

Consumer  
Technology  
Association™



# CES 2022 Trends to Watch



**Steve Koenig**  
VP, Research

# CES: The Global Stage for Innovation



**Nowi EH PMIC**  
*Netherlands*



**Evocargo EVO-1**  
*Russia*



**Neutonica Band**  
*Mexico*



**VTA Smart Security Camera**  
*Colombia*



**Nuheara IQ2 Buds Max**  
*Australia*



**Vinfast EVs**  
*Vietnam*

# Four Focus Areas



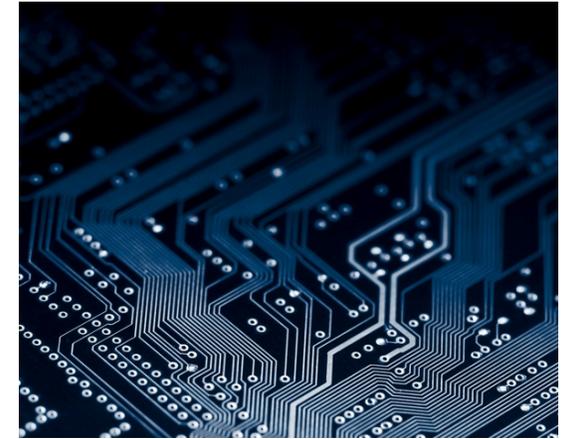
**Technology  
Demand**



**Technology  
Investment**

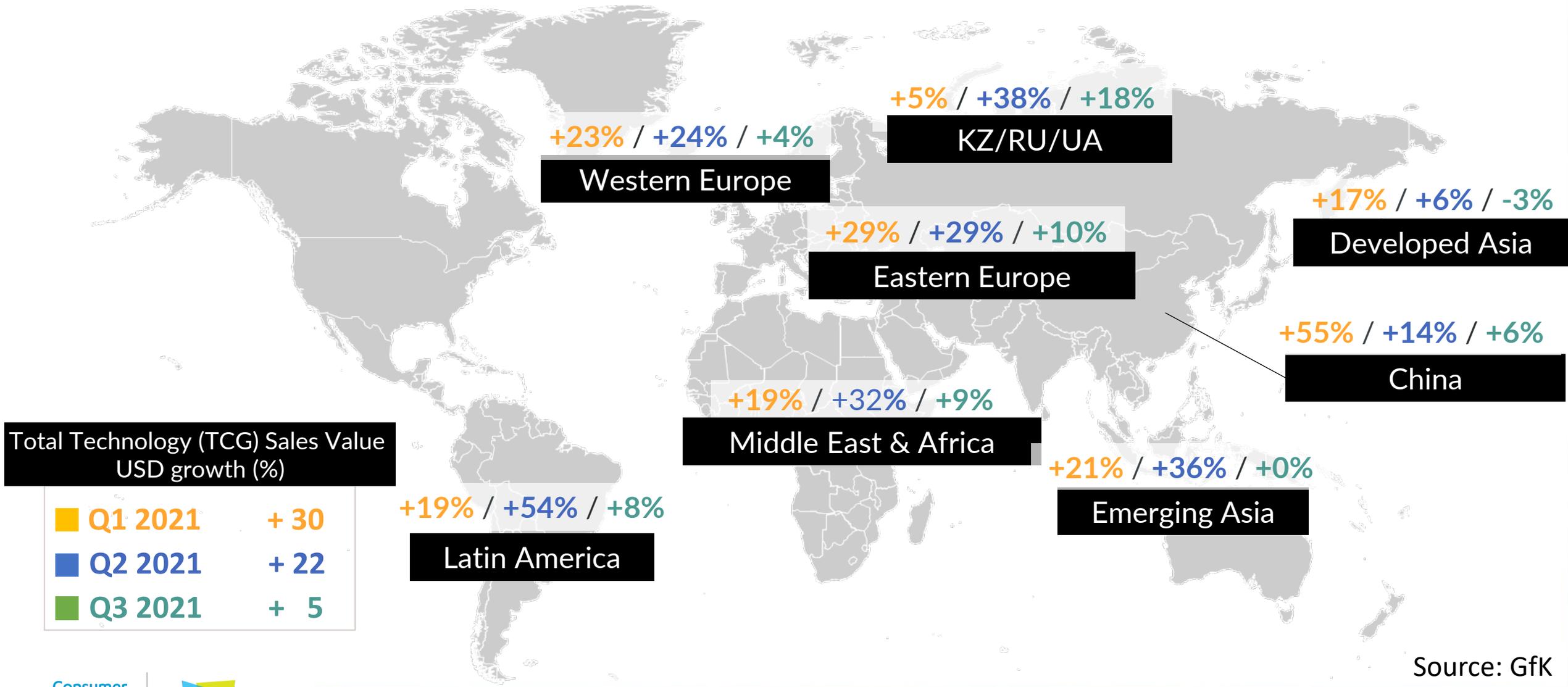


**The New Tech  
Lifestyle**



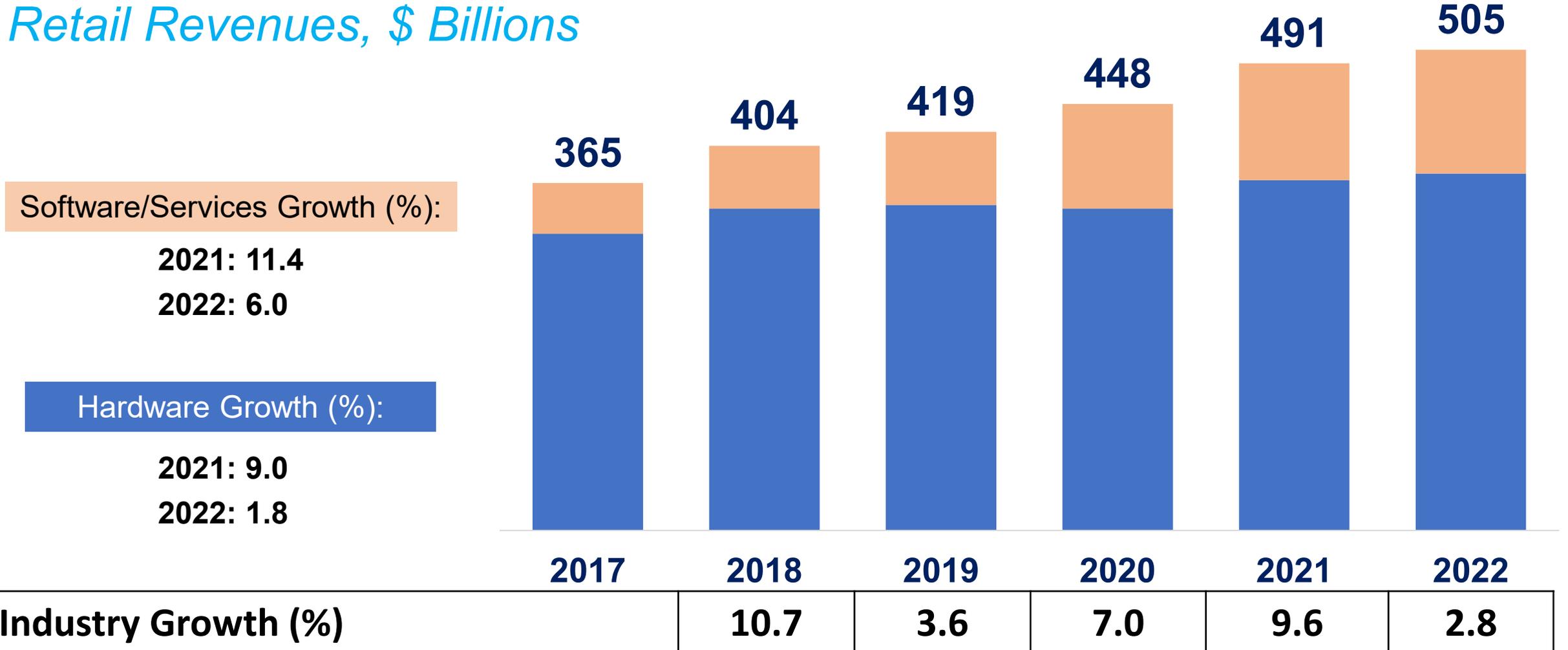
**Technology  
Trends**

# Technology Demand Remains Strong



# U.S. Consumer Tech Industry Forecast

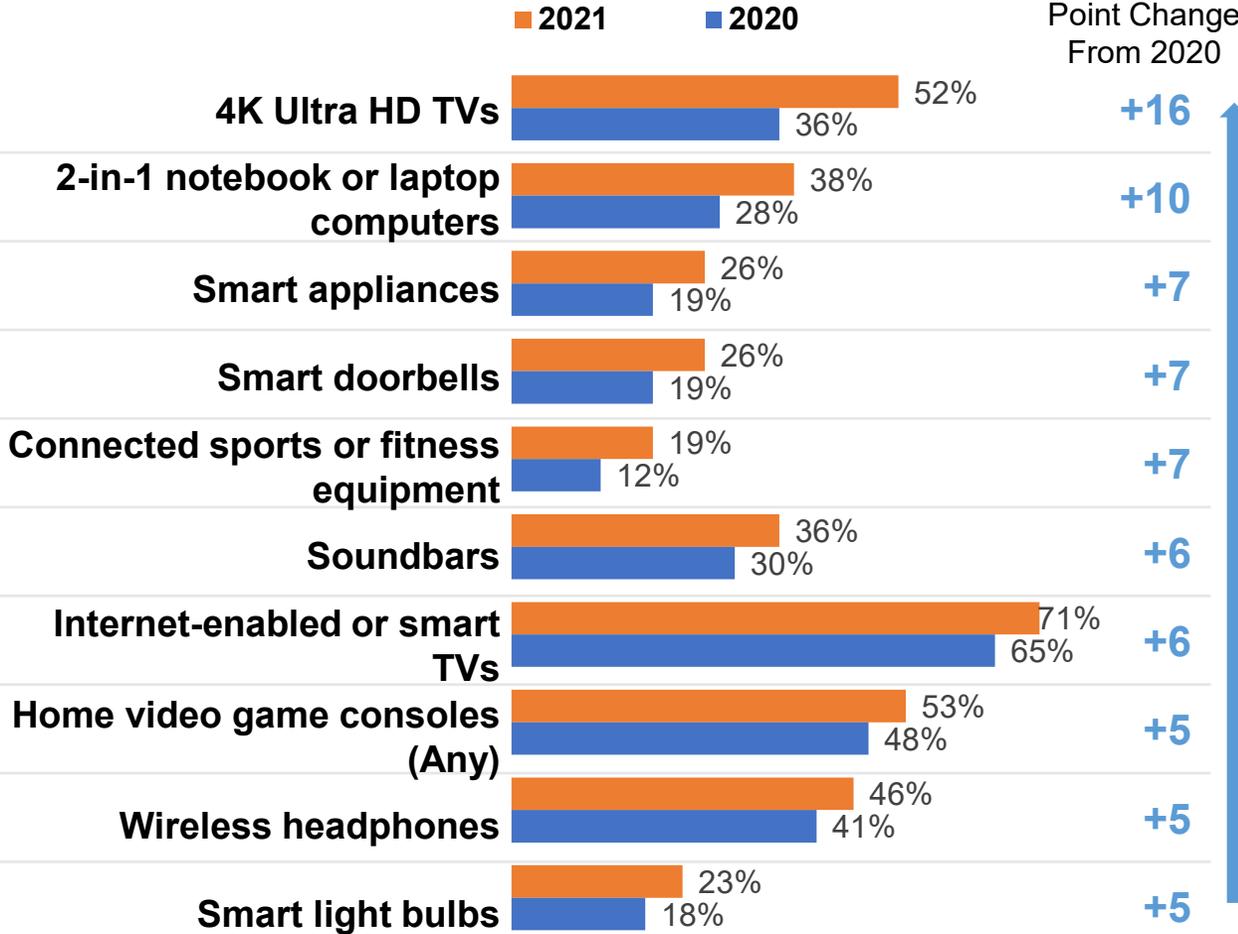
*Retail Revenues, \$ Billions*



# Consumers Level-Up Their Tech



% of U.S. HHs Owning Technology



Base: U.S. adults (n=2409)

Source: CTA 23<sup>rd</sup> Annual Consumer Technology Ownership & Market Potential Study

# Tech Purchase Plans, Next 12 Mos.

Europe:   

Product	% of Consumers Planning to Buy
Smartphone	40
Laptop Computer	35
Television	33
Smartwatch	31
Tablet	30
Smart Speaker	29
Game Console	28
Desktop Computer	27

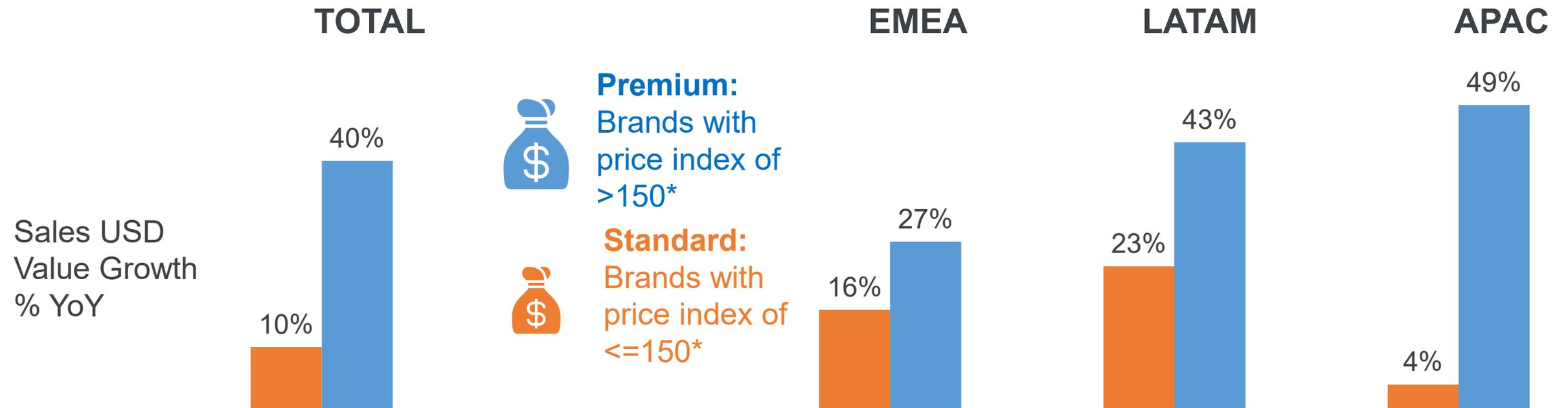


Source: CTA Research, October 2021

# Global Spending Growth of Premium Brands

*Tech & durables on the road to premium*

Global, YTD Sept 2021 / Key Technical Consumer Goods product groups



\*Price Index per brand is aggregated up from a country/product group level to use comparable price index information within one country and product group.

# Services in the Spotlight

*SVOD Worldwide Subscribers in Millions (December 2021)*

**NETFLIX**

**214**

prime video

**175**

Disney+

**118**

Apple TV+

**20**

# Consumers Stick with New Services (%)



**Streaming Services**



**Wellness / Lifestyle**



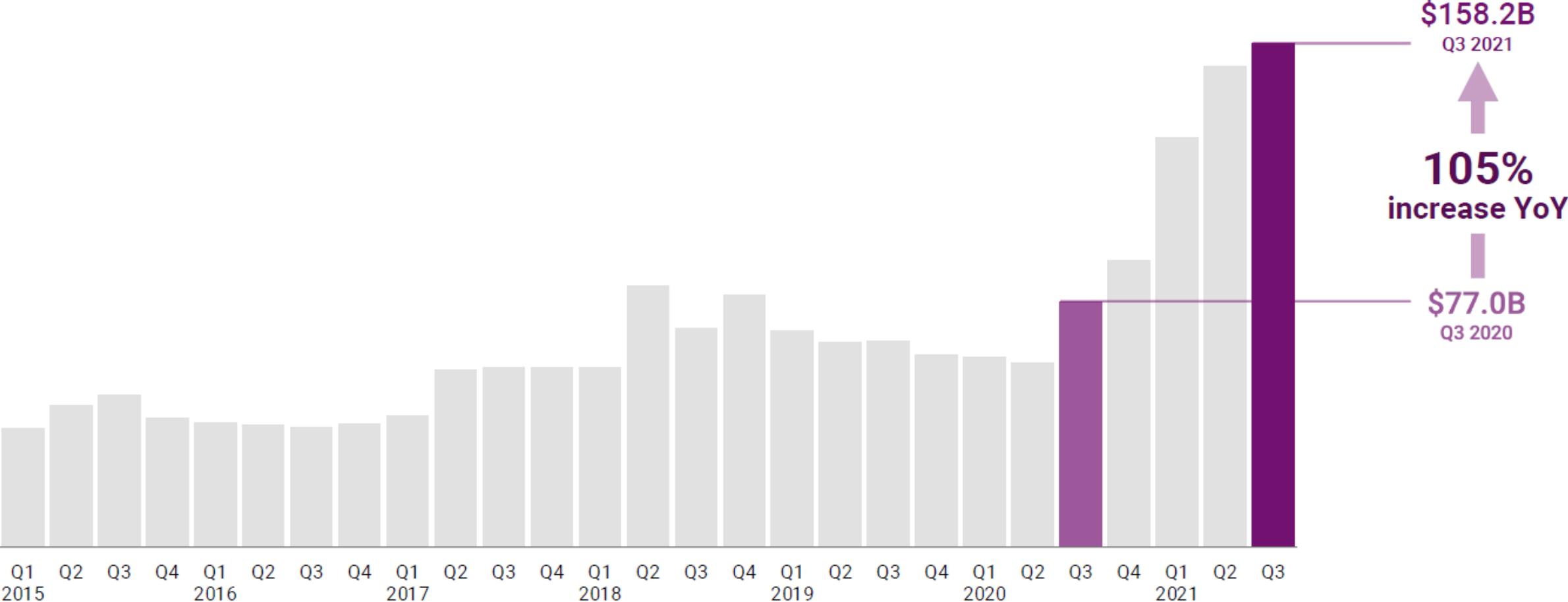
**Food Delivery**

	<u>U.S.</u>	<u>Europe</u>	<u>U.S.</u>	<u>Europe</u>	<u>U.S.</u>	<u>Europe</u>
Added New Last 12 Mos.	47	52	54	40	53	47
Continue Using	57	84	64	61	60	73

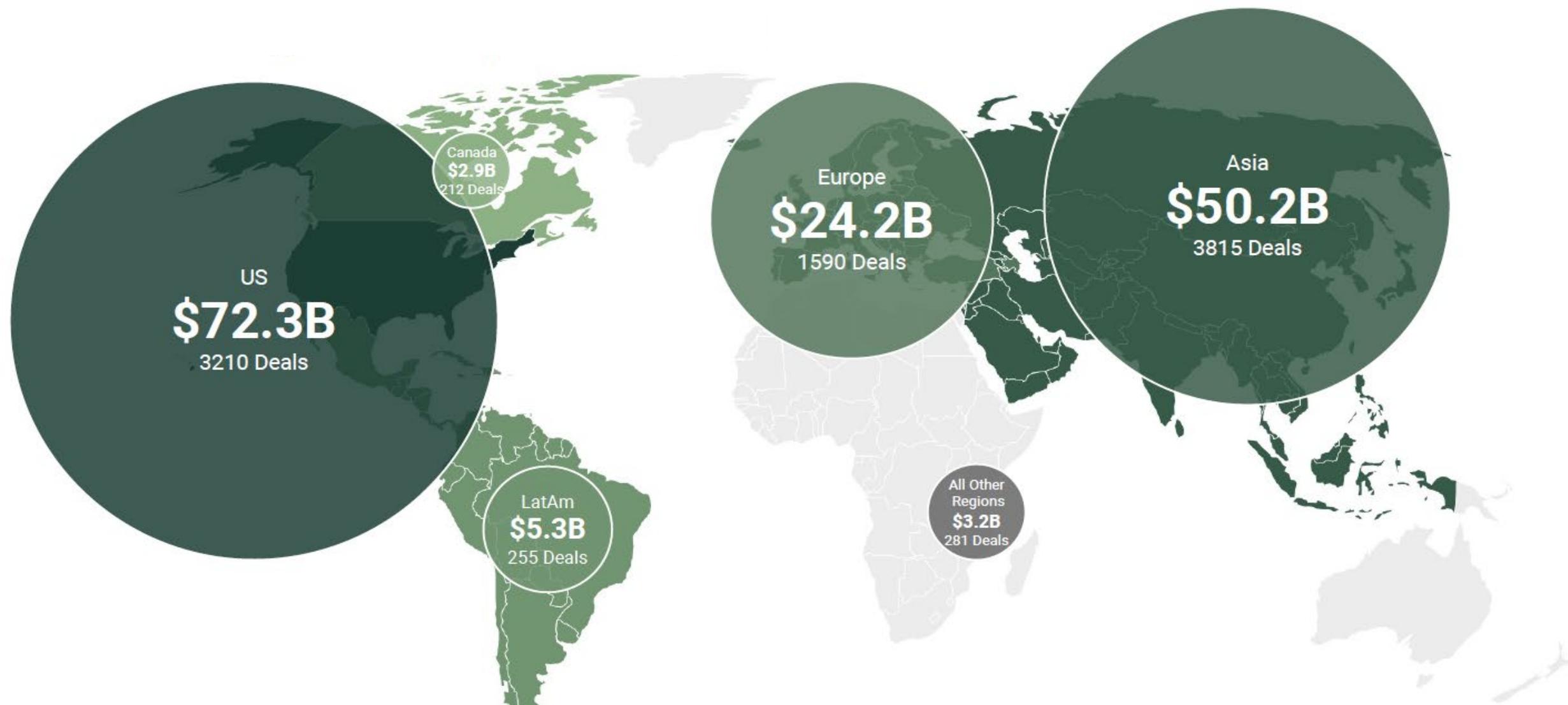
*Europe:*   

Source: CTA Research, May & October 2021

# Rapid Rise: Global Funding to Start-Ups



# Deal Valuations by Global Region, 3Q21, in USD



Source: CB Insights, Q3 21 State of Venture Report

# Key Funding Sectors

YTD 3Q21 Global Snapshot



## Retail Tech

Funding in  
Billions of USD:

82.5



## Fintech

94.7



## Healthcare

97.1

# Deals:

2930

3549

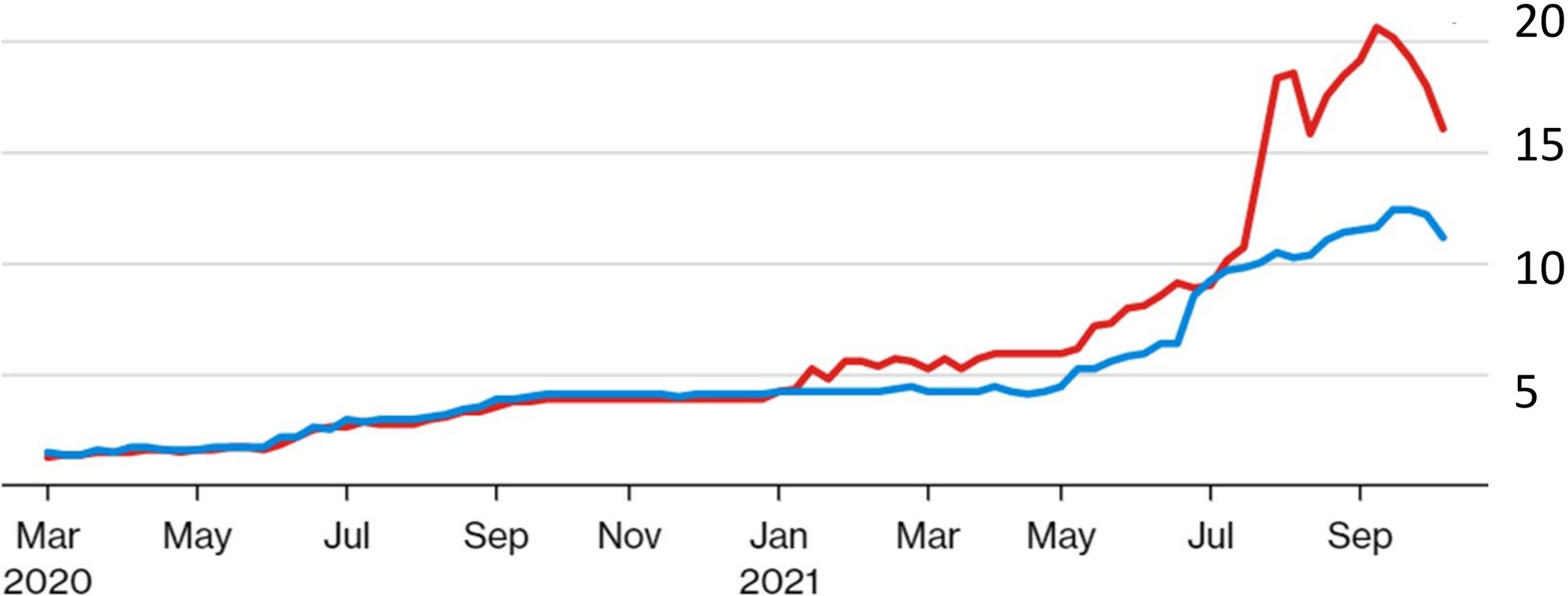
5210



# Sea Change: Costly Containers

000s USD per 40' Container

Freightos Drewry



Source: Drewry, Freightos via Bloomberg



SKY 5

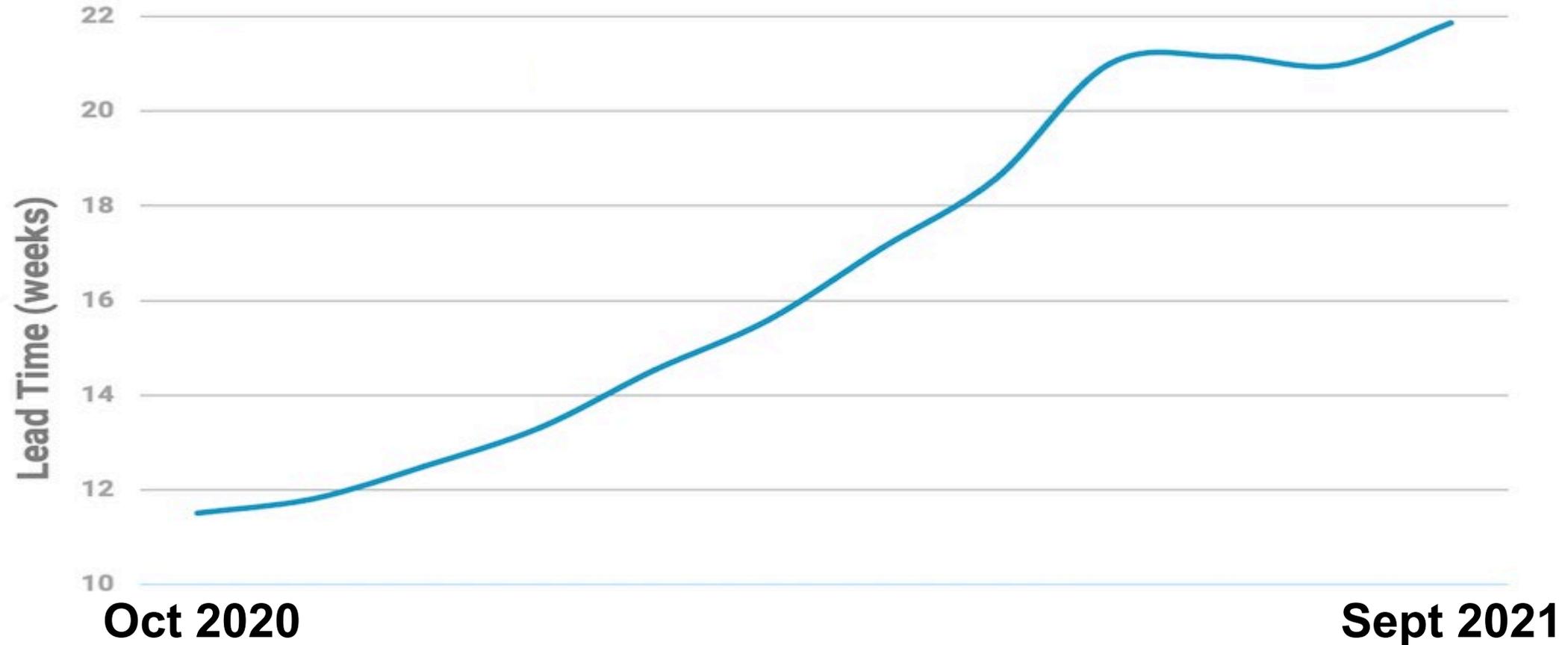
**SEA OF USELESS TRUCKS SIT AT KY SPEEDWAY**  
WAITING FOR PARTS BECAUSE OF MICROCHIP SHORTAGE

**COVID-19**  
IMPACT

**WLWT**  
**5**

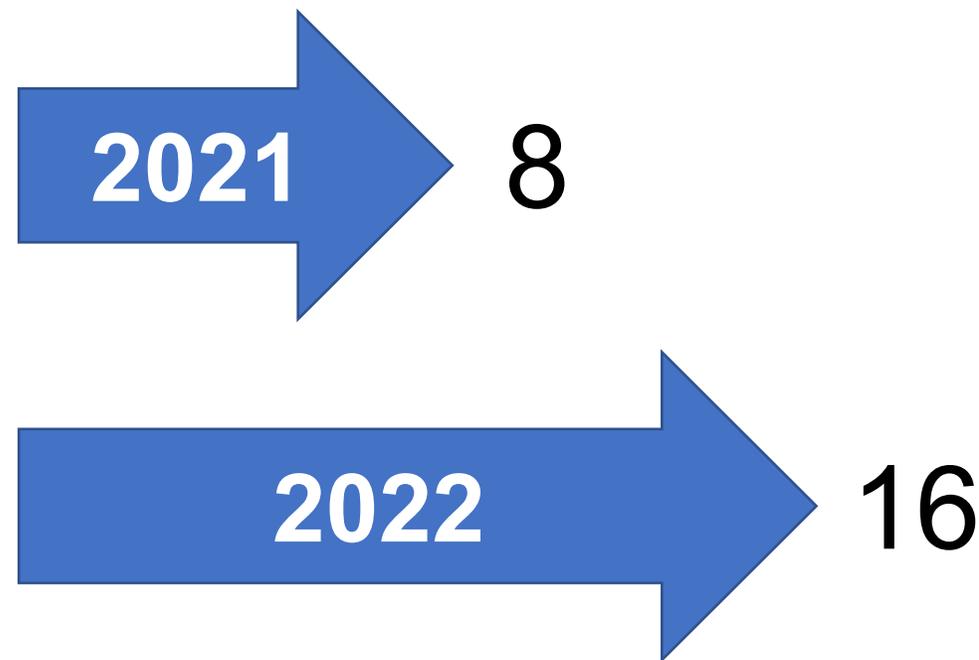
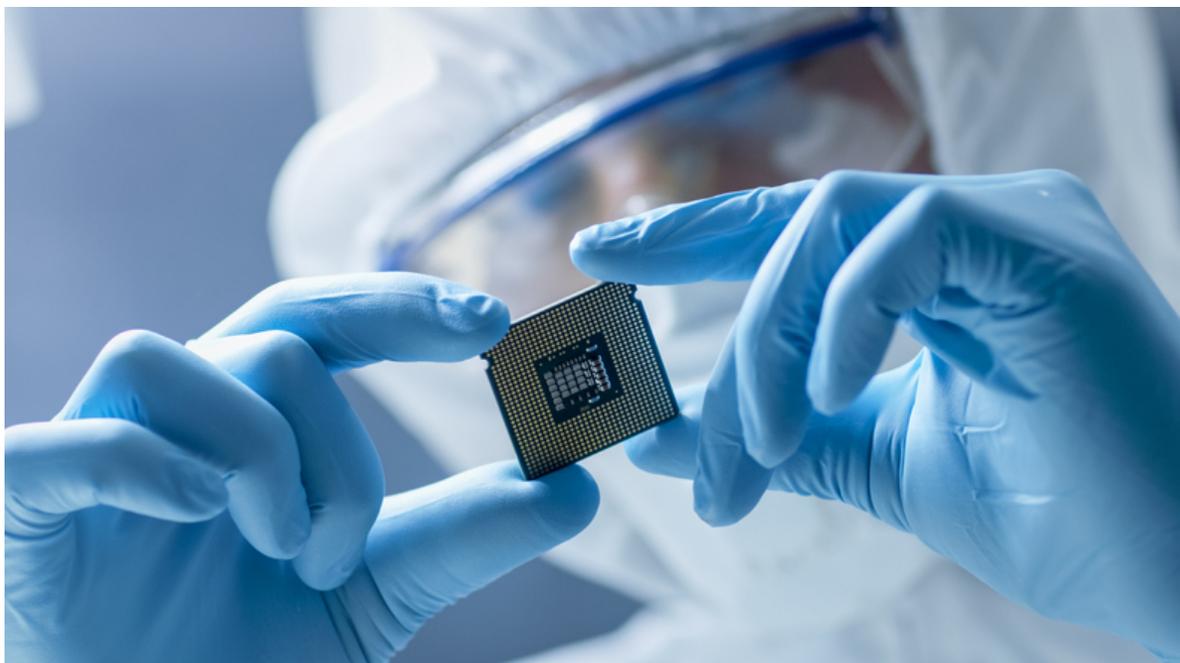
Source: WLWT, Cincinnati, OH

# Leap in Lead Times for Semiconductors



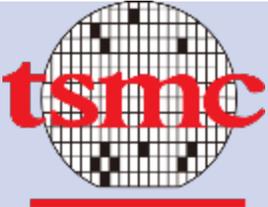
Source: LevaData

# Expected Increases in Global Chip Production (%)



Source: SIA

# Coming “Soon”: New Fabs

Company	Investment (Billions of USD)	Strategy
	95	Four new plants: Two in Europe, Two in USA \$3.5B expansion of Mexico facility
	205	“Pursue leadership in chip production”
	100	“Expand production capacity”

Sources: Company and Media Reports

# Enhanced Connectivity Powers Digital Economy



## Growing Contribution of 5G

Enterprise Adoption  
Industrial IoT  
Global Development



## Increasing Cloud Infrastructure

Digital Transformation  
Sustained Remote Work  
Digital First Consumers

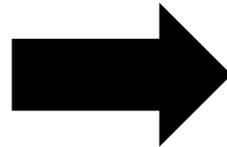
# Deeper AI Innovation; Wider Applications

## Engineered Arts – AMECA



### Core AI Innovation

Natural Language Processing  
Computer Vision  
Machine Learning



## John Deere – See & Spray



### Transformative AI Applications

Conversational AI Humans  
Autonomous Systems  
Food Technology

# Consumers Open To AI-Powered Tasks

## Top 10 AI Tasks Consumers Open To...

["Very" + "Somewhat open"]



Source: CTA Artificial Intelligence: Consumer Sentiment 2021 (December 2021)

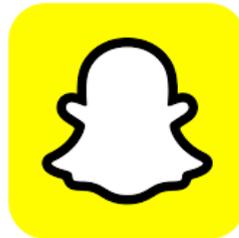
# Is the Metaverse Here?

## Hardware-First Approach

HYUNDAI  
**MOBIS**

**SAMSUNG**

## Games/Software-Based Approach



## Crypto-Based Approach



# Enterprise XR: Five Pillars

84% of XR-engaged businesses expect to spend more on their AR/VR initiatives over the next two years



**Virtual Meetings**



**Simulations/  
Digital Twins**



**Remote Collaboration**



**Immersive Design**



**Marketing & Sales**

# CES 2022: Top Trends To Watch



## Transportation

Electric Vehicles  
Micro-mobility Solutions  
21<sup>st</sup> Century Logistics



## Space Tech

Commercial Applications  
Communications  
Tourism?



## Sustainable Technology

Alternative Power Sources  
Food Tech  
Smart Cities  
Smart Home



## Digital Health

Wearables  
Mental Wellness  
Therapeutics  
Provider Solutions

# Digital Health Empowers Consumers

## Telemedicine & RPM



**Essence**  
***VitalOn***

## Connected Devices



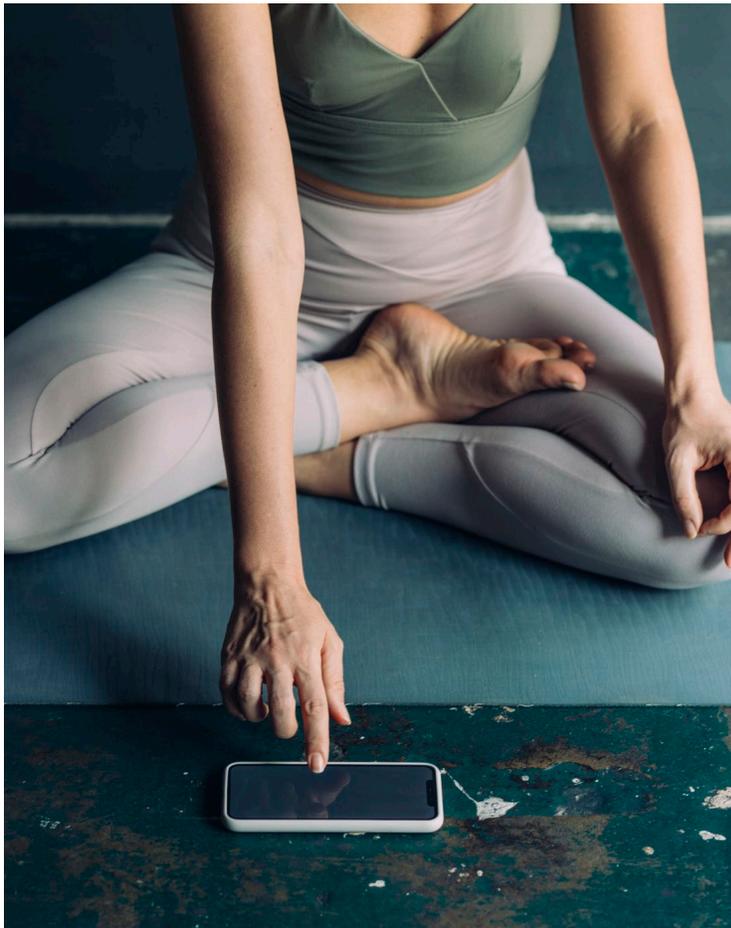
**Abbott**  
***FreeStyle Libre 3***

## Wearables



**Withings**  
***FDA-Approved Smartwatch***

# A Journey to Mental Wellness



- Online counseling/therapy platforms
- Mindfulness/Meditation apps
- Sleep monitoring
- Smart or connected health products/digital therapeutics
- Telemedicine/Virtual care visits

**52%**

Of U.S. adults likely or very likely to use health tech in the future to improve overall wellbeing

Base: U.S. adults living with or having lived with a mental health disorder who are aware of the technology (n=1000)

# The Great Home Makeover



## Enhanced Home Theater

Traditional Devices for  
Non-Traditional Use

OLED

Mini-LED

Spatial Audio



## Smarter Home

Design

Energy Efficiency

Healthy Home

DIY Installations



## Pursuing Premium

Leveling Up

Optimizing for New Normal

Pent-Up Demand

# Home Health Hub



## Health

**1 in 4**

**adults attending a video meeting/call in the past year did so for medical-related purposes**



## Fitness

**Over 2.4 million units of connected exercise equipment expected to ship in 2022... a 19% increase over 2021 shipments**

# Future of Mobility – Smart & Electric



**Electric  
Vehicles**

**Vinfast  
EVs**



**Smart  
Mobility**

**Luminar  
LiDAR**



**21<sup>st</sup> Century  
Logistics**

**TuSimple  
Self-Driving  
Freight Trucks**



**Next Mile  
Solutions**

**CES eMobility  
Experience**



**Urban Air  
Mobility**

**ASKA  
eVTOL 3.0**



Consumer  
Technology  
Association™

Digital health  
cs. Food tech. Vehicle  
tech. 5G. Startups. Resilient  
Blockchain. Advertising. Entertainment & Co  
Autonomous Vehicles.  
Home & Family  
mersive

**Beyond the everyday.**

Jan 5-8, 2022

**Las Vegas & Digital**

CES.tech