

# Africa's Digital Economies and Digital Divide

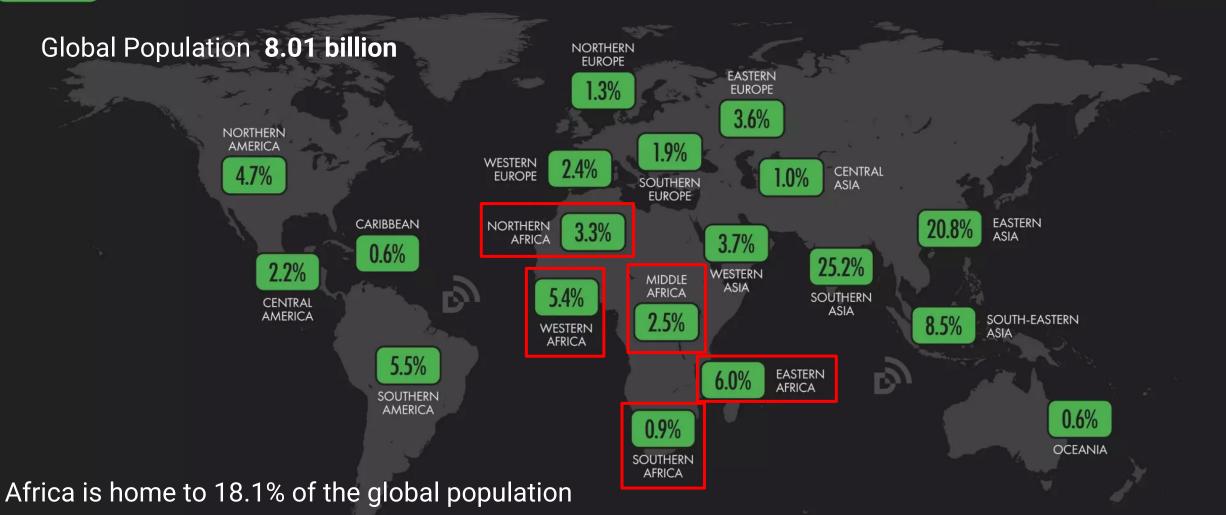
Martin Atkinson Senior Manager, Peering & Interconnection EMEA

# **2023 Snapshot**

### SHARE OF THE GLOBAL POPULATION BY REGION

THE NUMBER OF PEOPLE LIVING IN EACH REGION AS A PERCENTAGE OF THE TOTAL GLOBAL POPULATION





Source: Meltwater - we are social Digital 2023 Global Overview Report

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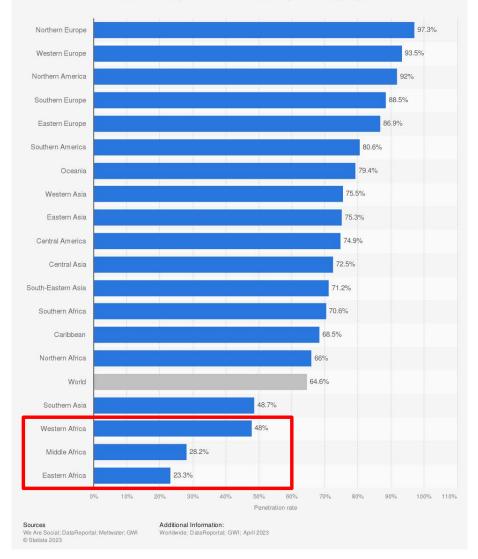
2023

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### **Global Internet penetration in April 2023**

Global internet penetration rate as of April 2023, by region



### **Global Statistics January 2023:**

- Global Population 8.01 billion
- 57%+ live in urban areas.
- 5.16 billion internet users
- ~64% of global population

Internet users grew worldwide by **1.9%** since January 22

- **5.44 billion** people use mobile phones
- ~68% of global population

New mobile phone users globally CAGR 3%.

#### Source: Statista Penetration rate of the internet by region

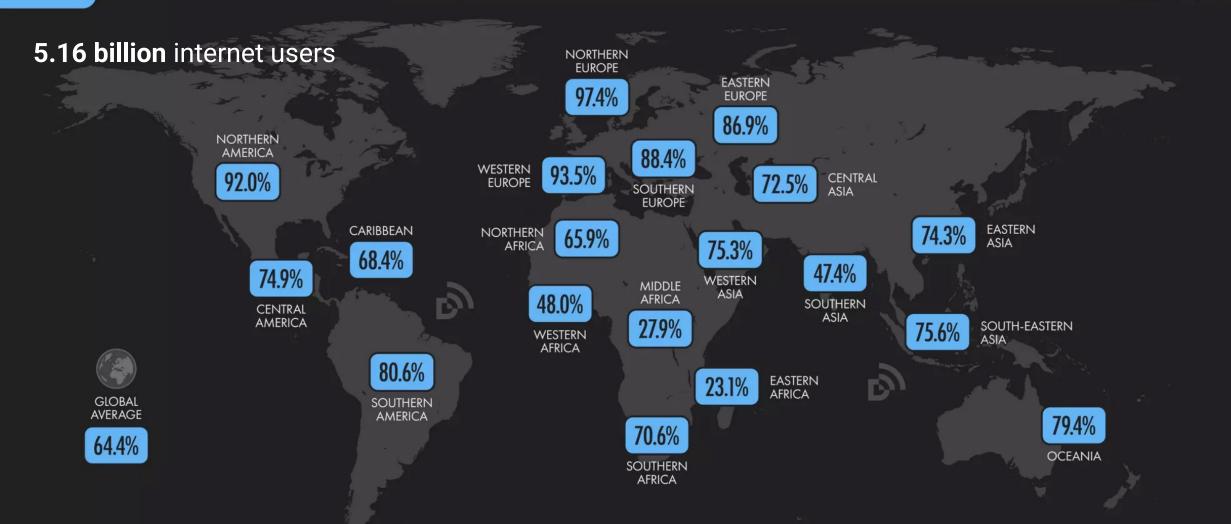




### **INTERNET ADOPTION**

INTERNET USERS AS A PERCENTAGE OF TOTAL POPULATION





#### Source: Meltwater - we are social Digital 2023 Global Overview Report

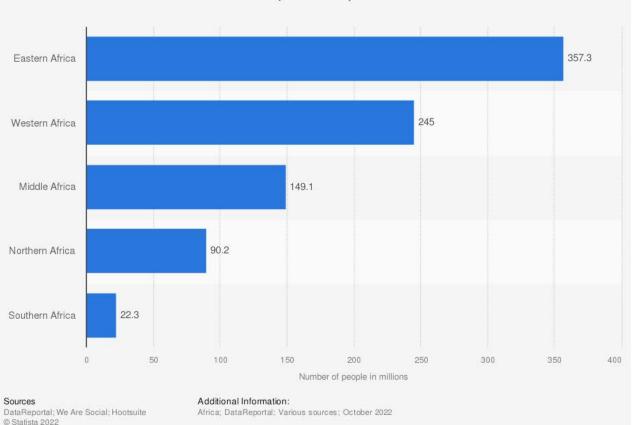
SOURCES: KEPIOS ANALYSIS; ITU; GSMA INTELLIGENCE; EUROSTAT; WORLD BANK; GOOGLE'S ADVERTISING RESOURCES; CIA WORLD FACTBOOK; CNNIC; APJII; KANTAR & IAMAI; LOCAL GOVERNMENT AUTHORITIES; UNITED NATIONS. NOTE: REGIONS BASED ON THE UNITED NATIONS GEOSCHEME. COMPARABILITY: SOURCE AND BASE CHANGES. ALL FIGURES USE THE LATEST AVAILABLE DATA, BUT SOME SOURCE DATA MAY NOT HAVE BEEN UPDATED IN THE PAST YEAR. SEE NOTES ON DATA FOR DETAILS.



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### **Africa's Digital Divide – The "Unconnected"**

Number of people who do not use the internet in Africa as of October 2022, by region (in millions)



#### South Africa has the highest internet penetration in Africa

#### East Africa has the lowest

Source: Statista Offline population in Africa by region

**Africa Statistics 2023** 

Africa's Population 1.43 billion
44%+ live in urban areas.
602 million internet users
~43% of African population
Internet users growing in Africa 13% YOY
650 million people in Africa use mobile phones
~45% of Africa's population have mobile phones
New mobile phone users in Africa CAGR 4.6%.

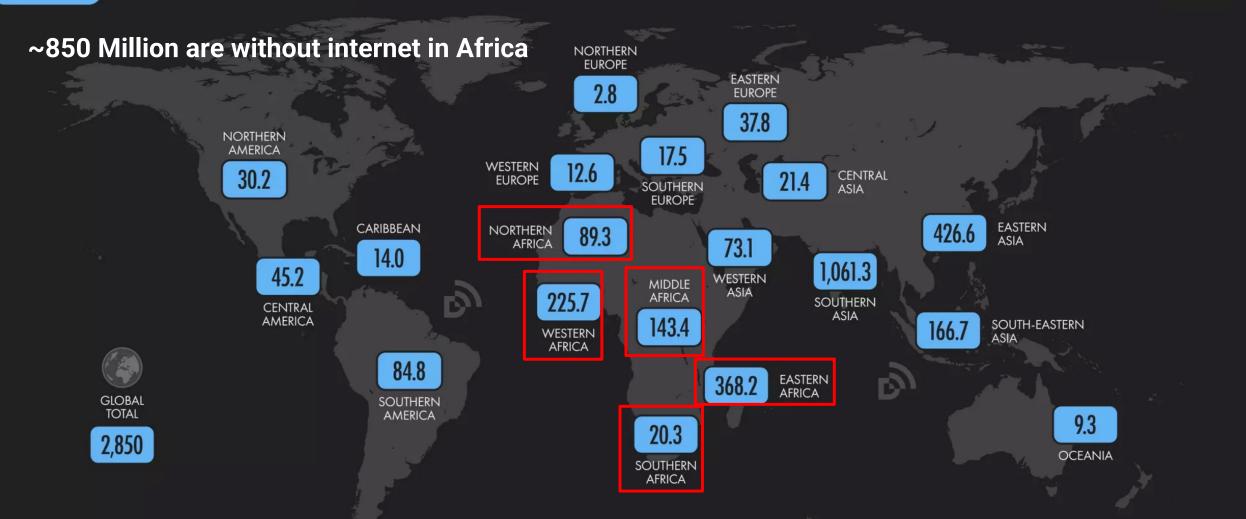
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#### JAN 2023

### **UNCONNECTED POPULATIONS**

NUMBER OF PEOPLE (IN MILLIONS) WHO DO NOT USE THE INTERNET





#### Source: Meltwater - we are social Digital 2023 Global Overview Report

SOURCES: KEPIOS ANALYSIS; ITU; GSMA INTELLIGENCE; EUROSTAT; WORLD BANK; GOOGLE'S ADVERTISING RESOURCES; CIA WORLD FACTBOOK; CNNIC; APJII; KANTAR & IAMAI; LOCAL GOVERNMENT AUTHORITIES; UNITED NATIONS. NOTE: REGIONS BASED ON THE UNITED NATIONS GEOSCHEME. COMPARABILITY: SOURCE AND BASE CHANGES. ALL FIGURES USE THE LATEST AVAILABLE DATA, BUT SOME SOURCE DATA MAY NOT HAVE BEEN UPDATED IN THE PAST YEAR. SEE NOTES ON DATA FOR DETAILS.



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# **The Vision**



# e-Conomy Africa 2020 \$180bn





### \$180bn Internet economy future

By 2025, the internet has the potential to contribute nearly \$180 billion to Africa's economy, depending on the usage level of digital technologies by businesses and the right mix of policy actions...More generally, increasing Internet access to 75% of the population could create 44 million jobs "

Source: e-Conomy Africa Report

AU Digital Transformation Strategy for Africa (2020-2030)





### ... inclusive digital society and economy ...improves quality of life .....strengthens the existing economic sector ....harness digital technologies and innovation ....transform African societies and economies...generate inclusive economic growth .....stimulate job creation.... break the digital divide...eradicate poverty

Source: The African Union Digital Strategy for Africa (2020-2030)

#### AU Digital Transformation Strategy for Africa (2020-2030)



# Objective

By 2030 all our people should be digitally empowered and able to access safely and securely to at least (6 mb/s) all the time wherever they live ... at an affordable price of no more than (1cts usd per mb) through a smart device manufactured in the continent at the price of no more than (100 usd) to benefit from all basic e-services and content of which at least 30% is developed and hosted in Africa

Source: The African Union Digital Strategy for Africa (2020-2030)





# ....every individual, business, and government in Africa will be digitally enabled by 2030

Digital Economy for Africa initiative's indicators – a "Digital Economy Scorecard" - across **the five foundational pillars of the digital economy**."

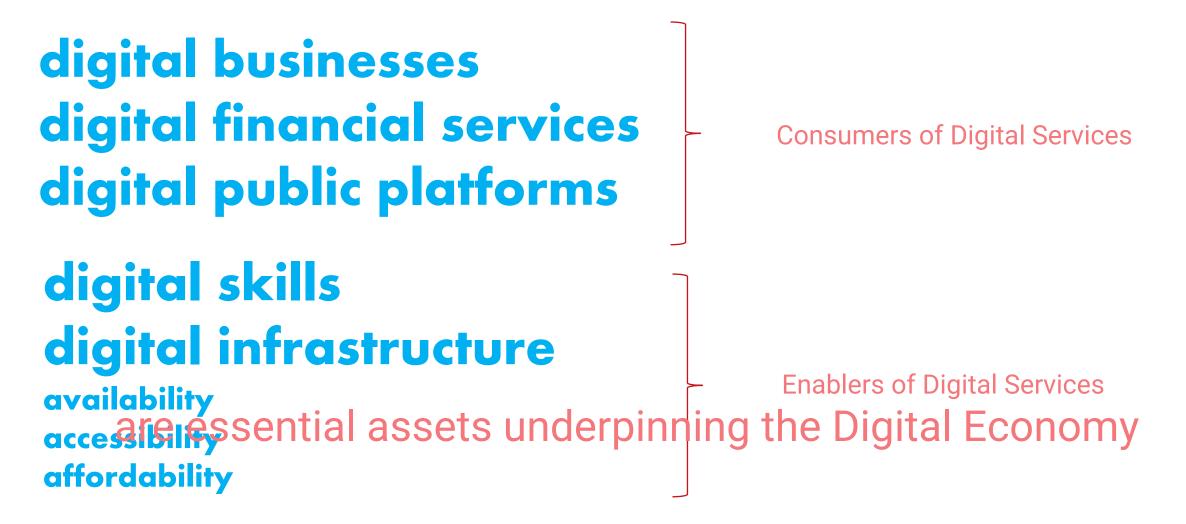
Source: The World Bank Digital Economy for Africa Initiative

### **DE4A: The Five Foundational Pillars**

# job creation digital literacy accessible affordable, reliable Uata prive digital infrastructure growth and mnovation digital financial services e-commerce nd investments bavment systems African Single Digital Market (SDM)



#### **Five Foundational Pillars – Digital Services and essential Assets**



# **The Enablers**

# Digital Skills – bridging the gap

### **Digital Skills**

Literacy & Digital Skills are the top barrier to mobile internet usage

Lack of literacy and digital skills ranked as the top barrier to mobile internet adoption among mobile users who are aware of mobile internet. Those most affected by this barrier tend to be poorer, women, those living in rural areas and people over the age of 35 years old.

Lack of digital skills is reported as an important barrier more often than illiteracy.

GSMA reports illiteracy is cited more than a lack of digital skills as a top barrier by people in Pakistan and Nigeria. Top reported barriers to mobile internet use in surveyed countries among mobile users who are aware of mobile internet but do not use it

Ranking	All countries
1	Literacy and digital skills
2	Affordability
3	Safety and security

Source: GSMA The State of Mobile Internet Connectivity 2022

#### Demand for Digital Skills in Sub-Saharan Africa

**Top sectors requiring digital literacy** & skills:

- Agriculture
- Industry
- Services

#### By 2030

Cote d'Ivoire will require about **5 million** workers with various levels of digital skills

Kenya will require about **17 million** workers with various levels of digital skills

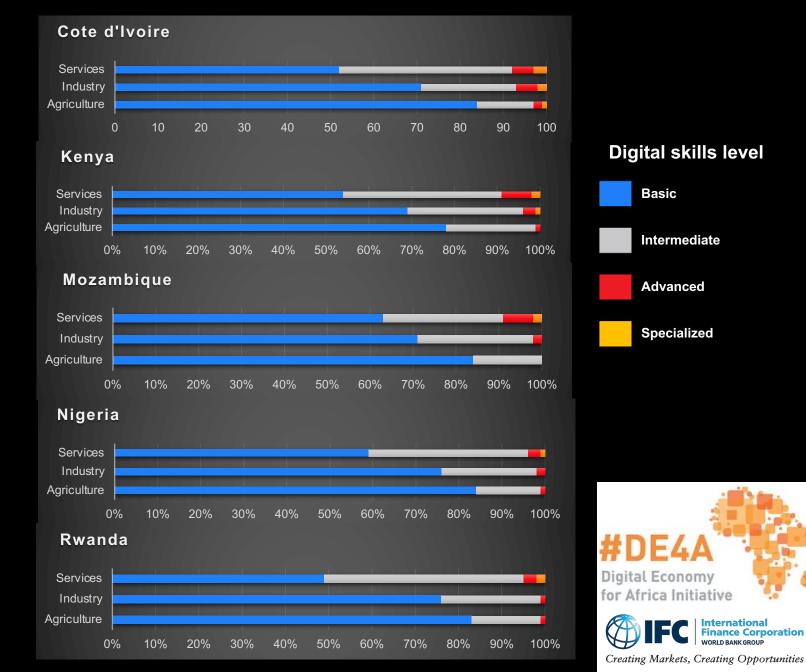
Mozambique will require about **3.7 million** workers with various levels of digital skills

Nigeria will require about **28 million** workers with various levels of digital skills

Rwanda will require about **3.4** million workers with various levels of digital skills

Source: IFC 2021: Demand For Digital Skills in Sub-Saharan Africa by 2030 © 2023 Equinix, Inc. 18

#### Levels of digital skills predicted demand in 5 countries by 2030:



# Digital Infrastructure availability accessibility affordability

## Digital Infrastructure – availability and accessibility

Last-mile challenges continue

In 26 countries, more than half of them in Sub-Saharan Africa, at least 20% of the population are still uncovered (do not live within a mobile network footprint).

These are mostly low-income countries or ones facing geographic barriers (mountains, islands) so the business case for network deployments remains challenging.

Even in countries with better coverage such as Nigeria, distribution network challenges remain around middle-mile and last-mile network access, bandwidth and costs of access.

Last-mile access in 2020 was impacted by insufficient terrestrial fibre and mobile 2G use was still prevalent, with low 4G penetration. However 4G adoption is predicted rapid growth over the coming years (Omdia research, uncited).

Sources: GSMA The State of Mobile Internet Connectivity 2022 Equinix Blog: Closing the Digital Divide in Africa Nigerian National Broadband Plan 2020-2025 Geographical spread of countries with a mobile coverage gap of 20% or greater



### **Digital Infrastructure - affordability**

is the second largest barrier to mobile Internet access

#### Devices

"Entry-level and second-hand devices have prices ranging from \$35 to \$40, which is the equivalent of up to 80% of monthly wages in some African countries. **Affordability levels exceed the global 2% of monthly income target in more than 75% of countries in Sub-Saharan Africa**, largely due to the high import cost of devices. Asian brands account for 70% of the African mobile device market. As local phone manufacturing grows and structured payment plans become more prevalent, smartphones are expected to become more affordable and available. "

#### Data

#### Tariffs dropped from 13.2% of average monthly income to

**6.8% between 2016 and 2019**. As governments continue to implement mandates and the supply of mobile devices continues to grow, Internet access will become more widespread and affordable.

Source: e-Conomy Africa 2020 IFC & Google to 2025

#### Defining affordability

**Affordability** refers to both the ability of consumers to pay for a handset and to cover the cost of a suitable data bundle.



The affordability of mobile data and handsets has two parts:

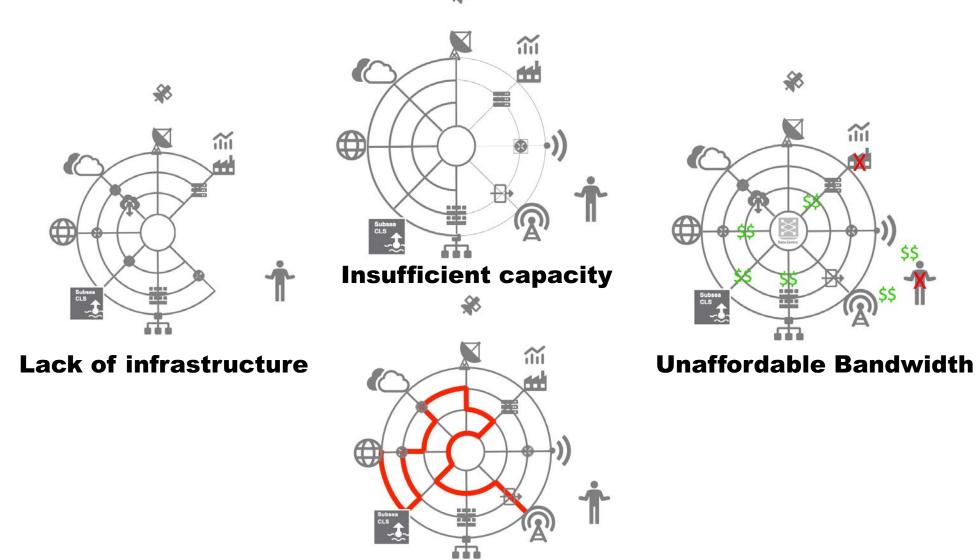
- the cost (in local currency) of purchasing mobile data and an internet-enabled handset
- a consumer's income.<sup>36, 37</sup>

In this context, the lower the cost of a handset and data as a share of monthly GDP per capita, the more affordable a handset and data are. However, it is important to note that cheaper handsets are not the only way to lower the handset cost burden. Making financing more accessible and strengthening the enabling environment, including stimulating demand by increasing awareness and willingness to pay, can also increase affordability.<sup>38</sup>

> Source: GSMA The State of Mobile Internet Connectivity 2022



### **Availability, Accessibility and Affordability**



One common effect:

**.**...

They prevent or limit effective internet use which in turn undermines national Digital **Economic** growth / e-GDP

**Suboptimal routing / peering** 



# **Availability, Accessibility and Affordability issues explored in:**

# **"Subsea Cables Only Go** So Far"

# **Discussion?**

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