



INDEPENDENT COMMUNICATIONS  
AUTHORITY OF SOUTH AFRICA

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# Accelerating 5G Deployment in SA

Cape Town, September 2023

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The views expressed in this presentation  
should not necessarily be taken to  
represent official positions of ICASA

# ICASA Mandate

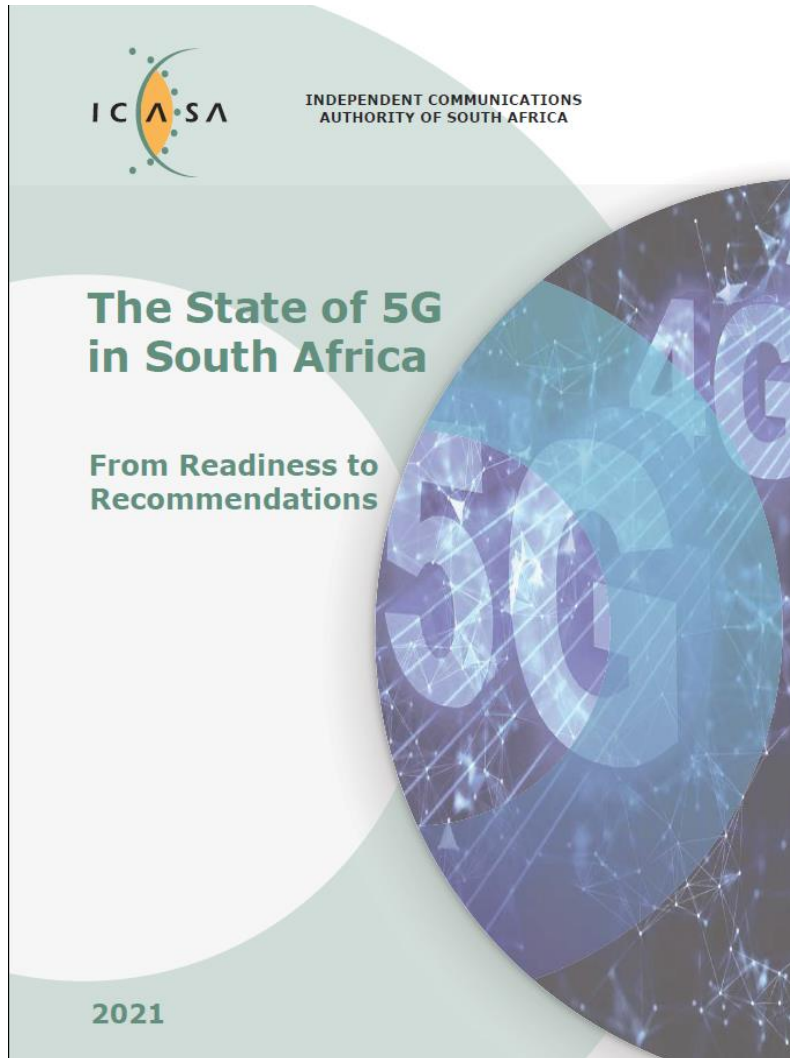
ICASA is established pursuant to section 192 of the Constitution and in terms of the ICASA Act of 2000

ICASA's primary mandate is to *amongst others*:

- **Regulate** electronic communications, broadcasting and postal sectors **in the public interest**
- Ensure **universal availability** of **high-quality services**, including broadband services, for all South Africans at **affordable prices**
- **Fixed mandate** derives from Electronic Comms Act 2005 (ECA) & Postal Services Act 1997
- **Change mandate** derives from govt policy, Ministerial policy directions etc



# ICASA (2021) - The State of 5G in SA



- Also: 5G report to Minister on 5G spectrum requirements for 5G (2020)
- 2021 Report now dated...  
2024 in preparation
  - State of infrastructure readiness
  - Use cases for SA
  - Spectrum management & assignment
  - 5G Forum & its role
  - Policy & regulation for 5G

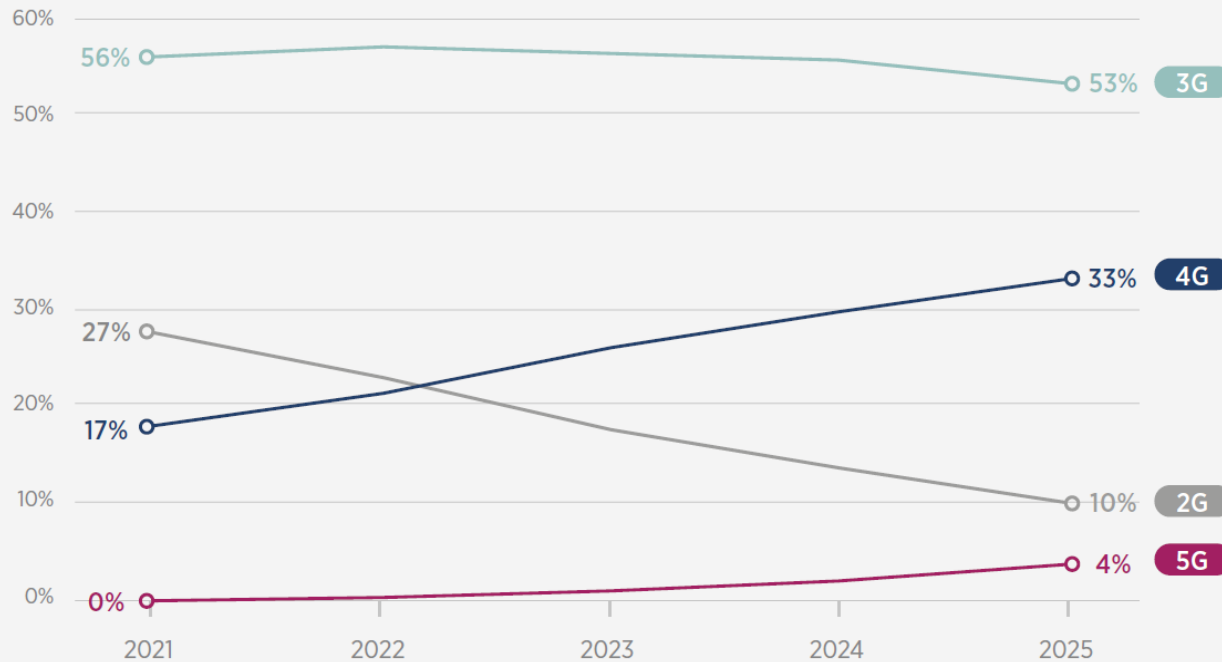
[www.icasa.org.za/uploads/files/ICASA-2021-5G-Annual-Report.pdf](http://www.icasa.org.za/uploads/files/ICASA-2021-5G-Annual-Report.pdf)

# From 2G to 6G: Africa's Long & Winding Road...

**Figure 3**

**Adoption of 4G is picking up and will overtake 2G in 2023; 3G adoption reached its peak in 2022**

Percentage of connections (excluding licensed cellular IoT)



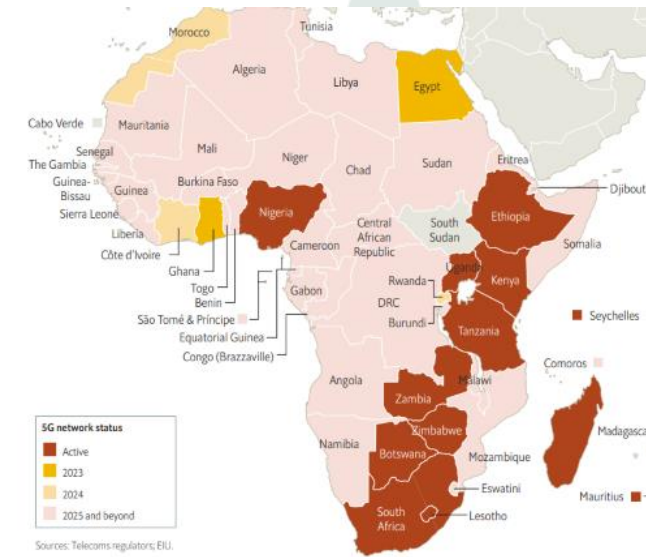
Source: GSMA Intelligence

Sources: GSMA, 2022; Economist, 2022

Africa unique mobile subscribers = 515m (2021) - 46% of pop

Africa smartphones = only 49% of subscribers

14 / 54 countries have 5G



# 5G in South Africa: a bullet, but not magic silver

- 4G population coverage = 98% (2021)
- 96% of households have at least one mobile phone
- Usage gap - coverage, but limited uptake
- Smartphones = 63% of subscribers
- Internet access = 78% of households (mostly via mobile handsets)
- Internet at home = only 10% of households
- 5G population coverage = 7,5% (2022)
- 5G deployments – Rain & Liquid (2019), MTN (2020, now 25% coverage), Vodacom (2020, 18% coverage)
- 5G sites (2023) = 5 400 (40% Rain)

Sources: Stats SA, 2022; ICASA, 2023; ITWeb 2023



# 5G Deployment & Adoption in RSA

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- Bulk of 5G deployments = in metropolises & some secondary towns - mainly affluent consumers & enterprise FWA
- Some industry verticals uptake - mines and ports (MTN / Huawei)
- Barriers to uptake & usage = digital divide = barriers to SDGs:
  - **Income divide:** Rich vs poor (GINI = 63, unemployment = 33%) - affordability of devices, data, minutes
  - **Geographic divide:** Urban vs peri-urban vs informal settlements vs rural areas - availability of networks / services
  - **Skills divide:** lack of digital skills, language barriers, lack of relevant content
  - **Other issues:** erratic electricity supply, base station theft & vandalism, apartheid legacy
- Challenge: How to ensure 5G & 6G don't simply exacerbate existing digital divisions?

Sources: MyBroadband, 2022



# ICASA: On the upside

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- Technology neutral licensing framework facilitates refarming, flexibility between 4G, 5G, 6G
- 2022 spectrum auction - assigned 300+ MHz, in low and mid bands, raised ~ USD 1 billion
- Spectrum auction v2 planned for 2024, with additional IMT spectrum
- Supported by RFSAPs for IMT, Long-term Spectrum Outlook, Wi-Fi 6E, DSA
- 5G Forum seeks to engage stakeholders
- Use cases need to exploit specific 5G / 6G capabilities (URLLC, eMBB, mMTC)
- Use cases need to address national social and economic realities – “African solutions to African problems”
- Most current use cases cater to the high end - large-scale mining, advanced manufacturing, agri-tech, high-end transportation & logistics
- Little demand to date for campus networks, industry 4.0
- Some use case developments in mining and ports

# 5G Forum: The Stakeholder Voice

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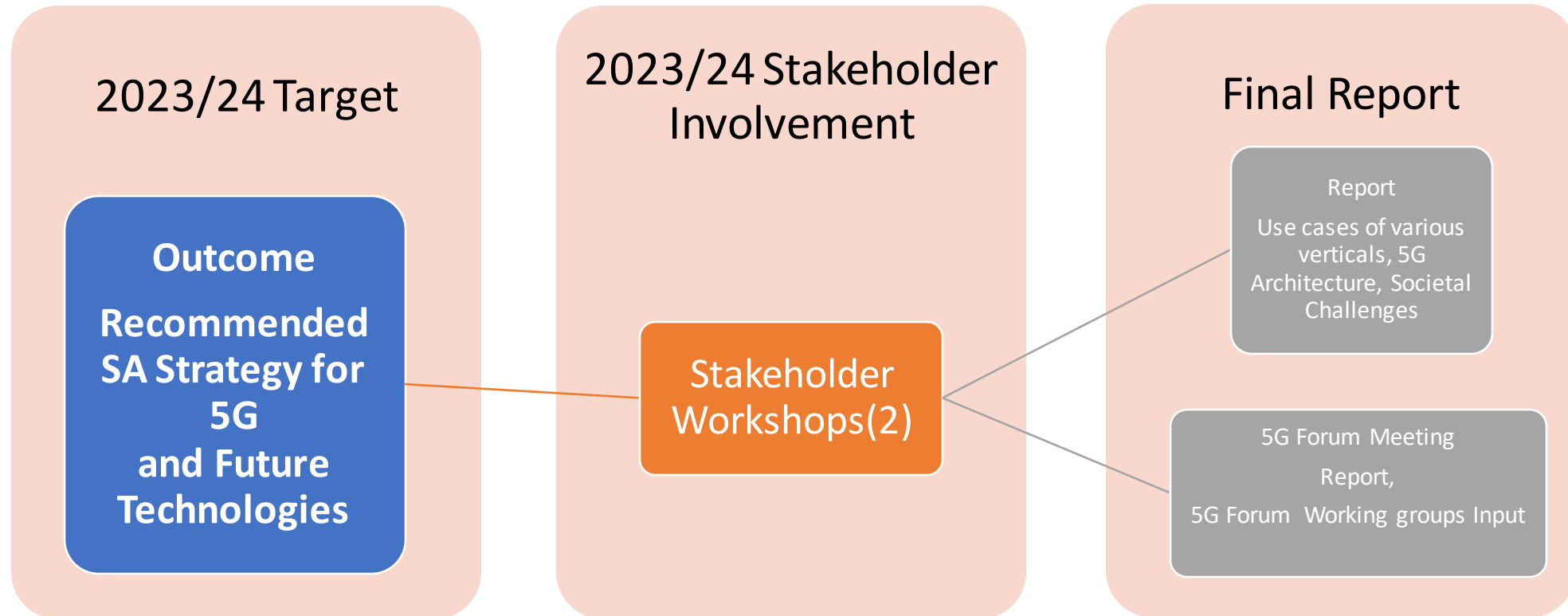
- Aims to provide policy and regulatory advice to ICASA in support of the deployment and uptake on IMT2020 / IMT2030
- Five working groups, viz:
  - Spectrum
    - Johan Smit (Telkom) - [smitjj1@telkom.co.za](mailto:smitjj1@telkom.co.za) 081 361 5065
  - Standardisation
    - Charles Ssengonzi (Ericsson) [charles.ssongonzi@ericsson.com](mailto:charles.ssongonzi@ericsson.com) 083 271 2748
  - Use Cases
    - Leslie Chenfazhi Leslie (Huawei) - [leslie.chenfazhi@huawei.com](mailto:leslie.chenfazhi@huawei.com) 071 617 9222
  - Policy & Regulation
    - Christopher Geerdts (BMI-T) - [chris@bmit.africa](mailto:chris@bmit.africa) 083 222 1463
  - R&D
    - Joyce Mwangama (UCT) [joyce.mwangama@uct.ac.za](mailto:joyce.mwangama@uct.ac.za)
- **New members welcome!**





# 2023/24 Project

## Recommended SA Strategy for 5G and Future Technologies



# Sustainability: The role of the regulator

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- Regulate in the public interest
- Collaborative regulation - regulate to facilitate, enable
  - Be a traffic warden, not a speed cop
- Keep a watching & responsive brief on technology trends and market developments
- Active spectrum foresight and planning, aligned to ITU WRC
- Engage stakeholders, consumers, licensees & service providers
- Liaise with other regulators with overlapping, complementary mandates
- Support regulatory sandboxing
- Regulate to enable economic growth, social development, job creation & cultural enrichment
- Ensure all South Africans can enjoy a wide variety of the services they desire & need, of appropriate quality, at affordable prices



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**Thank You**

**Enkosi  
Ngiyabonga  
Kea leboga  
Dankie**

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