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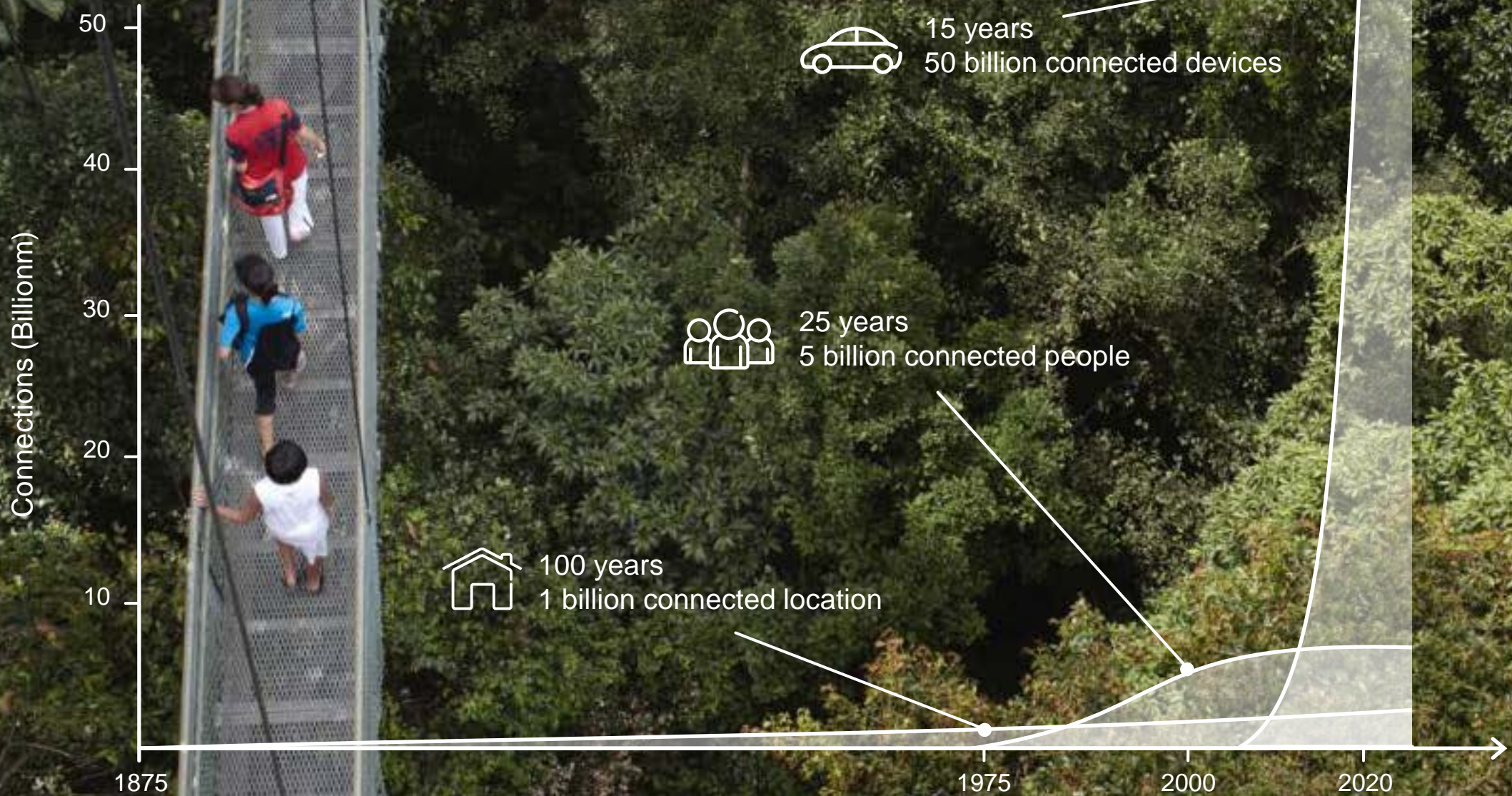
# Transformative Power of ICT



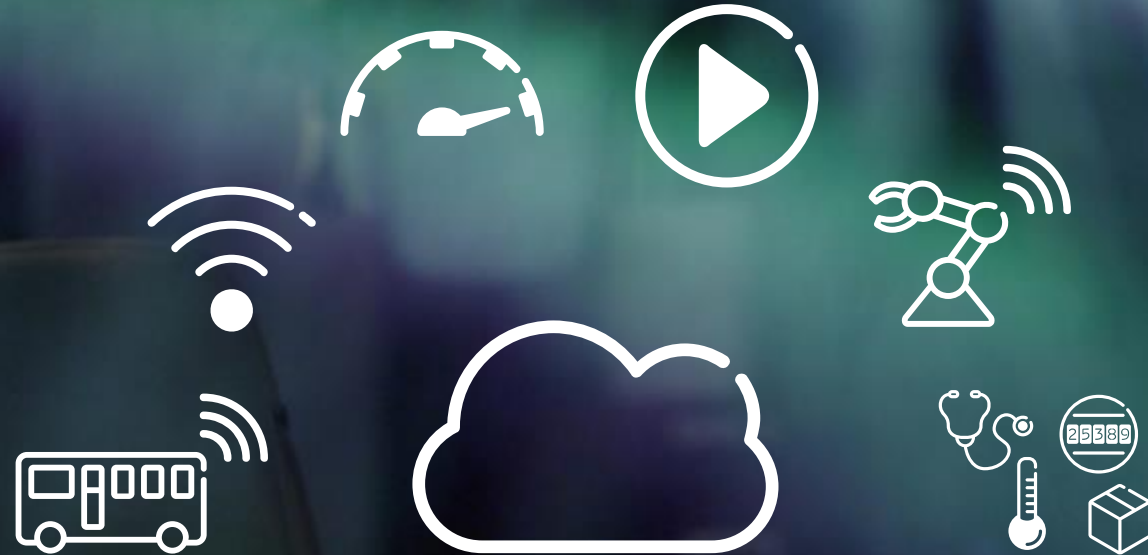
Roland Jakab

Managing Director  
Ericsson Hungary

# More connections



# ACCELERATING THE NETWORKED SOCIETY



Growth  
Agility  
Innovation  
Efficiency  
Ecosystem



5G, Internet of Things and Cloud accelerate the Networked Society



# Industry Transformation Underway



Vertical Silos

ICT

M2M

## BUSINESS MODELS



Innovation



Digitalization

## PLATFORMS



Analytics



Security



OSS/BSS

## INFRASTRUCTURE



Mobility



Broadband



Cloud

Cross-industry Collaboration

Enterprise & Line of Business

IoT





# Connected Devices in 2021

**28 BILLION**

Source: Ericsson Mobility Report, Nov 2015

**13 billion**

MOBILE PHONES, PC'S, LAPTOPS, TABLETS



**15 billion**

IoT DEVICES

A large, semi-transparent circular graphic on the left side of the slide. Inside the circle, the text '5g' is written in a large, white, serif font. Below it, the words 'USE CASES' are written in a smaller, white, sans-serif font. The background of the slide is a night-time cityscape with many lit-up buildings and streets.

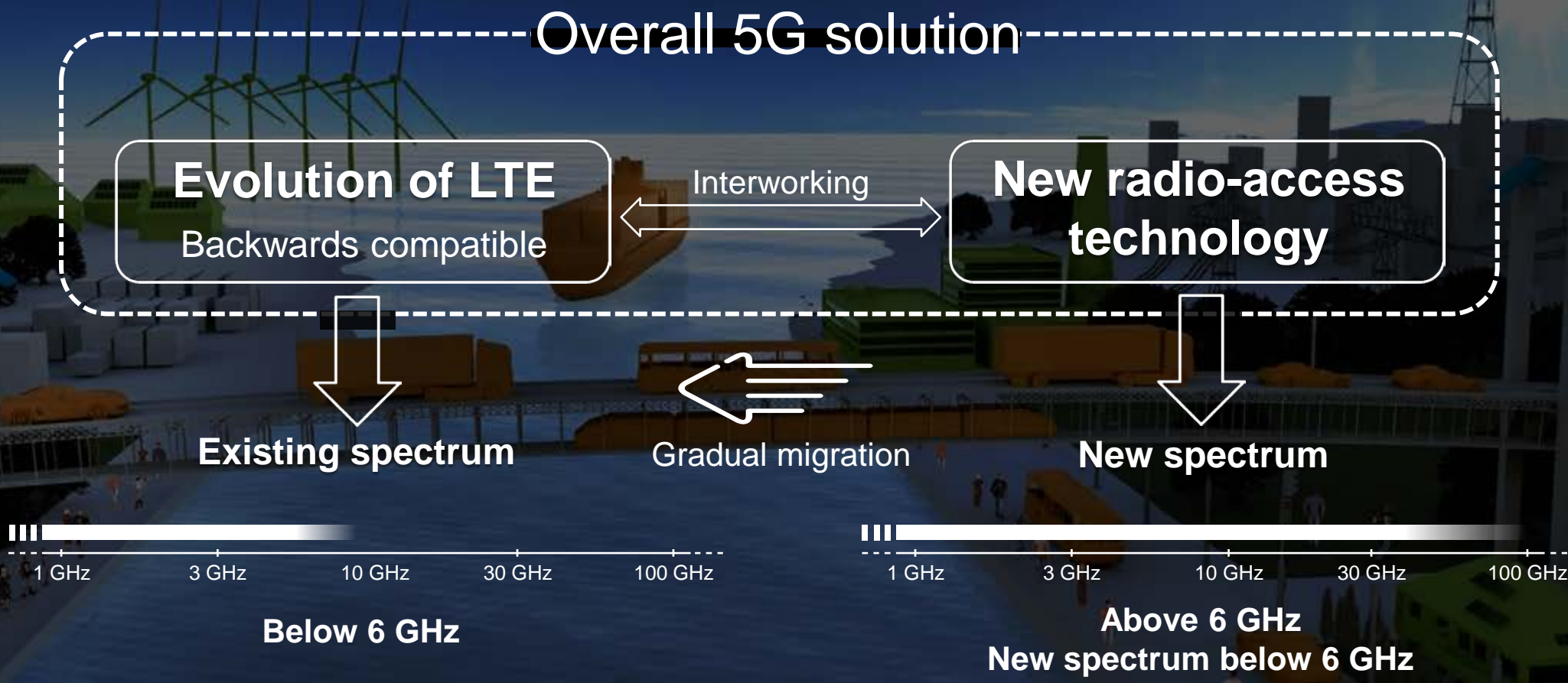
# 5g USE CASES

## **What will happen in the next five years?**

Industries will be transformed by new capabilities brought on by 5G. Examples of these capabilities include:

1. The ability to download a full-length HD movie in seconds.
2. The quick reaction time (low latency) to enable remote real-time tactile control.
3. The ability to spin up virtual networks on-demand with network slicing.
4. Battery lifetimes beyond 10 years for remote cellular devices.

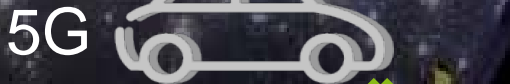
# 5G Radio Access



# 5G examples: A real game changer



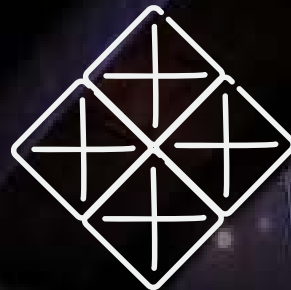
Full-length HD movie in seconds



Stop a self-driving car faster



Fixed wireless broadband



Drone control & communication



10 year battery life for remote sensors

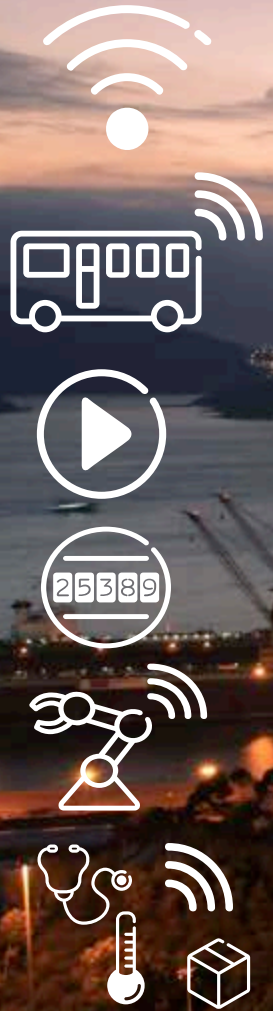


Virtual Reality / hologram



Remotely operate robots

# ONE network with dynamic and secure Network Slices

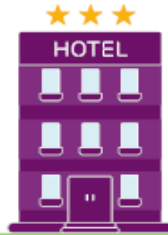


# 10 hot trend 2016



## 1. The Lifestyle Network Effect

With diversifying online use, social effects like crowd intelligence and the sharing economy multiply



## 2. Streaming Natives

Teenagers watch more YouTube video content daily than other age groups



## 3. AI Ends The Screen Age

Artificial Intelligence will enable interaction with objects without the need for a smartphone screen



## 5. Sensing Homes

Bricks used to build homes could include sensors that monitor mold, leaks and electricity issues



## 4. Virtual Gets Real

Consumers want virtual technology for everyday activities such as sports, and 3D food printing



## 6. Smart Commuters

Commuters want to use their time meaningfully and not feel like passive objects in transit



## 7. Emergency Chat

Social networks may become the preferred way to contact emergency services



## 8. Internables

Internal sensors in our bodies that measure wellbeing may become the new wearables



## 9. Everything Gets Hacked

Most smartphone users believe hacking and viruses will continue to be an issue



## 10. Netizen Journalists

Consumers share more information than ever and believe it increases their influence on society





Biggest risk?



ROI



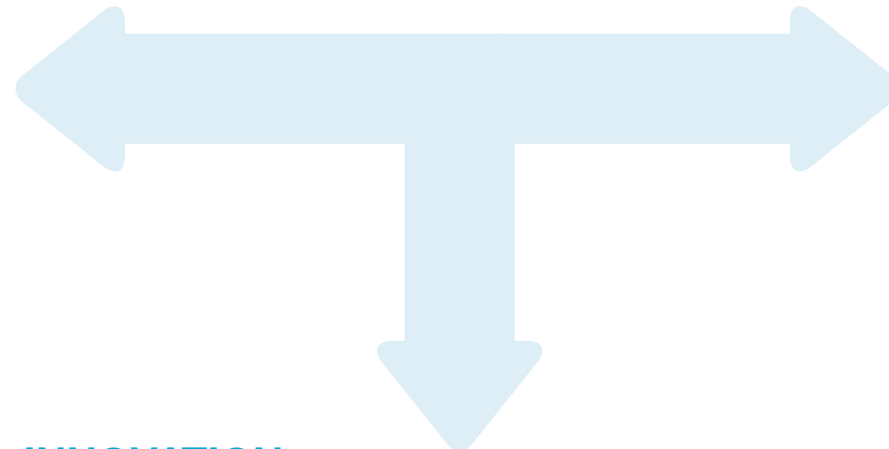
# Risk of ignorance

# Win <sup>3</sup>



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TECHNOLOGY LEADERSHIP



INNOVATION



M Ű E G Y E T E M 1 7 8 2

**INDUSTRIAL PROJECTS**

**STRATEGIC THINKING**



**ERICSSON**



# University Partnerships



Launching and supervising  
University projects



Ind. Internship for  
undergraduate and  
PhD students



Cooperation on EU projects



Participation in  
University Education



Launching and supervising  
PhD thesis



Strong relationship between  
universities and R&D dept.



# 7 principles

1. Fight fire with fire – embrace the threat
2. Disrupt yourself
3. Leverage the right assets
4. Focus on value, not structure
5. Rethink your core business
6. Don't stare in the mirror
7. Focus on platform engagement



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# Digital transformation changing industry logics



## **Industrial age logics:**

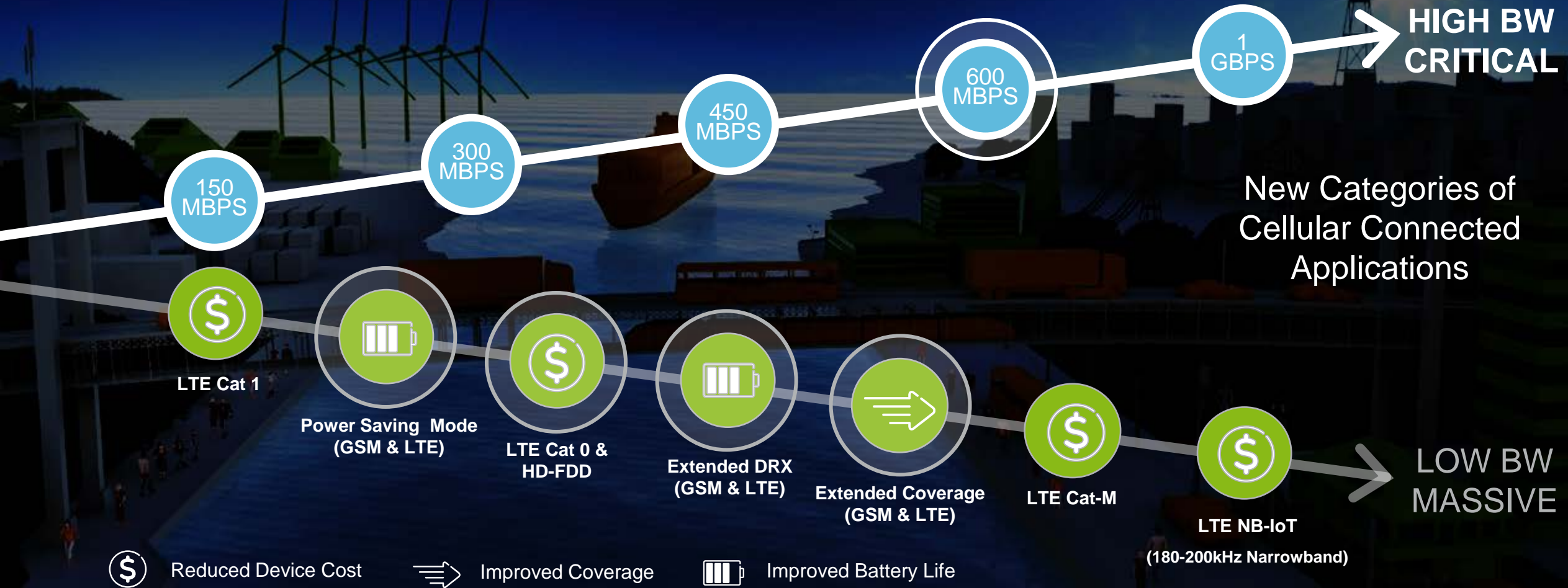
- Value-chains
- Products & services
- In-house innovation
- Customer solutions
- Scale with assets
- Transactional partnerships



## **Networked Society logics:**

- Value- & ecosystems
- SW & platforms
- Collaborative innovation
- Customer value-(co)creation
- Scale with scope and speed
- Strategic partnerships

# Performance diversification on the road to 5g



# Where is the Money?



# evolution of Our r & d and our university labs



<b>1991</b>	Ericsson Hungary launches R&D	>>>	<b>1992</b>	High Speed Networks Lab (BME VIK) launched
<b>1996</b>	Traffic Lab at Ericsson Hungary	>>>	<b>2000</b>	Comm. Networks Lab (ELTE TTK) launched
<b>2005</b>	Hardware development at Ericsson Hungary	>>>	<b>2006</b>	<100 Ericsson PhD at universities
<b>2007</b>	Ericsson Hungary development dept. expanding again	>>>	<b>2008</b>	Complex Hardware Lab (BME VIK) launched
<b>2011</b>	Software Technology Research starts at Ericsson Hungary	>>>	<b>2011</b>	Software Technology Lab (ELTE IK) launched
<b>2012</b>	Innovation Org. founded	>>>	<b>2014</b> <b>2015</b>	Joined EIT ICT Labs Ericsson Garage launched
<b>2013</b>	Budapest receives Cloud product development responsibilities, strong gain	>>>	<b>2014</b>	Cloud partnership with BME and SZE
<b>2015</b>	Growing strong at Analytics	>>>	<b>2015</b>	SZTAKI Partnership at Analytics

# From Idea to product

