ITEA2, 2013-12-04

ERICSSON

THE NETWORKED SOCIETY

Ulf Wahlberg
VP Industry and Research Relations, Ericsson AB

THIS IS ERICSSON

- We provide:
  - > Communication networks
  - > Services to network operators
  - > Enablers to service providers
- Customers in more than 180 countries
- 40% of the world's mobile calls pass through our networks
- More than 1 billion subscribers in networks managed by Ericsson
- Sales 228 billion SEK (2012)
- R&D investments 33 billion SEK (2012)
- ~112,000 employees
  - 24,000 in R&D
  - 64,000 in services

ERICSSON 2013

OUR MARKET

OUR CUSTOMERS

OPERATORS

TV & MEDIA

SELECTED INDUSTRY VERTICALS

UTILITIES

PUBLIC SAFETY

TRANSPORT

HANDSET & DEVICES

OUR MARKET CATEGORIES

COMM. SERVICES

MOBILE BROADBAND

FIXED BB & CONV.

MANAGED SERVICES

OSS & BSS

TV & MEDIA

CONNECTED DEVICES

OUR STRUCTURE

NETWORKS

GLOBAL SERVICES

SUPPORT SOLUTIONS

PATENTS & LICENSING

MODEMS

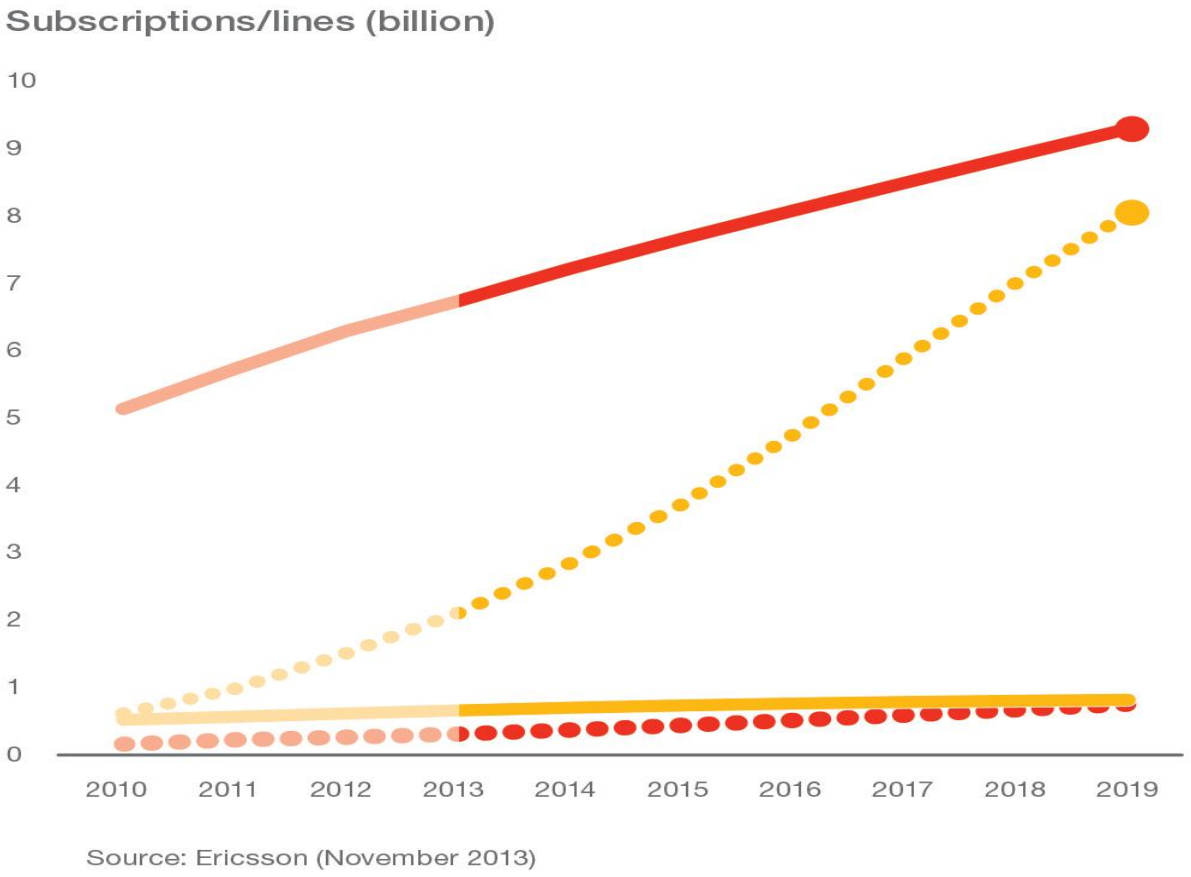
OUR ASSETS

GLOBAL SCALE

TECHNOLOGY LEADERSHIP

SERVICE LEADERSHIP

FIXED AND MOBILE SUBSCRIPTIONS 2010-2019



Source: Ericsson (November 2013)

9.3 BILLION

mobile subscriptions by the end of 2019

- Mobile subscriptions
- Fixed broadband subscriptions
- Mobile broadband subscriptions
- Mobile PCs, tablets and mobile router subscriptions

M2M subscriptions not included

POPULATION COVERAGE

>65%

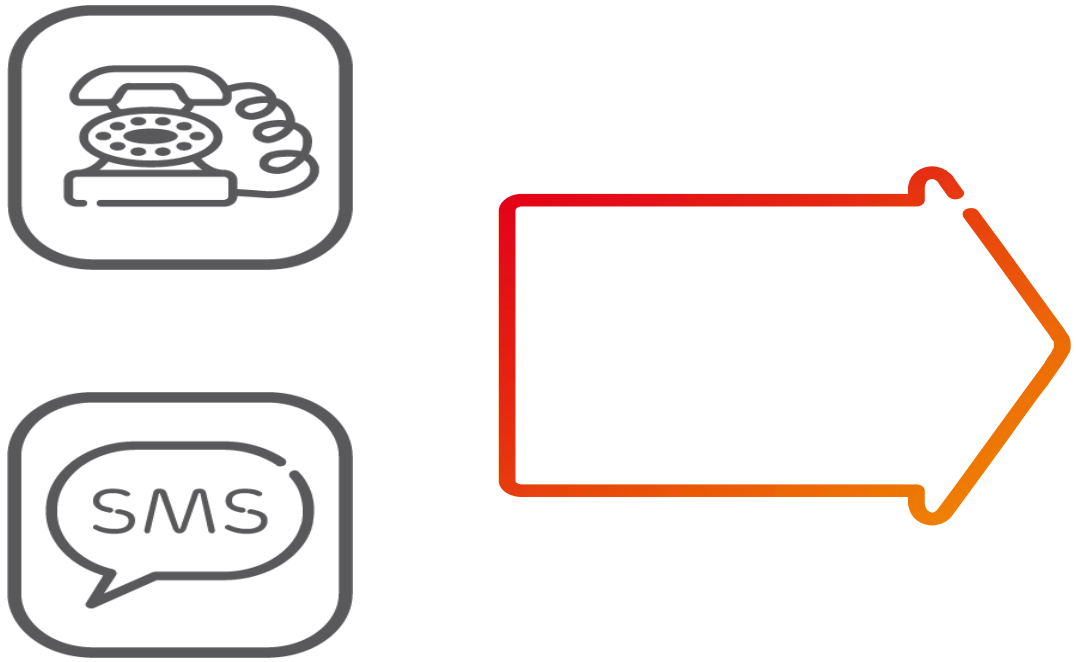
of the world's population will be covered by LTE in 2019

Population coverage by technology, 2012 and 2019

Source: Ericsson (November 2013)

- Around 90% of world´s population covered by WCDMA/HSPA in 2019
- LTE network deployments continue in all regions of the world, as LTE population coverage doubled in 2012 compared to 2011 (10% vs. 5%)
- More than 65% of world's population covered by LTE in 2019

THE EVOLUTION OF COMMUNICATION



Voice to places → Fixed networks

Voice to people → Mobile networks

“Voice” to applications →

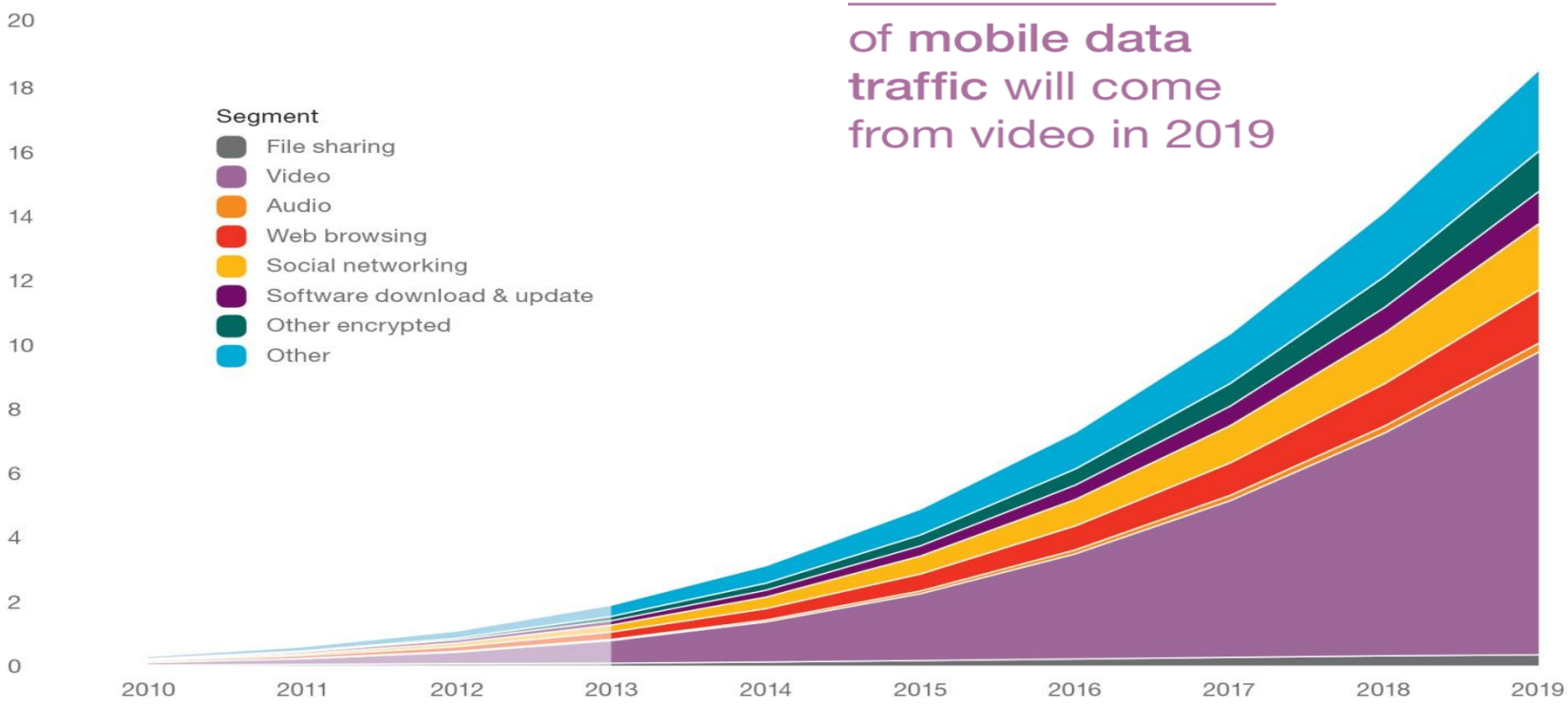
Communication – from a service to an embedded feature

MOBILE APPLICATION TRAFFIC OUTLOOK 2010-2019

10X

growth in **mobile data traffic** between 2013 and 2019

Mobile data traffic by application type (monthly ExaBytes)



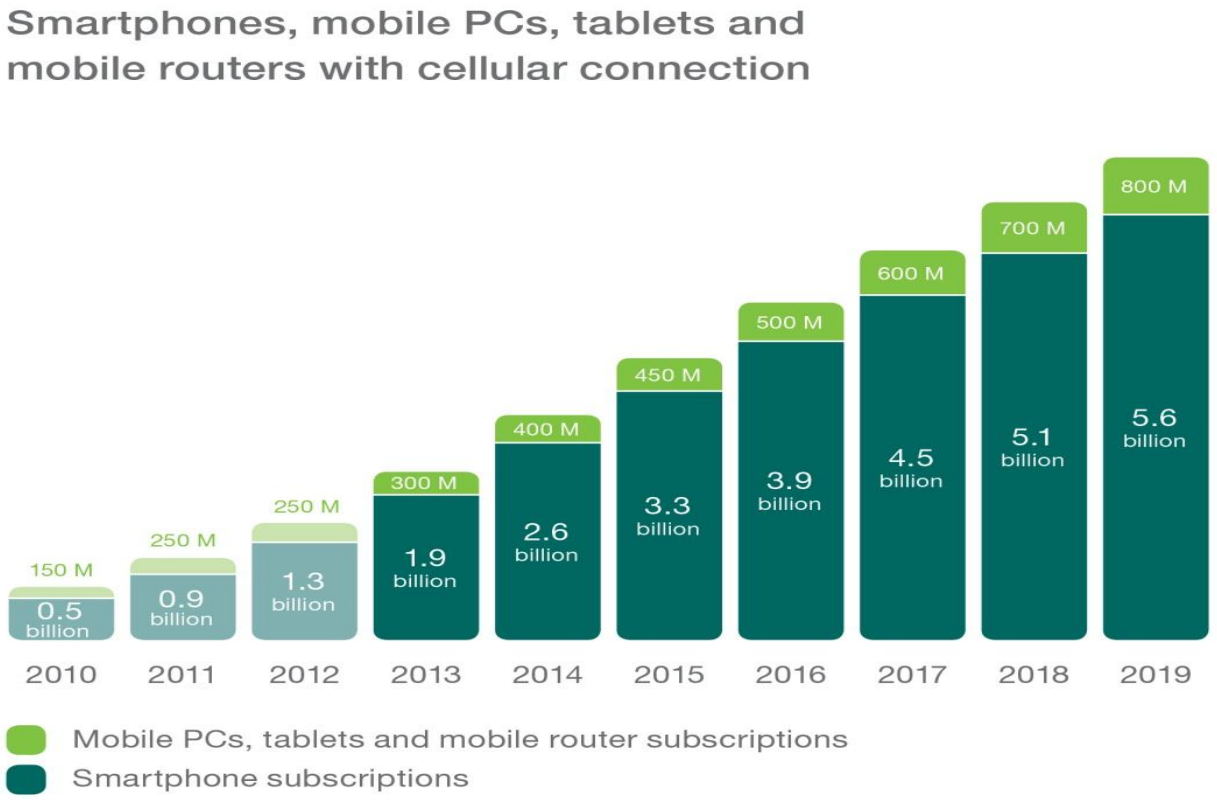
Source: Ericsson (November 2013)

>50%

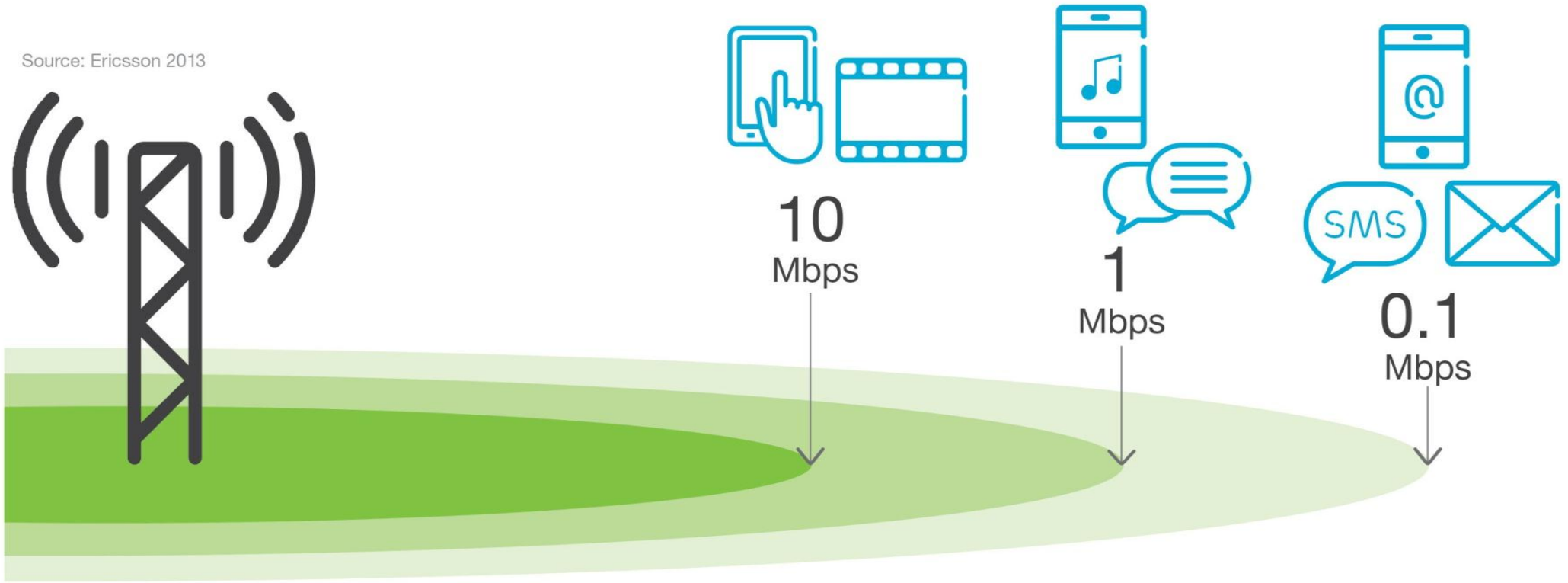
of **mobile data traffic** will come from video in 2019

5.6 BILLION SMARTPHONE SUBSCRIPTIONS END 2019

- 5.6 B smartphone subscriptions by the end of 2019
- 55% of phones sold during Q3 were smartphones
- By 2019 the average smartphone subscription will use 2.2GB of data per month



APP COVERAGE

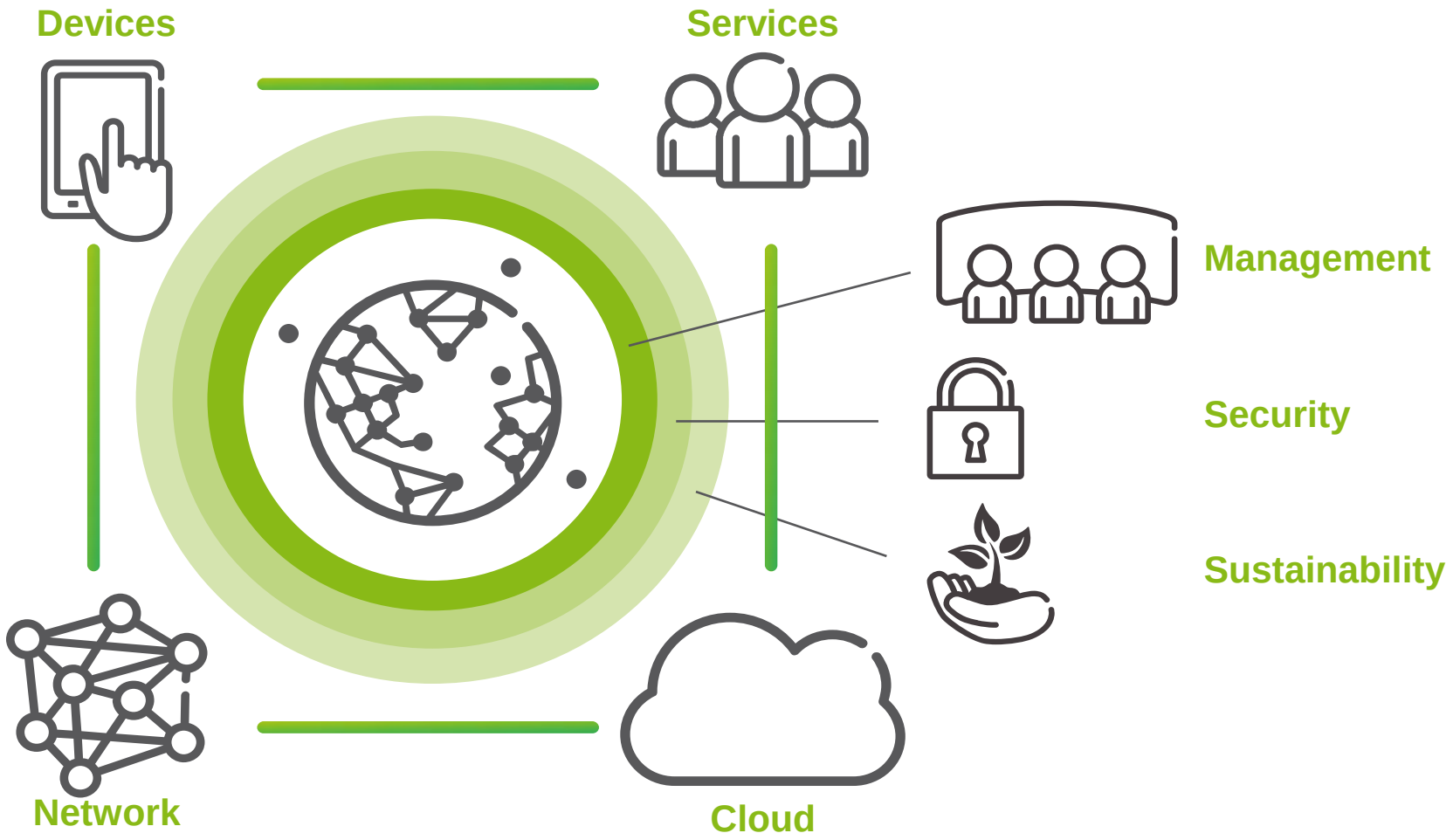


“App Coverage” – the area where my app works as I expect”

TOWARDS THE NETWORKED SOCIETY

Source: Ericsson

THE NETWORKED SOCIETY
KEY ENABLERS



Wireless Connectivity is key

THE NETWORKED SOCIETY
SMART SUSTAINABLE CITIES

EXAMPLE: STOCKHOLM ROYAL SEAPORT PROJECT

Street Light Management

Public Safety

Smart travel

Management Control

Education

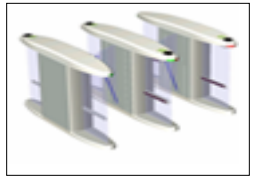
Fleet Management

VoD

Video Conferencing

HealthCare

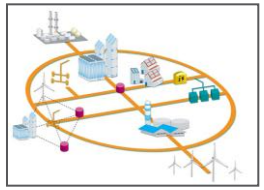
KIOSK



Access Control

Parking Control

CCTV Monitoring



Smart Grid

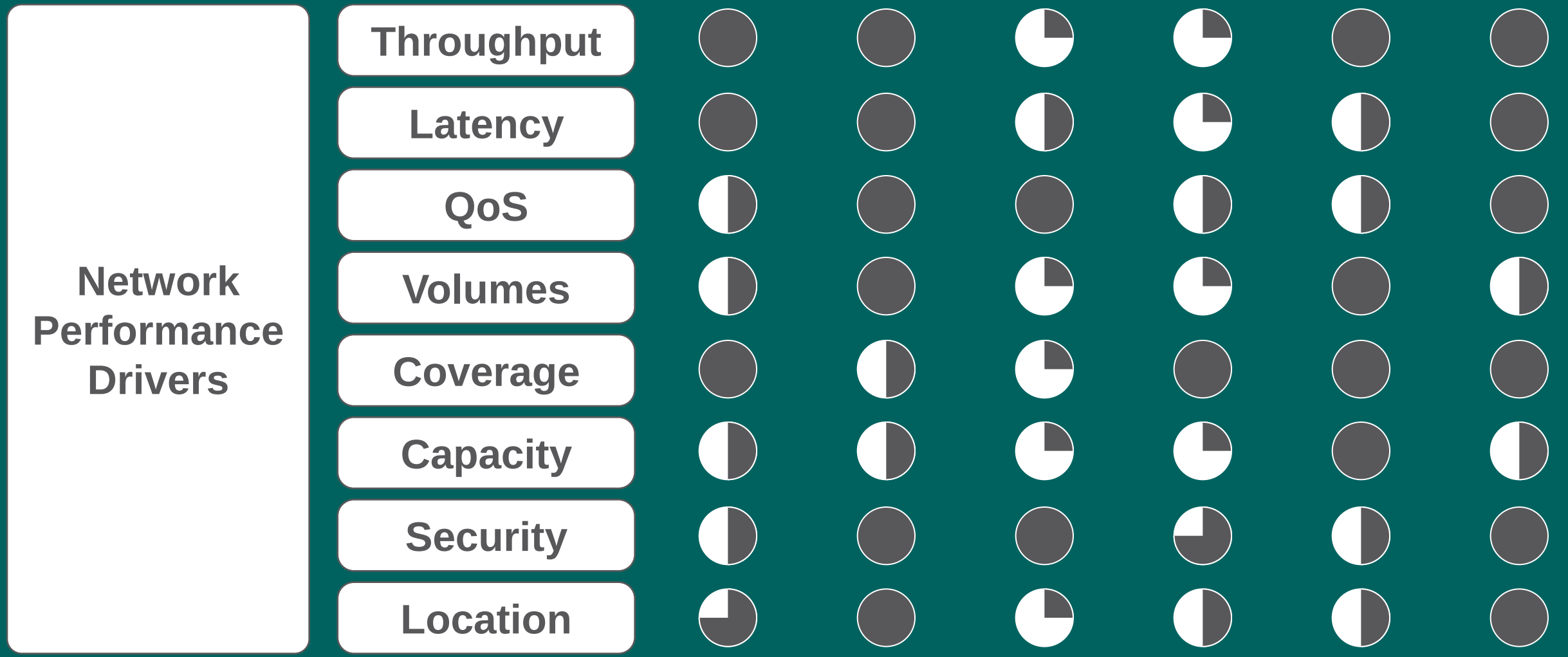
Waste Management

Facilities Control

Power Control

Light Control

INDUSTRY PERFORMANCE NEEDS



SERVICE AWARE NETWORK

ERICSSON

Users

Service Aware Network

Applications

RESIDENTIAL

ENTERPRISE

COMMERCIAL

EXPERIENCE

CONTROL

ENABLEMENT

EFFICIENCY

HOSTED APPS

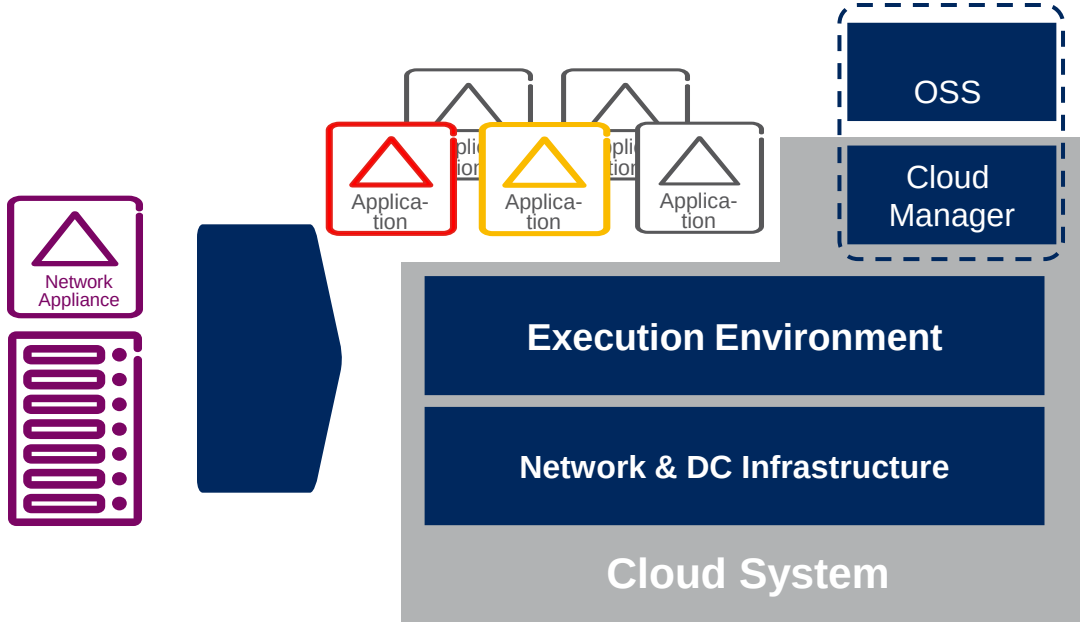
APPS PROVIDERS

ENTERPRISE VERTICALS

CLOUD SAS

CLOUD SYSTEM

- Elasticity
- Virtualisation
- Service Introduction & management
- Evolution



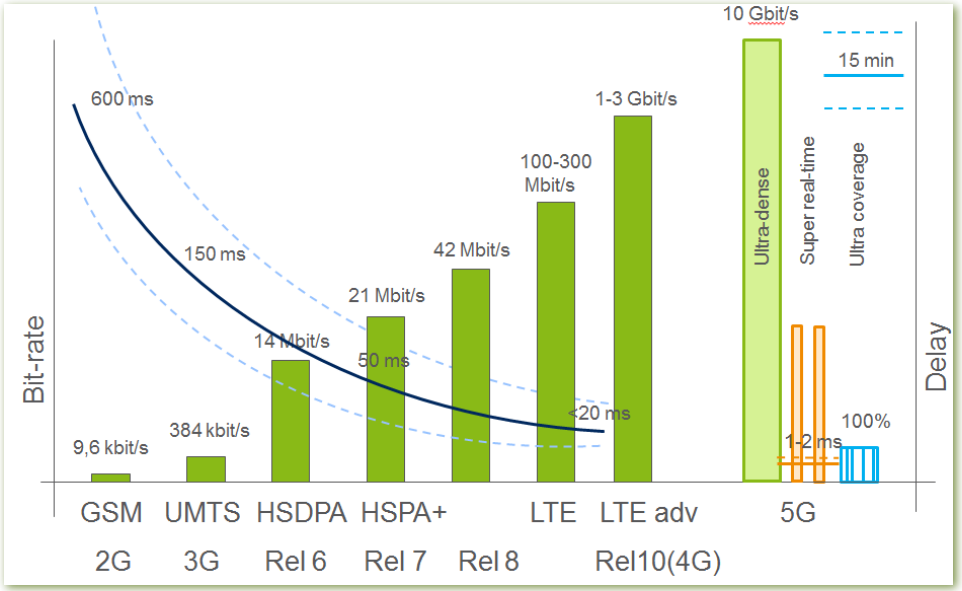
INCREASE NETWORK RELEVANCE

Devices

Super high speed

Super low latency

Innovation



Coverage everywhere

Cost efficiency

High capacity

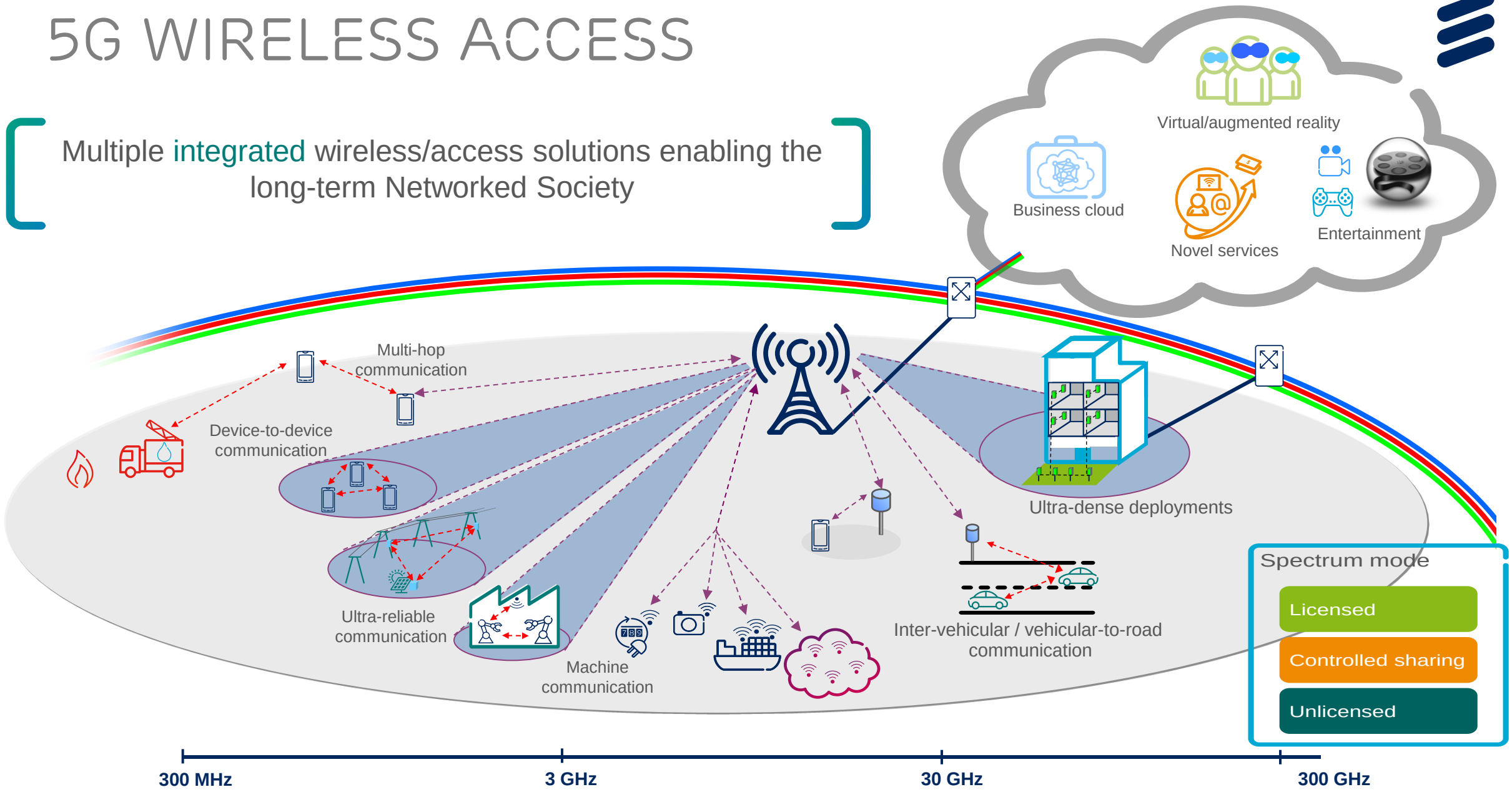
Scale

New Network Capabilities, Unlocking New Potential

5G

5G WIRELESS ACCESS

Multiple integrated wireless/access solutions enabling the long-term Networked Society



5G RESEARCH

METIS

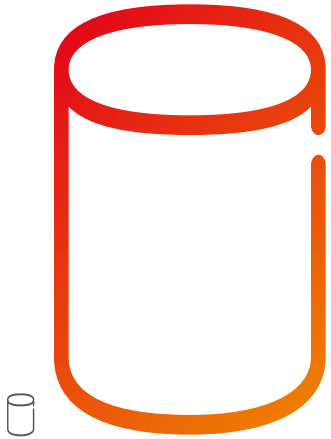
- A large FP7 EU project, 29 partners, 80 FTE
- Duration 2012 – 2015
- Initiated and led by Ericsson

Advanced 5G Network Infrastructure for the Future Internet

- An Industry Proposal for a Public Private Partnership in Horizon 2020

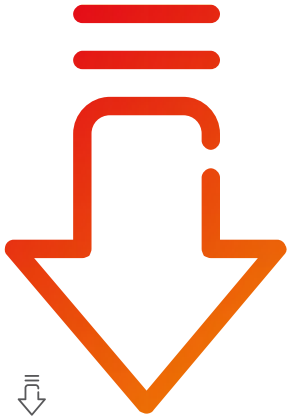
- Lay the foundation for 5G through exploring fundamentals, develop system concepts and test beds
- Pre-standardization research
- Alignment of the industry and regulatory bodies

METIS PROJECT OBJECTIVES



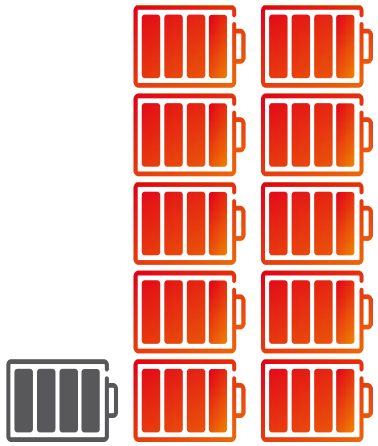
1000x
higher mobile data volumes

10-100x
higher number of connected devices



10-100x
typical end-user data rates

5x
lower latency



10x
longer battery life for low-power devices

Develop a concept for future mobile and wireless communications system that supports the connected information society

COMPONENTS AND ASPECTS

Small cell technologies &
Ultra Dense Networks

Power consumption
and sustainability

Antenna Technologies

Resilience, security
and privacy

Management

Spectrum

SOFTWARE RESEARCH AREAS

Technologies for product development efficiency

Scalability execution and resource efficiency

Software Architecture Principles

Quality

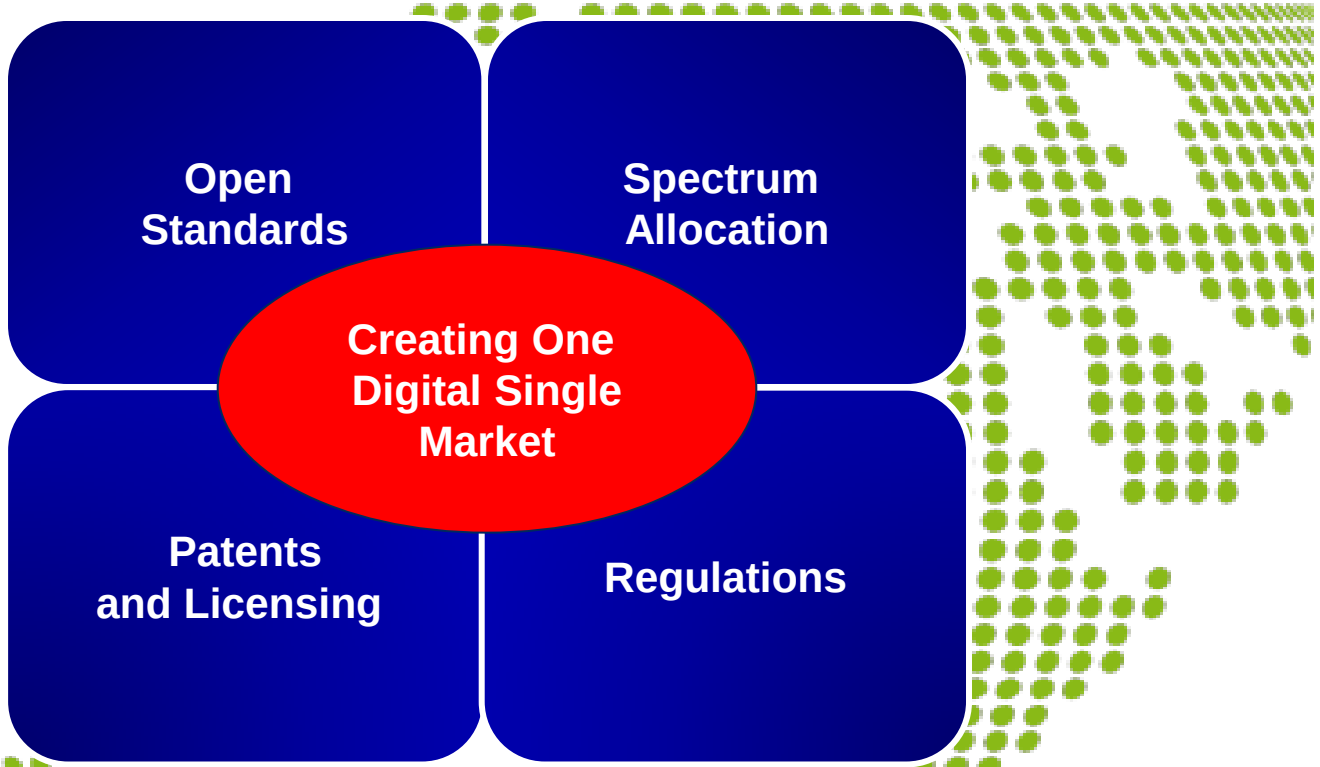
SOFTWARE LONG TERM CHALLENGES

Increasing demands and reliance on software intensive systems

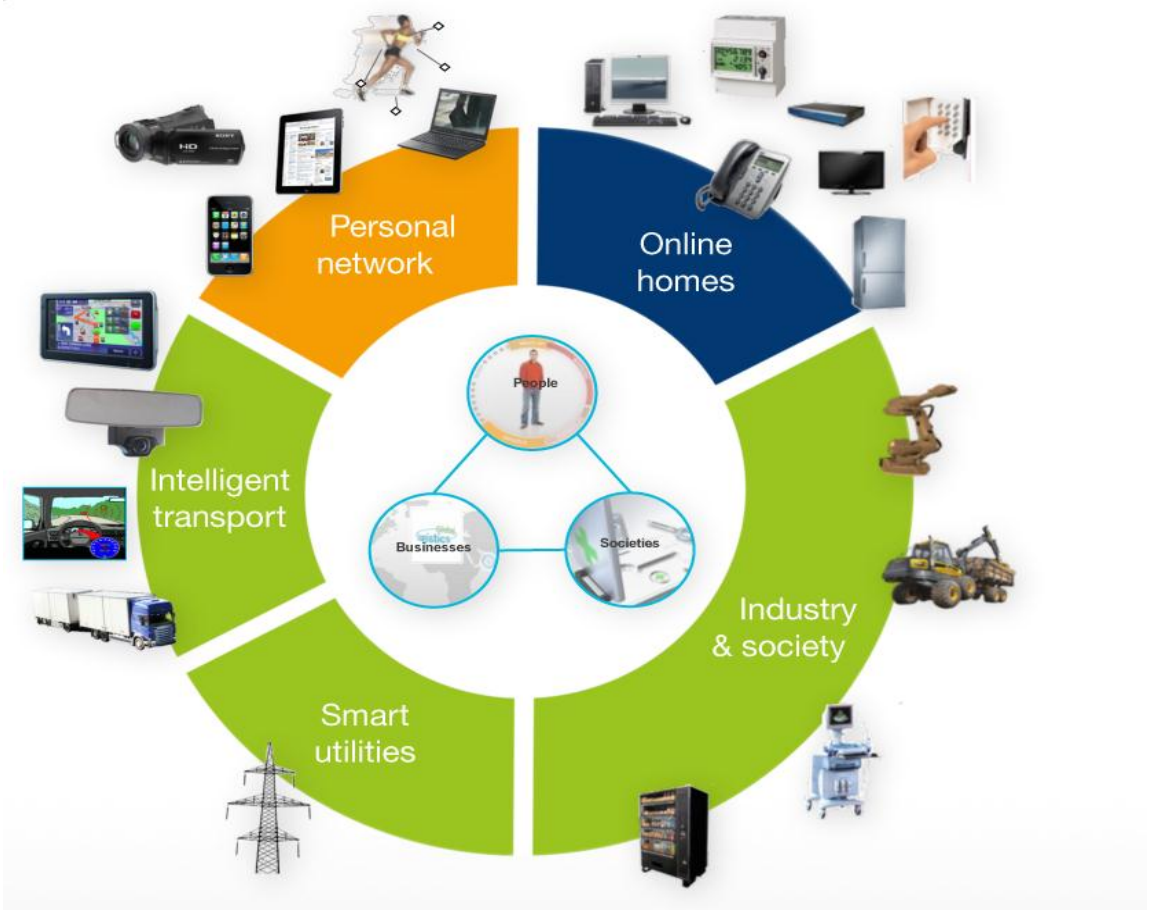
Increasing scale and complexity of applications and systems

A changing landscape of technology and applications

TOWARDS ONE DIGITAL SINGLE MARKET
ENABLING INNOVATIVE SERVICES AND PRODUCTS



THE NETWORKED SOCIETY



Anything that benefits from being connected will be connected

ERICSSON