

# **5G New Radio: Next Generation Radio Access Network**

**(Review question)**

**Olalekan Peter Adare, Haitham Babbili**

18th May 2020

## **Question 1**

Re-farming of 4G LTE bands, in order to improve the coverage of 5G NR is not considered as a good solution. Briefly explain why?

### **Answer**

Re-farming low band carriers from 4G without a corresponding increase in 5G devices penetration might lead to congestion of the remaining 4G LTE carriers, degrading indoor coverage for LTE users who still represent the majority of the subscriber base. This co-existence between 5G and 4G LTE can thus be considered as a flexible re-farming solution.

## **Question 2**

Explain briefly the three (3) key categories of services that the 5G NR supports

### **Answer**

- eMBB/xMBB is for high data rate services. This means there is a need for high bandwidth and high modulation orders
- mMTC is for the interconnection of high volume of IoT devices.
- URLLC focuses on latency-sensitive and highly reliable services.