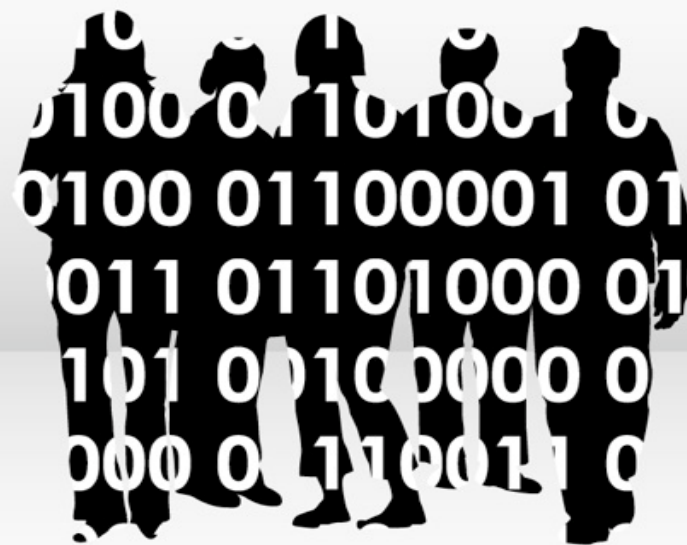
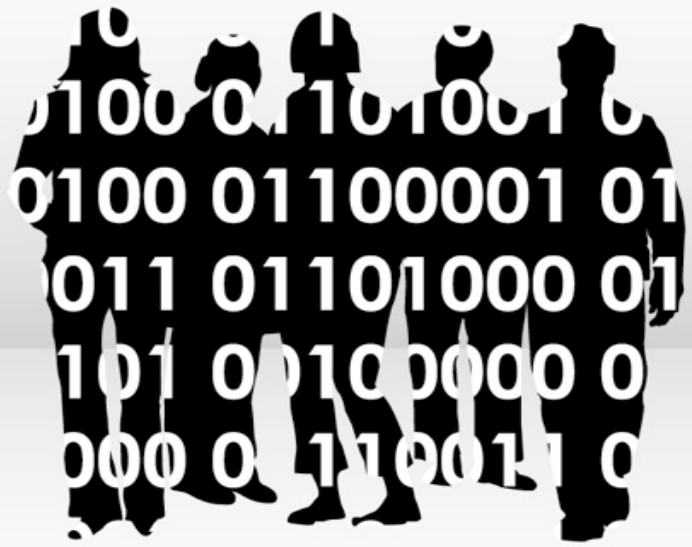


A close-up portrait of a woman's face, illuminated with a blue light. Her skin is painted a vibrant blue, and several yellow five-pointed stars are applied to her face, mimicking the flag of the European Union. The stars are positioned around her eyes, on her forehead, and near her lips. Her eyes are a striking green color. The background is dark, making the blue and yellow colors stand out.

Saskia Van Uffelen
CEO Ericsson BELUX
Digital Champion België

#VUSaskia





2005



Luca Bruno / AP

2013



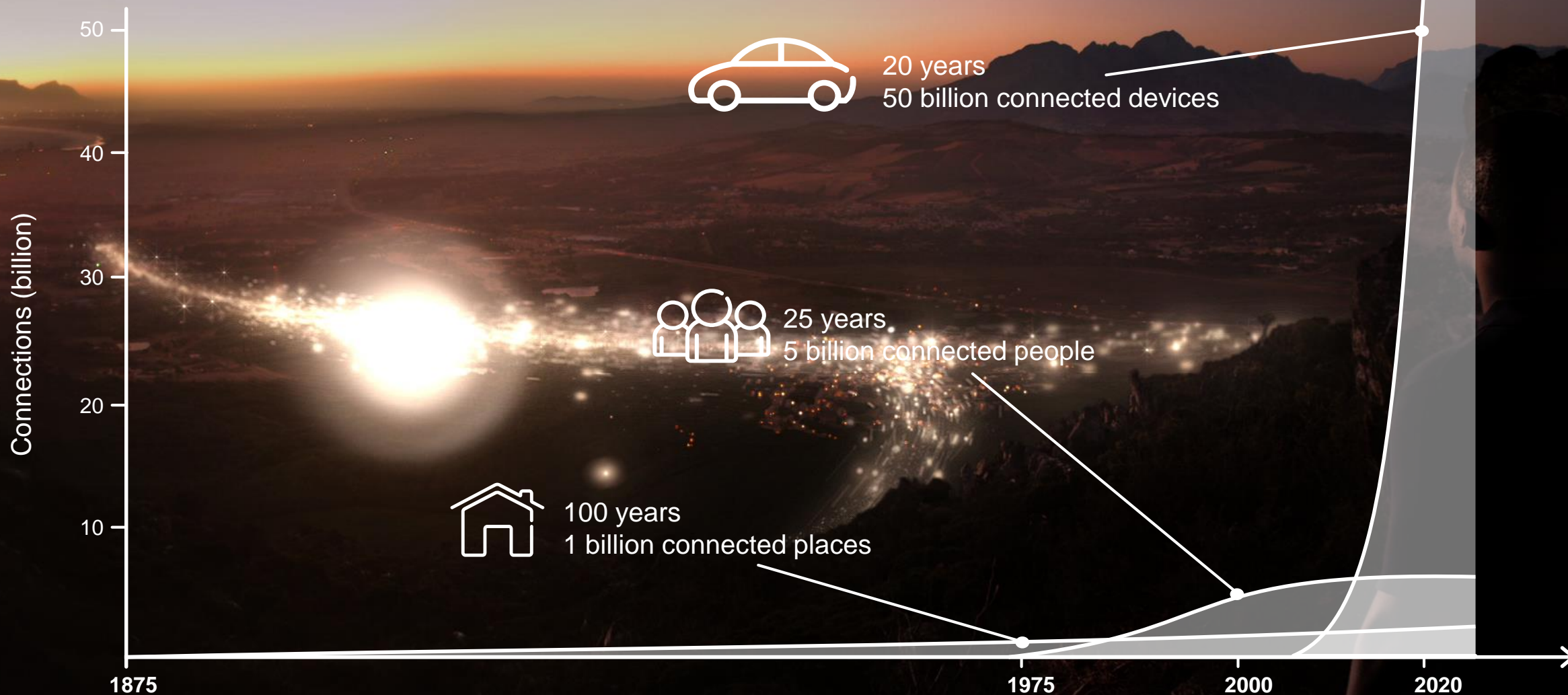
Michael Sohn / AP



2017



PROGRESS TOWARDS NETWORKED SOCIETY

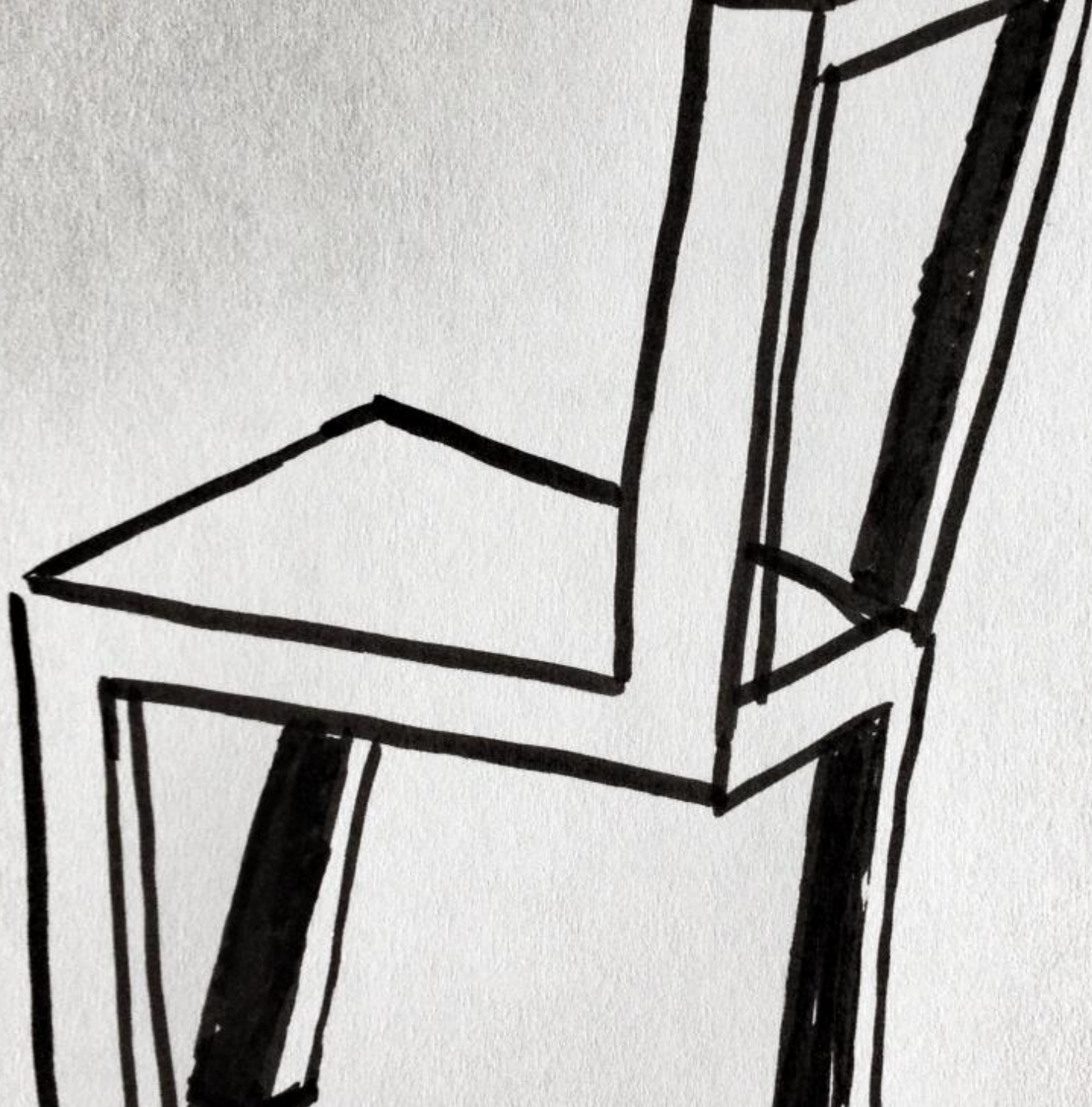






THE AGE OF EMPOWERMENT





disruption

disruption

FROM TRANSPORTATION TO MOBILITY



“I always get a suggestion for a train where I can be sure to get a seat “



“I always share my car travel with others”



“I prefer taxis with drivers recommended by my community”



AIRBAG



CONNECTED BICYCLE

FROM RETAIL TO EXCHANGE



A better way to cook
Fresh ingredients, great recipes delivered weekly to your home

Join Now \$9.99
Click here to get started today

“I save time and money by subscribing to my grocery supply”



neighborhood Guides
I sure where to stay? We've created neighborhood guides for cities all around the world.

New York London Paris
San Francisco Sydney

“When traveling I usually stay at a home away from home”



Free Stuff from People Like You

Free kitchenware, electronics, camping gear and more — straight to your inbox.

Get Started

“In my neighborhood we share lots of stuff that’s good to have but seldom used”

amazon go

BAGS



NO-LINE LUNCH
GO AHEAD →



ARS & NUTS



D DRINKS

SPARKLING WATER - KOMBUCHA - INFUSED TEA

FORGET
YOUR
REUSABLE
BAG







INTERNET OF SKILLS



LIFE IN 2030...





verde

A MAGICAL PLACE WHERE PEOPLE SHARE THINGS WITH FRIENDS



we're not a...
not for...
just...
friends...

WE'VE MADE IT FOR YOU



UN SUSTAINABLE DEVELOPMENT GOALS 2030



5G IS USE CASE DRIVEN



Massive MTC



Critical MTC



Enhanced mobile broadband



LOW COST, LOW ENERGY
SMALL DATA VOLUMES
MASSIVE NUMBERS

ULTRA RELIABLE
VERY LOW LATENCY
VERY HIGH AVAILABILITY

BUILDING AN ECOSYSTEM

PARTNER CATALOGUE (SAMPLE PARTNERS)



IOT ECO SYSTEM PARTNER CATALOGUE

- [Vehicles & Traffic](#)
- [Utilities](#)
- [Agriculture](#)
- [CleanTech](#)
- [Healthcare](#)
- [Smart City](#)
- [Other](#)
- [Sensors & Devices](#)

ORION – IOT DEVICES SMART CITIES

High-level solution description
Broad range of IoT Gateways, nodes and devices for smart cities, smart buildings applications. NB-IoT enabled version designed in partnership with IPSCO smart cities.

POIZOM – AIR QUALITY MONITORING

High-level solution description
Polludrone is the most advanced ambient air-quality monitor which works on IoT technology. Polludrone is fully solar powered and its retrofit kit air like dust particles, PM10, PM2.5, CO2, NO2, SO2, O3, temperature, humidity, etc.

SEQUANS – NB-IOT/CAT-M1 MODEM

Monarch - Narrowband LTE-M (Cat M1) and NB-IoT (Cat NB1) Single Chip for the Internet of Things
Monarch is a single-chip LTE Cat M/NB1 solution designed specifically for narrowband IoT applications, including sensors, wearables, and smart meters. It offers a wide range of features and capabilities, including:

- Low power consumption
- Long range
- High reliability
- Easy integration

QUALCOMM – NB-IOT/CAT-M1 MODEM

Qualcomm The MDMS, cellular core network, narrowband coverage at cost-optimized with support diverse set of applications.

WORLDSENSING – SMART PARKING

High-level solution description
Smart parking solutions, open information generation, etc.

BABBLER – SUPPLY CHAIN MANAGEMENT

High-level solution description
Fasttrak is a solution for operators to monitor their supply chain in real-time.

URBAN CLOUDS – AIR QUALITY MONITORING

High-level solution description
Urban Cloud network, in real-time, provides air quality data for smart cities.

SOILSCOUT – OPTIMIZED SOIL CONDITIONS

High-level solution description
Understand soil conditions in real-time, optimize crop yield, etc.

FLASHNET – SMART STREET LIGHTING

High-level solution description
IntelliLIGHT is a smart street lighting solution that provides energy savings and improved lighting quality.

SKYRESPONSE – ALARM HANDLING

High-level solution description
Skyresponse's solution for alarm handling, providing real-time monitoring and response.

FLOWSCAPE – SMART OFFICE

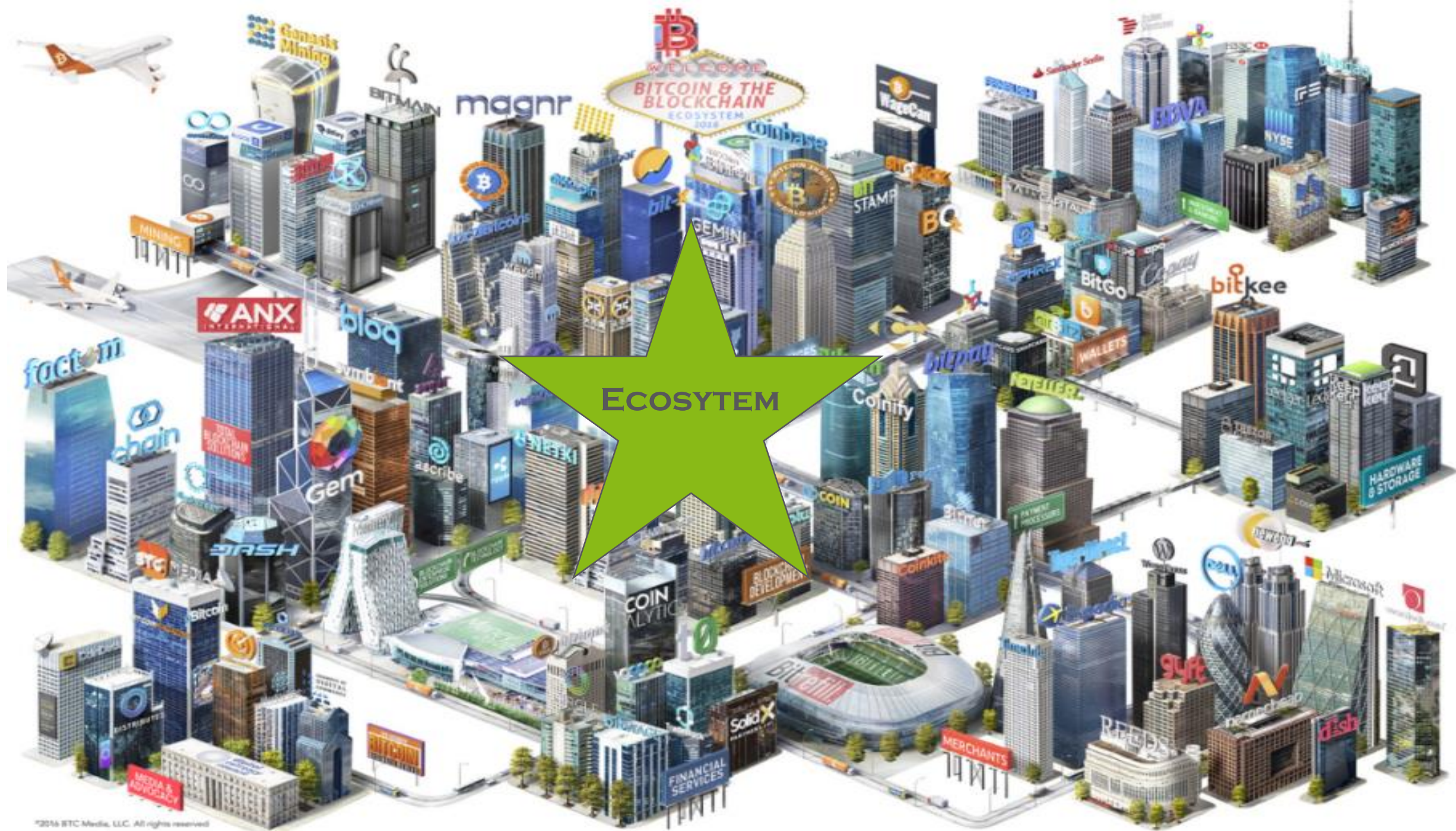
High-level solution description
Designing a modern office is only half the journey towards an effective, dynamic and exciting workplace. To make it flourish by preventing friction, you need supporting tools and this is where FlowScape's IoT-based solution comes in, bringing a set of features from which two are exemplified below:

- Room finder: With a peek at the app or any other device, you get information that enables you to find and book the meeting room that suits your current needs in a zone of your choice. The system both checks availability in your room booking system and detects if any persons are present in the room. If a space is booked but nobody checks in, the system automatically cancels the booking and make the room available again. Using the panic button, you will find the closest available room with just one click.
- Colleague finder: Colleague finder enhances collaboration and decreases the time spent looking for each other, and gives a complete overview of the office with status of colleagues and where they are. If you are unable to move over to a colleague you can send an instant message, e-mail or make a call, with one click on your smartphone. The system is designed to be integrated with your current communication system, e.g. Skype for Business. Personal integrity is maintained through anonymized, encrypted data. Reports can only be generated on aggregated level, and users can at any time use invisible mode, if they choose.

Example use cases

- Improve employee experience and efficiency
- Support in activity based workplace
- Modern office and solutions to attract employees
- Better utilization of space, rooms and desks
- Interactive high-end IT-solution

FlowScape
www.flowscope.se
Stockholm, Sweden



ECOSYSTEM



DIGITAL TRANSFORMATION

BUSINESS MODELS



Innovation



Digitalization

PLATFORMS



Analytics



Security



Billing

INFRASTRUCTURE



Mobility



Broadband



Cloud

Vertical Silos

Technology

M2M

Cross-industry

Business

IoT



DIGITAL TRANSFORMATION

VALUE CREATION



Vertical Silos

Cross-industry

Technology

Business

M2M

IoT

BUSINESS MODELS



Innovation



Digitalization

PLATFORMS



Analytics



Security



Billing

INFRASTRUCTURE



Mobility



Broadband



Cloud

PLEASE REMEMBER.....



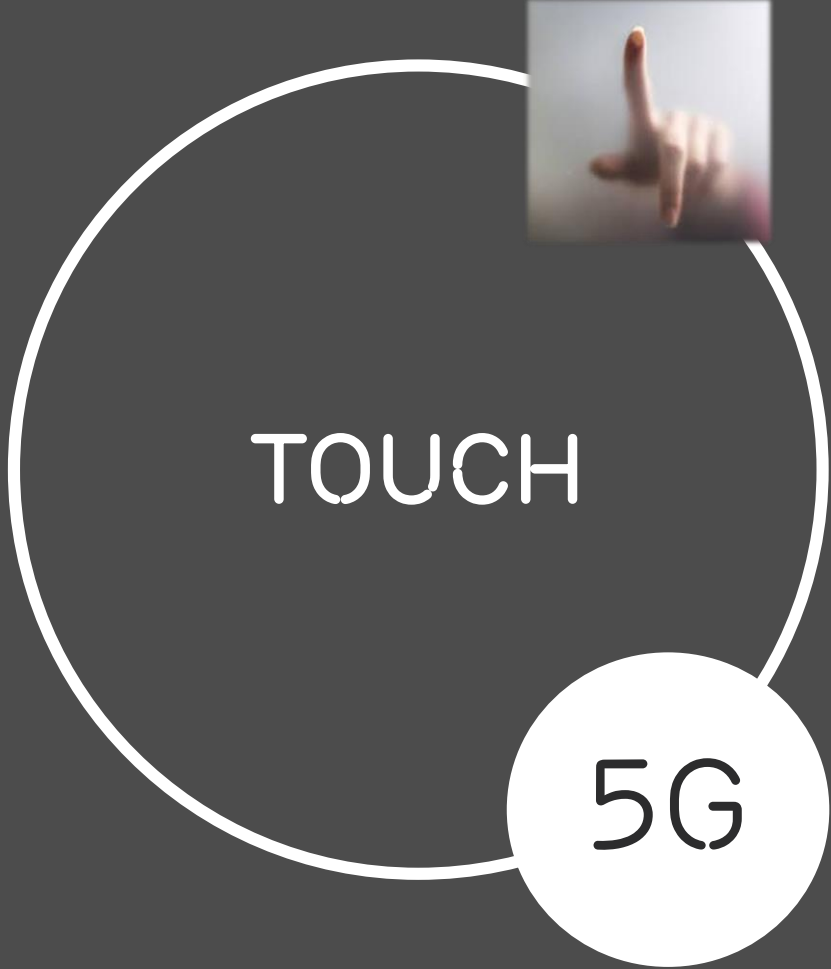
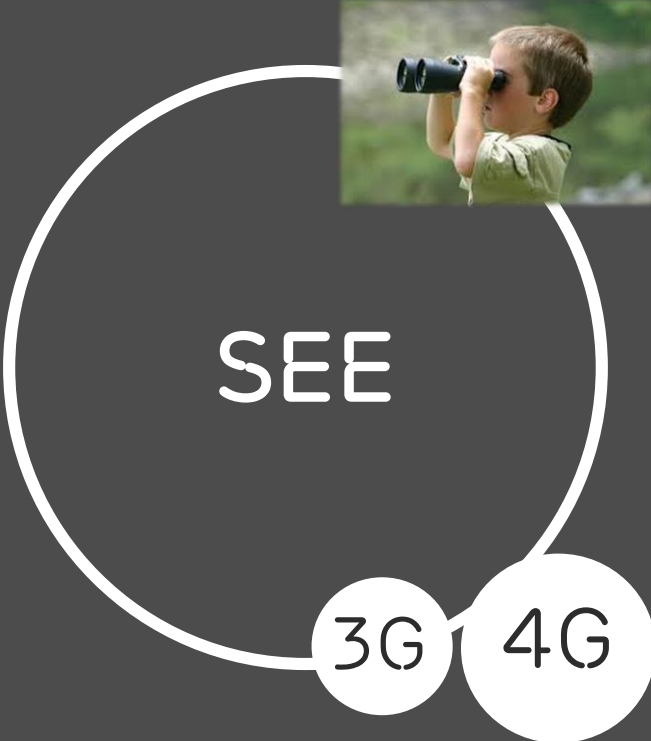
Mobile phone 1946



Self driving car 2017



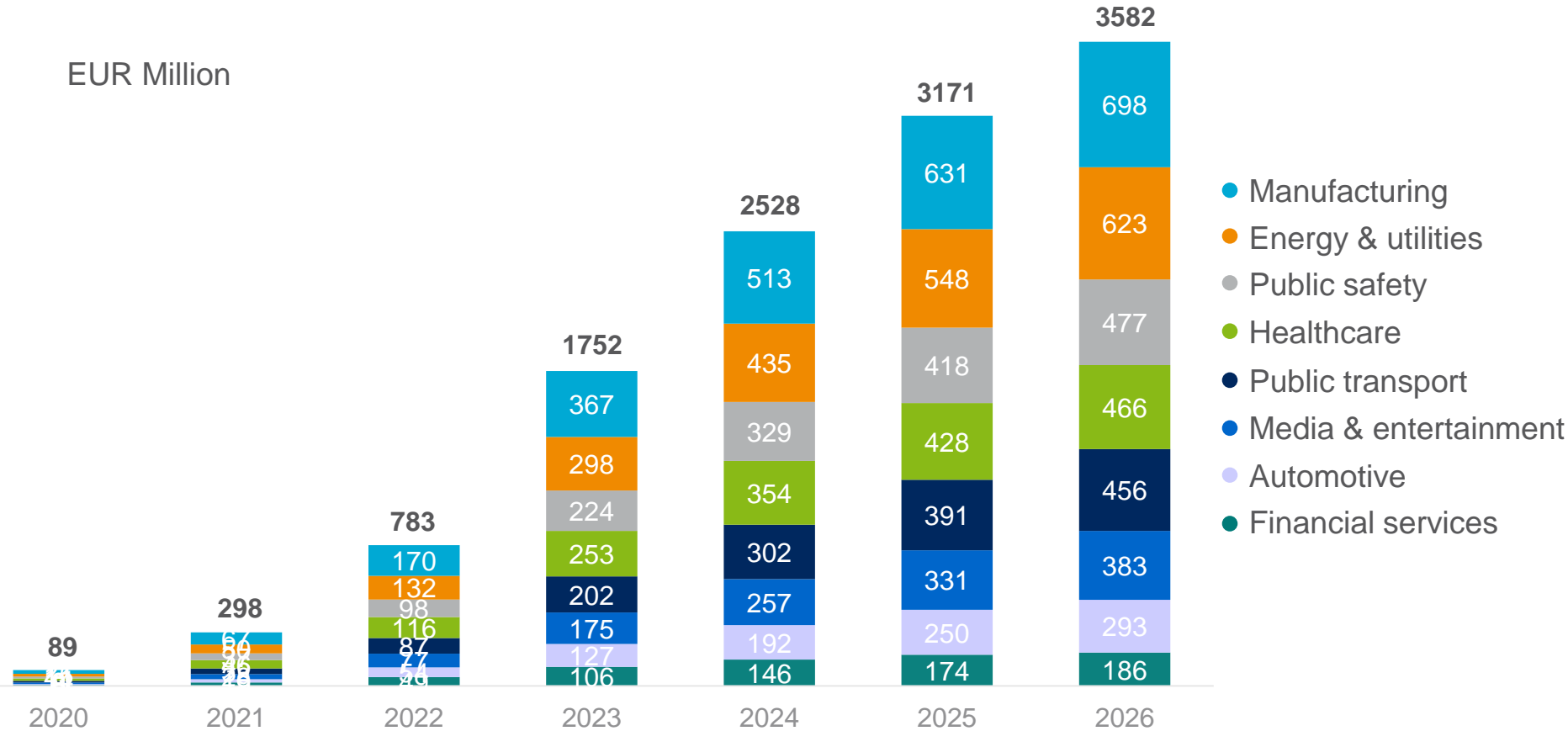
THE THIRD SENSE...



INDUSTRY DIGITALIZATION REVENUES



EUR Million

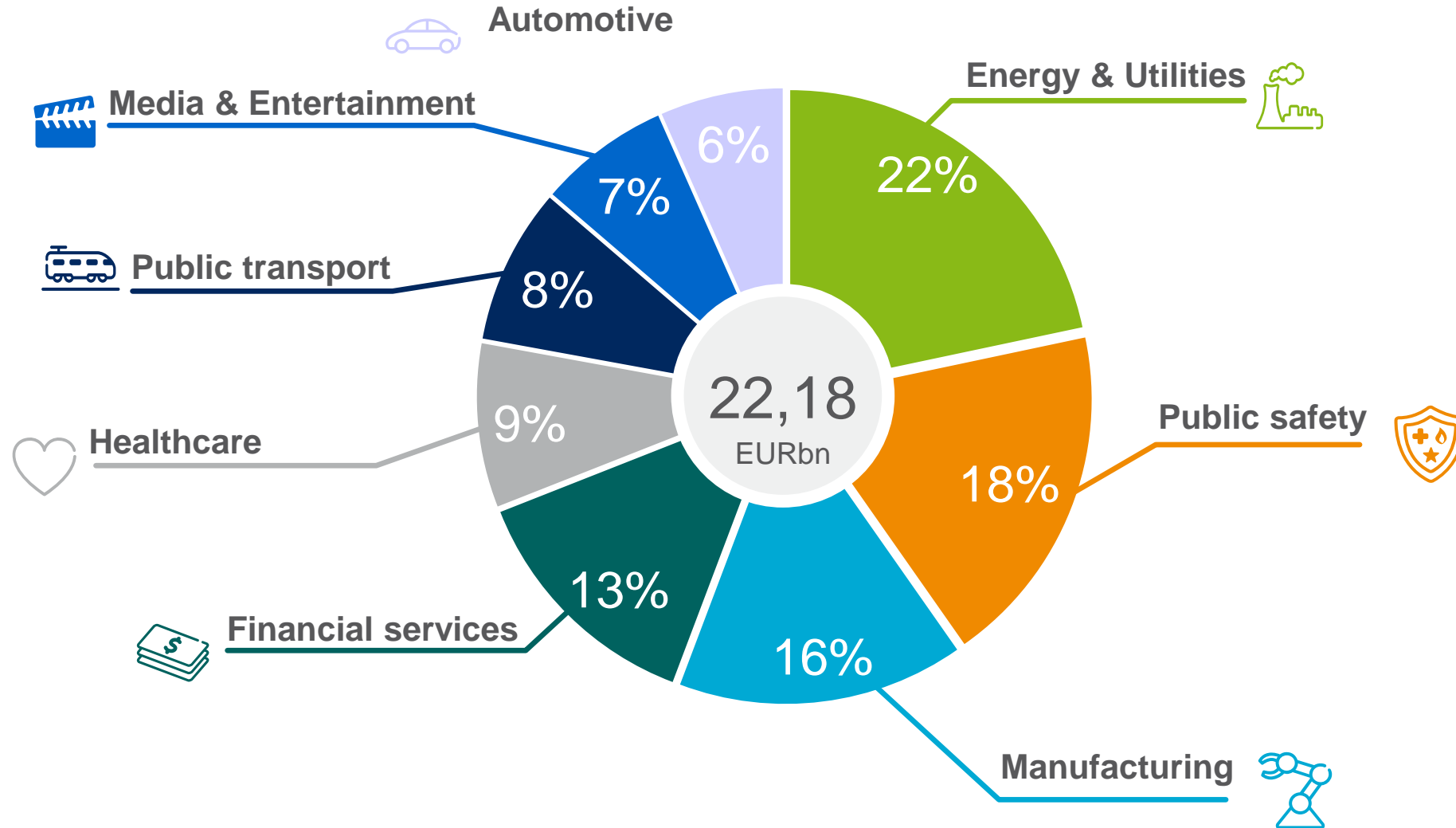


- Manufacturing
- Energy & utilities
- Public safety
- Healthcare
- Public transport
- Media & entertainment
- Automotive
- Financial services

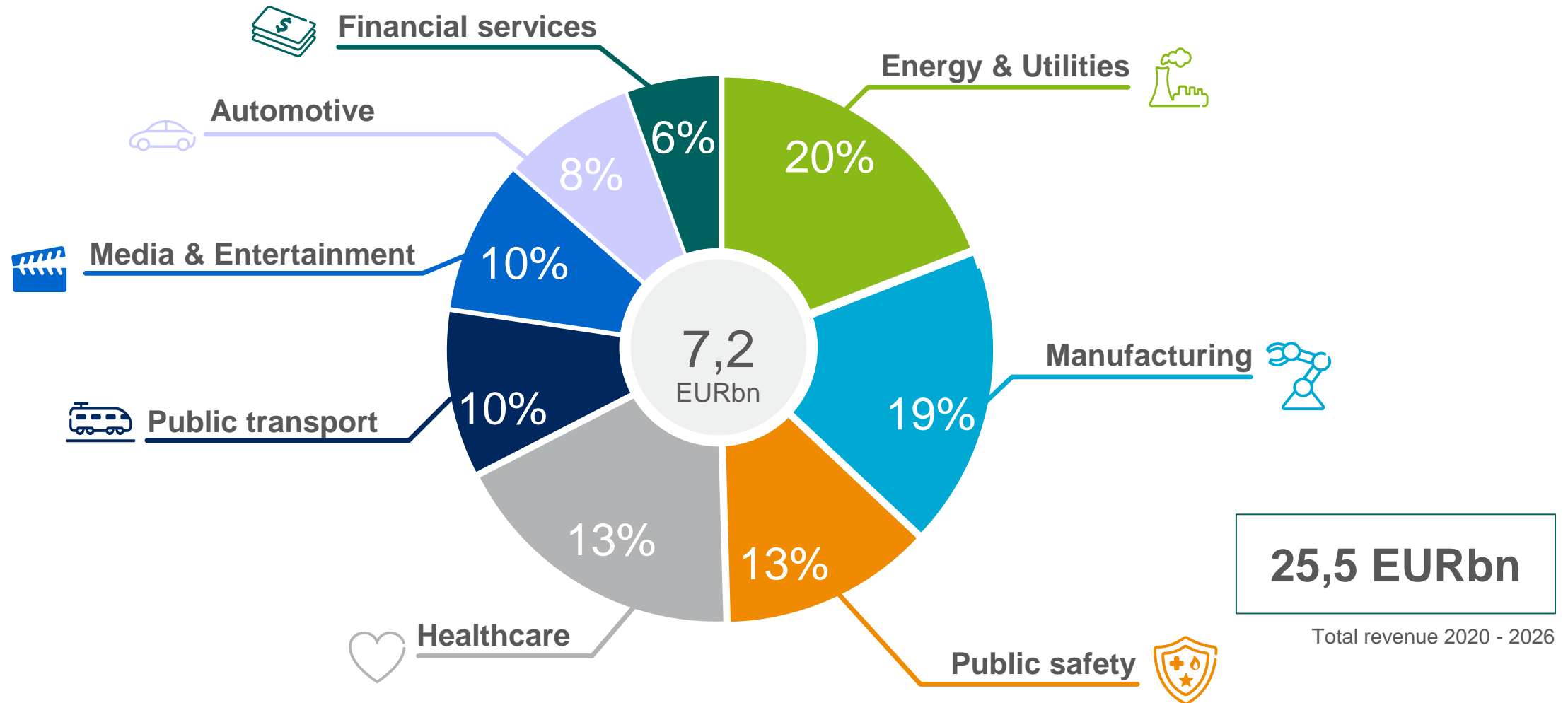
- › **Total addressable revenues** = total revenues that operators could capture if they are **Service creators**
- › Some industries (e.g. **Manufacturing and Public safety**) have much **more revenue potential** than others



DIGITALIZATION REVENUES FOR BELGIAN ICT PLAYERS IN INDUSTRIES



5G ENABLED DIGITALIZATION REVENUES FOR BELGIAN ICT PLAYERS





10 industries

Retail	Automotive	Media & Entertainment	Public Transport	Healthcare	Financial Services	Agriculture	Energy & Utilities	Public Safety	Manufacturing
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+200 use cases

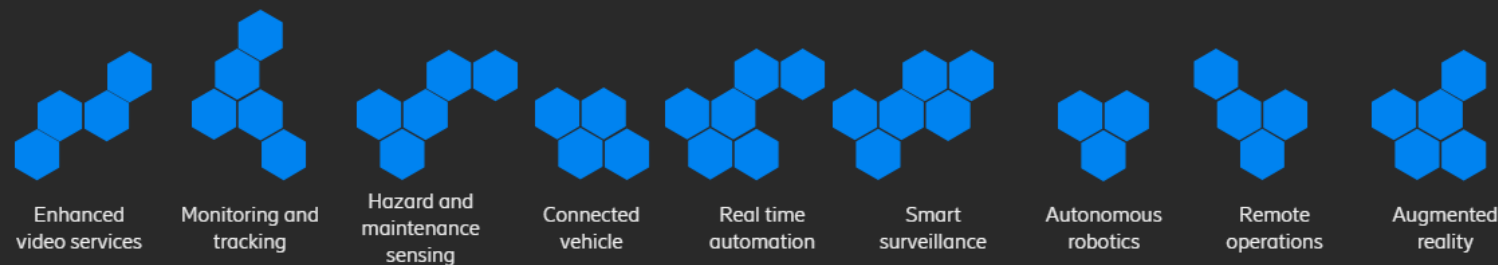


Go-to-market challenges

Deployment challenges



9 clusters



Clusters

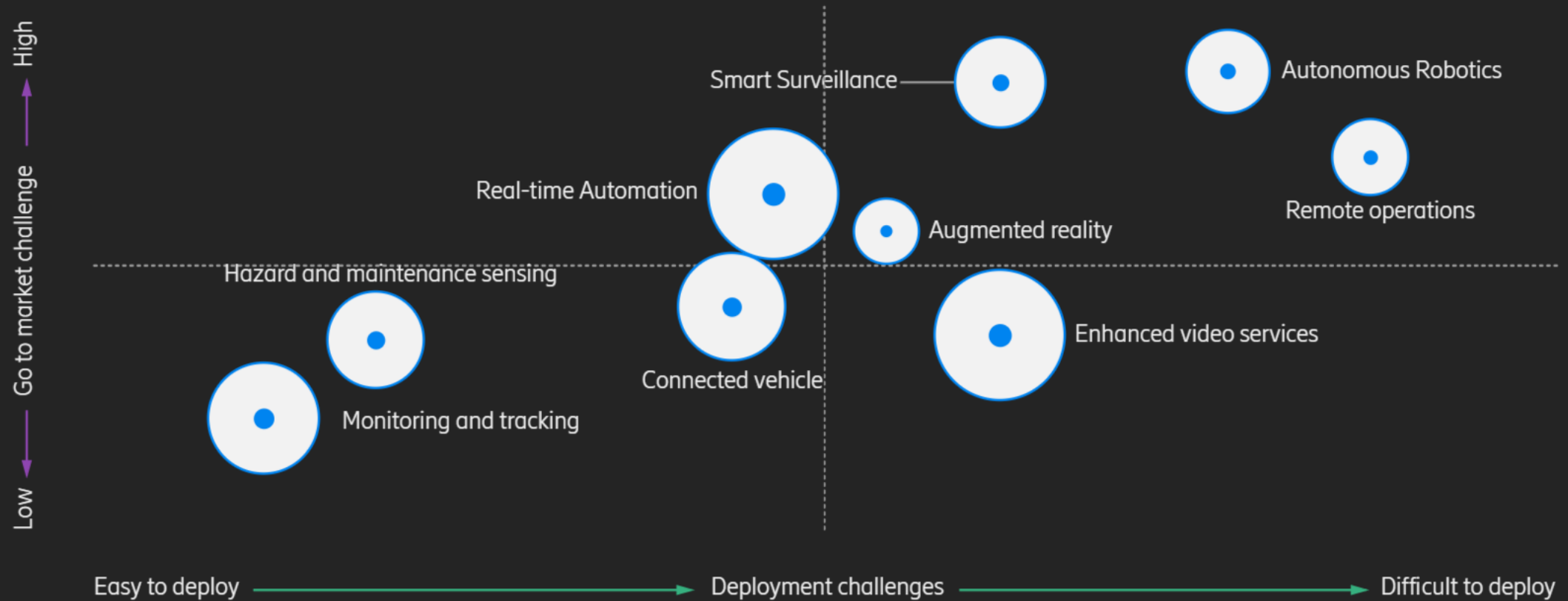
Replicate capabilities from one cluster use case to another

Entails a more sizable opportunity than individual use cases

Enables shared investments across larger revenue pool

Scalable across industries and geographies

Position in the value chain to determinate cluster potential



Use case evolution with supporting technology



Current

On the road to 5G

5G experience

		Current	On the road to 5G	5G experience
Enhanced Mobile Broadband		Screens everywhere	New tools	Immersive experience
Automotive		On demand information	Real-time information vehicle to vehicle	Autonomous control
Manufacturing		Process automation	Flow management and remote supervision	Cloud robotics and remote control
Energy & Utilities		Metering and smart grid	Resource management and automation	Machine intelligence and real-time control
Healthcare		Connected doctors and patients	Monitoring and medication e-care	Remote operations

Technologies	Current	On the road to 5G	5G experience
	<ul style="list-style-type: none"> Multi-standard network Cat-M1/NB-IoT Cloud optimized network functions VNF orchestration 	<ul style="list-style-type: none"> Gigabit LTE (TDD, FDD, LAA) Massive MIMO Network Slicing Dynamic service orchestration Predictive analytics 	<ul style="list-style-type: none"> 5G NR Virtualized RAN Federated network slicing Distributed Cloud Real time machine learning/AI

Creating 5G futures right now



5G¹²

Ericsson, Intel Corporation, GE and Honeywell have teamed up to launch the 5G Innovators Initiative (5G¹²), described as 'an open industry initiative designed to create transformative experiences that change lives, businesses and society'.

5G for Europe

Delivering research, innovation and industrial pilots enabled by 5G including transport and automotive, IoT, utilities, public safety, public infrastructure and retail – Zuchetti, Weiss Robotics, and more.

5G in the Euregio

5G Life Campus, A test environment in Belgium for local industry and academic players to stimulate innovation & economy while building the ecosystem of tomorrow

5G for Sweden

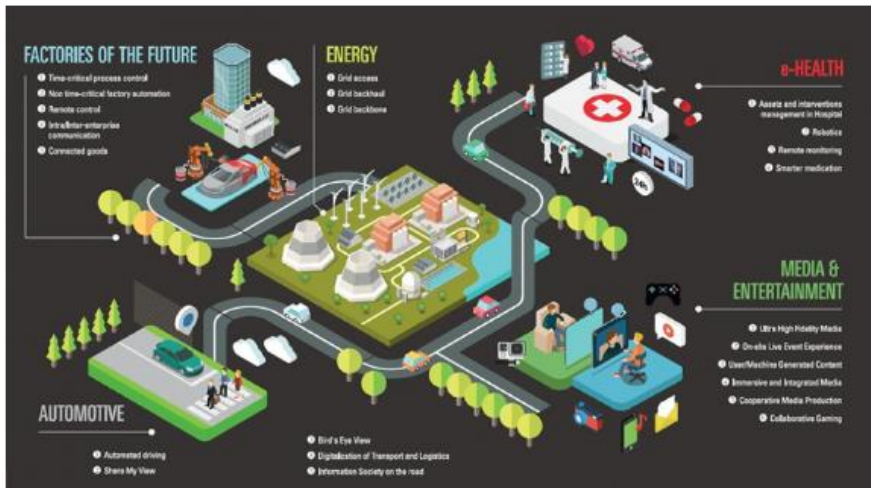
5G program with industry and academic partners, including Volvo, Boliden, SICS, Scania, Saab, SKF. We apply ICT in industrial processes, products & services

industry collaborations on a global scale together with enterprises looking to connect



5G for Europe Action Plan

The 5G Action Plan is a strategic initiative which concerns all stakeholders, private and public, small and large, in all Member States, to meet the challenge of making 5G a reality for all citizens and businesses by the end of this decade.



To achieve that, the Commission proposes the following measures:

- Align roadmaps and priorities for a coordinated **5G deployment** across all EU Member states, targeting early network introduction by 2018, and moving towards commercial large scale introduction by the end of 2020 at the latest.
- Make provisional **spectrum bands** available for 5G ahead of the 2019 World Radio Communication Conference (WRC-19), to be complemented by additional bands as quickly as possible, and work towards a recommended approach for the authorisation of the specific 5G spectrum bands above 6GHz.
- Promote early deployment in **major urban areas** and along major transport paths.
- Promote pan-European multi-stakeholder **trials as catalysts** to turn technological innovation into full business solutions.
- Facilitate the implementation of an industry-led **venture fund** in support of 5G-based innovation.
- Unite leading actors in working towards the promotion of **global standards**.

It's all about



Business



enabling the
connected world

Speed



first movers
for new
services

Scale



massive scale
at low cost

USE CASES • BUSINESS MODELS • OPERATIONS • TECHNOLOGY

RADIO WAVES AND HEALTH: 5G

Over the past 140 years, Ericsson has been at the forefront of communications technology. Today, we are committed to maximizing customer value by continuously evolving our business portfolio and leading the Information and Communication Technology industry. In fact, 40% of the world's mobile traffic is carried over Ericsson networks.

Communication is a basic human need and modern communication technologies are an essential part of a sustainable future. We consider your safety a key priority when using these technologies.

5G is the next step in the evolution of mobile communication. Its capabilities will extend far beyond previous generations, but it will be based on similar radio technologies. 5G devices will be designed and tested to comply with established radio wave exposure limits, and base stations will be installed so that the exposure in homes and public areas is well below the limits.

Since 1996, Ericsson has co-sponsored over 100 studies related to radio waves and health. Independent expert groups and public health authorities, including the World Health Organization, have reviewed the available research and have consistently concluded that there is no evidence of any health effects associated with radio wave exposure from either mobile phones or radio base stations.



5G is the next step in the evolution of mobile communication

The overall aim of 5G is to provide connectivity everywhere for any kind of device that may benefit from being connected. 5G will support a wide range of new applications and use cases, including smart homes, traffic safety, critical infrastructure, industry processes and very-high-speed media delivery. And it will accelerate the development of the Internet of Things.

5G capabilities will extend far beyond previous generations

To meet the demands of the new applications and use cases, the capabilities of 5G will extend far beyond previous generations of mobile communication. Examples are very high data rates, very short delay (latency), ultra-high reliability, high energy efficiency and ability to handle many more devices within the same area.

Radio waves are used for communication in 5G

Like in previous mobile networks, 5G devices will communicate with base stations by transmitting and receiving radio waves, or radio frequency (RF) electromagnetic fields (EMF).

5G will use new radio technology and new frequency bands

5G networks will incorporate the existing 4G LTE technology, but a new radio technology also will be introduced that meets all the extended capability demands of 5G. To increase the capacity of the mobile networks and support very high data rates, 5G will extend the range of frequencies used for mobile communication. This includes new spectrum below 6 GHz, as well as spectrum in higher frequency bands up to 100 GHz.

5G equipment will use beamforming to improve performance

To address the demands of increased performance, 5G base stations and devices will use many antennas. Arrays of up to hundreds of small antennas at the base station will make it possible to focus the transmission of radio waves to maximize the signals that the connected devices receive. This is called beamforming or massive MIMO. Thanks to this technology the transmitted power can be kept low resulting in radio wave exposure at similar levels as in previous networks, even though the performance is significantly improved.

Exposure levels will be below international safety limits

The power levels of the radio signals transmitted by 5G radio equipment will be of similar or lower magnitude as those used in previous networks. 5G devices will

be designed and tested to comply with established radio wave exposure limits. 5G base stations will be positioned so that the exposure in homes and public areas is well below the limits.

Public access will be restricted where needed

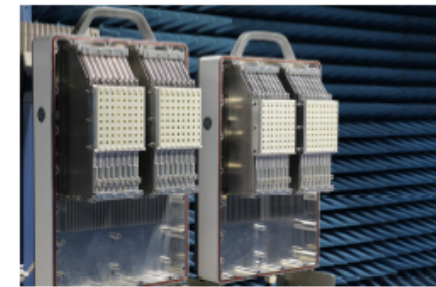
As for existing networks, the exposure limits may be reached near a base station antenna. The antennas are installed in such a way that unauthorized people do not have access to this area, which varies in size from a few centimeters for small indoor antennas up to several meters for antennas mounted on masts or on rooftops. The intensity of the exposure drops quickly when moving away from the antenna, and the exposure levels are well below the limits in places where people normally reside.

Exposure limits are set by independent organizations

Independent expert organizations have established the exposure limits for radio waves based on many years of research. The limits are recommended by the World Health Organization (WHO), among others, and include large safety margins. 5G equipment, whether it be mobile devices or base stations, will meet the same safety standards as the equipment used in previous mobile communication networks.

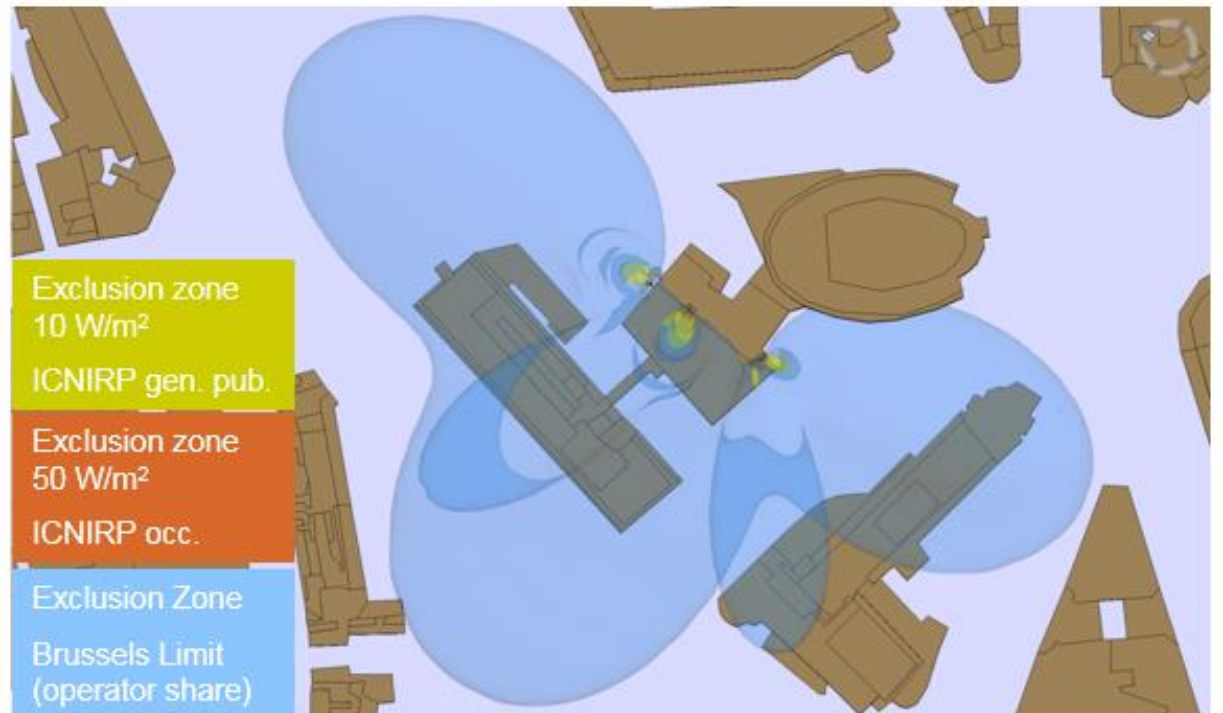
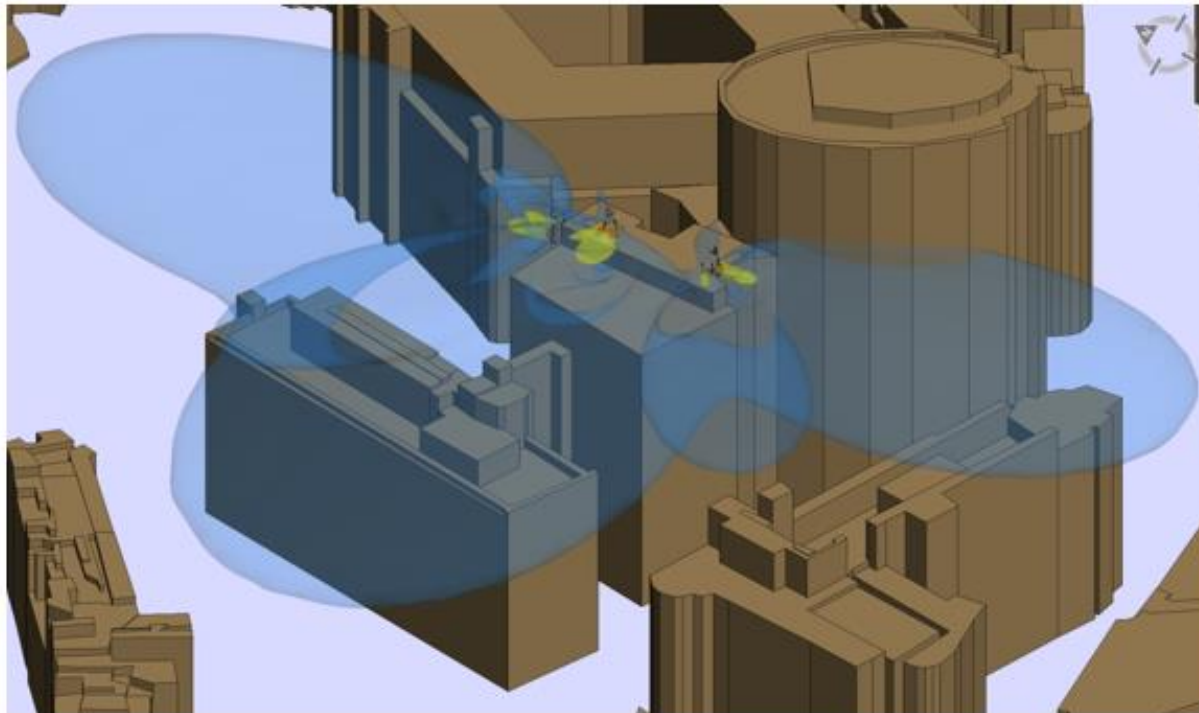
No adverse health effects from mobile communications

The World Health Organization (WHO) states: "From all evidence accumulated so far, no adverse short- or long-term health effects have been shown to occur from the RF signals produced by base stations" and "A large number of studies have been performed over the last two decades to assess whether mobile phones pose a potential health risk. To date, no adverse health effects have been established as being caused by mobile phone use." (WHO fact sheets No 304 and No 193)



For more information on Radio waves and health, visit www.ericsson.com/health

Current condition Brussels ...





A NEW LOGIC



650%



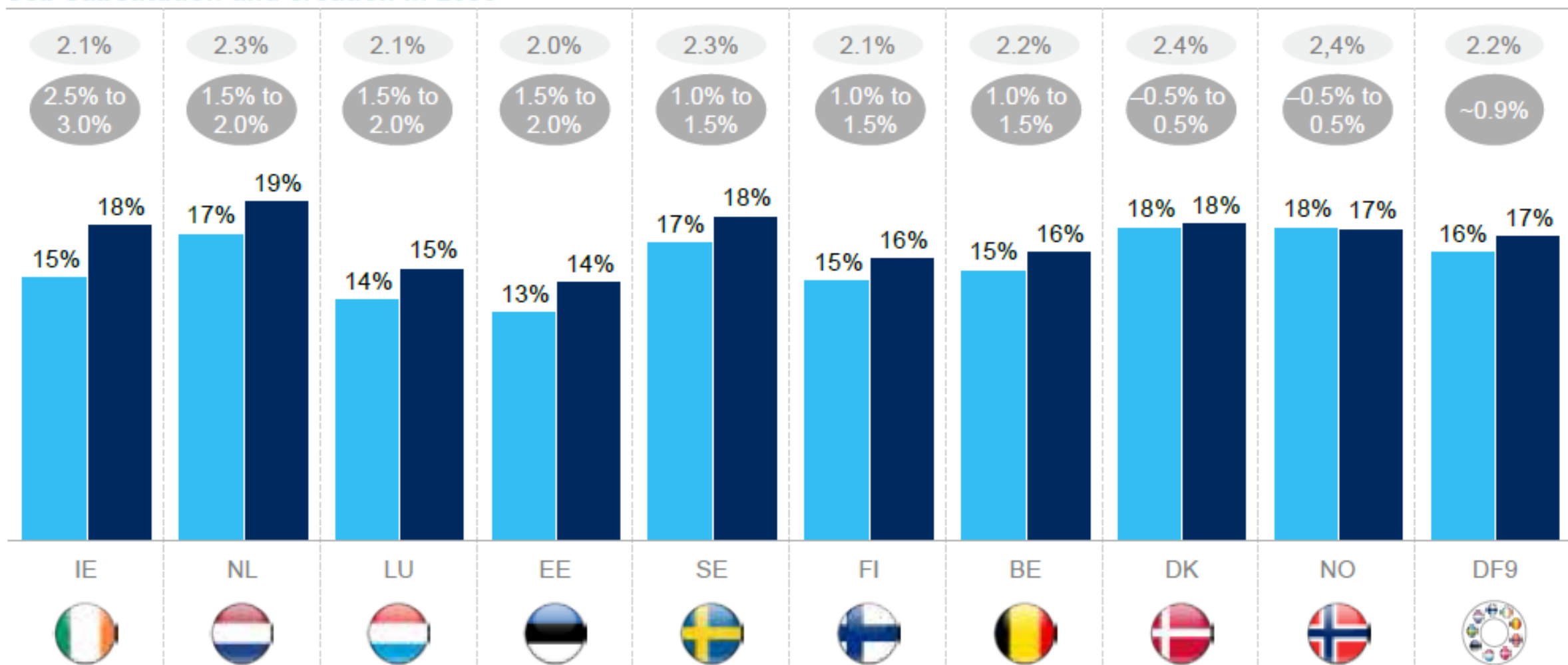
Some differences exist across the nine digital front-runner countries

% of people employed in 2030

- Productivity growth in midpoint scenario toward 2030
- Range for net employment effect in 2030

Job substitution and creation in 2030

■ Job substitution effect ■ Job creation from direct and spillover effects



YOU HAVE BEEN
HACKED !



Ethics

Ethics in business
moral principles
rules and regulation
of right conduct rec
values that guide t





WESTERN EUROPE: 5G NOW!



MORE USAGE



7x mobile data traffic between 2017 and 2023 driven by video

MORE PEOPLE



550 million MBB subscriptions by 2023

MORE THINGS



625 million cellular IoT subscriptions by 2023

MORE BUSINESS



Fixed Wireless Access, Smart Cities, Health Care, etc.