

Our vision on 5G

5G



Ericsson

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Head of Networks

Customer Unit Northern and Central Europe

2019

- Start of major 5G deployments

5G 2019

5G networks are going live
with increasing momentum

x5

increase of total mobile data
traffic in 2024

4.1 billion

Cellular IoT connections
in 2024

5G



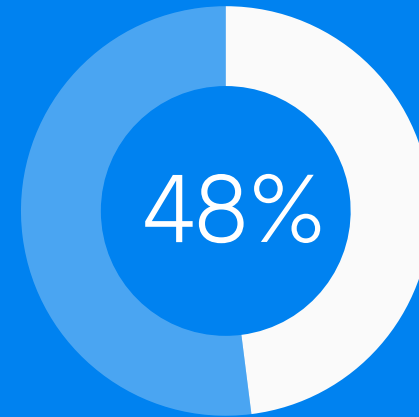
Ericsson Mobility Report: 5G insights by 2023



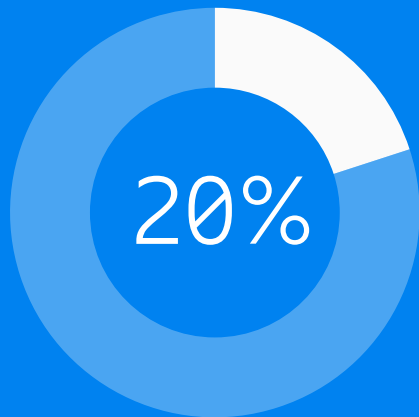
Over

1 billion

5G subscriptions for eMBB



5G mobile subscriptions
in North America



mobile traffic via
5G networks



More than

20%

of world's population covered by 5G

What is new in 5G technology?



Access network

- Higher & bigger spectrum bands
- More efficient bit/Mhz (10-50%)
- New technologies like Massive MiMo, Beamforming, spectrum sharing



Core network

- Distributed cloud architecture
- Network slicing
- Automation



OSSBSS

- Digital platform
- Artificial intelligence and analytics
- Use case monetization















Devices

- Multiple devices
- Consumer
- Industries
- Automotive
- Manufacturing
-



What to expect from 5G



	Peak Data Rate	1 - 20 Gbps		Connection Density	10k - 1m devices / km ²		Reliability	99.999% (of packets)
	User Experienced Data Rate	10-100 Mbps		Network Energy Efficiency	×1 - ×100		Latency	1 - 10 ms
	Spectral Efficiency	×1 - ×3		Area Traffic Capacity	0.1 - 10 Mbps / m ²		Battery life	10 years*
	Mobility	350 - 500 km/h		Availability	99.999% (of time)		Security	Strong subscriber authentication, user privacy and network security

*For low power IoT devices

Source: ITU-R, NGMN, 3GPP

5G drivers



The rationale for interest in 5G vary across Service Providers, Consumers and Industries

Service Providers

- High efficiency from lowered cost per gigabyte
- Improved experience by higher speeds and more capacity
- New revenues from, FWA, new consumer services, and IoT / industries
- First mover advantage

Consumers

- Better user experience through improved speed
- Value for money, fair subscription formats and simplistic price plans
- New services, 4K/8K, VR/AR, augmented shopping experience, drones, smart home, etc.

Industries

- Reduced OPEX
- Increased operational flexibility
- Shorter time-to-market
- Improved reach of offerings and expansion in value chains
- Create innovative perception



5G is use case driven



Massive Machine Type Communication



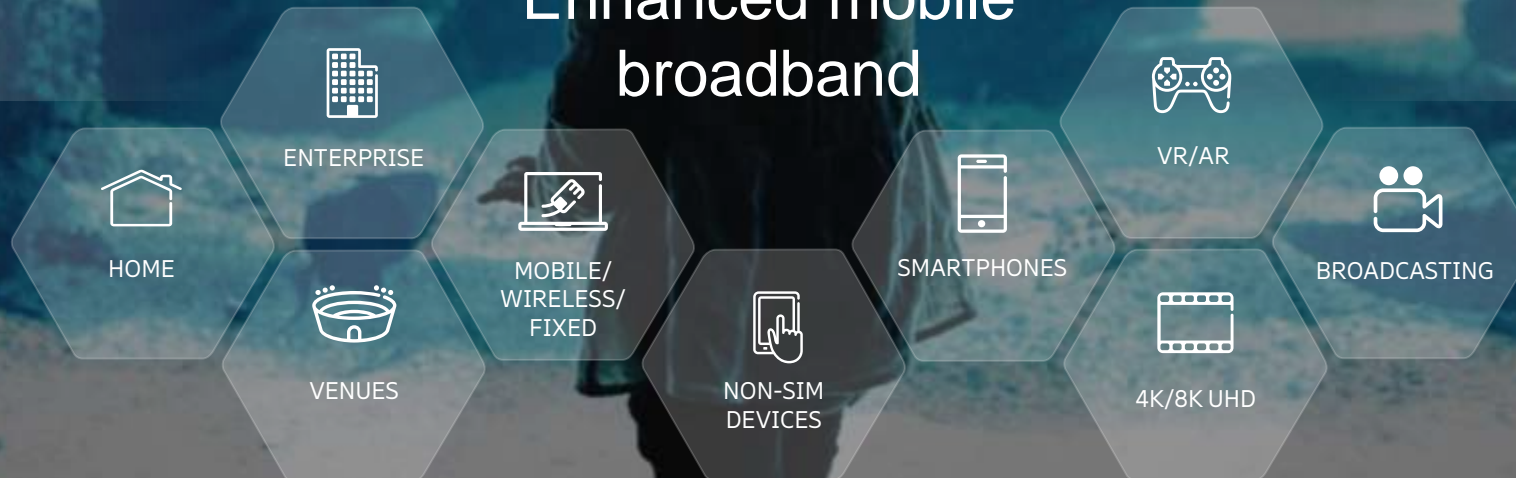
Critical Machine Type Communication



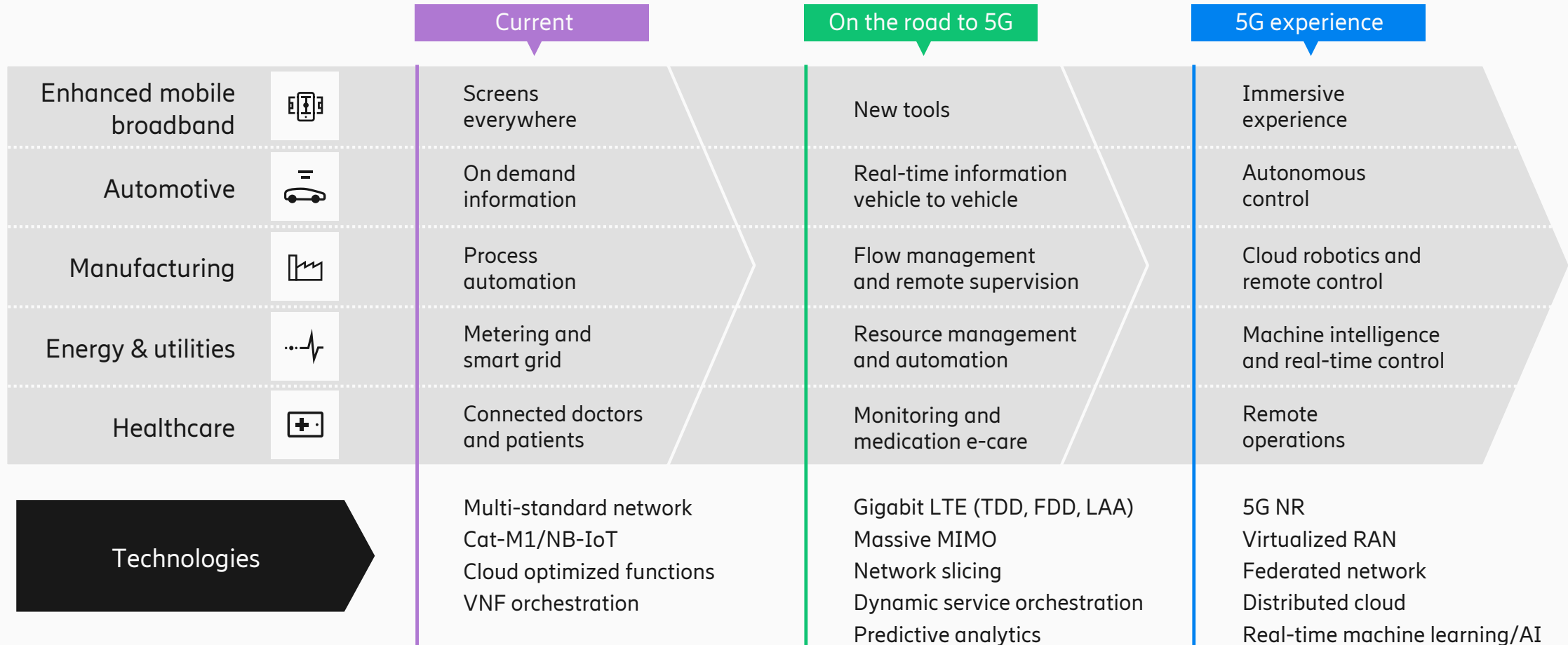
LOW COST, LOW ENERGY
SMALL DATA VOLUMES
MASSIVE NUMBERS

Enhanced mobile broadband

ULTRA RELIABLE
VERY LOW LATENCY
VERY HIGH AVAILABILITY



Use case evolution with 5G technology



5G industry digitalization and IoT opportunity



5G digitalization of:

- Manufacturing
- Energy & Utilities
- Public safety
- Public transport
- Healthcare
- Media & entertainment
- Automotive
- Financial services
- Retail
- Agricultural

\$619 billion market opportunity for service provider in 5G tech for industry digitalization, and IoT in 2026.

Adding potential revenue growth of:

36%

Source: Ericsson and Arthur D. Little

Industries willing to pay a premium

79%

Faster data speeds

70%

Lower latency

59%

Increased bandwidth

Source: Ericsson - The Industry Impact of 5G – Insights from 10 sectors into the role of 5G.

Telia and Ericsson making 5G real in the Nordics



Use Case 1:

5G remote controlled excavator

- › Remote chair and joysticks
- › 360 camera inside the excavator cabin transmitting live video with low latency into remote controllers VR headset



Sweden's Prime Minister Stefan Löfvén



Finland's Prime Minister Juha Sipilä

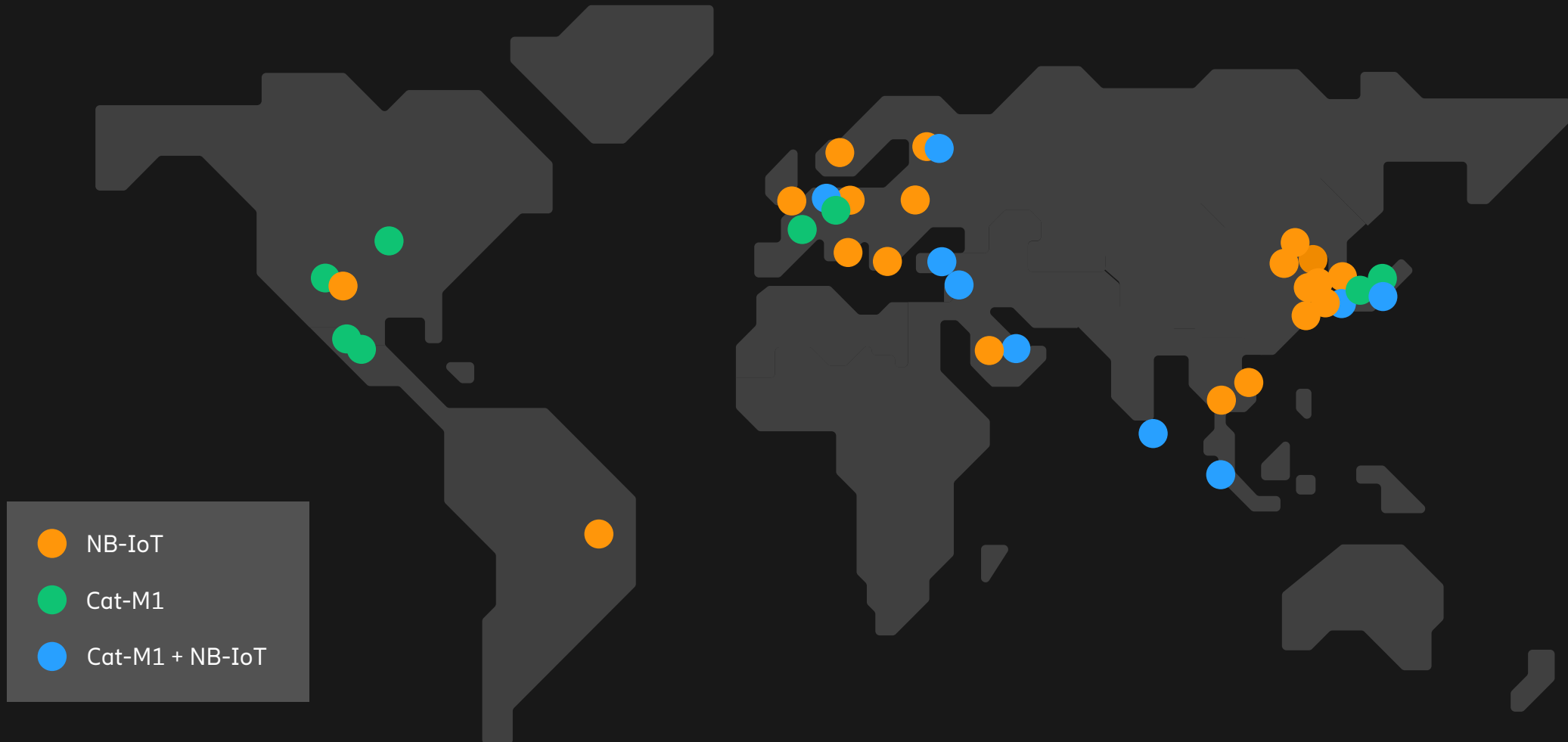
Use Case 2:

5G ferry backhaul

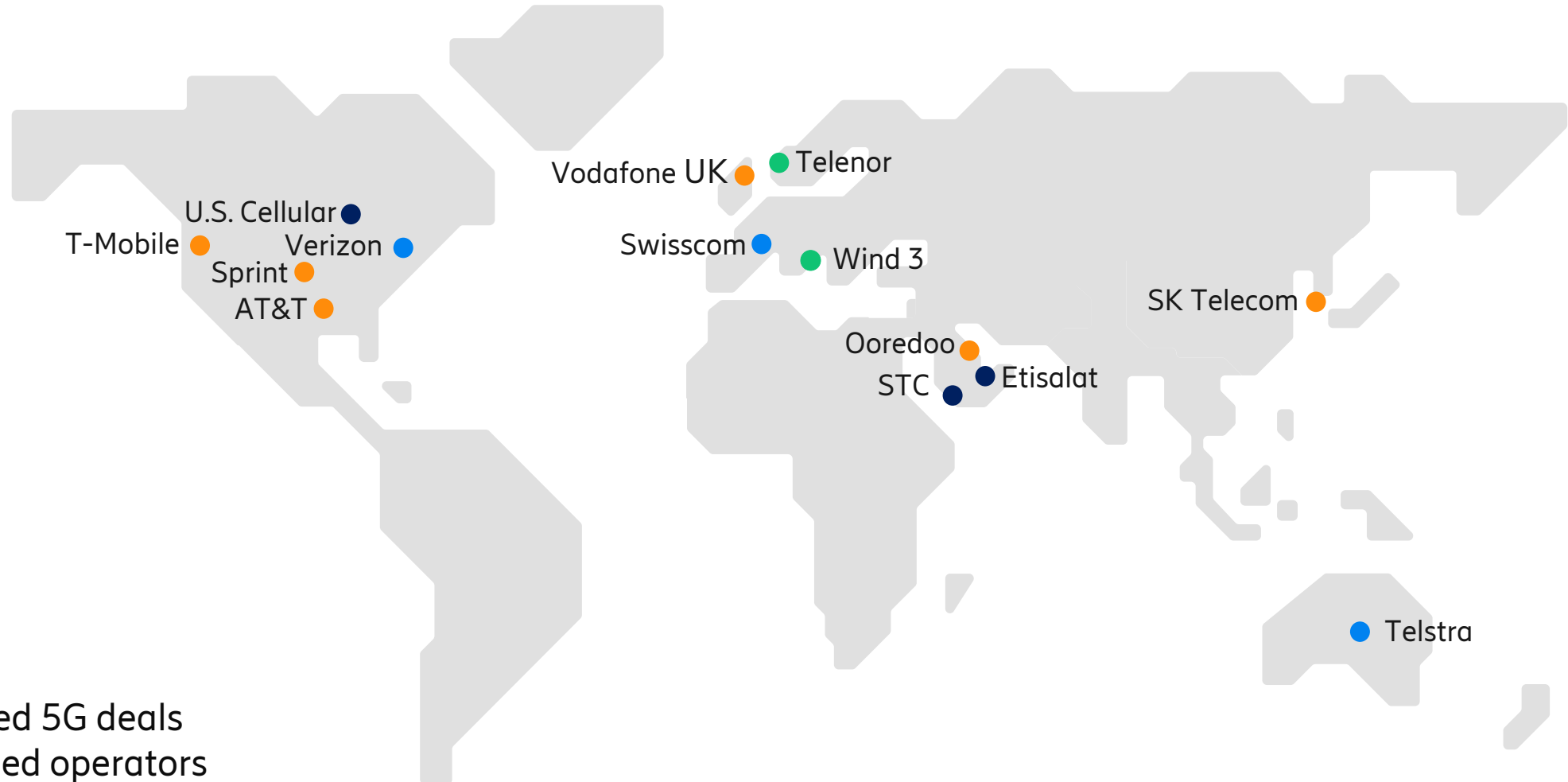
- › 5G as internal WiFi backhaul while in harbor
- › 5G radio on shore, UEs on the ship



Ericsson is enabling more than half of the launched Massive IoT networks – by Q4, 2018



5G commercialization



14

Announced 5G deals
with named operators

● RAN and Core ● RAN ● Core ● Scope not disclosed

Operator partners



43

Announced 5G
operator agreements

