

Consumer
Technology
Association™



CES 2021 Tech Trends To Watch



Steve Koenig
VP, Research



Lesley Rohrbaugh
Director, Research



“Innovation accelerates and bunches up during economic downturns only to be unleashed as the economy begins to recover, ushering in powerful new waves of technological change.”

Christopher Freeman, British Economist

Global Tech Adoption in Fast Forward



E-Commerce

10 Years in 8 Weeks

Increase in e-commerce deliveries



Telemedicine

10x in 15 Days

Increase in virtual appointments



Streaming Video

7 Years in 5 Months

Netflix vs. Disney+ to hit 50M subscribers



Remote Learning

250 Million in 2 Weeks

Students who went to online learning

Intelligence of Things Gaining Momentum



AI and Machine Learning

43% of IT leaders say AI/ML matters much more than they thought as a result of the pandemic.

Source: Algorithmia, 2020
Enterprise AI/ML Trends Survey



Robotic Process Automation

Poised to become a \$2 billion global industry in 2021.

Source: Gartner



Natural Language Processing

53% of technical leaders indicated their NLP budgets were at least 10% higher compared to 2019.

Source: John Snow Labs



Cloud Computing

59% of global enterprises expect their cloud usage will be slightly or significantly higher than planned this year.

Source: Flexera, 2020 *State of the Cloud* report, April 2020

Digital Health

Digital Transformation



2021 Key Trends

Robotics & Drones

Vehicle Technology

5G Connectivity

Smart Cities

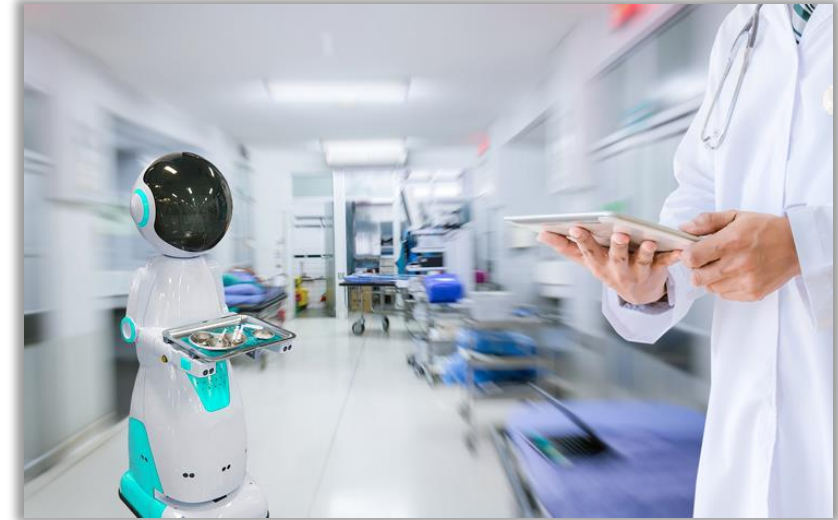
The Universe of Digital Health Continues to Expand, and Fulfill Demand



Everyday Lifestyles

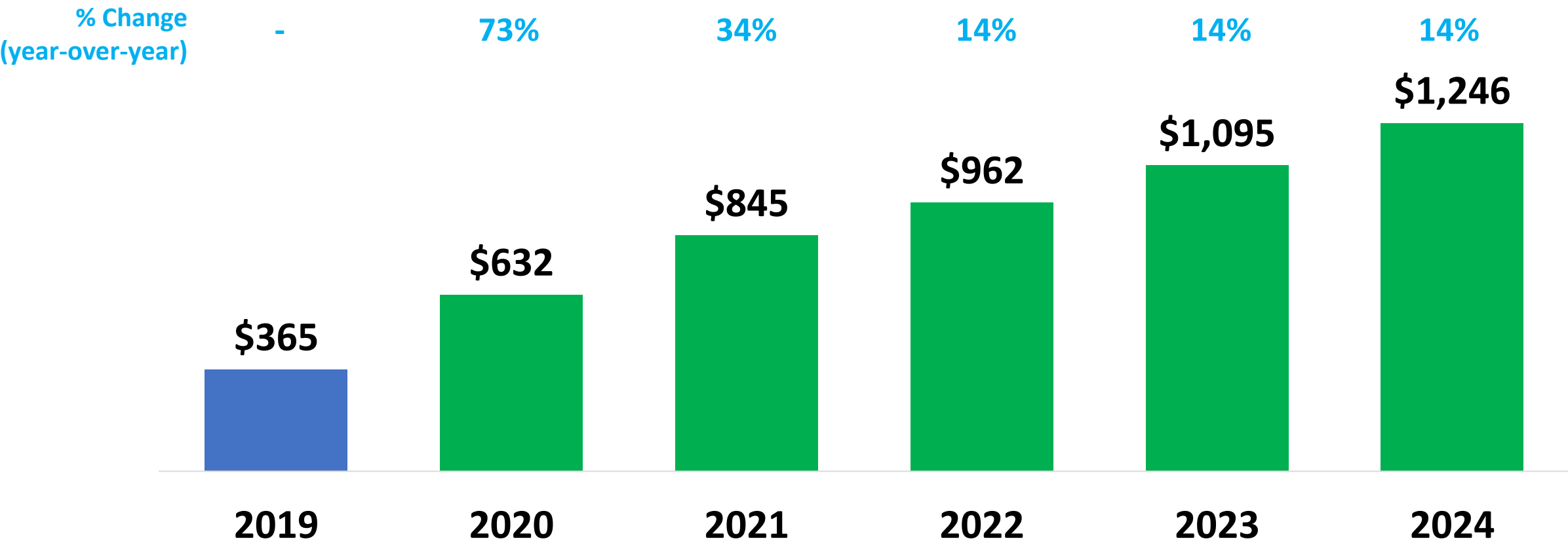


Patient Care



Provider Efficiencies

Five-Year Forecast: Connected Health Monitoring Devices U.S. Shipment Revenue (\$Million)



Source: CTA, U.S. Consumer Technology Five-Year Industry Forecast, 2019-2024, January 2021

Digital Therapeutics Expand Care Options



Epsy



*Prescribing Digital Therapeutics as the
Medicine of Today*

January 12
3:15-3:45pm EST



Wearables – Not Just for Your Wrist



Oura Ring



BioButton by BioIntelliSense

The Future of Digital Health Innovation

Robot Triage Helpers

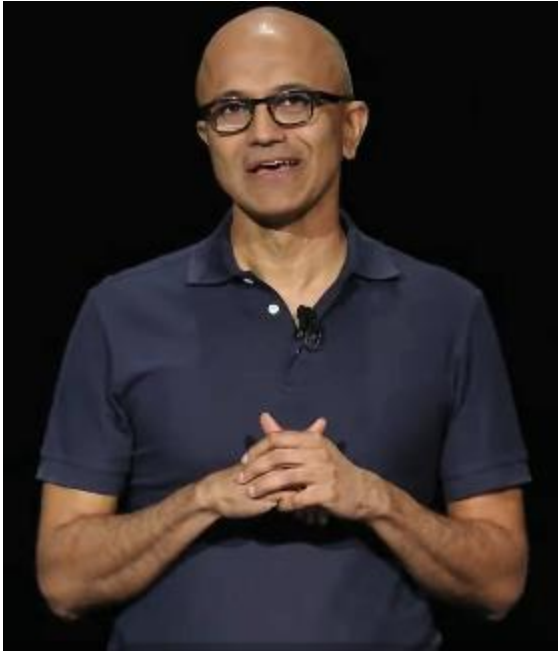


AI in Diagnosis



XR in Medicine





“We’ve seen two years’ worth of digital transformation in two months.”

Satya Nadella, CEO, Microsoft

Health Crisis Triggers Race to Cloud

Among global enterprise organizations

59%

expect cloud usage to exceed prior plans due to COVID-19

61%

plan to focus on cloud migration

83%

cited security as their top cloud challenge, followed by cost (82%)

Digital Transformation in the COVID Era



Fitness

- US consumer spend on digital fitness has increased by 30%-35% compared to pre-COVID levels.
- Some in-person gyms have begun offering online classes as they enter the digital fitness space.



Education

- Schools and colleges are using group meeting platforms to hold lectures and discussions.
- In France, K-12 students are using the 'My Class at Home' e-learning platform.
- The LendED platform in the UK enables sharing of learning materials from providers to teachers and students across the country.

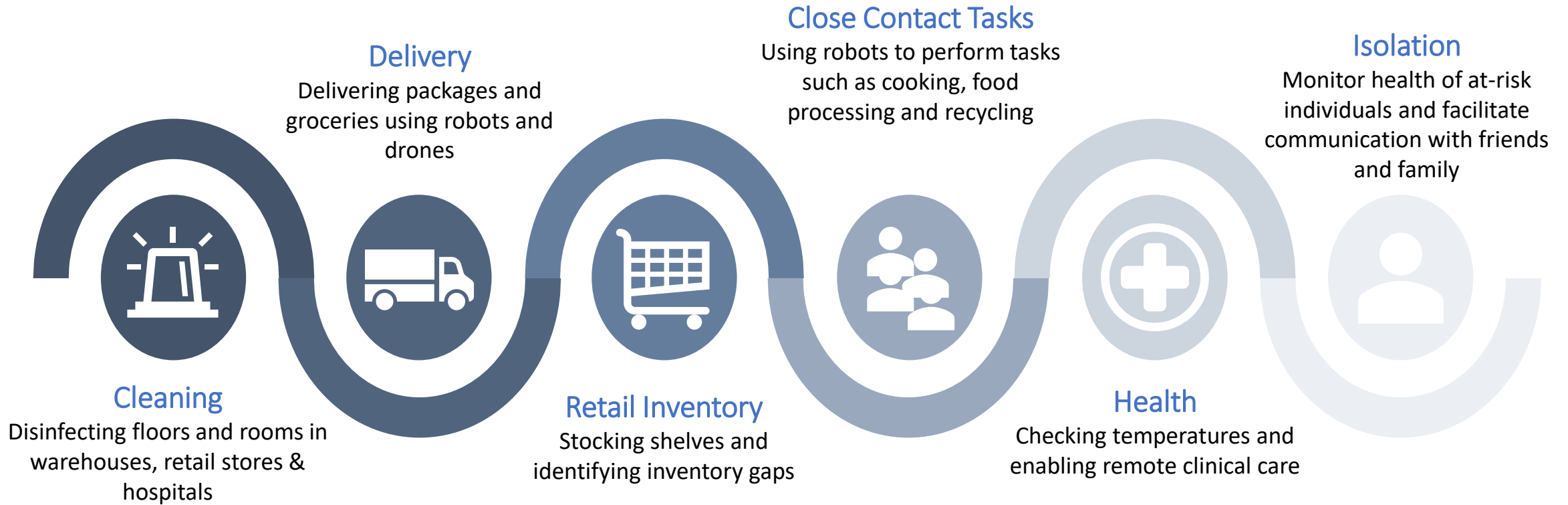


Legal

- Court proceedings are being held on digital platforms to facilitate social distancing.
- Group conference platforms are used for a variety of hearings.

Source: CTA, *COVID-19 Impact on Technology Innovation: U.S. & Europe*, September 2020

Robots to the Rescue: Responding to COVID-19 Effects

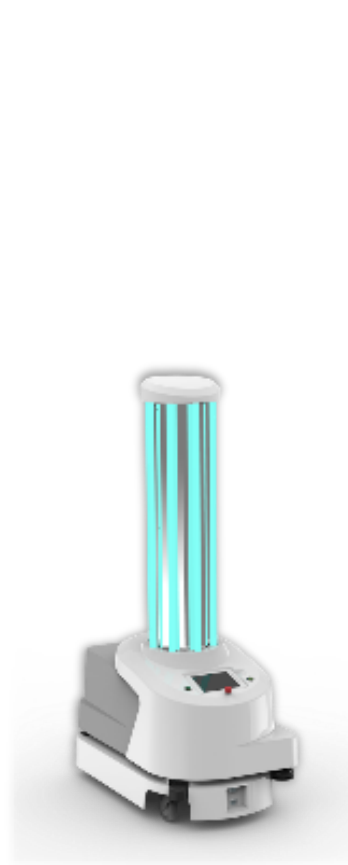


Source: CTA, *COVID-19 Impact on Technology Innovation: U.S. & Europe*, September 2020

Maintaining Hygiene With Robots



Germ Falcon



UVD Robots



Tru-D
Smart UVC



Xenex LightStrike



Amazon's Sanitization Robot

Source: CTA, *COVID-19 Impact on Technology Innovation: U.S. & Europe*, September 2020

Worldwide Robotic Innovation



Starship Technologies (Estonia)
Founded: 2014
Funding: €74.7 million



Balyo (France)
Founded: 2005
Funding: €10 million



PAL Robotics (Spain)
Founded: 2008
Funding: €600k

Source: Silicon Canals

Autonomous Delivery Hits the Road & Takes Flight



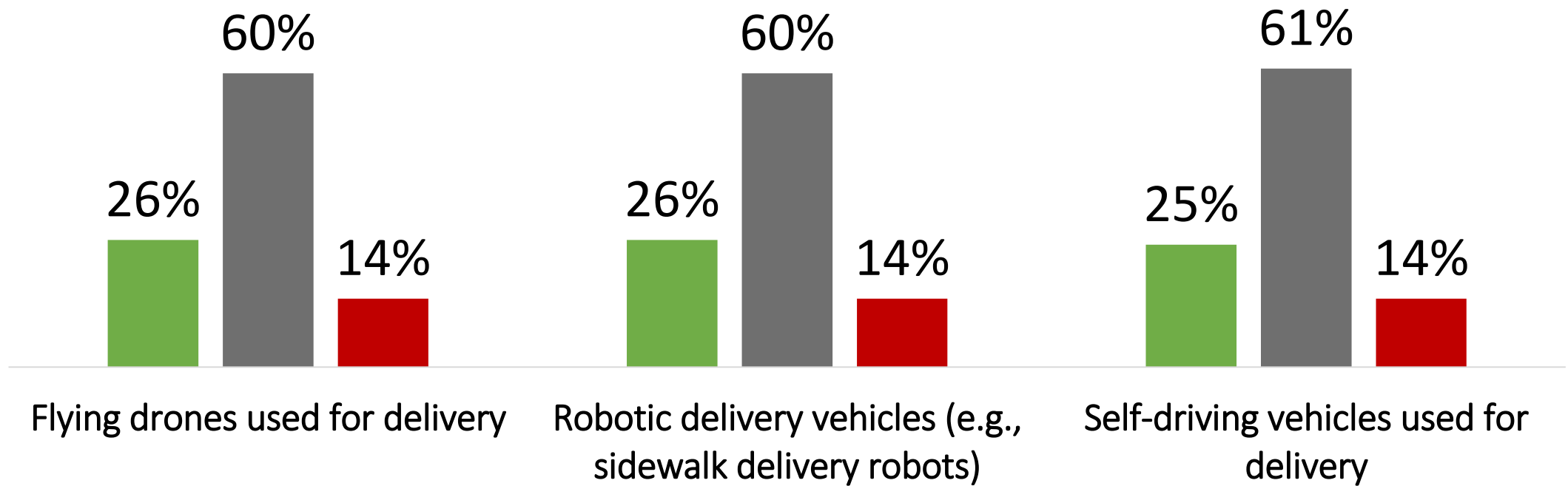
Amazon's Scout Delivery Robot



UPS & CVS Partnership using
Matternet's M2 drones

Autonomous Delivery Systems Gain Favorability in the US

- Autonomous delivery technology is now MORE favorable than it was
- My level of favorability toward autonomous delivery technology has STAYED THE SAME
- Autonomous delivery technology is now LESS favorable than it was



Source: CTA, *Autonomous Delivery Systems: Consumer Awareness & Favorability Study*, June 2020

The Future of Transportation Debuts at CES 2021

Mobility as a Service (MaaS)



C-V2X Connectivity



Self-Driving Vehicle Fleets



Electrification





Mary Barra,
CEO

Keynote Session
January 12
9-10 AM EST



America's Truck Market Charging Up



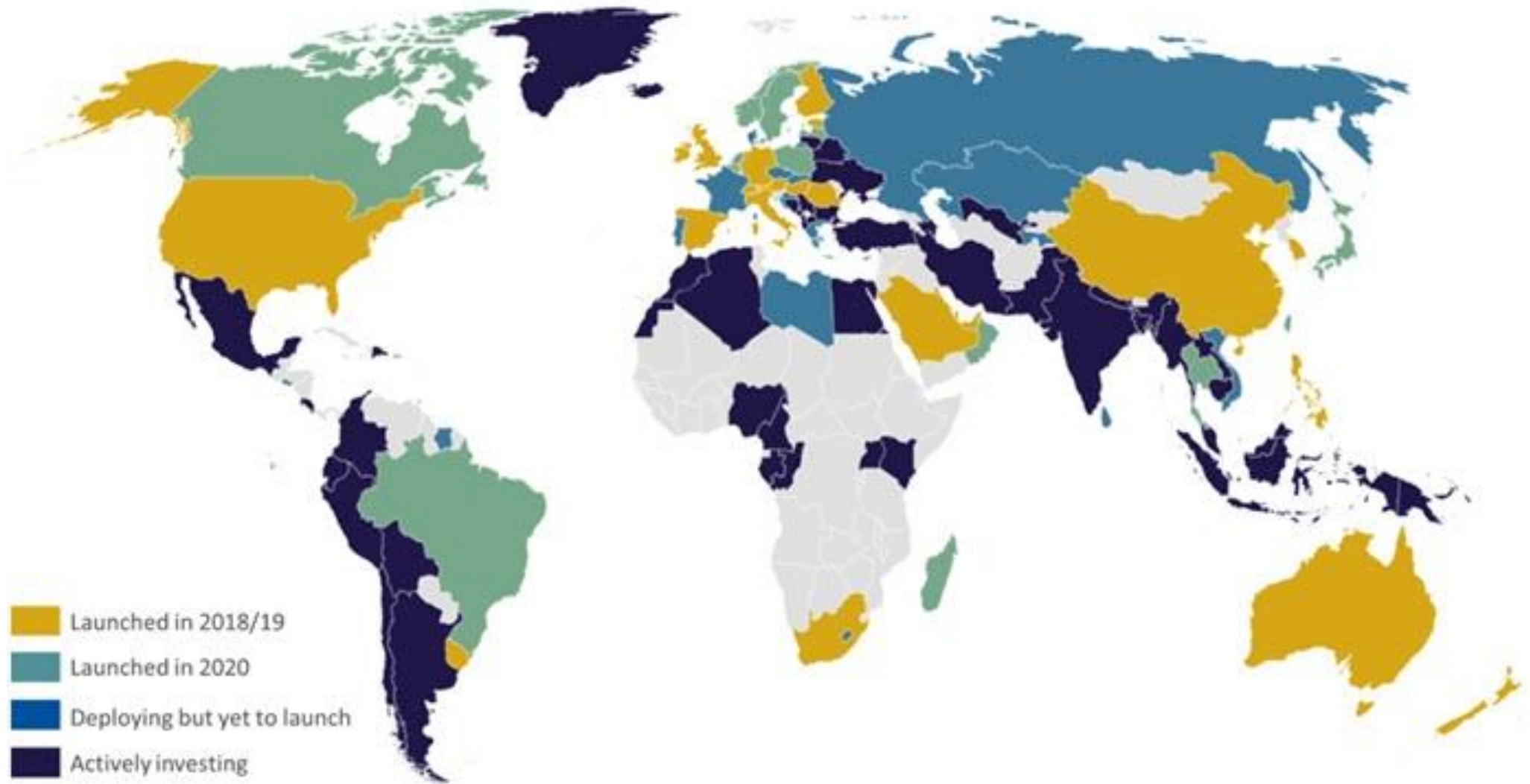
Photo Credit: *Autoweek*

C-V2X



Source: Qualcomm

5G Networks: Global Status



Sources: CRU, GSA, GSMA, Industry Reports

Health Crisis Accelerating 5G CAPEX and Jobs

Qualcomm, IHS Markit 2020 5G Economy Study – November 2020

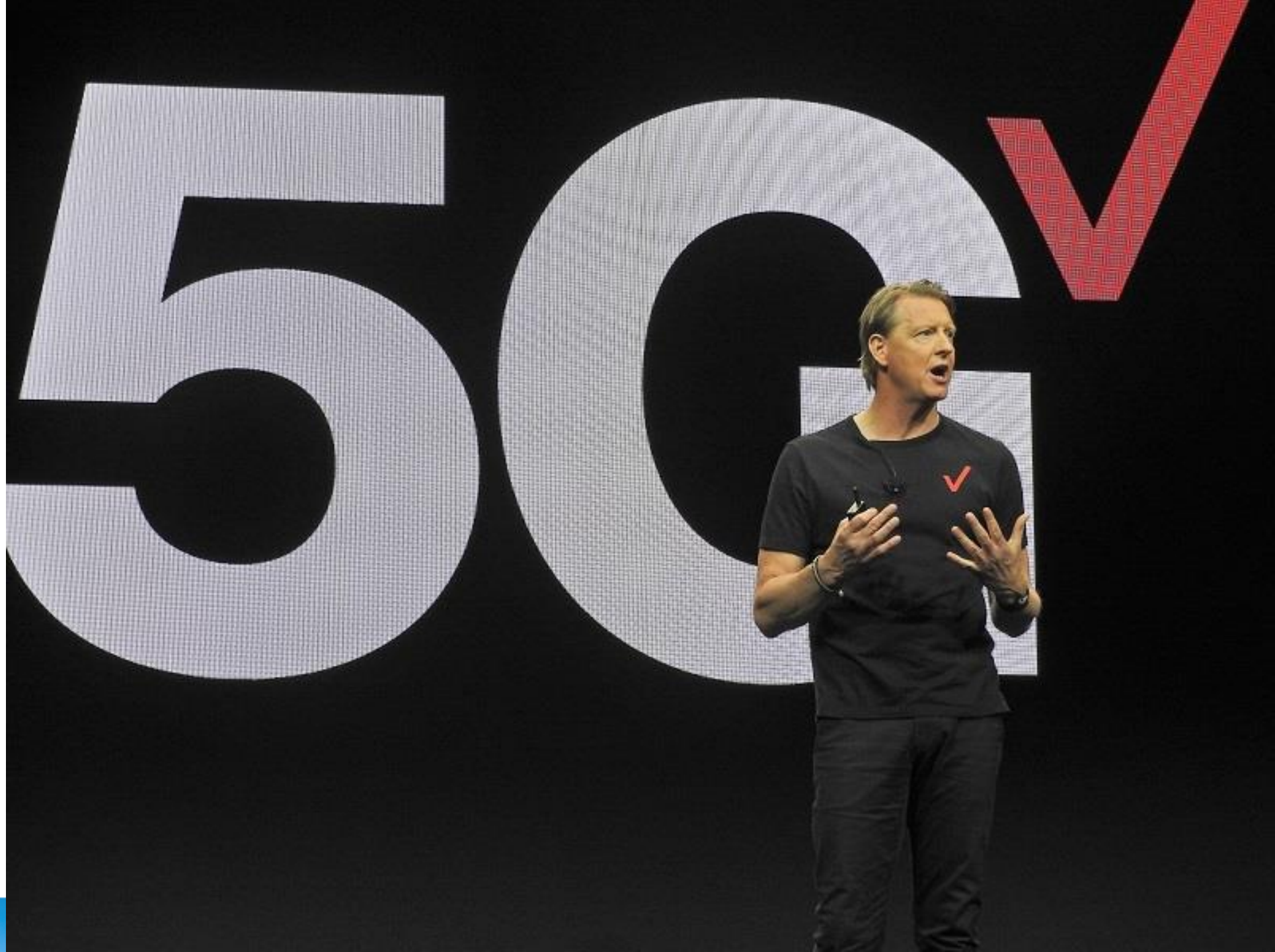
- Investment up 10.8% over the 2019 forecast.
- \$260 billion in collective* annual investment in R&D and CAPEX (up from \$235B in the 2019 report).
 - US and China will lead, investing \$1.3 trillion and \$1.7 trillion respectively through 2035.
- 5G-related jobs increase to 22.8 million (up from 22.3M) over the next 15 years.

** Countries studied: US, China, Japan, South Korea, Germany, France and the U.K.*



Hans Vestberg,
Chairman and CEO

Keynote Session
January 11
6:30-7:30 PM EST



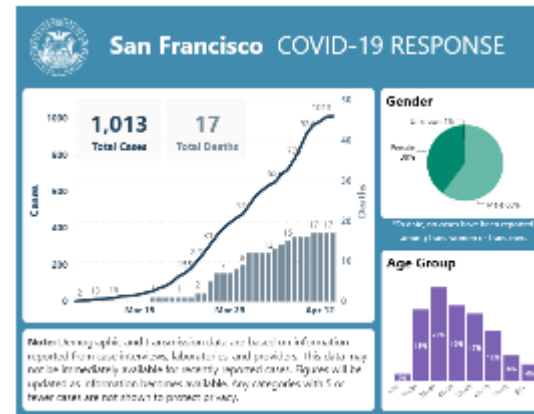
Smart Cities: Out of Crisis Comes Opportunity



**Networked
Sensors**



**Smart
Kiosks**



**Data
Dashboards**



**Contact
Tracing**

Source: CTA, *COVID-19 Impact on Technology Innovation: U.S. & Europe*, September 2020

Encouraging A Return To Work With Smarter, Safer Buildings



**Touchless & Voice
Enabled Tech**



Cleaner Air & Surfaces



**Occupancy & Social
Distancing**



Remote Collaboration

Source: CTA, *COVID-19 Impact on Technology Innovation: U.S. & Europe*, September 2020



All Digital | CES.tech | January 11-14, 2021