

# Together, Embracing the 'Age of Light'

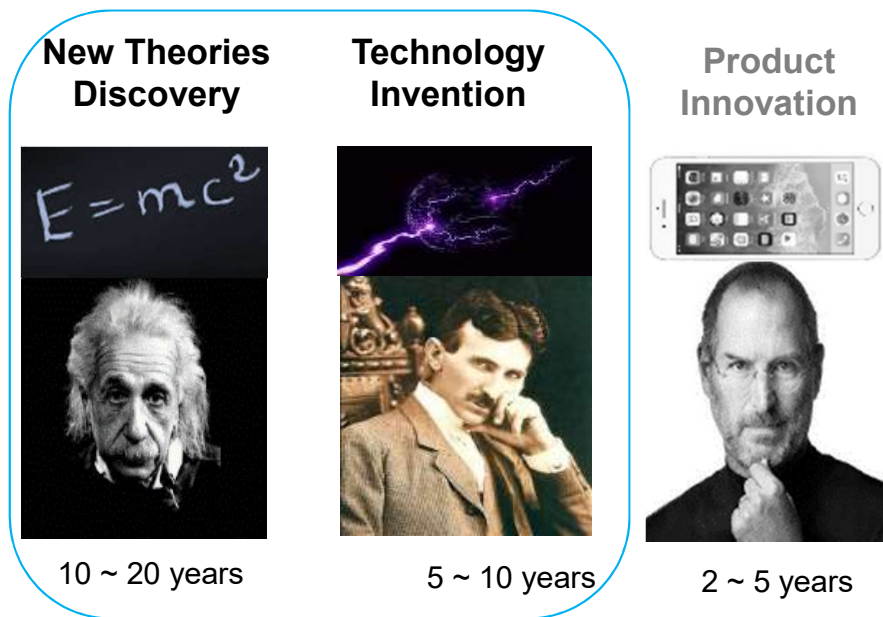
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EPIC Quantum Technology Meeting on Moving to Next-Generation Transport and eMobility

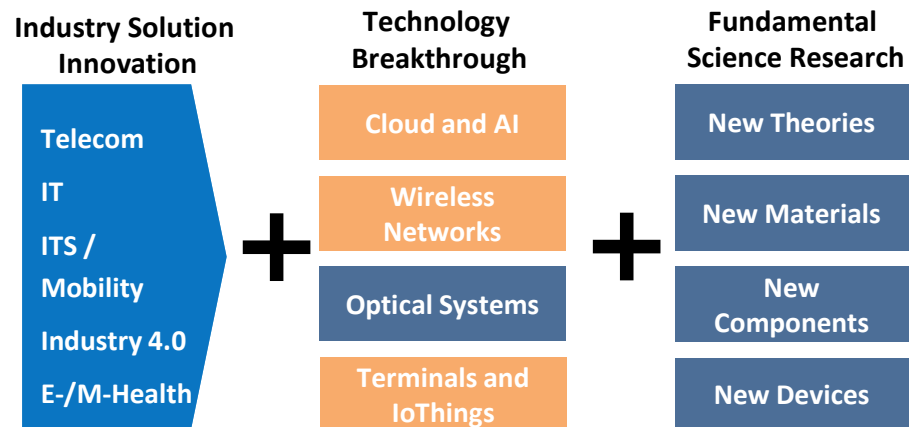
26/03/2021, online

# Huawei Research: Advancing The Limits

Cradle of breakthroughs that impact everyone



**Focus Huawei Research**

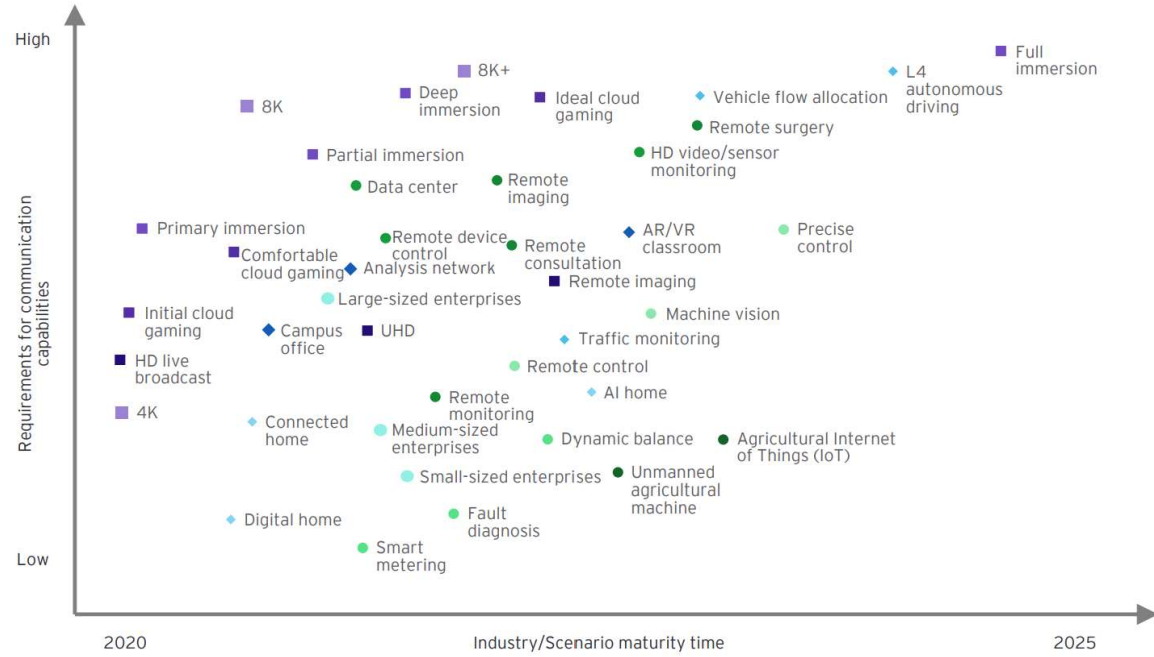


# Age of Light is Now!

- Instant diagnosis of major diseases
- Quality food from farm to fork
- Accident and congestion-free road transport
- A truly circular economy
- A million new jobs
- 10% higher productivity
- Zero downtime in a terabit economy
- Photonics as a flagship science for innovation



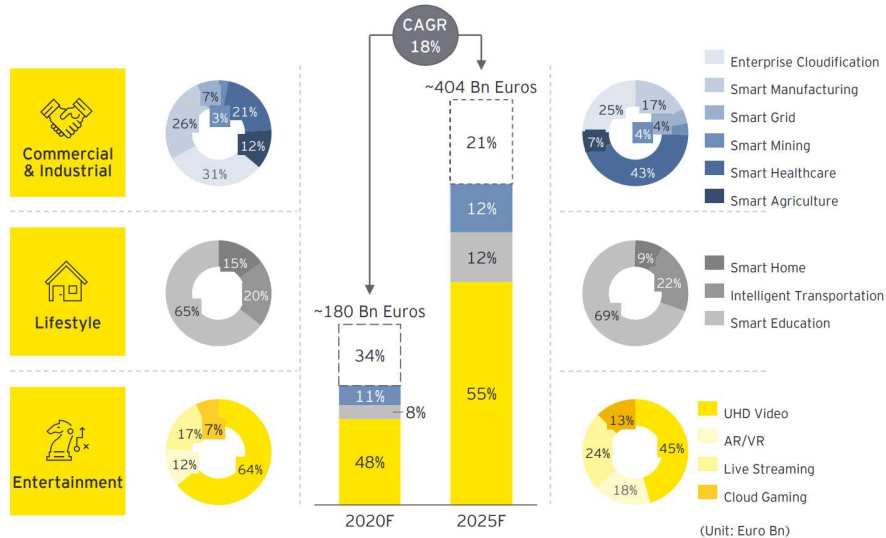
Figure 5: Recognition results of critical optical communications application scenarios



- Entertainment scenarios:**
  - UHD video
  - AR/VR
  - Cloud gaming
  - Live streaming
- Business scenarios:**
  - Smart manufacturing
  - Smart grid
  - Smart mining
  - Smart healthcare
  - Smart agriculture
  - Enterprise cloudification
- Daily life scenarios:**
  - Smart home
  - Intelligent transportation
  - Smart education

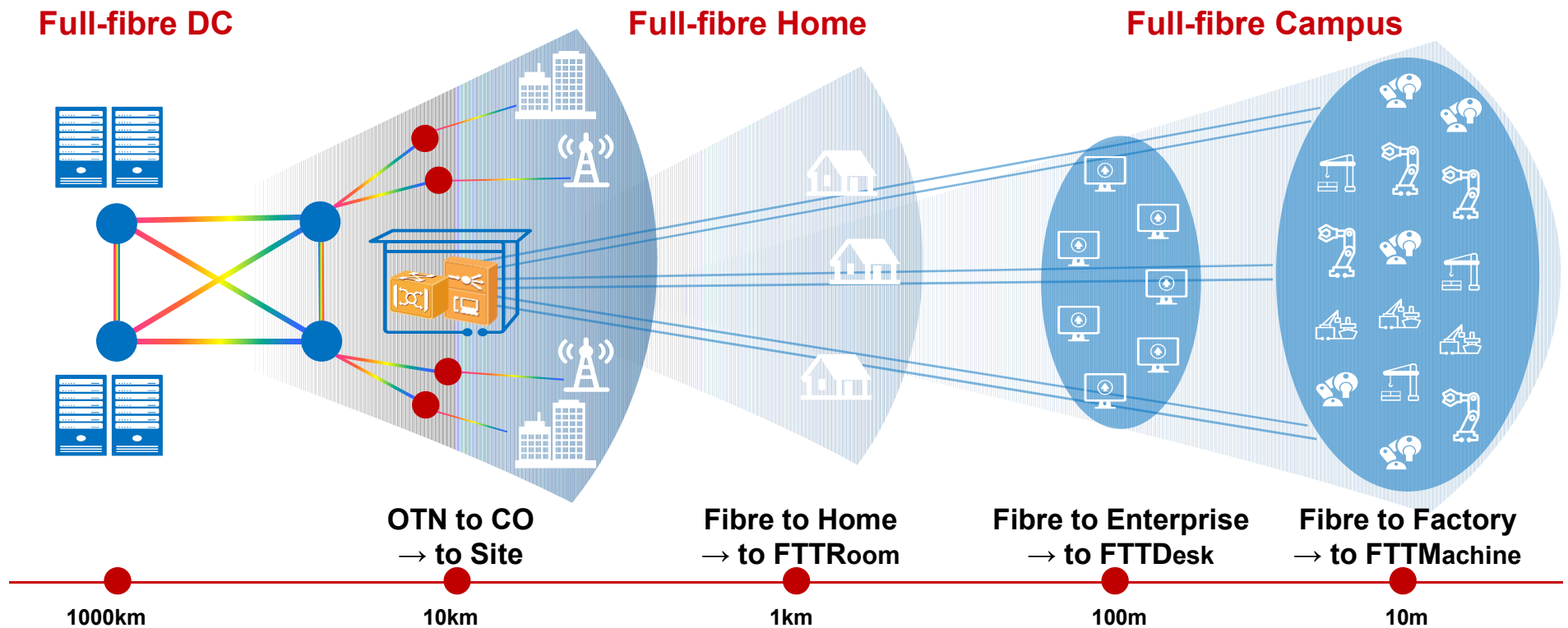
Source: EY Analysis

Figure 23: Emerging scenarios drive the global fixed network optical communications market size







Source: EY Analysis

# F5G a Vision of Optical Communication: Build Ubiquitous Full Fibre Connectivity



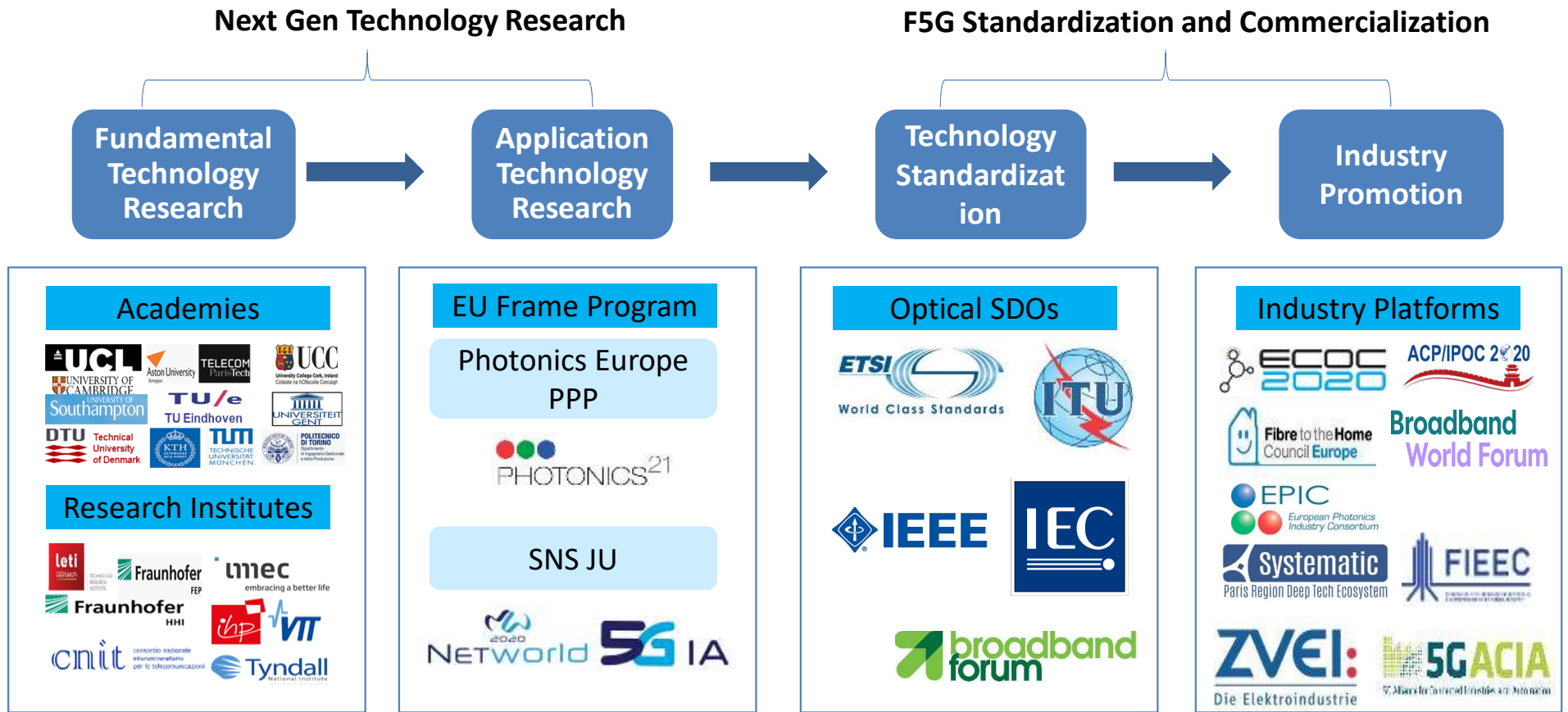
# Optical Network Evolution Driven by Applications and QoE

	<b>F4G</b>	<b>F5G</b>		<b>B-F5G</b>
<b>Vision&amp; Customers</b>	Fiber to Home	Fiber to the Everything Everywhere (Room/Bussiness/Cell site/ Machine...)		Optic to everything
<b>Key Characters</b>	FBB	eFBB, GRE, FFC		+ Full Optical + sensing
<b>Typical Applications</b>	4K Video Online gaming VOBB 	Cloud VR Video / Gaming POL Wireless X-Haul 	3D Shopping Industry/Mobility/Transport 	Holograph Brain-computer I/F Remote Surgery 
<b>Peak Rate</b>	1Gbps	10Gbps	N*10Gbps	N*50Gbps~1Tbps
<b>Experienced Rate</b>	100Mbps	1Gbps	N*1Gbps	N*10Gbps
<b>Latency/jitter</b>	5ms/5ms	1ms/100us	100us/10us	<10us/1us
<b>Reliability</b>	99.9%	99.99%	99.999%	99.9999%
<b>Connection density</b>	1X	10X	100X	1000X
	<b>2010~</b>	<b>2020~</b>		<b>Beyond 2025~</b>

- eFBB(enhancedFBB)
- GRE(Guaranted Reliable Experience)
- FFC(Fully Fiber Connected)



# Move-forward: Cooperation Around the Ecosystem for Industry



Look for Deep cooperation based on areas of interest for win-win

Join ISG F5G of ETSI TO streamline the standard and specification for industry

Thank you!

**Together,** we make it happen.

