

SPECTRUM

THE FUNDAMENTAL ELEMENT OF MOBILE

WRC-19 | 31 October

ASMG





Introduction



**Opening
Remarks**

Mats Granryd
Director General
GSMA

John Giusti
Chief Regulatory Officer
GSMA

GSMA

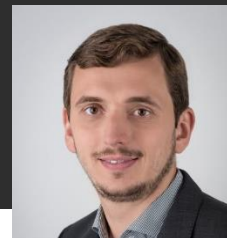


GSA

Noel Kirkaldy
Market Development MEA
Nokia

Geraldo Neto
Senior Technical and
Policy Advisor
TMG

**Analyst
Industry**



**Closing
Remarks**

Mohamed Abbes
Public Policy Director
GSMA

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Opening Remarks

Mats Granryd





Welcome

John Giusti

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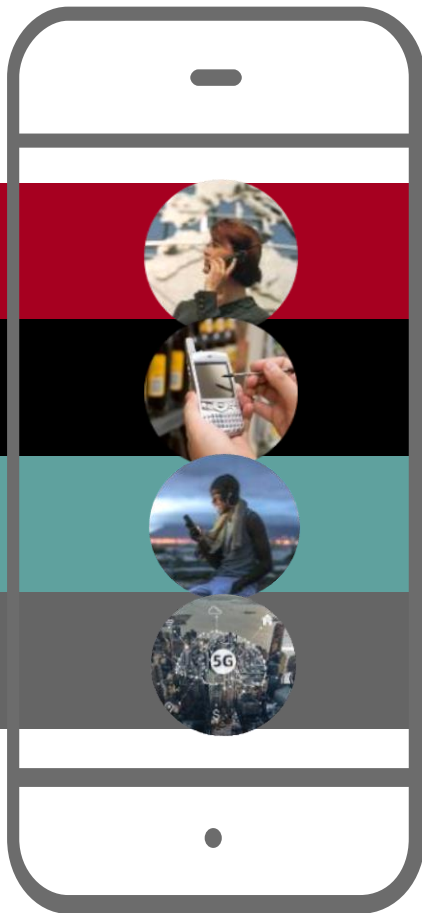


2G

3G

4G

5G



All about calls and texts

The start of mobile data

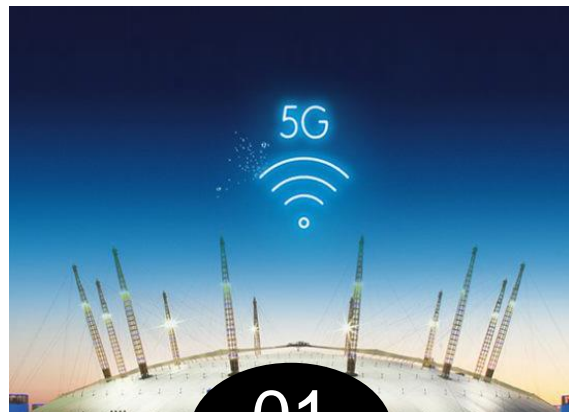
The arrival of mobile broadband services and applications

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



Early 5G data usage has tripled, according to SK Telecom, in comparison with 4G

02



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



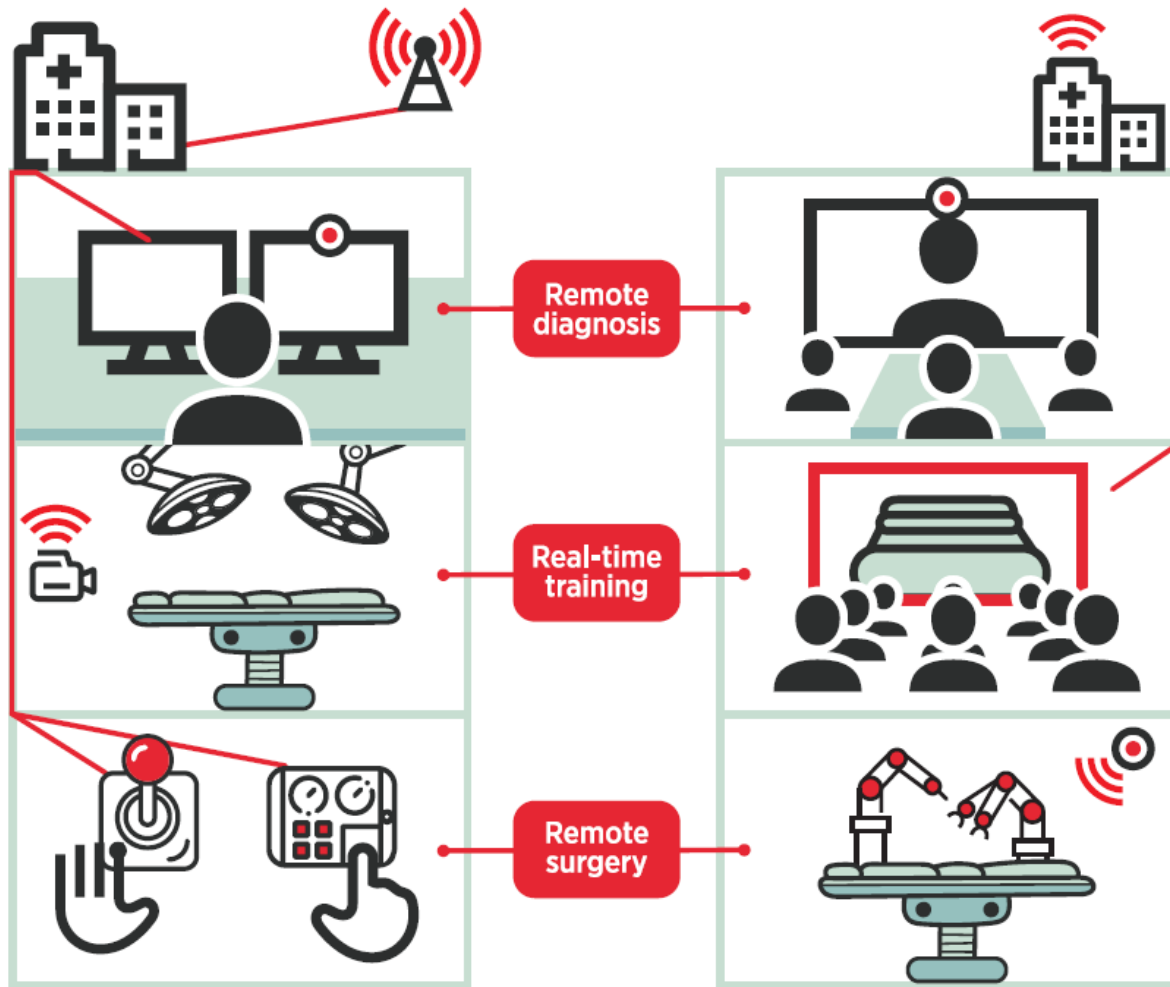


Use Case

5G

CAN
MAKE IT
HAPPEN

Healthcare





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

Middle East and North Africa Edition

GDP impact of mmWave spectrum by 2034



\$15.4 billion

TAX
\$3.1bn

1.1 %

GDP growth

15%
2025

27%
2034

The share of 5G services using mmWaves