



5G POLICY IMPLICATIONS IN SUB-SAHARA AFRICA

USTDA SOUTH AFRICA CONNECTIVITY STANDARDS WORKSHOP

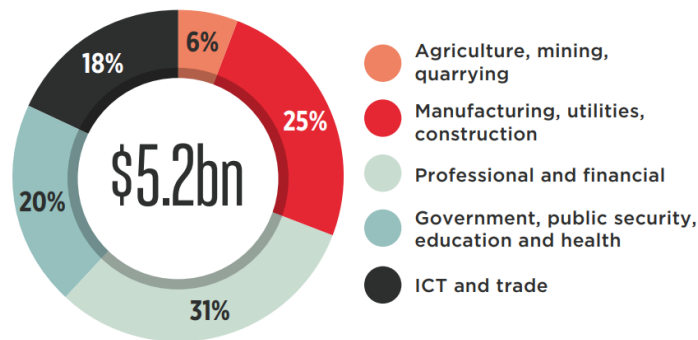
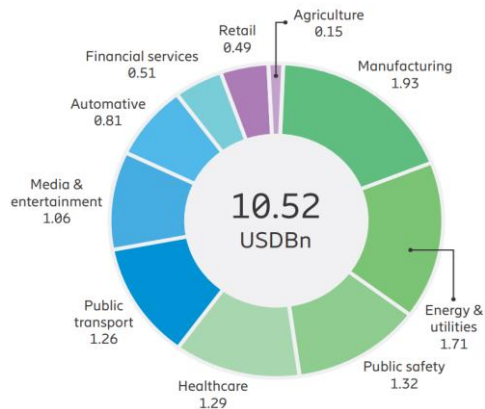
8 OCTOBER 2019, JOHANNESBURG

PANEL 1: WIRELESS BROADBAND TECHNOLOGIES

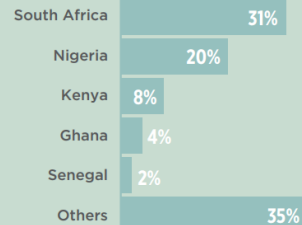
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GOVERNMENT AND POLICY DIRECTOR – AFRICA

5G OPPORTUNITY FOR AFRICA – POTENTIAL ECONOMIC BENEFIT

- Estimated 5G Business Potential for Africa is in the order of **10.52 Billion USD by 2026¹**



From what countries will contributions come from?



- The GDP impact (socio-economic benefits) of mmWave 5G in Sub-Saharan Africa is **around 5.2 billion USD by 2034²**

- License-exempt frequency bands are also a critical component of 5G.

- ✓ In 2018, the economic value provided by Wi-Fi is nearly \$2 trillion, and is expected to grow to almost \$3.5 trillion by 2023³.

¹ Ericsson "The 5G Business Potential 2nd Edition" 2017, for Africa; ² GSMA: The socio-economic benefits of mmWave 5G (2020-2034); SSA Edition

³ <https://www.wi-fi.org/news-events/newsroom/wi-fi-global-economic-value-reaches-196-trillion-in-2018>

5G: CONVERGENCE OF WIRELESS WITH COMPUTING AND THE CLOUD

Next Generation Of Wireless Networks

Higher Speeds, Greater Capacity And Lower Latency

Billions Of Connected Devices And Things

2G

CELLULAR COMMS



3G

DATA AND THE
APP REVOLUTION



4G

FASTER DATA &
MORE USERS



5G

ENHANCED MOBILE
BROADBAND

ULTRA-RELIABLE
AND LOW LATENCY

MASSIVE MACHINE-
TO-MACHINE



Requires Agility, Scalability and Intelligence Across Network, Cloud & Client

5G POLICY IMPLICATIONS IN SUB-SAHARA AFRICA

❑ THE 5G ERA: 5G TECHNOLOGIES

Intel believes that **both 3GPP-based and IEEE-based technologies** play an important role in 5G. **3GPP standards** (e.g. Release 15 and beyond, IMT-2020) and **IEEE-based standards** (Wi-Fi 6 and beyond, and WiGig) will deliver wireless broadband to consumers and businesses worldwide.

❑ POLICY IMPLICATION OF 5G IN SSA - REGULATORY POLICY

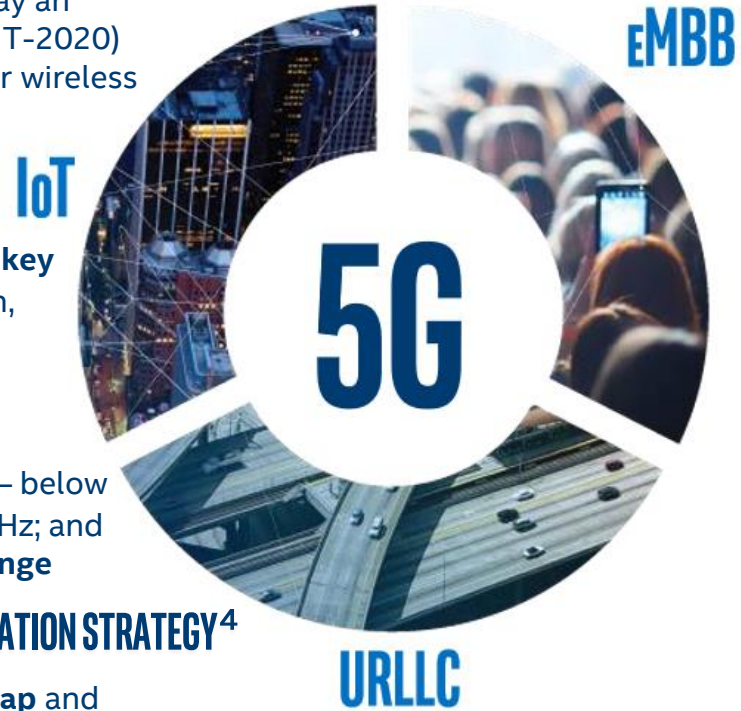
Any broadband strategy or policy plan should include the following key elements/items to facilitate 5G deployment/use: Spectrum allocation, technology neutrality, Right of way and permit process etc.

❑ POLICY IMPLICATION OF 5G IN SSA - SPECTRUM POLICY

Make sufficient spectrum available: Licensed spectrum in **low-band** – below ~1 GHz; **mid-band** – between ~2 – 5 GHz and **high-band** – above 24 GHz; and License-exempt spectrum in the **5 / 6 GHz band** and in the **60 GHz range**

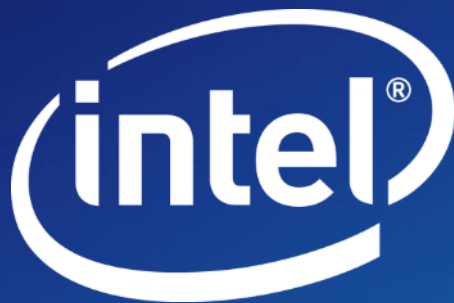
❑ SUGGESTIONS TOWARDS A NATIONAL/REGIONAL/CONTINENTAL 5G IMPLEMENTATION STRATEGY⁴

Development of a 5G action plan including: 1. A **5G Spectrum Roadmap** and 2. A call for the **deployment of infrastructure** that will facilitate 5G such as fibre, data centres, edge compute etc.



⁴ <https://blogs.intel.com/policy/files/2019/04/Intel-5G-policy-implications-in-Sub-Sahara-Africa.pdf>

Thank you



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