



Sub-Saharan Africa 2024 Year in Review

Digital Adoption: Moving beyond coverage & counting connections

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Angela Wamola
Head of Sub-Saharan Africa

Digitalisation and the Africa We Want

While the transformative socioeconomic impacts of digital technologies are well established, a digital divide persists in Africa, where two thirds of the population (710 million people) do not currently use mobile internet despite living within the footprint of a mobile broadband network. Based on recent connectivity trends, it will take another 30 years for the usage gap in mobile internet connectivity to close.

The socioeconomic benefits of accelerating connectivity in Africa are clear. How do we close the usage gap before the end of the second series of the remaining four 10-year implementation plans, to realise the vision of the “Africa We Want By 2063”? The Second 10-Year Implementation Plan embodies a *Theory of Change* (as shown below) that defines how results will be achieved and provides guidance on the Moonshot interventions and catalytic priorities, targets and indicative strategies that strongly embed resilience¹.



PROSPEROUS

Every AU MS to attain at least middle-income status



INTEGRATED

Africa to be more integrated and connected



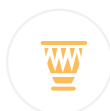
DEMOCRATIC

Public institutions to be more responsive



PEACEFUL

Africa to resolve conflicts amicably



CULTURED

African values to be explicit and promoted



PEOPLE-DRIVEN

Africa citizens to be more empowered and more productive



INFLUENTIAL

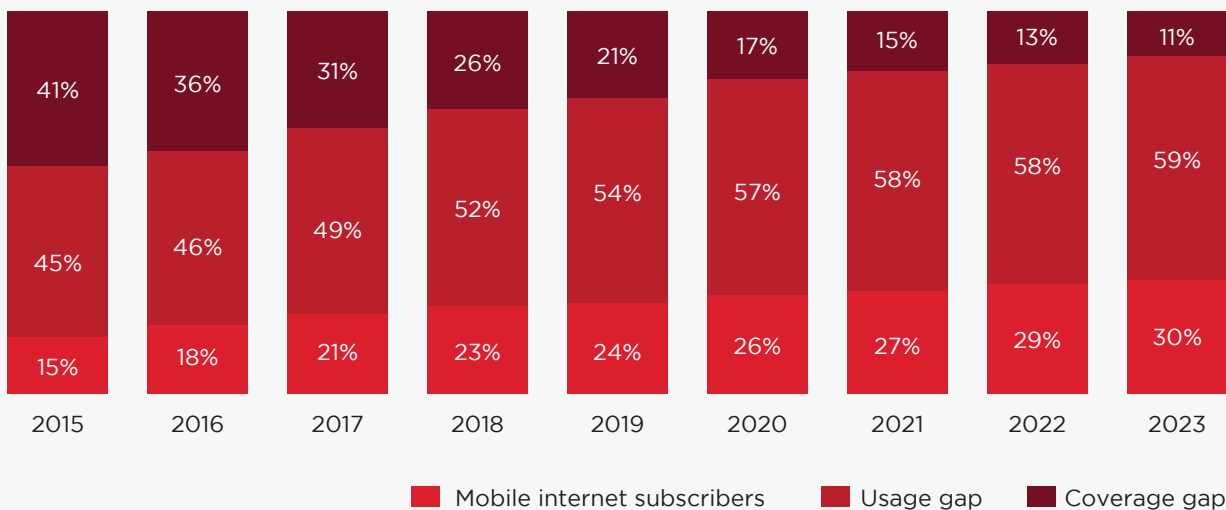
Africa to be a strong and an influential global player

¹ <https://www.nepad.org/publication/agenda-2063-second-ten-year-implementation-plan-2024-2033>

The figure below provides a baseline for Africa to course correct for the 2033 outcomes we seek.

Mobile internet connectivity in Africa, 2015-2023

Source: The State of Mobile Internet Connectivity Report 2024



We have embarked on a three-year plan to move the needle in three key areas:



Reducing the Usage Gap



Addressing the Investment Gap



Transitioning to a Green Digital Future

An accelerated adoption of digital technologies and use by consumers, businesses and governments is fundamental to the economic transformation of our economies through diversification, productivity increase and export competitiveness.

In 2024, we published six Digitalisation studies leveraging general evidence gathered in the form of experiences across African countries and case studies. We provide an economic analysis and estimations of the impacts of policy reform and digitalisation on the economy of the selected countries i.e. Nigeria (May), Zambia, Kenya, Ethiopia (Oct), South Africa (Nov) and Benin (Dec)².

Lessons from early transformers, such as India, aggressively implemented diversification policies that spurred an agribusiness transition, including sustained investments in technology,

infrastructure, entrepreneurial capabilities, national research systems & extension services. Unlocking the potential for greater smartphone adoption in the region is critical for boosting digitalisation outcomes, the Shared Mobile Infrastructure Program expanded mobile phone networks to rural areas, extending the reach of digital extension services such as the Kisan Call Centers to rural farmers. Farmers could then receive agricultural extension services via mobile phones, hastening the adoption of modern agricultural technologies, forming a value chain that increases incomes beyond the agricultural sector³.

Results from the first edition of the GSMA Digital Africa Index provide clear evidence that **countries with enabling policies and regulations, and more importantly have implemented these policies through political good will, are more likely to have higher levels of digital development**, brought about by high mobile broadband adoption. However, only four countries (Kenya, Mauritius, Seychelles and South Africa) have a score above 50 (the maximum scores being 100).

Most countries in Africa have scores below 50, meaning they have significant scope to accelerate digital transformation with a more enabling policy framework.

² <https://www.gsma.com/about-us/regions/sub-saharan-africa/ssa-resources/>

³ <https://acetforafrica.org/ati/growth-with-depth/diversification/>

Countries have seen greater progress with regards to digitisation of government, but digitalisation of businesses is a particular challenge in much of Africa, with few countries home to thriving start-up ecosystems or the large-scale use of IoT solutions for businesses.

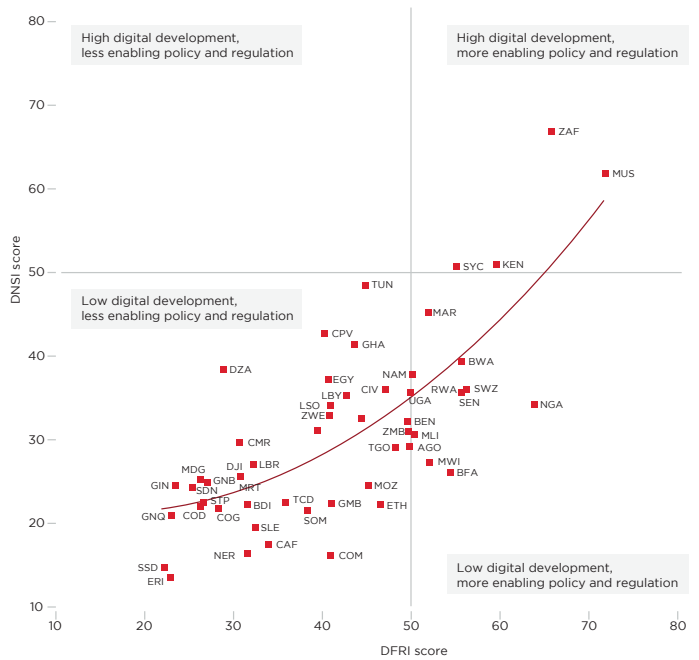
With an African G20 Presidency in 2025 presenting an important opportunity to shape global digital policies in favour of the Global South, our role of Industry as a Partner for our developmental goals, will be critical for advancing greater adoption of digitalisation of our businesses. A 10% increase in mobile broadband penetration can increase GDP by 1.0–2.5%⁴.

We look forward to collaborating with you again in 2024.

#Engagements4Impact

DNSI and DPRI scores by country

Source: GSMA Intelligence



If you don't know where you are going, any road will get you there.

Closing the usage gap in the continent by 2030 could add around \$700 billion in additional GDP during 2024–2030. Unlocking Africa's vast potential through inclusive connectivity will be dependent on overcoming the investment constraints facing the continent and addressing the key barriers to the adoption of digital technologies.

Sub-Saharan Africa 2024 to 2026

Our Priorities

Digitalization of Africa: closing the usage gap
 –Evidence-based Advocacy to support the Digitalization of services
 –Digital Africa Index
 –Smartphone adoption

Green Digital Future: Industry services & solutions
 –Climate action for green energy in last mile
 –Verticals Strategy enabling other sectors

Investment Gap
 Progress an Industry Position & Narrative as a development partner with governments on Fiscal & Policy Reforms, Fair contribution, U S and coverage gap.

G6 Objectives

Fiscal policy reforms to make further progress on digital and financial inclusion goals
Tax rationalization for the mobile industry Africa

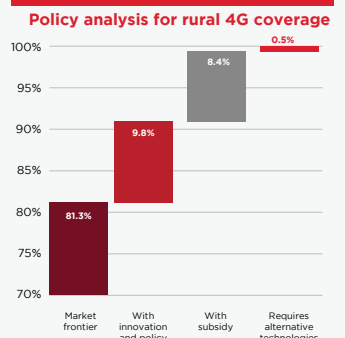
Environmental Impact
Climate Action policies to improve access to sustainable & reliable energy

Closing the Investment gap for building broadband infrastructure
Fair Contribution narrative - Regulatory reforms to promote infrastructure investment

01 Reducing the Usage gap



03 Investment Gap Modelling the Impact of Policy Options



02 Green Digital Future

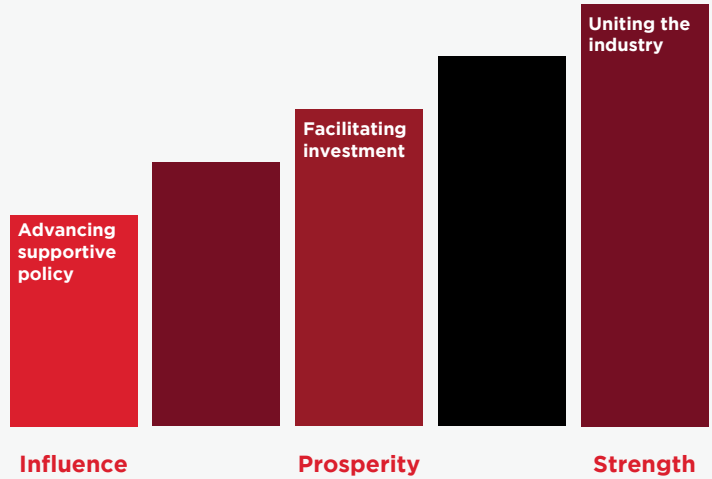
Climate action for green energy models from public-private partnerships linking reliable access to the sustainable green energy & digital connectivity.

Verticals Strategy enabling other sectors

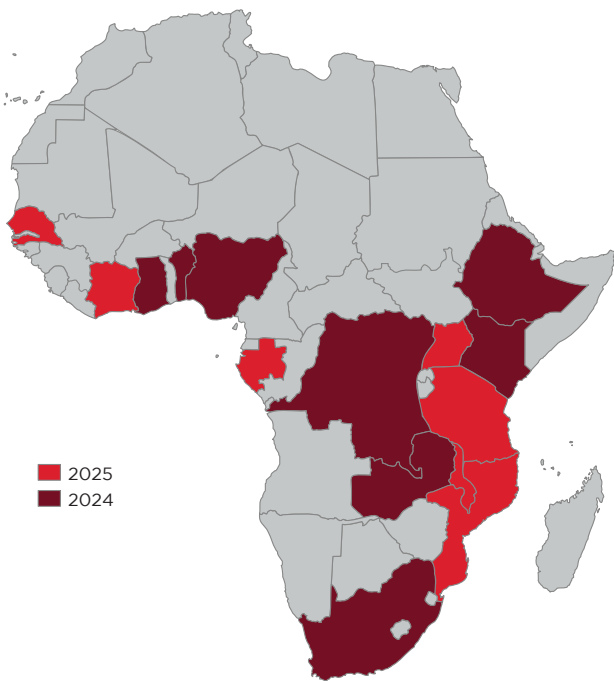


4 For example, see how broadband, digitization and ICT regulation impact the global economy, ITU, 2020; Socioeconomic benefits of high-speed broadband availability and service adoption: A survey, Research Paper, No. 24, EcoAustria - Institute for Economic Research, 2023

Addressing this will require an enabling policy and regulatory framework that incentivises sustainable investment; fosters innovation and collaboration; promotes dynamic competition; and aims for regulatory parity among digital service providers



Influence — Advancing supportive policy

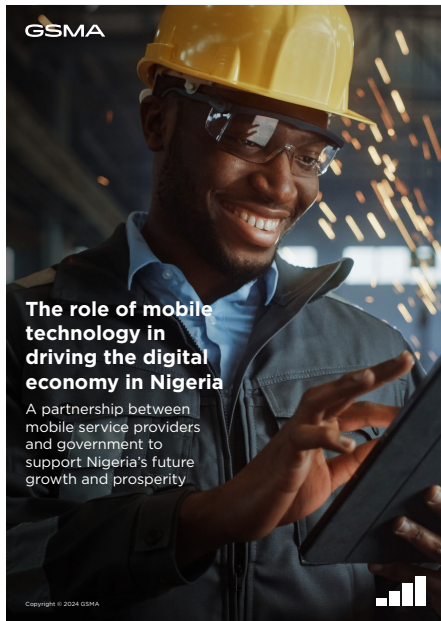


Investment and innovation by the mobile industry are crucial to develop affordable, inclusive, and sustainable solutions to our regions’ most pressing societal, economic, and environmental challenges.

Our evidenced-informed decision-making advocacy leverages insights from country **Digitalisation studies** focused on enabling other sectors’ digitalisation journeys and accelerating inclusive and widespread digital adoption through **Smartphone adoption studies**.

We assessed the mobile economy’s GDP contribution and the policies which need to be implemented to catalyse our sectors’ enablement effect on socio-economic growth.

If the policy reforms recommended in these reports are adopted altogether, we quantified the enablement effect in accelerating the adoption of mobile broadband by 2030.



Nigeria



Telecoms infrastructure security



Reduce taxes on the mobile industry



Eliminate Right of way fees



Sector investment conditions & impact of Regulations



Contribution of the ICT sector to the GDP



Increase in contribution to the GDP by 2028



Zambia



Sector-specific tax reductions



Sustaining the case for investment in the sector



Easing constraints on mobile retail tariffs



Mobile money regulations levy removal



Stimulating additional demand for digital



Potential reduction in the usage gap from 67% to 58% by 2028



Current contribution of the ICT sector to the country's GDP



Kenya



Sector-specific tax reductions



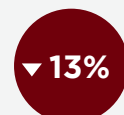
Pro-investment licensing and regulatory framework



Device affordability measures



Stimulating additional demand for digital services




Potential reduction in the usage gap from 64% to 51% by 2028



Current ICT sector contribution to the GDP

GSMA October 2024

Driving Digital Transformation of the Economy in Ethiopia
 Opportunities, policy reforms and the role of mobile



Ethiopia



Continued implementation of telecom reform agenda



Industry sustainability & investment



Licensing, spectrum, & regulatory fees



Mobile money & payments



Stimulating additional demand for digital services

+30Mn

New Mobile internet users

8%

Current ICT sector contribution to the GDP

GSMA

Driving Digital Transformation of the Economy in South Africa
 Opportunities, policy reforms and the role of mobile

November 2024



South Africa



Sustainable investment policies and decisions



Spectrum policy decisions



Measures for network infrastructure: RoW, Energy, Security



Device affordability & digital skills



Implement government policies & programs



Modernise regulatory framework

▼14%

Potential reduction in the usage gap from 44% to 30% by 2030

4-5%

Current ICT sector contribution to the GDP

GSMA

Piloter la transformation numérique de l'économie au Bénin
 Opportunités, réformes politiques et rôle de la téléphonie mobile

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Benin



Reduce sector-specific taxes on the mobile sector



Reform the regulatory framework for quality of service to focus on customer needs



Remove the mobile money levy



Modernise digital communications licensing framework

▼75%

Potential reduction in the coverage gap from 76% to 1% by 2028



▲20%

Potential increase in the connected population from 8% to 28%

8%

Current ICT sector contribution to the GDP

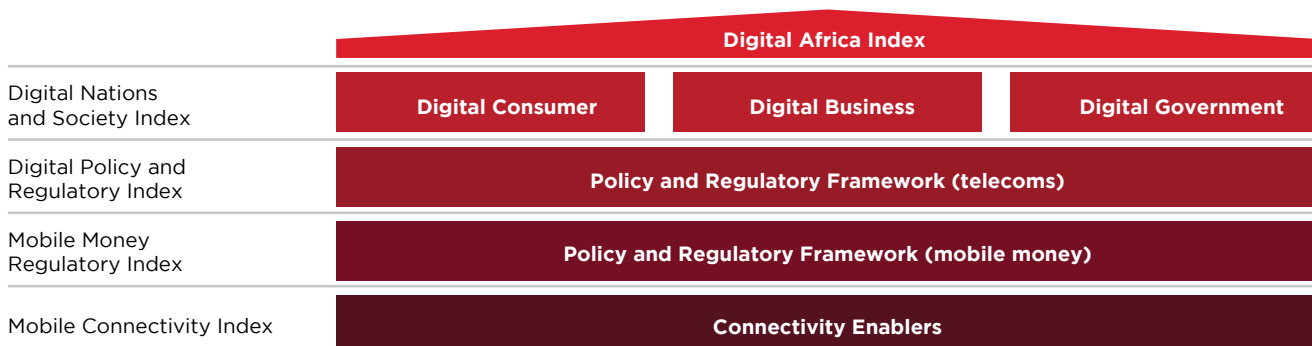
Digitalisation Studies Policy Recommendations - Scorecard

COUNTRY PUBLICATION	GSMA POLICY RECOMMENDATION	POLICY ADOPTED BY GOVERNMENT	DATE ADOPTED
NIGERIA (May 2024) 	Implementation of Critical National Infrastructure legislation The Cybercrime Act 2024 provides the President with the powers to designate networks as constituting Critical National Information Infrastructure. This should be prioritised and accelerated for enactment and implementation.	The President signed an executive order recognising communication infrastructure as Critical National Information Infrastructure.	Jun 2024
	Simplification and improvement of the process for issuing RoW All government authorities (at national and sub-national levels) should apply the national maximum RoW fee of N145 per/LSQM adopted by the National Economic Council (NEC) for the deployment of fibre across all states in Nigeria.	8 out of 43 national states have waived right-of-way fees 7: waived - Zamfara, Katsina, Anambra, Kebbi, Nasarawa, Bauchi, and Adamawa, 1: token fee - Kwara State charges N1 per kilometre of fibre.	Jun 2024
SOUTH AFRICA (Nov 2024) 	2G & 3G Network Sunsetting Implementing a market-led and collaborative strategy for the sunset of 2G and 3G networks using the ACT's core principles and recommendations as framework.	Communications Minister reversed the previous government's stance on imposing a deadline for shutting down 2G and 3G mobile networks by 2027, to a market-led approach.	Nov 2024

Moving beyond coverage and counting connections

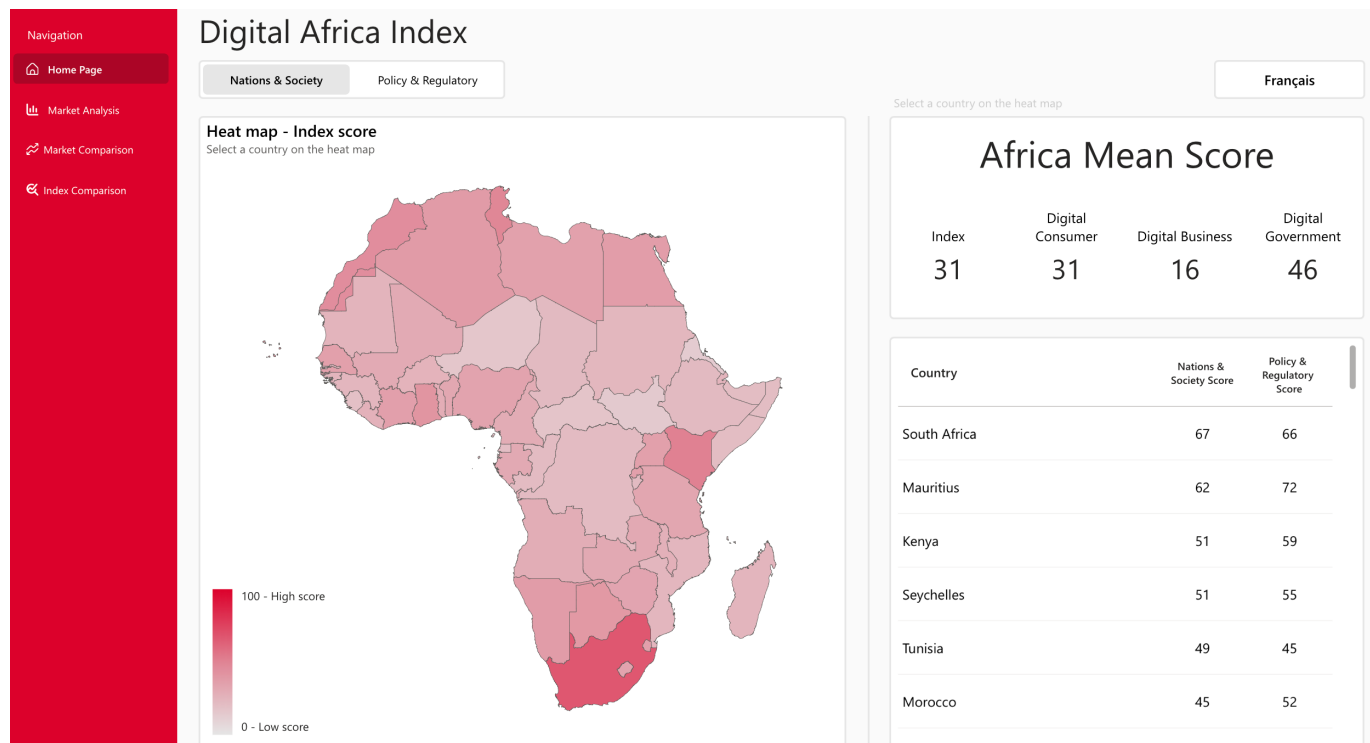
The **GSMA Digital Africa Index** builds on existing and widely adopted GSMA Mobile Connectivity Index and Mobile Money Regulatory Index, through the development of two new indices:

- **Digital Nations and Societies Index** – A broader view of digital development in assessing the level of digital integration of countries in Africa



- **Digital Policy and Regulatory Index** – An evidence-based comprehensive assessment of policy levers governments can pull to promote investment in the digitalisation of businesses and governments

Together, these indices, available as an interactive web tool accessible for free and in French and English, demonstrate which implemented policies have been most effective in driving mobile internet adoption and higher investment in mobile technologies, empowering informed decision-making for accelerated growth.



How does it work?

- Identifying which areas of digital adoption and usage are lagging.
- Pinpointing the policy bottlenecks.
- Sharing of experience; countries not performing well in certain areas or policies can learn from other countries that have the right enabling policies in place or have achieved greater digitalisation.

Prosperity — Facilitating Investment

We are committed to positioning the mobile industry as a trusted development partner to governments, driving progress through fiscal and policy reforms.

Key focus areas include modelling 4G coverage expansion and advocating for Universal Service Fund (USF) reforms to ensure sustainable and inclusive digital growth.

- **Tanzania:** long-standing advocacy led to the finalisation of the new ICT Policy, which includes:
 - A Spectrum Roadmap
 - Data Sharing Framework within and across

sectors, including cross-border data.

- Digital Skills Development addressing the gender gap and digital literacy.
- Critical National Infrastructure classification, due to increasing cyber threats



Comoros: a new ICT Act under the Unified Licensing Framework grants MNOs rights to provide services with technology neutrality.



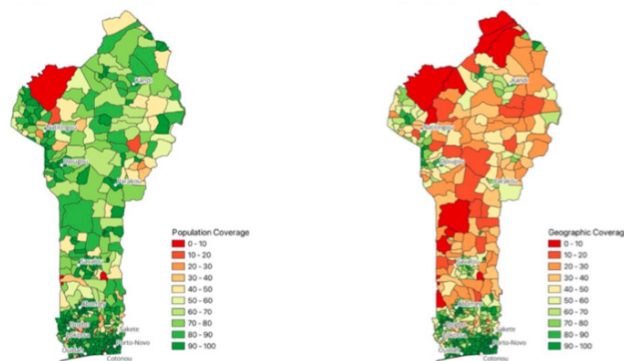
Chad: the adoption of technology-neutral spectrum licensing, ensuring optimal usage and enabling more innovative and adaptive service delivery.

Benin: 4G Coverage investment gap to determine the impact of policy reforms on investment and provide an estimate of the investment gap to achieve near-universal coverage as well as the extent to which stringent Quality of Service (QoS) requirements compete with this objective, Using a geospatial analysis 4G coverage improved from 62% (2020) to 88% using the latest coverage modelling, with 63% in rural areas.

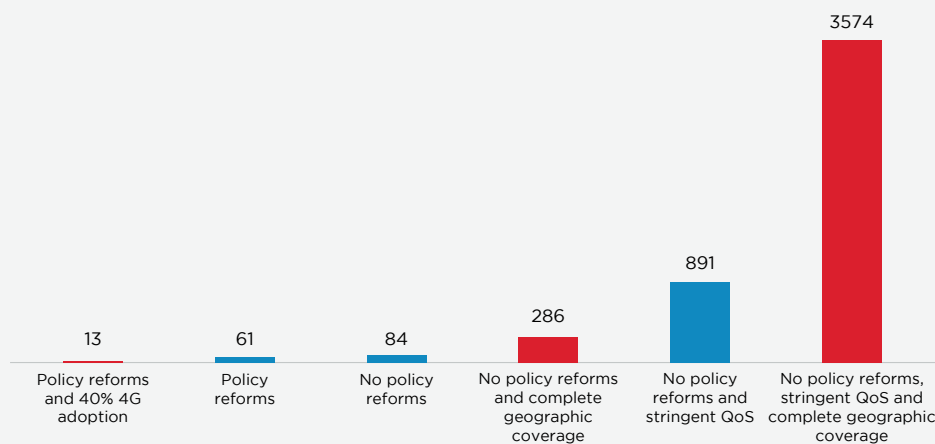
Population and Geographic coverage in Benin

4G population coverage = 88%

4G geographic coverage = 36%



Additional investment needed for geographic coverage (\$ million)



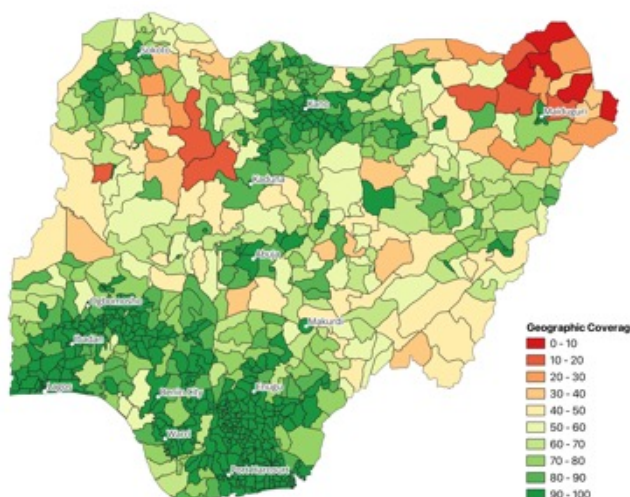
- The additional investment needed to achieve 99% coverage is about \$85 million.
- Meeting the stringent QoS requirements on signal strength and downlink/uplink speeds increases the required investment by more than 10-fold to almost \$900 million.
- Policy reforms that reduce sector-specific taxes would reduce the investment gap by 27% to \$60 million.

Nigeria: 4G coverage investment gap to determine the impact of policy reforms on investment and provide an estimate of the investment gap to achieve near-universal coverage. Geospatial analysis showed that 4G coverage improved from 41% in 2019 to 84% in 2024. However, it is much lower in rural areas, at 48%.

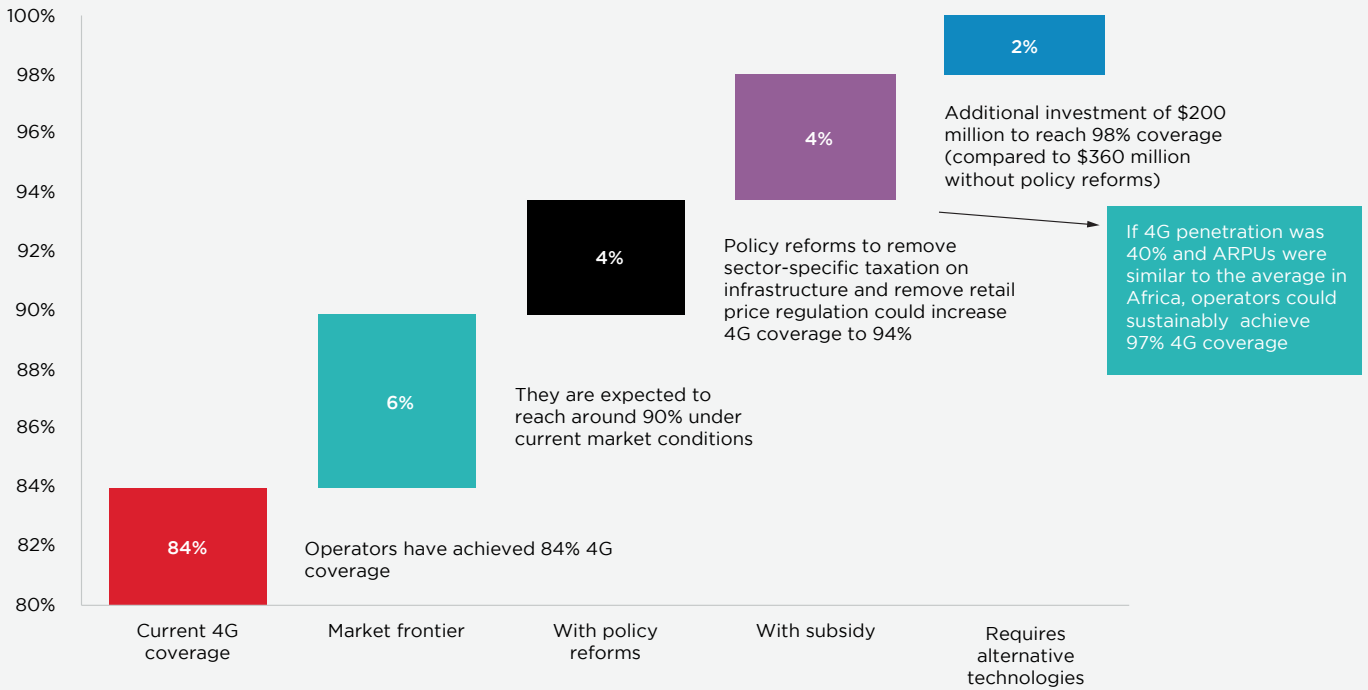
- With higher 4G adoption and ARPU in line with other African countries, 4G coverage could reach 97% and the investment gap would be reduced to \$30 million. This highlights the importance of demand-side policies such as 4G device access and affordability.

- The additional investment needed to achieve 98% coverage for 4G in Nigeria currently stands at around \$360 million.
- The remaining 2% of the population are very remote and sparsely populated and so will likely require alternative technologies (e.g. satellite)
- Policy reforms to remove sector-specific taxation on infrastructure and remove retail price regulation would reduce the investment gap by 44% to \$200 million.

4G Population Coverage = 84%



Source: GSMA intelligence



Strength — Uniting the industry

The renewables deficit

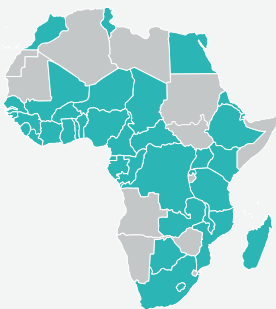
The economics of rolling out networks in rural areas for the telecoms industry have long proved challenging. The difficulties centre on running a high fixed cost business against a lower revenue base, considering the low population density compared to cities and suburban areas.

To examine the state and outlook for energy use among African telecoms operators, GSMA

Intelligence ran a data gathering exercise involving most of the largest telecoms operators in the region.

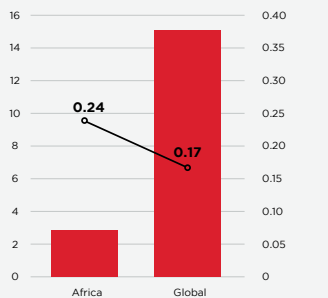
Operators in Africa are running at a lower level of energy efficiency in their mobile networks than the average globally. This is due in part to lower traffic volumes, but it also reflects the (still) widespread use of 3G equipment, which has a much lower spectral efficiency than 4G and 5G.

Geographical coverage of data used in this analysis



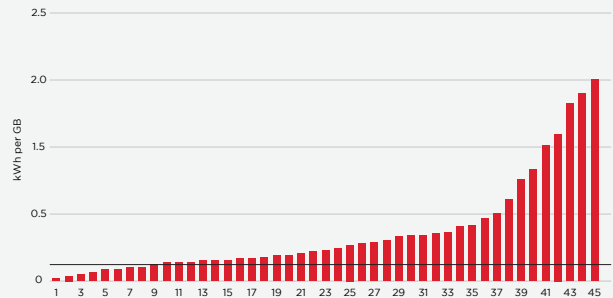
34 countries and 45 individual mobile networks, 55% market share

Comparison on energy efficiency



■ Data traffic per subscriber (GB/month)
— Network energy efficiency (kWh per GB)

Significant variation on energy efficiency amongst African operators



■ Network energy efficiency (kWh per GB)
— Global average

Transitioning to a Green Digital Future: Energy costs from running a mobile network in the urban areas of Africa represent approximately 30% of the operational costs, with a cost premium of up to an additional 37% for remote and underserved areas. Extrapolating the sample to Africa as a whole means that 32% of mobile base stations – approximately 96,000 – are either off-grid or on bad grids. These are the sites most in need of a more sustainable power solution.

Policy recommendations that would benefit from government co-investment bridging the energy investment gap include:

- Zero-rating of import duty on green energy equipment and accessories.
- Encouraging net metering, where the credit received when energy is fed back to the national grid.
- Offering subsidies or tax incentives, where

possible, for green energy solutions.

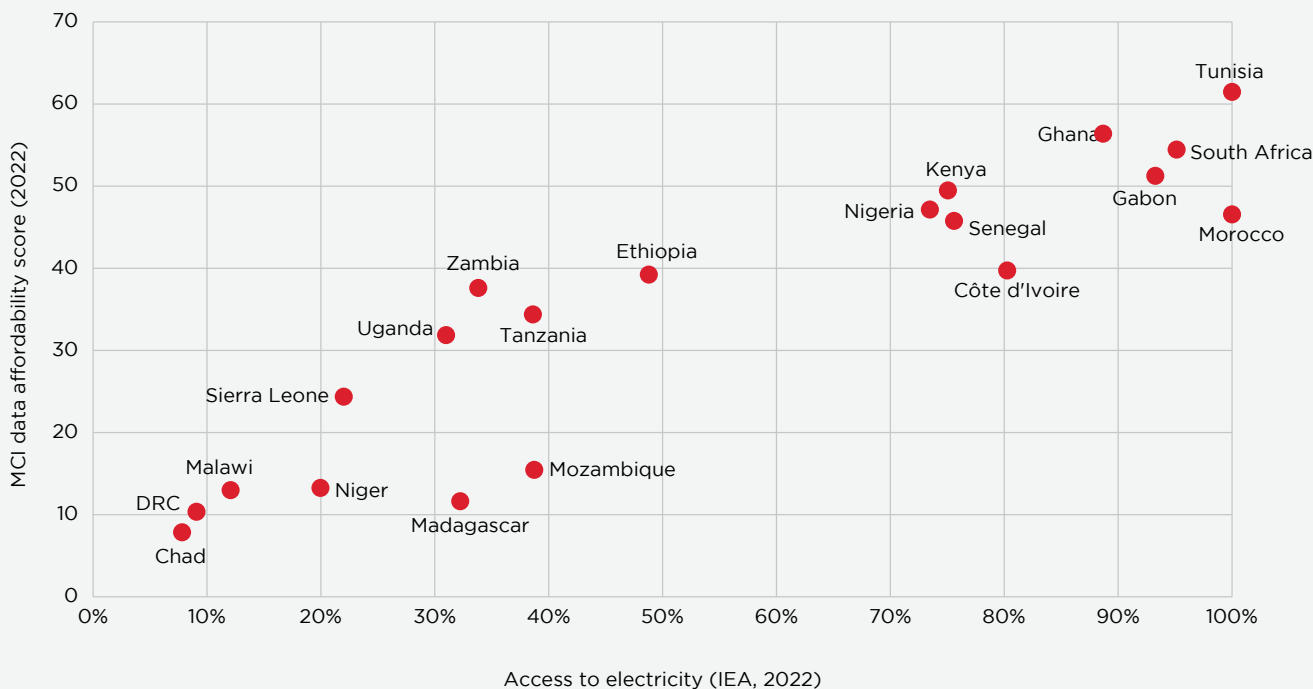
- Designating free zones for renewables.
- Designating telecommunication infrastructure as critical national infrastructure.
- Incentivising financial institutions to structure innovative financing.

For countries with a delivery platform and geospatial market intelligence, the World Bank can provide financing jointly for electricity and digital services. Countries with the most pronounced energy and infrastructure challenges also tend to have higher data costs (see Figure below).

The World Bank and the African Development Bank, backed by DFIs, climate finance funds and impact investors, have announced Mission 300. They have made immediate commitments of \$5 billion to catalyse further funding focusing on green energy.

Upcoming event: The Africa Energy Summit, 27-28 January 2025: African Heads of State prepare to gather in Dar es Salaam, the spotlight will be on “Mission 300”

The relationship between energy access and data affordability across selected African countries.



Note: The GSMA Mobile Connectivity Index data affordability score (0-100) is based on data costs as a percentage of monthly income. Source: GSMA Mobile Connectivity Index, International Energy Agency

GSMA

GSMA Head Office
One Angel Lane
London, U.K.
EC4R 3AB
United Kingdom
Tel: +44 (0)20 7356 0600
Fax: +44 (0)20 7356 0601