

Qualcomm

Cristiano Amon

President and CEO, Qualcomm Incorporated

@cristianoamon



Mobile



**Connected
intelligent edge**

Enabling a world where everyone and everything is intelligently connected

BY 2025

64%

of data will be created outside of traditional data centers. **More data at the edge requires more local processing and intelligence.**

Key industry trends are driving demand for Qualcomm technologies



Enterprise transformation of the home



5G as wireless fiber



Digital transformation of industries



5G expands into enterprise networking



Virtualization of mobile infrastructure



Every "thing" connects to the cloud



AI gains scale at the edge



5G enables on-demand computing



Convergence of mobile and PC



Gaming moves to the cloud



Merging of physical and digital spaces



XR as the device platform for the metaverse



Vehicles become cloud connected



Assisted driving gets scale



Digital chassis becomes the key asset in automotive

**Uniquely positioned to grow
across multiple industries in
addition to handsets**



Automotive



Industrial IoT



Consumer IoT



**IoT Edge
Networking**

One technology roadmap that scales to address all growth vectors



Edge AI



Camera



Graphics



Processing



Connectivity

On-device
intelligence

High performance,
low power

Everything
wireless

HIGH COMPLEXITY



LOW COMPLEXITY

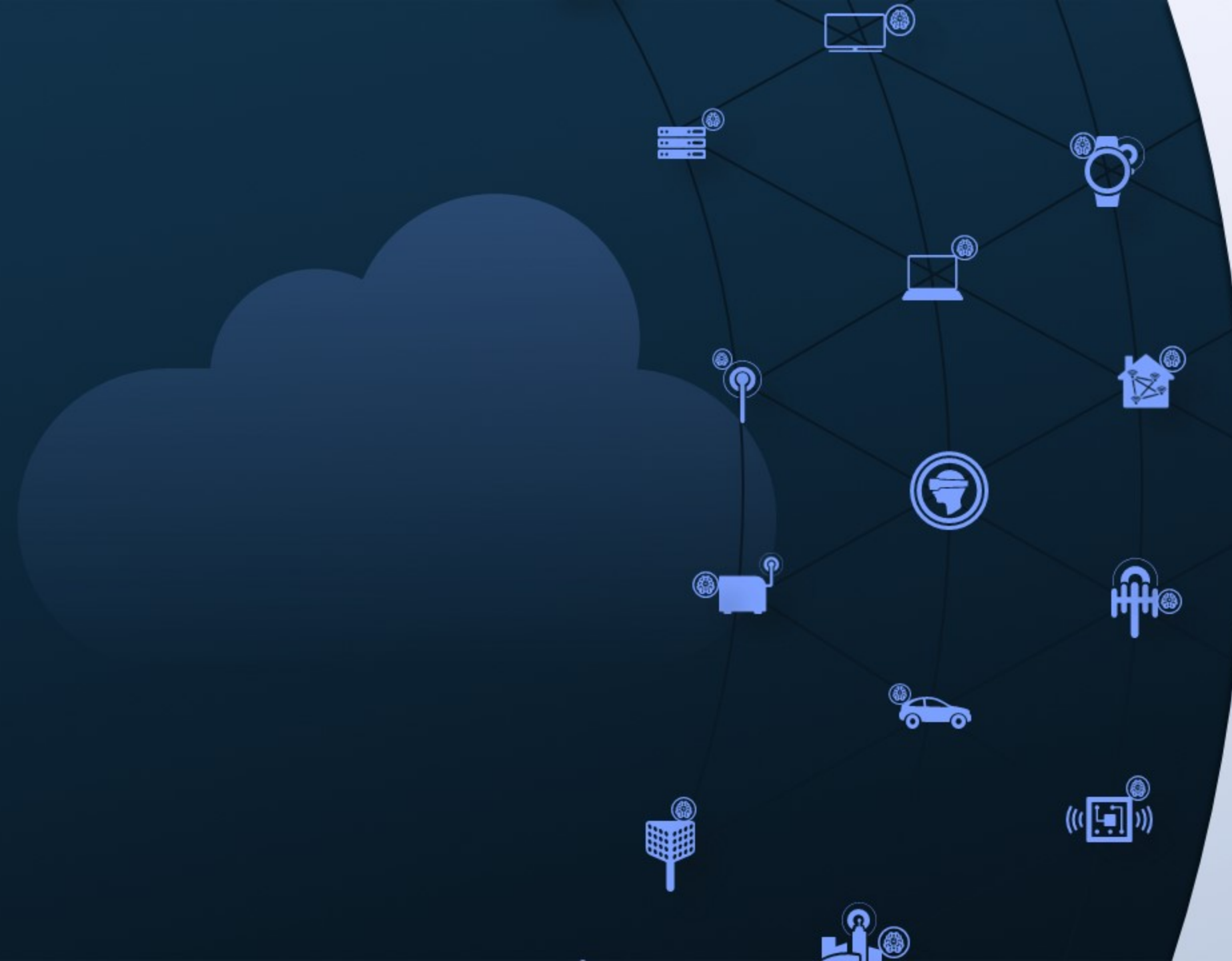
> 7x

Addressable market
expansion in the next
decade



1. SAM: Servicable Addressable Opportunity; 2. TAM: Total Addressable Opportunity. A combination of internal and third-party estimates

Cloud growth requires the
connected intelligent edge



Cloud growing at

35%

year-over-year

We are at the beginning of one of the largest opportunities in our history

Industry trends
creating new
vectors of growth

Demand for our
technologies across
virtually every industry

One technology roadmap
drives earnings expansion

Focused on customers and
industries that drive stable,
long-term revenues

Expanding TAM and diversification while increasing margins and stockholder returns



In an intelligently connected world, virtually every road leads to Qualcomm.

Our strategy



Handsets

Snapdragon is the platform of choice for premium- and high-tier Android smartphones



RF front-end

Redefine connectivity as modem + RF front-end and expand across industries



Automotive

Preferred partner for the digital chassis



IoT

Connectivity and smart processing for the cloud-connected edge

← Enabled by one technology roadmap →

**Snapdragon is the platform of choice
for premium- and high-tier Android smartphones**





#1

Consumer preference

Mobile platform for Android¹



#1

Mobile gaming

Desktop-level features²



#1

Modem-RF

Performance and key features³



#1

Wi-Fi

Peak performance, Wi-Fi 6/6E⁴



#1

AI

Performance per watt⁵



#1

Sound

CD lossless audio over Bluetooth⁶



#1

Camera

Leading DXOMARK ratings⁷



...while delivering all-day
battery life⁸

1. Qualcomm global brand tracker; 2. Internal competitive analysis; 3. First-announced 10 Gigabit 5G and 3GPP Release 16 Modem-RF System; 4. Fastest Wi-Fi peak speeds in commercially available device and access point chipsets; 5. Internal competitive analysis; 6. First-announced CD lossless audio codec over Bluetooth; 7. DXOMARK ratings for devices based on Snapdragon; 8. Battery life varies significantly with settings, usage and other factors. Snapdragon Elite Gaming and Snapdragon Sound are products of Qualcomm Technologies, Inc. and/or its subsidiaries



The power of the Snapdragon brand



#1 preferred global smartphone mobile processor brand¹

Snapdragon brand value would place it within Interbrand's top 100 brands²

>80% awareness in China and India¹

#1 mobile processor fan community³ (Snapdragon Insiders)



HONOR

vivo

oppo

Two-year

customer commitments for
premium and high-tier handsets

SAMSUNG

Design wins across tiers for 2022

Worldwide volume



Galaxy Z
Fold series



Galaxy Z
Flip series



Galaxy
S series

40-50% volume

**Redefine connectivity as modem + RF front-end
and expand across industries**

RF front-end
positioned to
be the global
revenue leader

Exceeded 2019 Analyst Day target

1 year early

RF front-end handset revenue in FY21

#1 in industry

SAMSUNG



SONY

ZTE

∞ Meta

vivo

HONOR

SHARP



acer

oppo

Lenovo



QUECTEL®
Build a Smarter World



**Performance
leadership
and scale
across product
categories**



Power tracking
Power amplifier
modules
mmWave
Antenna tuner

Low-noise
amplifier
Diversity modules
Discrete filters

8 Billion

Total RF front-end units shipped in FY21

>300 Million

Units shipped of each component in FY21

Expansion of RF front-end



Global adoption
of mmWave



Extend modem + RF
strategy to Wi-Fi



Attach RF front-end to
automotive and IoT

The preferred partner for the digital chassis



Automotive



A leader in automotive

#1 in telematics, automotive connectivity and premium next-gen infotainment¹

25+ global automakers have selected Snapdragon Cockpit platforms

Well-positioned in ADAS

with telematics, cockpit assets and pending Arriver² acquisition

1. Internal sales data, Infotainment for production cars starting in 2020;

2. Arriver expected to close in 2022, subject to regulatory approval and other closing conditions. Snapdragon Automotive Cockpit Platforms are products of Qualcomm Technologies, Inc. and/or its subsidiaries

Source: Internal data



The car is being transformed

Snapdragon digital chassis

A platform for the future
of automotive

Snapdragon car-to-cloud

Pre-integrate software and
services platforms to drive
new monetization models

Snapdragon ride platform

Scale ADAS L2+ with
Arriver¹ and integrate
platform into digital chassis



Snapdragon cockpit platform

Transform the in-car
experience and provide
window to services

Snapdragon auto connectivity

Transition industry to
5G connected car and
intelligent transportation

>10x

Future silicon + software
opportunity per car across
telematics, digital cockpit
and ADAS

1. Arriver expected to close in 2022, subject to regulatory approval and other closing conditions

Source: Internal estimate; Snapdragon digital chassis, Snapdragon car-to-cloud, Snapdragon ride platform, Snapdragon cockpit platform, and Snapdragon auto 5G modem-RF are products of Qualcomm Technologies, Inc. and/or its subsidiaries

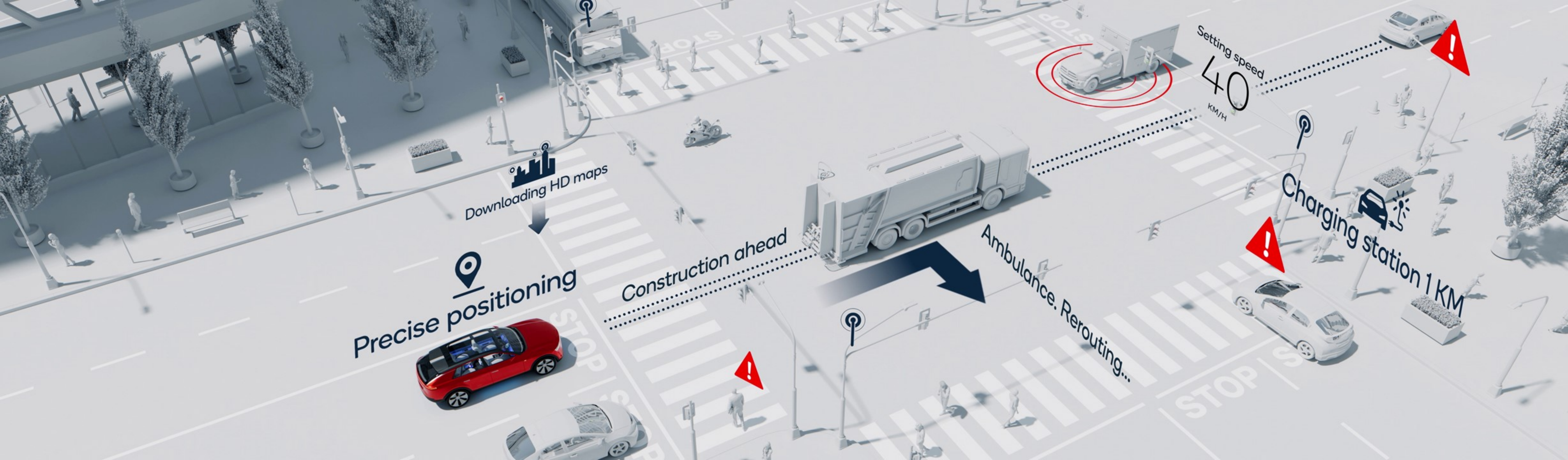


"GM is in the midst of a transformation driven by technology with the ultimate goal of enabling zero emissions, zero congestion, and zero crashes.

Qualcomm's Snapdragon Automotive hardware and software platforms are key to enabling a series of exciting new and enhanced technology offerings in 2022 and beyond from software-enabled services to advanced driver assistance systems like Super Cruise."

SCOTT MILLER

VP, SOFTWARE DEFINED VEHICLE AND OPERATING SYSTEM, GENERAL MOTORS



Precise positioning

Downloading HD maps

Construction ahead

Ambulance. Rerouting...

Setting speed
40
KM/H

Charging station 1 KM



Snapdragon ride
platform

Qualcomm + **Arriver**¹

Scalable

Open

Proven²



1. Acquisition expected to close in 2022, subject to regulatory approval and other closing conditions

2. Commercially proven independent of Qualcomm solutions



Front and surround vision

Drive policy

Parking

Driver monitoring

Safe OS | SDKs | Middleware



Scalable L1 to L3
ADAS SoCs



L3/L4 ADAS
Accelerator

A comprehensive solution for advanced driver assistance and autonomous driving

Qualcomm

Arriver

Qualcomm

Arriver

OEM stack

Pre-integrated partner

Valeo

BOSCH

Zong Mu

OEM stack

Pre-integrated partner

seeingsmachines

OEM stack

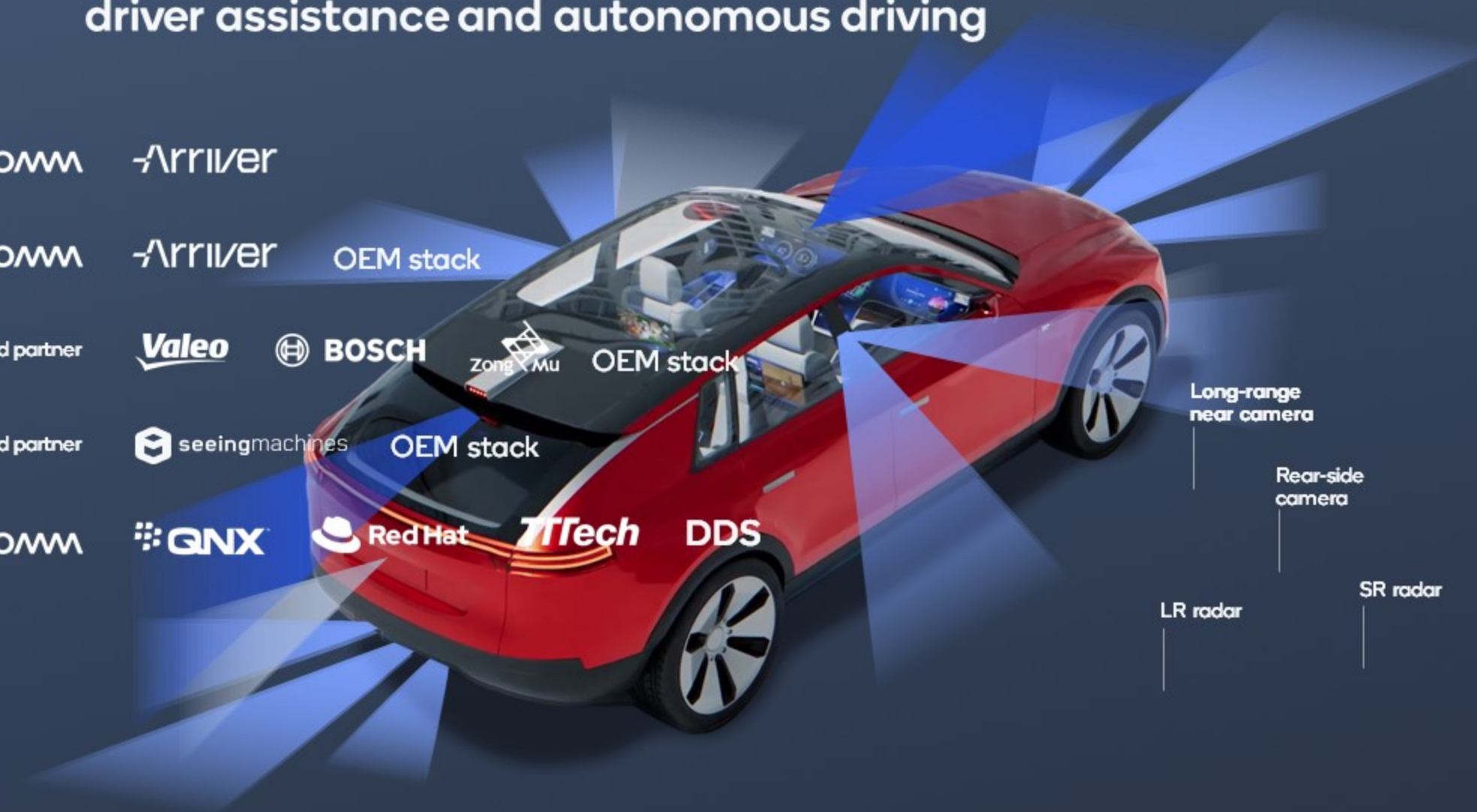
Qualcomm

QNX

Red Hat

TTTech

DDS



Side camera

Mid-range camera

Long-range camera

SR radar

LR radar

SR radar

Side camera

Long-range near camera

Rear-side camera

LR radar

SR radar



Qualcomm

"BMW has chosen Qualcomm Technologies as our technology partner and systems solutions provider based on the company's breadth and depth of portfolio, as well as proven expertise in compute, connectivity, computer vision, advanced semiconductors and driver assistance technologies.

We look forward to working in direct relationship with Qualcomm Technologies to build our next-generation ADAS/AD platform, as well as to continue delivering world-class driving experiences to our customers."

NICOLAI MARTIN
SVP DRIVING EXPERIENCE, BMW GROUP

Connectivity and smart processing for the cloud-connected edge



Consumer IoT



**IoT Edge
Networking**



Industrial IoT

Connectivity and smart processing for the cloud-connected edge



Consumer IoT



IoT Edge Networking



Industrial IoT

Always connected
IoT Next
High performance,
low power

On-device
intelligence

Consumer



Compute



XR



Wearables



Consumer
electronics

Edge Networking



5G
wireless fiber



Wi-Fi
access points



vRAN
infrastructure

Industrial



Retail



Smart cities



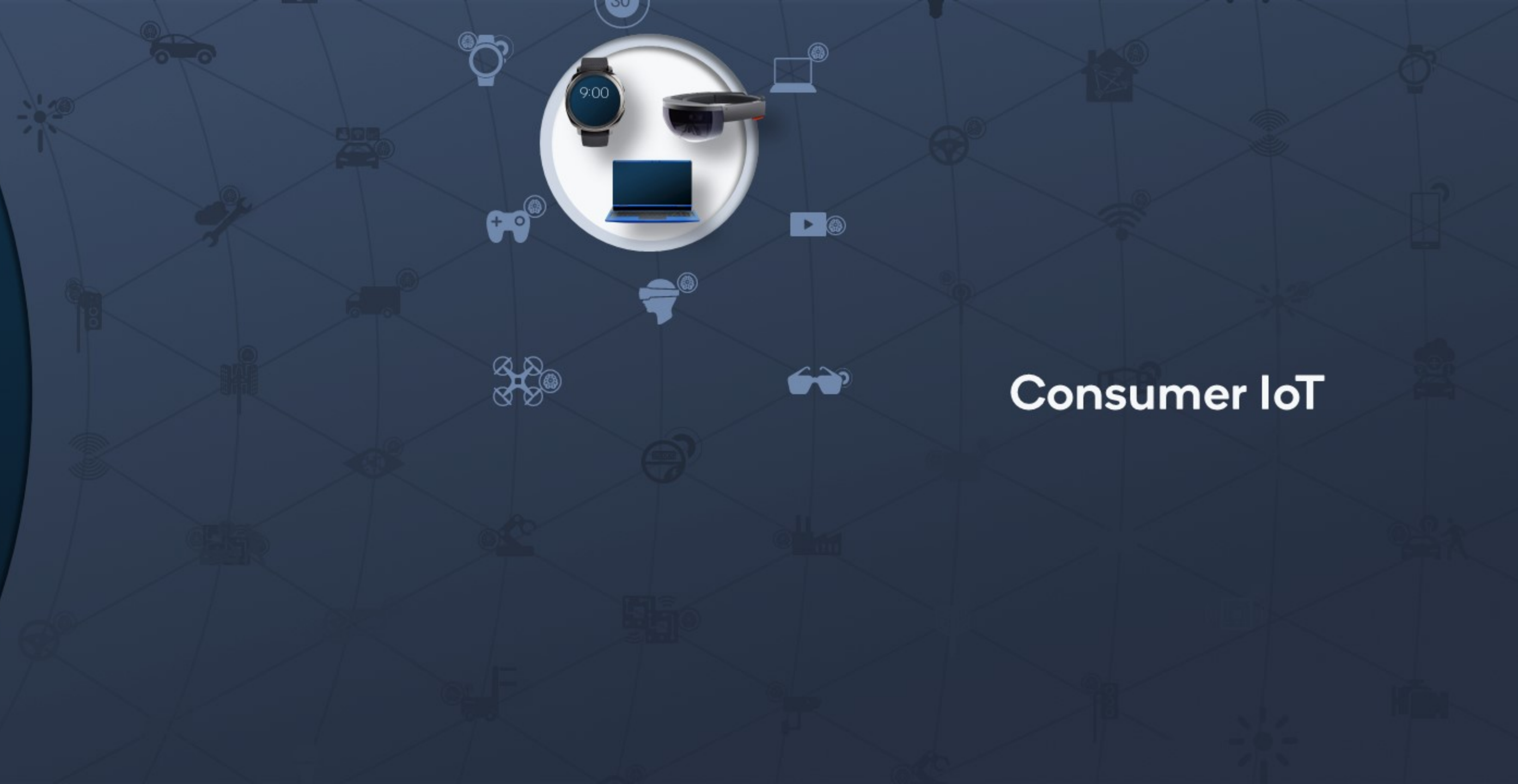
Energy



Manufacturing

**Delivering advanced
technologies for new
consumer experiences**

Consumer IoT



**Accelerating
wearables and
next-generation
consumer
electronics**



**Expanding the
Snapdragon
platform with
attached devices**



**Powering
category-leading
devices**



"At Amazon, we invent on behalf of customers. Our vision is a world powered by ambient intelligence, where we use AI to weave together devices and services in a way that offers customers more value than any one product could on its own. **Qualcomm's technologies help us realize this vision, delivering world class solutions that make it a reality across multiple products,** and support our advancements in the fields of connectivity, AI, and computing on the edge."

DAVE LIMP

SENIOR VICE PRESIDENT, AMAZON DEVICES & SERVICES

Driving convergence of mobile and PC

Snapdragon enables the next-generation laptop

Always connected¹

Enterprise anywhere

On-demand computing

Immersive video conferencing

- Advanced camera
- Crystal-clear audio

5G cloud gaming

On-device AI-accelerated experiences

Multi-day battery life²

Leading performance per watt³



acer

Lenovo

SAMSUNG

ASUS[®]
Inspiring Innovation - Persistent Perfection

 Windows 11



Positioned to be the preferred platform for PCs in the inevitable transition to Arm

Next-gen CPU

Designed to lead in performance and power efficiency

Industry-leading Nuvia team

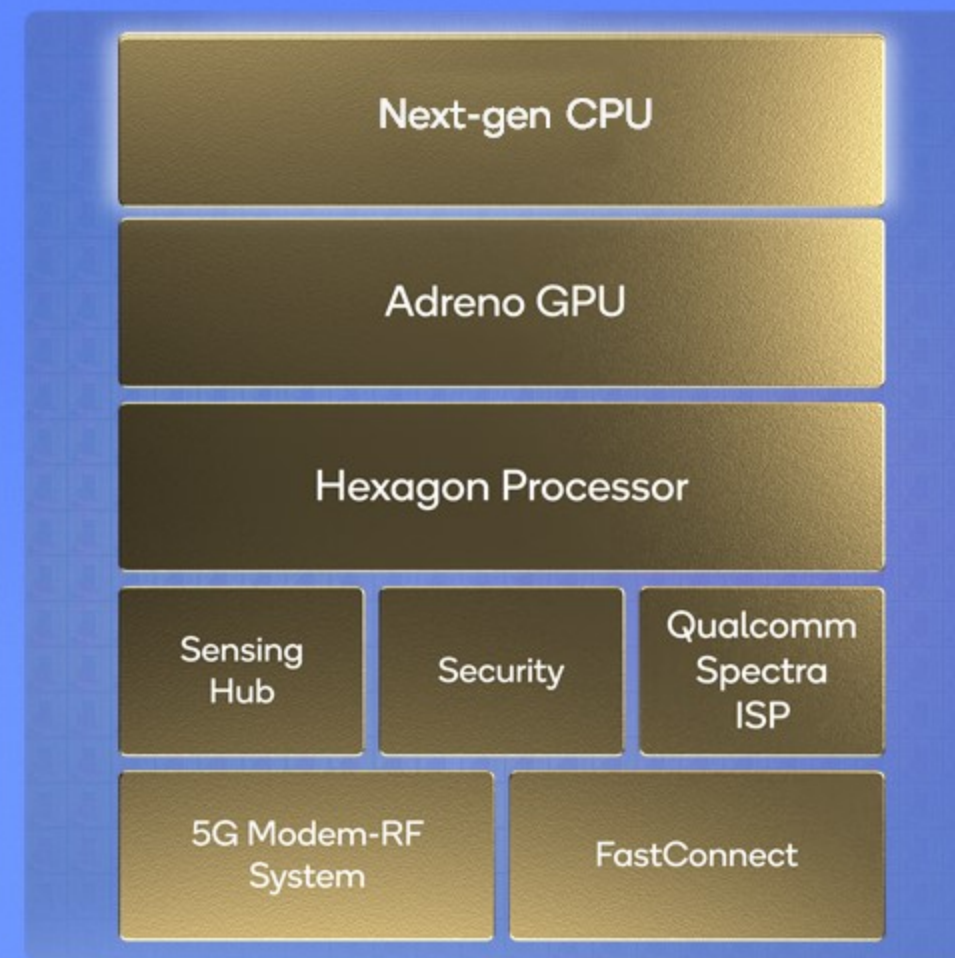
Adreno GPU²

Discrete-like graphics performance

Leader in performance per watt

AI Engine²

Most power-efficient inference processing



5G¹

World's best modem-RF system

Superior energy efficiency

Wi-Fi, Bluetooth, location

Comprehensive connectivity

Camera and audio³

Leading mobile image quality

Advanced audio features

Display and video⁴

Best-in-class Android picture quality



"With the introduction of Windows 11, Surface Duo 2 with 5G, and the new Surface Pro X, it's been **a big year for Microsoft and Qualcomm's partnership.** As we look to a future of more connected computing, we have **an amazing opportunity with Arm-based PCs** and other innovations to transform and bring incredible experiences that are more mobile and personal to Surface and the Windows ecosystem."

PANOS PANAY
CHIEF PRODUCT OFFICER, MICROSOFT

Creating the next computing platform with XR



Snapdragon
spaces

**The Snapdragon Spaces XR
Developer Platform**

paves the way to a new frontier
of spatial computing

50+ designs for Snapdragon

Meta

Microsoft

Lenovo

SHADOW
CREATOR



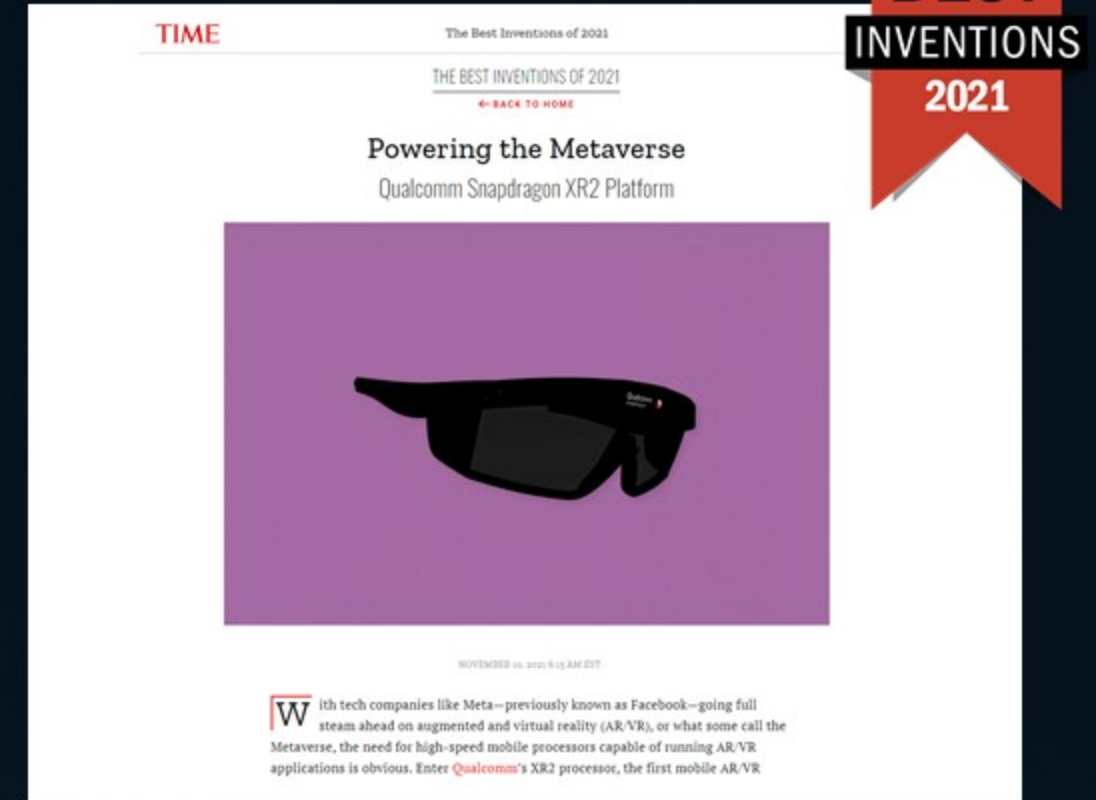
iQIYI 爱奇艺
悦享品质

VIVE



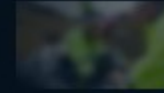
ByteDance 字节跳动

Snapdragon XR2 named one
of TIME's 2021 Best Inventions



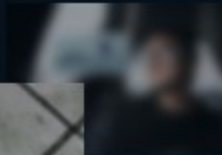
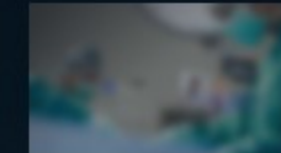
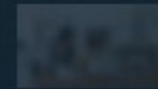
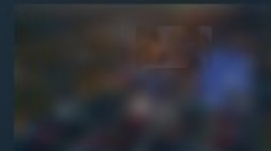


Snapdragon
spaces



Our technologies are the ticket to the metaverse

Optimized high-performance, low-power hardware,
perception algorithms and software platforms





"We have been working on this with Qualcomm for years, and Quest 2 is the first major consumer device that runs on the Snapdragon XR2 platform. It's fully customized for VR and AR with support for multiple cameras and technology like fixed foveated rendering. The end result is a more immersive experience with crisper graphics, more dynamic environments and ultimately...a more realistic feeling of presence."

MARK ZUCKERBERG

CHIEF EXECUTIVE OFFICER OF META AT FACEBOOK CONNECT 2020

**Architecting the
modern network**

IoT Edge Networking



5G as wireless fiber is gaining scale

One of the fastest-growing last-mile broadband technologies

750 Mbps

6.8 miles

Leading
performance



Extended-range
mmWave

5G

Sub-6 and mmWave

68

5G fixed wireless
access providers¹

32

Countries¹

~25%

of global mobile
network by 2026²

30+
Global OEMs

SHARP

Gemtek

technicolor

Franklin Wireless

Telit

T&W

LG

FIH

WEWINS

FIT

Quanta Computer

SERCOM

COMPAL

GOSUNCN

FIBOCOM

ZTE

cradlepoint

MEIG 美格

arcadyan

NOKIA

WNC

WNC
Wistron NeWeb Corp.

casa systems

inseego

WINGTECH
闻泰科技股份有限公司
WINGTECH TECHNOLOGY CO., LTD.

LINKSYS

QUECTEL
Build a Smarter World

OPPO

SIERRA
WIRELESS

SAGEMCOM

ASKEY

SUNSEA





"As T-Mobile is building our 5G network that will deliver fast and reliable connectivity to consumers and businesses across the U.S., **Qualcomm Fixed Wireless Access products will be an integral component. Qualcomm is providing key technology that will enable us to deliver ultra-fast 5G** with gigabit peak speeds and low-latency connectivity for the rapidly growing number of smart, connected devices serving homes, small businesses, schools and beyond."

MIKE SIEVERT
PRESIDENT AND CHIEF EXECUTIVE OFFICER, T-MOBILE

Driving the evolution of next-gen Wi-Fi networks

A leader in current- and next-generation high-performance access point solutions



Mesh deployments



IoT control hubs

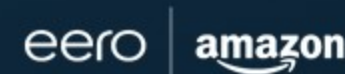
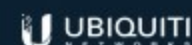
Cloud orchestrated



Wi-Fi 6/6E/7 with carrier upside expansion with 5G

30+ Immersive home mesh designs

300+ Qualcomm® Networking Pro series enterprise-grade designs



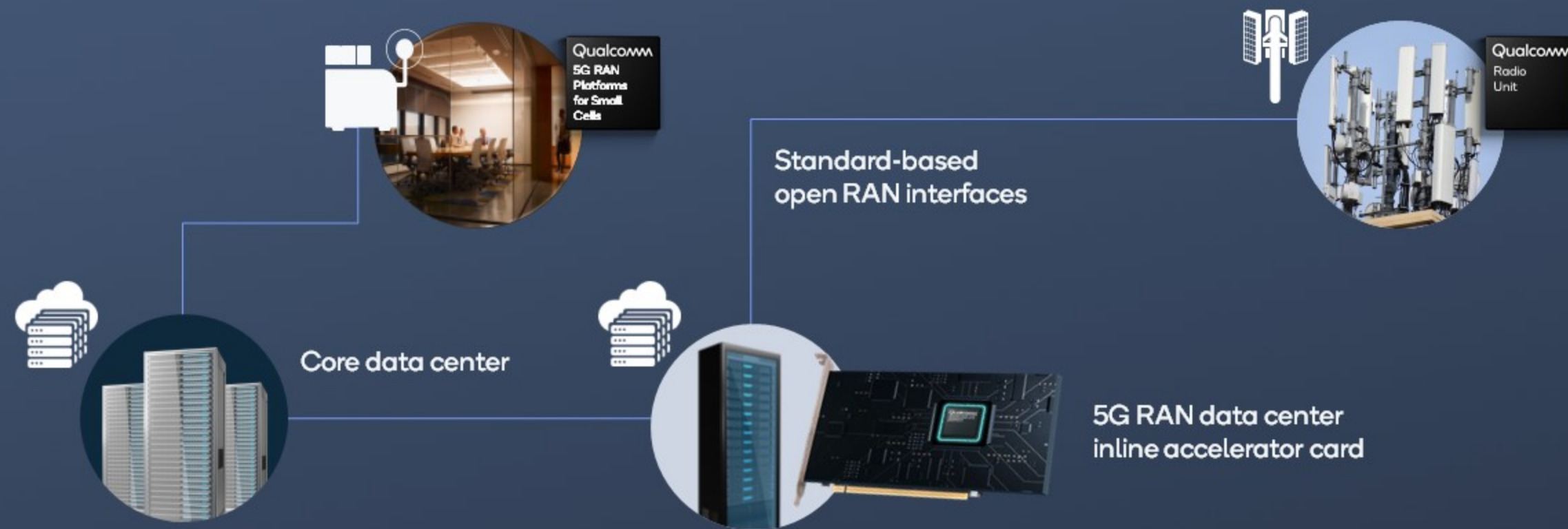
NETGEAR

"As a leader in networking for more than 25 years, NETGEAR is transforming the way we connect with the world by creating best-in-class products and services that leverage cutting-edge technology. **By combining our industry experience and product design expertise with leadership in wireless networking technology from our longtime partner Qualcomm, we've been able to bring to market ground-breaking 5G and Wi-Fi edge networking solutions** to meet the ever-changing needs of our customers."

PATRICK LO

CHAIRMAN AND CHIEF EXECUTIVE OFFICER, NETGEAR

The modern network is evolving to open and virtualized RAN



Qualcomm
5G RAN
Platform

Builds on 5G expertise
and strong ecosystem
relationships

Fosters infrastructure
innovation

Accelerates network
adoption

Up to

50%

more energy
efficient

Up to

50%

lower TCO



“We are excited about Qualcomm Technologies and NEC Corporation partnering to develop new-generation cloud-native 5G RAN technology.

The development of 5G open and virtualized DU solutions will help drive our OREC activities to make 5G RAN deployment more open and flexible with industry leaders.”

SADAYUKI ABETA

VP, GENERAL MANAGER, RADIO ACCESS NETWORK DEVELOPMENT DEPARTMENT, NTT DOCOMO



Automation



Logistics



Smart cities



Healthcare



Retail



Energy



Smart Times Square Experience

"We are looking forward to working with Qualcomm Technologies to deliver an extraordinary digital experience at TSX Broadway. Bringing the full spectrum of smart technology to our building and Times Square will allow us to celebrate the neighborhood's iconic entertainment history while unleashing a new era of innovation."

DAVID LEVINSON

CHAIRMAN AND CHIEF EXECUTIVE OFFICER, L&L HOLDING COMPANY

Photo credit: L&L Holding Company/VMI Studio

Reimagining the store at the edge

Enhanced experiences

Improved operational
efficiency

Enhanced data

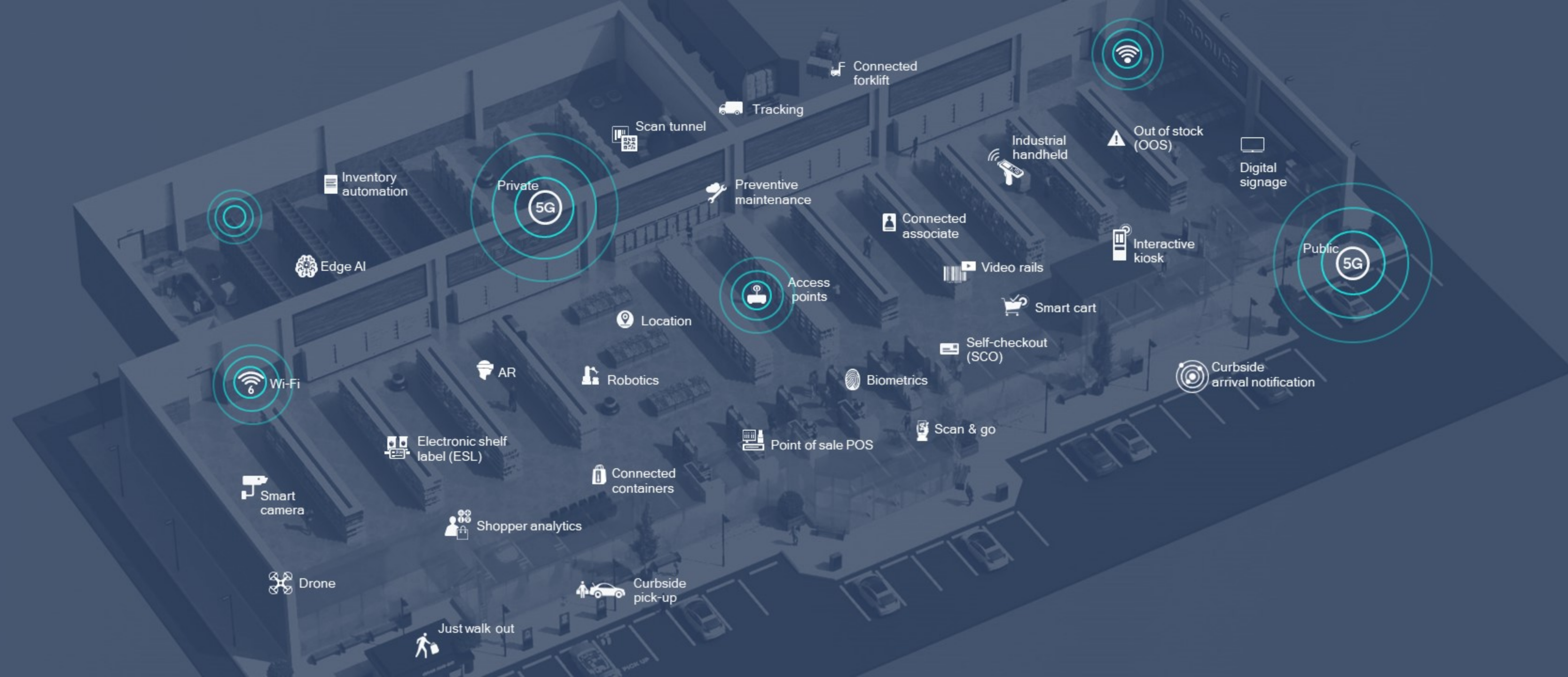


Reimagining the store at the edge

Enhanced experiences

Improved operational efficiency

Enhanced data





"Walmart is reimagining the retail experience with a digital mindset—developing and deploying technology to help us continually find ways to enhance the experience we provide our customers while at the same time working to increase the enjoyment and productivity of our associates. **Qualcomm is an important strategic partner, bringing next-generation technologies together in support of our mission to help people save money and live better.**"

DOUG MCMILLON
PRESIDENT AND CEO, WALMART INC.

Most significant opportunities within IoT



PC

Preferred partner for the future of Arm-based laptops



XR

Device partner of choice for the metaverse



Wireless Fiber

5G makes fixed wireless access a global reality



Industrial

Positioned to be the edge partner of choice for the cloud economy

Secular growth driven by next-generation computing platforms, 5G, digital transformation and Industry 4.0



Uniquely positioned to grow across multiple industries and applications



We are enabling a world where everyone and everything is intelligently connected

Thank you

Qualcomm

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Safe harbor

In addition to historical information, this presentation contains forward-looking statements that are inherently subject to risks and uncertainties, including but not limited to statements regarding: our business, product, technology, financial and acquisition strategies, priorities, plans, drivers, opportunities, outlook, estimates, targets and expectations; our growth opportunities, including in 5G, Handsets, RF Front-End, Automotive and IoT, and our being well positioned to take advantage of those opportunities; the continued evolution of 5G technology, including the anticipated timing of future 3GPP releases and the additional capabilities and use cases that will be enabled thereby; our technologies, technology leadership and technology roadmap; our products, product performance, product leadership, product pipeline, product mix and product roadmap; new product releases, announcements and design wins; the benefits of our technologies, products, business model and early investments in research and development; our business and share trends, as well as market and industry trends and their potential impact on our business and our positioning to take advantage thereof; our pending acquisition of Veoneer's Arriver business, including the timing and anticipated benefits thereof; anticipated demand for our products and technologies; supply issues, including anticipated improvements to the supply constraints affecting the industry and the timing thereof; our capital allocation strategy, including anticipated dividend growth and

share repurchases; our estimates for global handset and non-handset shipments; our estimates, forecasts and guidance related to our financial results; and our goals relating to reduction of greenhouse gas emissions. Forward-looking statements are generally identified by words such as "estimates," "guidance," "expects," "anticipates," "intends," "plans," "believes," "seeks" and similar expressions. Actual results may differ materially from those referred to in the forward-looking statements due to a number of important factors, including but not limited to: the impact of the COVID-19 pandemic, and government policies and other measures designed to limit its spread; our dependence on a small number of customers and licensees, and particularly from their sale of premium-tier devices; our customers vertically integrating; a significant portion of our business being concentrated in China, which is exacerbated by U.S./China trade and national security tensions; our ability to extend our technologies and products into new and expanded product areas, and industries and applications beyond mobile handsets; our strategic acquisitions, transactions and investments, and our ability to consummate strategic acquisitions; our dependence on a limited number of third-party suppliers; risks associated with the operation and control of our manufacturing facilities; security breaches of our information technology systems, or other misappropriation of our technology, intellectual property or other proprietary or confidential information; our ability to attract and

retain qualified employees, and to successfully operate under a hybrid working environment; the continued and future success of our licensing programs, which requires us to continue to evolve our patent portfolio and to renew or renegotiate license agreements that are expiring; efforts by some OEMs to avoid paying fair and reasonable royalties for the use of our intellectual property, and other attacks on our licensing business model; potential changes in our patent licensing practices, whether due to governmental investigations, legal challenges or otherwise; adverse rulings in governmental investigations or proceedings; our customers' and licensees' sales of products and services based on CDMA, OFDMA and other communications technologies, including 5G, and our customers' demand for our products based on these technologies; competition in an environment of rapid technological change, and our ability to adapt to such change and compete effectively; failures in our products or in the products of our customers or licensees, including those resulting from security vulnerabilities, defects or errors; difficulties in enforcing and protecting our intellectual property rights; claims by third parties that we infringe their intellectual property; our use of open source software; the cyclical nature of the semiconductor industry, declines in global, regional or local economic conditions, or our stock price and earnings volatility; our ability to comply with laws, regulations, policies and standards; our indebtedness; and potential tax liabilities. These and other risks are set forth in our

Annual Report on Form 10-K for the fiscal year ended September 26, 2021 filed with the SEC. Our reports filed with the SEC are available on our website at www.qualcomm.com. We undertake no obligation to update, or continue to provide information with respect to, any forward-looking statement or risk factor, whether as a result of new information, future events or otherwise.

This presentation includes "Non-GAAP financial measures" as that term is defined in Regulation G. Further discussion regarding our use of Non-GAAP financial measures, as well as the most directly comparable GAAP (accounting principles generally accepted in the United States) financial measures and information reconciling these Non-GAAP financial measures to our financial results prepared in accordance with GAAP, are included in this presentation.

References to "Qualcomm" refer to Qualcomm Incorporated and/or its subsidiaries, as applicable. Qualcomm Incorporated includes QTL and the vast majority of our patent portfolio. Qualcomm Technologies, Inc., a subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, substantially all of our engineering, research and development functions and substantially all of our products and services businesses, including QCT.