

**Seventh SG13 Regional Workshop on
“Standardization of Future Networks towards
Building a Better Connected Africa”**



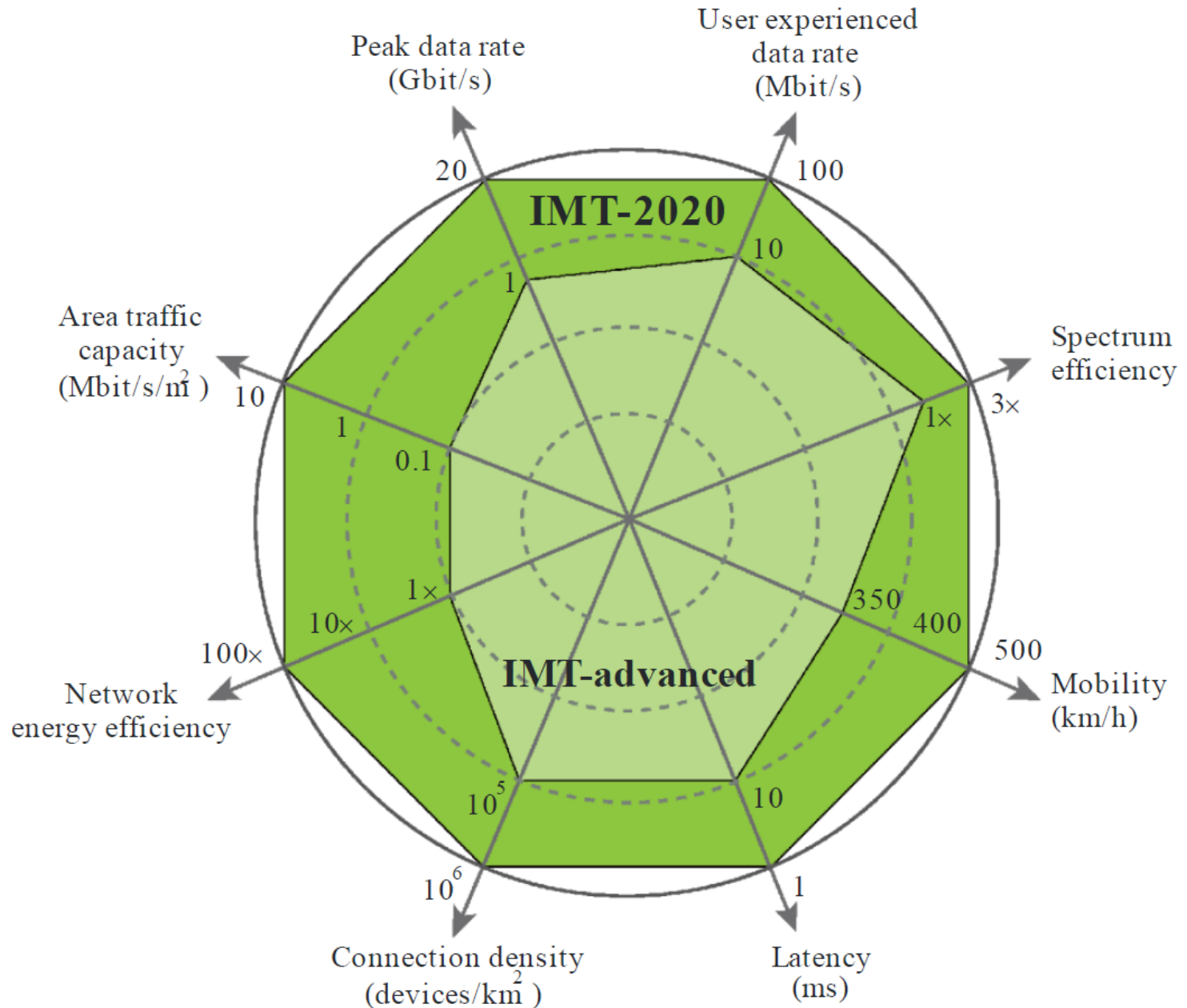
Abuja, Nigeria, 3-4 February 2020

**IMT-2020 USE CASES: IMT-2020 as key driver
for industrial and societal changes: enabler of a
large variety of applications in developing
countries**

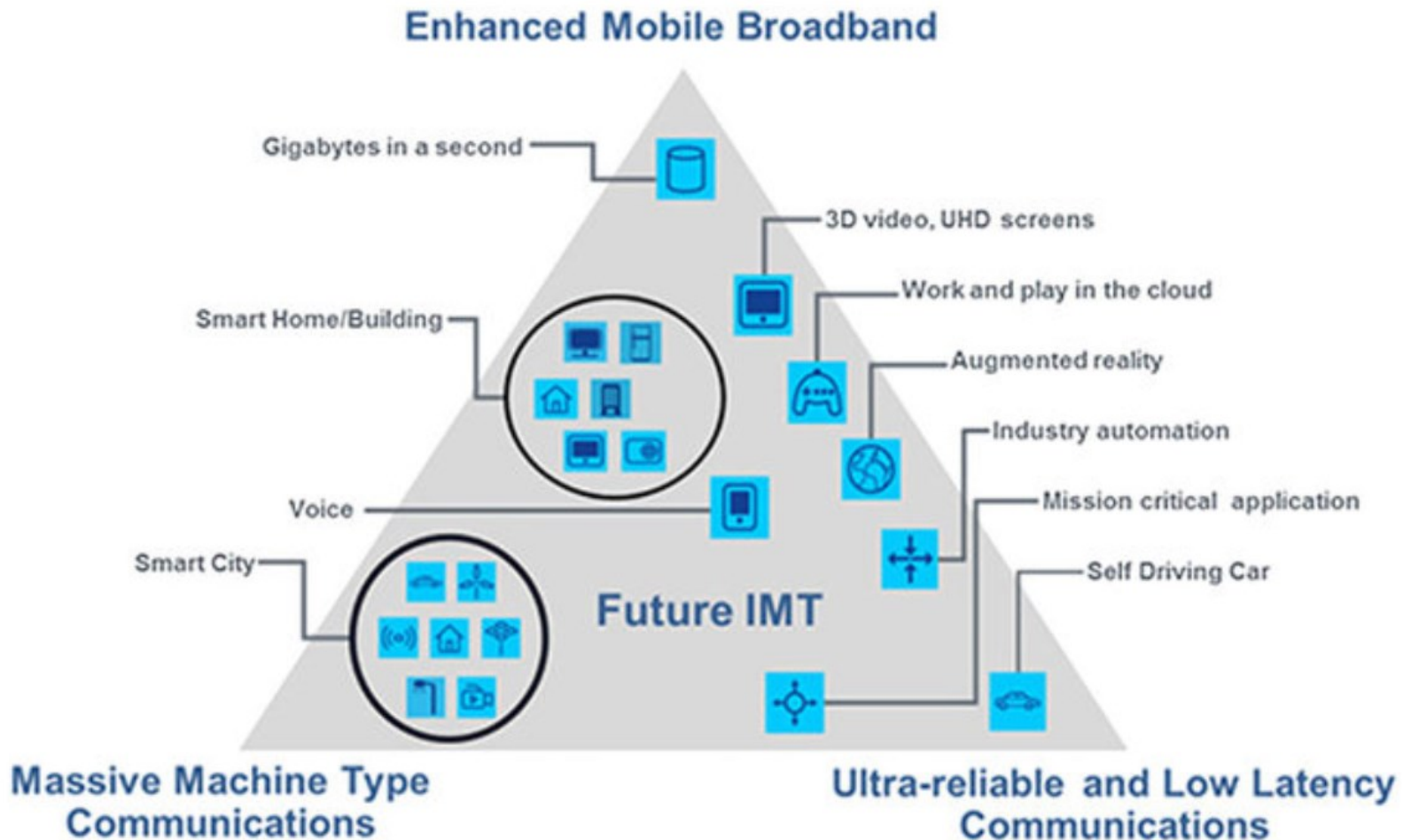
Eng. Nicholas Muzhuzha



Enhancement of key capabilities from IMT-Advanced to IMT-2020



Usage scenarios of IMT for 2020 and beyond (Source: ITU-R Rec. M.2083)



Water Intensive Overhead Irrigation



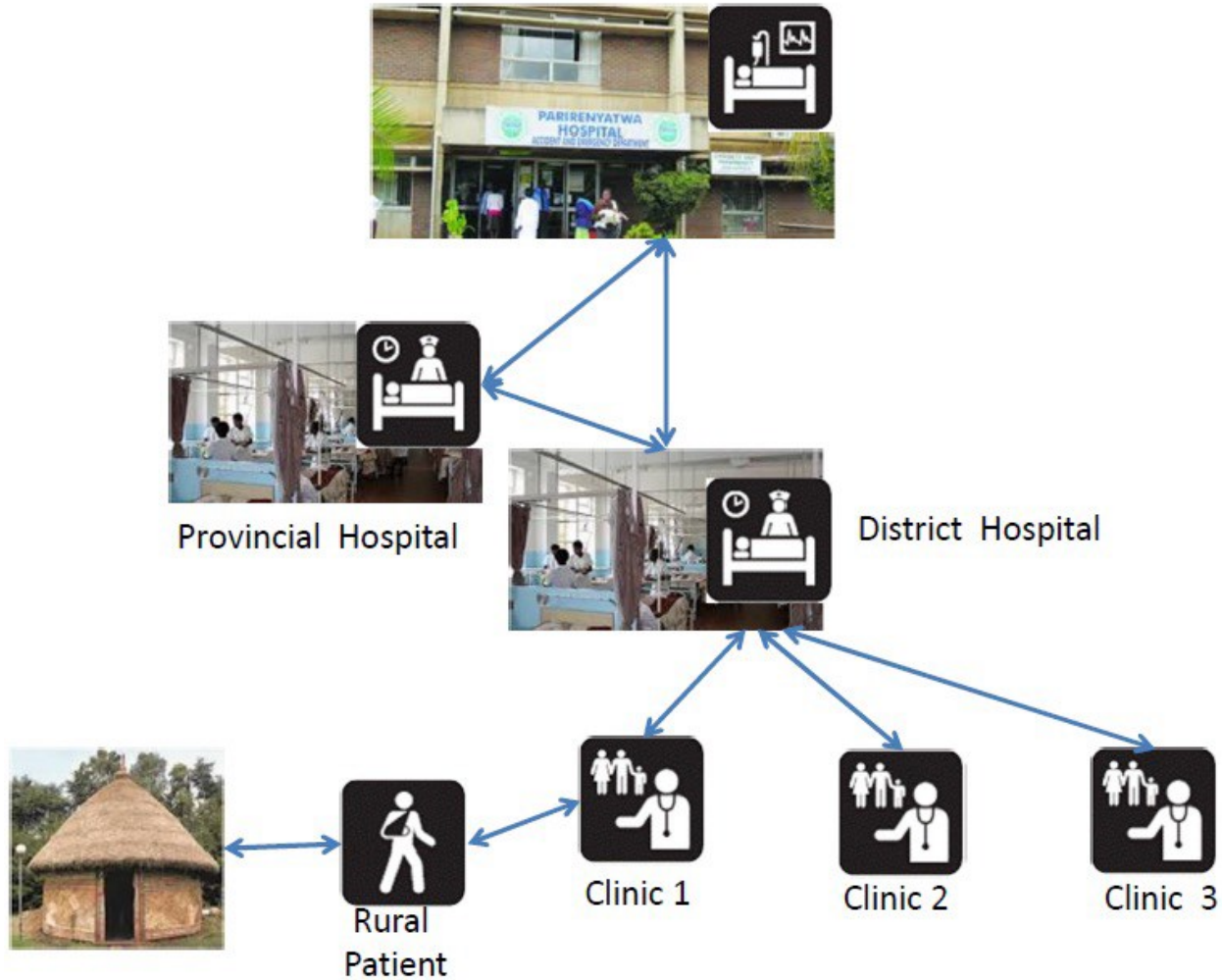
Smart Irrigation Using Massive Machine Type Communication

- Massive network of moisture sensors in the field;
- IMT-2020 network connection;
- Water controllers that open valves depending on pre-set soil moisture levels;

Smart Irrigation Using Massive Machine Type Communication

- Lower water usage in line with reduced rainfall and lower dam levels;
- Less crop diseases;
- Better crop yields;
- Downside: Cost of deploying the smart irrigation system

Zimbabwean Telemedicine Model





Telemedicine Using IMT-2020 Enhanced Mobile Broadband

- Replacement of VSAT terminals with IMT-2020 enhanced mobile broadband network;
 - Lower cost of terminals;
 - Lower network usage costs;
 - Deployment of telemedicine solution to more rural centres

E-Learning Using IMT-2020 Enhanced Mobile Broadband

- Replacement of VSAT terminals with IMT-2020 enhanced mobile broadband network;
 - Lower cost of terminals;
 - Lower network usage costs;
 - Deployment of e-learning to more educational institutions.

E-Government Services Decentralisation

- Deployment of e-government services to rural district centres:
 - Application for Passports;
 - Application for birth, national registration and death certificates;
- Reduction in travel for citizens.

References

- Recommendation ITU-R M.2083-0: IMT Vision Framework and overall objectives of the future development of IMT for 2020 and beyond;
- IMT Vision towards 2020 and Beyond IMT-2020 (5G) Promotion Group February 2014;



A large, light blue watermark of the ITU logo is centered in the background. It features a globe with a satellite dish and the letters 'ITU' in a stylized font.

Thank you!!!