

Making 5G Real



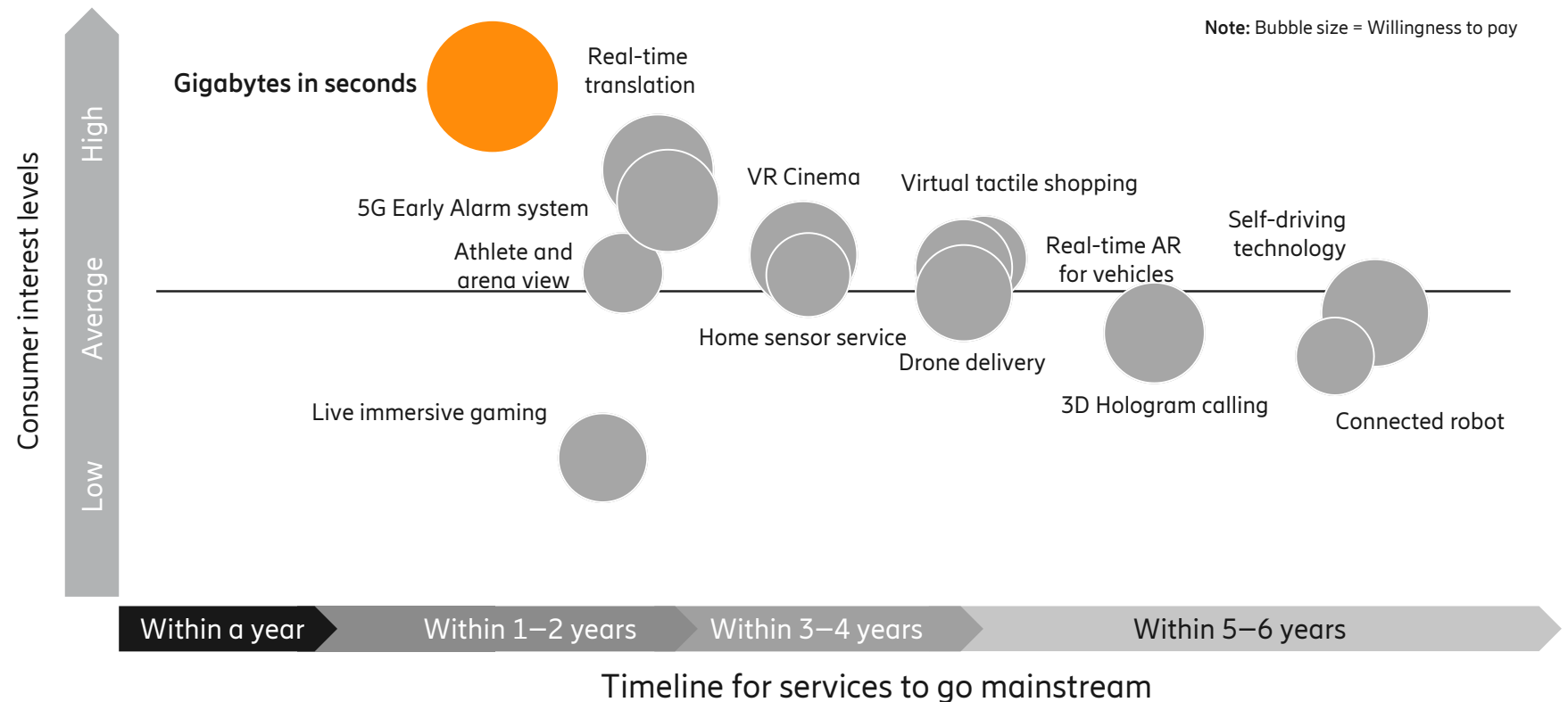
Agenda

- The ecosystem
- Technologies at the heart of 5G

Consumers: Give us more with 5G!



Higher performance is the first and most relevant aspect of 5G to consumers



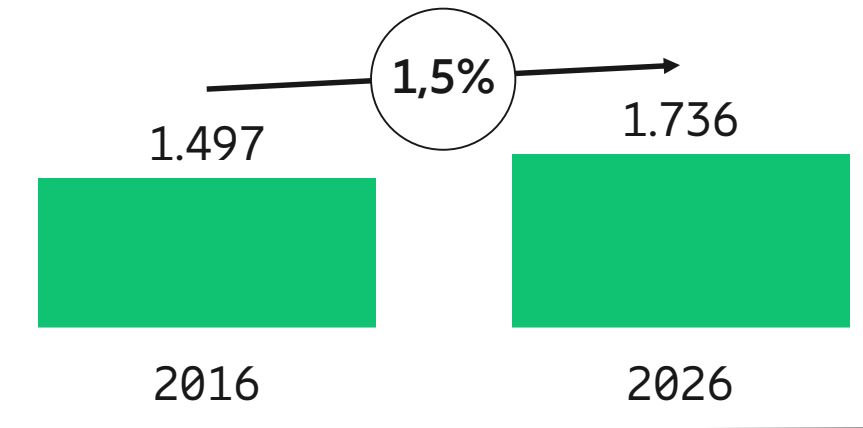
Base: Smartphone users aged 15–65 with interest in 5G services across Argentina, Brazil, China, Egypt, Finland, France, Germany, Indonesia, Ireland, Japan, Mexico, South Korea, the UK and the US

Source: Ericsson ConsumerLab, Towards a 5G Consumer Future, 2018

With industry digitalization, new fast growing revenue pools emerges

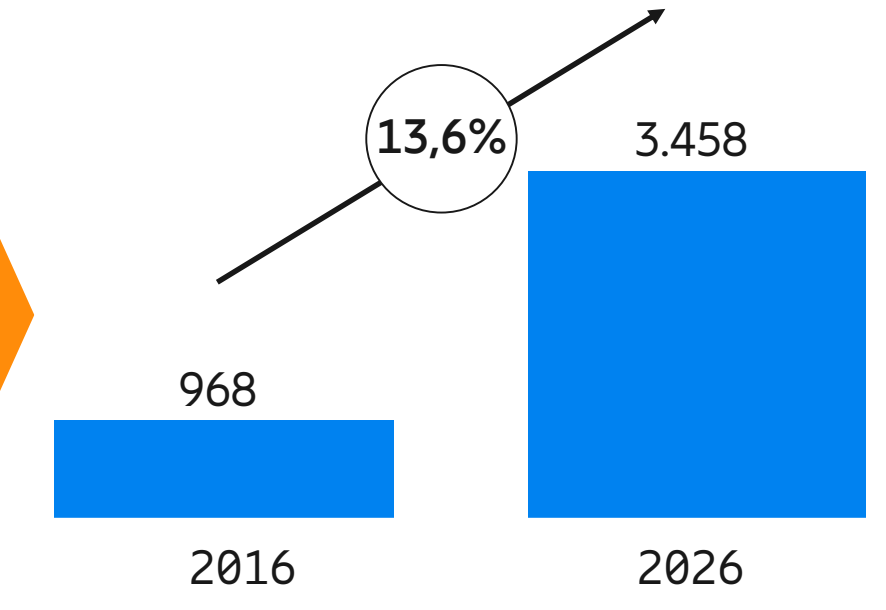


USDbn
CAGR
16'-26'



Challenge: current operator service revenues

Operator
to seize
emerging
revenue
potential

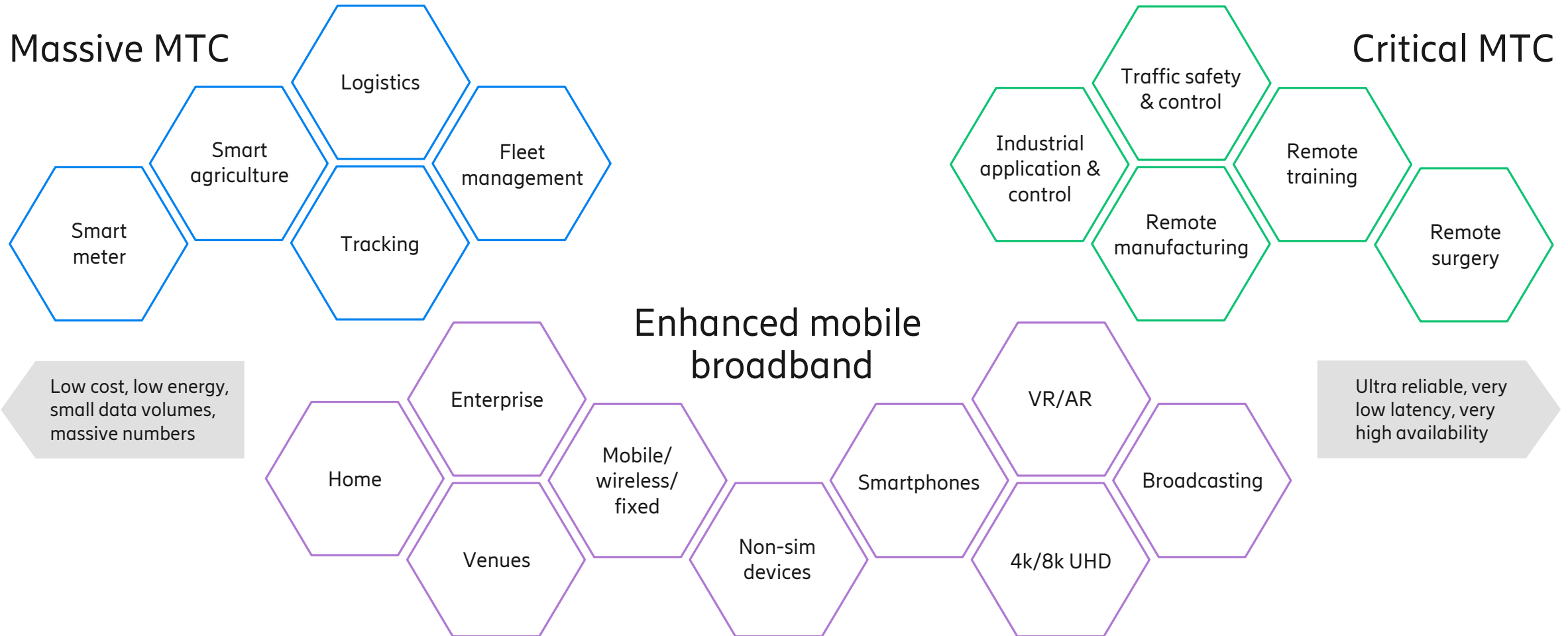


Opportunity: digitalization revenues*

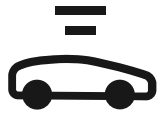
*Digitalization revenues for ICT players from 10 key industries

Source: Ericsson and Arthur D. Little

5G is Use Cases driven

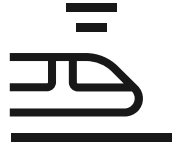
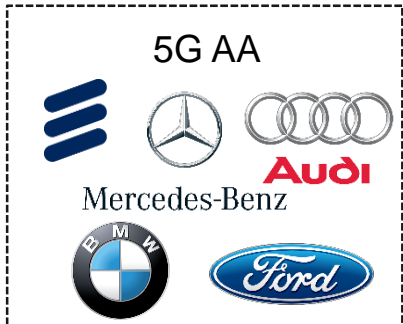


Vertical industry leaders moving into the 5G space



Automotive

5G - support fleet and vehicle mnt., for production optimization and evaluation, and to support cooperative driving
Audi



Transportation

DGT working on a 5G cloud platform to understand how drivers behave and support them better

DGT



Agriculture

5G - expand Smart Decision Support by enabling more data and add information such as high definition imageries

CHAP



Utilities

5G - connect more devices to realize Smart Grids and make better decisions in terms of maintenance of our network

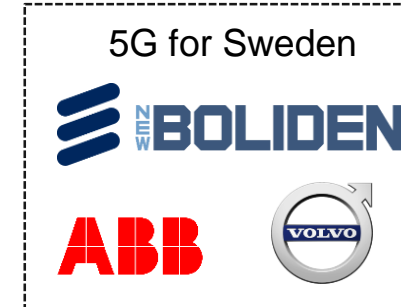
ESB



Manufacturing

5G - improve safety, productivity and better monitoring and remote control

Boliden



Public Safety

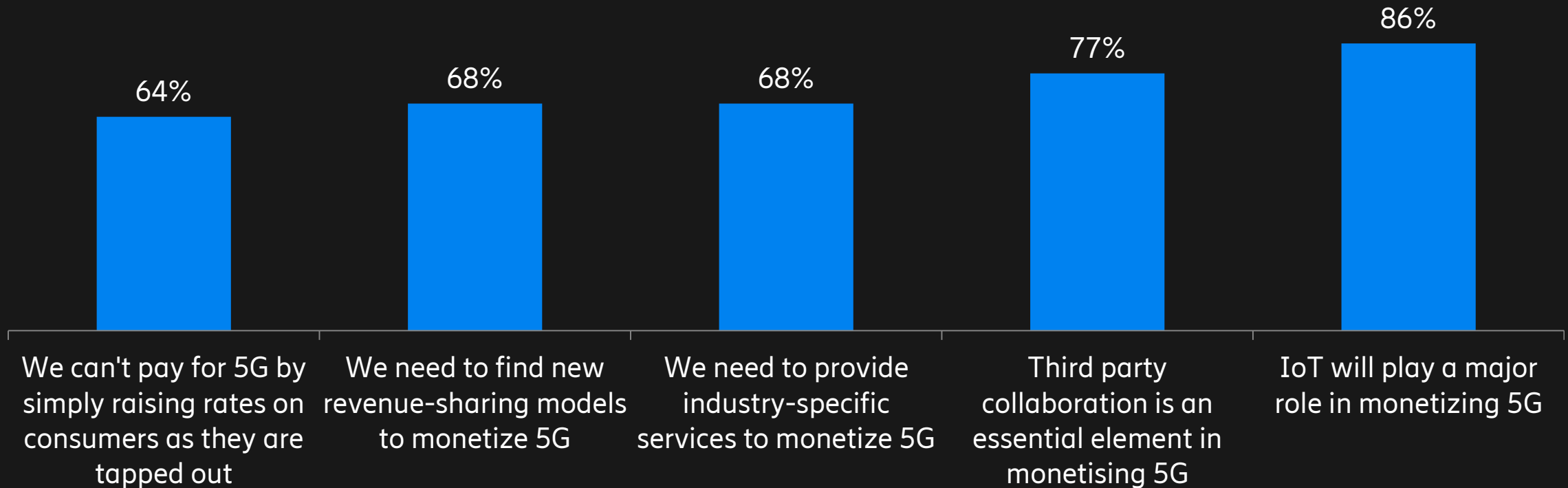
5G paramedic: Advanced data-sharing platforms will brief ER (...) self-driving ambulance pilots them to the scene
5G Police: drone to pin down a suspect's exact location and reduce the need for dangerous chases
DHS



Keys to monetize 5G



Do you agree with the following?



Different approaches to regulation that could hamper the development of 5G



Sources: Clippings



telecoms.com

UK 5G auction: O2 and the state win, Three and consumers lose

- That operators paid higher than expected prices is good for HM Treasury
- ..., but not so good for consumers, as it leaves the operators with less money to invest in their 5G networks and services



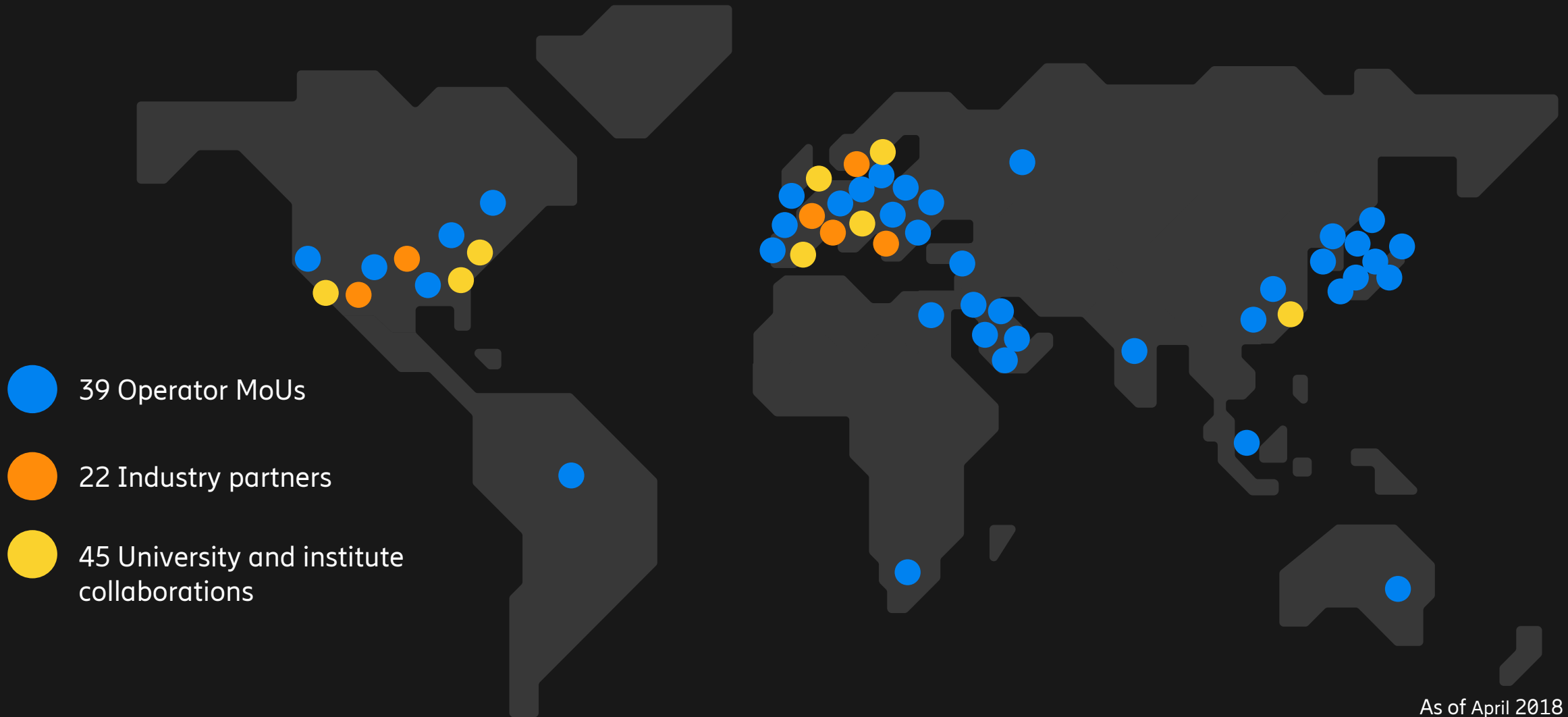
telecompaper

France leads the way on EU spectrum reform

Tuesday 16 January 2018 | 16:45 CET |
Author: Corina Schultz | Market Commentary

- In exchange for investing ~ €3 bn in improving network coverage, operators will not have to face an auction to renew 2G and 3G licenses
- This approach can lead to significant benefits for consumers and businesses, while also saving the state money

Ericsson 5G momentum



As of April 2018

Agenda

- The ecosystem
- Technologies at the heart of 5G

Technologies that drive industry changes



Radio evolution

- mm Wave and massive antenna technologies
- Multi-purpose, multi-characteristic radio
- Flexible spectrum assignment and utilization

Programmable networks

- Software defined networking
- Network abstraction
- Network slicing

Machine intelligence

- Cognitive technologies and deep learning
- Responsible machine intelligence
- Capsule networks

Automation

- Model driven
- Automated life cycle management
- Autonomous systems

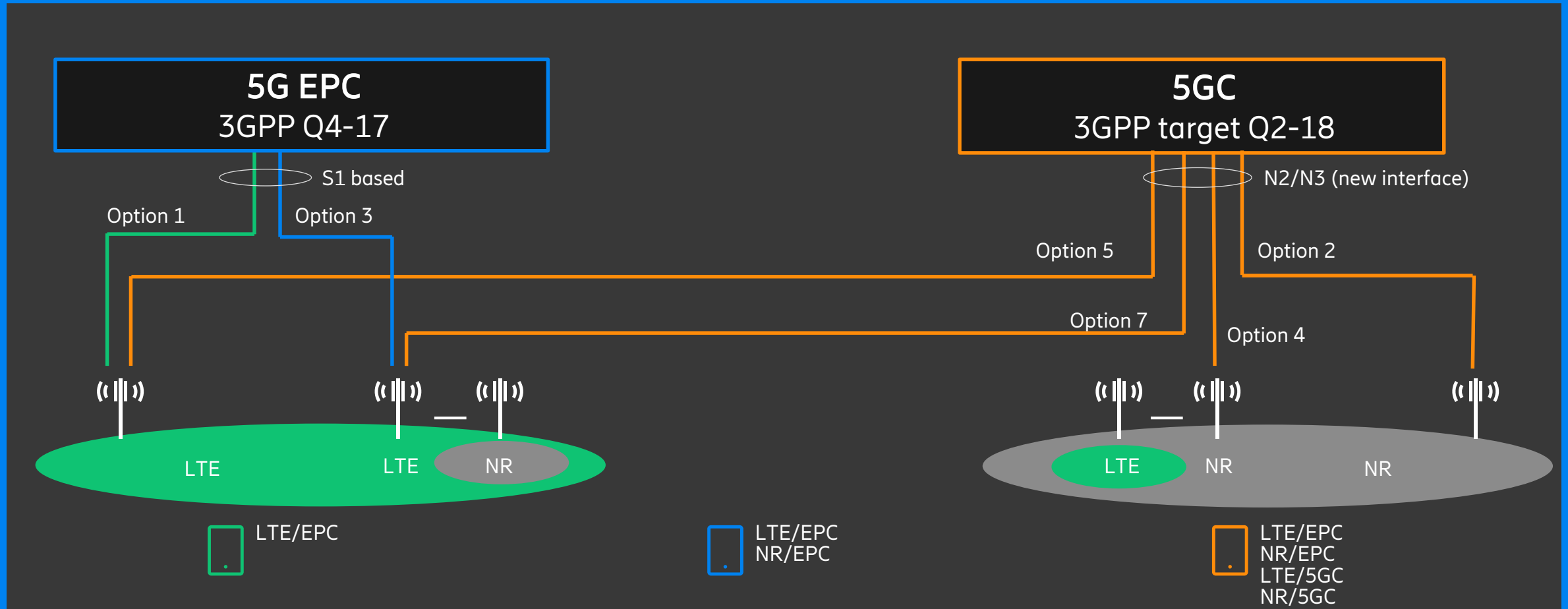


Cloud technologies

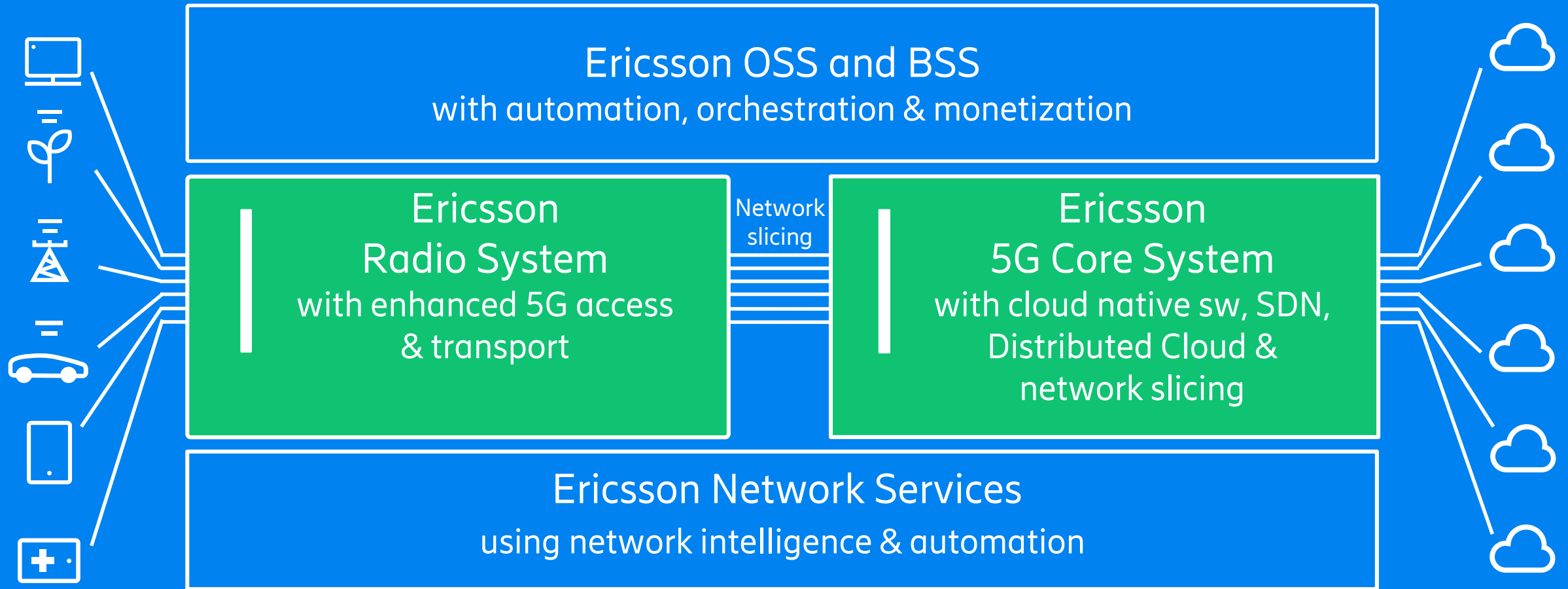
- Distributed cloud and edge computing
- Micro services and DevOps
- Virtualization, containers

5G architecture overview

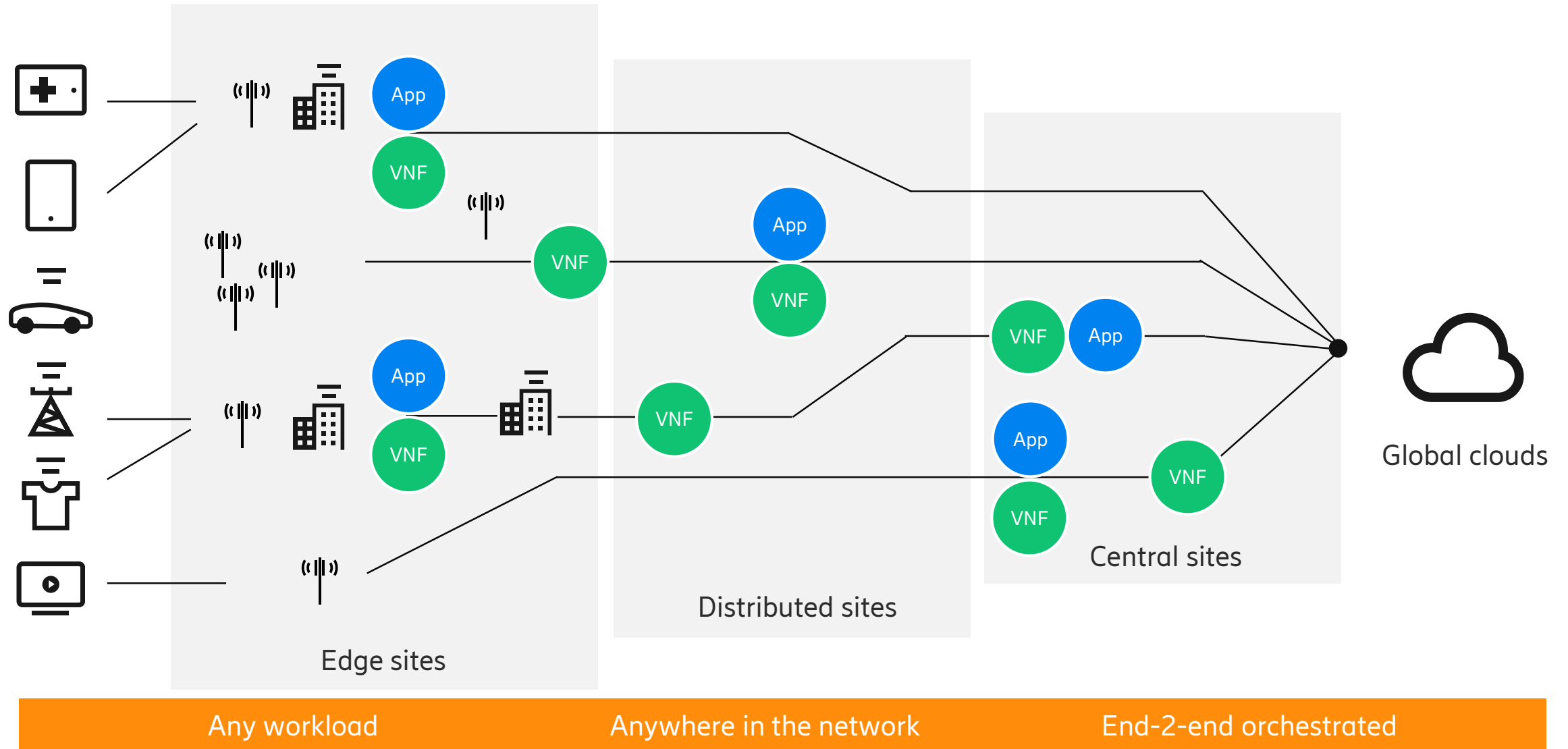
Two architecture tracks in 3GPP Rel15 – how to navigate



Ericsson's 5G platform



Distributed cloud

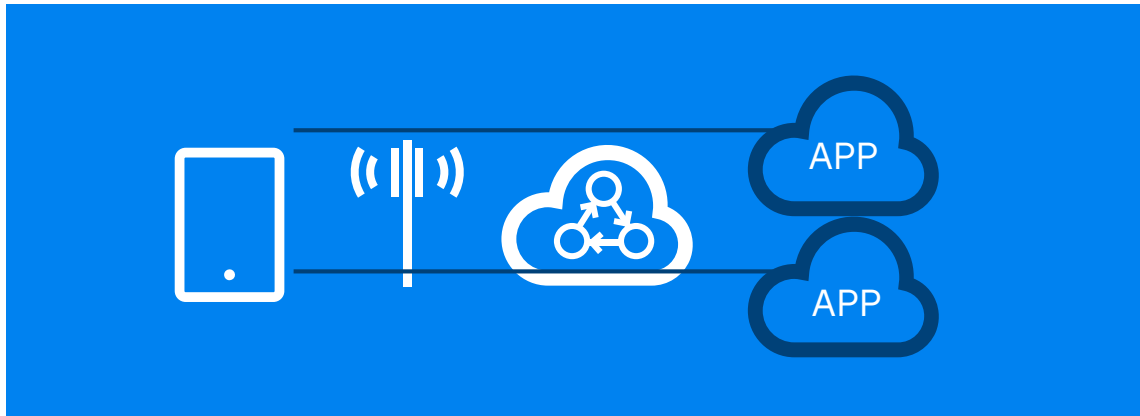


5G Network Slicing

World's firsts NW Slicing examples

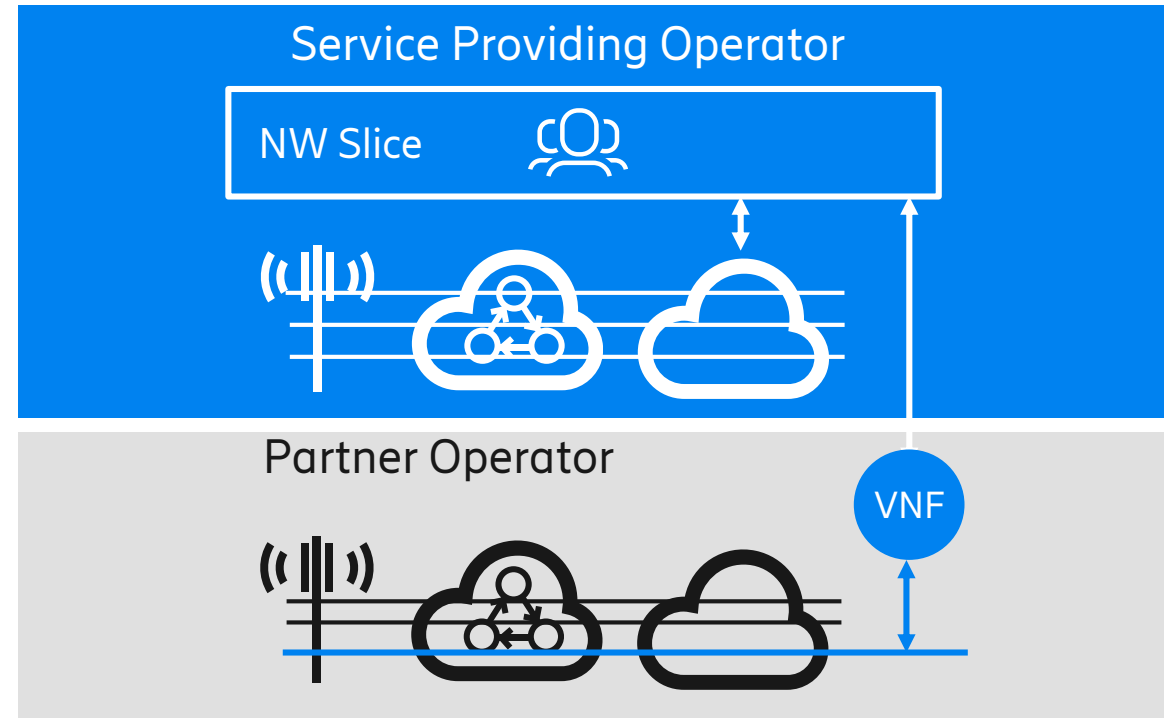
Multiple slices to one devices

- One device, multiple services, different SLA's
- Ericsson & Docomo

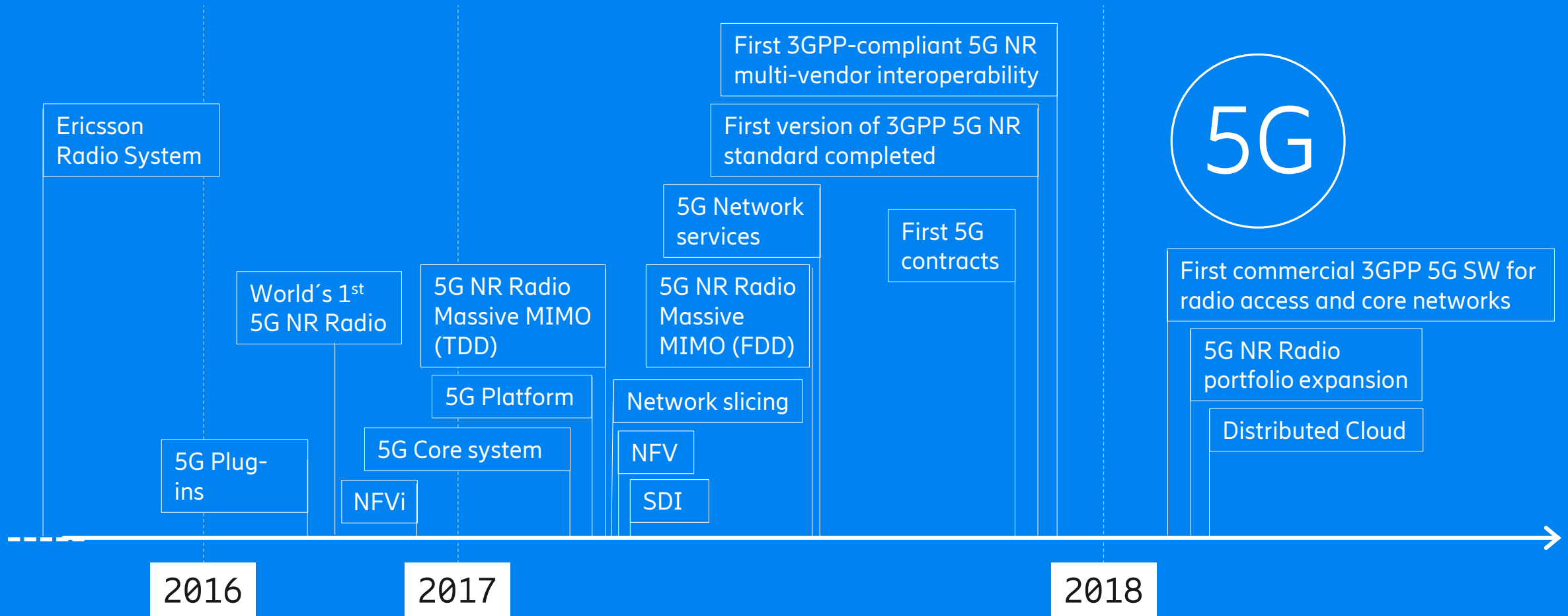


Federated Network Slicing

- Service provider sets up NW slice in Home and Remote NW
- Ericsson, SKT & DT



Making 5G a reality



From copper wire to artificial intelligence



140

Years of
enabling
communication

95%

Of world
population covered
by mobile
broadband (3GPP)

18

Billion connected
devices in
2017

8X

Worldwide
data traffic from
2017 to 2023

