

State of MediaTech



Milano Audiovisual Forum

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State of MediaTech

Common threads in this presentation



Headwinds

Macro headwinds have negatively affected business confidence and M&E business models, leading to cost reduction initiatives



Efficiency

This environment is leading to a rationalization of investment, including MediaTech, and a prioritization of efficiency over other investment drivers



Scarcity

Scarcity of resources, and particularly of talent, remains a growth barrier for MediaTech businesses, and is influencing investment



Focus: AI/ML

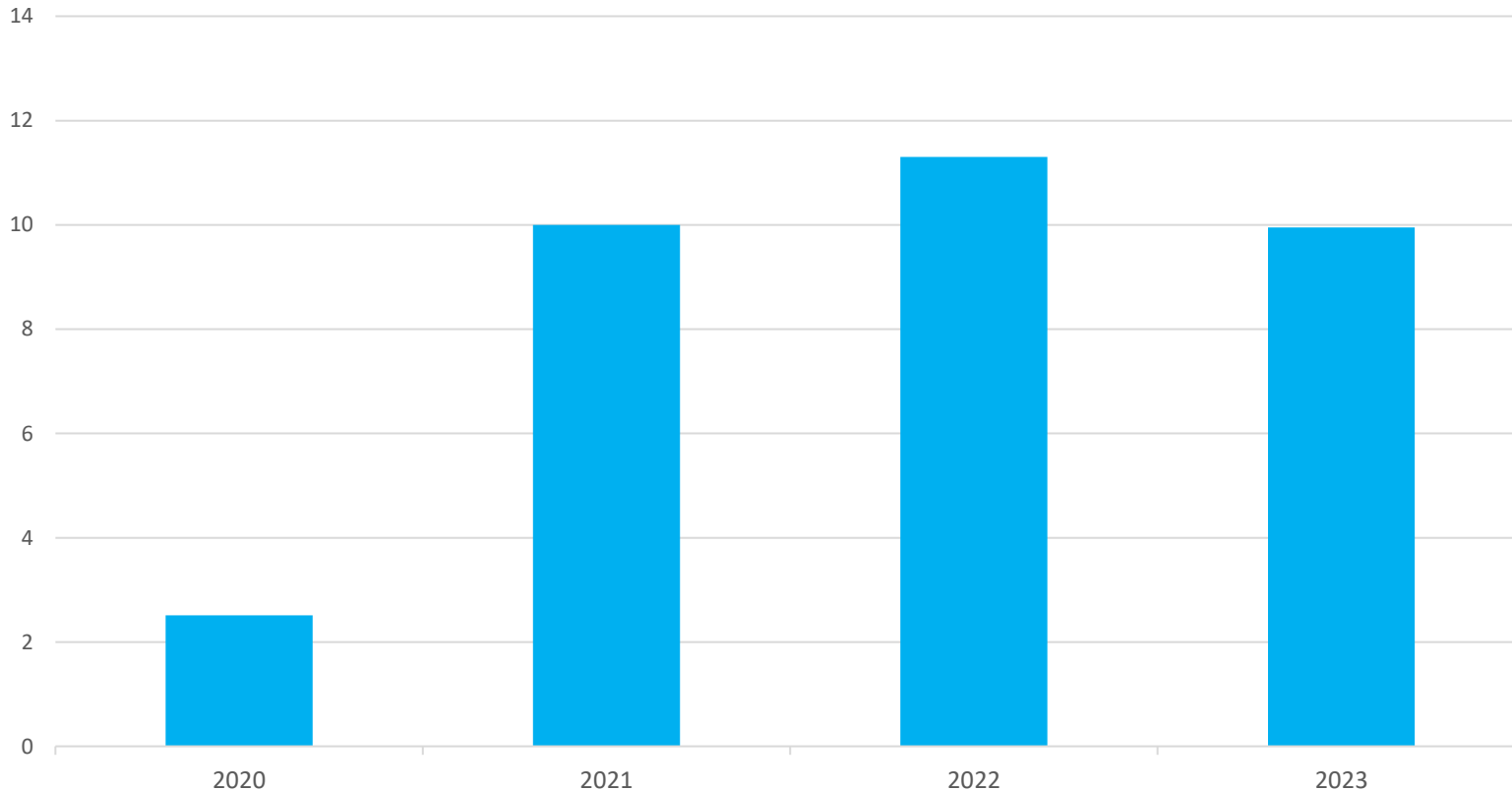
The move to the cloud is catalyzing media businesses' investments in AI/ML technology to boost automation and efficiency

Sources: IABM

Business Confidence

Business confidence: Will 2024 be better?

IABM MediaTech Confidence Ratio



Market moved slowly at the start of the year, in our opinion due to the war in Ukraine and economic conservatism and rising consumer prices. Outlook for second half of the year is more optimistic since markets seem to be recovering

2023 will be quite difficult, but we expect 2024 to be better

The first two quarters of 2023 have been slow, but there is evidence the final half of 2023 and 2024 will pick back up

MediaTech Suppliers
Worldwide
(June 2023)

Sources: IABM, The Confidence Ratio consists of a simple ratio of positive to negative responses

Business Confidence

Business confidence: Macro headwinds become top topic as outlook darkens

	2020	2021	2022	2023
1	Pandemic Impact	Business Growth	Business Growth	Macro Headwinds
2	Business Slowdown	Pandemic Impact	Supply Chain Issues	Business Slowdown
3	Remote Working	Supply Chain Issues	Macro Headwinds	Business Growth
4	Macro Headwinds	Business Slowdown	Business Slowdown	Supply Chain Issues
5	Business Growth	Macro Headwinds	Conflict	Streaming Maturity

Sources: IABM, Only top 5 topics considered in the diagram above, based on a text analysis of survey comments, colors illustrate prevalent sentiment (red=negative, green=positive, grey=neutral)

Macro Headwinds

Macro headwinds: Impact on M&E business models



Consumers

Inflation continuing to affect consumers' propensity to pay for entertainment



Content

Slowdown in investment exacerbated by impact of strikes

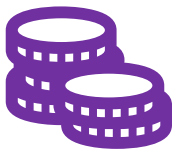
Revenues

Macro uncertainty affecting commercial, subscription and public revenues



Resources

Labor and supply chain shortages leading to resource inflation



Sources: IABM

Macro Headwinds

Streamers cut costs to pursue profitability



Disney's Operating Income (M&E Division), 2021-2022



Cost Reduction

In February 2023, Disney announced that it would cut 7,000 jobs (3% of its workforce) and plans to cut \$5.5bn in costs, including \$3bn in content savings

Cost Reduction (2)

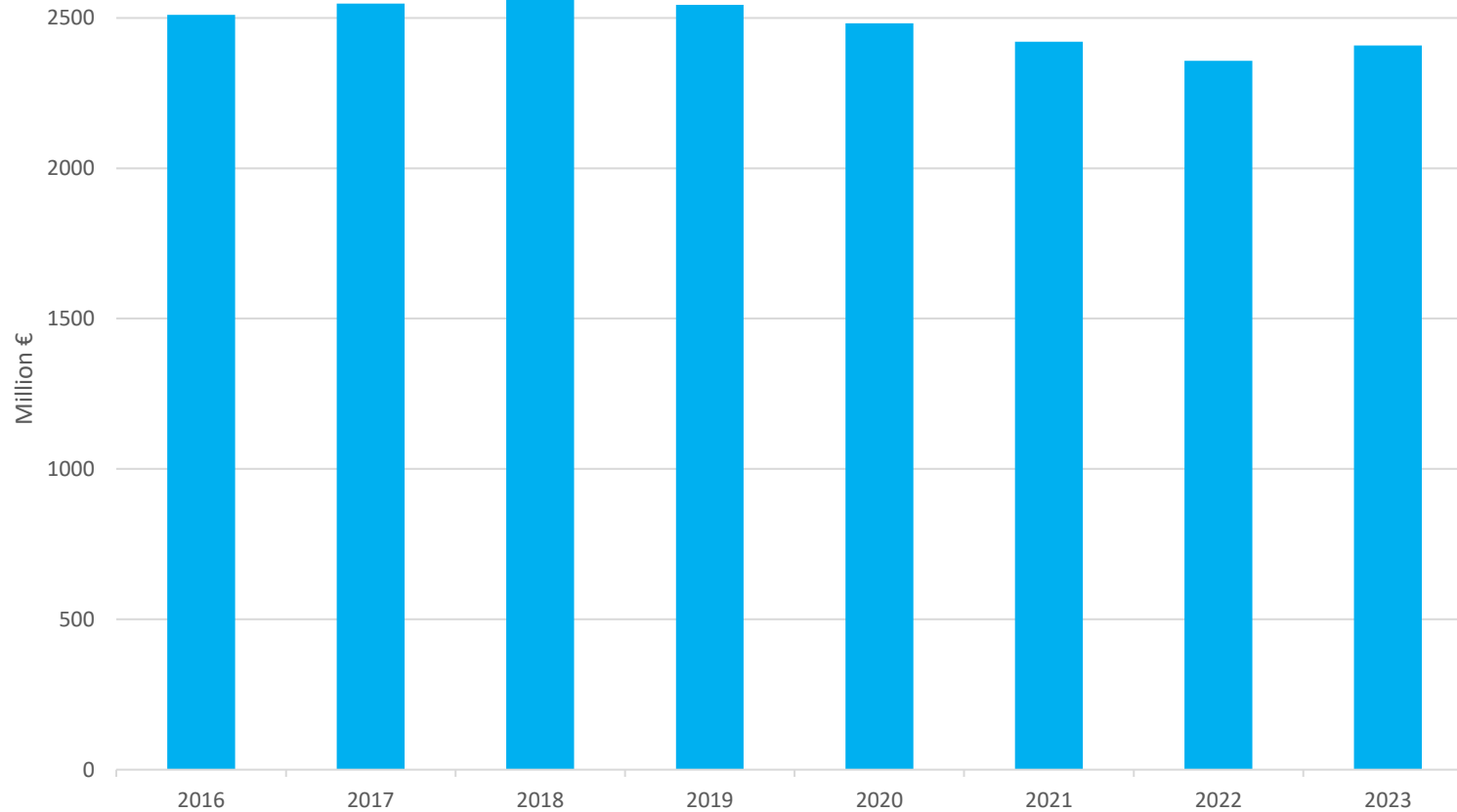
"We will take a very hard look at the cost of everything we make across television and film," CEO Bob Iger said in the earnings call announcing the measures

Sources: IABM, Company filings

Macro Headwinds

Publicly-funded models continue to be under pressure

Annual budget of France Télévisions, 2016-2023



Public Broadcasting

Funding of many public broadcasters in Europe continues to be under political pressure, which is being exacerbated by macro headwinds

Public Broadcasting (2)

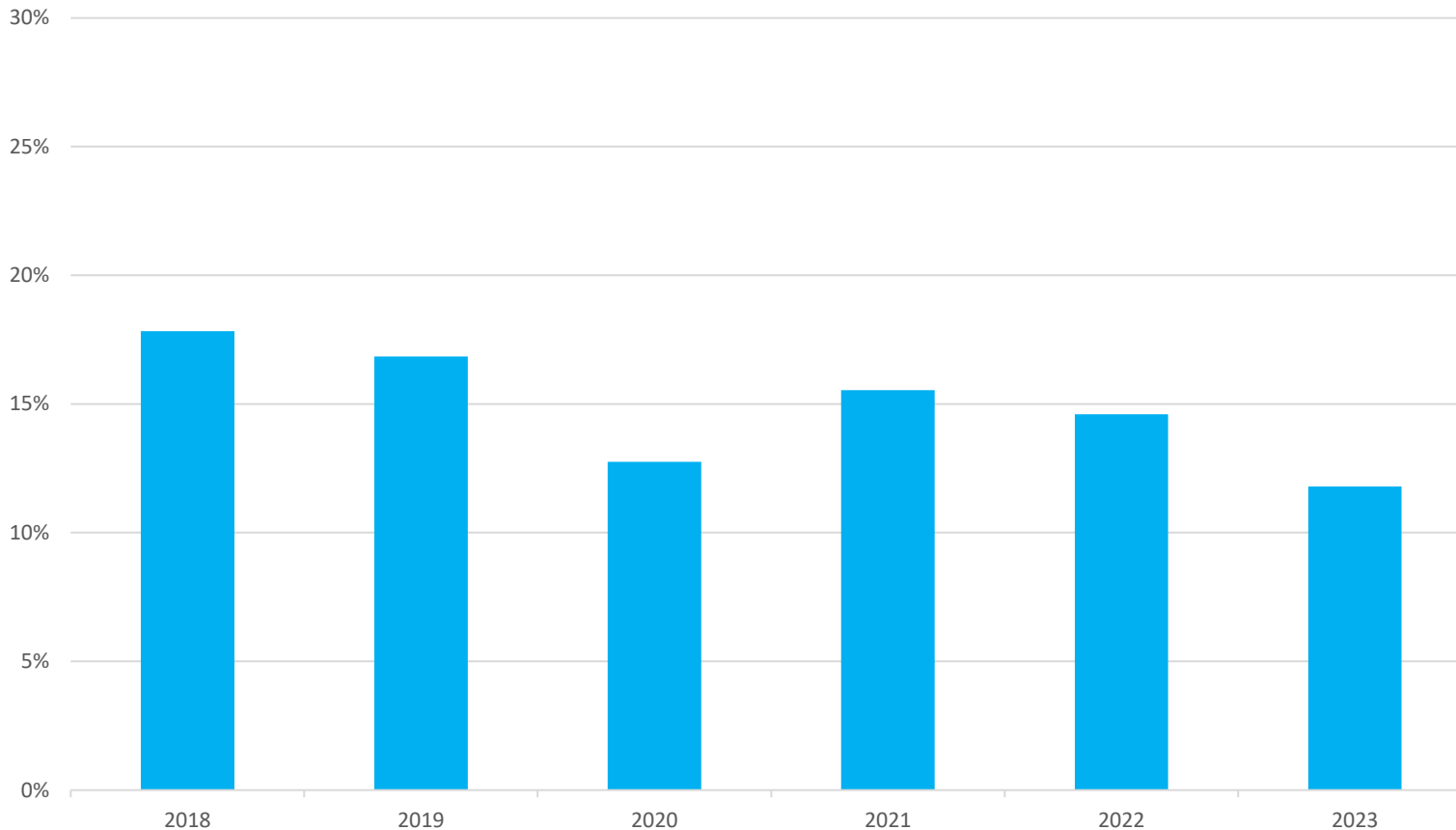
The European Audiovisual Observatory estimated that public broadcasting in Europe between 2015 and 2020 was cut by \$881.5m

Sources: IABM, Company filings

Macro Headwinds

Margins are increasingly under pressure

Adjusted EBIT margins, average for 30 large broadcasters, 2018-2023



Margins
Adjusted EBIT margins at major broadcast and media businesses are so far significantly down in 2023

Margins (2)
Margins have been going down since 2018 with a trough in 2020, though 2023 is so far lower than 2020

Sources: IABM, Company filings

Macro Headwinds

Labor and supply chain shortages are still there, leading to technology inflation

EVS H2 2022 results

*When we look to the main risks that we are still facing, that **scarcity of electronic components, salary inflation** and component cost inflation, **it's still there...** We have **implemented several price increases to be in line with inflation** as we've seen that around the world*

Serge Van Herck
CEO
EVS
(February 2023)



Evertz Q2 2023 results

*It [supply chain] **still represents a significant challenge**, to be honest... So **that's really why we're sitting with \$23 million more in raw materials** this year-end and \$40 million since the last of October. So, we've **continued to stockpile raw materials** as it continues to be a challenge*

Douglas Moore
CFO
Evertz
(December 2022)




Sources: IABM, Company filings

MediaTech Roadmap

MediaTech roadmap: Historical ranking

	Average 2020-2022	2023
1	Cloud & Virtualization	Cloud & Virtualization
2	OTT & Streaming	OTT & Streaming
3	IP Transport & Networking	AI/ML & Analytics
4	Remote Production	IP Transport & Networking
5	Imaging	Social Media
6	AI/ML & Analytics	Imaging
7	Immersive	Remote Production

Efficiency focus of media businesses & Generative AI buzz drive AI/ML & Analytics up



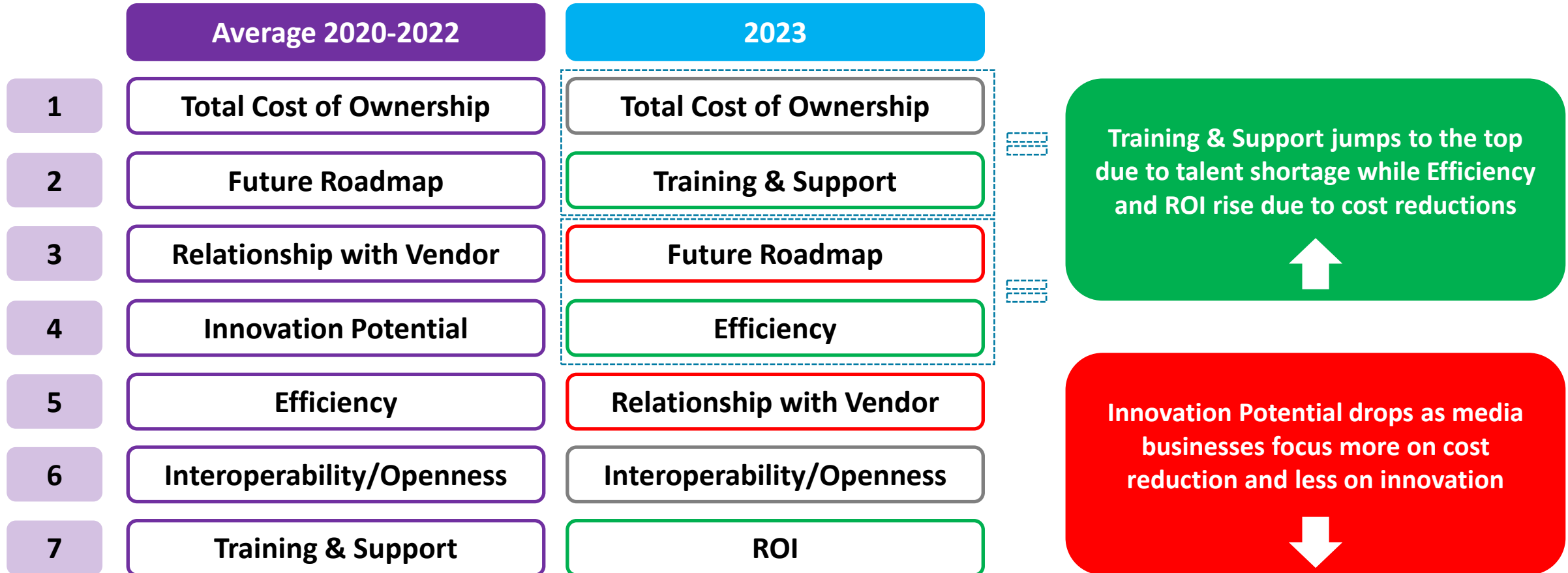
Remote Production declines along with IP and Imaging while Immersive disappears from the list



Sources: IABM

MediaTech Purchasing Drivers

MediaTech purchasing drivers: Historical importance

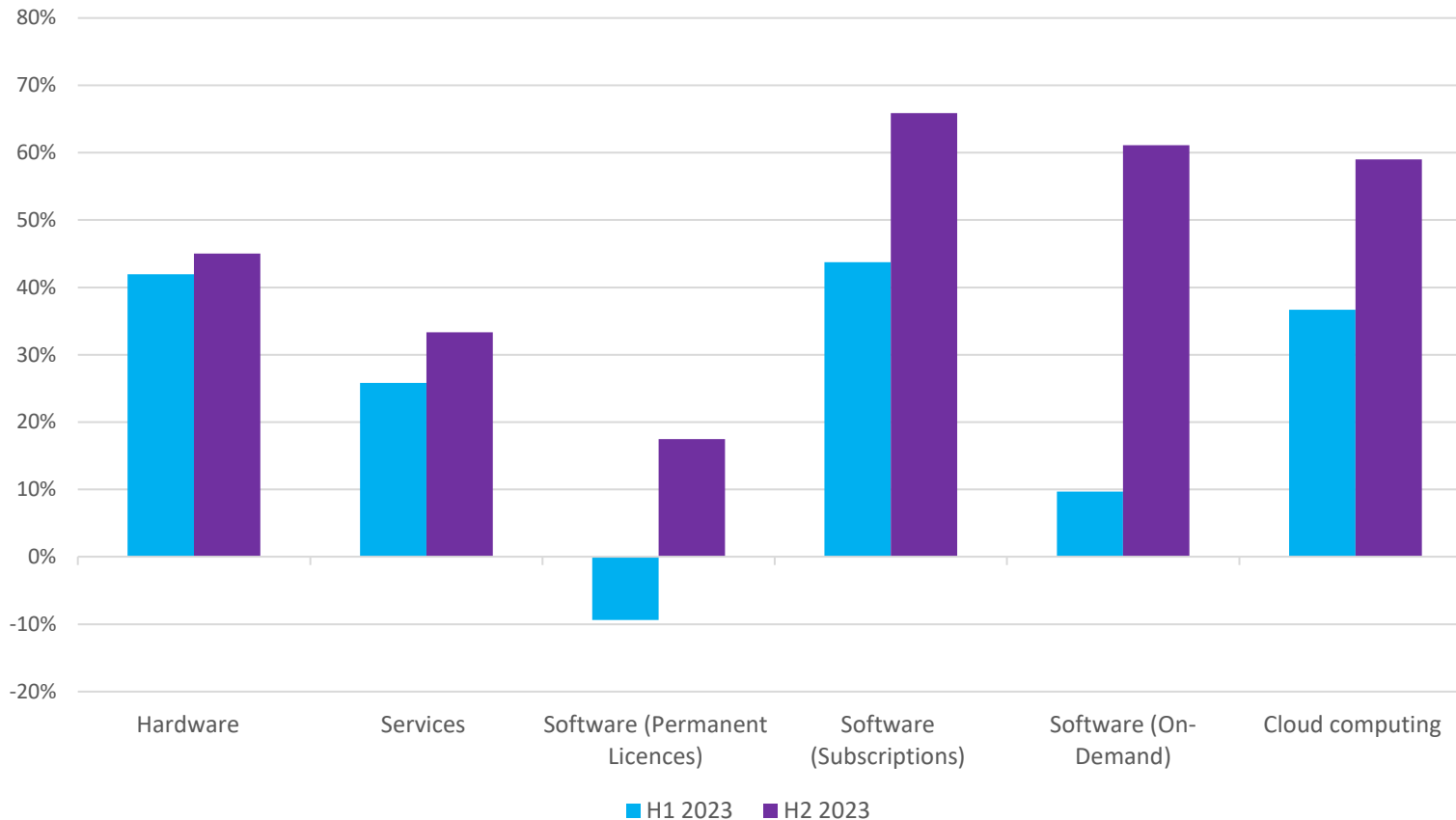


Sources: IABM

MediaTech Investment

Cloud and other software investment has grown in H2 2023

MediaTech investment by media businesses, NET investment



Cloud and other software investment significantly up compared to H1 2023, arguably driven by AI/ML



No categories decrease in H2 2023 which is consistent with more industry optimism and an increase in budgets

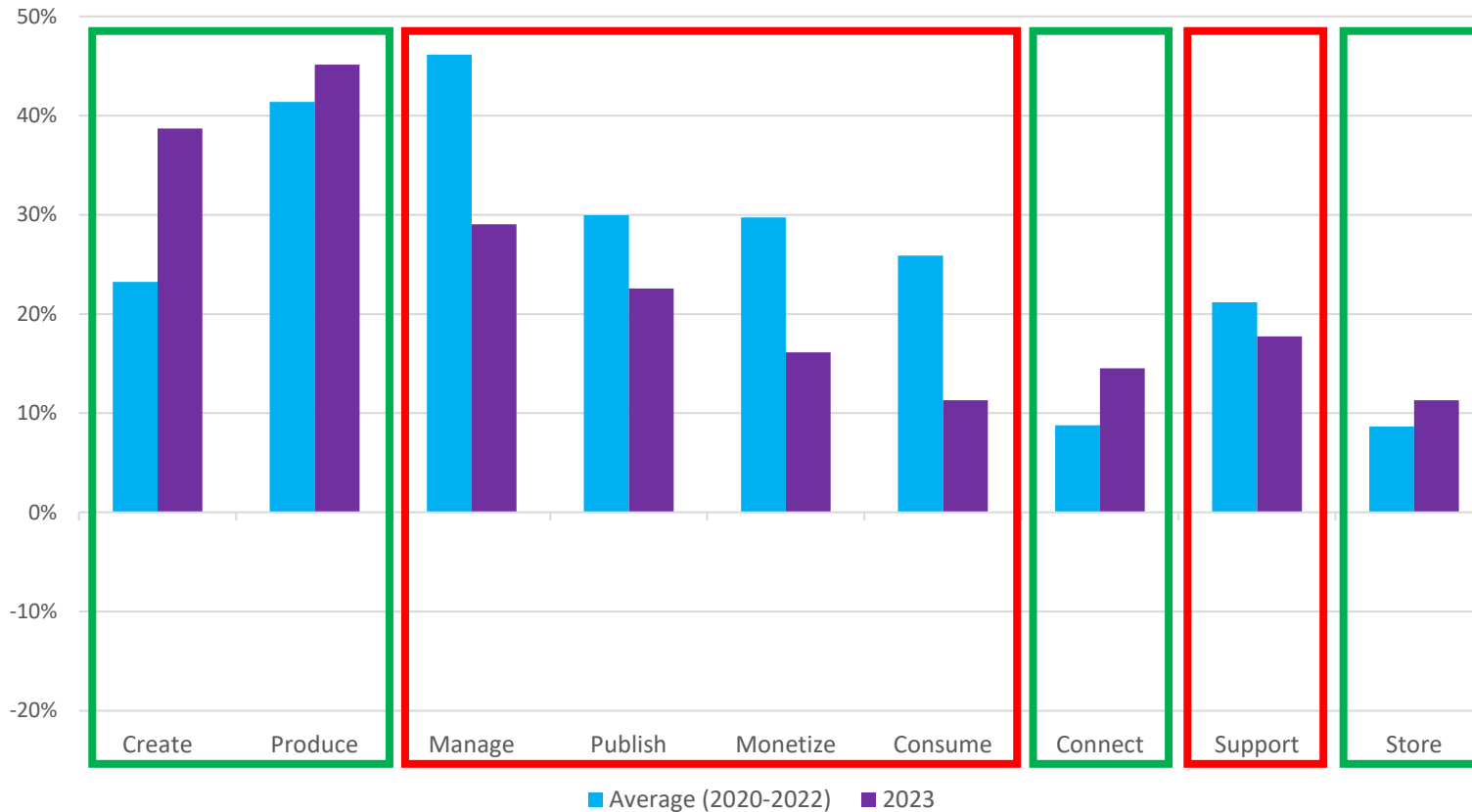


Sources: IABM, NET investment consists of subtracting the % of companies saying that investment is decreasing from the % of companies saying that it is increasing

MediaTech Investment

AI/ML application by content supply chain segment

AI/ML application by Content Supply Chain segment



AI/ML application in less mature segments such as Create and Produce increases



AI/ML application in more mature segments such as Manage and Monetize decreases



Sources: IABM

MediaTech Investment

AI/ML as the new long-term investment focus, driving technology spending on cloud

Amazon Q2 2023 earnings call

*Every single one of our businesses inside of Amazon, every single one has multiple **generative AI** initiatives going right now. And they range from things that help us be more cost-effective and streamlined in how we run operations in various businesses to the absolute heart of every customer experience in which we offer. And so, it's true in our stores business. It's true in our AWS business. It's true in our advertising business. It's true in all our devices, and you can just imagine what we're working on with respect to Alexa there. It's true in our entertainment businesses, every single one. It is going to be at the heart of what we do. It's a **significant investment and focus** for us.*

Andy Jassy
CEO
Amazon
(August 2023)



Sources: IABM, Company Filings

MediaTech Transformation

Despite cloud slowdown, transformation at media businesses continues

Financial Trends

Tech Decision-Making



Linear

Revenues growing slowly or declining

Healthy operating margins

- Keeping costs low
- Doing more with less



Digital

Revenues growing at a high rate

Still loss-making for most

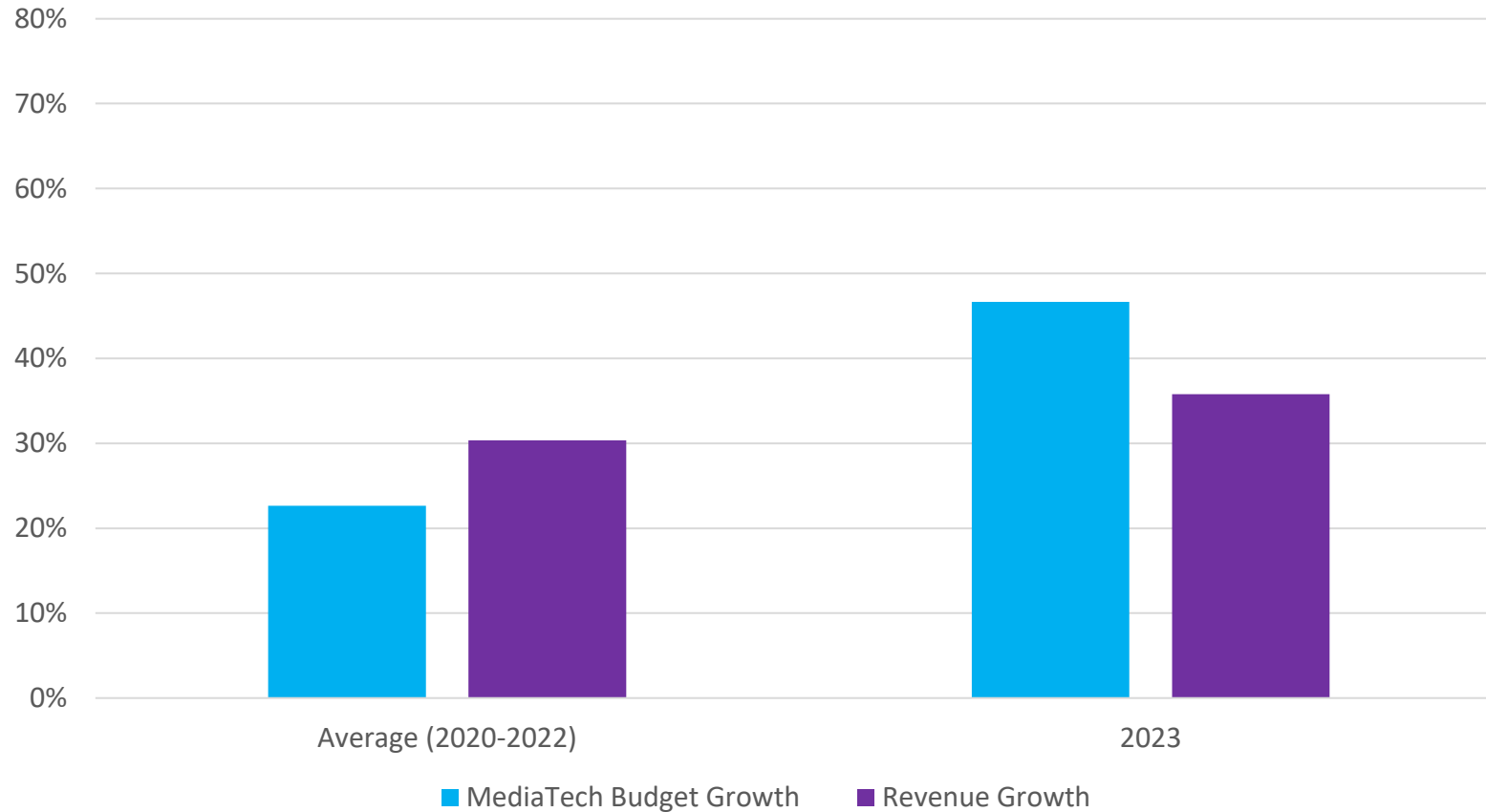
- Not keeping costs low
- Investing in potential

Sources: IABM

MediaTech Transformation

Transformation pushes investment in technology despite financial pressure

MediaTech budget vs. Revenues at media businesses, NET growth



Revenues & Budgets

MediaTech budgets are growing faster than revenues in 2023 which suggests that media companies see technology as strategic to their future success

Revenues & Budgets (2)

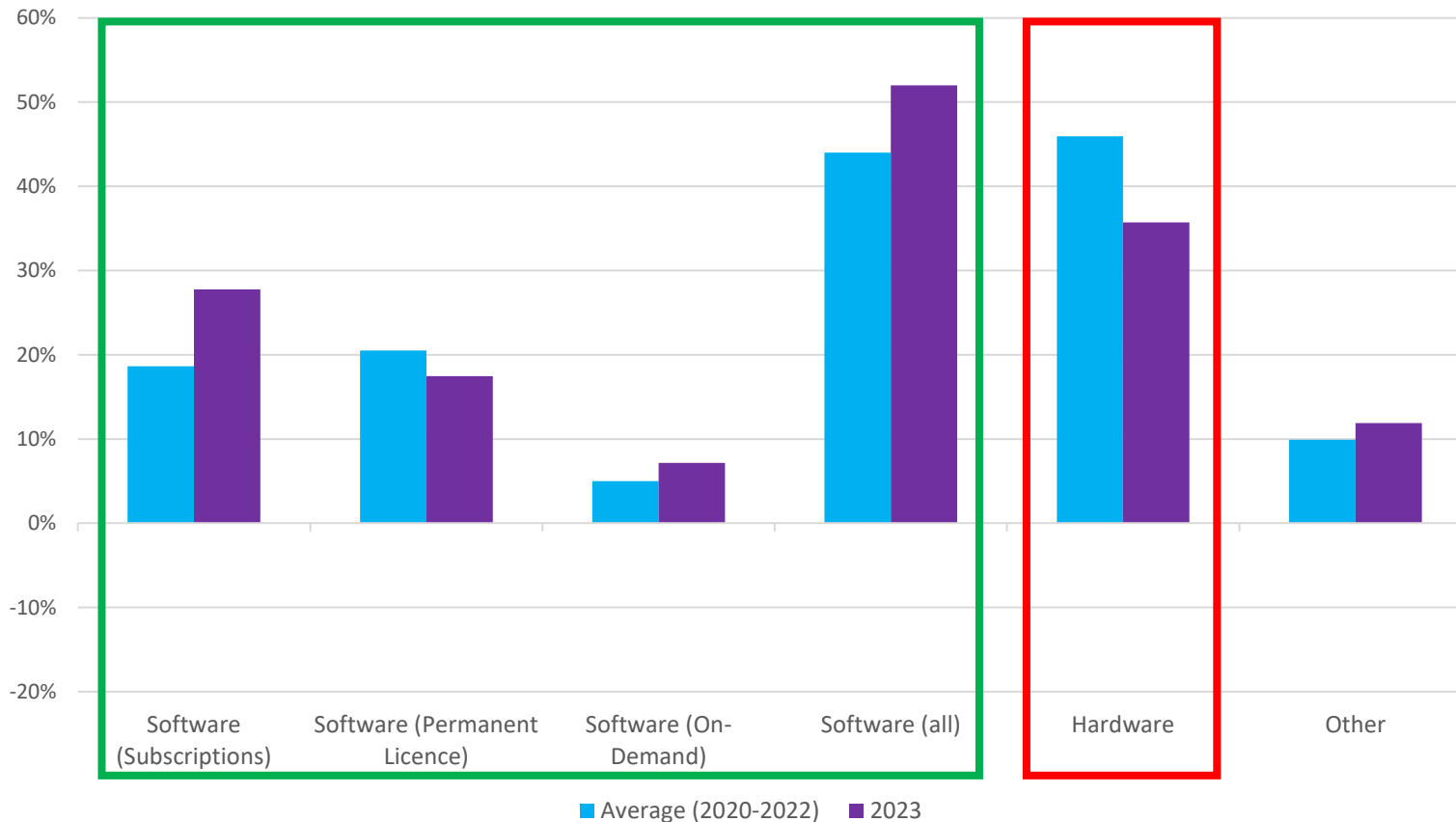
Anecdotal feedback reveals that media companies are investing in new technologies such as AI/ML and this is pushing budgets

Sources: IABM, NET growth consists of subtracting the % of companies saying that budgets/revenues are decreasing from the % of companies saying that they are increasing

MediaTech Transformation

Despite cloud slowdown, transformation at MediaTech suppliers continues as well

MediaTech primary revenue sources



Software revenues, and particularly Subscriptions, are up and surpass Hardware as primary source



Hardware revenues markedly down compared to 2020-2022 period, becoming the 2nd primary source

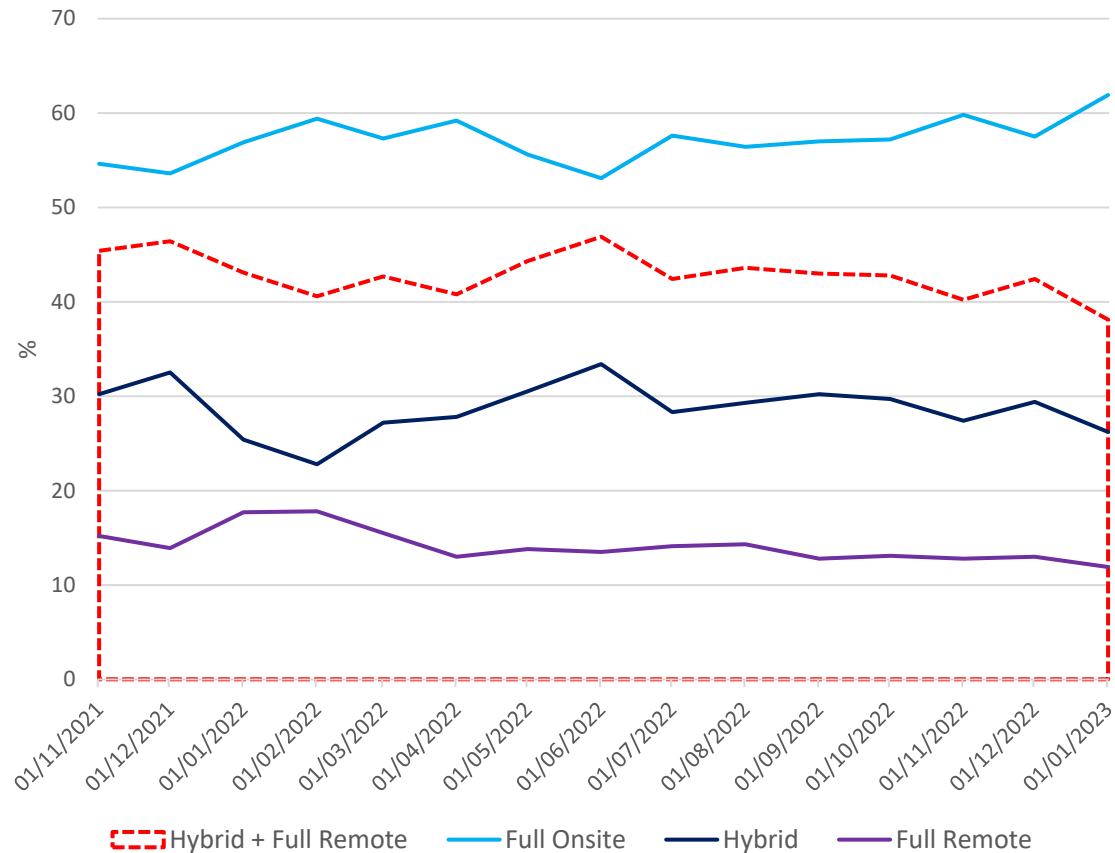


Sources: IABM

MediaTech Transformation

Continuation of hybrid/remote work is a catalyst for continued transformation

Work from home (WFH) habits in the US



Broadcaster responding to our MediaTech Business Tracker

The lockdown has opened the Pandora's box of remote work capabilities and I believe we will have to explore accommodating these capabilities to attract and retain talent

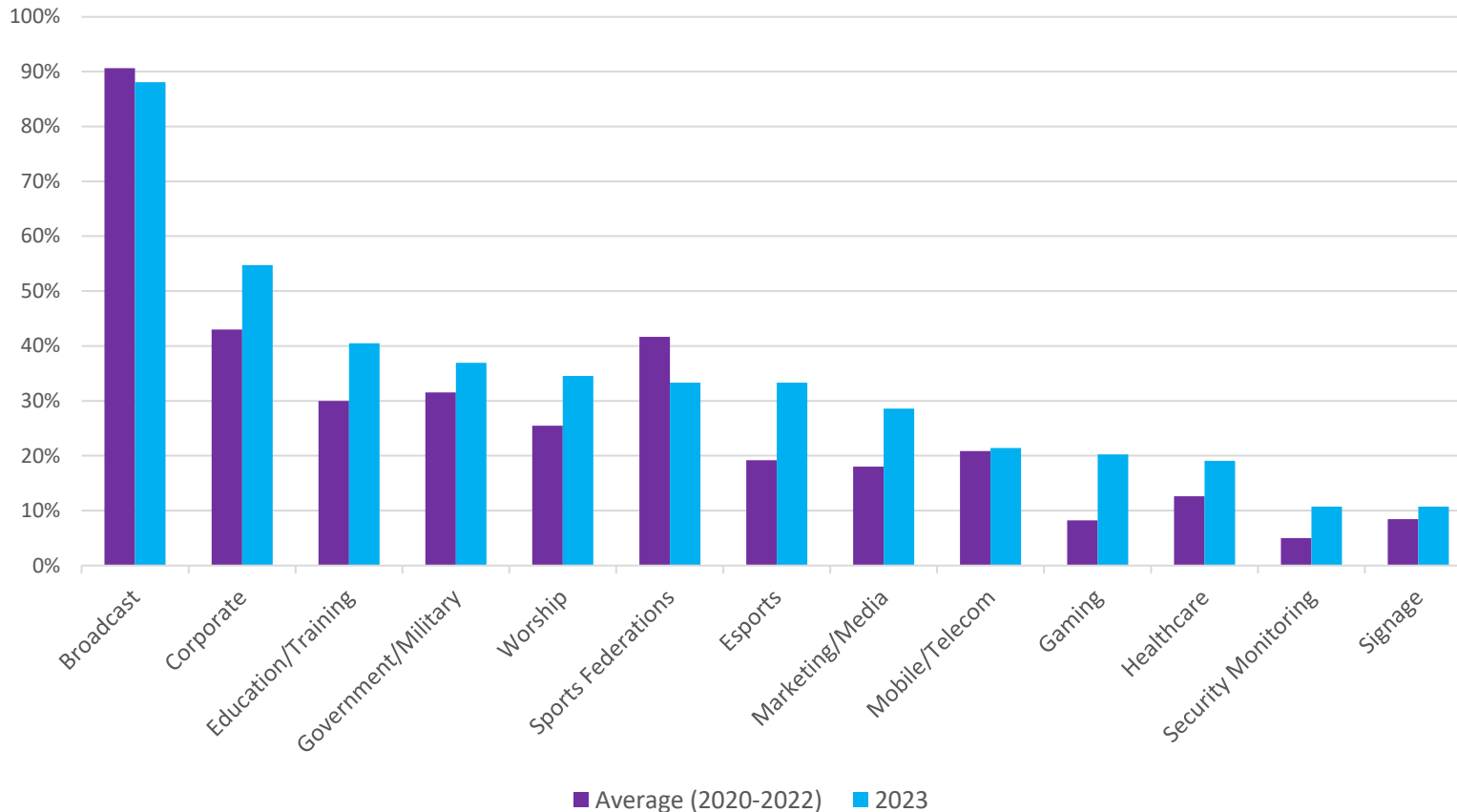
Broadcaster
North America
(February 2023)

Sources: IABM, WFH Research

MediaTech Convergence

MediaTech suppliers are increasingly pivoting outwards to look for growth

Most important parallel markets







Broadcast
Broadcast remains top market for most MediaTech suppliers though its importance has slightly decreased

Parallel Markets
Corporate remains 2nd most important market. All parallel markets have grown in importance aside from Sports Federations

Sources: IABM

MediaTech Convergence

Impact of convergence on MediaTech: Impact by segment

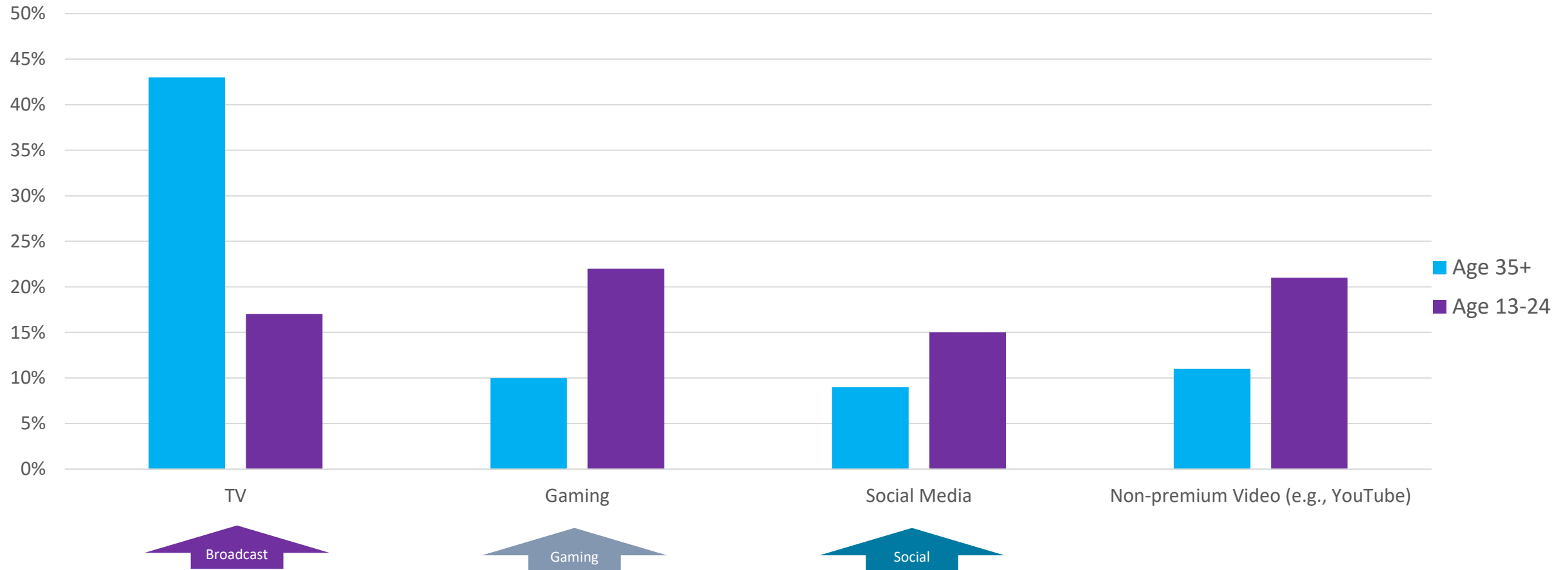
	Segment	Convergence Impact on MediaTech	Facts
Content Supply Chain	 Creation	Immersive and virtual production	Growth of smaller/more versatile creation equipment and virtual production in the last three years
	 Management	DAM/MAM convergence	MAM providers increasingly selling to non-media markets (e.g., 38% of iconik MAM assets are non-media)
	 Distribution	Rollout of interactive experiences	Companies such as Brightcove and Vimeo focusing on enterprise video through a mixture of data and interactivity
	 Infrastructure	Cloud/edge infrastructure	Infrastructure providers such as Akamai have focused on bridging cloud and edge to allow for interactivity, AI chatbots etc.

Sources: IABM, iconik

MediaTech Convergence

Despite the challenges, new generations demand converged experiences

Entertainment habits in 2022, by generation



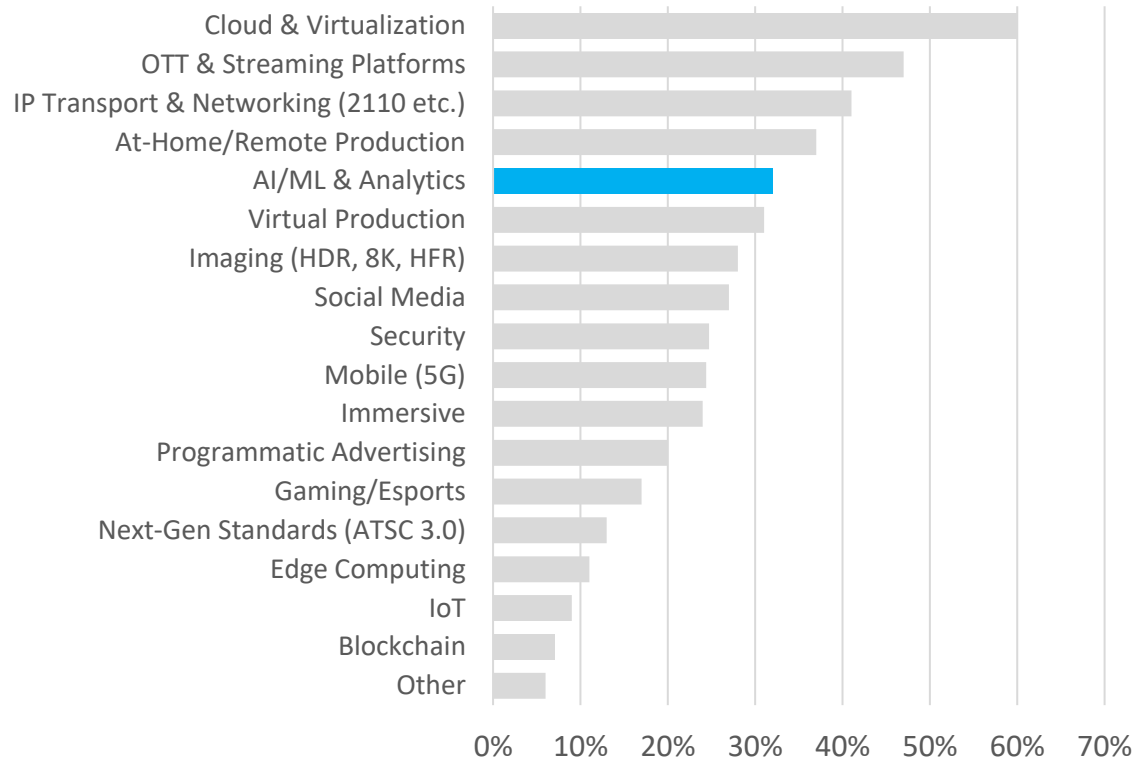
Sources: IABM, Hub Entertainment Research

Technology in Focus: AI/ML

State of AI Adoption

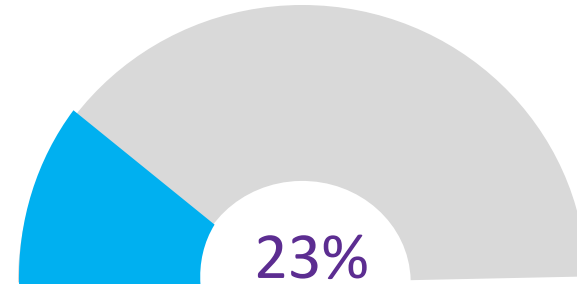
Adoption by Broadcast & Media industry

Technology roadmap in M&E



Source: IABM

AI/ML Adoption Rate



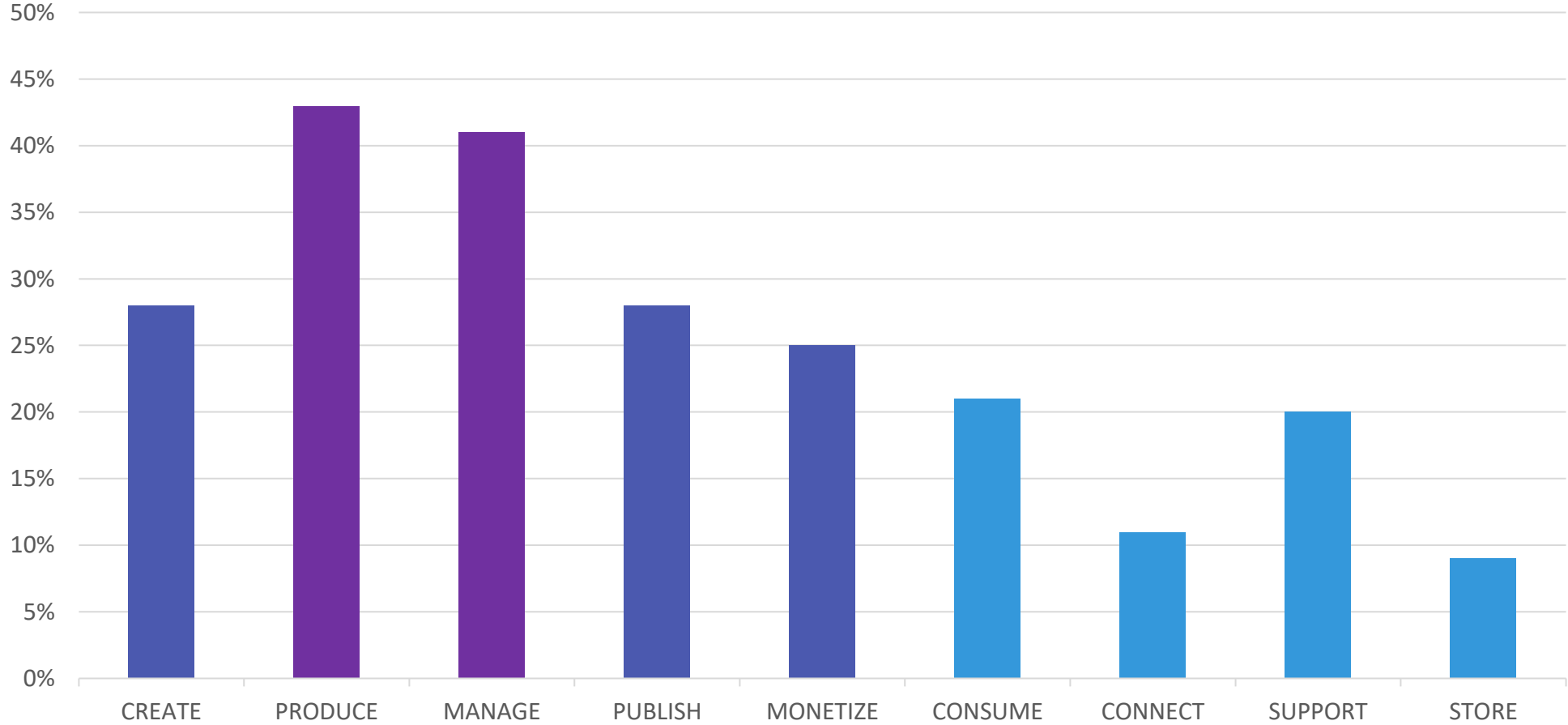
AI/ML & Analytics ranks 5th most important tech trend in M&E's technology roadmap, with most technology buyers planning to deploy it in the next few years. The adoption of AI/ML technology is enabled and correlated by the growing cloud adoption rate, which reached 60% in 2023, jumping up from the previous year (51%). In 2023, on average 23% of media and production companies had adopted AI/ML.

Strengthened AI/ML adoption reflects media businesses' increasing interest in Generative AI and particularly its potential applications in Produce and Manage.

State of AI Adoption

Application by Content Chain Segment

AI application by Content Chain

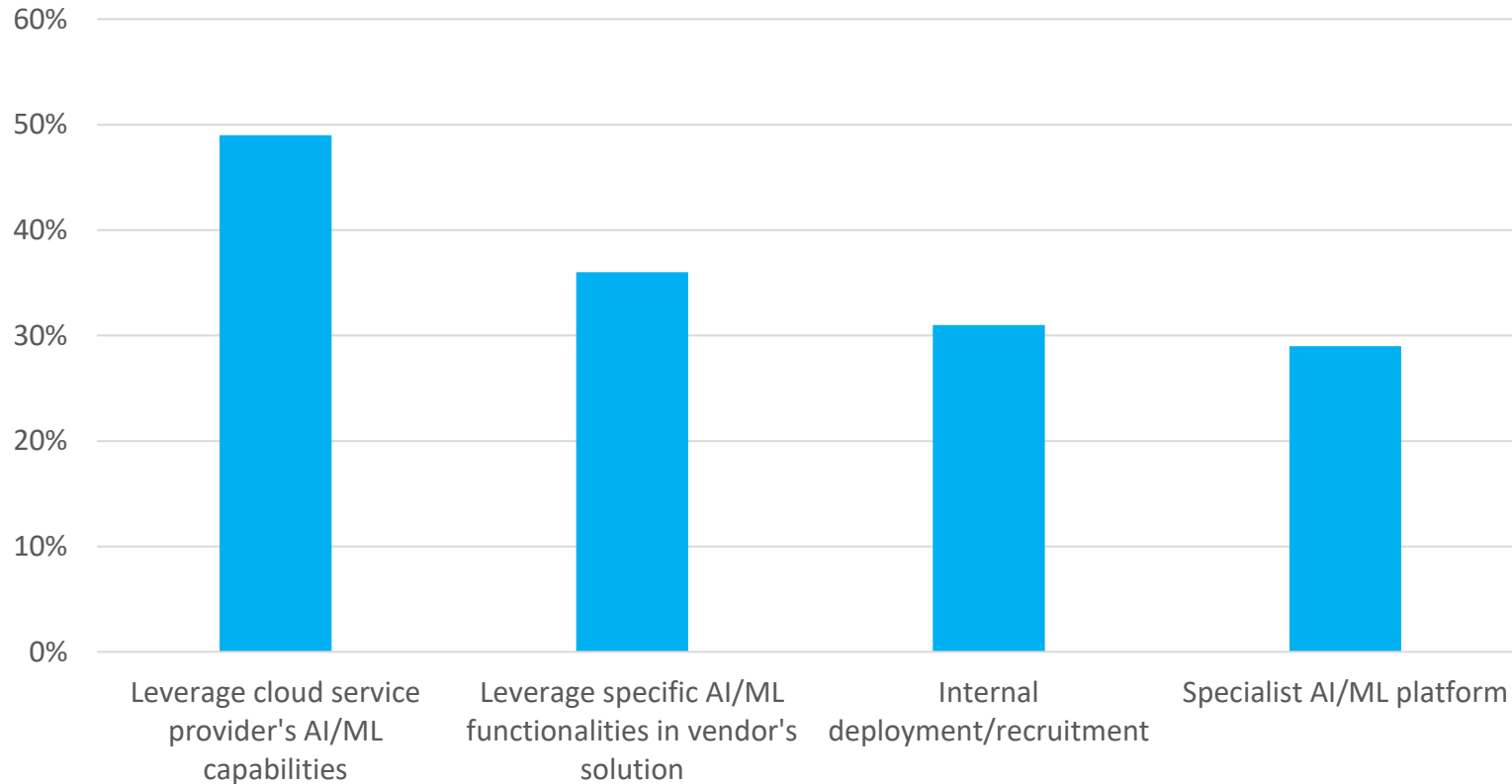


Source: IABM

State of AI Adoption

Cloud service providers' AI/ML capabilities continue to gain popularity

AI/ML deployment options



Source: IABM

The move to the cloud is providing media companies with access to a wide range of AI/ML solutions provided by public cloud service providers that are increasingly media-specific and easy to use.

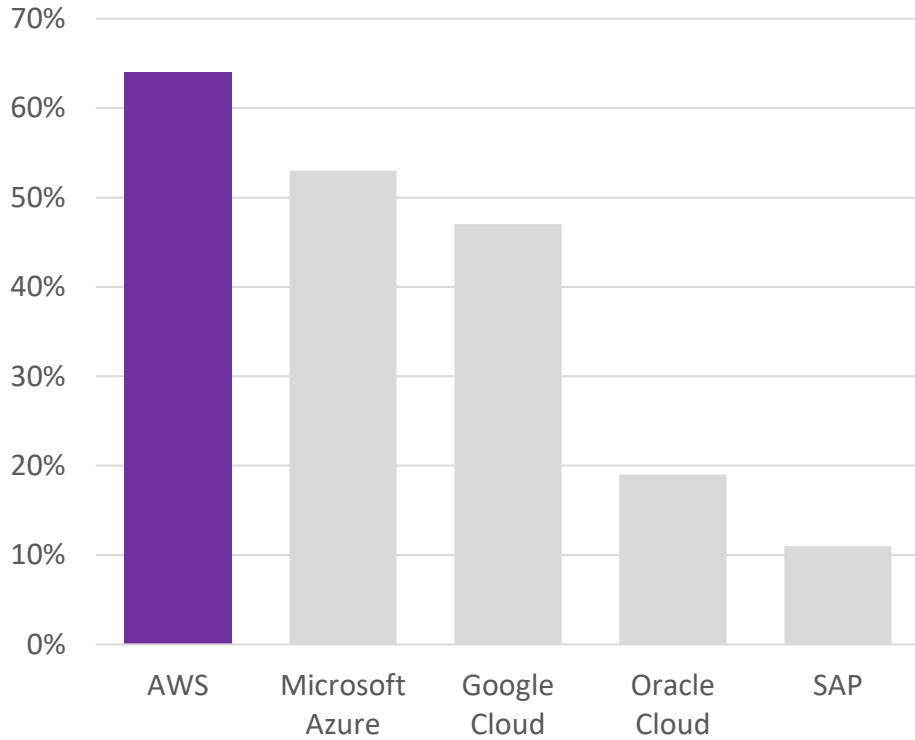
As data volumes continue to skyrocket, media companies are increasingly looking for AI solutions and pre-trained AI/ML models that can accommodate large amounts of data throughput and analyse it in real-time, provide predictive insights and recommendations to optimize cloud-based operations and costs.

Generative AI – requiring massive computing power and large datasets – is making public cloud service providers' platforms an attractive environment to deploy pre-trained AI/ML models (i.e., Foundation Models, FMs) as a service.

State of AI Adoption

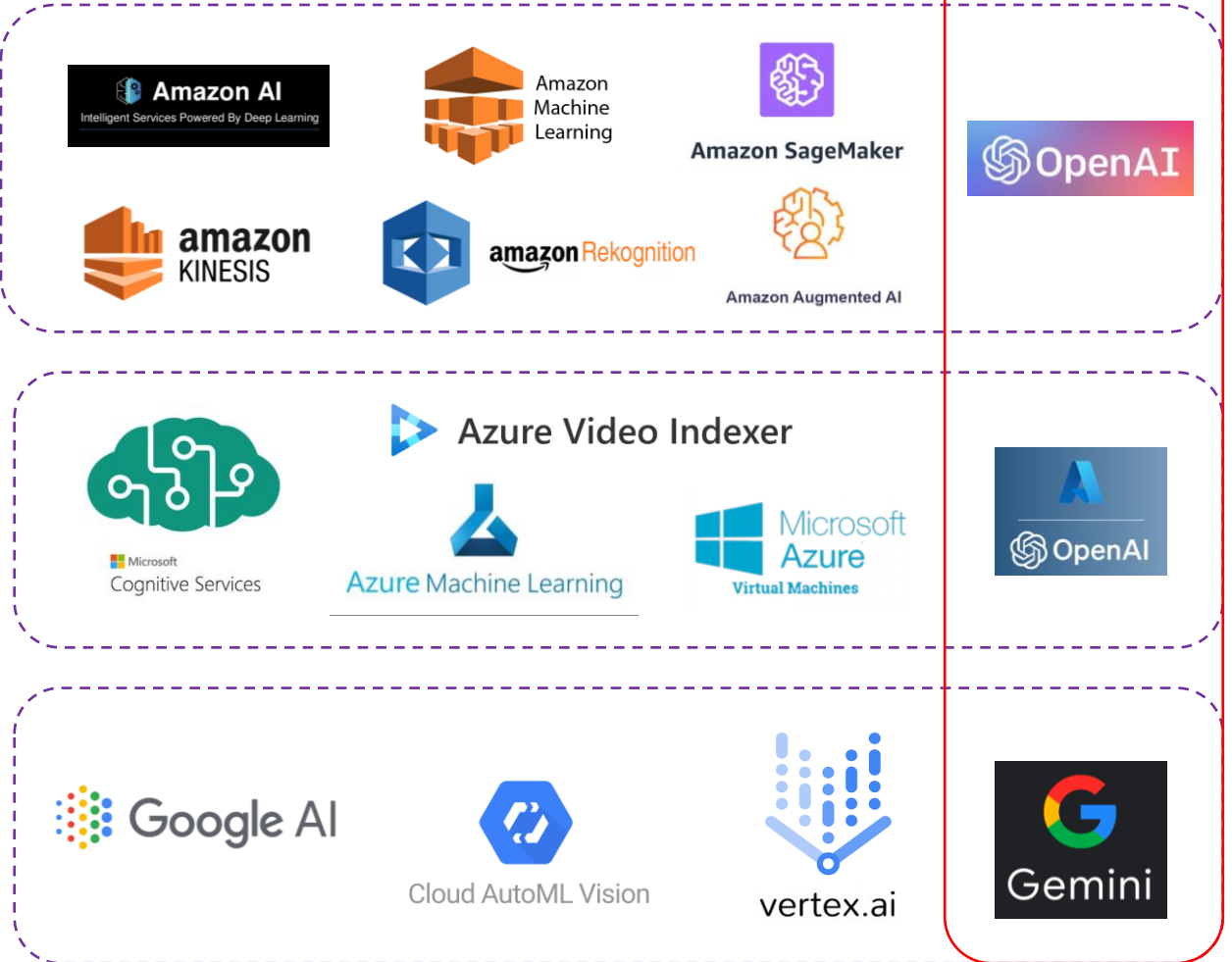
AWS as top #1 choice among media firms

Cloud service providers' usage by media businesses in 2023



Source: IABM, AWS, Google, Microsoft

Public cloud service providers' AI/ML services

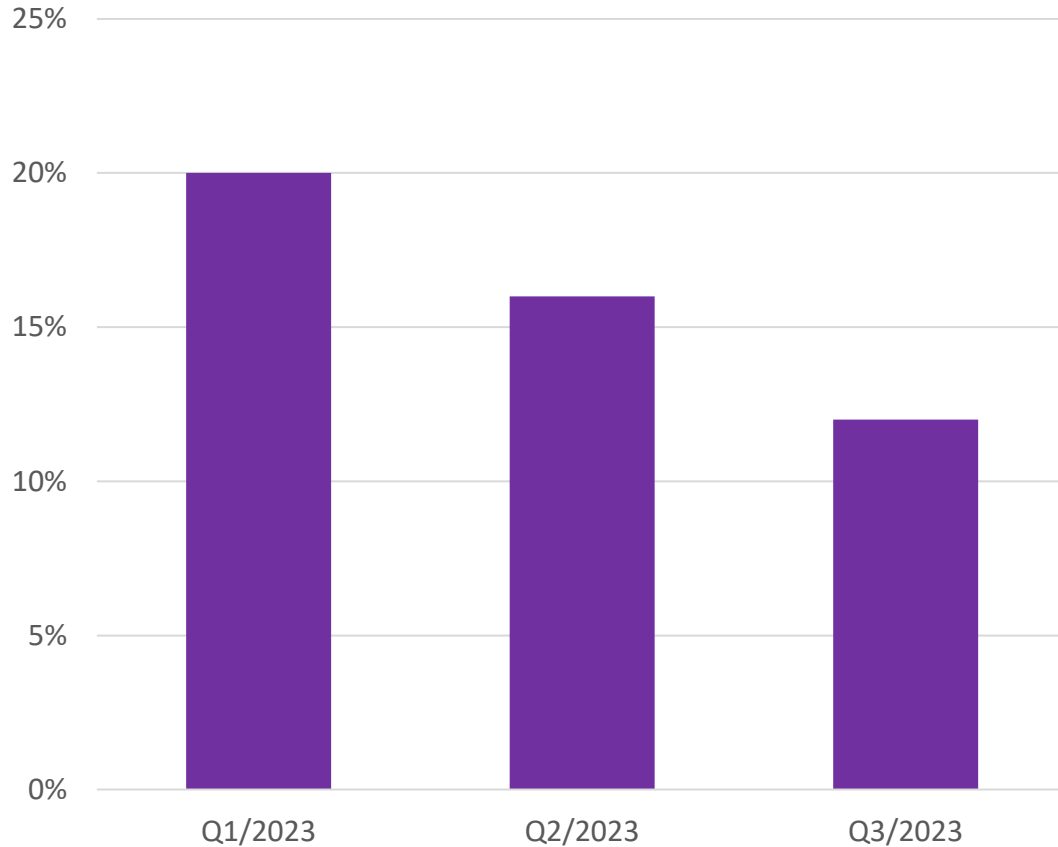


Based on Generative AI

State of AI Adoption

Cloud services investing in Generative AI to boost revenue growth

AWS' global revenue growth in 2023



Source: IABM, Company Filings

Amazon Q3 2023 earnings call

*Generally, I feel the business has stabilized, and we're looking forward to the back-end of the year [2023] in the future because there's a lot of new functionality coming out with — and there's a lot of spend that will be in this area for all the great solutions that are out there for **generative AI** and **large language models**, as well as **machine learning** solutions that we've always had for customers. So, [we're] optimistic and starting to see some good traction with our customers' new volume.*

Brian Olsavsky
CFO
Amazon
(August 2023)

Thank you!