Enabling data flows in, across and out of Africa

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Digitisation

Digitisation of international trade presents innovative opportunities for African countries to increase their efficiency, diversify into more value-added products, expand regional and global trade, lower the cost of production, change the dynamics of commodity dependence, and increase export competitiveness (UNCTAD 2017).

- African Continental Free Trade Agreement 2020
- African Union Digital Transformation Strategy.
- Many African countries unable to capitalise on the economic welfare gains associated with a digital transition

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Datafication

There is no opting out, the way forward is to create policy and governance environments that enable the harnessing of processes of digitalization and datafication for development of local economies through creating conditions for participation and innovation.

- Digitisation that enabled both business processes, models and business products in the last part of the last century has been dramatically intensified by the processes of digitalisation, and in the last decade with the 'datafication' associated with the rise of the platform economy, business based on big data, and the advanced technologies of artificial intelligence, machine learning and robotics.
- data are key resources for consumption + production ('data is critical asset under underpins modern trade in digital and non-digital goods)

Ensuring data flows for development

These challenges highlight the need for policymakers in developing countries to view digitalisation in the context of ***global markets and value chains,*** *but also within their local context - where the* ***lack of digital readiness*** *will constrain the ability to leverage these new technologies and processes productively.*

- This will include also need to mitigate against the risks associated with employment, data governance/rights and complementary policies access to finance.
- The digital inclusion of developing countries, and critical sectors within developing economies, will increase their visibility in the wider value chain ecosystem.
- This reinforces the need to develop domestic responses, which associate themselves to global digital conversations.

Digital Inequality Paradox

- As more people are connected, digital inequality is increasing
- Not only between those online and those offline (as is the case in a voice and basic text environment), but between those who have the technical and financial resources to use the Internet ‘productively’ or even to prosper and those who are barely online
- Compounding effect of pandemic on inequality

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Implications of digital inequality for trade

Despite the presence of provisions in the AfCFTA and AU Digital Transformation Strategy that are intended to bring significant benefits for women, these benefits are not automatic and require concerted effort to prevent or alleviate potential adverse effects arising from AfCFTA market liberalisation and trade digitalisation

- without this conscious action from key decisionmakers there could be a worsening of existing digital and trade gender gaps.
- Ensuring that marginalised groups, particularly low income women, also leverage the transformative potential of intra-African trade expansion requires the design and implementation of gender-sensitive trade policies, to create context-specific complementary measures that are grounded in evidence (UNCTAD, 2019).

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Broadly penetration tracks GNIpc

SA with similar middle-income countries in LatAm for mobile but not internet (national aggregations mask inequalities)

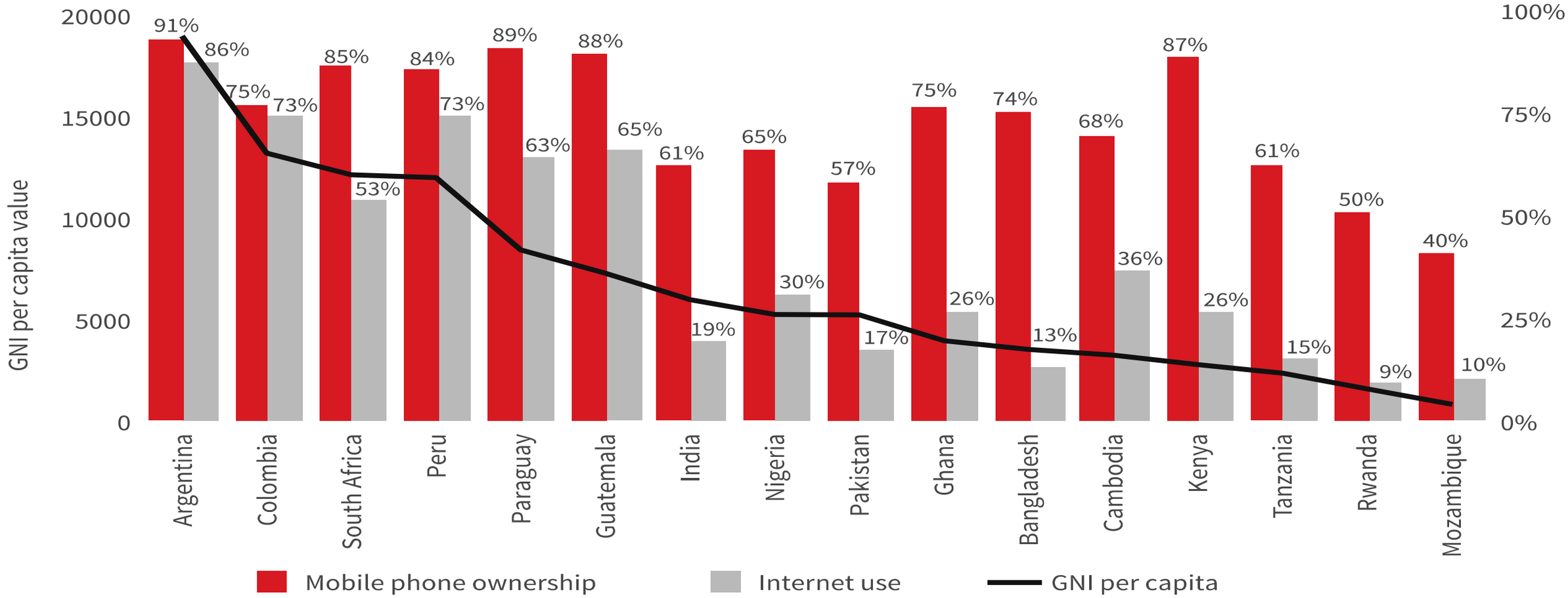

Figure 1: Mobile phone ownership, Internet use and GNI per capita

Sources: RIA After Access Survey, 2017; World Bank, 2018

Table 16: Ownership and use of ICTs by income

INCOME (ZAR)	MOBILE PHONE	SMARTPHONE	INTERNET
0 – 1 583	82%	45%	51%
1 584 – 7 167	81%	38%	37%
7 168 – 7 167	95%	74%	74%
7 168 – 1 6418	100%	93%	98%
16 419 – 33 333	100%	100%	100%
33 334 – 57 333	100%	100%	100%
57 334 – 123 417	100%	100%	100%
>123417	100%	100%	100%

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Gender gap and urban-rural divide

Modelling shows that determinants of access education & income

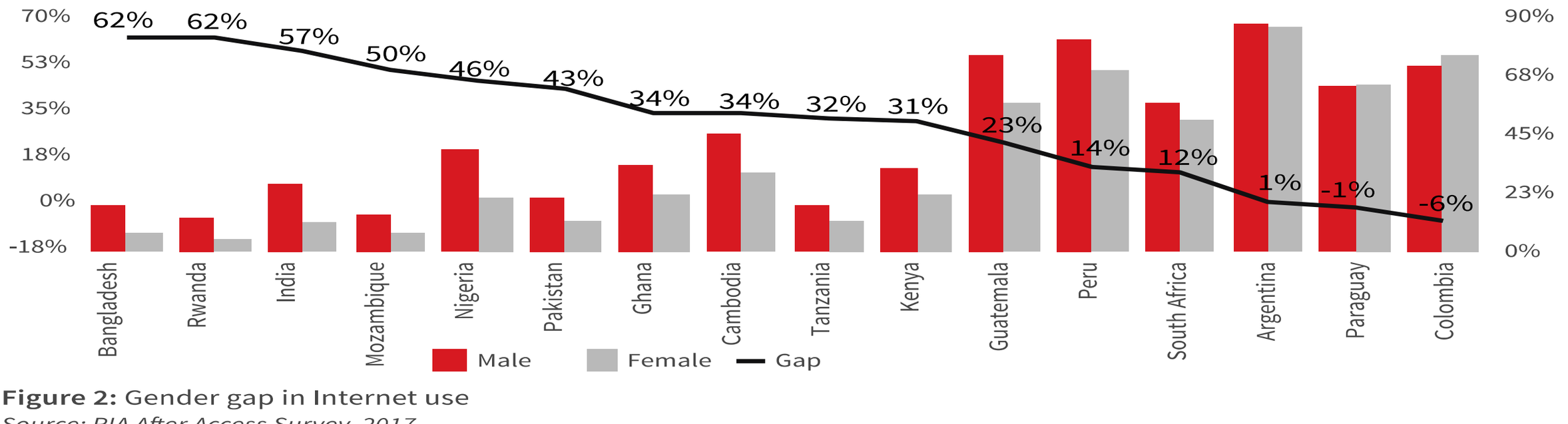

Figure 2: Gender gap in Internet use

Source: RIA After Access Survey, 2017

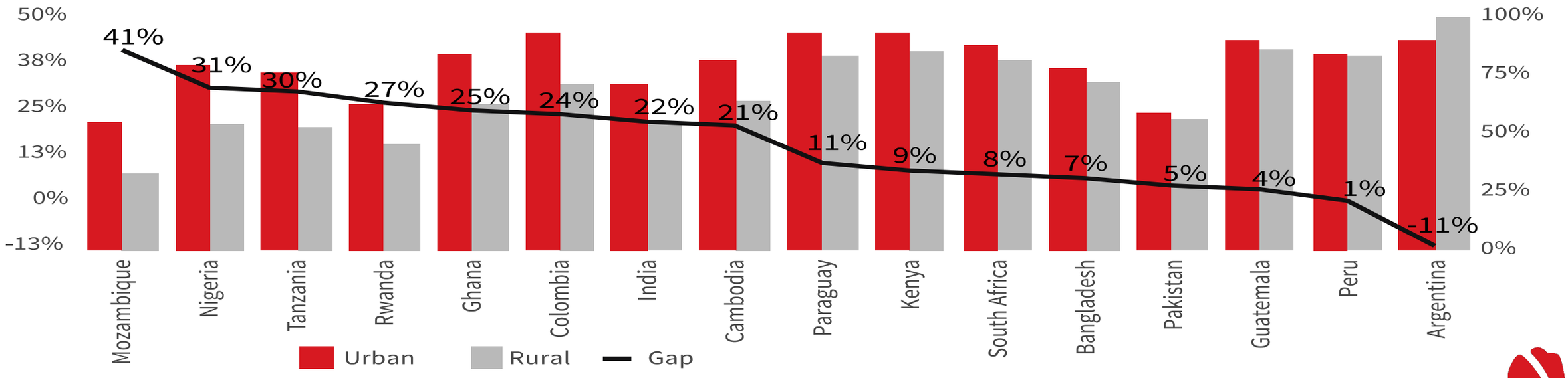

Figure 3: Urban–rural divide in Internet use

Source: After Access Survey, 2017

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Barriers to access

Affordability of devices

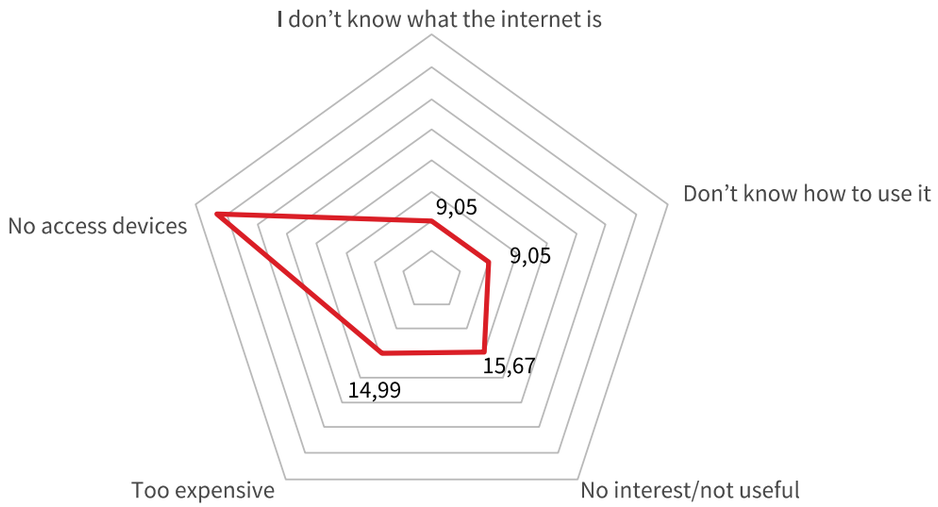
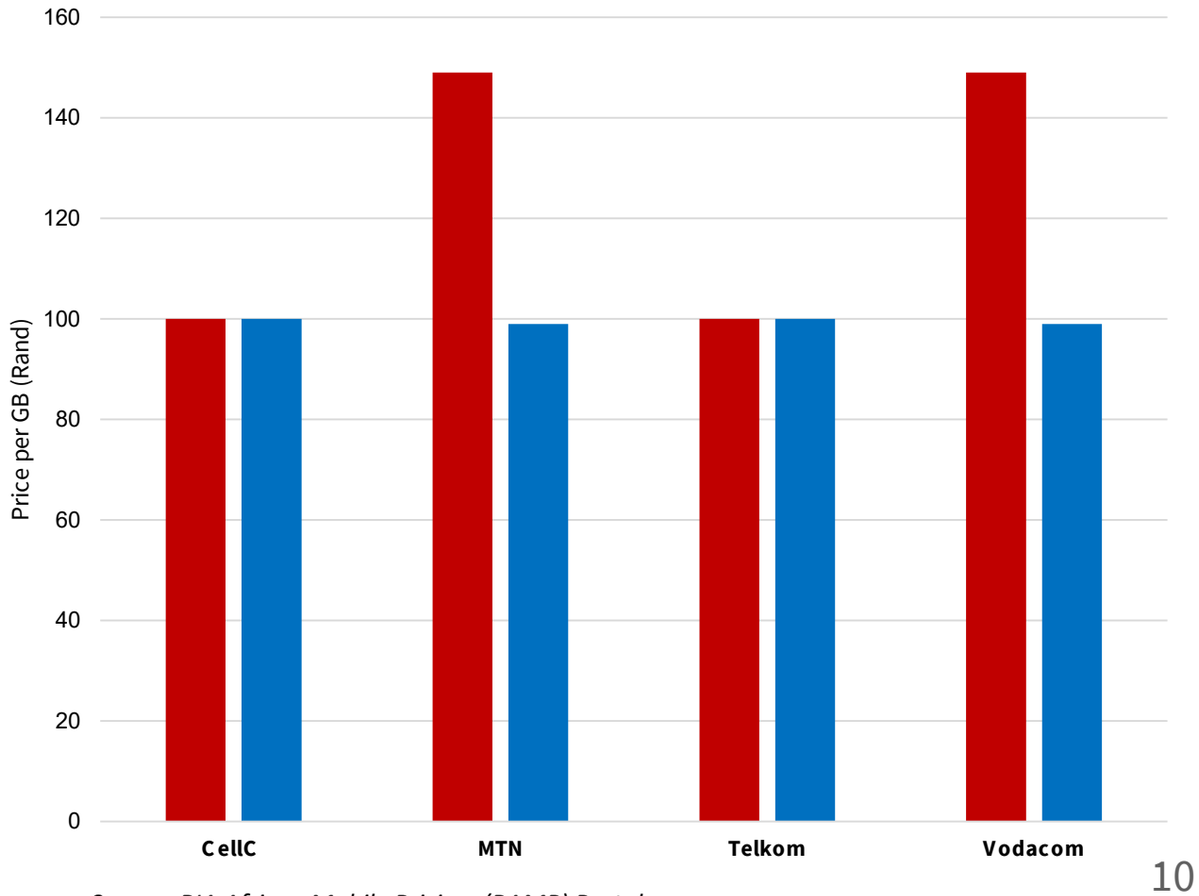


Figure 29: Reasons for not using the Internet
Source: RIA After Access Survey data, 2017

Monthly cost per 1GB in South Africa



Source: RIA African Mobile Pricing (RAMP) Portal

Barriers to use

Price, quality, digital literacy

- Competition Commission dat price enquiry rulings
  - Removal of poverty premium
  - Life-line package (benefit connected even those that can afford service but not unconnecte
  - Unintended outcome of retail regulation without wholesale regulation that small operators no only not able to place pricing pressure on incumbents but also not able to compete on quality
  - Even if effectively regulated cost o GSM/current business model/ licensing not affordable for majority of Africans

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Smartphone penetration aligned with Internet penetration

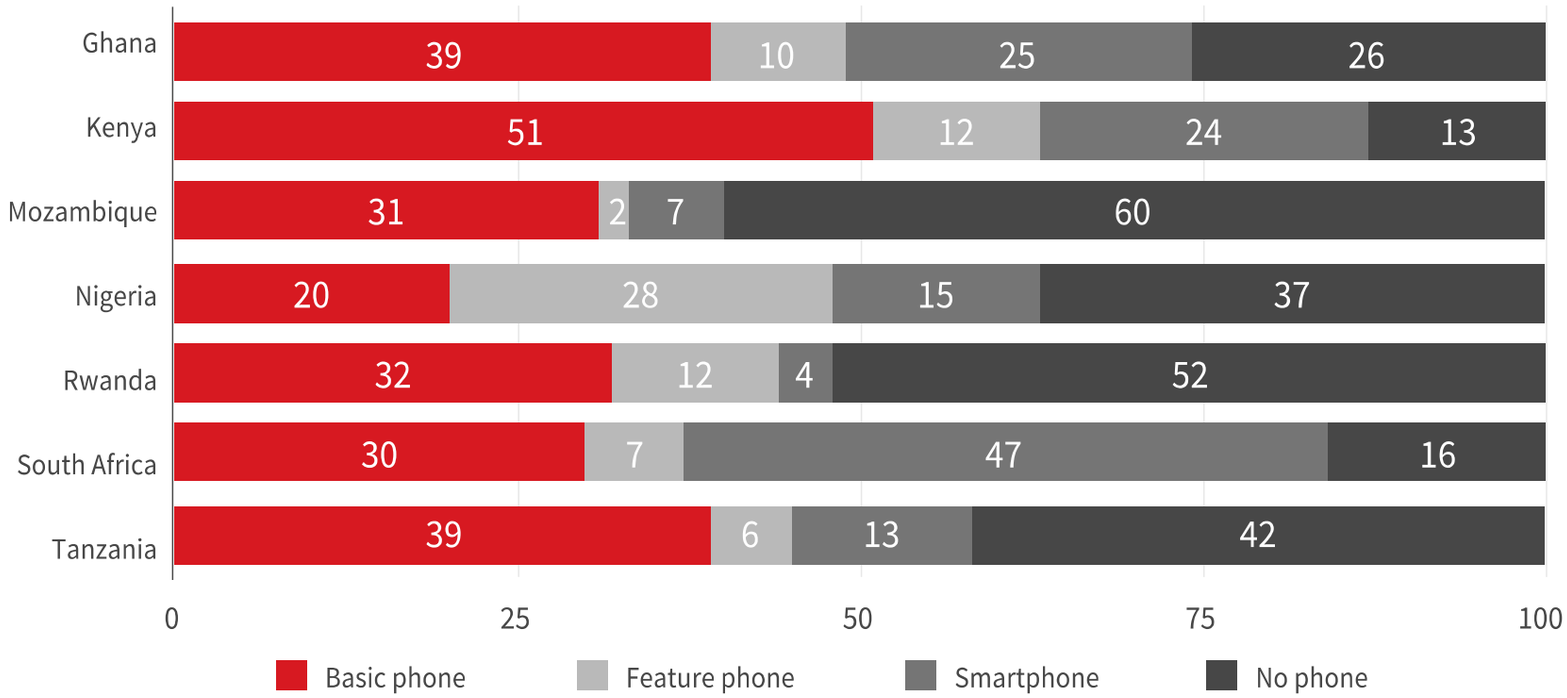


Figure 22: Penetration level by type of mobile phone

Source: RIA After Access Survey data, 2017

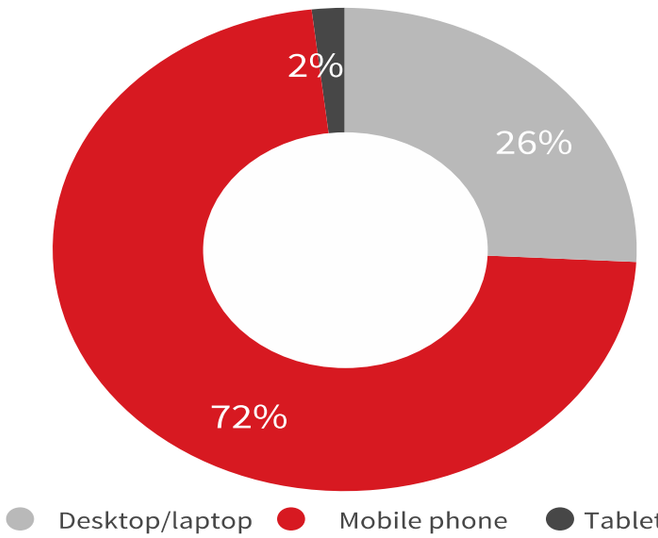
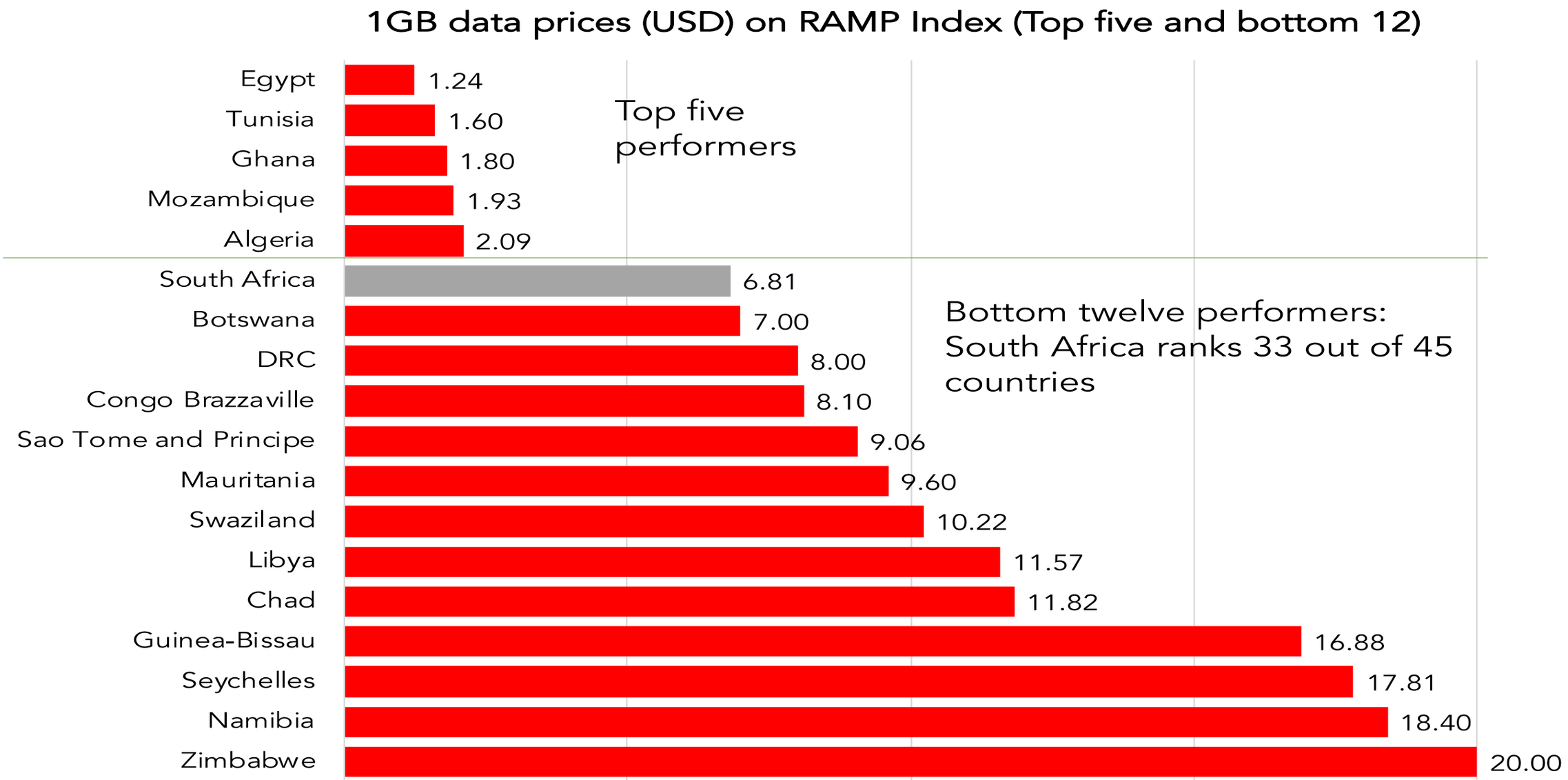


Figure 23: Population grouped by 'device used' to access the Internet

Source: RIA After Access Survey data, 2017

Cost of Data in African countries

The RAMP Index measures all advertised voice and data products across 50 African countries quarterly



- **Prices in US dollars (ZAR1 = USD0.68).
- *Source: RIA African Mobile Pricing RAMP Index 2019 Q1*

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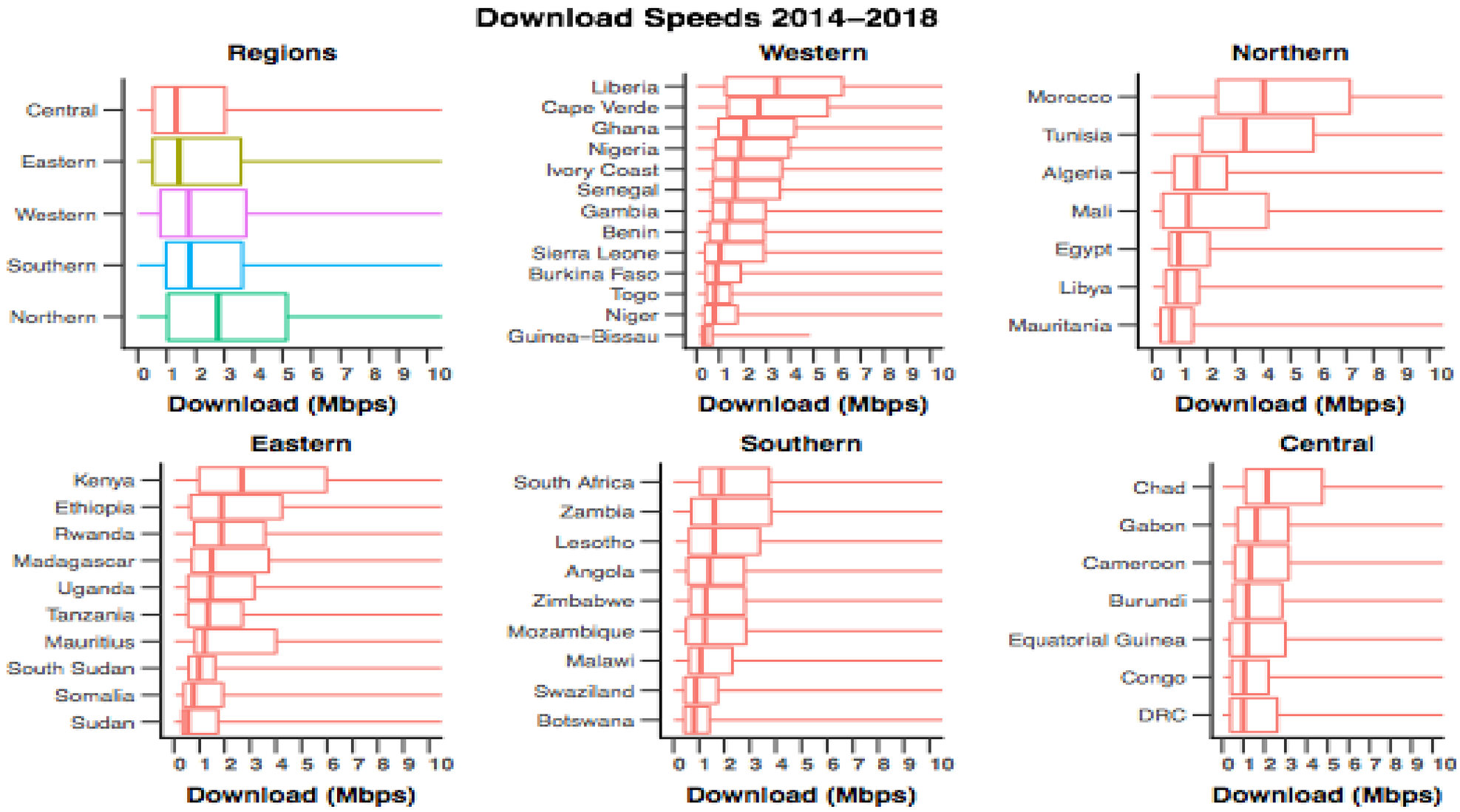
Quality of Service

Download speeds for selected countries/region (Mbps)



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The problem of being unconnected

- Global public goods not available to vast majority of Africans.
- Many countries are below the 20% critical mass (penetration and use) to enjoy **network effects** (Roller and Waverman 2006)
- Policy uncertainty, little effective regulation of markets to make them competitive - negative impacts on **investment**s.
- Low levels of **human development** prevent harnessing digital technology for personal wellbeing and **entrepreneurial** production.
- **Cost and quality** of broadband not conducive to **innovation**
- Little contribution to national prosperity (value add to GDP and development).

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The problem for nations of being being unconnected, not generating data value

- **Global public goods** Internet, cybersecurity, data not available to vast majority living in the Global South.
- Many countries are below the 20% critical mass (penetration and use) to enjoy **network effects** (Roller and Waverman 2006)
- Assumes an **intensity of use** (always on, high speed access) not present in Africa
- Policy uncertainty, little effective regulation of markets to make them competitive - negative impacts on **investments and consumer welfare**.
- Low levels of **human development** prevent harnessing digital technology for personal wellbeing and **entrepreneurial** production.
- **Cost and quality** of broadband not conducive to **innovation**
- Far lower contribution to national prosperity (value add to GDP and development)

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Legacy challenges…

- “The digital economy transcends the ICT sector, encompassing most sectors of the economy and society. Yet many governments continue to treat the digital economy as a sector, with exclusive emphasis on developing ICT infrastructure and creating an information technology (IT) workforce.”

(World Bank, World Development Report 2016: Digital Dividends)

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Why is Africa not seeing digital dividends?

- Most Africans still **offline**, small usage, passive consumers, unable to benefit from digital economy.
- Low levels of digital absorption by firms, governments and users produce low levels of data
- Lack of framework to limit harms and mitigate risks associated with data transmission.
- African lack of participation in global system of governance?
- **Vested business interests**, **regulatory uncertainty**, and limited contestation across digital platforms could lead to harmful **concentration** in many sectors.
- Poor record of many **e-government** initiatives points to high failure digital technologies used to control (surveil) citizens, not to empower them. (UNCTAD2019, World Bank, World Development Report 2016)

Digital readiness/digital futures

Are policies:

- geared towards maximising the potential of the digital economy and mitigating the potential risks and costs?
- harmonised with global governance systems whilst being appropriately adapted to the contextual challenges and constraints to ensure benefits are equitably distributed and do not bypass those who lack the connectivity, skills or education to participate?
- Rectifying digital inclusion and optimising development impact of the sector growing at an average rate above the national growth rates and significant public and private investments in infrastructure.

Cannot carry on doing same thing and expect different results

….we cannot go back to ‘normal’

- Even if there was effective regulation of markets current prices even on basis of effective regulated prices the majority of African would be able to afford services.
- Current business models, exclusive licencing frameworks, extractive rents by governments through retrogressive/irrational taxation/spectrum fees/unused or misused universal service levies; and by dominant mobile companies who are able to set prices and leverage dominance in their market.
- Dominance of global platforms accountable to no one – unable to exercise data governance/privacy protections for citizens on the one hand, not gain access to private data for common good (public health)

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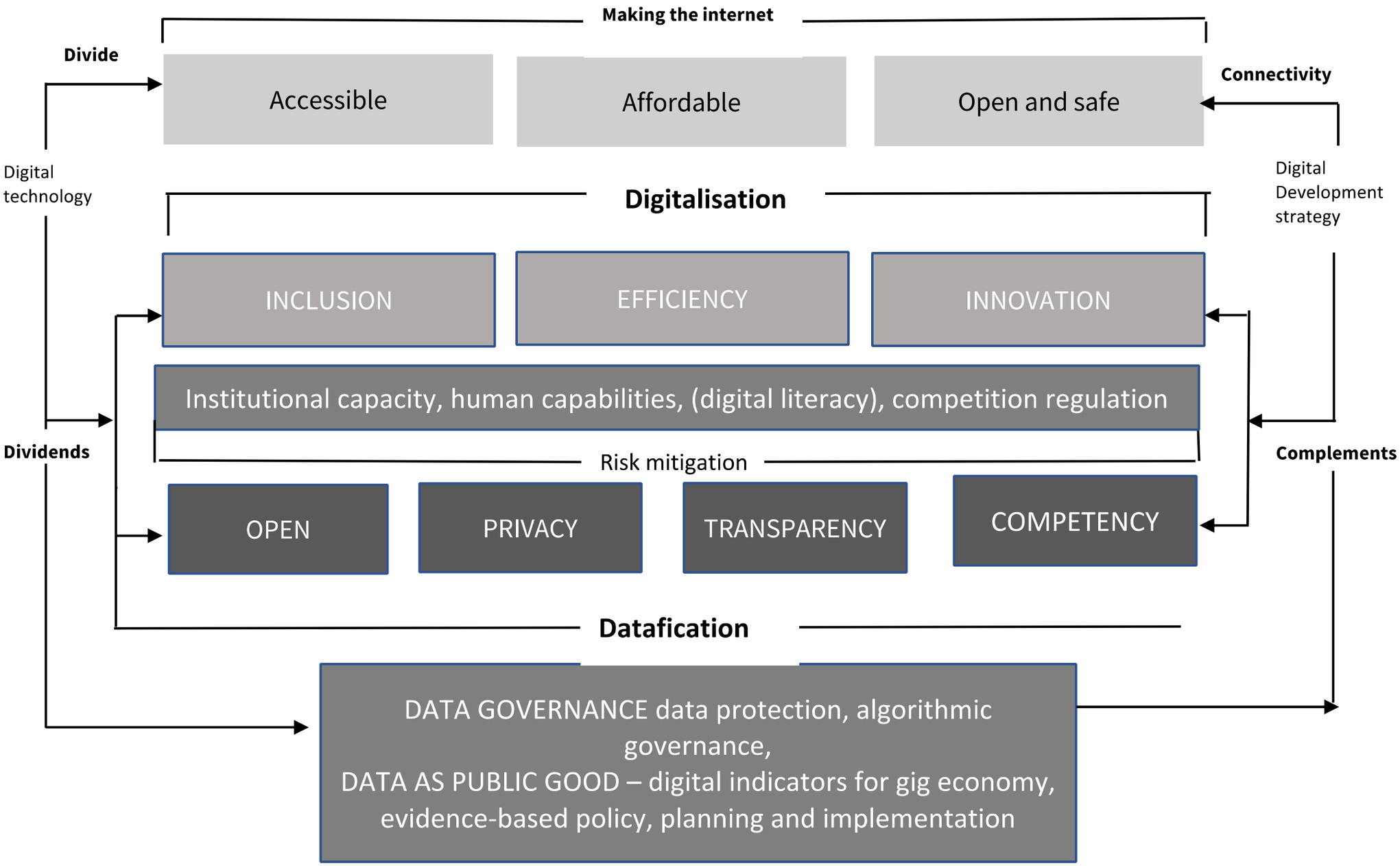
African New Digital Deal

Global processes of digitalisation and datafication cut across economy and society requiring a non-sectorally siloed, transversal national supply and demand side policy to deal with **digital inequality paradox**

- transversal digital strategy: Enabling state (institutional integration) to to enable the necessary coordination of the public, private sector and civil society to deliver public goods and governance (data governance)
- crowd-in public investments so that public investments directed at ‘uneconomic’ access and services challenges
- conduct low risk experimentation in market structure, alternative access strategies and business model, licensing
- regulatory bottlenecks: market dominance/wholesale access regulation, infrastructure sharing and incentivizing complementary investment
- dangers of instrumental competition regulation, acknowledgement of competitive & complementary OTTs, IOTs requiring dynamic efficiency models and adaptive regulation to deal with global complexity

Digital new deal: leveraging digitalisation and datafication for development through integrated institutional governance



Adapted by author from World Bank WDR 2016

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Thank you

Research made possible by