



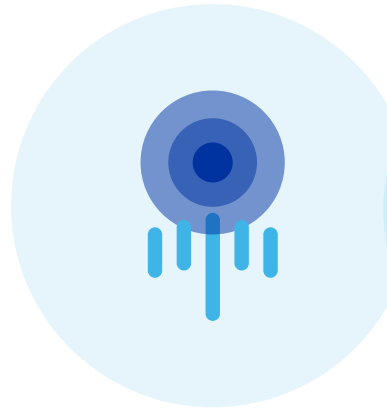
The Future of Mobility

Keith Kressin

Senior Vice President, Product Management
Qualcomm Technologies, Inc.
@qualcomm



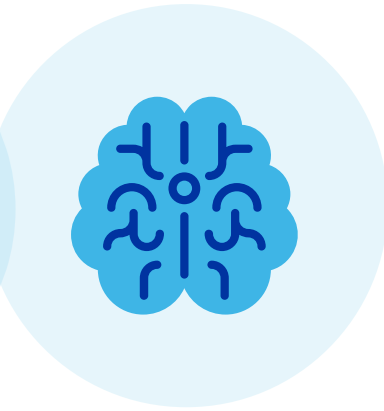
The future of mobility



Path to 5G



eXtended
Reality

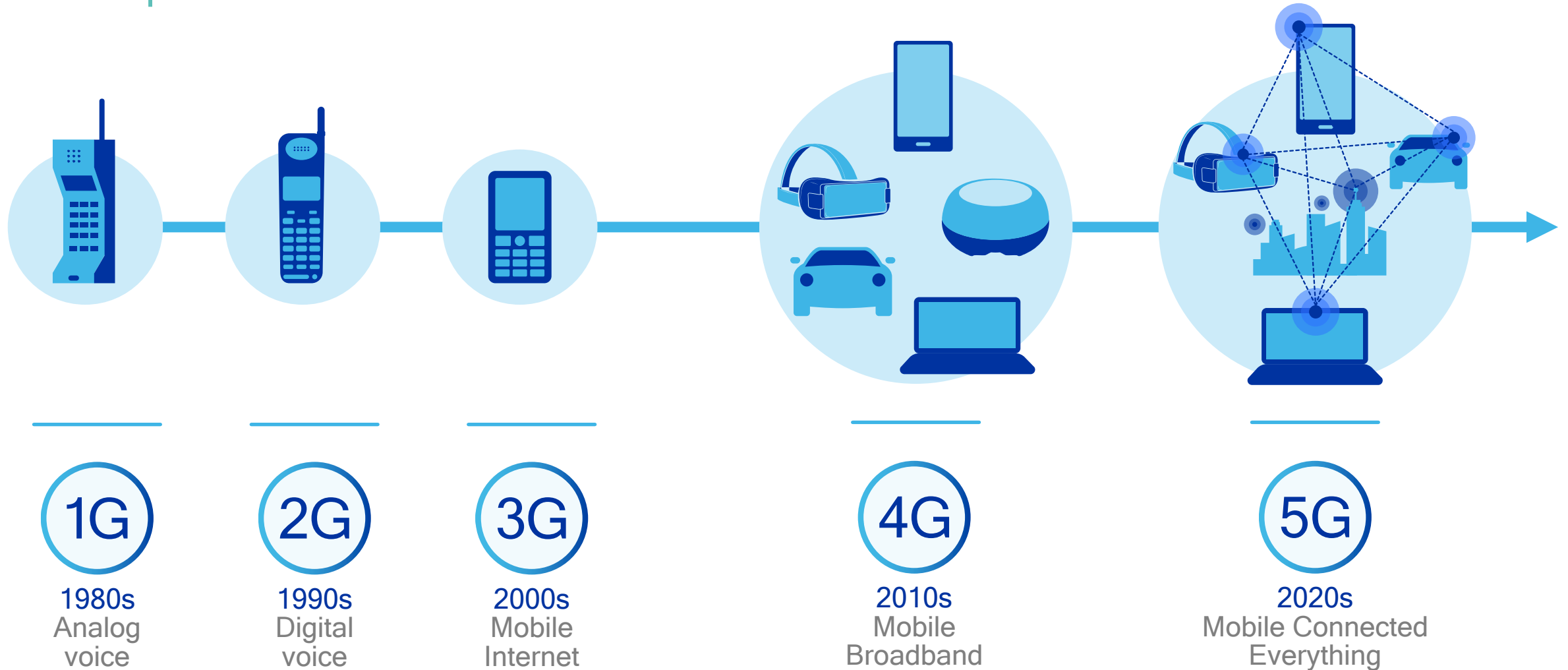


Artificial
Intelligence

Trends

Evolution of Communications and Computing

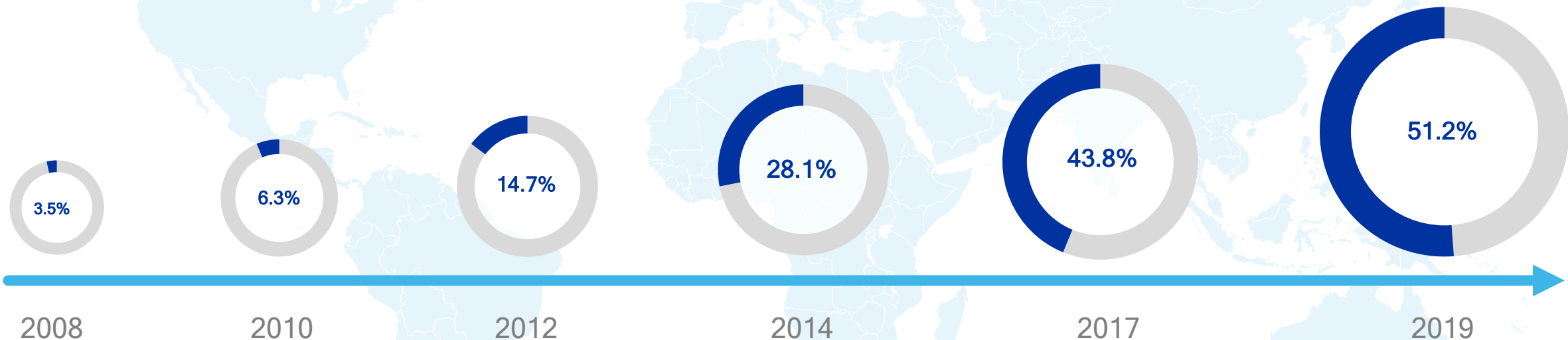
One Impacts the other



Half of World's Population will soon own a Smartphone



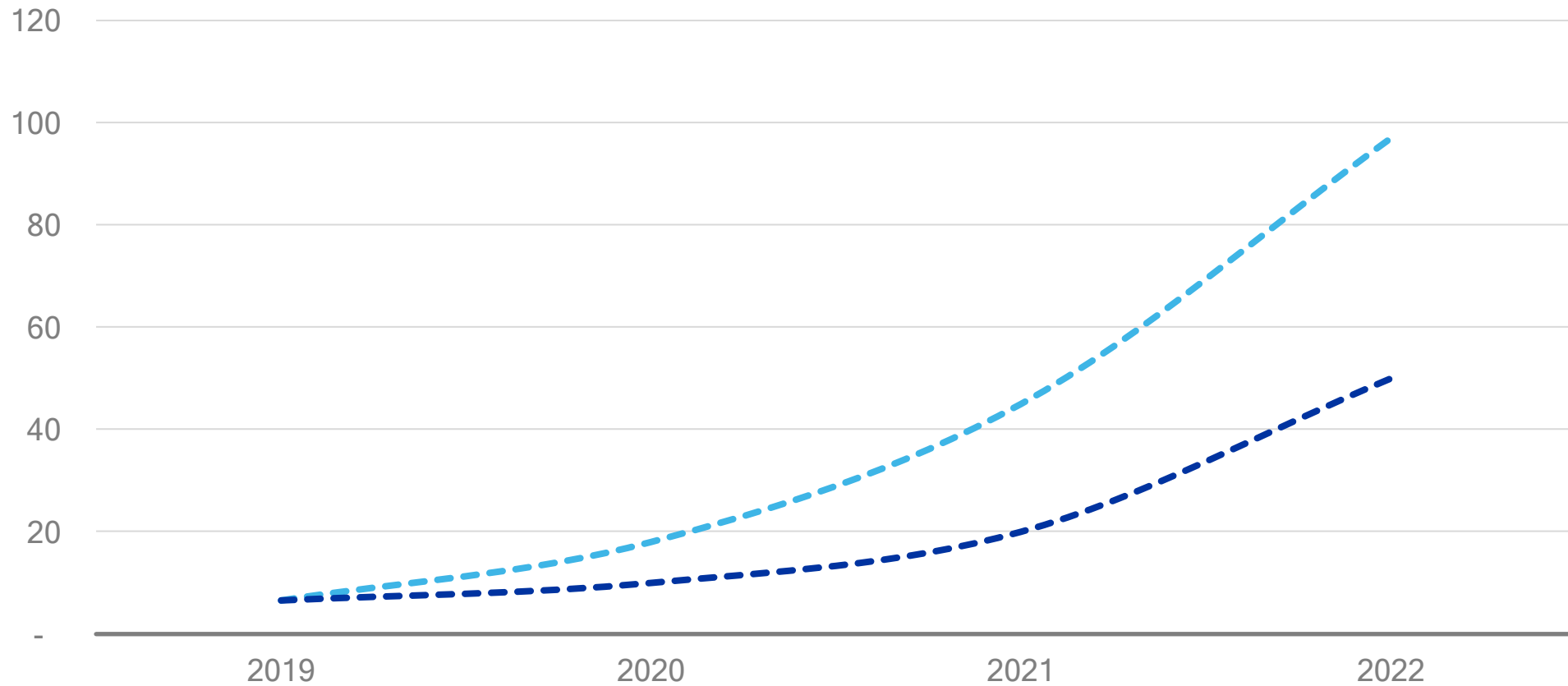
Smartphone user penetration

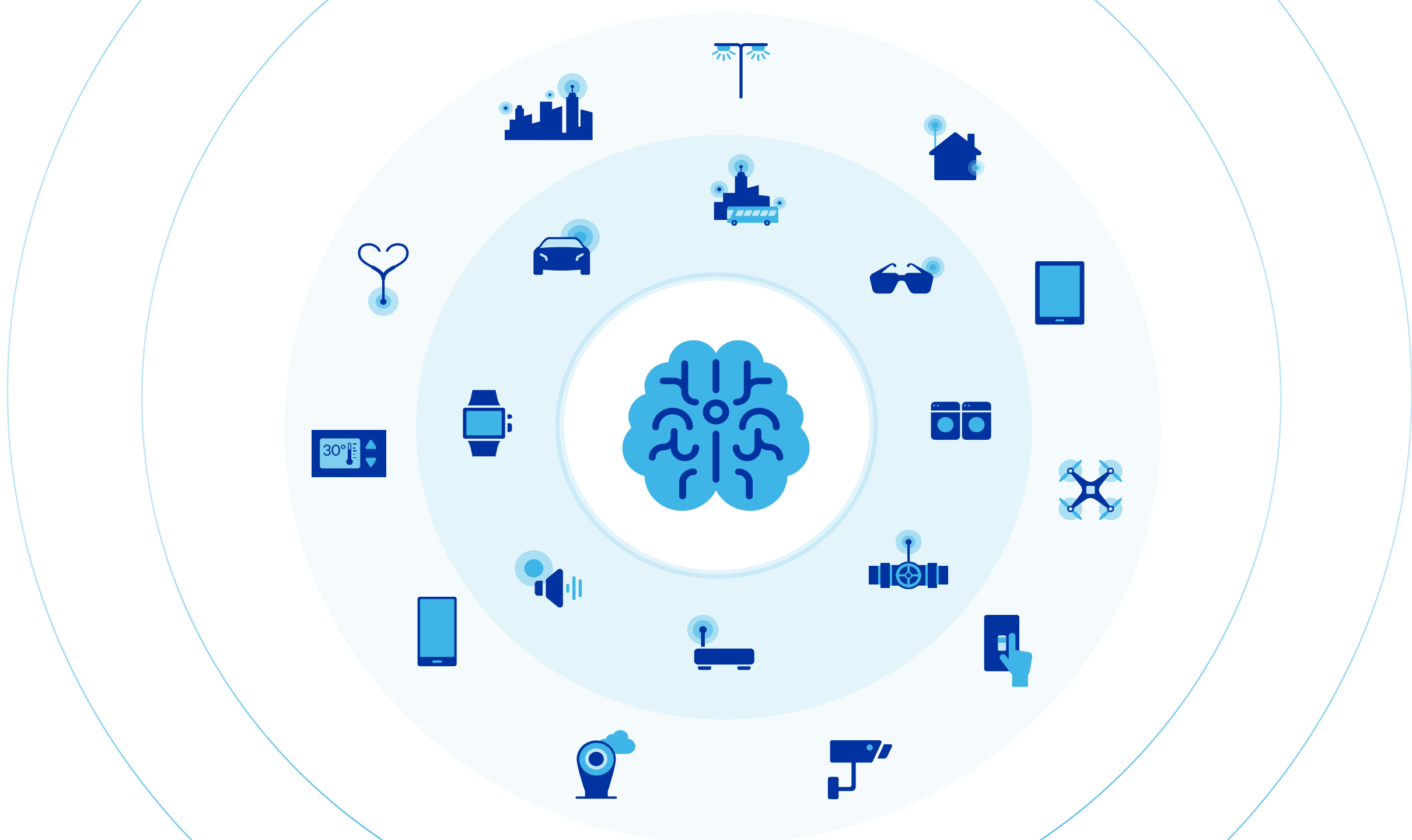


A large number will own XR headsets



Units (M)





Transforming
user experiences
of the future

Future use cases





100 Mbps





Rerouting

Traffic

TEMPERATURE WARNING
457°F

Somebody help!

Rear Camera View



Building Map - First Floor





POWER
OUTAGE!
POWER
OUTAGE!

Heavy Traffic



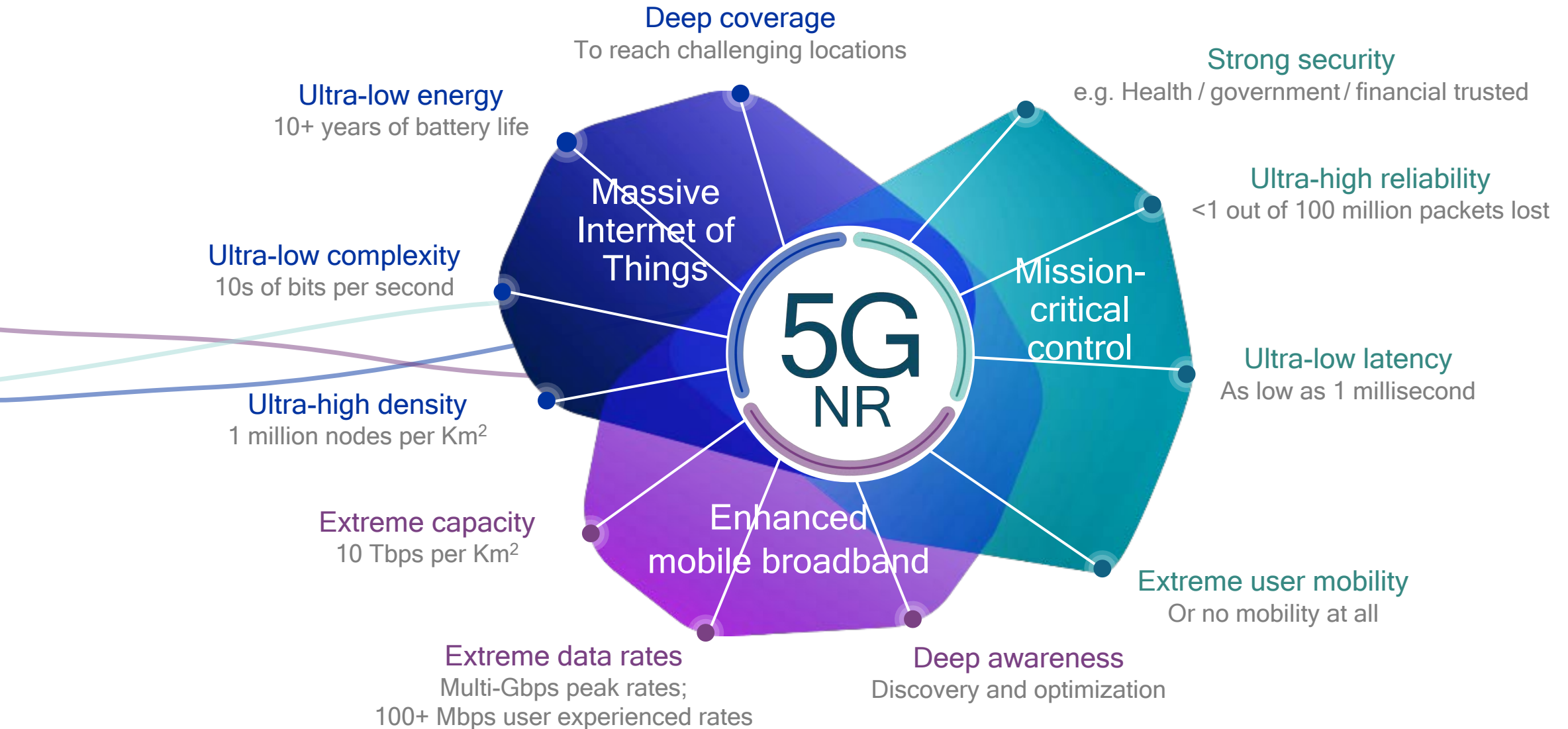
Time: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday
Month: January, February, March, April, May, June, July, August, September, October, November, December
Year: 2012

January, January 27, 2012
Reading - Lesson 12
Goal: Find words with the sound
partner read words with the sound
/u/ /o/ /h/ /a/ /s/ /g/
/i/ /m/ /l/

Number words
Twenty
21 - Twenty One
22 - Twenty Two
23 - Twenty Three

Technologies of Today and Future

Scalability to address diverse service and devices



Multiple Cameras

Computer Vision to
interpret the environment



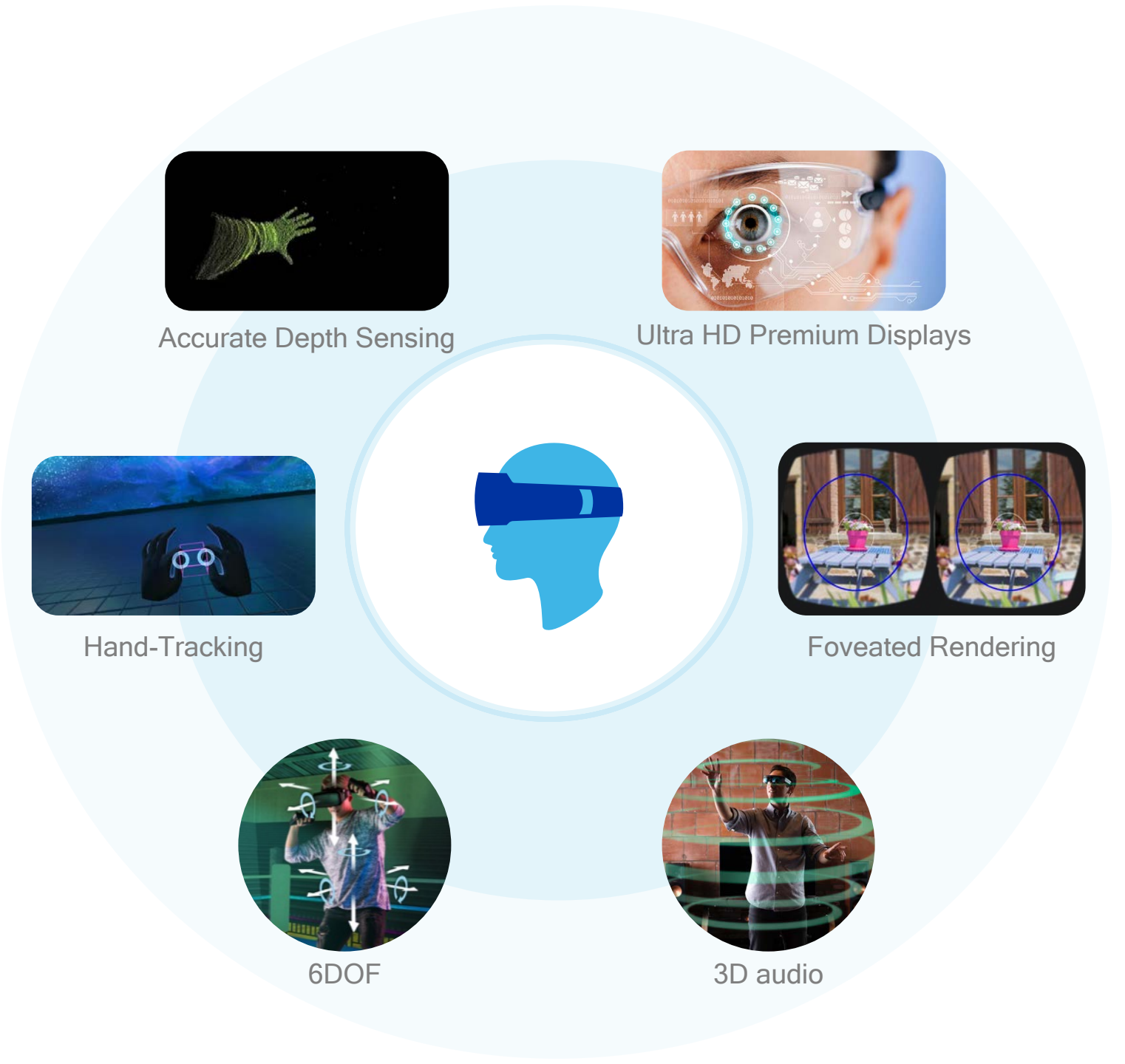
Advanced Audio

Microphone Arrays &
Algorithms to listen
to the environment



XR

Augmenting every
environment



Artificial Intelligence

Transform our understanding
& interaction with physical
and digital worlds



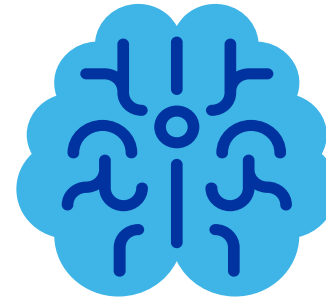
Natural Language
Understanding



Immersive XR
Visual, Sounds, Interactions



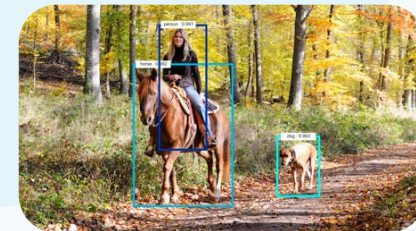
Personalized UI



Contextual Awareness
from IOT

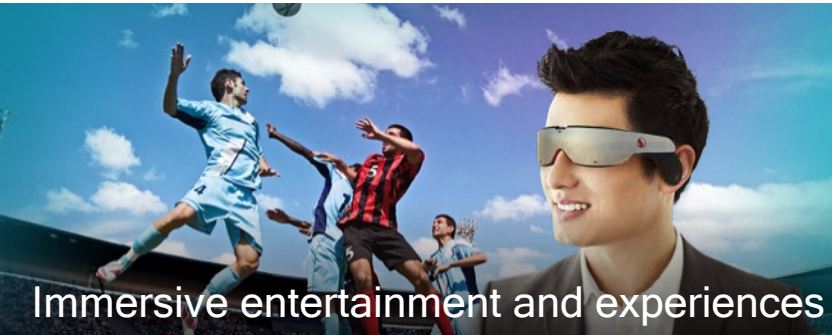


Autonomous
Driving



Smart
Cameras

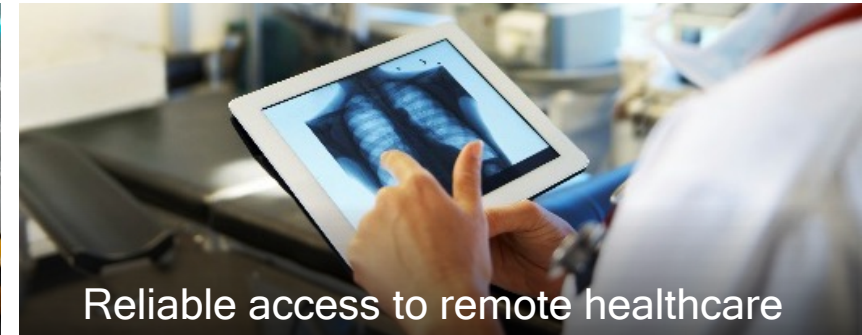
New Technologies will redefine entire industries



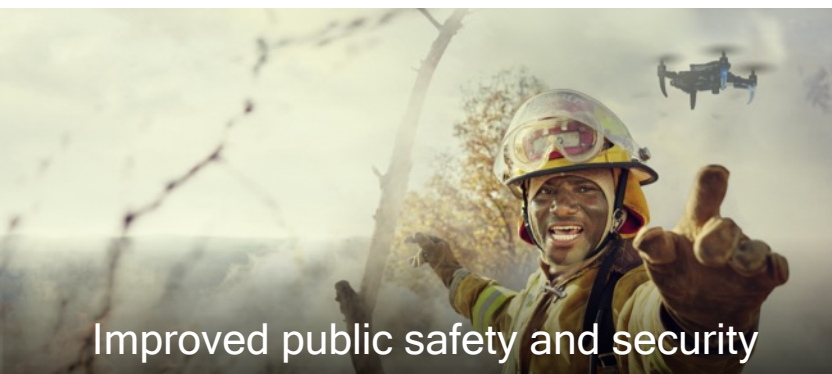
Immersive entertainment and experiences



Safer, more autonomous transportation



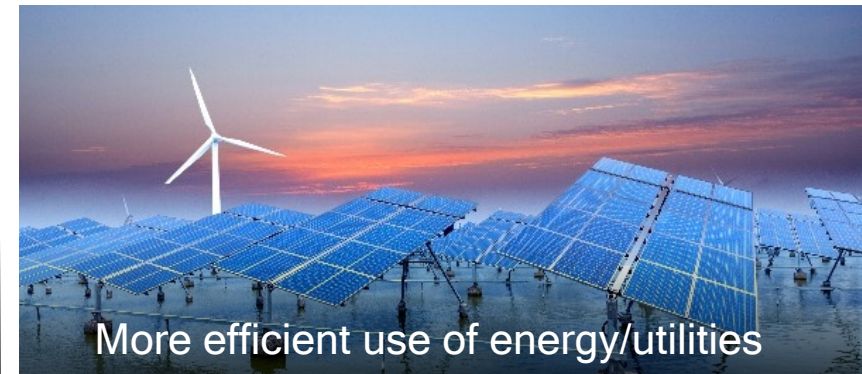
Reliable access to remote healthcare



Improved public safety and security



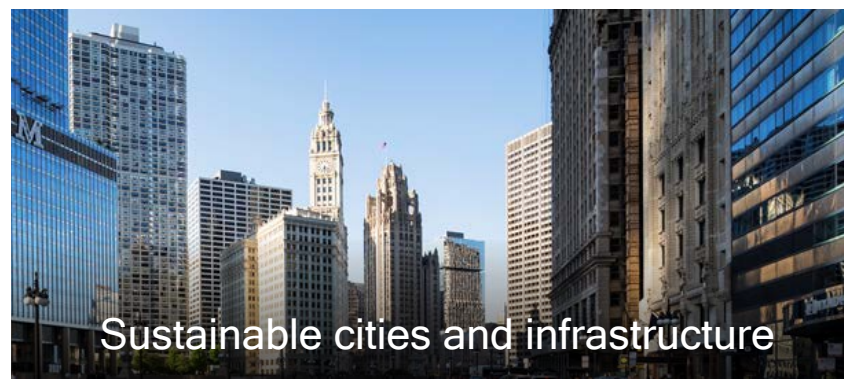
Intelligent Classrooms



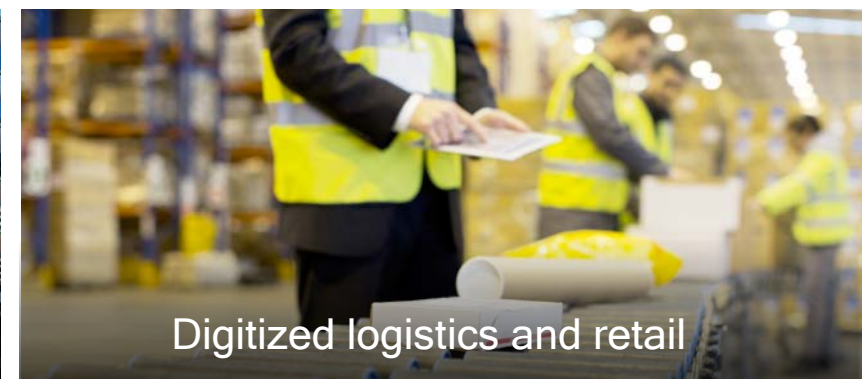
More efficient use of energy/utilities



More autonomous manufacturing



Sustainable cities and infrastructure



Digitized logistics and retail



QUALCOMM®



Qualcomm × Baidu DuerOS On-Device Artificial Intelligence Voice Solution

Kun Jing

General Manager of Baidu DuerOS

Dec 2017



Leading Chinese Search Engine

1#

website in China

By average daily visitors and page views

~43,500

employees

Top 10 China's best employer

Baidu 百度

71%
search market share

1#

Chinese search engine

By number of search queries conducted

~700MM

Chinese Internet users

~50% Internet penetration

Baidu : All in AI





Baidu DuerOS

Conversational AI OS for everyone and everywhere

The way people interact with computing devices changes over time



Mouse/keyboard
Windows



Touch
iOS / Android



Voice conversation
DuerOS

More natural Lower barrier More users

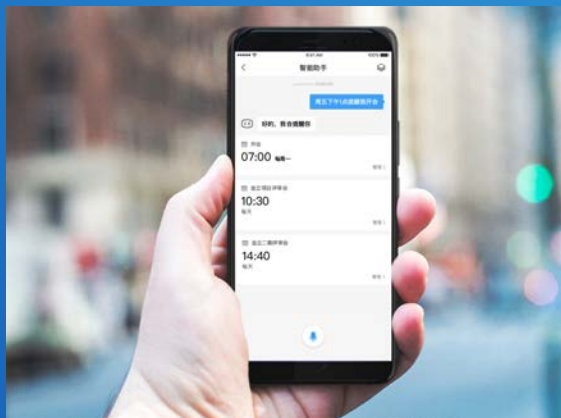


Most Vibrant AI Ecosystem in China

DuerOS is working with all our partners to create a smarter future

DuerOS is Everywhere

Cross-scene and cross-device experience



Morning

On the road

At work

Back home

Strategic Collaboration



Baidu Conversational AI platform



Qualcomm® Snapdragon™ Mobile Platforms

Baidu's DuerOS voice solution on Qualcomm® Snapdragon™

- Always-on, low-power, voice activated solution running on **Aqstic audio codec** (WCD934x, WCD9335 and WCD9326)
- **Aqstic Voice Suite** with echo cancellation and noise suppression
- **DuerOS reference application** on Snapdragon, opening door to massive data & services on DuerOS

Supporting
DuerOS's wake word
"Xiaodu Xiaodu" #

Optimized barge-in
wake-up #

Improved recognition
accuracy in noisy
environment #



An optimized voice-based mobile solution

- Voice-based interaction on smartphone can be low power consuming with premium experience
- Enabling devices to have language competence as human beings, through constant on-cloud self-learning

DUEROS × QUALCOMM®



Thank you

Follow us on:   

For more information, visit us at:

www.qualcomm.com & www.qualcomm.com/blog

Nothing in these materials is an offer to sell any of the components or devices referenced herein.

©2017 Qualcomm Technologies, Inc. and/or its affiliated companies. All Rights Reserved.

Qualcomm is a trademark of Qualcomm Incorporated, registered in the United States and other countries. Other products and brand names may be trademarks or registered trademarks of their respective owners.

References in this presentation to “Qualcomm” may mean Qualcomm Incorporated, Qualcomm Technologies, Inc., and/or other subsidiaries or business units within the Qualcomm corporate structure, as applicable. Qualcomm Incorporated includes Qualcomm’s licensing business, QTL, and the vast majority of its patent portfolio. Qualcomm Technologies, Inc., a wholly-owned subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, substantially all of Qualcomm’s engineering, research and development functions, and substantially all of its product and services businesses, including its semiconductor business, QCT.

