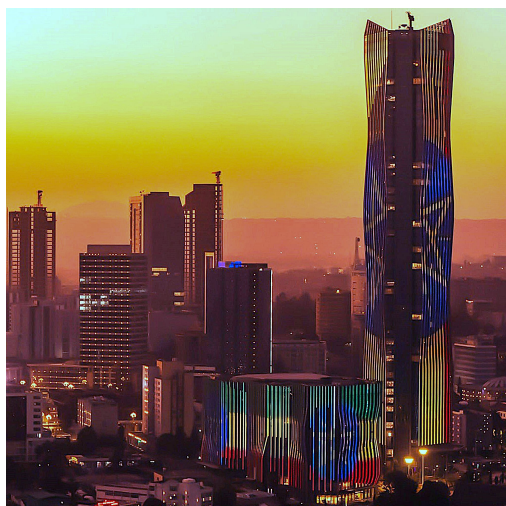




# Building Africa's Digital Infrastructure: Foundations for a Digital Economy

Africa's digital economy is on a sharp growth trajectory, projected to contribute USD 712 billion to GDP by 2050 according to the World Bank. This rapid transformation will also see the broadband base exceed 1 billion users by 2030. At the same time, African data traffic is expected to triple or more, driven by the increasing use of mobile internet and the growing dependence on digital services.

Yet, this growth hinges on a critical enabler in digital infrastructure. From broadband networks, data centres, undersea cables, cloud computing and Artificial Intelligence (AI), Africa is racing to build the backbone of a connected future. The continent's ability to harness this infrastructure will define its competitiveness, innovation, and inclusion in the global digital economy.

## Africa's Connectivity Challenge

While sub-Saharan Africa has the fastest-growing internet usage rate in the world, only 25 percent of the continent's population is currently online, mainly due to inadequate infrastructure, which drives up internet costs, according to GIZ.

Despite progress, Africa remains the least connected region globally. Internet penetration stands at about 40 percent, leaving over 800 million people offline. Affordability and rural access are the biggest barriers, with mobile data consuming a disproportionate share of household income.

"For Africa to realise its digital potential, quick, regular and reliable access must extend beyond urban centres into rural communities; this requires a large-scale build out of architectural infrastructure. Across the region, we are seeing how improved connectivity is transforming agriculture, healthcare, and education. Building inclusive digital infrastructure is about unlocking opportunity and ensuring no one is left behind" Edward Williams, Director at ALN Tanzania (ALN firm in Tanzania).

Large-scale projects are underway to change this picture.

Google's Equiano cable and Meta's 2Africa project, the world's largest subsea cable, are expected to boost bandwidth, reduce latency, and lower costs. However, these gains will only materialise if last-mile connectivity is strengthened through investment in terrestrial fibre, satellite services, and rural networks.

## Data Centres, AI and Cloud Computing: The New Oil Refineries of the Digital Age

As cloud adoption and data usage surge, demand for data storage and processing is rising. Ecofin Agency estimates that Africa currently has 211 active data centres, 46 percent of which are concentrated in leading economies such as South Africa, Nigeria, Kenya, and Egypt. According to Data Center Dynamics, analysts estimate that Africa needs at least 700 new data centres to meet

its connectivity and data storage requirements over the medium term.

The rapid evolution of technologies, particularly AI, will only amplify this pressure. Its integration into key sectors such as agriculture, healthcare, and finance will generate even larger data volumes, further straining the existing infrastructure.

In response to AI's rapid growth, data centres are emerging as an attractive asset class for investors. Nonetheless, there is an urgent need for large-scale investment in tower infrastructure, fibre-optic networks, energy systems, and cybersecurity to sustain digital growth.

“With the right policies, investment frameworks, and regional collaboration, we can accelerate the growth of data centres, subsea cables, and cloud adoption. These critical elements of digital infrastructure will not only stimulate job creation but also help address poverty, reduce inequality, and facilitate the efficient delivery of goods and services across the continent” according to Bhavna Ramsurun, Partner at BLC Robert & Associates (ALN firm in Mauritius).

#### Role of Public-Private Partnerships (PPPs)

Governments alone cannot finance Africa's digital transformation. Public-private partnerships are playing a pivotal role in rolling out broadband, expanding 4G and 5G networks, and building smart cities. According to GIZ, initiatives such as the African Union's Digital Transformation Strategy (2020–2030) aim to harmonise regulations, foster collaboration, and attract investment. As a result, a year after the AU's digital transformation strategy, the World Bank launched the All Africa Digital Economy Moonshot. This initiative aims to “digitally connect every individual, business, and government in Africa by 2030.

European Investment Bank has committed significant resources through the EU-Africa Global Gateway Investment Package, worth EUR 150 billion. Alongside sustainability and climate resilience initiatives, the Global Gateway aims to fast-track universal access to reliable internet in Africa.

#### Cybersecurity and Resilience

As digital infrastructure expands, so do risks. Cybercrime, data privacy issues, and system vulnerabilities pose significant threats. According to the African Union and Media Defence, Africa loses at least USD 4 billion annually to cybercrime, equivalent to roughly 10 percent of the continent's GDP. Nearly half of African countries reported ransomware attacks targeting critical infrastructure in 2023, including hospitals, financial institutions, and internet service providers.

Regional frameworks such as Africa's Convention on Cyber Security and Data Protection, together with national data protection laws, are steps forward. However, enforcement remains uneven. Building trust will be essential to encourage consumer adoption and investor confidence.

“Digital infrastructure is only as strong as the people who use it. Beyond infrastructure, Africa must invest in digital literacy, skills, and inclusion. Empowering our young population to participate confidently in the digital economy is what will ultimately determine

the continent's competitiveness" emphasises Youssef Benamar, Partner at ADNA (ALN Firm in Algeria, Côte d'Ivoire, Guinea and Morocco) the human element.

#### The Human Dimension: Skills and Inclusion

Digital infrastructure is not just about cables and servers; it's about people. Africa's young population needs digital skills to participate meaningfully in the economy. Without targeted investment in training, upskilling, and inclusion, the digital divide could widen further.

Programs such as Huawei's Seeds for the Future and Microsoft's Africa Transformation Office show how partnerships can build capacity at scale. Global public and private institutions recognise Africa's position as an emerging digital economy on the world stage. For instance, the U.S., the European Union, China, and India all have strategic programs in place for a solid digital infrastructure on the African continent.

According to the UN's recent World Investment Report, foreign direct investment has already financed USD 30 billion in sustainability projects, many of which are tied to digital infrastructure. With Africa's population of 1.4 billion people, 70 percent under 30 and a median age of 20, the continent represents one of the fastest-growing digital consumer markets globally, as highlighted by Digital Realty.

#### Digital Infrastructure for Africa's Digital Future

Africa's digital revolution cannot advance without a solid infrastructure backbone. The next decade will be decisive: if investments in connectivity, data centres, and cybersecurity are accelerated, the continent could leapfrog into a new era of digital inclusion and innovation. For investors and policymakers, Africa's digital infrastructure is a necessity, but also an opportunity to shape the future of one of the world's most dynamic regions.

#### Sources

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