

# THE DISRUPTIVE POTENTIAL OF 5G TECHNOLOGY

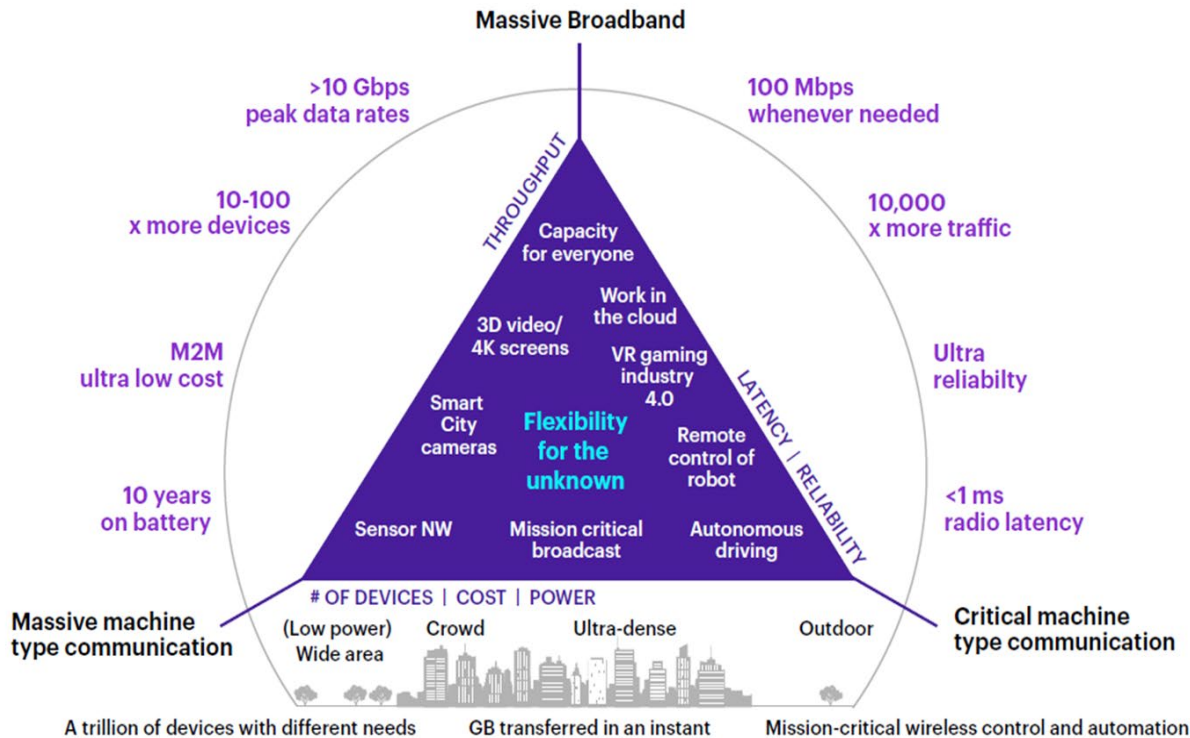
**Infocom  
Mobile & Connected World  
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**Network Services Consulting**

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# 5G IS MORE THAN A GENERATIONAL STEP...IT REPRESENTS A **FUNDAMENTAL TRANSFORMATION** OF THE ROLE THAT MOBILE TECHNOLOGY CAN PLAY IN SOCIETY



**“5G REPRESENTS A NETWORK OF NETWORKS WITH AN OPPORTUNITY TO CREATE AN AGILE NETWORK TAILORED TO DIFFERENT NEEDS OF CONSUMERS, CITIZENS, ENTERPRISES AND THE ECONOMY”**

# RESEARCH INSIGHTS

## 5G IS STARTING TO BE SEEN AS A **GAME CHANGER**...BUT A DEEPER UNDERSTANDING OF 5G'S POTENTIAL IS STILL **AMBIGUOUS**

### UNDERESTIMATING 5G DISRUPTION

53%

Of business executives believe there are **"very few" things 5G will enable them** to do that they can't already do with 4G

37%

Only 2 in 5 executives expect 5G to provide a **revolutionary shift in speed and capacity**

72%

Of executives need **help** to imagine the future use cases and possibilities of 5G

### POSITIVE 5G OUTLOOK

60%

Of executives believe that 5G will **cover nearly all the population** by the year 2022

70%

Believe that 5G applications will give them a **competitive edge with customers**

Source: Accenture Study

<https://newsroom.accenture.com/news/business-and-technology-executives-underestimate-the-disruptive-prospects-of-5g-technology-accenture-study-finds.htm>

# RESEARCH INSIGHTS

## EXECUTIVES NEED HELP IMAGINING THE NEW POSSIBILITIES UNLOCKED BY 5G...CSPs ARE A KEY PARTNER TO HELP ACCELERATE THE 5G JOURNEY

### PIVOTAL ROLE FOR TELCOS WITH 5G

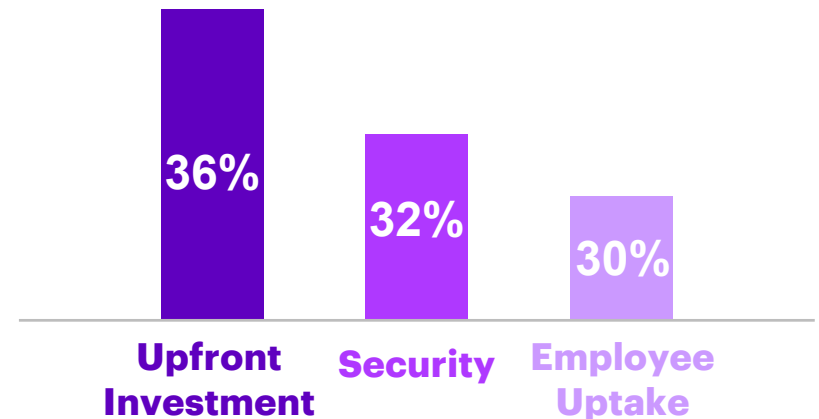


Of executives plan to **partner** with **Telecommunications** companies on their 5G journey



Of executives say there is a **lack of knowledge** among CSPs about the **challenges** in their industries

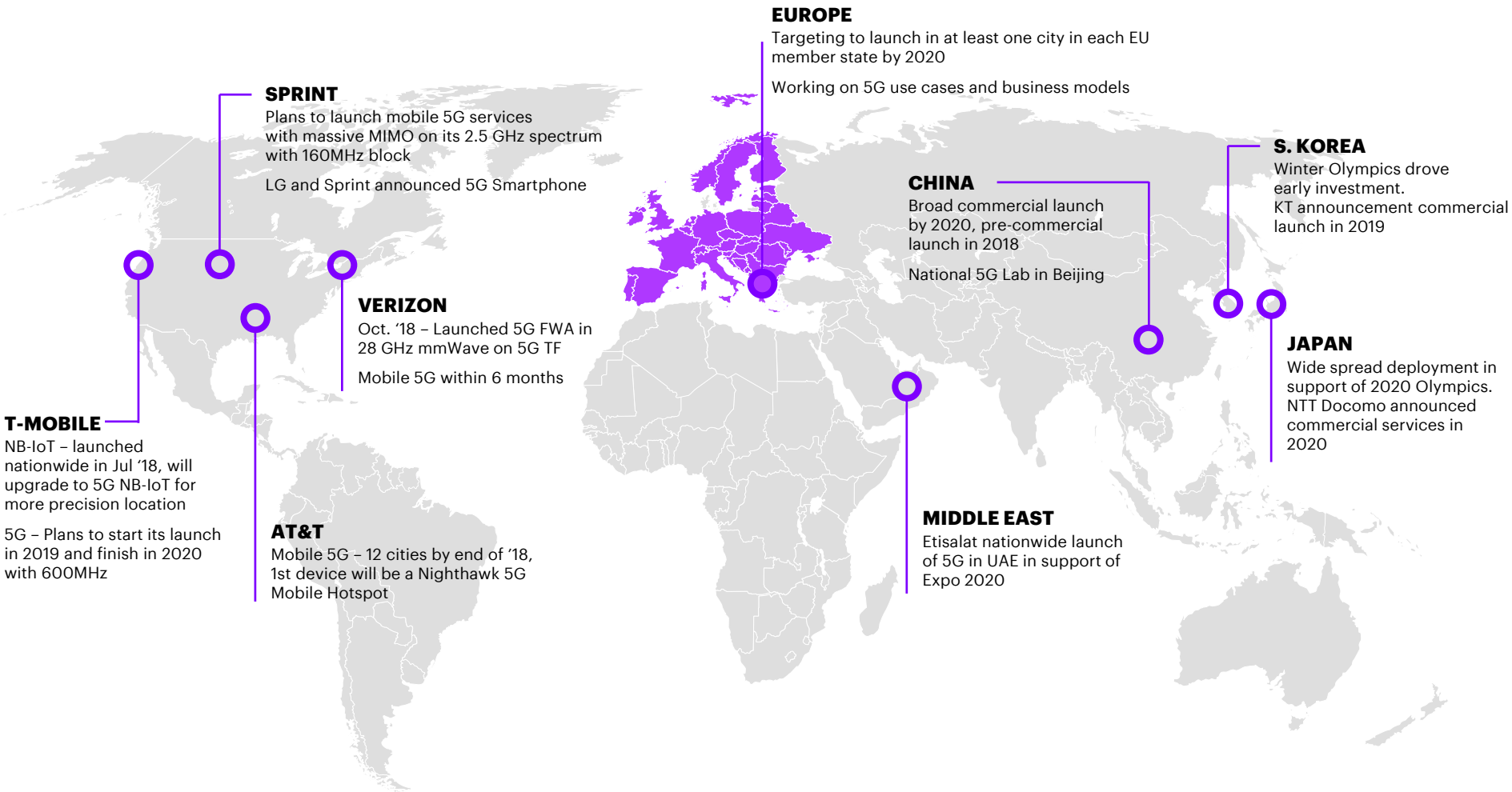
### BARRIERS TO 5G ADOPTION












Source: Accenture Study

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# STATE OF 5G - GLOBAL READINESS



# 5G ECOSYSTEM OFFERS NEW APPLICATIONS ACROSS VARIOUS CUSTOMER SEGMENTS AND DIFFERENT DEPLOYMENT SCENARIOS

<b>Ultra Low Latency (ULL)</b>	Virtual Reality (VR) Augmented Reality (AR) Extended Reality (XR) 	Autonomous Vehicles / V2X Mesh / Edge Compute 	Robotics / Automation / Remote Operations 
<b>Enhanced Mobile Broadband (eMBB) and FWA</b>	Next-gen Comms / Social / AI Assistant / Training 	Ultra Resolution Video / Next-gen Entertainment 	Fixed Wireless Access / Mobile 
<b>Massive Internet of Things (mIoT)</b>	Massive Sensor Networks 	Smart City / Smart Spaces 	UAV / Connected Drones / Internet of the Sky 

<b>Customer Segments</b>	<b>Consumer</b> Mobile, Nomadic, Stationary		<b>Small and Medium Business (SMB)</b>		<b>Enterprise</b> Corporations, Sports Teams, Media Companies, Higher Ed Universities		<b>Government</b> Federal, State and Local, Education (K-12)		<b>Industry</b> Manufacturing, Retail, Health, Agriculture, Oil & Gas, Financial Services, Utilities	
	<b>Deployment Scenarios</b>	<b>In-Home</b>	<b>In-Building</b>	<b>Venue</b>	<b>Dense Urban</b>	<b>Urban</b>	<b>Suburban</b>	<b>Rural</b>		

# 5G KEY CHALLENGES



## **Spectrum access/network deployment feasibility**

Spectrum will remain critical to 5G. 5G will need spectrum within 3 key frequency ranges. Availability/at what cost will impact the 5G business case



## **Strategy use cases and business model**

Financial outlook pressure on traditional revenue; finding new models and the investment requires a business case



## **Device innovation & technology breakthroughs**

New 5G radio will be challenged to deliver improved spectral efficiency. The push for <1ms latency will require innovation and evolution



## **Network deployment approach**

Use of mmW frequencies needs network design breakthroughs. 5G & Small Cells differ from 4G and need new regulatory and deployment approach



## **Architectural and platform innovation**

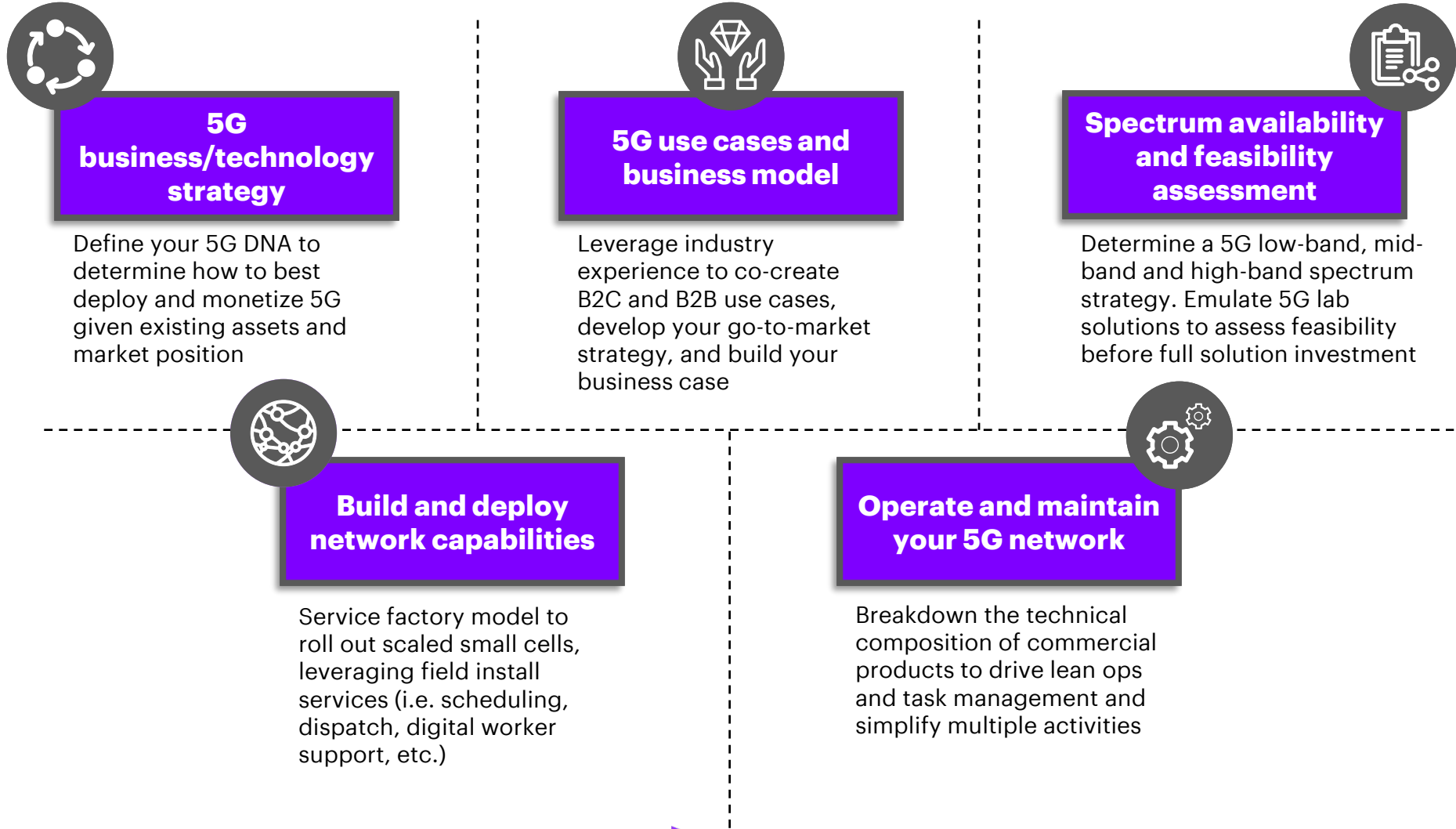
New Architecture, Platforms promote disruptive technologies in greenfield areas; network slicing will need a new operating model



## **Operational complexity**

Network & IT architecture merge, E2E Services-based operations — this leads to a tidal transformation in stacks, processes and people

# ACCENTURE NETWORK 5G ACCELERATION SERVICES





# THANK YOU



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