A mobil hálózatok fejlődése az 5G után

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5G uptake faster than expected

Ericsson Mobility Report, 2026 prediction

5G

3.5bn subscriptions	**40%** of mobile subscriptions
54% share of mobile data traffic	**60%** coverage of World's pop

Fast

Responsive

Reliable

for
Consumers
&
Enterprise

8.8bn mobile subscriptions

5.9bn Cellular IoT connections

New revenue streams

End-customer experience

Relentless efficiency

Network Coverage and Capacity

- 5G NR on several bands
- ESS, share 5G in 4G bands
- Massive MIMO
- Carrier Aggregation
- E2E limit-free capacity dimensioning

Cloud Native

- 5G Core
- Standalone
- Orchestration
- AI/Automation
- Digital BSS
- Virtualized RAN

New Services and Deployments

- Slicing
- Exposure
- Edge
- eSIM
- Dedicated networks

5G

Business Capabilities

Technology Capabilities

Operational Capabilities

Consumer segment?

Example: META

- Zuckerberg describes the metaverse, which he sees as the next generation of the internet, as a **virtual environment that will allow people to be present with each other in digital spaces.**

Meta reates the metaverse

Requires
low latency
connectivity

- Meta joined telecom standardization bodies to standardize the 6G ultra-low latency infrastructure

Visions of the future

- AR for gaming and for assistance everywhere

- Human-machine coexistence

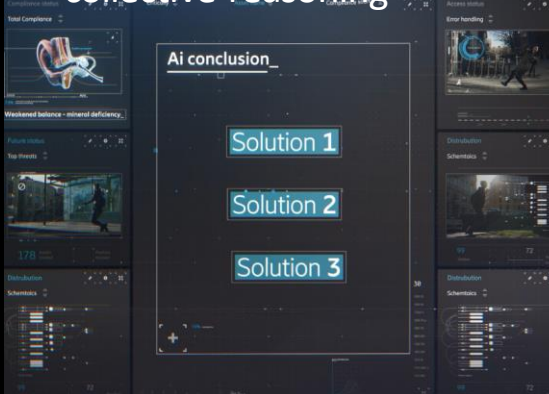- Distributed intelligence and collective reasoning

- Distributed intelligence

- Sensors everywhere.

- Sensing integrated with communication
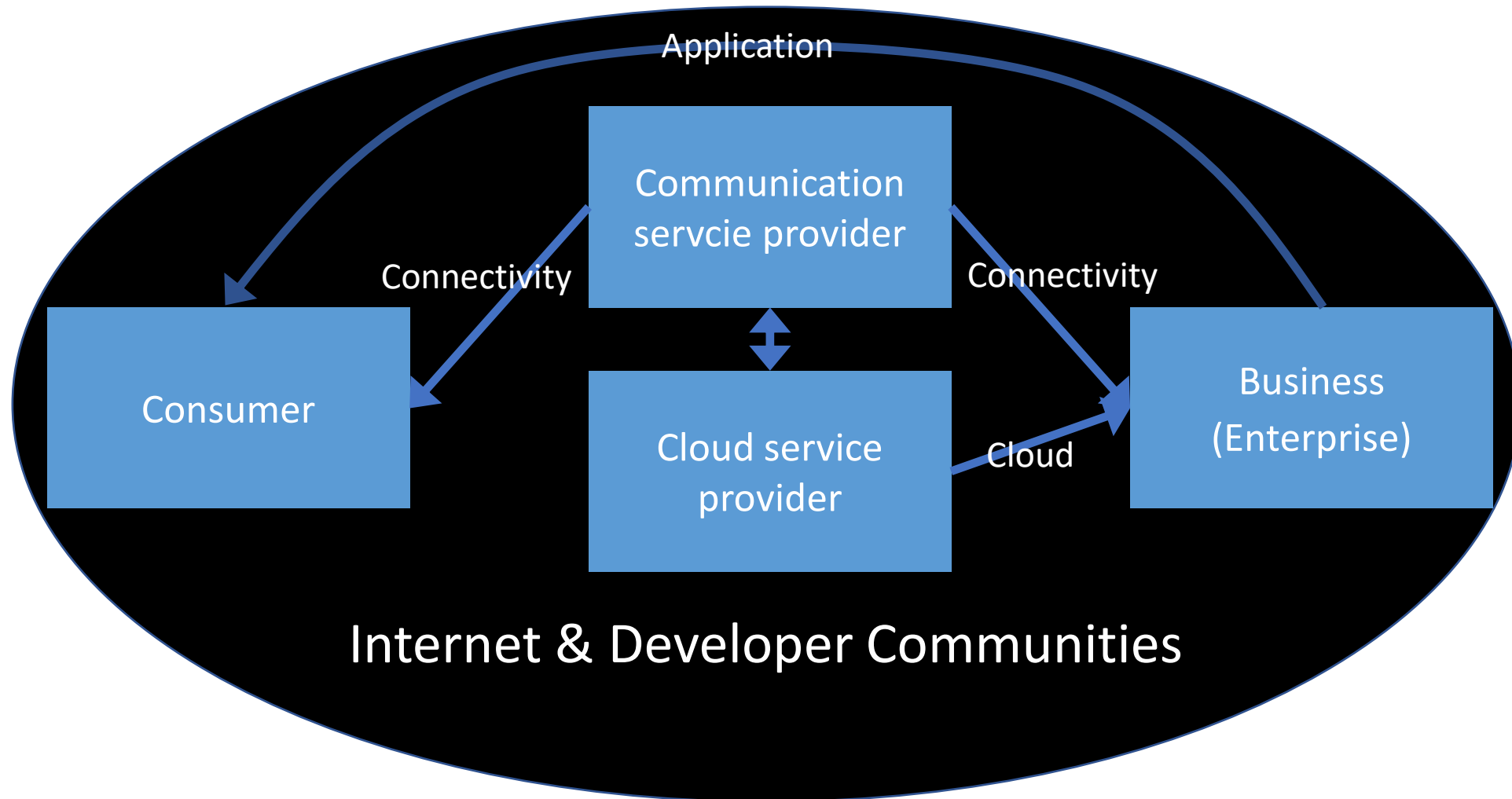
- On-body and in-body sensors

- Explainable AI

- Human oversight and agency
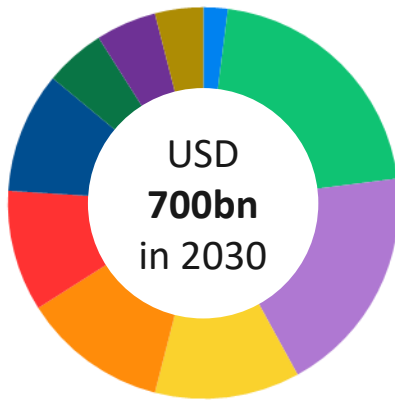
- Strengthened security, privacy and trust

Who will provide these services?

Application

Communication servcie provider

Connectivity

Connectivity

Consumer

Cloud service provider

Cloud

Business (Enterprise)

Internet & Developer Communities

Business to business segment?

5G-enabled B2B potential for Network Operators in 2030

USD **700bn** in 2030

39% revenue potential

- 🟢 Healthcare
- 🟪 Manufacturing
- 🟨 Energy and utilities
- 🟧 Automotive
- 🟥 Public safety
- 🟦 Media & entertainment
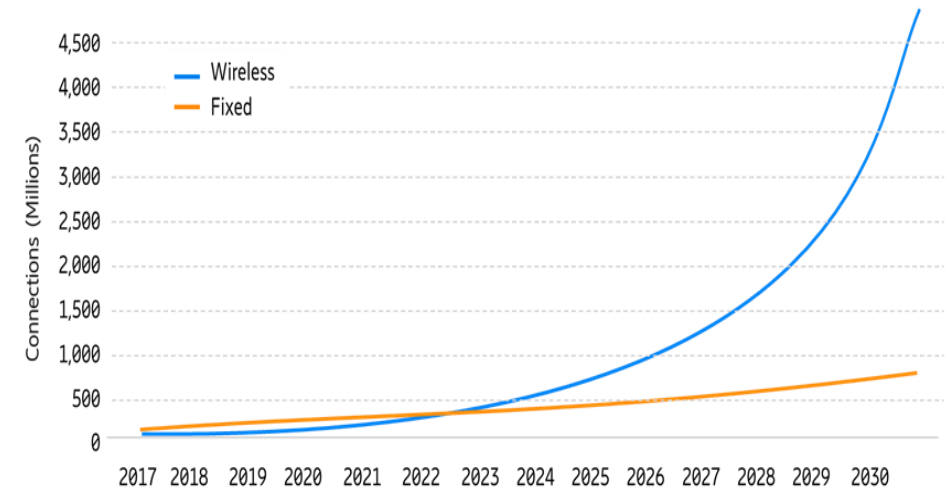- 🟩 Financial services
- 🟪 Public transport
- 🟫 Retail
- 🔵 Agriculture

Source: Ericsson and Arthur D Little

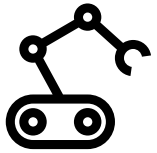## Global Digital Factory connections (2017 to 2030)
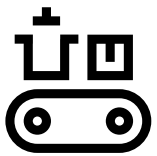

4.7B wireless connections in 2030

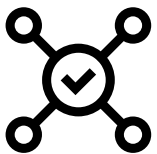2 of 3 manufacturing sites are in APAC in 2030

Source: ABI Research

A smart factory
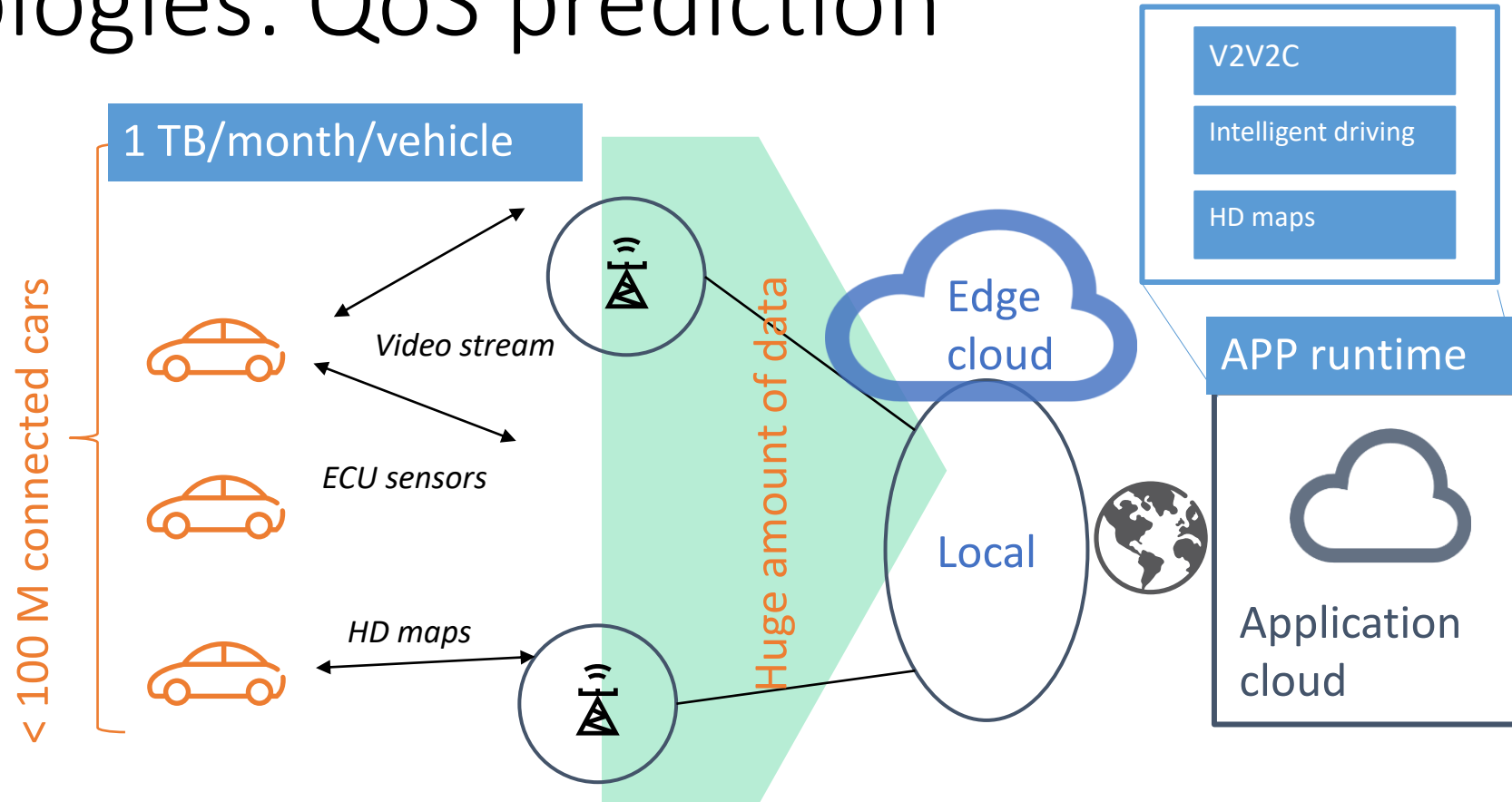
Automated manufacturing

More efficient production

Increased quality

5G Drone inventory counting – No.1

5G Cloud AGV

5G surveillance camera

5G AR training

5G industrial computer
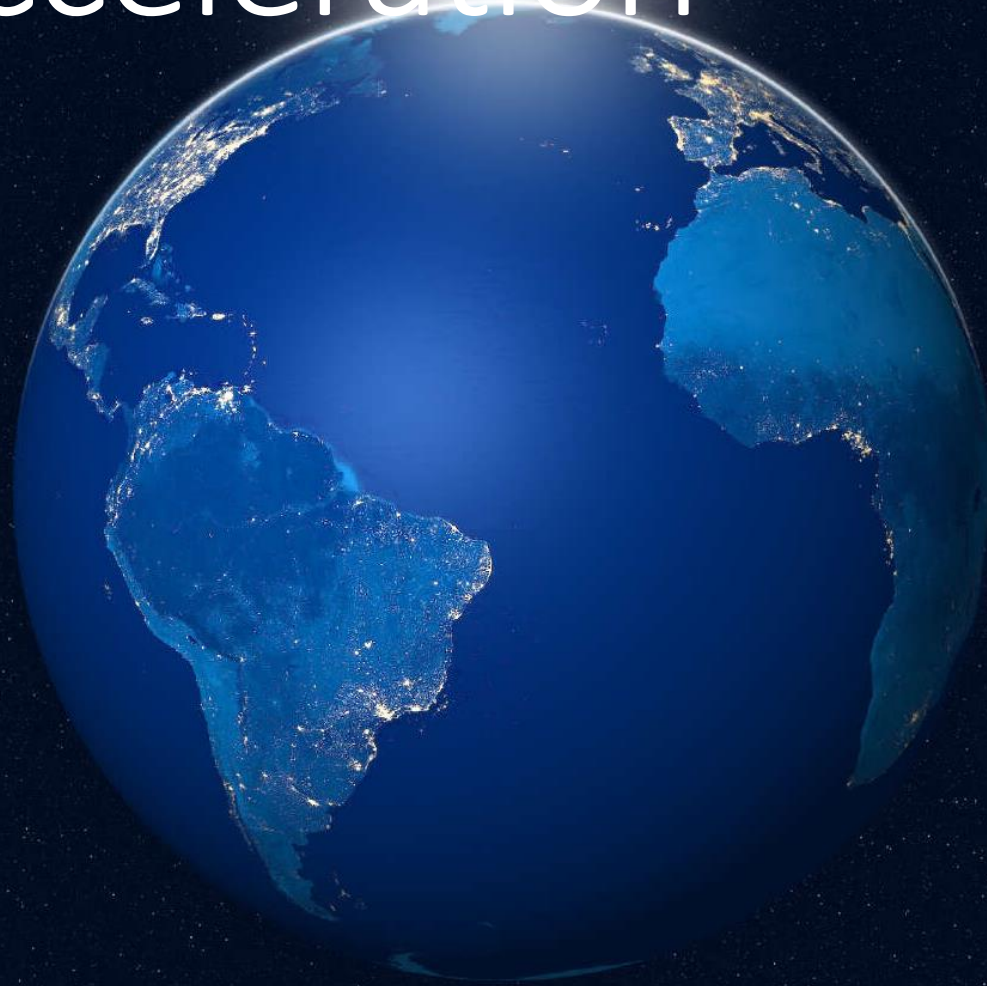

5G AR remote assist

Enabling technologies: QoS prediction

Request from automotive industry:

„If you cannot guarantee same good QoS everywhere, at least tell us what we can expect on the road ahead"

1 TB/month/vehicle

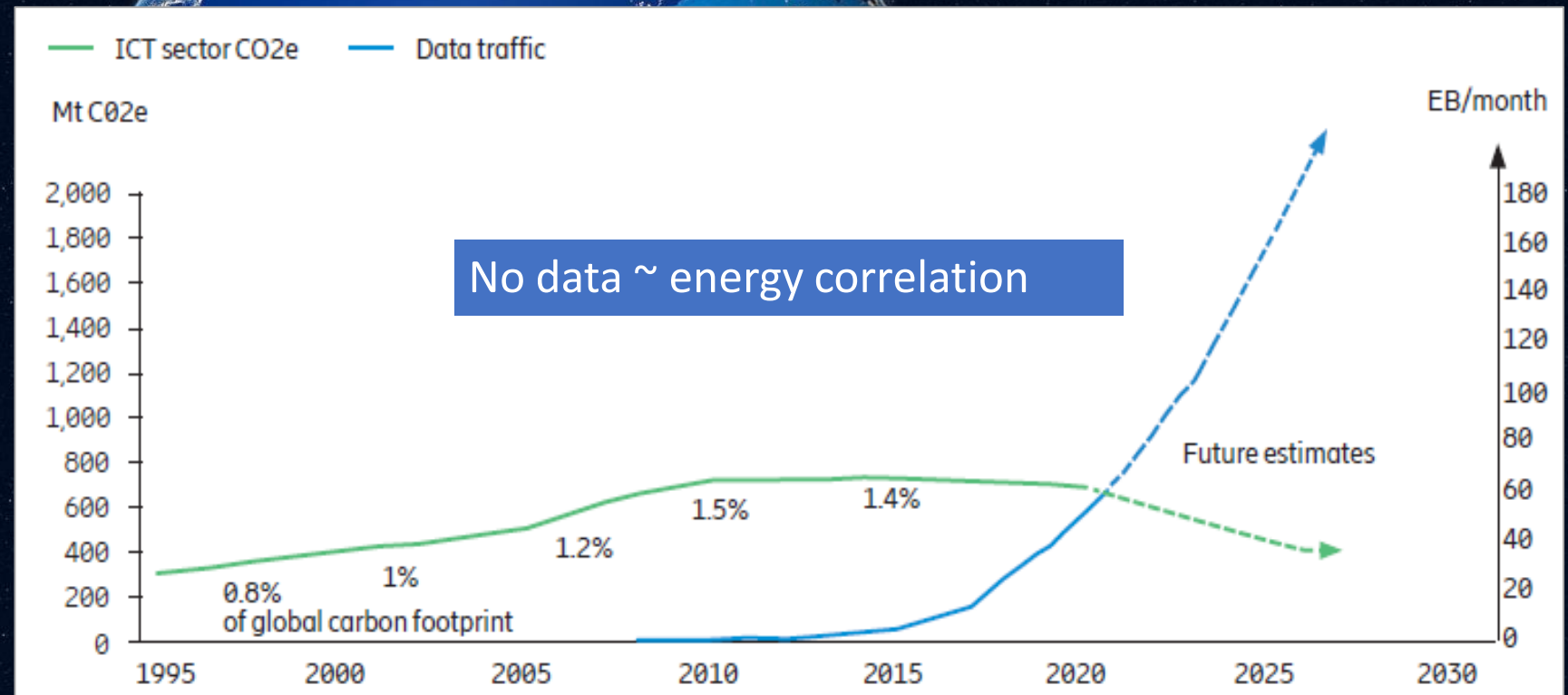< 100 M connected cars

Video stream

ECU sensors

HD maps

Huge amount of data

Edge cloud

Local

V2V2C

Intelligent driving

HD maps

APP runtime

Application cloud

5GAA
Automotive Association

AECC

A green acceleration

A green acceleration

The ICT Industry forms just 1.4 percent of global greenhouse gas emissions (full life cycle), and 3.6 percent of global electricity consumption (operation).

ICT is also able to help to make other industries sustainable

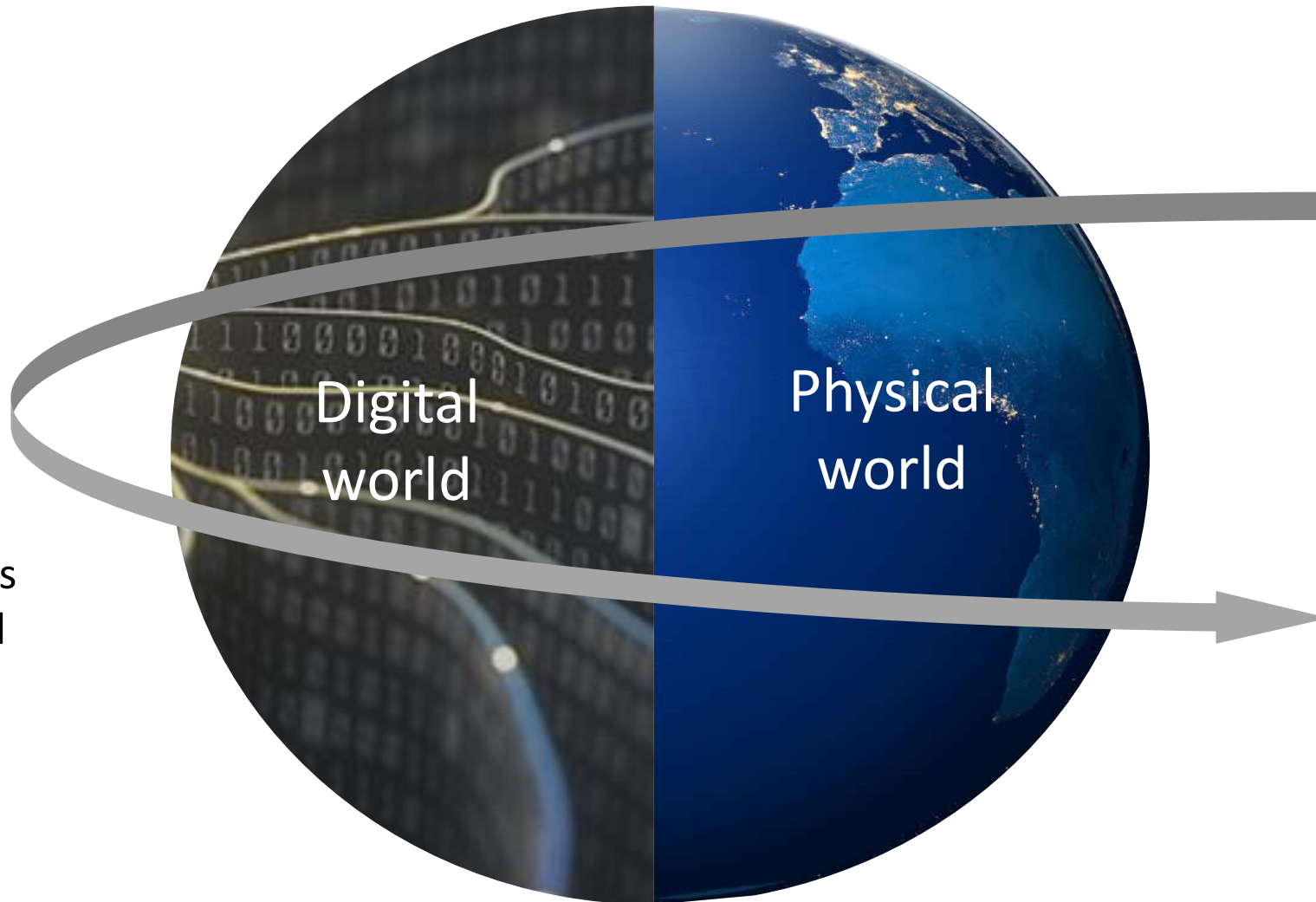ICT sector CO2e — Data traffic

No data ~ energy correlation

Mt CO2e

EB/month

0.8% of global carbon footprint

1%

1.2%

1.5%

1.4%

Future estimates

So?

6G enabling a fully digitalized & programmable world (vision)

Fabric of sensors feeding real-time data

Programmable real-time digital representation

Digital world

Physical world

System of systems of interconnected digital twins

Actuators carrying out functions that are programmed in the digital representation

Unique network values

Limitless connectivity

- Ever-present, wide area and locally
- Deterministic bounded latency
- Accurate seamless positioning everywhere
- Zero-energy sensors and wireless power transfer
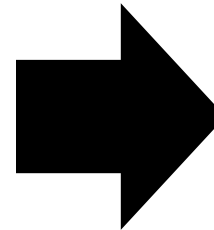- Integrated connectivity and sensing

Cognitive network

- Self-organizing and learning systems of systems
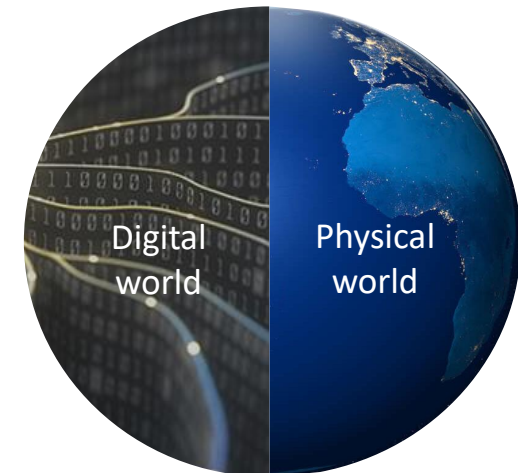
Trustworthy Systems

- Reliable
- Available
- Resilient
- Secure

Network compute fabric

- Ever-present, including embedded accelerators
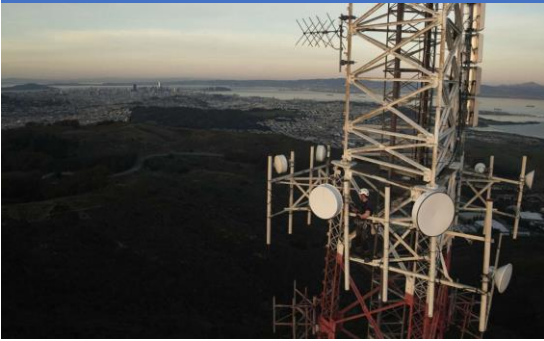- Using new compute paradigms (neuromorphic,…)

Digitalized & programmable physical world

Digital world

Physical world

Limitless connectivity

- Everywhere coverage with extreme performance
- URLLC
- Advanced beamforming
- Distributed massive MIMO
- Integrating a variety of access nodes
- Multi-site RAT connection
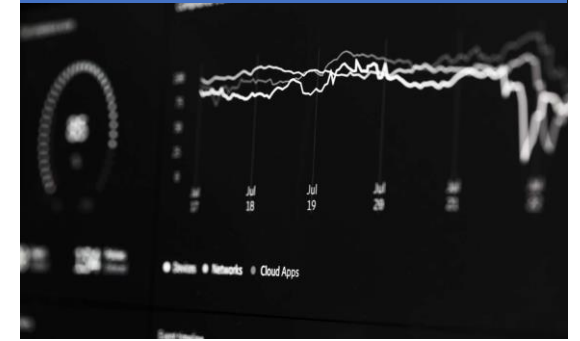- Expanding the spectrum

Trustworthy Systems

- Assurance of mission- & business-critical services
- Automated security management
- Explainable AI
- Privacy and data sovereignty
- Private networks

Cognitive network

- Automated network with self-learning abilities
- AI/ML agents
- Data driven network optimization

Network compute fabric

- A continuous execution environment
- Edge computing
- Cloud native
- Common onboarding, orchestration, exposure
- Meeting requirements of industry verticals
- Positioning services

Evolving the network with advanced technology to meet future needs

Thank you!
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