

Consumer
Technology
Association™



Radio Works: 2023 Tech Trends Update



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CTA Director of
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“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

Economy and Industry

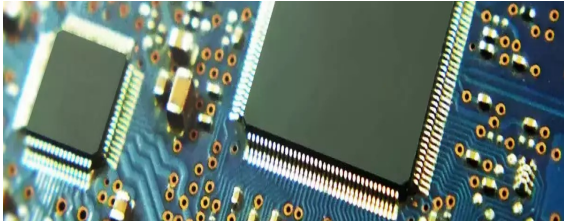


Global Challenges Confronting the Industry



Supply Chains Remain Vulnerable

China's dismantling of its zero-Covid policy is a positive sign.



Semi Demand Softening

Lead times averaged 25.5 weeks in October 2022.



Labor Shortages

U.S. has a shortage of 10 million workers.

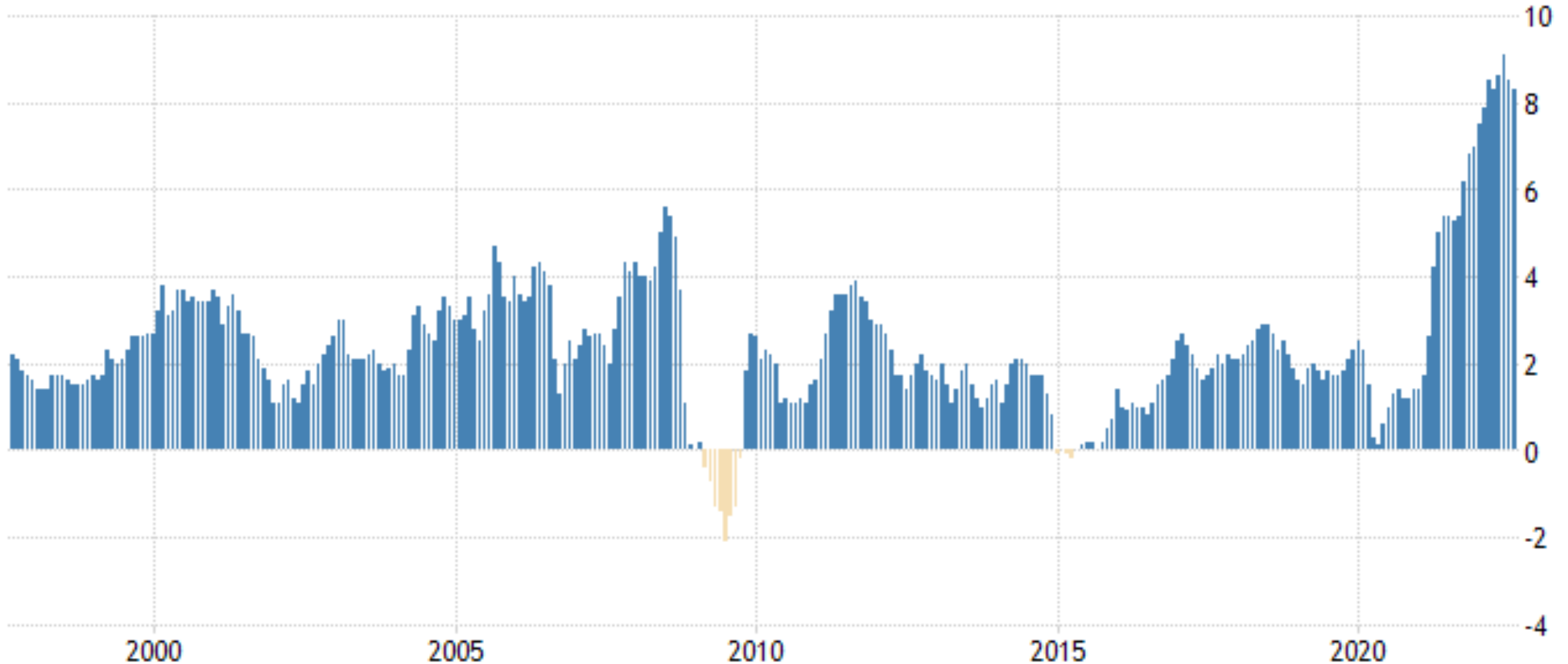


Inflation and Interest Rates

U.S. Fed raised interest rates six times in 2022.

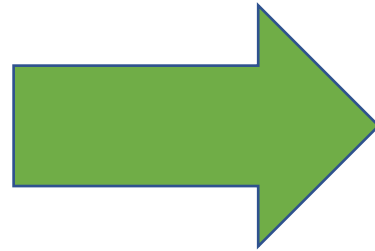
Inflation: The New Normal?

U.S. Inflation Rate, Past 25 Years (%)



Tech Will Lead Us Back to Growth Again

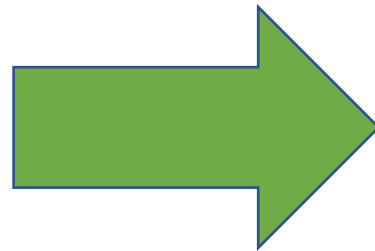
**The Great Recession
(2008-2009)**



Consumer Tech Innovation

- 4G LTE – Mobile Broadband
- Smartphones
- Tablets
- Netbooks

**Potential Recession
(2022-?)**

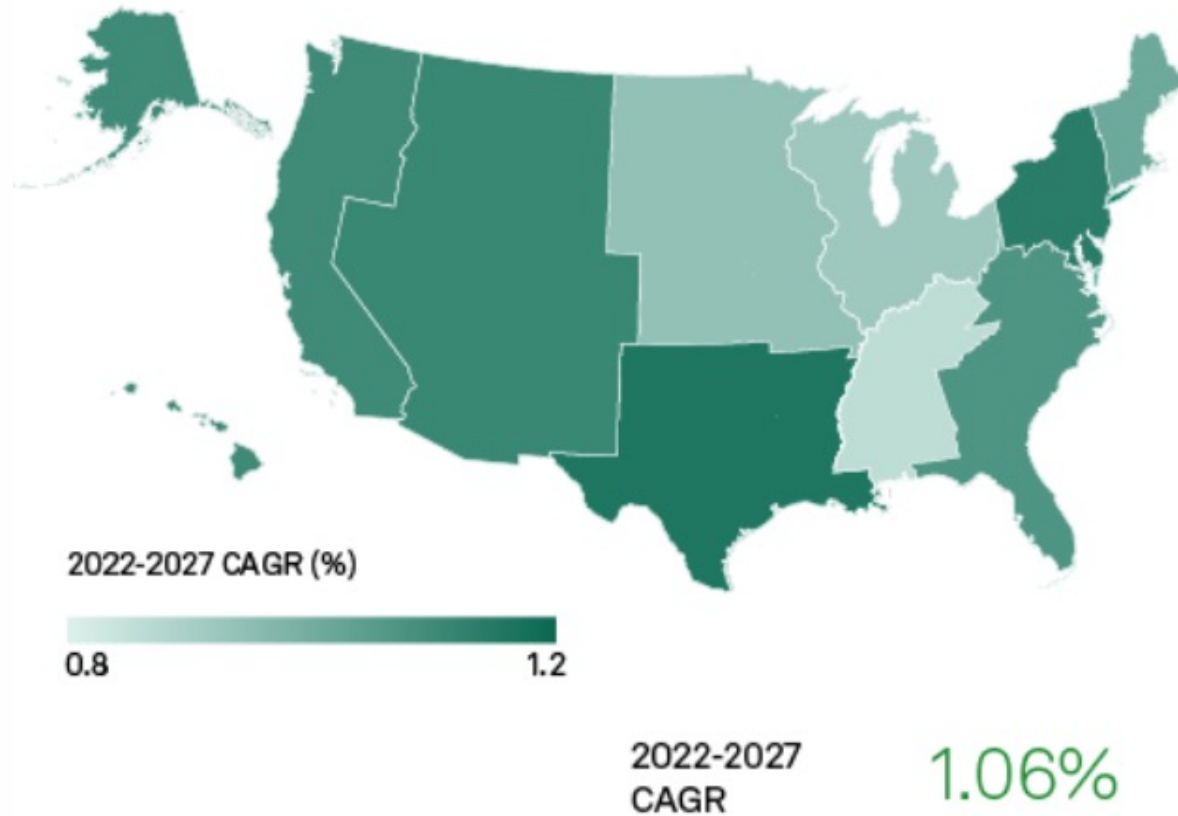


Enterprise Tech Innovation

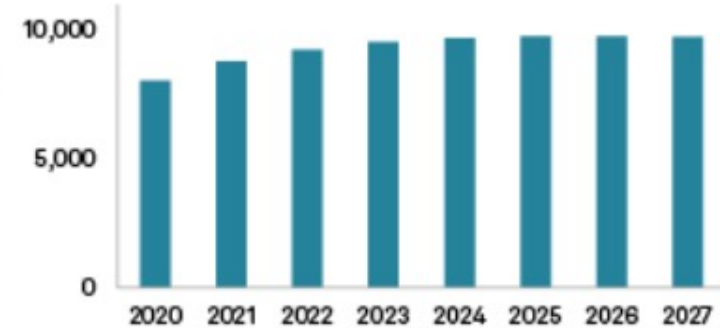
- 5G – Industrial IoT Applications
- Connected Intelligence
- Autonomous Systems
- Quantum Computing

Forecasting Radio Ad Revenue

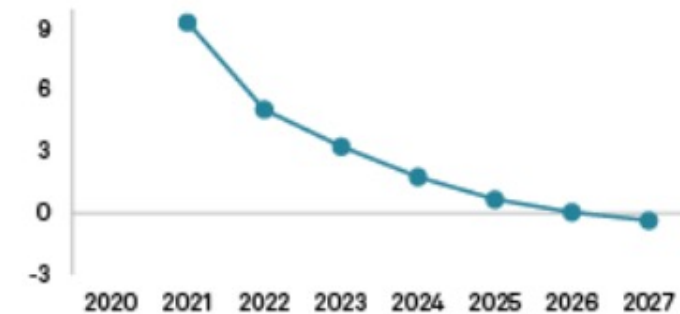
Radio station ad revenue growth projections



Rated market total (\$M)
(local/national spot & digital)



Rated market total radio station
ad revenue growth (%)

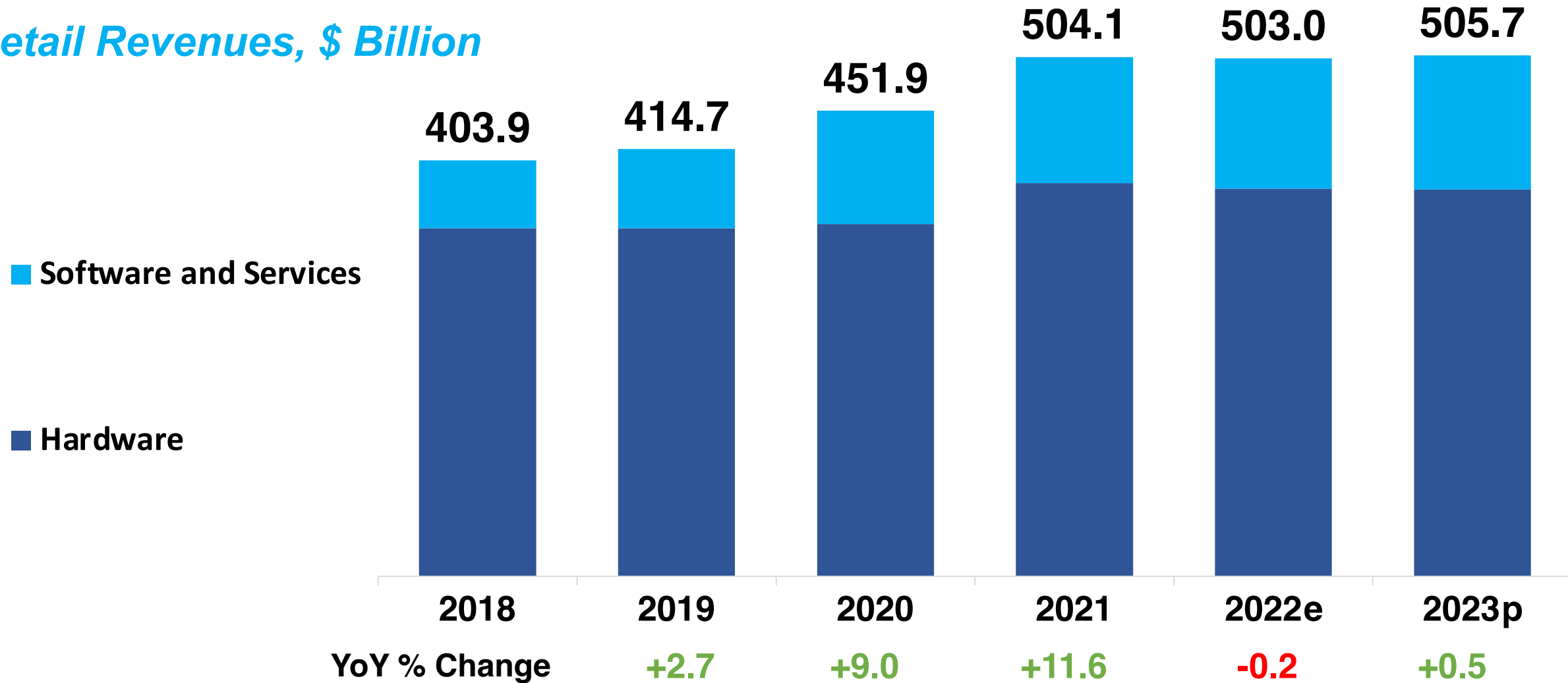


The Tech Consumer



U.S. Consumer Tech Market

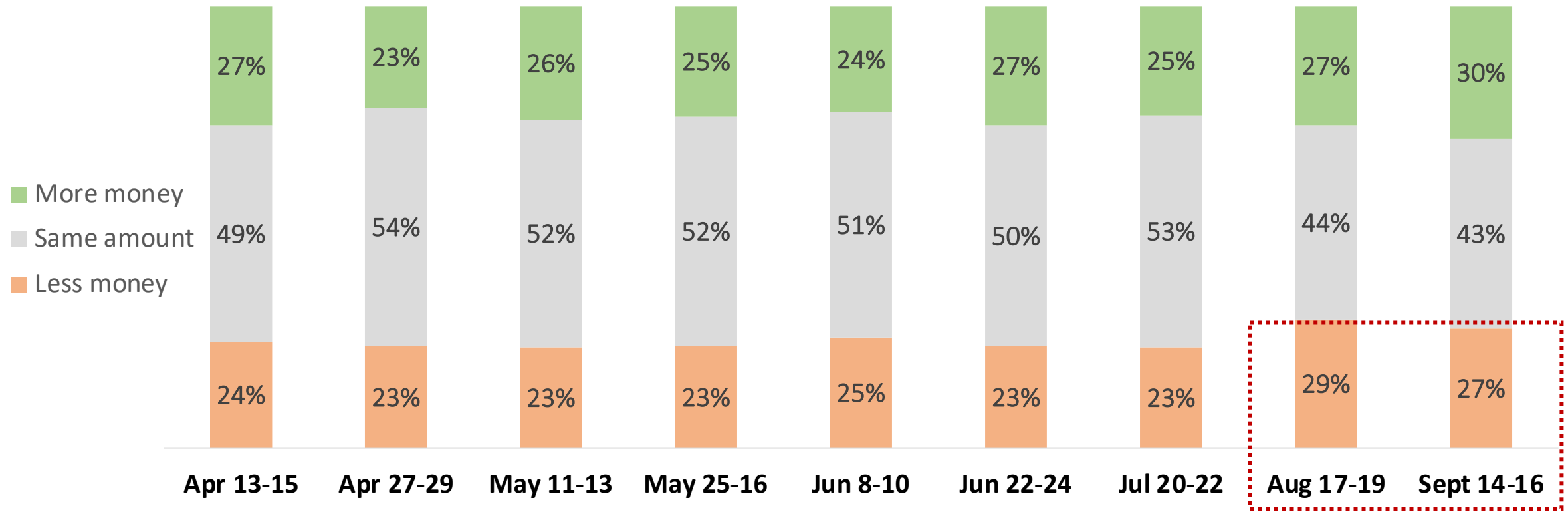
Retail Revenues, \$ Billion



Household Tech Spend vs. Last Year

Compared to this time **last year**, are you spending more, less or the same amount of money on **technology** products and services for your household?

Base: Total Respondents (n=1006)



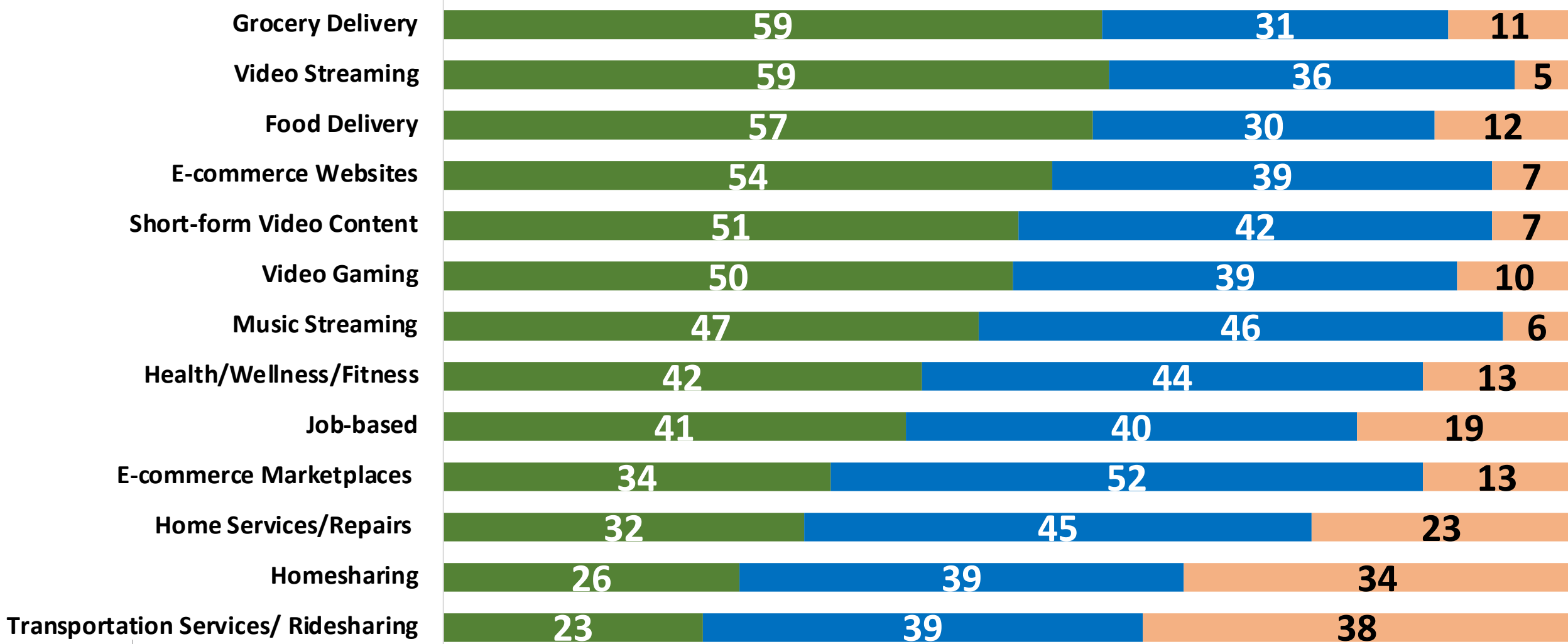
Consumers Continue to Lean Into Services

% Use: Pre-Pandemic vs. Now

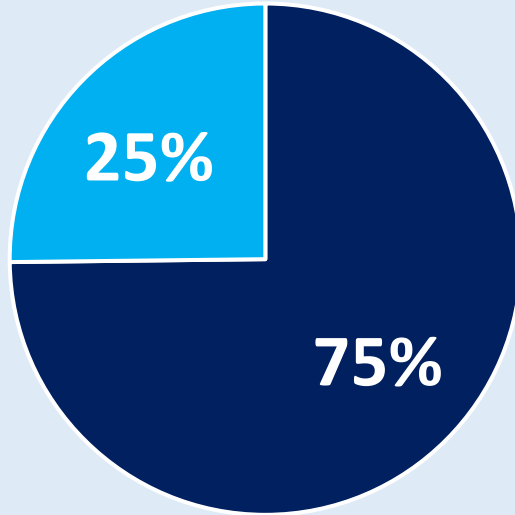
■ More

■ About the Same

■ Less



On-Demand Lifestyles



■ Hardware ■ Software/Services

**Total U.S. Consumer
Technology Revenues:
\$503 Billion**



Video Market Fragmentation

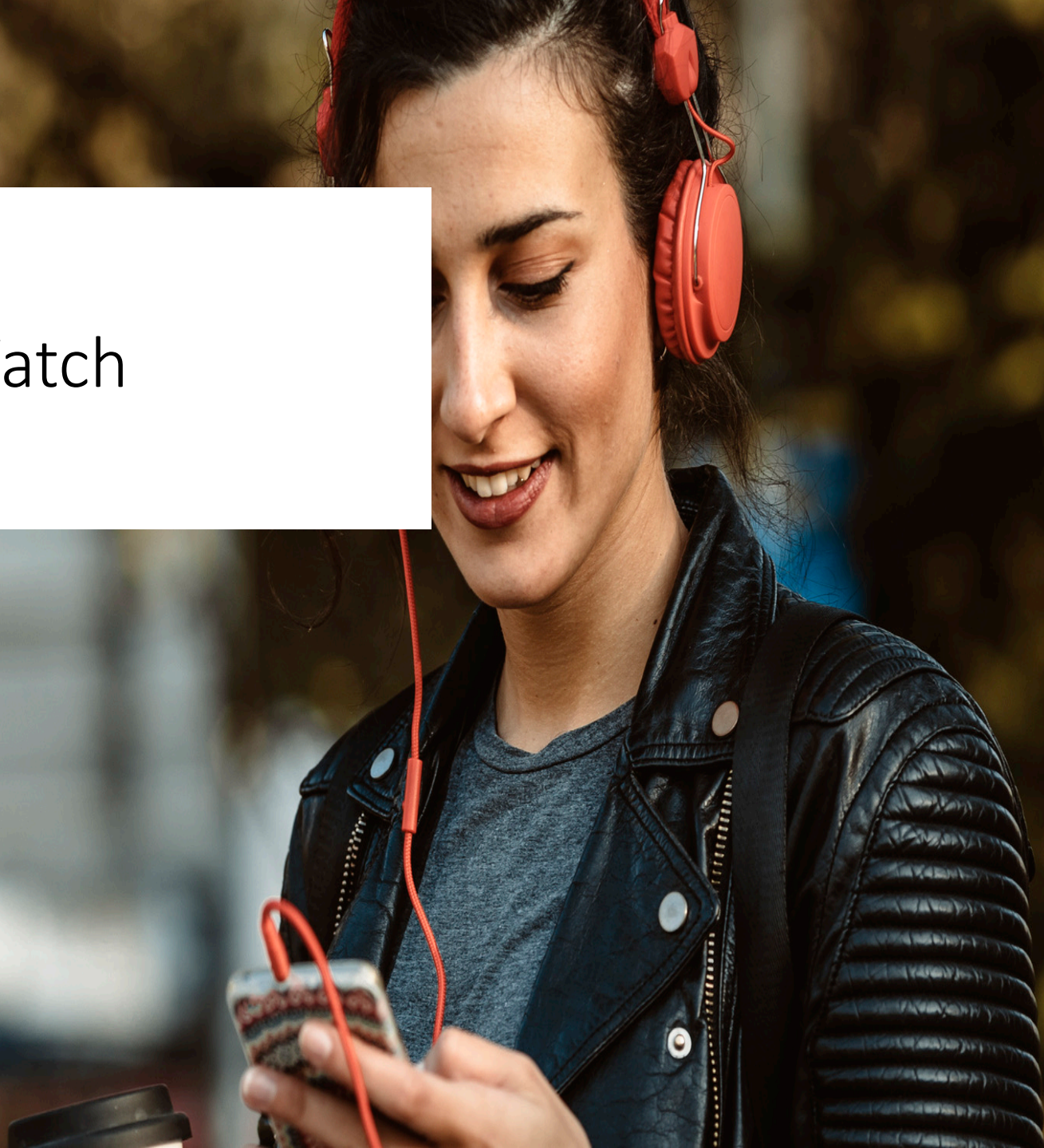
Evolving Business Opps
Partnerships
Bundling



Greater Uptake of Services

Audio Streaming
Cloud Gaming
Fitness/Health

Trends to Watch



A Convergence of Tech Themes Shape Telecom



5G

True 5G
Network Slicing
New Digital Services



Digital Utilities

Cybersecurity
Cloud Computing
Artificial Intelligence



Advertising

Programmatic
Hyper-Personalization
Geo-Targeting

The Continued Evolution of the Audio Landscape



Audience

Hybrid Work Economy
Rise of Gen Z
Conscious Consumption



Reach

Digital First
Indexing
New Frontiers



Content

Universal Libraries
Native Language Focus
Podcast Power

Audio Streaming Charts Growth

\$12.8B

forecasted revenue for
the audio streaming
market in 2023

Source: [CTA](#)

5.2%

CAGR for audio
streaming market
through 2026.

Source: [CTA](#)

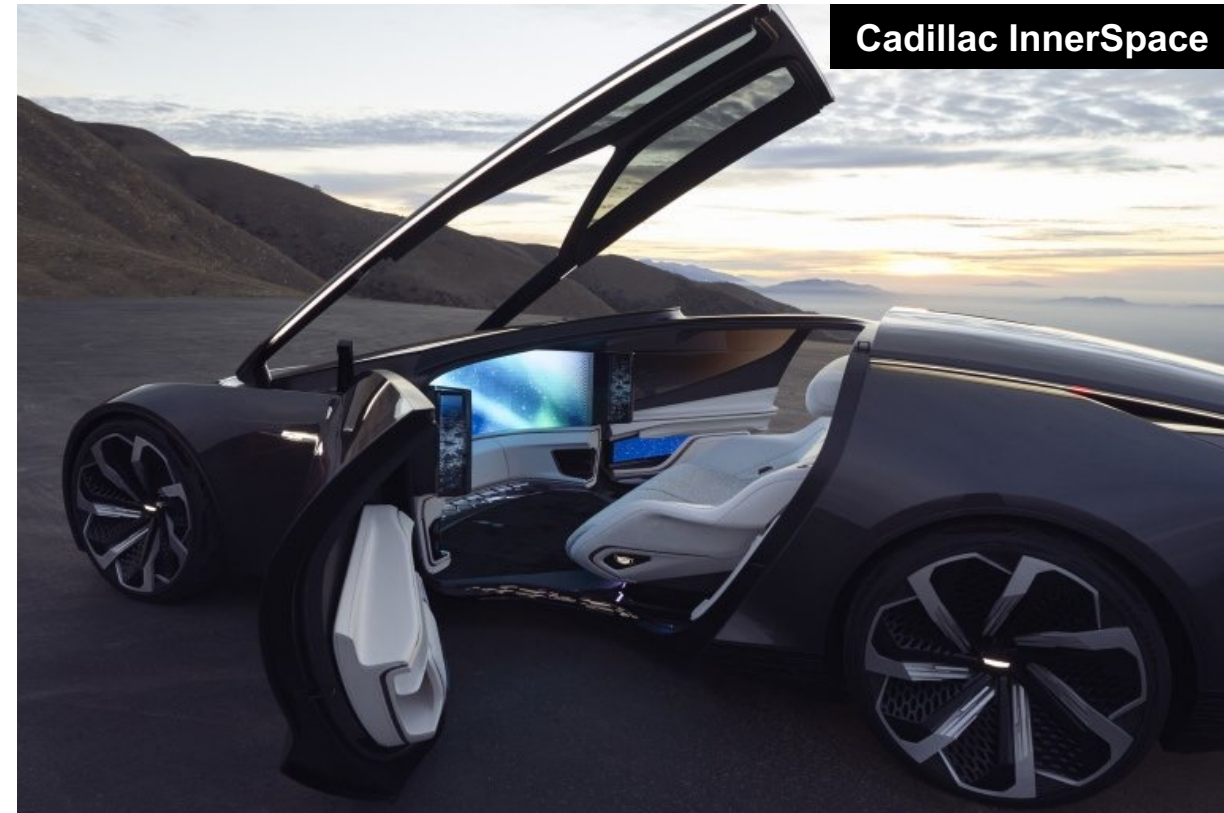
\$2B

In U.S. podcasting
advertising revenues
in 2022.

Source: [IAB](#)

Infotainment Transforms Automotive Audio

- Vehicle-to-everything (V2X)
- Features-as-a-Service
- Infotainment: Work & Play



Steppingstones to the Metaverse

Experience



Exploring Use Cases

Beyond Gaming
Digital Twin
Social

Infrastructure



Web3 Foundations

Blockchain & Digital Economy
Building Virtual Worlds
Standardization?

Access



Hardware Upgrades

Haptics
Spatial Sound
Comfort Factor

CTA Research



Questions?

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