

SPECTRUM

THE FUNDAMENTAL ELEMENT OF MOBILE

WRC-19 | 30 October

APT

The GSMA logo consists of a stylized bar chart with four bars of increasing height from left to right, positioned above the text "GSMA" with a trademark symbol. The entire logo is contained within a white-bordered black square.

GSMA™



Introduction



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Welcome

John Giusti

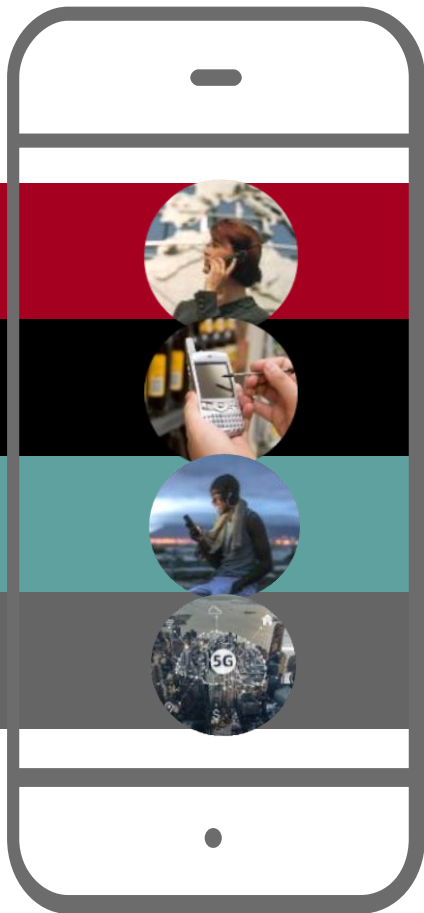


2G

3G

4G

5G



All about calls and texts

The start of mobile data

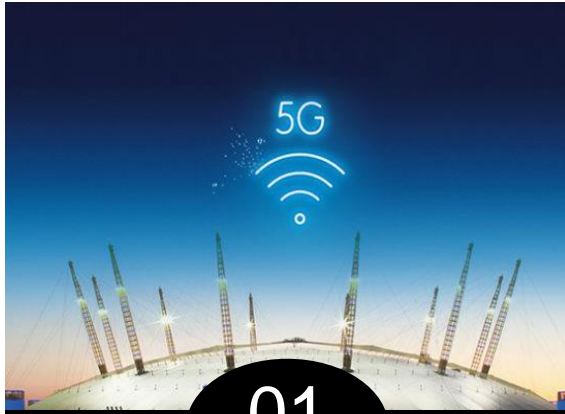
The arrival of mobile broadband services and applications

The network adapts to the application

Ultra high speed
Ultra low latency
New applications

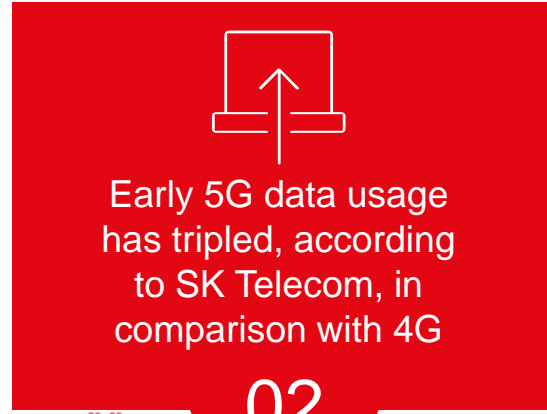


5G Ramps Up



01

LG Uplus is seeing 1.3 gigabytes of data a day per subscriber in the early days of its 5G launch



02

World's First 5G Federated Network Slicing Technology Development

- Successful in interoperability demonstration with Deutsche Telekom 5G core joint development with Deutsche Telekom and Ericsson
- Enabled rapid testing 5G network services domestically and internationally, through virtualized network

Present Early Stage 5G Commercialization Blueprint to NGMN

- Facilitate early commercialization of "Mobile Over Convergence Wide Area Network" (including World's first 5G-5G equipment and frequency commercialization)
- Accelerated 5G research results to other carriers for early stage 5G commercialization, commercialization and ecosystem expansion

Smart City Deployment Using LoRa

- 5G infrastructure deployment at autonomous driving technology "5G-AD"
- Provides services such as GPS-based location tracking, 5G, sensor and gate service metrics, and fleet fleet monitoring

Low Latency Technology Development

- Successfully reduced the latency between 5G handset and base station from 20ms to 2ms, together with Korea

Self-Driving Car Successfully Test Runs 26 kilometers

- Traveled 26 kilometers in real traffic conditions at a speed of up to 80 kilometers
- Applied 5G based V2X (vehicle to everything) and HD Map sharing test run

Welcome to 5G KOREA

SK telecom



03

In Saudi, 1820 TB of data, a 66% increase in daily consumption, were consumed over Hajj in Mecca using networks including 37 5G sites



5G connections forecast has increased by

12.5%

It now stands at



1.6 BILLION

by 2025



5G adoption forecast has increased to



18%

by 2025



37

COMMERCIAL 5G NETWORKS

launched across

19

MARKETS



with

75

further launches



across

50

markets soon



ROUTERS



DRONES



129

5G DEVICES

TVs



ROBOTS

HOTSPOTS



2018

Mobile operators will invest

\$480BN

WORLDWIDE

2020

in mobile capex



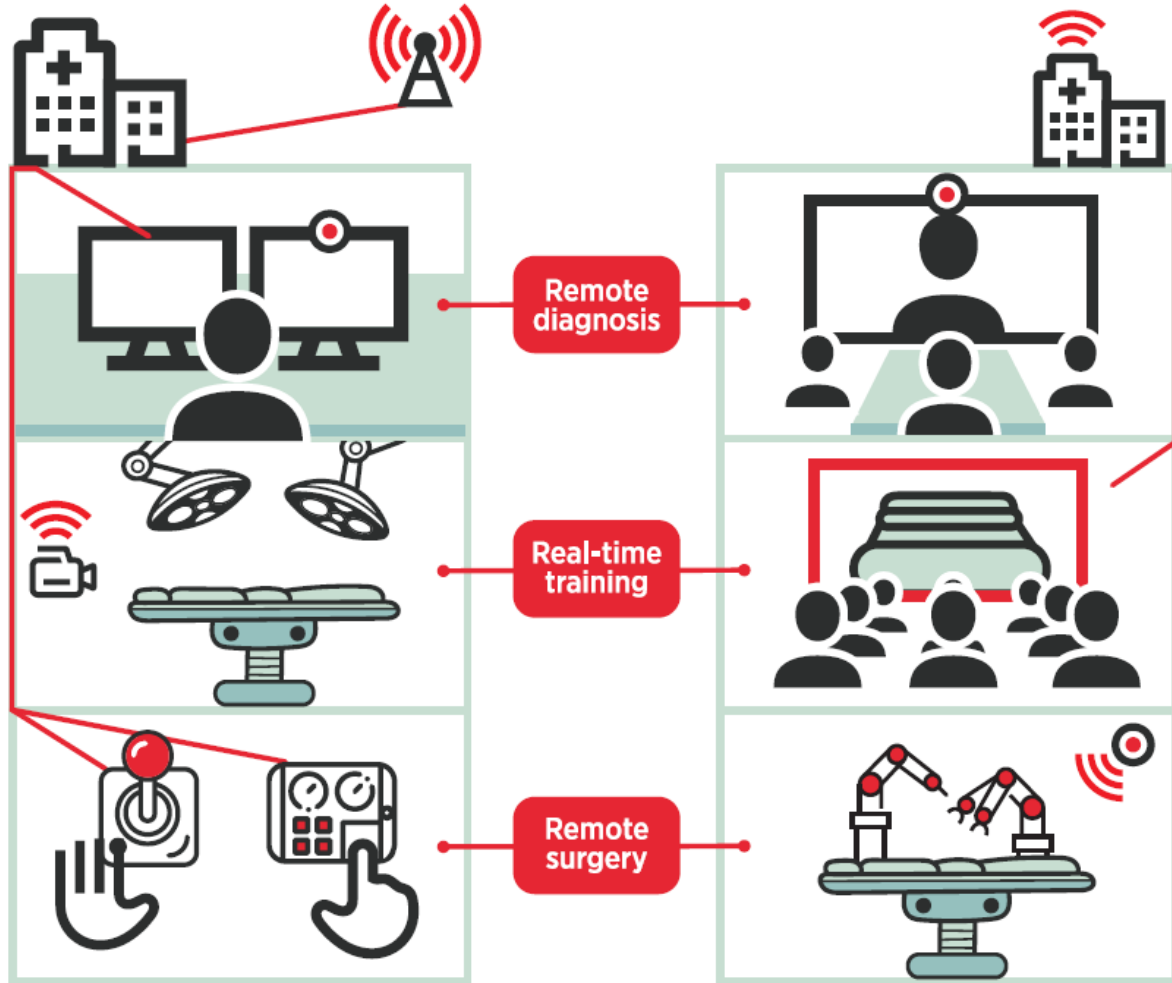


Use Case

5G

CAN
MAKE IT
HAPPEN

Healthcare





The socio-economic benefits of mmWave 5G (2020-2034)

Asia-Pacific Edition

GDP impact of mmWave spectrum by 2034



TAX
\$45bn

0.8%

GDP growth



The share of 5G services using mmWaves