on foreign investment restrictions in the ICT sector from 20 to 30 per cent, in order to encourage Kenyans to participate in the sector. Licensees have three years to

[42] Ministry of ICT, National ICT Policy Guidelines (7 August 2020).

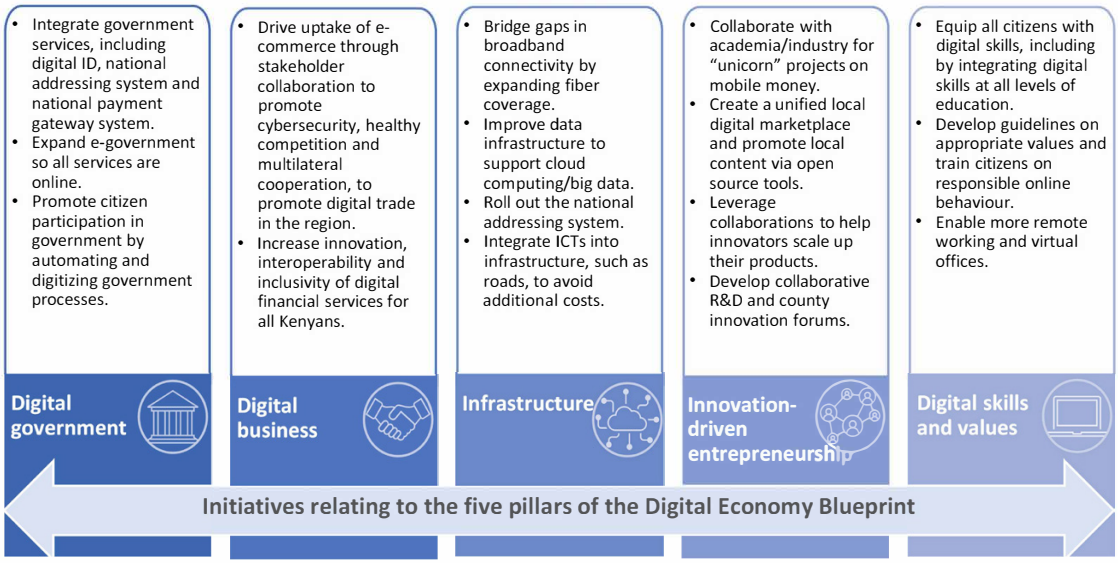
meet the local equity ownership threshold and may apply to the Cabinet Secretary for a one-year extension.

2.3 Digital Economy Strategy

The National Communications Secretariat is the designated secretariat for the Taskforce to develop Kenya's Digital Economy Strategy.[43] It released the second draft Digital Economy Strategy in October 2020 based on stakeholder feedback on the first draft of 7 August 2020.[44] The consultation period for the first draft was initially set to close on 28 August 2020, giving stakeholders only a three-week window to comment,[45] but was subsequently extended to 30 September 2020[46]. As a result, as noted in the second draft, "[t]he strategy has been developed collaboratively between the private and public sector and it is envisioned that its implementation and realization will require the same collaborative process".[47]

As detailed in Figure 8, the most recent draft strategy expands on the five pillars identified in the Digital Economy Blueprint but contains more specific targets, initiatives and implementation plans. Collaboration plays a key role, including among cross-sectoral authorities within Kenya, with private sector and civil society stakeholders, and with other governments throughout the continent.

Figure 8: Highlights of Digital Economy Strategy initiatives for the five pillars of the Digital Economy Blueprint



2.4 National Broadband Strategy 2018 – 2023

Building on Kenya's National Broadband Strategy 2013 – 2017, the Ministry of ICT released the National Broadband Strategy 2018 – 2023 in 2019 after extensive consultation among ministries,

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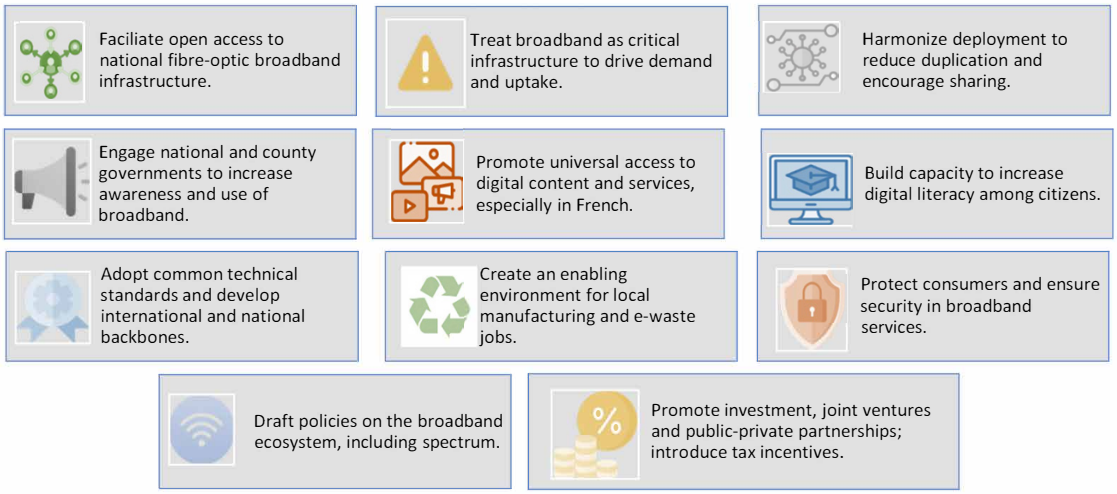
43 National Communications Secretariat, Draft Digital Economy Strategy, draft 2 (October 2020).
44 Ministry of ICT, Draft Digital Economy Strategy, draft 1 (July 2020).
45 Ministry of ICT, Public consultation request for comments on the draft Digital Economy Strategy for Kenya (7 August 2020).
46 Jackson Okoth, "Kenya Govt Invites Comments on Draft Digital Economy Strategy" *The Kenyan Wall Street* (2 September 2020).
47 National Communications Secretariat, op. cit., note 43, p. 6.

authorities and other stakeholders.[48] The key objective of the previous strategy was to deliver a minimum of 5 Mbit/s, always-on Internet to 35 per cent of households and 100 per cent of schools and health facilities by 2017. The objective of the new version is to secure equitable access for all citizens, redefining broadband as "interactive, secure, quality, and affordable services at a minimum speed of 2 Mbit/s to every user in Kenya".

The new version identifies gaps in the first strategy, particularly the high cost of broadband services and the failure to share infrastructure so as to facilitate connectivity in unserved and underserved areas. Aligned with Kenya Vision 2030, the National Broadband Strategy 2018–2023 focuses on infrastructure deployment to improve Kenya's broadband penetration. As highlighted in Figure 9, the Ministry of ICT has identified 11 strategic areas for implementation.

Figure 9: National Broadband Strategy 2018 – 2023: 11 strategic areas for implementation



To coordinate implementation, the strategy calls for the establishment of the multistakeholder National Broadband Council, with the National Communications Secretariat providing support in the form of monitoring and evaluation. It further stipulates that a "robust monitoring and evaluation framework with timelines for deliverables will be prepared and publicized to guide in the tracking of the implementation".

[48] Ministry of ICT, National Broadband Strategy 2018–2023.

Box 1: Kenya's ongoing efforts to meet universal access targets

Kenya's Communications Authority is constantly reassessing its efforts, with a view to being at the forefront of different aspects that contribute to forward-looking and agile regulation, to meeting universal access targets and to ensuring that all citizens have access to modern and high-quality communication services.

Under the Kenya Information Communications Amendment Act 2009 and the Kenya Information and Communications Regulations 2010, the Universal Service Fund complements private sector initiatives to meet universal access objectives. The Fund draws most of its financing from the mandatory contributions of licensed operators providing services in various communication market segments, but it also receives additional financing from other sources. In 2021, the Communications Authority initiated a review of the Fund's approach (2017–2021), framework (2013) and operating manual (2017), with a view to developing fit-for-purpose strategic/implementation plans (2022–2025/2026) and revising the supporting documents.

The Universal Service Fund supports the following aspects: availability (ensuring that service is available in inhabited parts of the country through public, community, shared or personal devices); accessibility (ensuring that all citizens can use the service, regardless of location, gender, disability or other personal characteristic); and affordability (ensuring that the service is affordable for all citizens).

Since its inception, the Universal Service Fund has been an area of interest, as telecommunication companies have also claimed that they should be involved in deciding how the funds are invested. More recently, during the COVID-19 pandemic, the use of funds to help citizens deal with working, learning and engaging in entertainment online while at home was also raised. The Fund's review was thus especially timely.

The Communications Authority undertakes impact assessment studies to evaluate the performance of the Fund's programmes and projects. In addition, and in conjunction with the Fund review and together with ITU, it has conducted a detailed assessment of school connectivity projects financed by the Fund in 886 schools in the country's 47 counties, gauging the effectiveness of connectivity projects in line with the objective of establishing broadband connectivity in major public institutions, including schools.

Source: Consultations, Kenya 2022.

3 Key cross-sectoral policies

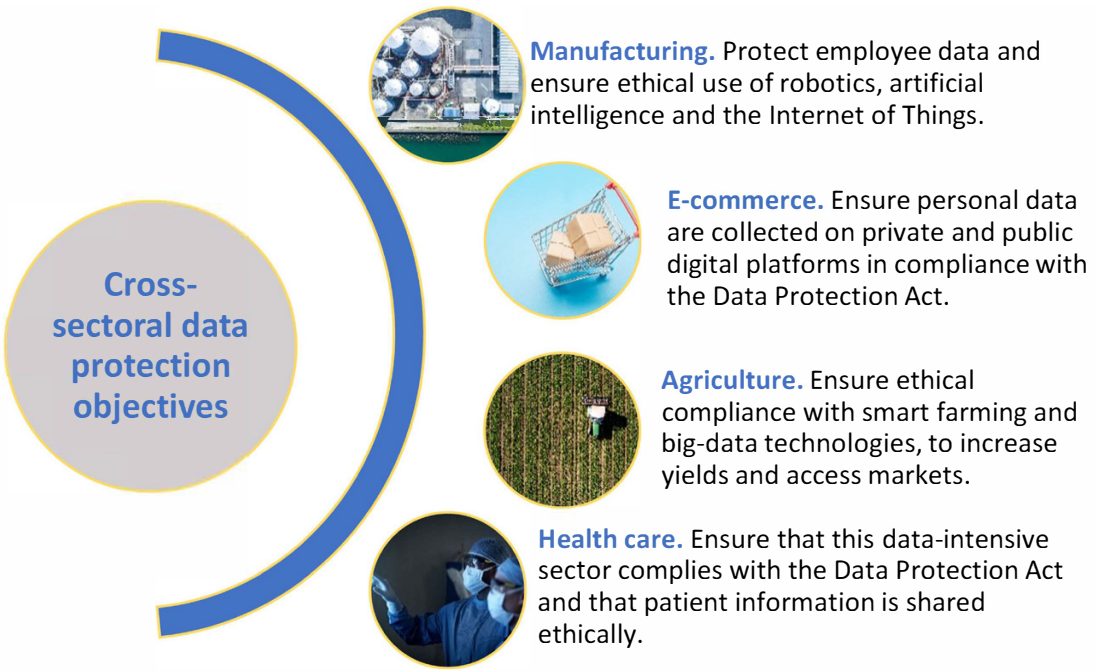
In line with international best practice, policy-makers should adapt regulatory governance structures to new digital mandates, especially for sectoral authorities that are not necessarily leaders in digital regulatory matters.[49] In addition to the Communications and ICT Authorities, the Ministry of ICT oversees other sectoral authorities and activities that impact the digital ecosystem (e.g. in terms of data protection and emerging digital policies such as blockchain). This section identifies some digital-specific policies and practices that cut across sectors.

3.1 Strategic plan for data protection and privacy

Under Kenya's Data Protection Act, the Ministry of ICT oversees the Office of the Data Protection Commissioner.[50] The Data Protection Act also tasks the ICT Cabinet Secretary with drawing up regulations to safeguard data privacy. Pursuant to this mandate, and to help achieve the third medium-term plan under Kenya Vision 2030, the Ministry published the Office's Strategic Plan 2021–2023 in October 2021.[51] The plan will guide the Office's work to implement the Data Protection Act and data protection regulations in the light of emerging global, regional, national and county-level developments in data privacy.

The plan recognizes that data is central to Kenya's digital economy growth and that such growth "can only be realized if data privacy is guaranteed and data subjects can adopt technological advancements". To leverage digital transformation, the Office of the Data Protection Commissioner will address data protection across sectors, including manufacturing, e-commerce, agriculture and health care, as shown in Figure 10.

Figure 10: Cross-sectoral objectives in the Strategic Plan 2021 – 2023, Office of the Data Protection Commissioner



[49] ITU, op. cit., note 10.
[50] Data Protection Act 2019.
[51] Ministry of ICT, ODPC Draft Strategic Plan 2021–2023 (October 2021).

3.2 Blockchain policies to promote digital innovation

In July 2019, the Ministry of ICT published a report, *Emerging Digital Technologies for Kenya*, focusing on how policies on blockchain and artificial intelligence can help overcome many of the daunting challenges facing Kenya, such as fighting corruption, minimizing the national debt, strengthening democracy, facilitating financial inclusion, delivering affordable housing, promoting food security, expanding manufacturing and improving cybersecurity.[52] The report includes a detailed implementation strategy with 10 components (see Table 3).

Table 3: Emerging digital technologies in Kenya: components of the implementation strategy

Component	Key action items and targets
1. National digital infrastructure	• Create a public–private partnership between the government and financial institutions to facilitate inter-bank transactions regulated by the Central Bank. • Create intragovernmental and government/business/public data-sharing frameworks.
2. Digital asset framework	• Enable cryptocurrency through a framework that protects consumers and enables alternative currencies to be listed on an exchange that the Capital Markets Authority has been working on.
3. Regulatory sandbox for financial technology (FinTech)	• Develop a sandbox licensing process that promotes innovation and provides regulatory flexibility. • The Ministry of ICT would collaborate with the National Treasury to institute a joint FinTech policy.
4. Digital currency	• Institute a national digital (fiat) currency framework, roadmap and operationalization programme aligned with the National Treasury, the Central Bank, the Capital Markets Authority, and other public and private sector stakeholders.
5. Tokenization of the economy	• The Ministry of ICT and ministries of public service and education are developing programmes to promote employment opportunities through the Ajira programme, which allows users to exchange work for blockchain-based tokens.
6. Cybersecurity	• Build human resource capacity and leverage emerging technologies to strengthen cybersecurity and protect critical infrastructure and citizen data.
7. Democracy and elections	• Enhance governance and transparency to facilitate citizen participation, including by increasing the number of registered voters and voter turnout.
8. Big Four Agenda	• Promote the Big Four Agenda (manufacturing, food security, universal health care and affordable housing) using artificial intelligence and blockchain technologies.
9. Public policy recommendations	• Use evidence-based decision-making to ensure that decisions are informed by the best available research.
10. Implementation roadmap	• Some "quick wins" include digitizing the land registry, public service delivery and financial inclusion programmes.

[52] Ministry of ICT, *Emerging Digital Technologies for Kenya: Exploration and Analysis* (July 2019).

4 Collaborative practices across institutions

Governmental bodies can engage in various types of collaborative practice to facilitate digital transformation under the G5 model, including ad hoc collaboration to meet specific targets or ongoing collaboration mechanisms. The GSR-21 Best Practice Guidelines emphasize the need to engage in "whole-of-government collaboration and coordination at the national and local level to leverage synergies and the pooling of funds, and address social and economic priorities".[53]

The practice of collaboration, consultation and cooperation across sectors and levels of government is built into Kenya's policy frameworks, pursuant to the Constitution. For example, Article 6 of the Constitution identifies the national and county-level governments as "distinct and interdependent" and requires them to "conduct their mutual relations on the basis of consultation and cooperation".[54] These principles are also reflected in the interactions between various authorities and ministries as institutional collaboration mechanisms between the ICT and other sectors continue to develop under the digital economy. When interviewed, the Communications Authority stated that it had worked collaboratively with other authorities since its establishment, including through bilateral and multisector collaboration mechanisms.

4.1 Bilateral collaboration arrangements

When interviewed, the Communications Authority identified formal, bilateral collaboration mechanisms between it and other regulatory authorities. These mechanisms include a memorandum of understanding between the Communications Authority and the Central Bank on the regulation of mobile financial services and collaboration with the regulators responsible for civil aviation, environmental management, structure and building standards, and the judiciary.

The Communications Authority and the Competition Authority of Kenya also have a memorandum of understanding, developed in 2015 and aimed at providing guidance for jurisdictional overlaps on competition issues.[55] Under the memorandum, the two entities collaborate when executing their respective mandates in areas of common jurisdiction.[56]

4.2 Multisector collaboration mechanisms

According to Kenya's 2021 G5 Benchmark profile, the Communications Authority has formal collaboration mechanisms in place with various other regulatory authorities, including authorities tasked with regulating cybersecurity, finance and the environment, with informal or semi-formal collaboration with the energy authority.[57] The Communications Authority noted, when interviewed, that there are various cross-sectoral committees that engage multiple authorities and ministries, for instance on cybersecurity, universal access and the alignment of community needs with ICT development objectives.

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53 ITU, op. cit., note 49, p. 3.
54 Constitution of Kenya, 2010.
55 Competition Authority of Kenya, Assessment of Regulatory Impact on Competition, Guidance for Policy Makers.
56 Baraka Jefwa, "East Africa: CA, CAK Sign Pact On Competition Regulation", All Africa (13 May 2015).
57 ITU, G5 Benchmark Kenya (2021).

In addition to committees, the Government may establish task forces to facilitate collaboration among authorities. Task forces are generally created for specified periods, which may be extended as needed. For example, the Ministry of ICT established the Distributed Ledger and Artificial Intelligence Taskforce in 2018 to "develop a roadmap for emerging technologies that will define the evolving Fourth Industrial Revolution".[58] The task force's terms of reference include the following:[59]

- critically review distributed ledgers and artificial intelligence technologies;
- contextualize how distributed ledgers and artificial intelligence technologies can deliver the Big Four Agenda;
- develop a roadmap on how distributed ledgers and artificial intelligence technologies can promote government services;
- prepare an implementation strategy with clear indicators and delivery timelines;
- prepare and present a comprehensive report to the Ministry of ICT.

The task force's outcome was the report *Emerging Digital Technologies for Kenya* mentioned earlier. Other recent cross-sectoral task forces affecting the digital economy include the task force for developing a policy and regulatory framework for privacy and data protection in Kenya and the task force on electronic land transactions, registration, conveyancing and other related activities.[60]

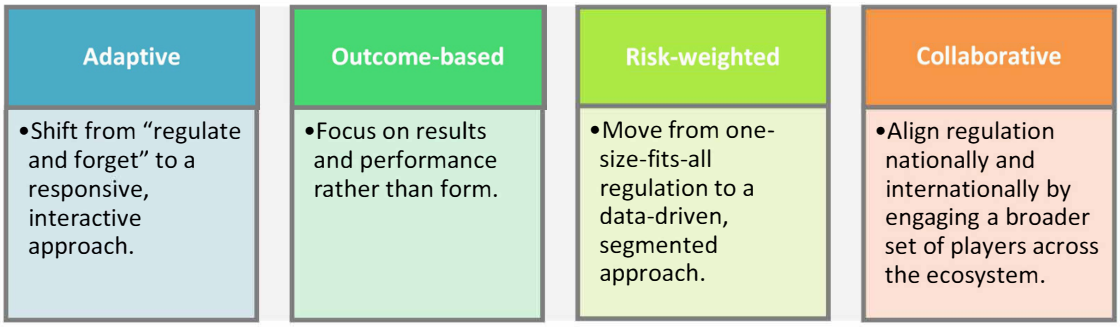
[58] Ministry of ICT, op. cit., note 51.
[59] Government of Kenya, *The Kenya Gazette*, No. 2095, 2018.
[60] Government of Kenya, *The Kenya Gazette*, Vol. CXX-No. 90 (3 August 2018).

5 Regulatory tools to promote the digital economy and transformation

The GSR-19 Best Practice Guidelines emphasized seven core design principles for collaborative regulation.[61] These principles focused on taking a holistic, cross-sectoral approach to regulation that entails consultation with all stakeholders in order to deliver flexible rules that are evidence-, outcome- and incentive-based.

Section 8.3 of Kenya's Digital Economy Blueprint reflects these principles, noting the importance of modernizing how the Government adopts and implements new frameworks for emerging digital economy trends.[62] As shown in Figure 12, the Ministry of ICT advocates the establishment of various decision-making mechanisms: adaptive, outcome-based, risk-weighted and collaborative.

Figure 11: Emerging trends for effective regulation under the Digital Economy Blueprint



5.1 Agile regulatory tools

To achieve agile regulation, policy-makers and regulators should adopt flexible and principle-based rules that can be easily adapted to emerging technologies, services and markets.[63] The Digital Economy Blueprint highlights the importance of agile regulatory tools, including more inclusive consultation practices; deregulatory, self-regulatory and co-regulatory approaches; and regulatory sandboxes.

5.1.1 Inclusive, standardized consultation practices

Public consultations are an essential mechanism for collaboration between the government and the private sector and are crucial for achieving an agile framework. Consultations enable policy-makers and regulators to coordinate with industry stakeholders in order to leverage their knowledge and expertise, and identify citizen concerns and needs. Open and transparent consultations should include reasonable periods for stakeholders to submit comments (typically a minimum of 30 days). Ideally, consultation procedures are clearly defined in a relevant law or regulation, such as an administrative procedure act, and include measures requiring the regulator to make evidence-based decisions using, for example, regulatory impact assessments.

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61 ITU, op. cit., note 49.
62 Ministry of ICT, Digital Economy Blueprint (2019), Section 8.3.
63 ITU/World Bank, Digital Regulation Platform: Regulatory governance and independence (15 December 2020).

Just as Article 6 of the Constitution of Kenya mandates consultation and collaboration among different levels of government, consultation between the Government and citizens is a key principle of governance under Article 10, which calls for inclusiveness, integrity, transparency and accountability when adopting or implementing any law or policy decision.[64] Public consultations are therefore an integral part of all decision-making processes in Kenya.

For example, the Communications Authority maintains a section on its website dedicated to consultations, identifying open consultations, closed consultations and published findings.[65] This practice promotes transparency and accountability by enabling stakeholders to track rules from proposal to implementation. Consultations also play a key role in policy development at the Ministry of ICT, with the ministry home page dedicated to identifying all recent "Calls for Public Participation", so as to facilitate stakeholder outreach and engagement.

Kenya's Parliament also encourages public participation in the legislative process, including through outreach initiatives. In 2018, the National Assembly issued a fact sheet identifying public participation as "one of the foundational principles of democracy" and a "fundamental constitutional principle" (see Box 2).[66]

Box 2. National Assembly definition of public participation

"Public participation can be defined as the process of interaction between an organization and the public with an aim of making an acceptable and better decision. The process involves informing, listening, dialogue, debate, and analysis, as well as implementation of agreed solutions."

There is nevertheless room for improvement regarding consultations. According to the 2021 G5 Benchmark profile, public consultations are used in Kenya as a tool to gather stakeholder feedback, but the timeline and process for consultations are unclear.[67] Further, the regulator is not required to consider and respond to all comments, nor is the Communications Authority required to incorporate inputs into the decision adopted. Taking the consultative process with stakeholders to the next level and actively recognizing the value of stakeholder input can lead to sounder, more market-proof regulatory instruments that help the private sector align with high-level development goals.

5.1.2 Deregulatory, self-regulatory and co-regulatory approaches

Kenya's Digital Economy Blueprint seeks to promote agile regulatory tools by encouraging policy-makers to "take a fresh look at legacy rules and discard those that are no longer relevant" while also "applying a consistent set of criteria throughout the digital ecosystem".[68] The Ministry of ICT, when interviewed, noted that this meant that "regulation is no longer needed, or can be significantly scaled back" as competition in the digital ecosystem intensifies. This approach requires that the authorities closely monitor technological and market developments, to ensure that regulations remain fit for purpose, and to deregulate as needed.

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64 Constitution of Kenya, op. cit., note 54.
65 Communications Authority, Public Consultations.
66 The National Assembly, Public Participation in the Legislative Process, Fact Sheet 27 (2018).
67 ITU, op. cit., note 57.
68 Ministry of ICT, Digital Economy Blueprint (2019), Section 8.7 (2019) .

Additionally, co- and self-regulatory approaches may be used to enable an agile regulatory framework. Co- and self-regulatory mechanisms offer opportunities to create agile, flexible regulatory tools in the digital ecosystem. In particular, self-regulation and collaboration between industry and the regulator can "provide flexible frameworks that help avoid burdensome regulation that could risk stifling innovation".[69] They can be implemented as part of broader regulatory frameworks that enable the government to step in if self-regulation is found to be insufficient, allowing regulators to "engage in more light-handed regulation, encouraging voluntary compliance with industry policies or market-driven standards to minimize or avoid the need for more stringent regulatory intervention".[70]

Co- and self-regulatory models typically take a principle-based approach to regulation and are crafted in coordination with industry and other stakeholders. In Kenya, the Communications Authority identifies the use of codes of practice to complement rules-based models. As illustrated in Figure 13, this involves defining what a code of practice is, identifying when the development of a code of practice is warranted, clarifying the proper role of codes of practice and specifying how the Communications Authority develops a code of practice. Key elements include the following: consultation with industry stakeholders; reliance on self-regulation through agreed standards; and a focus on improving consumer confidence in those organizations that voluntarily subscribe to the code of practice.

Figure 12: The Communications Authority's approach to developing codes of practice

Definition of a code of practice

- A code of practice is a set of professional standards or written guidelines agreed on by members of a particular profession, or written guidelines issued by an official body or a professional association to its members, to help them comply with its ethical standards.

Need for a code of practice

- Government regulations are unlikely to be drawn up or are inappropriate for the specific section of the market.
- Overarching legislation exists and the objective is to help promote compliance by developing controls to improve industry standards.
- The need for, and commitment to, the development of controls to improve industry standards is widely acknowledged.
- The objective is to provide customer-focused benefits beyond the minimum standards.

Role of a code of practice

- A code of practice is a form of industry self-regulation (it encourages industry self-regulation).
- A code of practice improves consumer confidence in the industry and organizations subscribing to it.
- A code of practice promotes good business practices.

Development of a code of practice

- The Communications Authority, in consultation with industry stakeholders, encourages the development of industry codes of practice to facilitate and enhance business relations in the marketplace with all relevant key stakeholders (both private and government entities and agencies).

[69] ITU/World Bank, Digital Regulation Platform: Collaborative approaches to policy implementation for digital transformation (1 September 2020).
[70] Ibid.

To date, the Communications Authority has endorsed one code of practice, on the deployment of communication infrastructure in Kenya.[71] The code is mandatory for all communication service providers, specifically those deploying network facilities and infrastructure. The Communications Authority drafted the code in consultation *inter alia* with the National Environment Management Authority, the Kenya Bureau of Standards, the Radiation Protection Board and the Kenya Civil Aviation Authority. The purpose of the code is to address the siting, installation and sharing of communication infrastructure, so as to help streamline deployment and ensure public health and safety.

The Communications Authority may also require providers to submit individual codes of practice in compliance with other regulations. For example, the Kenya Information and Communications (Consumer Protection) Regulations require licensees to submit to the Communications Authority a commercial code of practice within six months of receiving a licence.[72] Although licensees must adhere to basic principles, such as complaints-handling procedures and emergency assistance services, they are afforded flexibility in how they adopt such policies and procedures.

5.1.3 Regulatory sandboxes and trial licences

Adapted from the FinTech sector, regulatory sandboxes provide a model for creating space for regulatory and technology experimentation and are increasingly used in the ICT sector to "promote the deployment of emerging technologies and encourage market players, including from outside traditional telecommunication operators, to test and develop services".[73] Sandbox licences are generally not subject to the full ICT regulatory regime, with licensees, particularly non-telecommunication entities, often receiving more regulatory guidance than standard licensees. Sandboxes offer flexibility for trialing new technologies and may prove useful during times of crisis to test solutions that ensure connectivity. Recent international best practices encourage the use of regulatory sandboxes and innovation testbeds, such as trial licences, across multiple sectors to enable the "safe and sound testing of emerging technologies and their applications ahead of hitting markets (e.g., artificial intelligence, blockchain, big data, neurotechnology, quantum technologies, virtual reality".[74]

Regulatory sandboxes are elements of the Digital Economy Blueprint and the Emerging Digital Technologies for Kenya initiative. The Digital Economy Blueprint recognizes regulatory sandboxes as an emerging trend allowing policy-makers to enable innovators to "prototype and test new approaches",[75] while regulatory sandboxes for FinTech innovations are a key component of the Emerging Digital Technologies for Kenya initiative.[76]

In May 2021, the Communications Authority published the Licensing and Shared Spectrum Framework for Community Networks, which is intended to promote the deployment of small-scale, community-based ICT networks.[77] Among the Communications Authority's medium-term plans of action was one "to establish a regulatory sandbox for localized spectrum access for small operators in unassigned Long-term evolution (LTE) bands". Establishing a regulatory

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71 Communications Authority, Code of Practice for the Deployment of Communications Infrastructure in Kenya.
72 Communications Authority, The Kenya Information and Communications (Consumer Protection) Regulations (2010).
73 ITU/World Bank, Digital Regulation Platform: Innovative approaches to sector regulation (24 August 2020).
74 ITU, op. cit., note 49, p. 6.
75 Ministry of ICT, Digital Economy Blueprint (2019).
76 Ministry of ICT, op. cit., note 52.
77 Communications Authority, Licensing and Shared Spectrum Framework for Community Network (May 2021).

sandbox to allow access to LTE spectrum for community networks was one of the stakeholders' main recommendations, particularly for the 2.5 GHz band. However, despite these policy developments, the implementation of regulatory sandboxes for ICT and digital services appears to be relatively limited in Kenya at this stage.

5.2 Incentive-based regulatory tools

Incentive-based regulatory tools focus on promoting investment and improving market outcomes through reduced or more streamlined regulation. As recommended in the GSR-19 Best Practice Guidelines, regulators "should keep a wide array of investment incentives at hand to provide impetus for markets to innovate and transform while maximizing benefits to consumers".[78] Incentive-based regulation is also a high-level policy design principle for collaborative digital regulation and redefined regulatory approaches under the G5 model.[79]

According to the 2021 G5 Benchmark, Kenya reported having regulatory incentives targeted at network operators or other digital market players.

5.3 Innovation-based regulatory tools

One of the high-level policy design principles for G5 is innovation-based regulation.[80]

[78] ITU, *Best Practice Guidelines – Fast Forward Digital Connectivity for All,* Global Symposium for Regulators (GSR) 2019 (July 2019).
[79] ITU, *The Benchmark of Fifth Generation Collaborative Regulation: Expert Report to the Review Board* (Geneva, 2021).
[80] ITU, *Global ICT Regulatory Outlook 2020 – Pointing the way forward to collaborative regulation* (Geneva, 2020).

6 Level of regulatory maturity and policy implementation

As an advanced G5 country under the generations of regulation model, Kenya is considered a mature market in terms of ICT regulation and policies to promote the digital economy.[81] For example, Kenya logs a higher performance than its regional peers in the Digital Development Toolbox Pillar.[82]

Under Vision 2030 and the Digital Economy Strategy, collaboration plays a crucial role in harmonizing policies across sectors and achieving buy-in from private sector stakeholders. While further implementation is needed, the Ministry of ICT's recent policies also promote agile regulation, in order to boost investment and innovation in the digital economy.

6.1 From regulatory silos to cross-sectoral regulatory collaboration

Regulatory collaboration is increasingly built into Kenya's policy and regulatory frameworks across all sectors and recognized as essential for the country's digital transformation. Vision 2030 promotes government/private sector collaboration through public–private partnerships to help achieve various targets negatively affected by the COVID-19 pandemic.[83] For intergovernmental collaboration, Vision 2030 tasks two mechanisms – the National Council on the Administration of Justice and the National Collaboration for Oversight and Accountability – with high-level policy-making, implementation and oversight in terms of coordination of sector reform.[84] The Ministry of ICT also plays a key role in collaboration across sectors, working with authorities under its remit and with other ministries and agencies to harmonize policies and regulations.

Cross-sectoral collaboration is a top priority, according to interviews conducted with Kenyan regulatory authorities and private industry representatives. Key perspectives and implementation outcomes are summed up in Table 4, whereas the interviewees' outlook on Kenya's digital transformation journey overall is summed up in Box 3.

Table 4: Cross-sectoral collaboration: highlights

Interviewee	Key highlights of collaboration
Communications Authority	The Communications Authority has worked collaboratively since its establishment, including with the Central Bank (on mobile financial services) and other sectoral regulators.[85] However, it has identified greater collaboration with other national regulatory authorities as one of the three most important actions it can take, together with aligning cross-sectoral community needs with ICT development objectives and fostering universal access. The Authority has also learned a valuable lesson in its regulatory approach: not to consider itself the most knowledgeable player on the market, but to involve and collaborate with other stakeholders.

81 ITU, op. cit., note 57.
82 ITU, op. cit., note 79.
83 Kenya Vision 2030, Public-private partnerships to drive final leg of Vision 2030.
84 Kenya Vision 2030, VDS Coordination of Sector Reforms.
85 Communications Authority, interview summary (September 2021).

Table 4: Cross-sectoral collaboration: highlights (continued)

Interviewee	Key highlights of collaboration
ICT Authority	The ICT Authority engages in a high level of collaboration with other governmental bodies and private sector entities, including to provide an important interface for government service delivery to the public through its role as host of the e-citizen portal.[86] It called for closer collaboration in terms of integrated infrastructure delivery, with a common plan for all key stakeholders providing infrastructure, including fibre networks, roads and electricity. A typical challenge for harmonized infrastructure plans is not having the same project timelines for implementation of various elements of infrastructure deployment.
National Communications Secretariat	The National Communications Secretariat emphasized that collaboration with all stakeholders is mandated by the Constitution of Kenya and is required to develop policy, legal or regulatory frameworks that affect the respective stakeholders across various sectors of the economy.[87] Despite this, stakeholder engagement is a challenge. For example, raising awareness among stakeholders after legislation has been enacted can be challenging; the Government can improve outreach to ensure that the public is aware of new laws.
Konza Technopolis Development Authority	The Konza Technopolis Development Authority noted that it has a peer relationship with the Communications and ICT Authorities, with which it collaborates at the technical level to fulfil its terms of reference as a special-purpose vehicle for developing Konza as a smart city and sustainable, world-class technology hub.[88] However, there are multiple challenges, including a clear regulatory mandate to enable the smart city's development. Further, because the Authority is seated across three counties, collaboration at the county level is needed and supported by the formation of an inter-county development committee.
Airtel Networks Kenya	Airtel identified challenges with the regulatory reform process, noting that there have been no major reforms in several years, despite a push from operators and the adoption of the National ICT Policy in the last two years.[89] Airtel also noted that making stakeholder voices heard in consultations and negotiations with the Government can be challenging owing to their different goals and requests that do not align well. For example, issues of significant market power/dominance have not been well regulated and persist for smaller operators, with change happening when operators come together to negotiate with the Government.

[86] ICT Authority, interview summary (September 2021).
[87] National Communications Secretariat, interview summary (September 2021).
[88] Konza Technopolis Development Authority, interview summary (September 2021).
[89] Airtel Networks Kenya, collaborative digital regulation interview questions (September 2021).

Table 4: Cross-sectoral collaboration: highlights (continued)

Interviewee	Key highlights of collaboration
Safaricom Kenya	Safaricom noted that it has been involved in all ICT policy formations, including in 2020 when the company was part of the task force to review a technology-neutral spectrum policy.[90] In addition to the Communications Authority, Safaricom mentioned various regulators with which it collaborates, including Kenya Power to provide smart meters, the National Transport Authority to implement smart speed governors that monitor the speed of vehicles carrying passengers, and the Kenya Police in Nairobi and Mombasa to implement smart cameras with facial recognition technology. One challenge is collaboration with all 47 county governments to deploy broadband infrastructure, which would be easier if those governments consulted with each other and with industry stakeholders before raising the levies for rights-of-way.
Technology Service Providers of Kenya	As an industry association, the Technology Service Providers of Kenya called for more collaboration among different regulators, which can still operate in silos.[91] It also noted that, due to a lack of collaboration frameworks, public consultations can take a long time, to the point that licensees face economic risks. To resolve these issues, it advocates a regulatory framework in which matters are handled from a single point, to reduce the time it takes to address regulatory challenges and to more consistently prompt stakeholders to facilitate collaboration.

Box 3: Kenya's digital transformation journey

This section is based on qualitative feedback provided by national stakeholders on their efforts and progress towards collaborative governance, policy and regulation for the digital transformation.

- **Single most difficult challenge in moving towards collaborative regulation**

Lack of awareness of existing regulatory framework by key stakeholders and sector regulators

Promotion of competition in certain economic subsectors where there are operators with significant market power or part ownership by the Government (Communications Authority)

Funding and having a very broad mandate (ICT Authority)

- **Key counterparts**

Government ministries, legislature, the judiciary and law enforcement agencies, cross-sector regulators, Central Bank, the Attorney General, county governments

[90] Safaricom Kenya, interview summary (September 2021).
[91] Technology Service Providers of Kenya, interview summary (September 2021).

- **Three most important actions a regulator can undertake**

1. Analyse regulatory gaps, including to foster universal access (Communications Authority) and to encourage co-regulation (Technology Service Providers of Kenya)

2. Identify areas for collaboration, including cross-sectoral development and engagement with county governments (ICT Authority)

3. Elaborate a strategic plan for collaboration, with concrete outcomes and engagement of stakeholders and other regulatory authorities from the outset (National Communications Secretariat)

- **Single most important lesson learned moving forward with a collaborative regulatory approach**

Overcoming jurisdictional issues is the first step towards true collaboration, including to build a cross-sector, whole-of-government approach to policies (Safaricom).

The regulator should not consider itself the most knowledgeable player on the market (Communications Authority).

Contracts from funding agencies must be properly vetted (ICT Authority).

Establish effective leadership in regulatory authorities that have the necessary political will (Airtel) and see the value of collaboration (Technology Service Providers of Kenya).

- **Advice for regulators engaging on a journey towards digital regulation**

Maintain transparency and disclosure in corporate governance affairs

Carry out a regulatory framework gap analysis in consultation with stakeholders and government (Konza Technopolis Development Authority and Airtel)

Apply benchmarking with regulators in other countries (Safaricom)

Source: Stakeholder interviews, Kenya 2021

6.2 From ICT to digital regulation

Kenya has adopted sound policies for digital transformation, including Vision 2030, the Digital Economy Blueprint and the National ICT Policy. The next step is to ensure that these policies are implemented and deliver the desired results. Despite the setbacks arising from the COVID-19 pandemic, opportunities exist to invest in digital technologies, encourage participation from public and private sector stakeholders, align policies across sectors, and engage in capacity building at all levels of government.

To help Kenya achieve its Vision 2030 and other digital policy goals, the following recommendations are offered for consideration.

- Connectivity is perhaps the main challenge to overcome on Kenya's path to digital transformation. Collaboration among various national authorities and with county governments will be crucial to achieving the broadband deployment goals outlined in Kenya's Vision 2030 and other ICT and digital economy initiatives.
- In line with the GSR-21 Best Practice Guidelines, steps should be taken to ensure that the level of policy implementation is tracked and adjusted, as needed, to align with policy goals and objectives. This includes adopting "clear, ambitious but executable regulatory roadmaps" and ensuring that implementation is "coordinated across government agencies and with private sector stakeholders".[92] For example, implementation tracking from Vision 2030 could be carried over to other policies, such as the National ICT Policy, to ensure that regulatory frameworks are adjusted according to policy goals.
- In line with the well-established ITU definition of a separate regulator with autonomous decision-making and enforcement powers, steps should be taken to ensure that Ministry of ICT authorities remain independent while facilitating collaboration.
- Timely, comprehensive and measurable information should be published on collaboration among regulators, such as meeting schedules and outcomes of the work of various committees and task forces, in order to provide accountability and track progress. This is in line with the GSR-21 Best Practice Guidelines, which call for governments to "[b]uild accountability, focus[ing] on outcome in the design and implementation of collaborative regulation practices by integrating regular and transparent stakeholder engagement and building new regulatory partnerships".[93]
- Ensure that new agencies, authorities or committees help implement digital transformation goals and do not introduce unnecessary complexities or duplication in digital governance.
- Expand on the Communications Authority's current practice of adopting additional self-regulatory or co-regulatory frameworks for the ICT and digital sectors that are industry-led. This would be in line with the GSR-21 Best Practice Guidelines to "[c]ommit to the adoption of multimodal regulatory frameworks that enable the development of emerging technologies and business models," including a range of co-regulatory and self-regulatory models".[94] These may include voluntary codes of practice for online content or other emerging digital platform issues.
- Improve public consultation and stakeholder engagement processes, including to ensure that the timeline and process for consultations are clear, that the Communications Authority considers and responds to all comments, and that it incorporates inputs into the adopted decision.
- Adopt clear guidelines for consultation procedures, including requirements for evidence-based decision-making and regulatory impact assessments. As recognized in international best practice regulation, this includes introducing regulatory impact assessments "as a regular practice before major regulatory decisions are made, as well as throughout the lifecycle of regulation".[95]
- Publish all comments on consultations online (with an opportunity to redact confidential information), to improve transparency and allow stakeholders to understand and respond to various positions. Regulatory decisions should be based on "the expectations, ideas and expertise of all market stakeholders, market players, academia, civil society, consumer associations, data scientists, end-users, and relevant government agencies from different sectors".[96]

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92 ITU, op. cit., note 49, p. 8.
93 Ibid.
94 Ibid, p. 5.
95 ITU, op. cit., note 78, p. 6.
96 Ibid, p. 7.

- In addition to crafting harmonized policies on a national level, build on regional harmonization to minimize regulatory fragmentation across countries. The GSR-19 Best Practice Guidelines recommend defining regulatory rules on cross-border issues to help "ensure consistency, predictability, and fluidity of digital markets [that] will catalyze the deployment of region-wide and global digital infrastructure".[97]
- Create more opportunities for creative regulatory approaches. This could include expanding regulatory sandboxes beyond FinTech to the digital sector, in order to promote innovation in the ICT sector and digital economy, and implementing more incentive- and innovation-based regulatory tools.

[97] Ibid, p. 3.

7 Conclusion

Over the last few years, Kenya has developed a comprehensive set of digital policies and strategies to move the country's digital economy forward. Vision 2030, the Digital Economy Blueprint and the National ICT Policy are three major policies aimed at achieving digital transformation. Fundamentally, collaboration and consultation are built into Kenya's governance framework, starting with the Constitution. In practice, stakeholders and regulators have noted that engagement and consultation processes are not always clear, creating opportunities for better follow-through and transparency.

In addition to strengthening collaboration with the private sector, the Government can improve cross-sectoral collaboration at the national level, coordination between national and county agencies, and harmonization at the regional and international levels.

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