5G Standalone Monetization Options

"5G Advanced Services" Innovation Seminar

COMMUNICATIONS REGULATORY COMMISSION OF MONGOLIA

5G Speedtest Measurements

214

Global 5G Live
Networks

GSA 06/22

29

Global SA Live
Networks

GSA 08/22

~28 GB

Mobile data
consumption

South Korea 06/22

70 %

5G devices traffic

South Korea
06/22

65   2

12   3

12   5

15

6   4

11   3

125

Ericsson 5G
Networks

55

countries

17

Ericsson SA
Networks

*As of August 2022

5G Ecosystem is Already Mature

111 operators in **52** countries are investing in 5G SA

1,105 5G devices commercial

76% of the commercial 5G devices support SA

71% of commercial 5G SA devices are smartphones

29 commercial 5G SA networks in **18** countries

Sub 6GHz the most supported bands n78,n41,n1,n77,n28

66 commercial modems from 5 chipset vendors support SA

34 chipsets support 5G NR CA and **50** support VoNR

SA Introduction
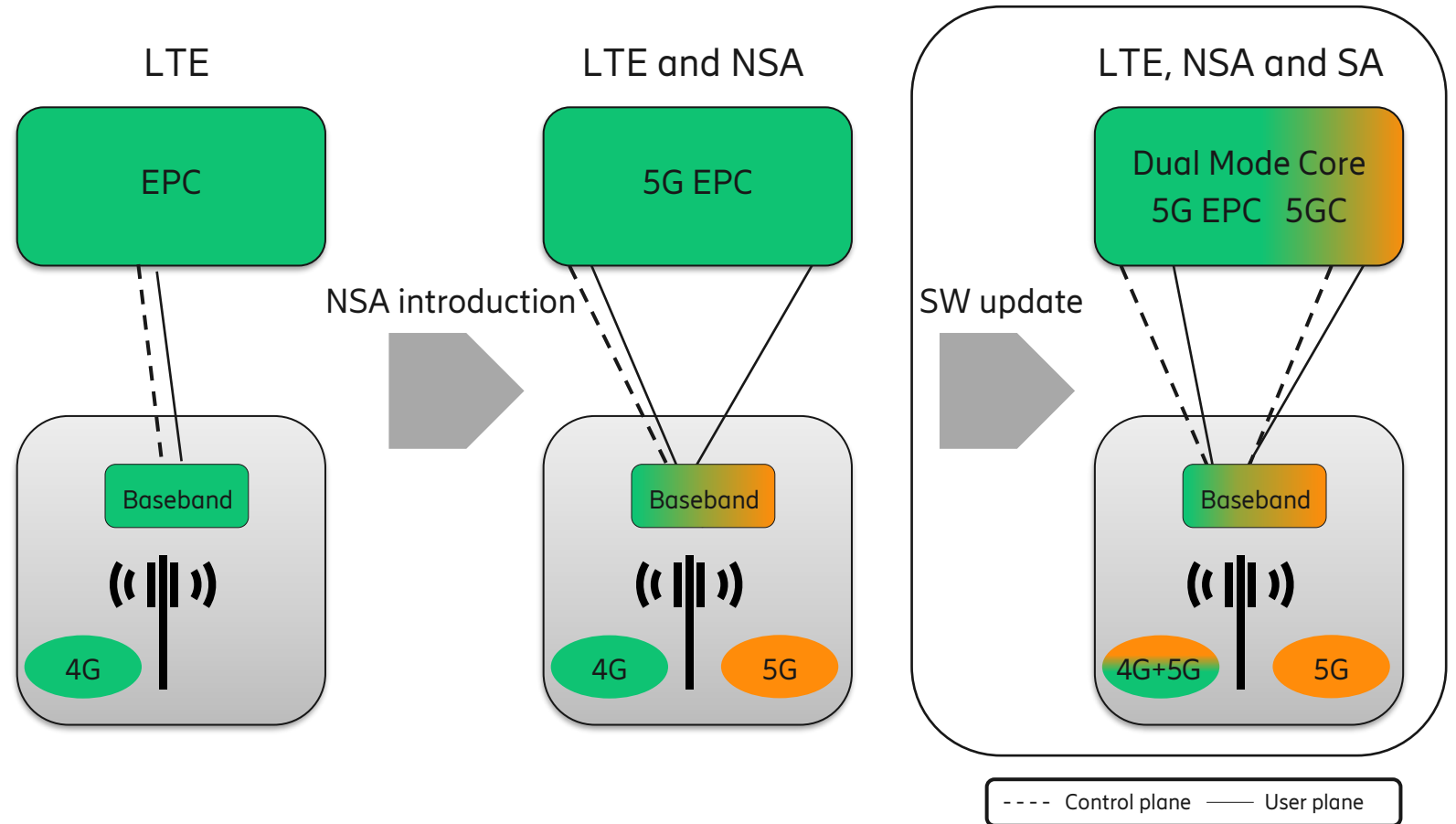## Easy migration to SA with Software update

Dual mode 5G Core

NSA and SA co-exist in the same cell

Mixed mode NR-LTE Baseband

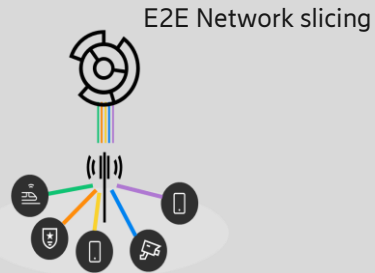SA introduced in LTE spectrum using Ericsson Spectrum Sharing

LTE

EPC

Baseband

4G

NSA introduction

LTE and NSA

5G EPC

Baseband

4G   5G

SW update

LTE, NSA and SA

Dual Mode Core
5G EPC   5GC

Baseband

4G+5G   5G

- - - - Control plane   ——— User plane

Enabling NR SA on existing hardware and spectrum

5G Standalone Key Tech Benefits
SA vs NSA

New Business opportunities
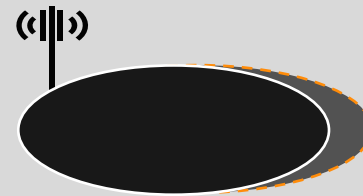
E2E Network slicing

New services and service differentiation

Time Critical Communications

Enhanced End-user experience

Throughput

5G SA

4G/NSA

25   150
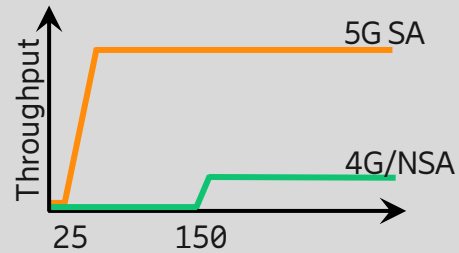
Get instant access to 5G

Better Uplink Coverage

Network Efficiency

Extend 5G coverage

4G   5G

LTE offload

Less complexity

5G Core

5G RAN

Network Simplicity
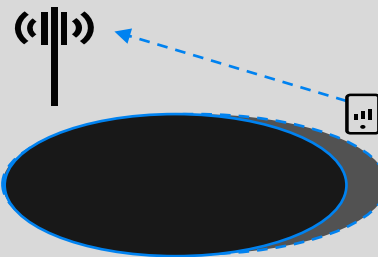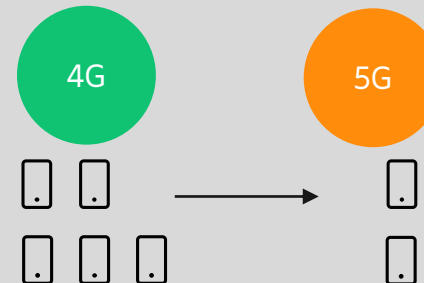
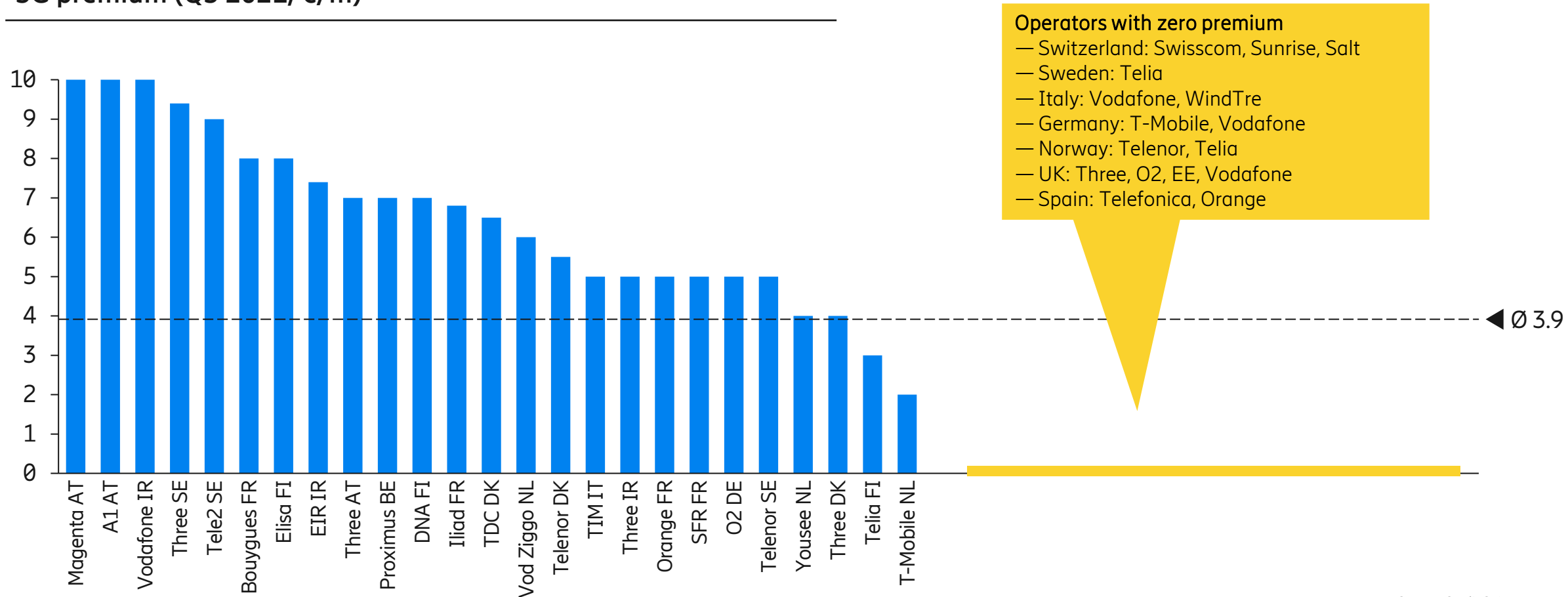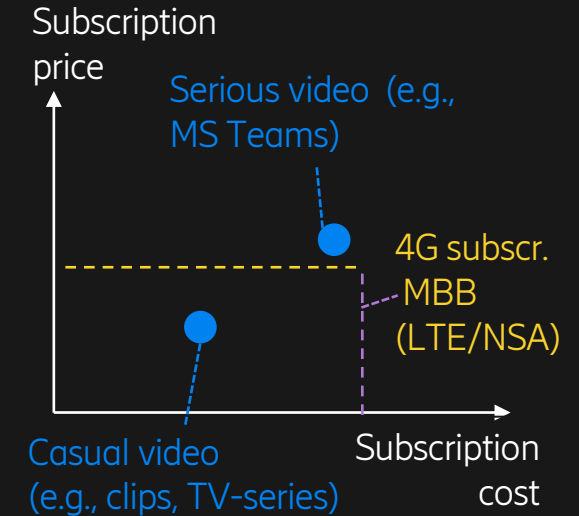Device Simplicity

5G premium

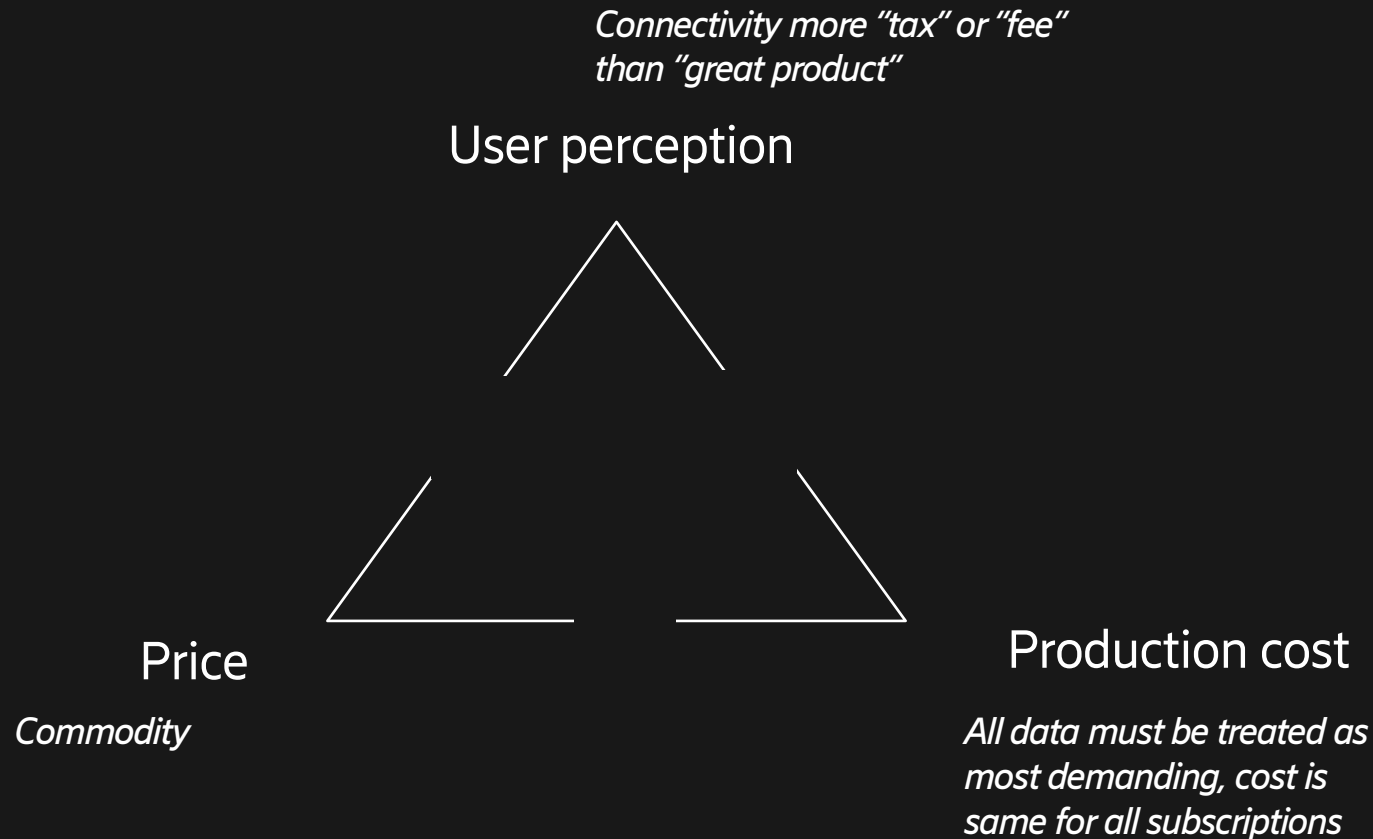## — While several CSPs offer 5G at no extra cost, eroding 5G premium further (€3.90/m vs €4.20 in Q2 21), some markets are extracting value

5G premium (Q3 2021, €/m)

Ø 3.9

Operators with zero premium
— Switzerland: Swisscom, Sunrise, Salt
— Sweden: Telia
— Italy: Vodafone, WindTre
— Germany: T-Mobile, Vodafone
— Norway: Telenor, Telia
— UK: Three, O2, EE, Vodafone
— Spain: Telefonica, Orange

Source: Credit Suisse

Mobile internet dilemma — today's problem
price-perception-cost disconnect

*Connectivity more "tax" or "fee"
than "great product"*

User perception

Price

Commodity

Production cost

*All data must be treated as
most demanding, cost is
same for all subscriptions*

Subscription
price

Serious video (e.g.,
MS Teams)

4G subscr.
MBB
(LTE/NSA)

Casual video
(e.g., clips, TV-series)

Subscription
cost

User choices

5G Applications 2023+

Microsoft Teams

Consumer (private)
- Internet (Net neutrality)
- GB paid by private subscription

Professional
- Works at high network load
- Paid by employer

Uber

Passenger
- Internet (Net neutrality)
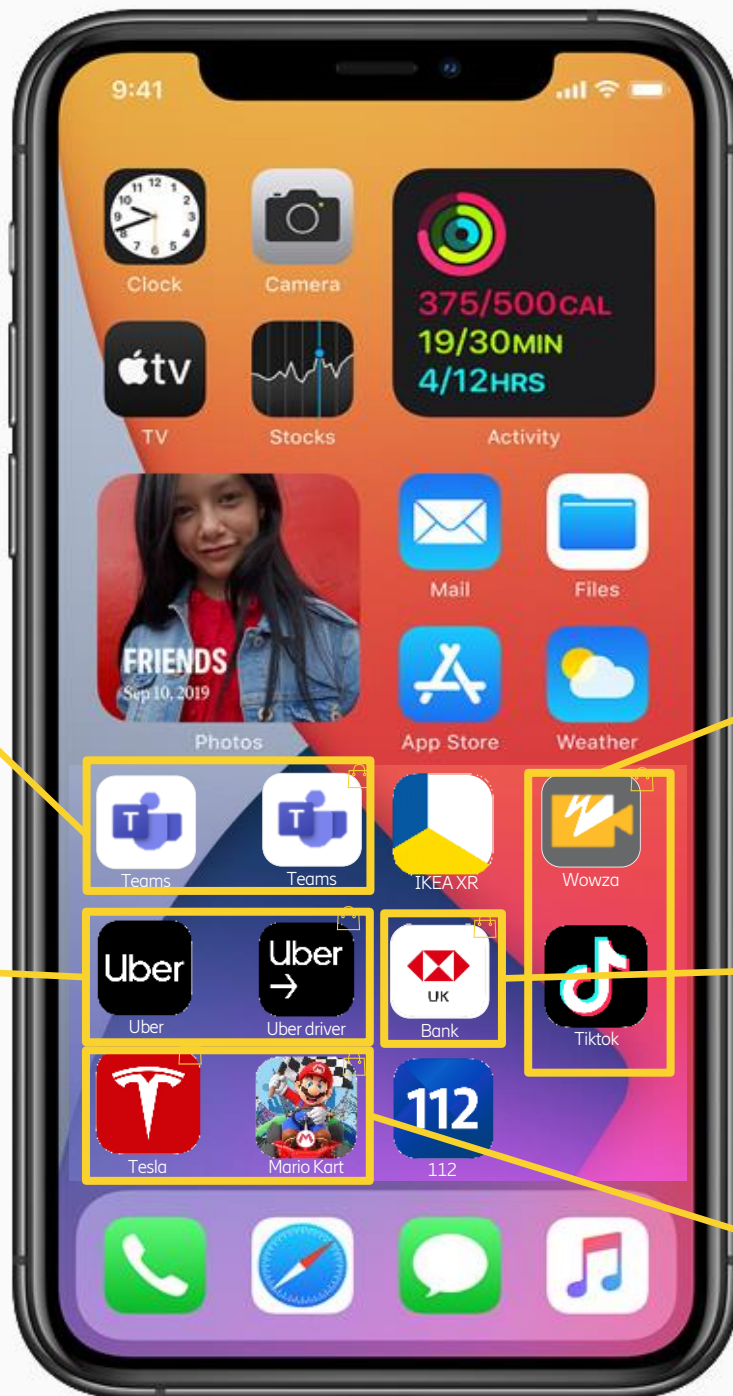- GB paid by private subscription

Driver
- Works at high network load
- Paid by Uber

Consumer-apps
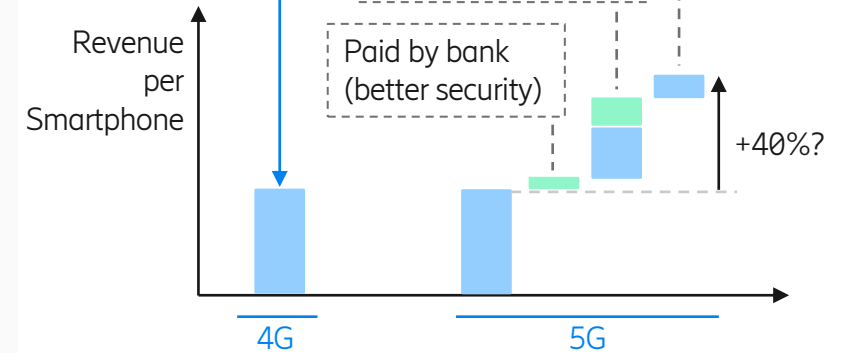Professionals-apps
Citizen-apps
→ Three roles one Smartphone

Example: Nurse's personal subscription

Boosting game experience

Paid by employer (always reachable)

Paid by bank (better security)

Revenue per Smartphone

+40%?

4G

5G

Video-to-cloud

Wowza (professional)
- Paid by server-owner

Tiktok (private)
- Best effort Internet
- GB paid by private subscription

Mobile banking

- Isolated slice
- Directly from 5GC to server
- Paid by bank

Remote vehicle

Mario Kart
- Real-time subscription
- Paid by private person

Tesla
- High reliability subscription
- Paid by car owner

Monetize 5G for smartphones

From monthly subscription	To Multi-subscriptions, Multi-pay & "5G as a platform"

MBB logic

Beyond MBB logic

20€/month for 30GB/month
With optional bundled services and content

Data Volume Tiering

Premium subscription
- ✓ Working from Home
- ✓ Schools
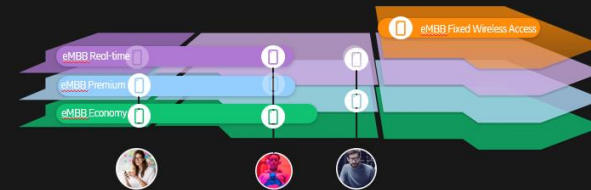- ✓ On field workers
- ✓ ASL remote health check

Economy subscription
- ✓ Most of today MBB subscriptions

5G slicing is one of the key areas of innovations that will let CSPs earn a return on their investments in 5G, by offering a secure and dynamic network platform to enterprises.

- Google

eMBB Fixed Wireless Access
eMBB Real-time
eMBB Premium
eMBB Economy

B2B2X
Offer Premium Subscription to App developers, OTTs who, in turn, offer it to their customers through Apps (premium App)

B2B2B
Offer Premium Subscriptions to App developers, HCPs for their customers (es 5G Private Network services based on edge computing)

All connections are equally treated
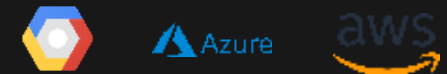
Different types of connections
Subscriber, Service and Performance differentiation

Key takeaways

- 5G addresses the demand created by the era of digitisation

- 5G Standalone is much more than lower latency, higher throughput, slicing and use-cases

- 5G Standalone should come with mid-band TDD, low-band FDD homogenous coverage and Network Slicing

- More importantly – 5G Standalone is a toolbox for CSPs to create new offerings
  - Connectivity with different characteristics
  - New types of subscriptions
  - New ways of billing and charging

ericsson.com/5g