GSMA

The Mobile Economy Africa 2026

GSMA

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Executive summary

Connectivity, impact and the conditions for growth

Africa's mobile industry is undergoing a transformation in how it operates and how it creates value. Operators across the continent are moving beyond their traditional role as connectivity providers: they are repositioning themselves as full-stack digital partners for enterprises and governments; deploying AI across networks and customer operations; and opening network capabilities to developers through standardised APIs. This shift – from building networks to activating their full potential – is reshaping the economics of the industry and expanding the mobile sector's contribution to Africa's broader digital economy.

This evolution is already reflected in the numbers. In 2025, mobile technologies and services generated $240 billion in economic value across Africa (equivalent to 7.8% of regional GDP), supporting approximately 13 million jobs and contributing $45 billion in public revenues. By 2030, this contribution is projected to reach $290 billion, driven by the continued expansion of 4G and 5G networks, the deepening of enterprise digitalisation and the broader adoption of digital technologies across sectors.

This growth comes against a backdrop of significant challenges. The usage gap, the gap between coverage and actual internet adoption, continues to be Africa's defining digital challenge, with 63% of the population covered by mobile broadband but not yet online. Closing this gap requires action on device affordability, digital skills and social barriers that infrastructure investment alone cannot resolve. At the same time, operators face growing pressure to power their networks sustainably, reduce dependence on diesel and meet carbon commitments while managing the energy demands of expanding data traffic.

$290bn

Mobile's economic contribution in the region is forecast to grow from $240 billion in 2025 to $290 billion by 2030

13m

In 2025, mobile technologies and services contributed 7.8% of the region's GDP and supported around 13 million jobs

$45bn

Mobile technologies and services in Africa contributed $45 billion in public revenues in 2025

Key trends shaping the mobile ecosystem

AI

Operators are co-developing AI language models

Beyond AI adoption, Africa's operators are now actively shaping the AI systems they deploy by co-developing African AI language models through data, talent compute and policy. This shift is crucial for AI development in Africa, given the linguistic diversity on the continent, with over 2,000 languages that are mostly absent from global AI systems.

Network APIs

Network-layer capabilities are being monetised through standardised APIs

Commercial Open Gateway APIs are gaining momentum, with SIM Swap and Number Verification already reducing mobile money fraud for banks and fintechs. To date, Africa represents 11% of global operator commitments to the framework, which signals an untapped opportunity.

Tech-co transition

Operators are moving from connectivity partners to digital infrastructure partners

Developer platforms, sovereign AI offerings and technology-company partnerships have become the most common operational change supporting operators' transition from connectivity providers to digital infrastructure partners. In a GSMA survey, 79% of operators in Africa stated their primary enterprise goal is to become a digital transformation partner.

Policies for growth

The mobile industry's $240 billion contribution to Africa's economy in 2025, plus its projected growth to $290 billion by 2030, will be shaped as much by policy choices as by technology deployment. The key levers are fiscal reform to make digital participation affordable and investment conditions that sustain the capital deployment that the mobile industry depends on.

The mobile sector contributed $45 billion in taxes across Africa in 2025, of which $20 billion came from device-related duties. In markets where governments have reduced these burdens, the adoption response has been immediate and measurable, confirming that fiscal reform is among the fastest and most direct levers available for accelerating digital inclusion. Industry-led coalitions are reinforcing government action by targeting the sub-$100 device price point, where the removal of import duties and VAT could bring mobile internet within reach of tens of millions of unconnected users.

Operators across Africa are projected to invest $76 billion between 2025 and 2030. Whether this investment translates into the coverage, quality and capacity that Africa needs depends heavily on the regulatory and cost environment in which it is deployed. Markets that have reduced rights-of-way costs, enabled infrastructure sharing and provided regulatory predictability are seeing faster and broader capital deployment. Infrastructure-sharing models in particular are emerging as a structural solution for extending coverage into areas where individual operator economics alone cannot justify the investment.

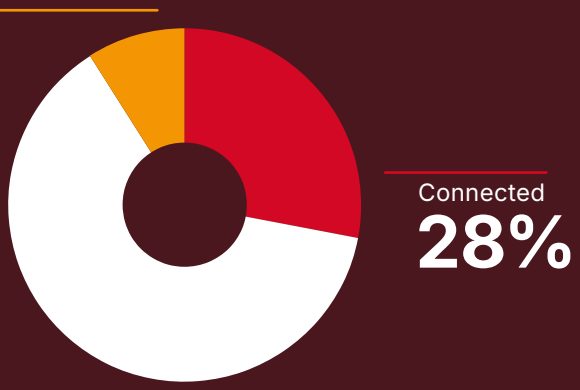
Operators across Africa are projected to invest $76 billion in network capex between 2025 and 2030

The Mobile Economy Africa

State of mobile internet connectivity

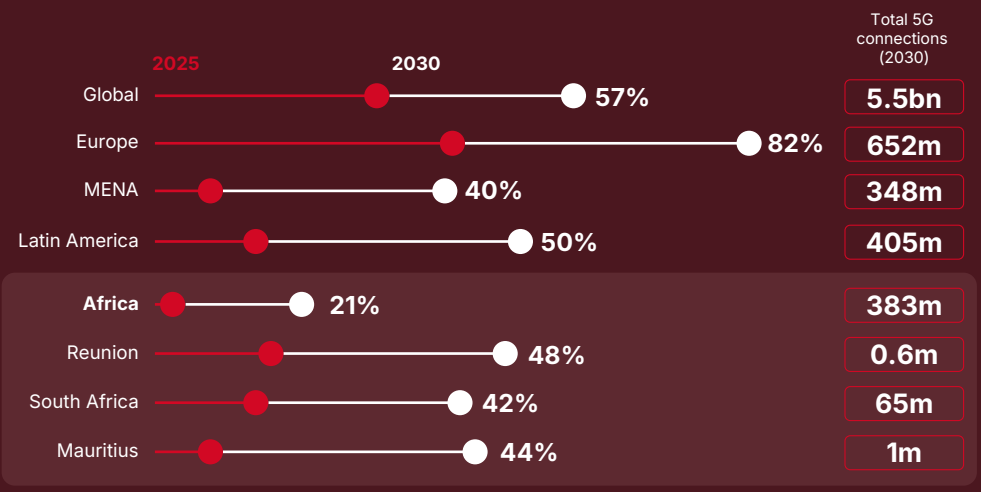
2024

The usage gap is Africa's main connectivity challenge. With 63% of the population covered but not connected (versus 9% without coverage), the key task has shifted from building networks to bringing people online.



5G as a share of total connections

Percentage of total connections (2030)



2030

21%

5G penetration in Africa will reach 21% by 2030, driven by accelerating rollouts in leading markets and supported by the expansion of 4G as the backbone of mobile internet.

Mauritius will lead in 5G growth in Africa, with its share of 5G connections rising by 35 pp during 2026–2030.

Operator revenues and investment

Revenues

2025 **$60.5bn**

2030 **$90.3bn**

Investment

Capex for the period 2025–2030

$76.2bn

Operator adoption of GSMA Open Gateway APIs

2025 **70 operators**

Representing

11% **of global mobile market share**

December 2025

01

The economic impact of the mobile industry

1.1
Macroeconomic outlook

Economic growth in Africa is projected to reach 4.2% in 2025, outperforming the global average of 3.1%. This marks a strengthening recovery: following solid growth of 4.4% in 2022, the region experienced a moderate slowdown in 2023 and 2024 (3.3% and 3.2%, respectively), reflecting global economic pressures. The outlook for 2025 points to renewed momentum, bolstered by improving domestic conditions and stronger external demand.

Recent growth has been driven primarily by private consumption and a gradual recovery in investment, supported by easing inflation in several economies and continued urbanisation. At the same time, the region has benefited from its demographic dynamics and expanding services sector, which continue to support economic activity.

However, structural constraints remain significant. Limited fiscal space, high debt levels in some countries and exposure to external shocks, including commodity price volatility and global financial conditions, continue to weigh on growth prospects. In addition, gaps in infrastructure, particularly in energy and transport, constrain productivity and limit the pace of economic transformation. Addressing these challenges will require not only increased investment, but also stronger policy frameworks to improve project selection, enhance public investment efficiency and crowd in private capital.

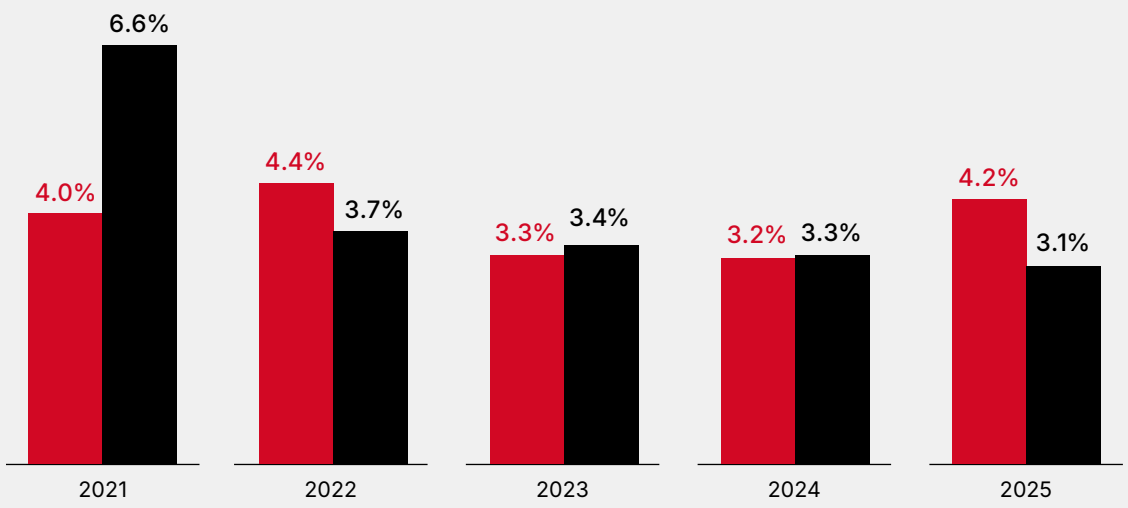
Recent geopolitical tensions have added a further layer of pressure on African economies and on the mobile sector specifically. Disruptions to global shipping routes, particularly through the Red Sea and the Suez Canal, have increased freight costs, extended delivery times and created uncertainty around the supply of smartphones, network equipment and critical-infrastructure components. Major shipping operators such as Maersk and CMA CGM have continued to reroute vessels around the Cape of Good Hope, adding weeks to transit times and increasing logistics costs across the continent. For mobile operators, this affects network deployment schedules, tower maintenance and the availability of imported equipment, ultimately increasing capex and operational risks.

Energy-related pressures also remain a major challenge. Many operators across Africa continue to rely on diesel-powered backup systems to maintain network resilience where grid reliability is weak. Fuel price volatility, higher transport costs and disruptions to global energy markets have therefore had a direct impact on operating costs and quality of service, particularly in rural and underserved areas where power insecurity is more acute. At the same time, travel disruptions and higher logistics costs affect vendor support, cross-border infrastructure projects and maintenance operations, slowing deployment timelines and complicating regional collaboration. In this context, improving energy security and strengthening supply-chain resilience have become increasingly important for sustaining network quality, supporting digital investment and accelerating the region's broader digital transformation.

Looking ahead, Africa has substantial opportunities to accelerate growth through digitalisation and structural transformation. Expanding digital infrastructure, improving connectivity and fostering innovation can support productivity gains, financial inclusion and new business models across sectors. Harnessing these opportunities will require sustained investment, improved policy frameworks and continued efforts to strengthen macroeconomic stability. Aligning short-term policy measures with long-term development strategies will be critical to support more resilient, inclusive and sustainable growth across the region.

Figure 1

Africa: real GDP growth versus the global rate



Source: GSMA Intelligence using WEO-IMF October 2025 data

Technology investments underpin economic growth

Technology investments have become essential for sustained long-term economic growth, with digitalisation reshaping how value is created, traded and captured across economies.

In Africa, investment in digital infrastructure and connectivity continues to expand, reflecting the region's increasing focus on bridging connectivity gaps and enabling digital inclusion. For example, Google has committed to invest $1 billion to support digital transformation across Africa, including infrastructure such as subsea cables and connectivity projects aimed at improving internet access and supporting digital services.[1] Meanwhile, large-scale infrastructure initiatives such as the 2Africa subsea cable system are significantly increasing international bandwidth capacity and strengthening connectivity across the continent, supporting the expansion of digital services and data traffic.[2]

Overall, while infrastructure gaps remain, Africa is well positioned to leverage digital investment to accelerate economic transformation. Continued expansion of connectivity, alongside the rapid adoption of mobile-based services such as mobile money and digital platforms, is enabling new business models, improving market access and supporting productivity gains across vertical sectors.

1. "Google to invest $1 billion to lift Africa internet access", Africanews, August 2024
2. "2Africa's Core Systems Complete", 2Africa, November 2025

1.2
Mobile's contribution to the economy

Mobile technologies contributed $240 billion of economic value in 2025

In 2025, mobile technologies and services generated 7.8% of GDP across Africa, a contribution that amounted to $240 billion of economic value added. The greatest benefits came from the productivity effects reaching $150 billion, followed by the direct contribution of the mobile ecosystem generating $70 billion.

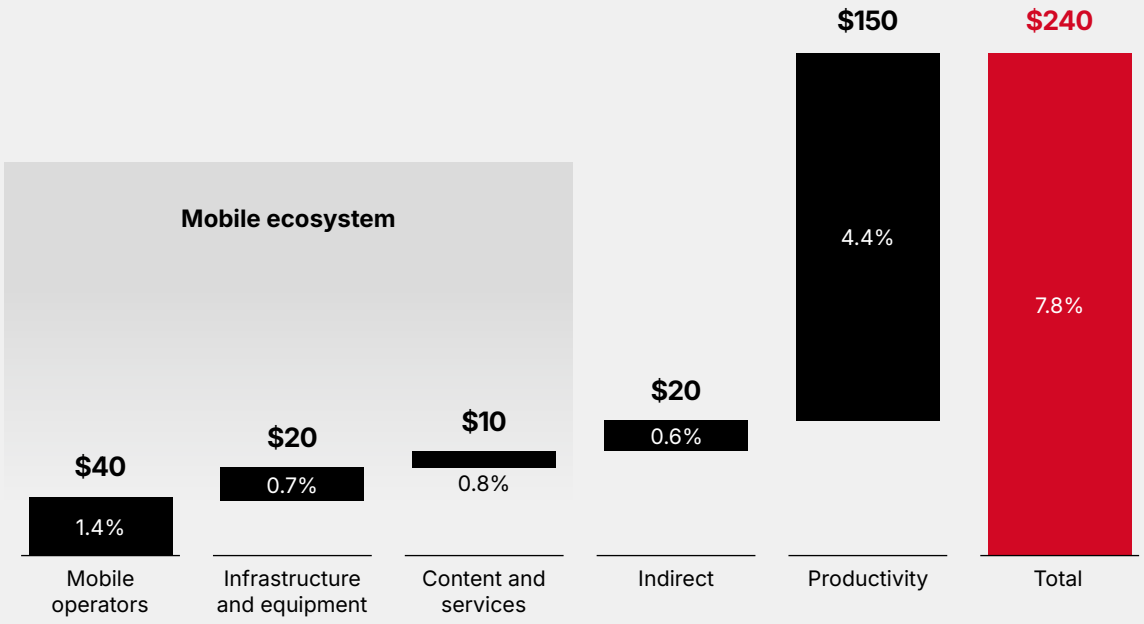
The impacts of mobile technologies include connectivity and digital transformation. Connectivity refers to the use of mobile technologies, while digital transformation involves the integration by enterprises of advanced mobile technologies such as 5G, IoT and AI.

The mobile ecosystem is formed of three categories: mobile operators; infrastructure and equipment; and content and services. The infrastructure and equipment category encompasses tower companies, network equipment providers, device manufacturers and IoT suppliers. Meanwhile, the content and services category encompasses content, mobile application and service providers, distributors and retailers, and mobile cloud services.

Figure 2

Africa: total economic contribution of mobile, 2025

Billion, percentage of GDP



Source: GSMA Intelligence

Mobile's economic contribution will reach $290 billion by 2030

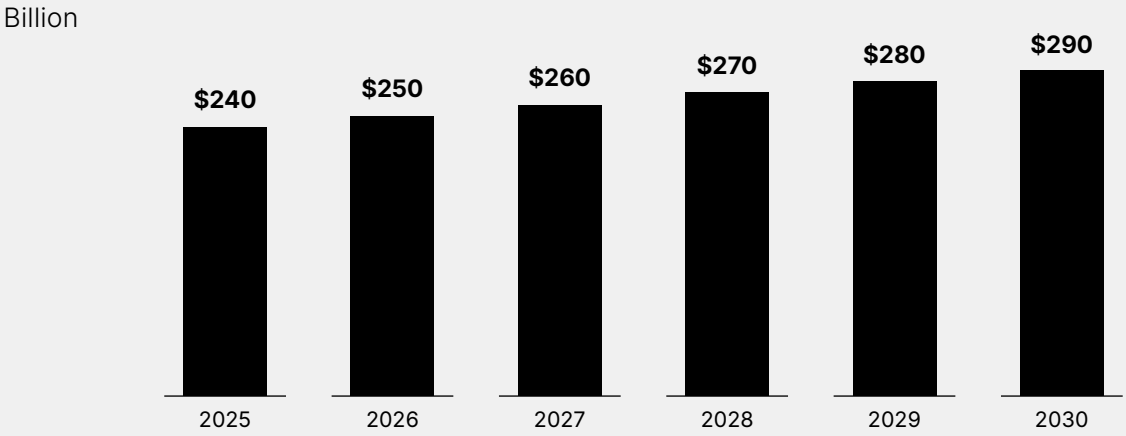
By 2030, mobile's contribution to the African economy will reach $290 billion, driven by the improvements in productivity and efficiency brought about by the continued expansion of mobile services and the growing adoption of digital technologies, including 5G, IoT and AI. By 2030, mobile's contribution is expected to grow at a CAGR of 3.5%, below the overall regional GDP growth forecast (CAGR of 4.3%).

While mobile's contribution continues to grow in absolute terms, this will moderate in relative terms as other parts of the economy expand more rapidly. As such, mobile technologies remain a critical enabler of economic transformation. By supporting digital inclusion, expanding access to financial services through mobile money and enabling new digital business models, mobile connectivity helps improve productivity, enhance market access and foster greater participation in the formal economy.

However, sustaining and amplifying this impact will require continued investment in mobile infrastructure and the wider digital ecosystem. Expanding network coverage, improving affordability and accelerating the rollout of advanced technologies such as 5G, IoT and AI will be essential to fully unlock productivity gains and ensure that digital transformation supports inclusive and long-term economic growth across the region.

Figure 3

Africa: the economic impact of mobile to 2030



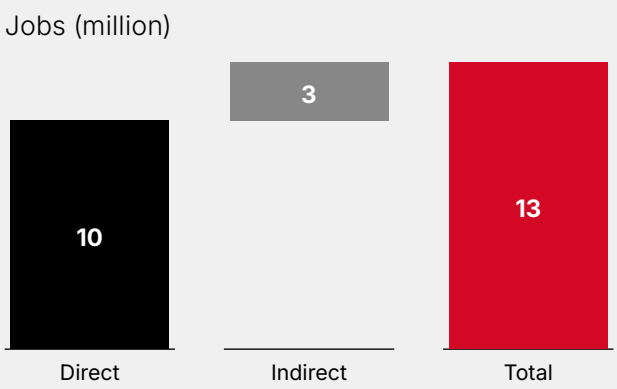
Source: GSMA Intelligence

The mobile ecosystem supported 13 million jobs in 2025

Mobile operators and the wider mobile ecosystem provided direct employment to 10 million people in Africa in 2025. In addition, the economic activity in the ecosystem generated 3 million jobs in other sectors, meaning that around 13 million jobs were directly or indirectly supported.

Figure 4

Africa: employment impact of mobile, 2025



Source: GSMA Intelligence

The fiscal contribution of mobile reached $45 billion in 2025

Taxes constitute the major share of government revenues around the world. In 2025, tax revenues in Africa reached $410 billion, or 13% of the regional GDP, a similar figure as last year.[3]

The mobile sector in Africa made a substantial contribution to the funding of the public sector, with $45 billion raised through taxes on the sector in 2025. A large contribution was driven by handset VAT, sales taxes and excise and custom duties ($20 billion). The fiscal contribution of the mobile sector represented 11% of the total tax revenue.

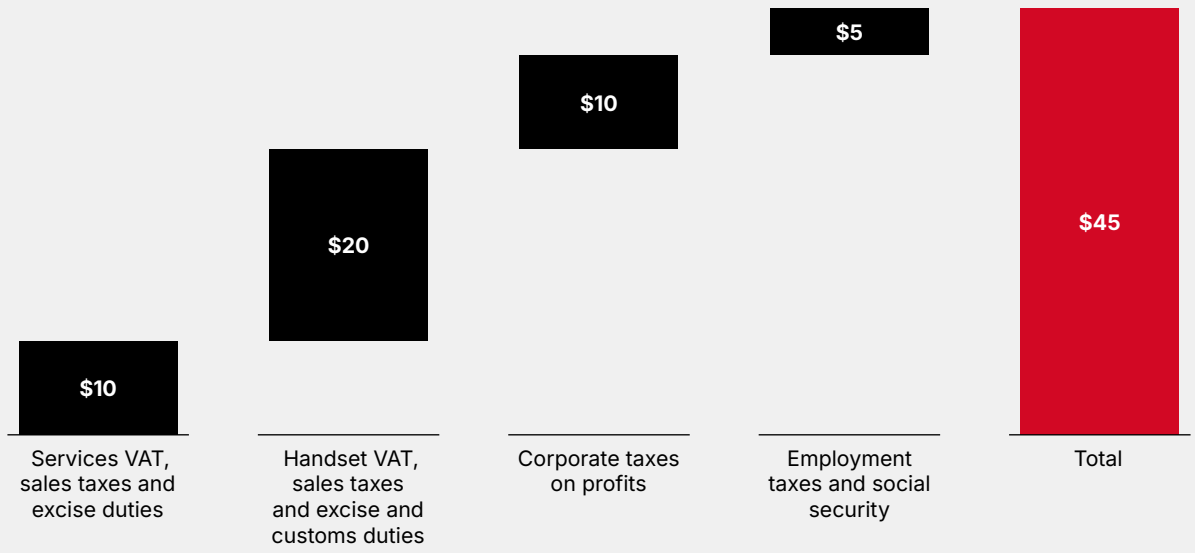
Beyond its direct contribution, the mobile sector can strengthen tax revenue mobilisation by improving the efficiency and accessibility of tax systems across the economy. In particular, the expansion of digital payments and mobile money plays a critical role in increasing transaction traceability and financial inclusion, which is especially important in African economies, where informality remains widespread. By enabling more transactions to be recorded and monitored, mobile technologies help broaden the tax base and support more effective revenue collection.

In parallel, mobile platforms are increasingly being used to facilitate tax filing and payments, reducing administrative burdens for both governments and taxpayers. High compliance costs remain a key barrier for individuals and small and medium-sized enterprises (SMEs), but mobile-enabled solutions can simplify processes, lower costs and improve compliance rates. Over time, these developments support greater formalisation of economic activity and contribute to more stable and sustainable public finances across the region.

Figure 5

Africa: fiscal contribution of mobile, 2025

Billion



Source: GSMA Intelligence

3. IMF Fiscal Policies: World Revenue Longitudinal Database

The contribution of 5G and its ecosystem

As 5G networks expand and complementary technologies such as AI continue to mature, the scale of impact will be shaped not only by infrastructure availability, but also by investment in digital skills, innovation capacity and the integration of advanced technologies into production processes.

Between 2025 and 2030 in Africa, services are projected to account for around one quarter of the incremental economic impact attributable to mobile-enabled technologies, followed by manufacturing and agriculture at around one fifth each. This reflects the central role of services in the region's economic structure, alongside the importance of manufacturing and agriculture as key drivers of employment and economic activity. Public administration and construction and real estate each represent a meaningful share of the impact, highlighting the role of digitalisation in improving public service delivery and supporting infrastructure development.

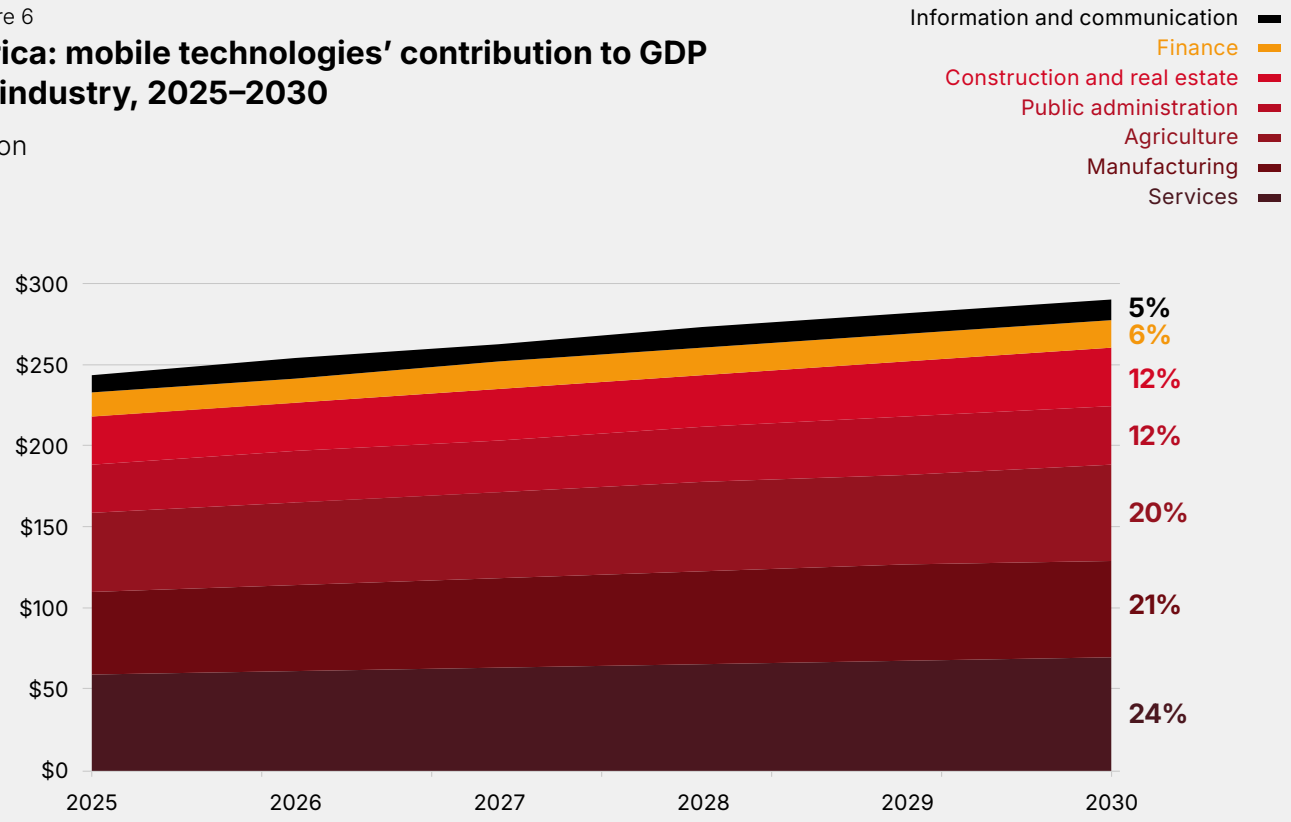
The information and communication sector maintains a relatively small share, at around 5%, indicating that the impact of mobile technologies is largely diffused across the broader economy. However, increasing the direct contribution of the ICT sector will be critical for long-term competitiveness. Strengthening domestic digital ecosystems through greater investment in infrastructure, skills and innovation can help reduce reliance on external technologies and support the development of higher value-added digital industries.

Overall, the distribution of impact points to a broad-based and inclusive digital transformation, where mobile technologies support productivity gains across both traditional and emerging sectors while creating opportunities to deepen digital capabilities and accelerate structural transformation.

Figure 6

Africa: mobile technologies' contribution to GDP by industry, 2025–2030

Billion



Source: GSMA Intelligence

02

Trends shaping the mobile industry

2.1
AI moves from strategy to deployment

AI has moved rapidly from a strategic ambition to an operational reality across Africa's mobile ecosystem. Following years of policy development and investment planning, there has been a marked acceleration in practical AI deployment in 2026 by operators, across enterprise verticals and within the broader digital ecosystem. The challenge is no longer whether to adopt AI, but how to deploy it in ways that are contextually relevant, economically sustainable and inclusive.

Operators deploying AI across network and customer operations

Africa's mobile operators are deploying AI across a growing range of internal functions. Predictive maintenance, network optimisation and AI-driven customer service are among the most active areas of adoption.

In Uganda, Airtel launched in April 2025 what it described as Africa's first AI-powered spam alert service, using machine-learning models to detect and flag fraudulent SMS traffic in real time. This reflects both the commercial pressure of digital fraud and the operational maturity required to respond to it.

Beyond network operations, operators are investing in the infrastructure that makes AI deployment viable at scale. In April 2026, MTN participated in a $45 million funding round for ODC, an AI telecoms startup that is developing AI-RAN solutions specifically designed for Africa's multi-vendor, power-constrained network environments. The investment signals a shift in how leading operators are approaching AI infrastructure – not simply as consumers of hyperscaler capacity, but as active investors in the foundational technology layer that will define network performance and economics over the next decade.

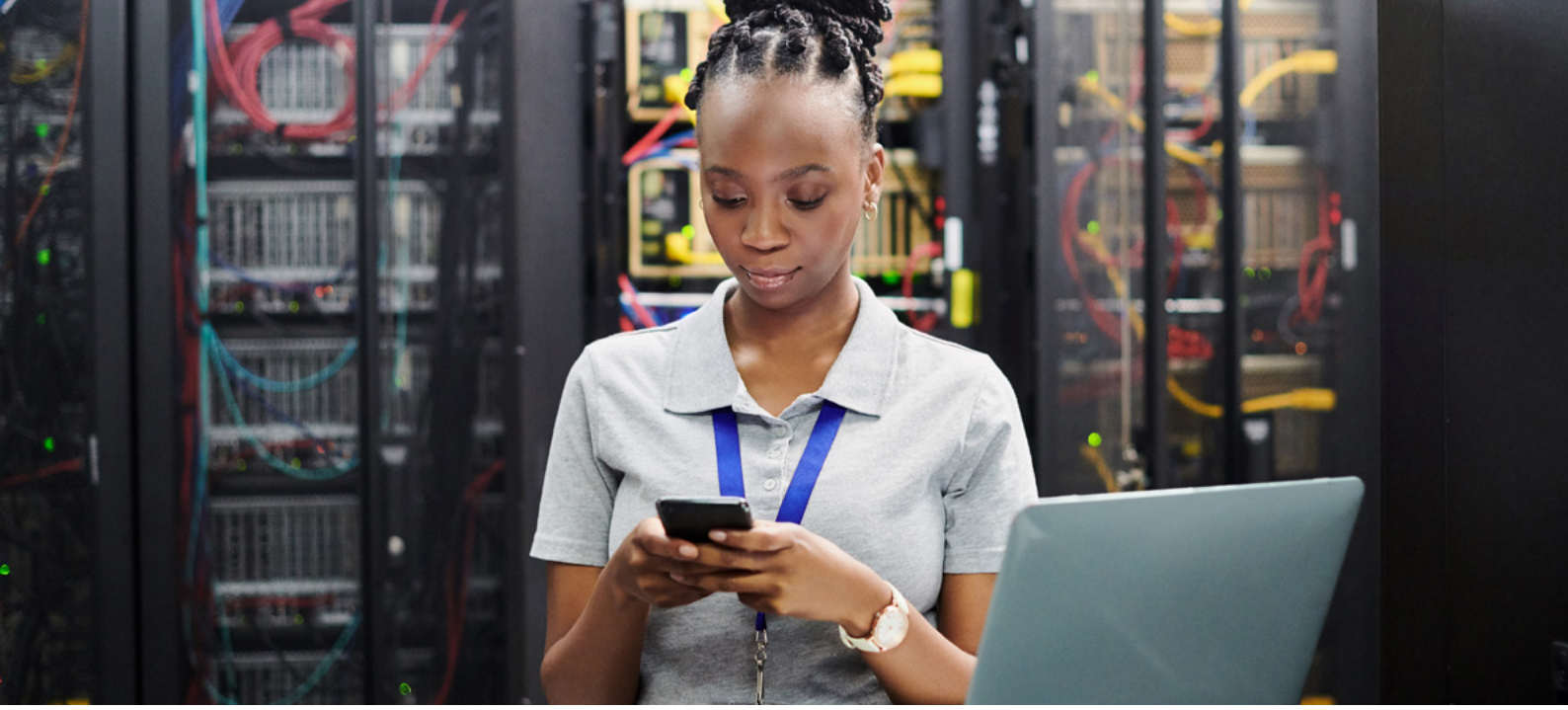
African AI language models: closing the representation gap

A critical constraint on AI's reach in Africa is the underrepresentation of African languages in mainstream AI systems. Africa is home to over 30% of the world's languages, yet current large language models (LLMs) are trained predominantly on English and other high-resource languages, limiting their utility for the majority of the continent's population. The commercial implications are significant: African language AI enables voice-based interfaces that can extend digital services to users who are not literate in English or French, expand the addressable market for AI-powered products and ensure that the benefits of AI are not concentrated among a linguistically privileged segment of the population.

Africa's mobile operators are actively working to close this gap. At MWC Kigali in October 2025, the GSMA and the G6 African operators – Airtel, Axian Telecom, Ethio Telecom, MTN, Orange and Vodacom – announced a continent-wide collaboration under the banner 'AI language models in Africa, by Africa, for Africa'. The initiative brings together operators, researchers, startups and civil society to address the four structural barriers to African-led AI development: data, compute, talent and policy. This is designed to ensure that the AI systems deployed across Africa's mobile ecosystem reflect the linguistic and cultural reality of the people they serve.

The initiative has already produced tangible outputs. At MWC Barcelona 2026, the first open Swahili reasoning model was demonstrated. Developed in collaboration with MeetKai Zambia, it is capable of browsing and translating online content in Swahili and establishing a replicable template for other African language models.

Complementary efforts from the broader ecosystem reinforce the direction of travel and widen the coalition working to address the representation gap. These include Google's investment in AI tools in July 2025, supporting over 40 African languages, and a $5 million grant from the Gates Foundation for Masakhane to develop African language models.



Building the ecosystem with talent, compute and data

Africa's digital ecosystem has historically lacked talent, compute and data in sufficient quantity. These three factors are the foundation layers for AI deployment at scale: a trained workforce capable of building, deploying and maintaining AI systems; accessible compute infrastructure so that operators and developers do not need to rely entirely on hyperscaler capacity hosted outside the continent; and locally relevant data on which models can be trained and validated. Ecosystem players are actively investing in the conditions that will make AI economically viable and contextually relevant at scale, such as the following:

- **Compute:** Cassava Technologies launched its AI factory in South Africa, offering GPU as a service and AI as a service to African developers, enterprises and mobile network operators. The factory also deployed an autonomous network management platform using Nvidia Blueprints, enabling AI-driven performance optimisation across Africa's multi-vendor mobile infrastructure. This directly addresses one of the structural constraints that has kept AI development concentrated in a small number of well-resourced institutions: the prohibitive cost of accessing high-performance compute for training and inference at scale.
- **Talent:** The MTN Skills Academy – a zero-rated digital and technology skills platform available across 16 African markets – is building the human capital pipeline that AI deployment depends on.
- **Data:** In February 2026, Google released WAXAL, a large-scale openly accessible speech dataset covering 27 Sub-Saharan African languages, which was developed over three years in collaboration with African universities, including Makerere University, the University of Ghana and Addis Ababa University. The dataset provides foundational training data for speech recognition and voice AI across languages spoken by over 100 million people, released under an open licence specifically to enable African developers and researchers to build on it.
- **Responsible deployment:** The GSMA and Zindi launched the African Trust & Safety LLM Challenge in March 2026, generating a reusable, Africa-focused AI safety benchmark that stress-tests models across the continent's 2,000-plus languages.

These efforts sit alongside the dedicated data, compute, talent and policy working groups established under the G6 and the GSMA's African AI Language Models initiative – giving the ecosystem a coordination structure through which industry investments can be aligned and measured.

Together, these efforts reflect a recognition that the competitive advantage in AI will increasingly belong to those who control the foundational layers.

Operators that deploy AI effectively are not only reducing operating costs – they are expanding the addressable market for digital services to the hundreds of millions of Africans currently excluded by language barriers, directly accelerating the productivity gains that underpin mobile's projected $290 billion contribution to Africa's economy by 2030.

2.2
Network APIs unlock a new operator business model

Africa's mobile operators possess a set of network-layer capabilities – identity signals, connectivity intelligence and real-time authentication data – that have historically been used exclusively for internal operations. A significant shift is now underway, as these capabilities are being exposed as application programming interfaces (APIs) to third-party developers, enterprises and governments, creating a new commercial layer on top of the connectivity business.

Africa currently accounts for 11% of global GSMA Open Gateway operator commitments. This signals both the scale of the opportunity and the urgency of the work required to unlock it.

The GSMA Open Gateway is the global framework enabling this transition, and it has distinctive strategic relevance in Africa due to the continent's mobile-first architecture. By the end of 2025, 79 operators covering approximately 80% of the global mobile market had committed to the Open Gateway initiative. 10 operator groups across Africa have adopted the initiative, with operators in South Africa, Nigeria, Egypt, Kenya, Morocco and Cameroon actively piloting or commercialising APIs.

South Africa has achieved the most visible progress. Banks and fintechs in the country are already using SIM Swap and Number Verification APIs to detect fraud and authenticate high-risk transactions.

This has delivered a measurable reduction in transaction fraud, which remains one of the continent's most persistent financial risks. These APIs allow businesses to verify user identities and detect account takeover attempts using real-time network signals, without relying on knowledge-based authentication methods that are increasingly vulnerable to AI-enabled social engineering.

The commercial logic is straightforward: enterprises across financial services, e-commerce, digital government and healthcare face growing pressure to authenticate users reliably and cost effectively. Network-layer APIs offer a form of authentication that is both harder to spoof than passwords or OTP-based systems and inherently mobile-native – a structural advantage in a region where mobile is the primary means of accessing digital services. Operators are also beginning to build the developer infrastructure needed to scale up this model: MTN's Chenosis platform, Africa's first cross-industry developer accelerator, is designed to enable third-party developers to access and build on network API capabilities across markets.

AI-enabled threats as a market accelerant

The demand for network-layer trust products is being accelerated by the growing sophistication of AI-enabled fraud. Generative AI (genAI) has made it significantly easier to produce synthetic identities, deepfake voices/videos and highly personalised phishing content at scale. For Africa's digital economy – where mobile money, digital banking and e-government services are expanding rapidly – the ability to verify identity through network signals rather than user-provided information is becoming a risk-management imperative.

Operators that can offer fraud detection and identity verification as API products are addressing a demonstrable and growing enterprise need while simultaneously creating a revenue stream that is structurally differentiated from the commodity connectivity market.

The API opportunity will be shaped by regulatory frameworks

A GSMA Intelligence regulatory assessment across seven African markets confirms that the commercial opportunity for network APIs is real but unevenly distributed across API categories. The assessment evaluated four API families against national regulatory frameworks, finding that the pace of Open Gateway adoption in Africa will be determined more by regulatory execution than by technical readiness.

Figure 7

Open Gateway API feasibility across African markets*

Market	Location	Identity and trust	Connectivity and QoS	Phone verification	Cybersecurity
Cameroon	Low	Conditional	Medium	Medium	Low
Egypt	Conditional	Medium	High	Medium	Low
Morocco	Conditional	Medium	Medium	Medium	Low
Nigeria	Conditional	Medium	Medium	Medium	Low
Tanzania	Low	Medium	Medium	Medium	Low
Uganda	Low	Medium	Medium	Medium	Low
Zambia	Conditional	Medium	Medium	Medium	Low

* Feasibility assessed across legal permissibility, licensing requirements and operational limitations

Source: GSMA Intelligence

Connectivity and quality-of-service (QoS) APIs represent the most scalable near-term opportunity across all seven markets, aligning with existing telecoms regulatory mandates on service performance and transparency. Phone verification APIs occupy a middle ground: they are viable when narrowly framed for transactional security and fraud prevention, but constrained where they risk drifting toward broader identity confirmation. Identity and trust APIs are generally viable but bounded: regulators tend to accept SIM Swap and Number Verification signals as fraud-prevention tools rather than identity substitutes, with access typically limited to regulated financial institutions. Location-based and cybersecurity APIs face the highest structural resistance in all markets, linked to national-security frameworks and critical-infrastructure classifications that prioritise state access over commercial ecosystem exposure.

The regulatory picture matters for operators' go-to-market strategies. Licensing requirements frequently act as gatekeeping mechanisms: in several markets, API aggregators must establish local entities and obtain sector approvals before accessing network APIs, slowing cross-border expansion and reinforcing country-by-country deployment models. Operators pursuing Open Gateway strategies in Africa must therefore design for regulatory compliance at the national level while building architectures that remain compatible with longer-term regional interoperability under the African Union's Data Policy Framework.

2.3
Operators evolving into full-stack digital partners

Across Africa, mobile operators are redefining their relationship with the enterprise market. What began as a connectivity offering has evolved into a broader proposition: operators as technology partners capable of delivering cloud services, AI tools, sector-specific applications and data analytics, alongside connectivity.

This transition from telco to tech-co is no longer aspirational. Utilities and energy, transportation and logistics and financial services are the leading sources of current enterprise revenue in Africa. These sectors are being disrupted by digitalisation and where operators see the greatest platform opportunity.

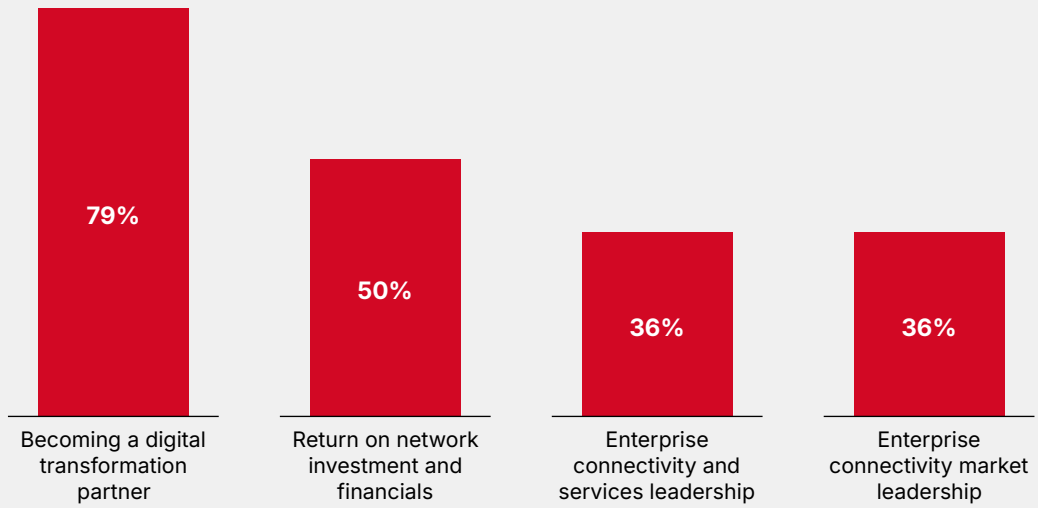
A strategic repositioning, not a revenue add-on

According to the GSMA Intelligence Enterprise Opportunity Survey 2025, the primary enterprise goal of operators in Africa is to establish themselves as digital transformation partners (ranked above financial returns and market leadership by a clear margin). This signals that the tech-co transition is not being pursued solely as a revenue-diversification exercise, but also as a fundamental repositioning of the operators' market identity. Operators that successfully embed themselves as technology partners to enterprises and governments create relationships that are structurally harder to displace than those built on connectivity pricing alone.

Figure 8

African operators' enterprise strategies and goals, 2025

What are the primary goal driving your company's enterprise strategy? (Percentage of respondents)



Source: GSMA Intelligence Operators in Focus: Enterprise Opportunity Survey 2025

From ambition to structural commitment

The ambition to become a tech-co is backed by operational change. Across Africa, the most common action operators have taken over the past three years is pursuing partnerships with technology companies. This is ahead of workforce expansion, targeted acquisitions and organisational restructuring, showing that the industry recognises that the tech-co transition cannot be achieved through organic capability-building alone. Concrete enterprise-facing moves across the continent show what this looks like in practice:

- **MTN Chenosis:** MTN's developer platform, Chenosis, allows enterprises and third-party developers to access MTN network capabilities and build digital services across MTN's African markets. The platform is a direct expression of the operator repositioning its network as a programmable enterprise asset rather than a passive connectivity layer.
- **Safaricom Daraja 3.0:** Daraja 3.0 is Safaricom's redesigned enterprise API platform giving businesses and developers more secure, versatile interfaces to integrate M-Pesa and network capabilities into their own services. The platform underpins Safaricom's public-sector digital transformation work, including the Hustler Fund, a government-led financial inclusion initiative delivered on Safaricom's cloud-native infrastructure.
- **Orange Maroc Live Intelligence:** Orange Maroc launched Live Intelligence, a sovereign genAI platform enabling enterprises to deploy secure AI agents within their own environments. Alongside this, Orange Maroc is operating private 5G networks for industrial enterprise clients, including managing logistics operations at Africa's largest port and delivering remote telemedicine services.
- **Vodacom Business IoT:** Vodacom Business launched an enhanced managed IoT connectivity platform for enterprise customers, enabling fleet tracking, asset monitoring, video surveillance and industrial applications through a locally routed network infrastructure. Enterprise services beyond mobile – spanning IoT, cloud, digital services and fixed connectivity – now represent 17.8% of Vodacom's South Africa service revenue.[4]

Across Africa, the most common action operators have taken over the past three years is pursuing partnerships with technology companies

Digital health: a sector proof point

Digital health illustrates both the opportunity and the complexity of the tech-co transition in practice. The International Telecommunication Union and the World Health Organization's digital health maturity framework – covering infrastructure, data governance, workforce capacity, regulatory environment and financing – reveals significant variation across African markets.

Where the conditions are right, such as in Rwanda, Kenya and South Africa, operators are moving from providing connectivity to health facilities towards co-building digital health systems. These operators are enabling patient identity verification, supporting telemedicine and partnering with health technology platforms on electronic health records and diagnostics.

In Kenya, Safaricom led a consortium to begin implementing Kenya's Integrated Healthcare Information Technology System. The project includes a health information exchange to unify patient records across all public health facilities, a hospital management system for digitising public health facilities, a digitised pharmaceutical supply chain and a nationally hosted health cloud. By early 2025, over 18.7 million Kenyans had already been onboarded to the system.

4. "Vodacom Reports Solid Growth, Sets Ambitious 2030 Vision", Telecom Review Africa, May 2025

03

Mobile industry impact

The mobile industry in Africa continues to play a vital role in social and economic development. Beyond expanding connectivity, operators are working to ensure that the benefits of connectivity reach those who remain offline while also addressing the environmental footprint of the infrastructure that delivers it. Operators are increasingly focused on the gap between coverage and internet use, which remains the continent's defining digital challenge, and the energy costs and carbon commitments that are reshaping network economics.

Over the past year, the industry has increased efforts to address the usage gap through targeted device, financing and digital skills initiatives. It is also accelerating the transition to renewable energy across network sites to reduce operational costs, cut emissions and build more resilient infrastructure.

3.1
Closing the usage gap: bringing the unconnected online

In Africa, nearly 1 billion people live within mobile internet coverage but are not connected, held back by the cost of devices, the cost of data, limited digital skills and, in many cases, deep-rooted social barriers that determine who in a household or community is permitted or encouraged to go online. Closing this gap is the defining digital inclusion challenge in Africa. Mobile operators are becoming increasingly central to addressing this challenge.

Device financing, digital skills and social norms

Affordability is the primary constraint in Sub-Saharan Africa. The cost of an entry-level internet-enabled handset in the region represents 24% of monthly income in low- and middle-income countries on average (rising to up to 80%). Digital skills and literacy are the second major barrier, particularly for those who are aware of mobile internet but have not yet adopted it. Safety and security concerns, including the risk of online harassment, further discourage adoption among women. And social norms, particularly in more conservative communities, continue to affect who in a household has access to and control over a connected device.

Across Africa, operators are taking action on digital inclusion. The most effective interventions combine device affordability measures with targeted digital skills programmes, online safety education and community-based outreach designed to address demand-side barriers that price reductions alone cannot resolve. The following are examples of such initiatives by operators across Africa:

- In Ghana, **MTN Ghana** partnered with Infinix in March 2026 to launch the Note 60 Series on flexible six-month credit terms with 2 GB of monthly data per device for free.
- In Ethiopia, **Ethio Telecom** pursued device affordability through parallel initiatives in 2025. The operator partnered with local banks to deliver smartphone financing through the Telebirr platform, targeting up to 2 million devices annually via instalment plans with no collateral required. It also launched the Znexus line of cloud-powered 4G devices. Starting from approximately $17, the devices are purpose built for low-income and rural users, with cloud storage removing the need for large on-device memory.
- In South Africa, **MTN MoMo** launched Handset Rent to Own, which allows prepaid customers to acquire 4G and 5G smartphones from as little as ZAR10 per day through the MoMo app, with no credit check or payslip required. Affordability is assessed using an AI-driven model based on mobile money usage history – a method specifically designed for South Africa's large informal and unbanked economy.

- In Kenya, **Safaricom** launched Maisha Poa Ni Digital, a nationwide campaign to accelerate the migration from 2G feature phones to affordable 4G smartphones, bundling each device with 5.5 GB of free data and offering flexible daily payment plans. By May 2025, the programme had crossed 2 million devices sold, lifting smartphone ownership on Safaricom's network from 44% to 50% of connections. This tackles the usage gap from both ends simultaneously: reducing the effective cost of device ownership while bundling data to lower the barrier to internet use.
- Across Africa, **MTN** launched the MTN Skills Academy, a zero-rated digital and financial skills platform available to anyone within MTN's 16-country African footprint, with no prior qualifications required. The platform offers career guidance, certification courses (in areas such as data analysis, software development and cybersecurity) and a job placement hub linking graduates to employers. Designed for low-data environments and zero rated in select markets, the platform specifically targets people who are aware of the digital economy but lack the digital skills or confidence to participate.
- Across Africa, **Airtel** is addressing both sides of the inclusion challenge through complementary initiatives in 2026. In Rwanda, it launched a device-financing scheme in partnership with Watu Credit and Simstel, offering Samsung smartphones on flexible daily repayment plans. In Uganda, the Airtel Africa Foundation launched a full-ride tech fellowship for 20 students across five universities, covering tuition, devices and stipends for degree programmes in cybersecurity, software engineering and data science – directly targeting the skills pipeline that the digital economy depends on.

3.2
Powering connectivity sustainably: the energy transition

The connectivity opportunity in Africa includes extending coverage to rural and peri-urban communities, but this is also where power infrastructure is unreliable and expensive. Although diesel generators have long been the default solution for off-grid and weak-grid sites, their costs are rising, their emissions are significant and their operational vulnerabilities are increasingly difficult to manage. Africa's mobile operators are responding with a structural shift: moving from diesel dependence towards renewable energy as the primary power source for their networks. This is not only because it is environmentally necessary, but also because it is becoming economically compelling. Examples of this shift to renewables include the following:

- **Vodacom** is the first pan-African operator to source 100% of purchased electricity from renewables, across operations in South Africa, Egypt, Tanzania, the Democratic Republic of Congo (DRC), Mozambique and Lesotho.
- **Orange** has 6,000 telecoms sites across Africa and the Middle East equipped with solar panels, saving 55 million litres of fuel annually.
- **MTN** has converted over 10,000 sites to solar and hybrid energy systems across its African footprint as part of Project Zero.
- **Safaricom** has 1,432 base stations powered by solar energy in Kenya and is targeting 50% of all sites covered by renewables.

Vodacom virtual wheeling: a replicable model

Vodacom's virtual wheeling solution, operationalised in South Africa in September 2025, allows the operator to procure large-scale renewable energy from independent power producers, despite having a distributed network of over 15,000 low-voltage sites across 168 municipalities. Developed with its subsidiary Mezzanine, the solution aggregates energy consumption across all sites and enables procurement at scale

The solution addresses a structural barrier that had prevented large, distributed businesses from accessing renewable energy at scale: the one-to-one geographic relationship required by traditional wheeling arrangements. The virtual wheeling platform aggregates energy consumption across all of Vodacom's South African sites and reconciles it with generation from Sola Group's solar plant in the Free State, enabling large-scale renewable procurement irrespective of site location. Vodacom has explicitly positioned this as a replicable blueprint for other businesses with distributed operations, making it a proof of concept that extends well beyond the mobile sector.

04

Policies for growth

4.1
Fiscal reform as a driver of affordability and adoption

Taxation sits at the intersection of digital policy and digital outcomes in Africa more directly than almost any other government lever. The mobile sector remitted $45 billion in taxes and fees across the continent in 2025, equivalent to 11% of total tax revenue in the region, of which $20 billion came from handset VAT, sales taxes and excise and customs duties alone. These fiscal burdens, when poorly designed, suppress the very adoption they ultimately depend on. Evidence from 2025 shows that targeted reform of mobile-specific and device taxation can deliver measurable improvements in digital adoption faster than almost any other type of policy intervention.

Device and service taxation: the most direct policy lever

Handset affordability has emerged as the single largest barrier to mobile internet adoption across Africa. Despite mobile broadband coverage now reaching the majority of the continent's population, 63% of Africans remain offline – not because of a lack of network coverage, but because of the cost of devices, services and sector-specific levies. Taxes on entry-level smartphones (often classified as luxury goods in national customs schedules) directly raise the price floor for first-time device purchasers, disproportionately affecting the lowest-income segments of the population, who most need affordable devices to access digital services.

Sector-specific levies on digital services compound the problem. Taxes applied specifically to mobile internet, mobile money transactions or digital content create a cost barrier that reduces usage relative to what would occur under general consumption tax frameworks. The mobile money levy introduced in Ghana in 2022 demonstrated this, as the levy suppressed peer-to-peer (P2P) transactions and was associated with the effective exclusion of an estimated 5% of projected users from mobile financial services.

The GSMA Handset Affordability Coalition

In October 2025, the GSMA Handset Affordability Coalition – comprising the GSMA, the G6 African operators, OEM partners and international development institutions – published minimum technical specifications for an affordable entry-level 4G smartphone at MWC Kigali, giving manufacturers a clear target. At MWC Barcelona in March 2026, a memorandum of understanding was signed to pilot these devices in six countries: the DRC, Ethiopia, Nigeria, Rwanda, Tanzania and Uganda. At the same time, the coalition has called on African governments to remove taxes on entry-level devices priced below $100, citing South Africa's April 2025 reform as the replicable model. These parallel approaches – addressing supply-side specification and demand-side fiscal reform – reflect the coalition's recognition that affordability is a systemic problem requiring simultaneous action across the value chain.

Policy reform delivering measurable results

The strongest evidence that fiscal reform works comes from markets where it has already been implemented. The Digital Africa Index (DAI) provides a framework for evaluating how policy reform translates into measurable digital progress. The DAI comprises the Digital Nations Score Index (DNSI), which measures digital development outcomes, and the Digital Policy and Regulatory Index (DPRI), which assesses the quality of enabling policy and regulatory environments.

Ghana and South Africa both implemented significant tax reforms that came into effect in April 2025. Both markets recorded measurable improvements in digital adoption within the same year, leading to material improvements in their DAI performance. These are two of the strongest proof points in Africa for the direct link between fiscal policy and digital adoption outcomes.

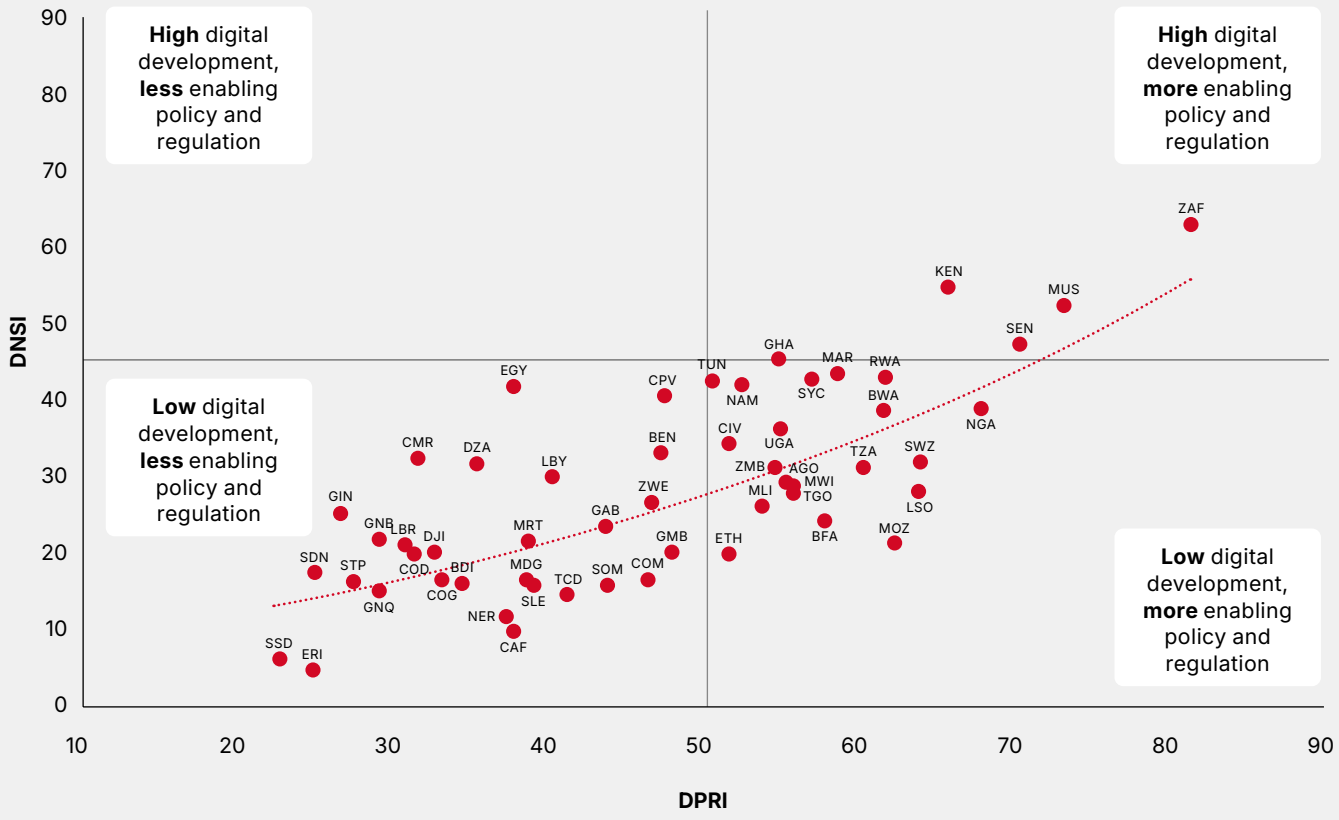
GSMA Intelligence data, including the DPRI and DNSI scores, shows that countries with stronger policy environments consistently achieve better adoption outcomes.

Ghana and South Africa's reforms are instructive not only for what they achieved, but for how quickly results materialised. They confirm that fiscal reforms targeting the cost of digital participation deliver adoption gains within months, not years, and that the gains are visible in both usage data and policy quality assessments.

Figure 9

Strong policy environments in Africa correlate with better digital outcomes

DNSI and DPRI scores, 2025



Source: GSMA Intelligence

Case study

Ghana: repealing the mobile money levy

Context: In 2022, Ghana introduced a mobile money levy, a charge applied to P2P mobile money transactions. This suppressed transaction volumes and was associated with the effective loss of approximately 5% of projected mobile money users.

Policy action: Effective from 1 April 2025, the government repealed the levy entirely, removing the transaction cost that had been depressing mobile financial services adoption.

Result: By December 2025, mobile money transaction volumes were 31% higher year over year. This was the fastest recovery of any market following a levy-related suppression. Ghana recorded the fastest year-on-year DNSI improvement of any African country in the 2025 DAI results, with improvements in both digital financial services adoption and broader usage indicators.

Index change between 2024 and 2025: The DPRI score increased from 46 to 54, while the DNSI score increased from 44 to 50.

Case study

South Africa: removing the smartphone excise duty

Context: Entry-level smartphones priced below ZAR2,500 were subject to a 9% ad valorem excise duty under South Africa's customs schedule, a classification that treated basic connectivity devices as luxury goods and added materially to their retail price.

Policy action: Effective from 1 April 2025, South Africa's National Treasury removed the excise duty entirely on entry-level smartphones, reducing the cost floor for first-time device purchasers.

Result: The market response was immediate, with a consumer-led rebound in entry-level smartphone sales, a parallel decline in legacy feature phone sales as consumers upgraded and a surge in 4G/5G adoption that lifted the national DNSI consumer score. South Africa's DPRI score also improved, reflecting the direct impact of fiscal reform on the policy environment assessment.

Index change between 2024 and 2025: The DPRI score increased from 77 to 80, while the DNSI score increased from 63 to 65.

4.2
Sustainable investment conditions for digital infrastructure

Fiscal reform addresses the demand side of the digital adoption challenge: making services and devices affordable for users. However, this depends on a complementary, structural condition, namely an investment environment in which operators and ecosystem partners are willing and able to commit long-term capital to Africa's digital infrastructure.

Mobile operators across Africa are projected to invest $75 billion in network capex between 2025 and 2030. This figure will only be realised if regulatory regimes, cost structures and competitive conditions support rather than undermine the business case for investment.

How investment conditions shape digital outcomes

The relationship between regulatory environments and investment is direct and measurable. GSMA Intelligence data shows that markets with stronger enabling policy and regulatory environments (reflected in higher DPRI scores) consistently attract greater operator investment, achieve better network quality metrics and show faster progress on digital adoption. This is not coincidental, as operators allocate capital where returns are predictable, regulatory costs are manageable and the risk of adverse policy changes is low. Where these conditions are absent, investment concentrates in a small number of high-revenue urban markets, the coverage and quality gap between urban and rural areas widens, and the usage gap persists despite coverage expansion.

The total cost and risk profile of investing in a given market is determined by a combination of factors: the efficiency of rights-of-way (RoW) processes for passive infrastructure deployment; the availability and terms of infrastructure-sharing frameworks; the stability and consistency of regulatory decision-making; and the level and predictability of licence costs and sector-specific levies. When these factors collectively create a high-cost, high-risk environment, operators rationally reduce their investment ambitions – and the digital economy suffers the consequences.

Regulatory predictability and institutional quality

Predictable regulation is the most foundational investment enabler. This includes the consistent application of rules, transparent decision-making processes and reliable timelines for licensing and approval. Operators making capital commitments with payback periods of 5–10 years cannot do so with confidence if the regulatory environment is subject to sudden policy changes, inconsistent interpretation of licensing conditions or opaque approval processes. Markets where regulators and operators maintain structured dialogue – through formal consultation processes, industry advisory bodies and regular engagement on policy development – tend to produce better regulatory outcomes for both parties. Operators that understand the policy direction of the environment they are operating in can align their investment plans accordingly. Meanwhile, regulators that understand industry economics and operational constraints can design rules that achieve their public policy objectives without inadvertently suppressing investment.

Infrastructure sharing and RoWs

The cost of building mobile infrastructure, including towers, fibre backhaul, data centres and power supply, is the primary determinant of whether network deployment in underserved areas is commercially viable. Infrastructure-sharing frameworks that allow operators to share passive infrastructure (towers, masts, ducts and power systems) and, where appropriate, active infrastructure (antennas and spectrum) substantially reduce the per-site cost of coverage and make it economically viable to serve areas that would otherwise be commercially unviable to do so.

In March 2025, MTN Group and Airtel Africa signed agreements to share network infrastructure, including radio access networks and fibre, in Uganda and Nigeria, alongside discussions to extend the arrangement to the Republic of Congo, Rwanda and Zambia. The deal allows both operators to reduce capital and operational costs while expanding coverage, particularly in rural and underserved areas where building parallel networks would be commercially unviable. Both companies confirmed they remain independent commercial competitors, as the sharing arrangement covers infrastructure, not market strategy. The deal reflects a growing recognition across the continent that cooperative infrastructure models are essential for extending coverage beyond the limits of what individual operator economics can support.

RoWs contribute to the deployment cost and delay in many markets across Africa. Streamlined, time-bound RoW processes with clear fee schedules and coordinated approval across national, regional and local government reduce deployment timelines and costs, directly improving the economics of network expansion into underserved areas.

In Nigeria, RoW fees, which are charged by state governments for operators to lay fibre optic cables along public roads, have long been one of the most persistent barriers to broadband deployment. By October 2025, 11 states had waived RoW fees entirely, with a further 17 capping charges at the rate set by the Nigeria Governors' Forum. The Nigerian Communications Commission (NCC) directly linked these reforms to investment outcomes: telecoms operators committed over $1 billion in additional broadband rollout investment in direct response to the fee waivers and accompanying NCC regulatory actions, including a cost-reflective tariff review approved earlier in 2025.

To sustain momentum, the NCC launched two accountability tools in October 2025: the Ease of Doing Business Portal, a one-stop platform for state-level telecoms approvals; and the Nigeria Digital Connectivity Index, a state-by-state scorecard ranking digital readiness and RoW compliance. The Nigeria case illustrates both sides of the investment-conditions equation: where regulatory barriers fall, private capital follows.

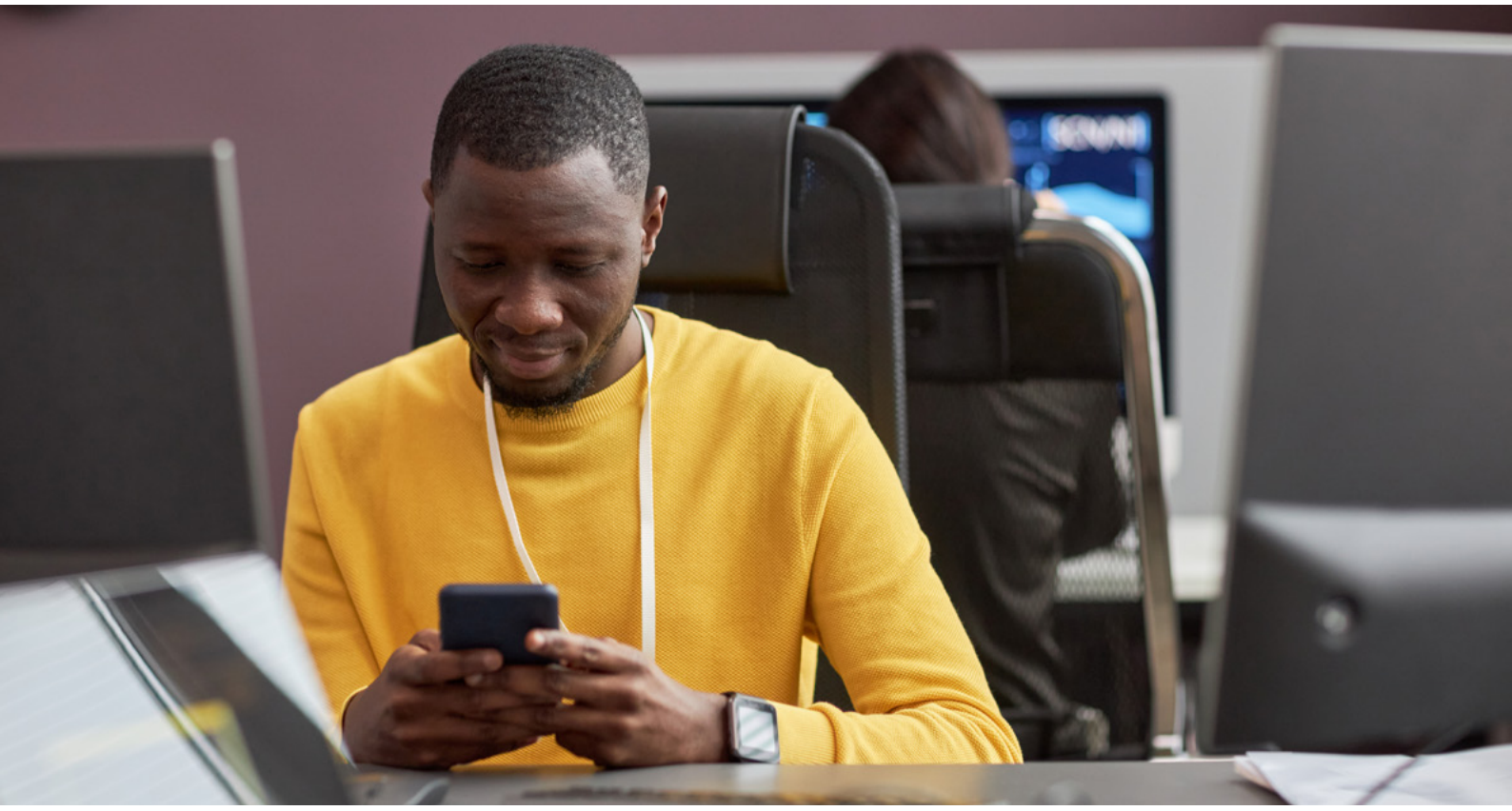
Fair competition and value-chain balance

Sustainable investment in digital infrastructure also depends on competitive conditions that are fair across the digital value chain. As mobile networks increasingly underpin services delivered by global technology platforms, content providers and application developers, questions about the distribution of value between network providers and service providers become commercially and regulatorily significant. Operators that invest in network infrastructure need reasonable confidence that the regulatory framework will support a fair commercial environment, one in which the returns to network investment are not systematically compressed by asymmetric market conditions or regulatory treatment.

This does not imply a specific regulatory outcome. Rather, it reflects the principle that investment-enabling frameworks must consider the economics of the full digital value chain, not only the end-user affordability dimension. Where operators face both compressed connectivity revenues (due to competitive market dynamics) and high regulatory cost burdens, the combined effect can make network investment at the required scale commercially unsustainable, particularly in lower-income or more sparsely populated markets. Regulatory frameworks that balance affordability objectives for consumers with investment sustainability for operators produce better digital outcomes over the long term compared to frameworks that optimise for one at the expense of the other.

The investment sustainability argument

The mobile industry's contribution to Africa's public finances, which amounted to $45 billion in 2025, representing 11% of total regional tax revenue, underscores both the sector's economic significance and its exposure to the policy environment. An industry that contributes this amount to public revenues is only able to generate that contribution because it is investing in the networks and services that create economic activity in the first place. Fiscal and regulatory frameworks that sustain industry investment capacity are not a concession to commercial interests; they are a precondition for the continued expansion of digital infrastructure that governments and citizens depend on.



4.3
Spectrum policies for Africa's digital growth

Spectrum decisions made today will shape the next phase of digital growth and reverberate across society. The expansion of digital connectivity throughout Africa is supported by ongoing access to mobile spectrum. Effective spectrum management therefore requires forward-looking policies that support capacity in Africa's urban centres while expanding coverage to rural communities. As African governments oversee the next wave of network development, careful spectrum planning will support each country's digital prospects.

Spectrum roadmaps

A spectrum roadmap can help countries meet growing demand for mobile services by forecasting future trends and identifying planned assignments. For mobile operators, roadmaps encourage investment by offering increased certainty, based on the government's future allocation, renewal plans and radio spectrum management.

The main elements of a spectrum roadmap include:

- spotting new opportunities and potential problems with spectrum policy 3–5 years ahead, including understanding future capacity needs
- understanding future technology trends and what they will mean for how spectrum is used and managed
- designing programmes to manage spectrum effectively and make the most of new opportunities
- setting up a regular process to review and update the roadmap (ideally once a year).

Spectrum pricing

The right spectrum pricing approaches can accelerate the rollout of higher-quality mobile services. Assigning sufficient spectrum bandwidth at prices that encourage investment is strongly linked to greater population coverage, better download speeds and increased service adoption. Governments should aim to support their economies and enable consumers and the industry to make effective use of mobile spectrum resources, contributing to national productivity.

There are several elements of good practice on pricing spectrum:

- Spectrum prices should promote the optimal use of spectrum for the benefit of society. Low spectrum fees increase the funds available for investment and positively impact the quality and reach of mobile broadband services.
- Licensing authorities should set auction reserve prices conservatively to allow the market to determine a fair price and to reduce the risk of leaving spectrum unassigned.
- Authorities should set renewal fees only to recoup administrative costs and ensure licences have a presumption of renewal.
- Costs related to conditions or obligations attached to the licence should be deducted from spectrum fees.
- Lower spectrum prices could be considered in exchange for investment commitments for coverage or quality of service.

Technology neutrality

Technology-neutral spectrum licensing helps enable legacy network shutdowns and is recognised as best practice when assigning spectrum to mobile operators. It enables mobile operators to refarm spectrum used for legacy technologies to newer ones.

Gracefully refarming existing mobile bands can occur without service disruption for users. Implementing technology-neutral spectrum licensing maximises spectral efficiency and allows users to benefit from faster rollouts of 4G and 5G. It can lead to the delivery of better mobile broadband coverage and higher data speeds by allowing operators to upgrade technologies at market-led timeframes.

Policies for urban development

As Africa's economic centres grow, they require access to spectrum to meet consumer and business demand. Mid-band spectrum is an important part of providing city-wide capacity needs, unlocking the benefits of industrial digitalisation and connecting users to high-bandwidth applications, including AI and streaming.

Meeting long-term mid-band spectrum demand requires policymakers to plan a roadmap. Mid-bands, such as 3.5 GHz, are important to the future of 5G because they offer sufficient capacity to connect dense urban environments. In the short term, operators should have access to 100 MHz of contiguous spectrum in this band for 5G launches. Looking to the future, GSMA analysis shows that an average of 1.4–2 GHz of mid-band spectrum will be needed in Sub-Saharan Africa between 2035–2040, while more will be required in the highest-use urban areas. 5G growth in Sub-Saharan Africa is expected to develop rapidly over the next few years and continue into the 2030s.

The 6 GHz band, which is already widely harmonised for mobile, also offers significant capacity for mobile evolution. Mobile networks are already densified and adding additional spectrum in 6 GHz can sustainably grow mobile capacity on existing grids of macro-cell sites. Countries aiming to adopt 6G as they evolve their networks over time will require 200–400 MHz channels per operator – 6 GHz is one of the few bands that can support this.

Policies for rural growth

Improving mobile coverage across Africa can help bridge the urban–rural divide and promote socioeconomic development across the continent. Effective spectrum policy can reduce both the coverage and usage gaps, helping more people access vital services such as mobile money, telemedicine and e-learning.

Realising spectrum's potential as a driver of rural connectivity depends on progress across three interconnected policy areas:

- **Low-band spectrum:** Rural users spend twice as much time connected to low bands compared to urban users. Without sufficient low-band spectrum, countries in Africa will struggle to address the digital divide and those living in rural areas may be excluded from the latest digital technologies. There are numerous benefits for countries that prioritise access to more low-band spectrum for mobile. For example, an additional 50 MHz of sub-1 GHz spectrum is linked to a 7 percentage-point increase in 4G coverage and an 11 percentage-point increase in 5G coverage.[5] In most countries, the main low bands currently used for 5G are the 600 and 700 MHz bands. In Africa, the 470–694 MHz range may provide new opportunities to deliver affordable, wide-area connectivity for all communities. As network deployment accelerates in mid-bands, complementary low-band capacity will be essential to extend coverage into rural areas, enhance indoor performance and promote digital equality.
- **Digital switchover:** Huge progress has been made on the transition from analogue to digital TV broadcasting in Africa, but many countries still need to complete the process. Digital switchover (DSO) allows countries to use less broadcasting spectrum due to the greater efficiency of digital terrestrial television. The progress made on DSO has allowed many African countries to move forward with the development of the 700 and 800 MHz bands. However, further work is required to ensure that rural citizens get access to sufficient bandwidth, and 600 MHz will also be required.
- **Enabling D2D:** Direct-to-device (D2D) satellite connectivity describes the use of standard mobile handsets with satellite connectivity. It can supplement coverage for people that already have a mobile connection. It can also offer connectivity to those who live outside of terrestrial mobile coverage and can afford a device and service plan. In addition, D2D can expand resilience, especially during emergencies when there are network outages. D2D's weaker signal and lower spectrum efficiency means it cannot provide meaningful connectivity in populated areas such as cities and towns. Its use will therefore be limited to sparsely populated or unpopulated rural areas. In highly populated areas, low-band terrestrial mobile will be a more efficient way of delivering connectivity.

WRC-27: mobile spectrum for Africa's future

The World Radiocommunication Conference 2027 (WRC-27) presents a unique opportunity for Africa to shape the next evolution of mobile connectivity.

WRC-27 will present the opportunity to harmonise the lower ultra high frequency (UHF) band (470–694 MHz) for mobile use, including the expansion of the existing IMT footnote signatories and establishing a new agenda item at WRC-31 for countries in Africa and beyond. Mid-bands are also on the agenda, including 4.5 and 7 GHz, which have the potential to provide the capacity needed in Africa's urban centres.

Countries can use the next WRC to advocate for their digital ambitions and ensure there is enough spectrum for Africa's future growth.

5. Spectrum and rural connectivity, GSMA, 2025

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