SDG's and ICT's role in reaching this goal

6 CLEAN WATER AND SANITATION

- Smart solutions can contribute significantly to a sustainable future by for example reducing water in the production of food and other commodities.
- ICT infrastructure is enabling access to water, can also help with solutions for digitally monitor rainfall and the status of drinking water.
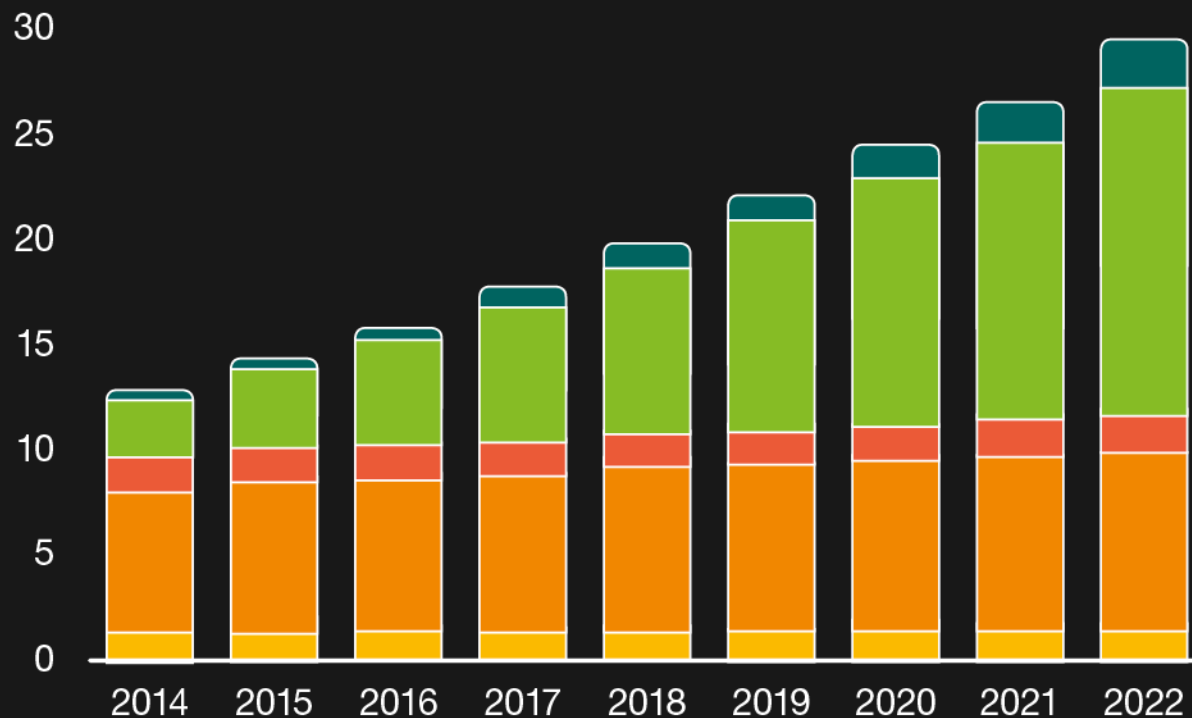- Broadband penetration can positively impact societies and enable access to sustainable agriculture and improved well-being and livelihood.

ICT is accelerating changes

Connections (billion)

50
40
30
20
10

15 years to connect
29 billion devices

25 years to connect
5 billion people

100 years to connect
1 billion places

IoT to surpass mobile
phones in 2018

1900   2000   2010   2022

Source: Ericsson

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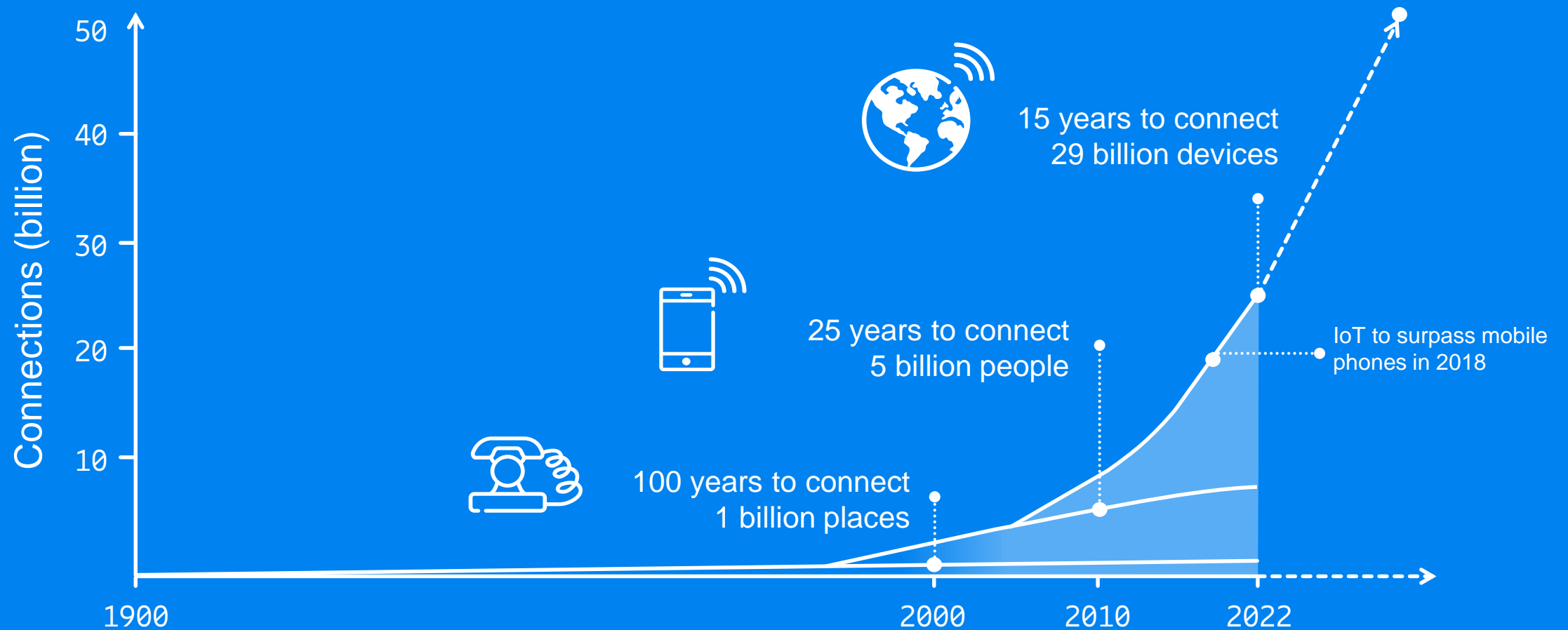
Towards an IoT-dominated World

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Connected devices (billions)

		2016	2022	CAGR
	Wide-area IoT	0.4	2.1	30%
	Short-range IoT	5.2	16	20%
	PC/laptop/tablet	1.6	1.7	0%
	Mobile phones	7.3	8.6	3%
	Fixed phones	1.4	1.3	0%
		16 billion	29 billion	10%

Source: Ericsson Mobility Report,

New experiences and smarter operations to all aspects of life and work

Cognifying

Sharing

Interacting

IoT

20 billion connected IoT devices by 2023, growing at 20% annually

Big Data

Global data creation to grow 10x and reach 163 ZB annually by 2025

AI

Machine learning implementations & pilots set to quadruple from 2017 to 2020

Automation

>1.7 million new industrial robots will be installed by 2020

Edge computing

>5 billion devices using edge computing

VR/AR

150 million VR/AR headset shipments expected by 2023

Better networks

Better connectivity

Doing more with mobile

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SUBSCRIPTIONS BY TECHNOLOGY

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Mobile subscriptions by technology (billion)

550 million 5G subscriptions by the end of 2022

8.9 billion

7.5 billion

4.6 billion LTE subscriptions by the end of 2022

🟠	5G
🟢	LTE
🟣	WCDMA/HSPA
🔵	GSM/EDGE-only
🟢	TD-SCDMA
⚪	CDMA-only
🔴	Other

10
9
8
7
6
5
4
3
2
1
0

2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022

Source: Ericsson
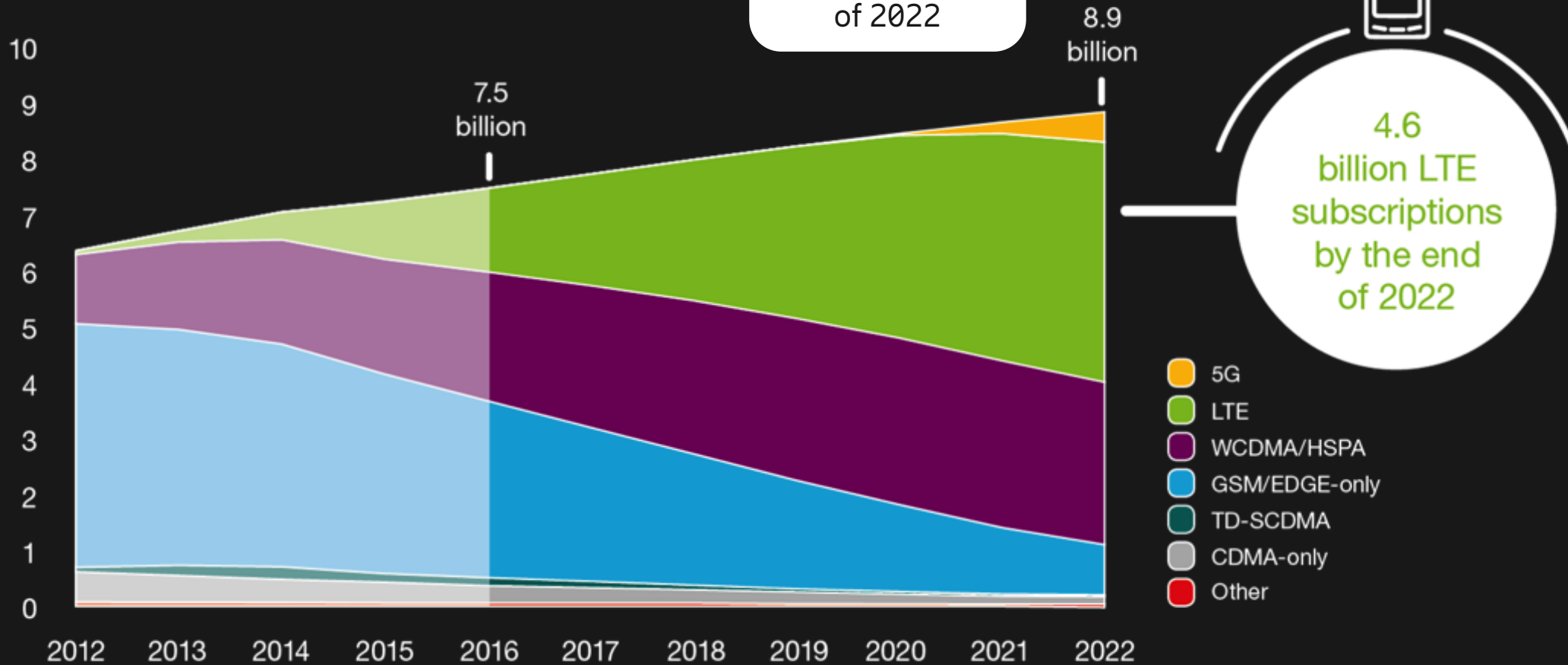
5G CHALLENGES

30-50 X	10 X	1.5 X	100 X	NFV/SDN
LATENCY 1 ms E2E	**THROUGHPUT** 10 Gbps Per connection	**MOBILITY** 500 Km/h Hight Speed	**CONNECTION** 1,000K Connections per Km^2	**NETWORK ARCHITECTURE SLICING**
30-50 ms	100Mbps	350 Km/h	10 K	No-Flexible

Industries are Transformating

IoT is about transforming
industries and societies

– Improving efficiency

– New Business models

– Enabling new revenues

– And much more…

Fleet Management	Cargo Management	Energy Management	Connected Car
M2X Data Service	M2M Platform	Global SIM	SIM Management
Device Certification	Connection Kits & Tools	Collaboration	Vendor Resources

VAST NUMBER OF IOT USE CASES WITH HUGE POTENTIAL

temp
noise
air_quality
occupancy
energy
water

vibration
temperature
traffic_intensity
surface_condition
noise_level
route_to_work

energy
water
waste
CO2_emission
machine_tear
production

heart_rate
skin_conducta
nce
gesture
mood
position
movement

location
occupancy
fuel
emissions
speed

irrigation
luminosity
nutrition
moisture
pesticides

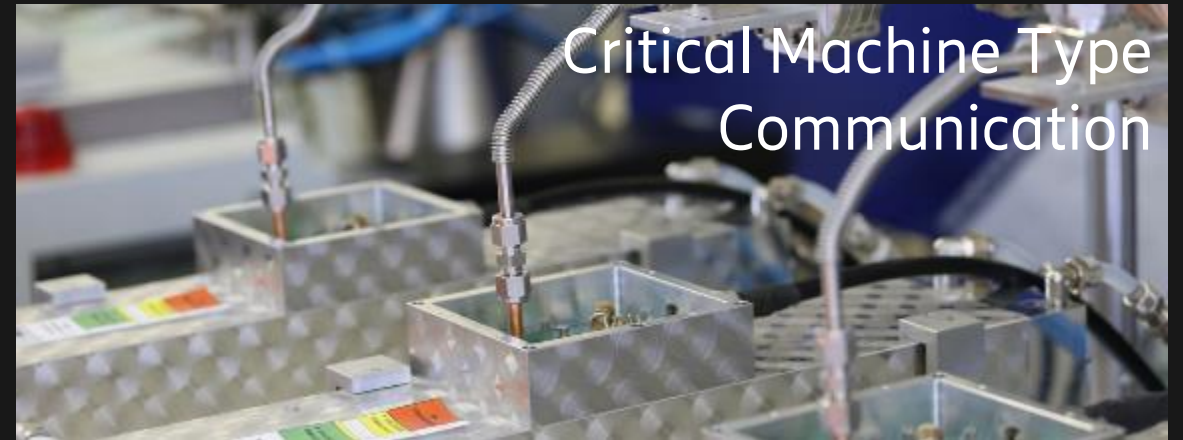Applications - Sensors - Connectivity – Internet – Cloud - Data – Analytics => Transformation

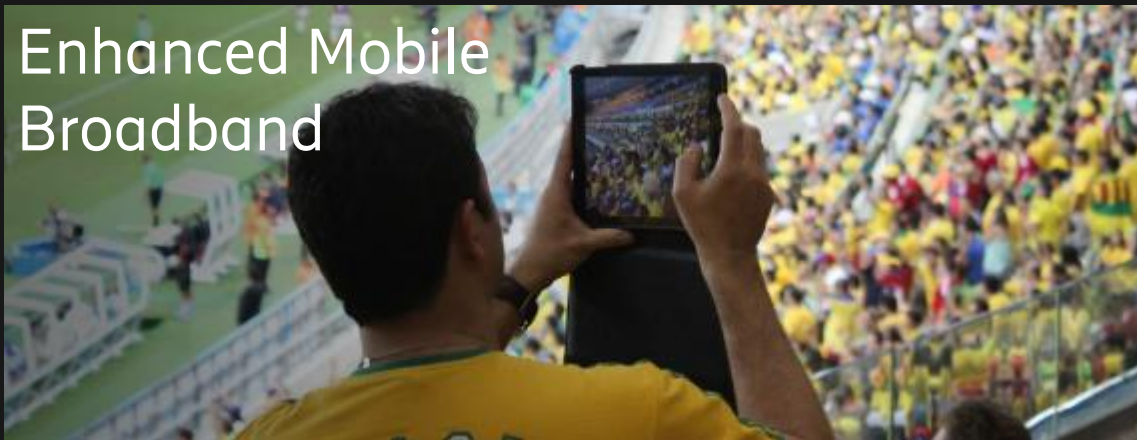# 5G will serve different scenarios then enable new evolved IOT use cases

Massive Machine Type Communication

Critical Machine Type Communication

Enhanced Mobile Broadband

Fixed Wireless Access

CONNECTED WATER

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THE CHALLENGE

› Water quality sensors are expensive

› Manual data collection is time consuming

› Real-time detection is needed

› Battery life must be long

PRACTICAL AND CONNECTED

THE SOLUTION

› designed low-cost water sensors that can be easily deployed

› Connected the sensors to platform

› Deploying with LTE IoT for extra low power consumption

A PARTNERSHIP WITH OPERATORS

THE RESULT

› Technology can monitor more sites, more often with less resources

› City officials create a posisitve message for their citizens

› Clean water protection

REAL SMART CITIES USE CASE

PROJECT APPROACH

Customer benefits	Customer segments	
	Industrial Plant Holders	Cellular Service Providers
Wireless industry partner	✓	✓
Carrier grade services	✓	✓
Multi-operator	✓	✓
Local investments	✓	✓