Battery

April 2024

State of Enterprise Tech Spending
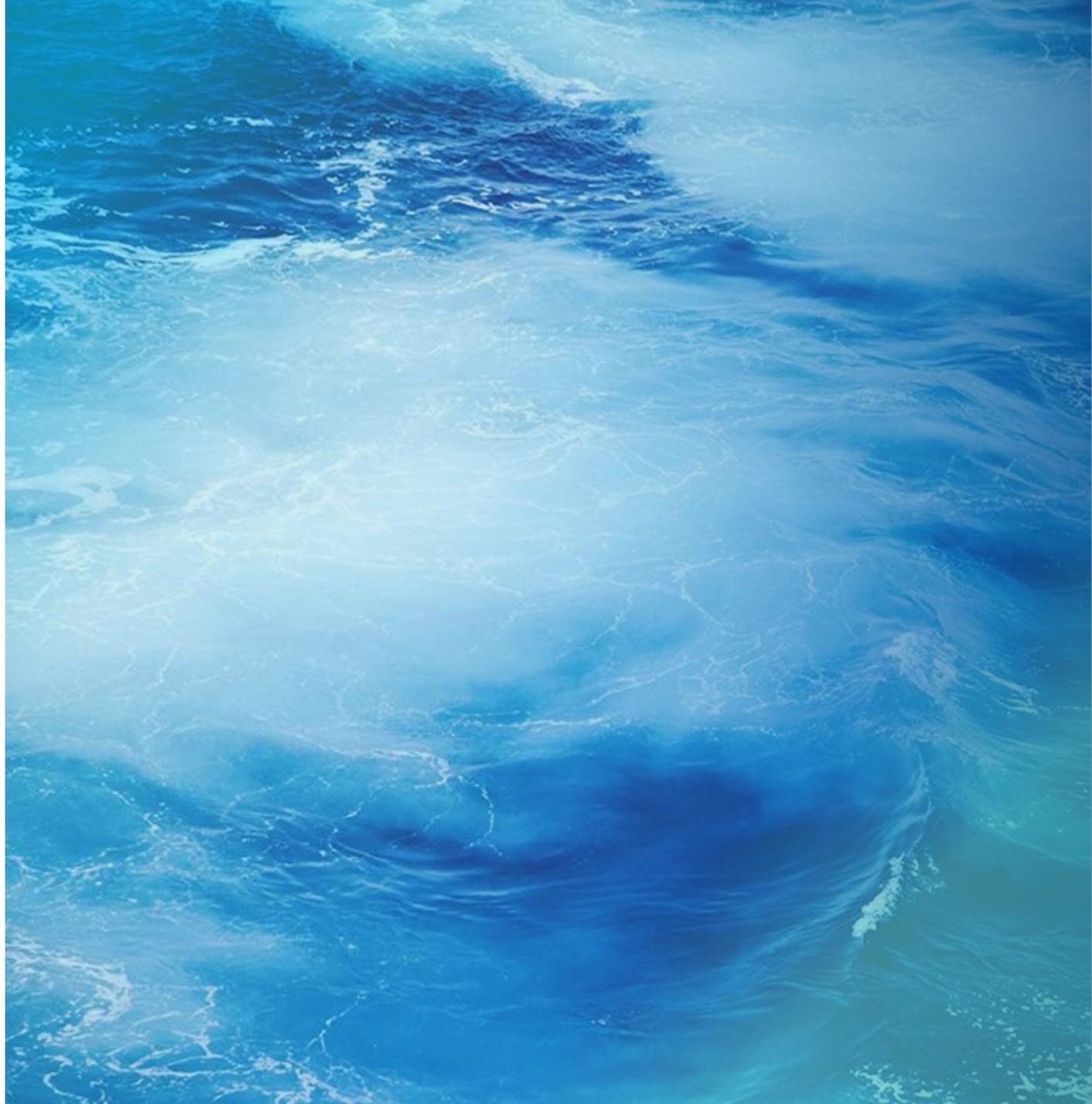
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Tech Spending Picks Up as AI Drives Growth + Disruption

AI is putting wind in the sails of enterprise buyers, who remain enthusiastic about the technology's ability to enhance productivity and automate routine tasks. In the market, we see both established incumbents and agile startups compete for the attention of buyers who are increasingly interested in experimenting with new vendors.

MACRO AND TECH SPEND

1. TECH SPENDING HOLDS STEADY

Only 22% of CXOs expect to decrease budgets this year, down from 27% this time last year, suggesting that tech buyers are seeing signs of market stability.

2. AI + DATA SPENDING = PRIORITY

Generative AI skyrocketed to the #2 priority for enterprise tech buyers, a powerful signal of buyer intent, with data warehouse and data ops following right behind.

GENERATIVE AI

3. GENERATIVE AI REMAINS A NEAR-TERM FOCUS

84% of enterprise buyers expect to deploy generative AI / LLMs in production in the next 12 months, slightly up from 79% only 6 months ago.

4. GENERATIVE AI ISN'T OFF-THE-SHELF READY (YET)

Of the companies who are leveraging generative AI / LLMs in production, 89% of them use more than one tool / technique to improve performance.

AI COPILOTS

5. AI COPILOT INTEREST REQUIRES ENTERPRISE OVERSIGHT

75% of enterprise tech buyers are looking to implement AI-powered copilots, but only 29% of those are willing to let employees implement their own.

6. AI COPILOTS FROM INCUMBENTS VS. STARTUPS

Nearly half — 45% — of enterprise organizations are interested in exploring what new vendors have to offer when it comes to AI copilot capabilities.

Enterprise Tech Spend Sentiment Index

Buyer sentiment continues to rise, relative to prior quarters, which could indicate a rebound in technology spending from buyers across industries.

We attribute this rebound to sustained buyer enthusiasm for AI and ML tooling, coupled with increased market stability, and anticipate that it will extend into how enterprises predict and plan for their futures.

55.4
Q3 2022

50.2
Q1 2023

51.2
Q3 2023

54.3
Q1 2024
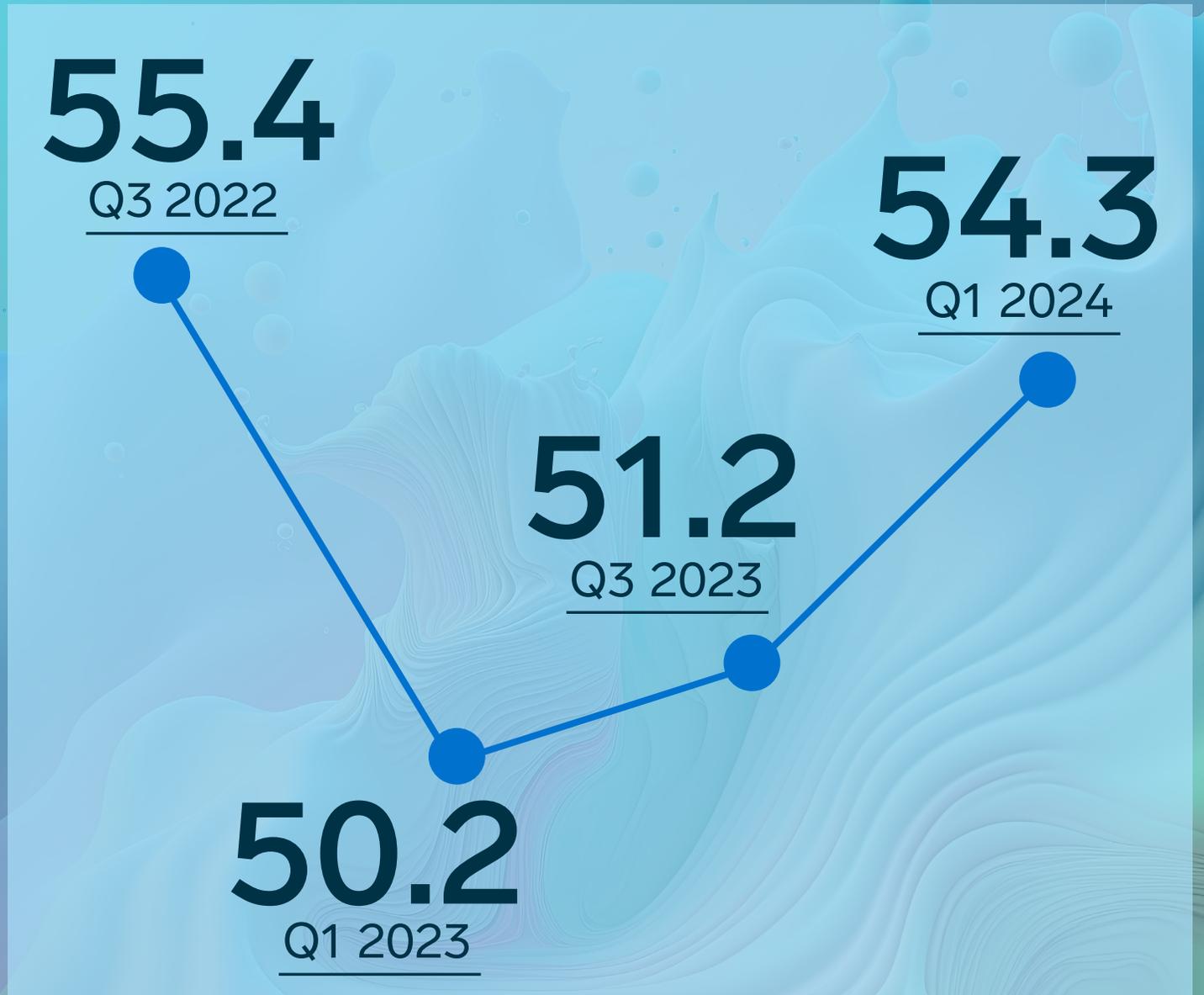
Demographics and Macro Trends

Survey Composition

- Battery's Cloud Software Spending Survey saw participation from **100 CXOs representing ~$35.8B in annual technology spend**.
- **66%** of respondents spend **$100M+ on cloud infrastructure, application software, data platforms and ML tooling**.
- **93%** of respondents are from **companies with 1,000+ FTEs** in industries such as financial services, technology, healthcare and manufacturing.

INDUSTRY REPRESENTATION

Industry	Percentage
Financial Services	31%
Technology	21%
Healthcare	18%
Industrials	13%
Retail & E-commerce	6%
Travel & Hospitality	4%
Educational Services	3%
Other	4%
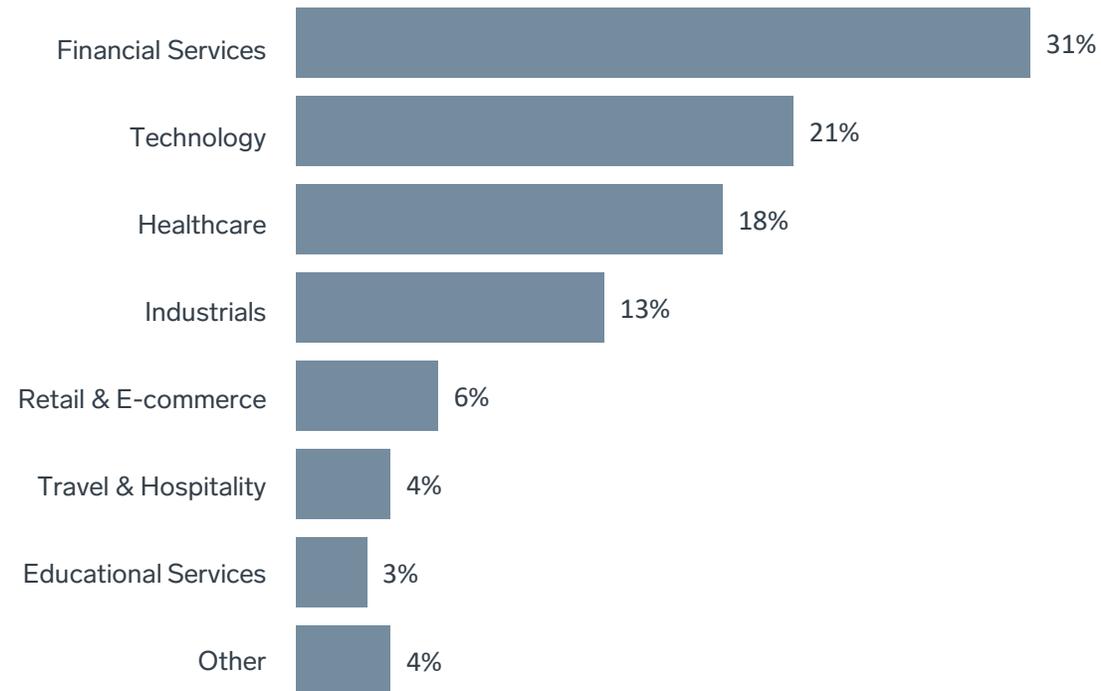
BUDGET DISTRIBUTION: TOTAL TECHNOLOGY SPEND PER COMPANY

Spend Range	Percentage
$20-$99M	34%
$100-$249M	17%
$250M-$499M	25%
$500M-$1B	9%
> $1B	15%
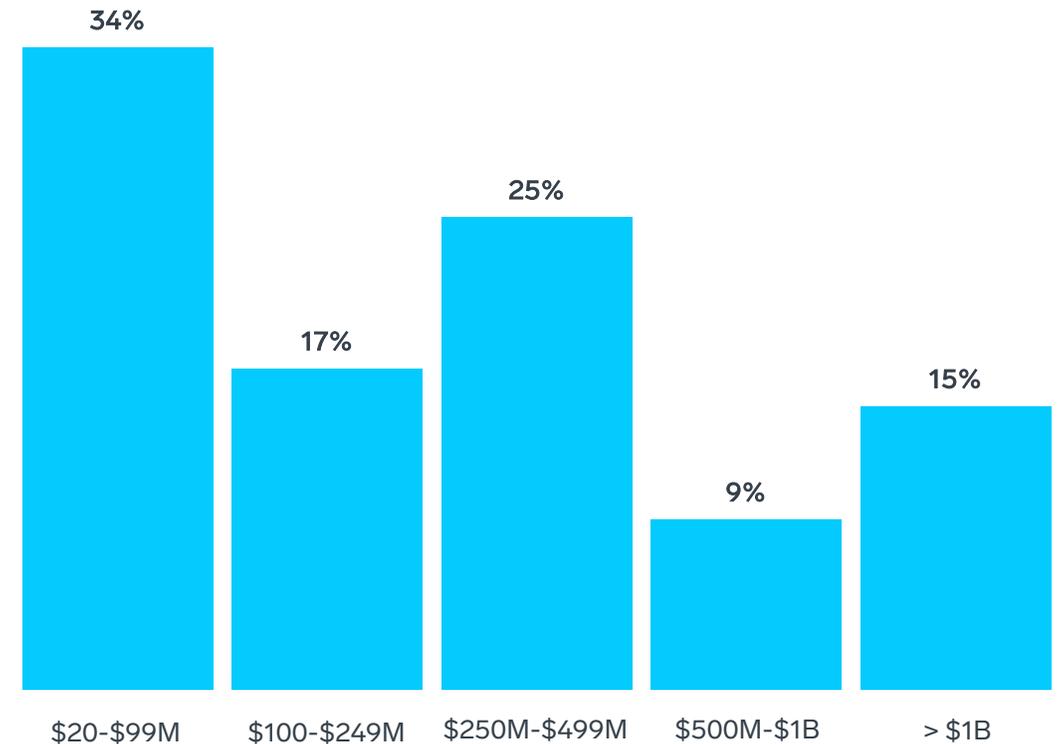
Impact of Economic Conditions on Technology Spending Strategy

SPENDING STRATEGY

- ● Q1 2024
- ● Q3 2023
- ● Q1 2023
- ● Q3 2022

More Conservative: 58%, 55%, 56%, 51%

No Change: 41%, 42%, 38%, 41%

Less Conservative: 2%, 3%, 6%, 8%

LESS CONSERVATIVE SPENDING

Q3 2022 — Q1 2023 — Q3 2023 — Q1 2024

Buyers are more than twice as likely to report 'less conservative' budget approaches compared to this time last year — 8% in Q1 2024 vs. 3% in Q1 2023. Though we continue to see some signs of caution among buyers, the overall appetite for technology spending appears robust.

This presentation includes proprietary information of Battery Ventures   Source: Battery Q1 2024 Cloud Software Spending Survey

Technology Budget and Spending Trends

EVOLVING CXO BUDGET PLANS

Percent of Respondents

Q3 2022: 1%, 10%, 35%, 49%, 5%
Q1 2023: 4%, 23%, 27%, 40%, 6%
Q3 2023: 6%, 23%, 18%, 49%, 4%
Q1 2024: 2%, 20%, 23%, 47%, 8%

Legend: ■ Down >10% ■ Down 0-10% ■ Flat ■ Up 0-10% ■ Up >10%
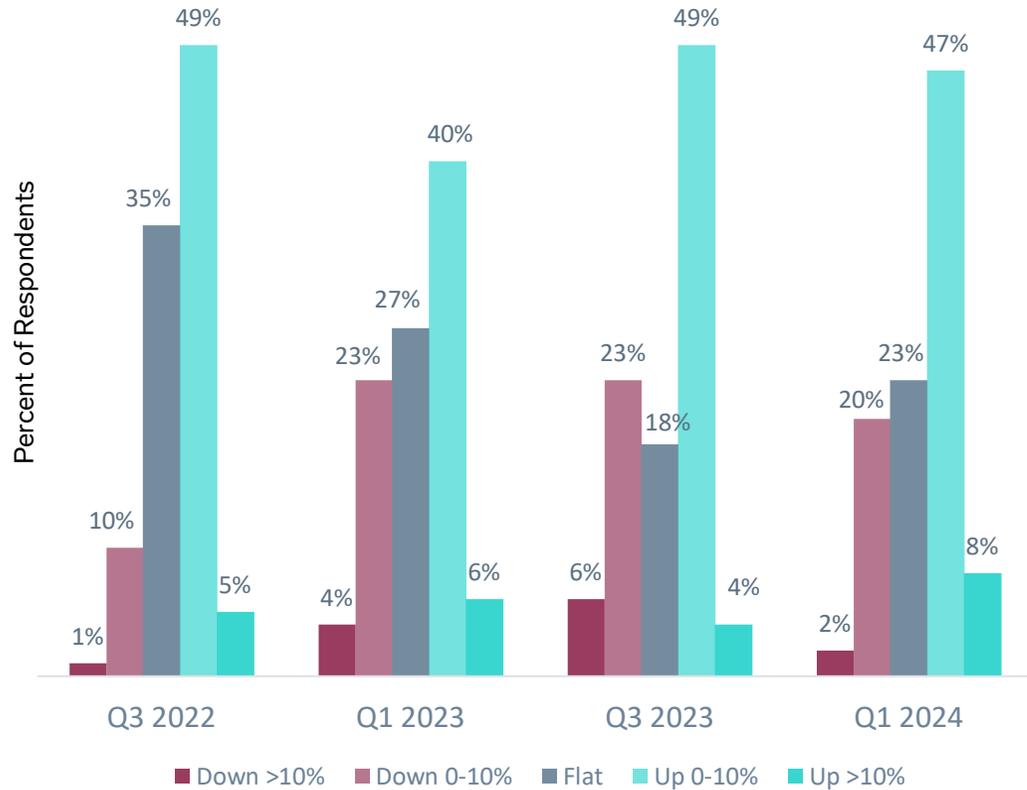
BUDGET DISTRIBUTION: TOTAL TECHNOLOGY SPEND

1. Technology spending is not only resilient but growing: 55% of respondents plan to increase their budgets. And compared to Q3 2023, twice as many buyers plan to increase budget by 10% or more.

2. Budget reductions are not as top-of-mind, with only 22% of buyers indicating plans to cut budget, a 7-point drop from Q3.

3. Many organizations are prioritizing budget allocation for AI/ML tools, even if their overall budgets remain flat or are reduced. While 55% of all respondents plan to increase overall budgets, 84% of all respondents plan to increase AI/ML budgets.

4. More than one in three (37%) technology buyers are considering infrastructure and cloud-observability alternatives in the next twelve months, primarily due to price.

5. Large technology organizations with annual budgets greater than $1B are continuing to invest in new tools: 73% report budget increases this quarter, compared to 20% reporting budget reductions.

This presentation includes proprietary information of Battery Ventures   Source: Battery Q1 2024 Cloud Software Spending Survey

Technology Spending Trends in 2024 Relative to 2023

More than $1B
- 73%
- 7%
- 20%

$500M-$1B
- 33%
- 22%
- 44%

$250M-$499M
- 48%
- 28%
- 24%

$100-$249M
- 65%
- 6%
- 29%

$20-$99M
- 53%
- 35%
- 12%

↑ The vast majority (**73%**) of buyers from large technology companies with budgets over $1B expect their budgets to trend upward.

↓ By comparison, **44%** of buyers with budgets between $500M-1B anticipate that their spending will trend downward.

- ● Up
- ● Flat
- ● Down

Source: Battery Q1 2024 Cloud Software Spending Survey
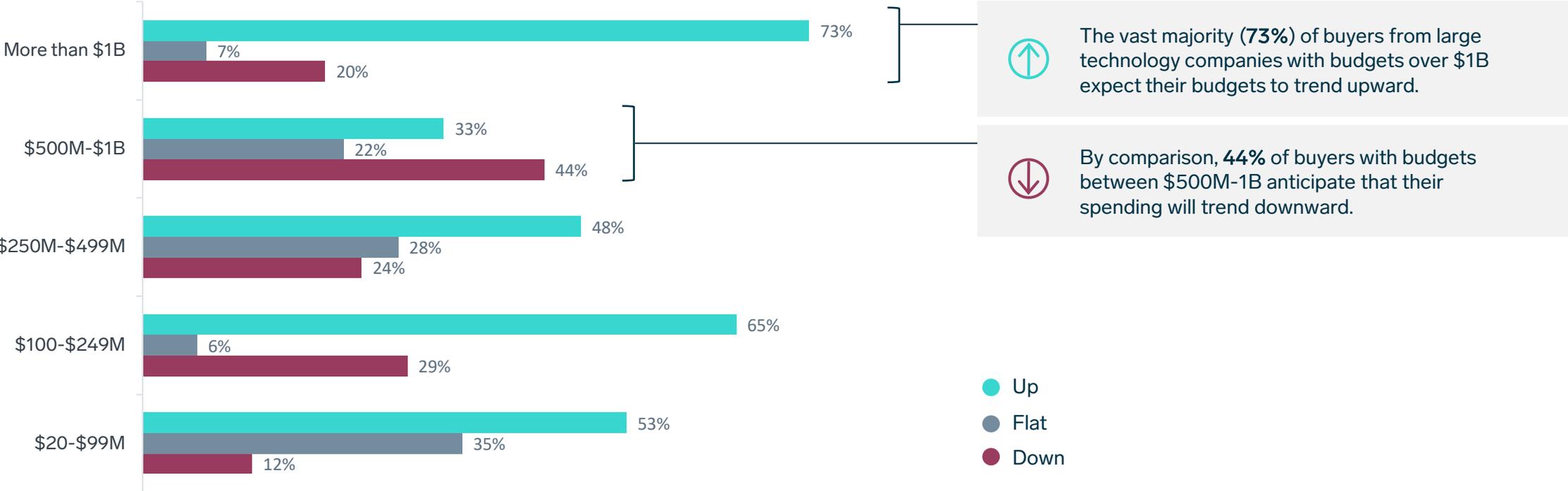
Outlook for CXOs Who Are Planning to Reduce Budget

CXOs PLANNING TO REDUCE BUDGET

Percent of Respondents Planning to Reduce Budget

Q3 2022: 11% (10% Down 0-10%, 1% Down >10%)
Q1 2023: 27% (23% Down 0-10%, 4% Down >10%)
Q3 2023: 29% (23% Down 0-10%, 6% Down >10%)
Q1 2024: 22% (20% Down 0-10%, 2% Down >10%)

■ Down >10% ■ Down 0-10%
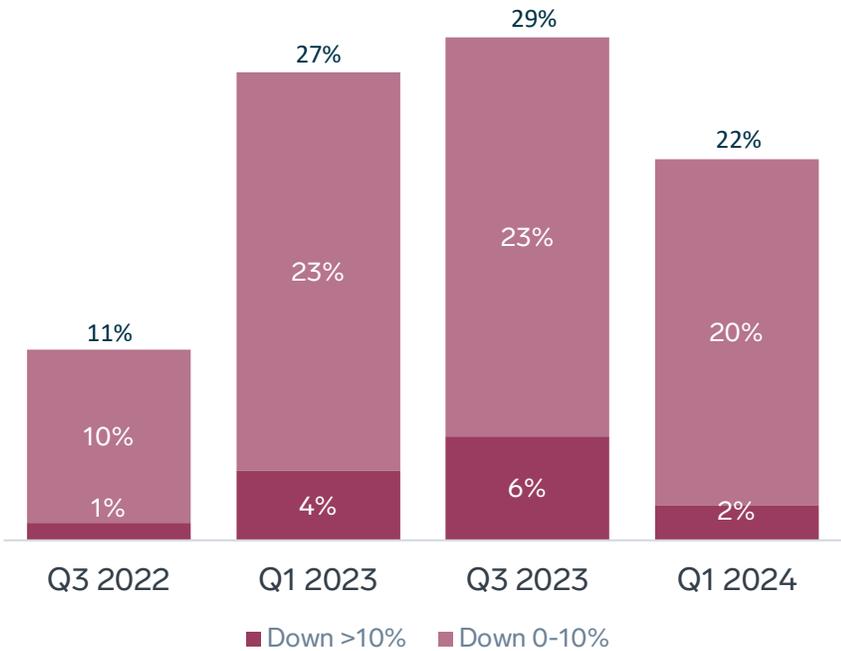
TOP 3 PRIORITIES FOR REDUCING TECHNOLOGY BUDGET FOR CXOs

Vendor Consolidation: 100%
Optimize SaaS Licensing: 86%
Reduce Workforce: 83%
Move/Migrate to the Cloud: 65%

Vendor consolidation continues to be a top priority for CXOs as they look to source more tooling from larger platforms, putting more pressure on early-stage startups.
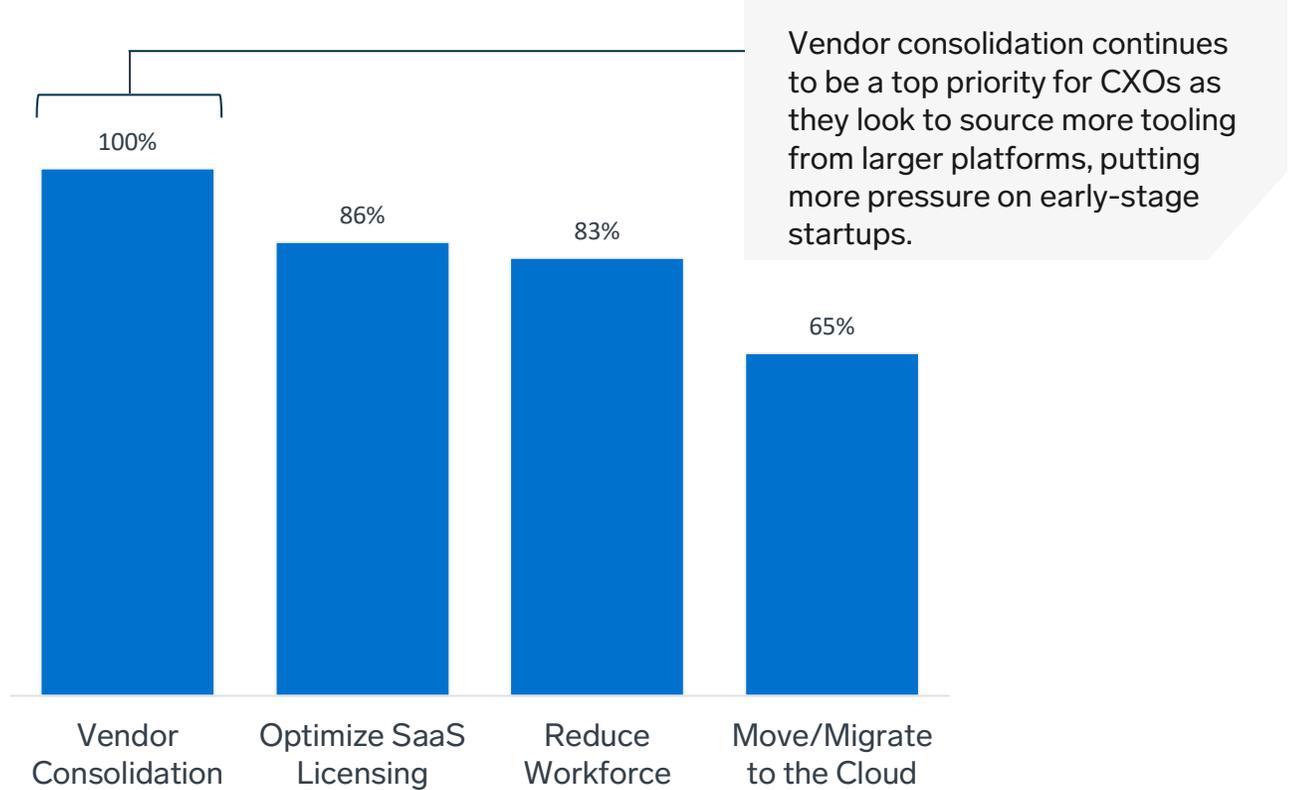
Buyers are signaling optimism for the coming year, demonstrated by a reported 7-pp decrease in planned budget reductions compared to Q3 2023. Interestingly, nearly 1 in 2 (49%) buyers view a SaaS platform's generative-AI features as important in deciding renewals.

Source: Battery Q1 2024 Cloud Software Spending Survey

Headcount Plan and Hiring Focus for CXOs

Q1 2024

Unconstrained Hiring	0%
Increased Hiring	36%
No Change	30%
Hiring Slowdown	22%
Hiring Freeze	12%

Q3 2023

|	
Unconstrained Hiring	1%
Increased Hiring	36%
No Change	28%
Hiring Slowdown	25%
Hiring Freeze	10%

Q1 2023

Unconstrained Hiring	2%
Increased Hiring	25%
No Change	27%
Hiring Slowdown	34%
Hiring Freeze	12%
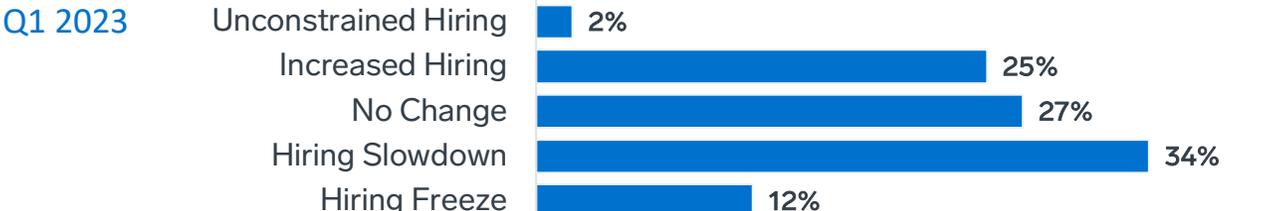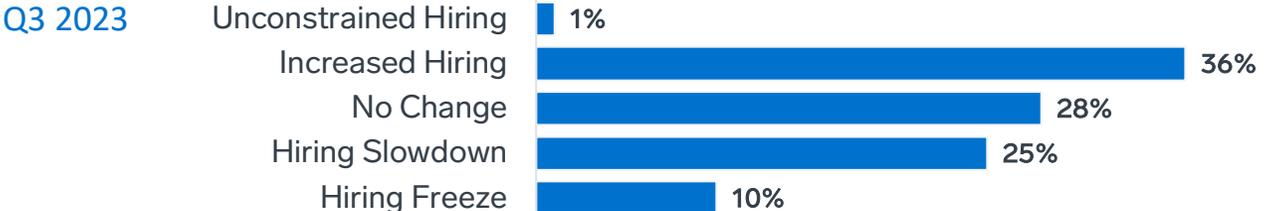
STABILIZED DOWNSIDE

Q1 2023   Q3 2023   Q1 2024

We continue to see positive trends in hiring, which can be a valuable indicator of future projects and budgets among enterprises. The number of organizations looking **to slow down or enter a hiring freeze has dropped 12-pp from 46% in Q1 2023 to 34% in Q1 2024.**

Source: Battery Q1 2024 Cloud Software Spending Survey

Spend Allocation and Priorities in 2024

Budget Allocation Priorities
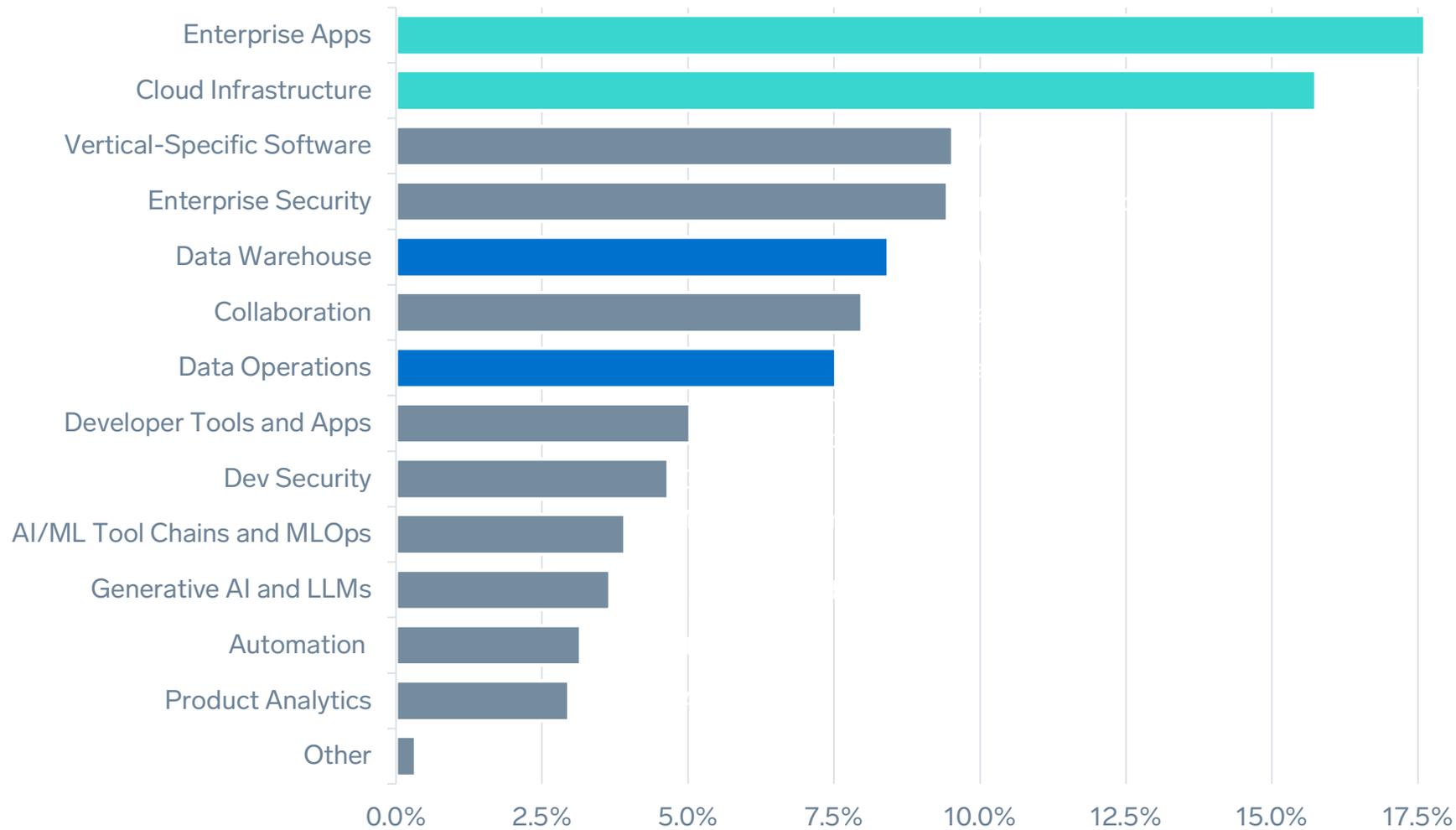
30%+
of tech budget is dedicated to **enterprise apps and cloud infrastructure,** the core pillars of every enterprise's tech stack.

15%+
of tech budget is now allocated toward data warehousing and data operations, as we **continue to see enterprises focus on wrangling and preparing their data** for business and AI/ML use cases.

Despite the momentum in AI and LLMs, the lion's share of budget is still allocated to existing priorities, providing opportunity to companies with an AI-native approach.

This presentation includes proprietary information of Battery Ventures   Source: Battery Q1 2024 Cloud Software Spending Survey

Evolution of Cloud Software Spending Priorities

Cloud Software Top 5 Priorities for CXOs Over Next 12 Months

Q3 2022	Q1 2023	Q3 2023	Q1 2024
CLOUD INFRASTRUCTURE	CLOUD INFRASTRUCTURE	CLOUD INFRASTRUCTURE	CLOUD INFRASTRUCTURE
DATA WAREHOUSE	DATA WAREHOUSE	DATA WAREHOUSE	GENERATIVE AI AND LLMs*
ENTERPRISE SECURITY	ENTERPRISE SECURITY	ENTERPRISE APPS	DATA WAREHOUSE
DATA OPERATIONS	ENTERPRISE APPS	ENTERPRISE SECURITY	ENTERPRISE SECURITY
ENTERPRISE APPS	AUTOMATION	GENERATIVE AI AND LLMs*	DATA OPERATIONS

Generative AI and LLMs are cementing themselves as a top priority for CXOs this quarter, as enterprises refocus on building the right data tooling to enable AI-powered applications

Expected Cloud Software Spending Change by Category

SECURITY

Q1 2024

	Increase	No Change	Decrease
Next 6 Months	37%	53%	10%
Next Year	65%	30%	5%
Next 5 Years	78%	17%	5%

DEV TOOLS

Q1 2024
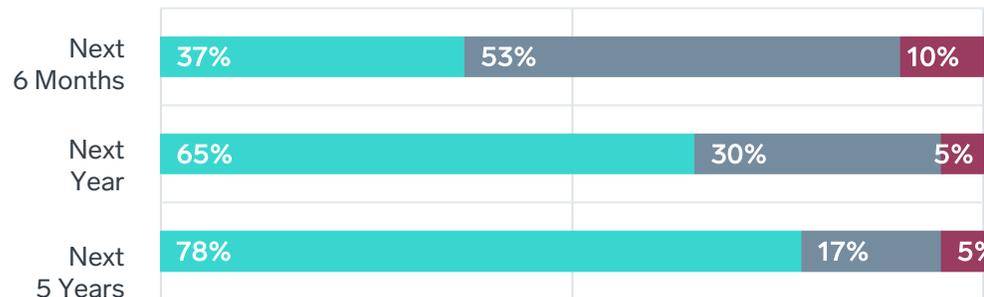
	Increase	No Change	Decrease
Next 6 Months	65%	25%	10%
Next Year	59%	30%	11%
Next 5 Years	38%	48%	14%
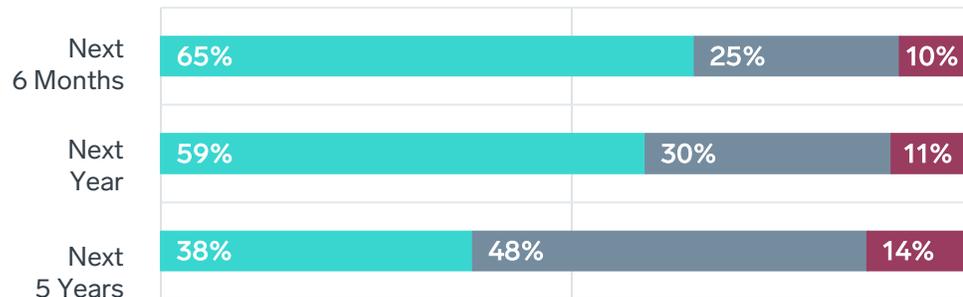
Predicted dev tool cloud software spending trends downward over the next 5 years.

DATA

Q1 2024

	Increase	No Change	Decrease
Next 6 Months	49%	43%	8%
Next Year	71%	26%	3%
Next 5 Years	80%	19%	1%

AI/ML

Q1 2024

	Increase	No Change	Decrease
Next 6 Months	62%	35%	3%
Next Year	79%	20%	1%
Next 5 Years	85%	13%	2%
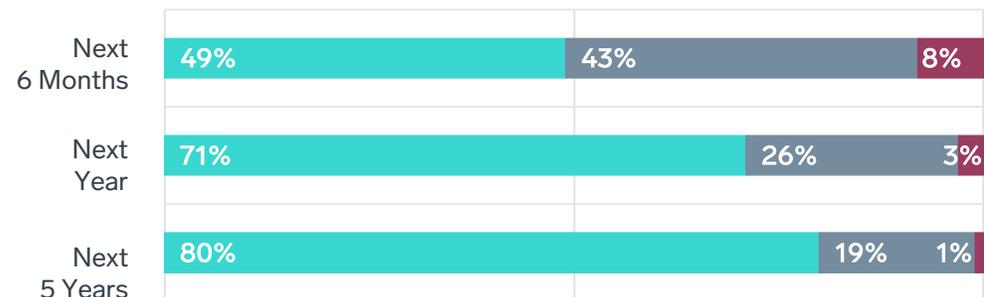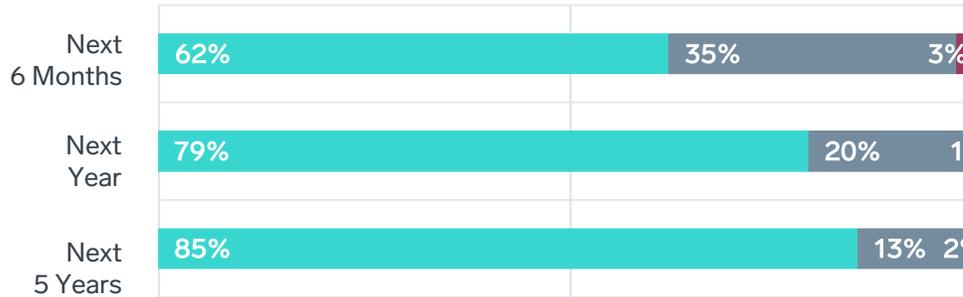
Buyers' predictions for **AI/ML spending for the next 6 months increased slightly** since last quarter: 62% in Q1 2024 compared to 59% in Q3 2023.

● Increase Spend   ● No Change in Spend   ● Decrease in Spend

    Source: Battery Q1 2024 Cloud Software Spending Survey

AI/ML Adoption and
Spend Trends

"IT teams must embrace a mindset where data is not just a technical asset, but a core business asset, deserving of the same strategic consideration as any other pivotal business resource. The era of data driven IT has begun."

Katherine Walther
Chief Strategy Officer
Trace3

AI: Enterprise Table Stakes

Key Takeaways
AI Tsunami

PERCEIVED IMPORTANCE OF AI AS IT RELATES TO BUSINESS SUCCESS

10%	45%	36%	9%
Not Important at All	Somewhat Important	Very Important	Critically Important

WHY AI IS AN IMPORTANT DRIVER TO SUCCESS

- Improving Internal Efficiencies — 79%
- Driving Potential Cost Savings — 63%
- Remaining Competitive in the Market — 48%
- Driving Sales and Top Line Growth — 42%
- Other — 5%

1. AI is quickly becoming table stakes for enterprises – **only 10% of CXOs report that AI is "not important at all"** to business success.

2. It's not just efficiency: While a large majority (79%) of CXOs see AI as a core driver to achieving internal efficiencies and potential cost saving, nearly half see AI as **a potential driver of topline growth and even a competitive advantage in the market.**

3. Buyers continue to invest in AI at a notably accelerated pace compared to Q1 2023: **Respondents plan to deploy an estimated $1.5B+ on these technologies over the next 5 years.** The majority (63%) plan to increase AI/ML spending over 10% for generative AI and LLMs.

AI/ML Budgets and Model Utilization Are Soaring

84%

OF ORGANIZATIONS ARE PLANNING TO INCREASE THEIR AI/ML BUDGETS OVER THE NEXT 12 MONTHS.

Among respondents increasing AI/ML budget, 34% plan to increase by more than 20% to pursue generative AI and LLM initiatives.

93%

**OF ORGANIZATIONS EXPECT AN INCREASE IN ML MODELS IN PRODUCTION OVER THE NEXT 12 MONTHS.**

Out of the organizations that use ML models, 44% have more than 10 models in production, while 13% have over 50 models in production.

It's Not All Generative AI in Production

In our Q1 2024 survey, 79% of respondents stated they are currently using 'traditional ML models' (non-generative models) in production today.

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Expected Cloud Software Spending — AI/ML

Q3 2023

Q1 2024

There continues to be interest in AI/ML tools, as CXOs maintain the projected near-term spending we saw expressed in Q3 2023 — a stark difference what we saw only 12 months ago.

Percentage of Respondents Per Bucket

Q3 2023
- Next 6 Months: 59% Increase, 40% No change, 1% Decrease
- Next Year: 83% Increase, 17% No change, 0% Decrease
- Next 5 Years: 93% Increase, 7% No change, 0% Decrease

Q1 2024
- Next 6 Months: 62% Increase, 35% No change, 3% Decrease
- Next Year: 79% Increase, 20% No change, 1% Decrease
- Next 5 Years: 85% Increase, 13% No change, 2% Decrease

Increase spend ■ No change in spend ■ Decrease spend

Q1 2023   Q3 2023   Q1 2024

Buyers continue to invest in AI at a notably accelerated pace compared to Q1 2023: respondents plan to deploy $1.5B+ on these technologies over 5 years. The majority (63%) plan to increase AI/ML spending over 10% for generative AI and LLMs.

Priority Themes Within AI/ML
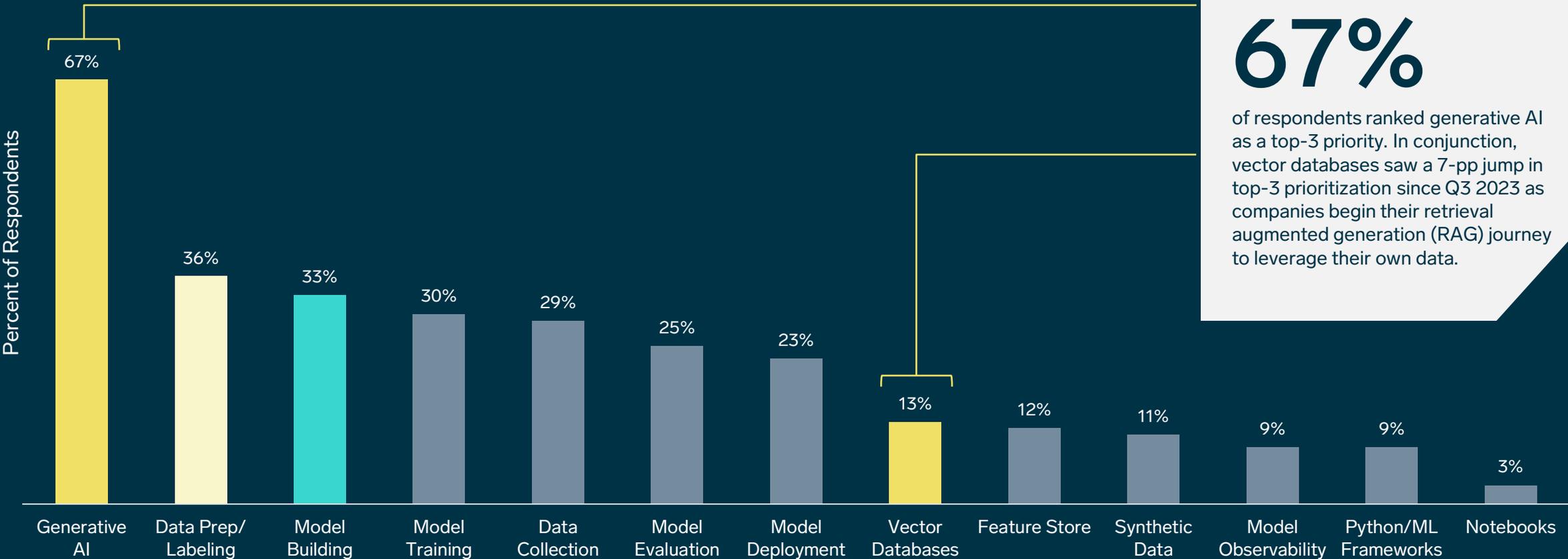
67%

of respondents ranked generative AI as a top-3 priority. In conjunction, vector databases saw a 7-pp jump in top-3 prioritization since Q3 2023 as companies begin their retrieval augmented generation (RAG) journey to leverage their own data.

Percent of Respondents

Category	Percent
Generative AI	67%
Data Prep/Labeling	36%
Model Building	33%
Model Training	30%
Data Collection	29%
Model Evaluation	25%
Model Deployment	23%
Vector Databases	13%
Feature Store	12%
Synthetic Data	11%
Model Observability	9%
Python/ML Frameworks	9%
Notebooks	3%

Source: Battery Q1 2024 Cloud Software Spending Survey

Production Deployment for Generative AI

DEPLOYMENT PLANS

66% of respondents either already have or expect to have generative AI in production within 6 months and 84% will within the next 12 months.

	Q3 2023	Q1 2024
Now	21%	29%
3 Months	8%	13%
6 Months	19%	24%
12 Months	31%	18%
24 Months	14%	12%
No Plans	7%	4%

● Q3 2023   ● Q1 2024
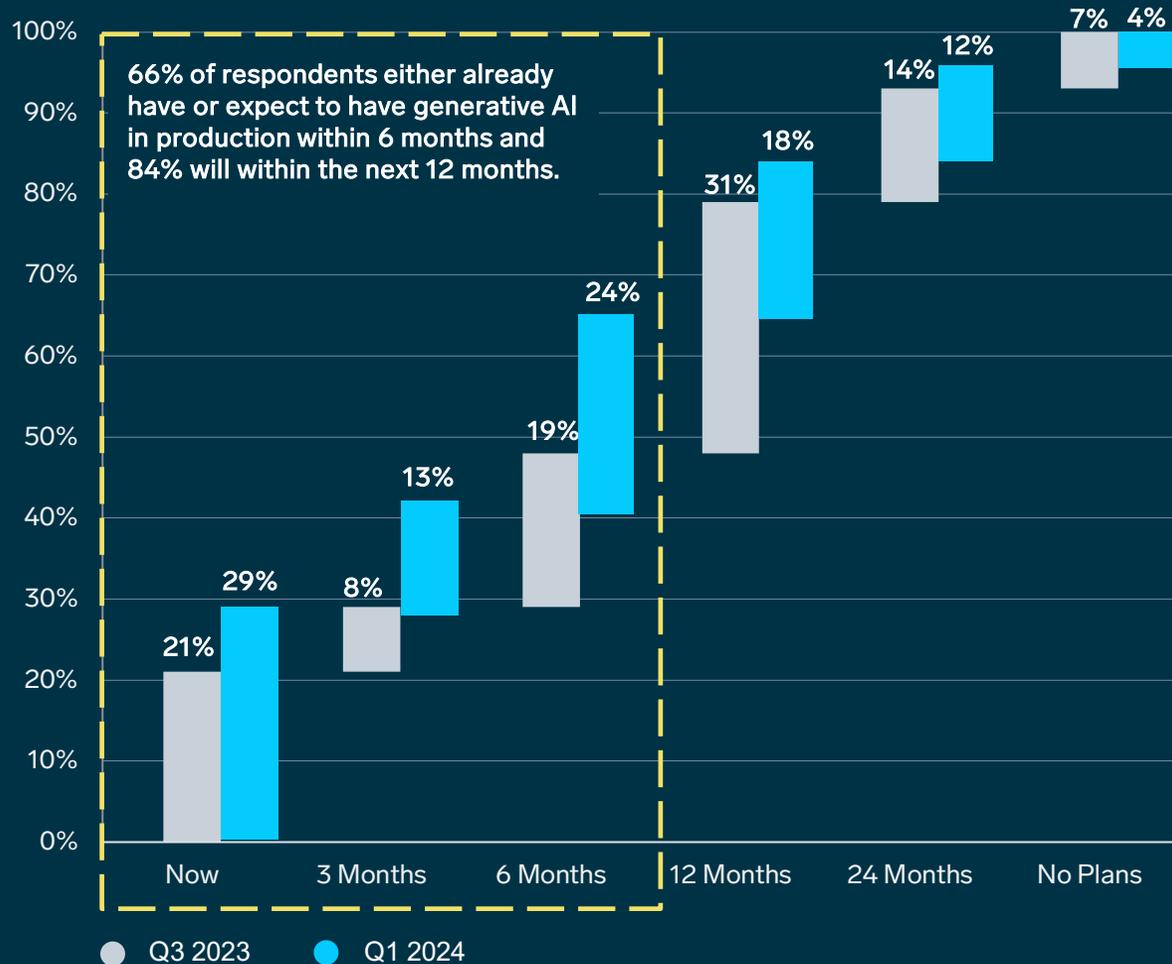
Early In Evolution — What's Next?

1. Enterprises are **accelerating plans to adopt generative AI,** likely due to the growing number of tools that streamline the deployment processes for the technology.

2. **CXOs who are cautious and skeptical with implementing generative AI production continue to hold out,** with 16% either expecting to implement in 24 months or never, only a 5-pp decrease from Q3 2023.

3. **Enterprise adoption of generative AI in production continues to grow,** with an 8-pp increase in the number of CXOs that have it deployed in production today.

"Enterprise IT organizations should focus on building a strong foundation with the right data and AI governance, invest in organizational capabilities, and launch an impactful and scalable initial set of generative AI-powered products to enhance customer and employee experience."

Ibrahim Gokcen

Chief Data Officer
AON

LLM Use Cases

ORGANIZATIONS CURRENTLY LEVERAGING LLMs IN PRODUCTION
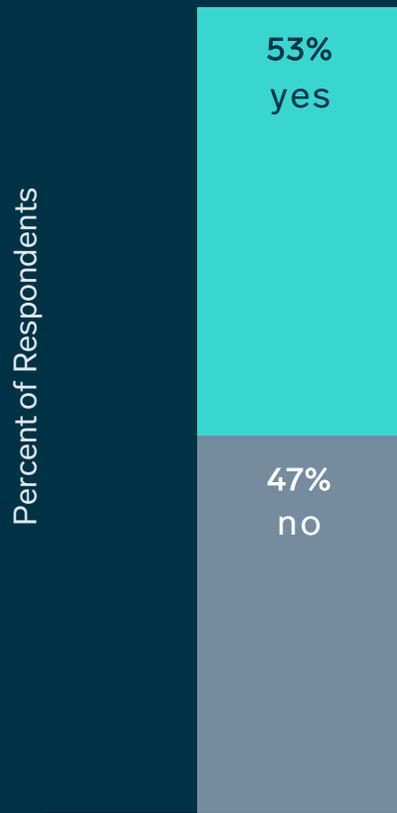
TOOLS AND TECHNIQUES UTILIZED

Percent of Respondents

53%
yes

47%
no

LLM Observability / Evaluation — 64%

Prompt Engineering — 58%

Fine Tuning — 57%

Model Security — 55%

Retrieval Augmented Generation (RAG) / VectorDB — 30%

Agent Frameworks / Orchestration — 30%
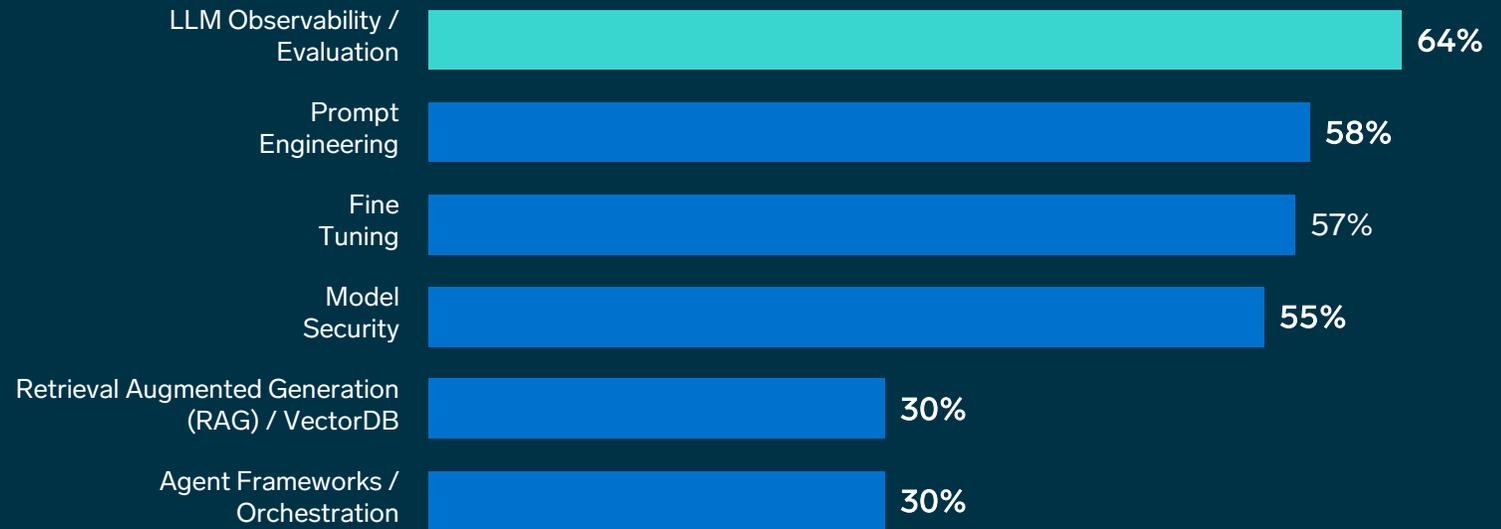
89% of organizations currently leveraging LLMs in production report utilizing more than one tool/ technique to improve model performance. Businesses are realizing that LLMs are not as simple as plug and play and require a suite of tools in the background to ensure consistent, quality performance.

Source: Battery Q1 2024 Cloud Software Spending Survey

Utilize Foundation Model(s) or Build...
or Something in Between?

Legend:
- An Out-of-Box Solution (e.g., GPT-4 API)
- Finetune a Foundation Model
- Train Your Own Model From Scratch
- Not Sure Yet

Q1 '24: 50% | 40% | 3% | 7%

Q3 '23: 45% | 30% | 8% | 17%
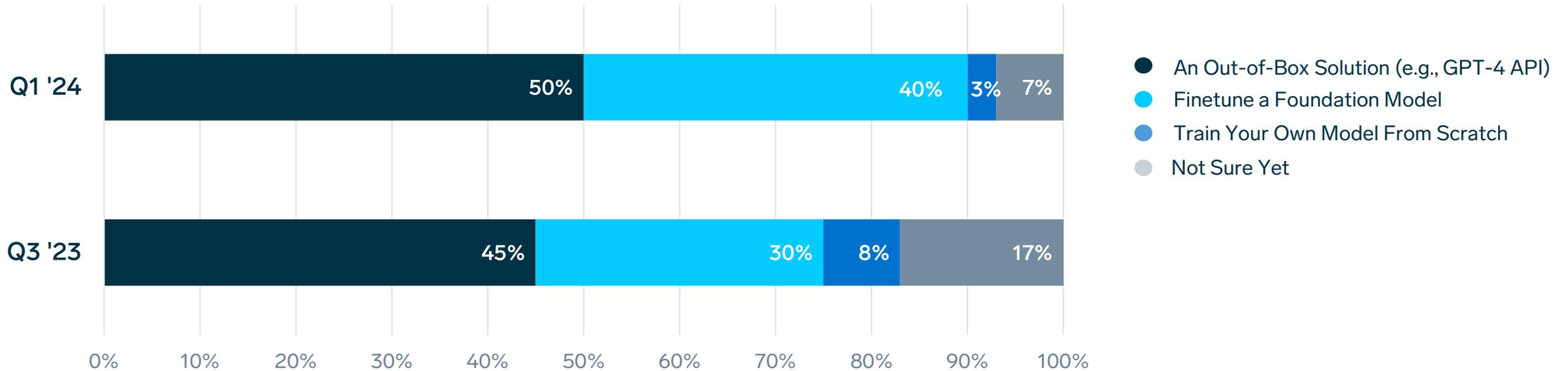
As many CXOs solidified their AI strategy over the last 6 months, we saw a 10-pp drop in the percentage of buyers unsure over which model strategy to adopt and a 5-pp drop in those interested in training their own. This is likely an outcome of recent model improvements from both closed and open-source foundation model companies.

Source: Battery Q1 2024 Cloud Software Spending Survey

"*Every company is a data company — whether you are Amazon, Delta Airlines, ADP or Ford. Data is the underlying asset.*"

Jack Berkowitz

CDO @ Securiti
Former CDO @ ADP

Interest and Concerns
for AI Copilots

Rise of Copilots

Percent of Respondents

75%

25%

29%

71%
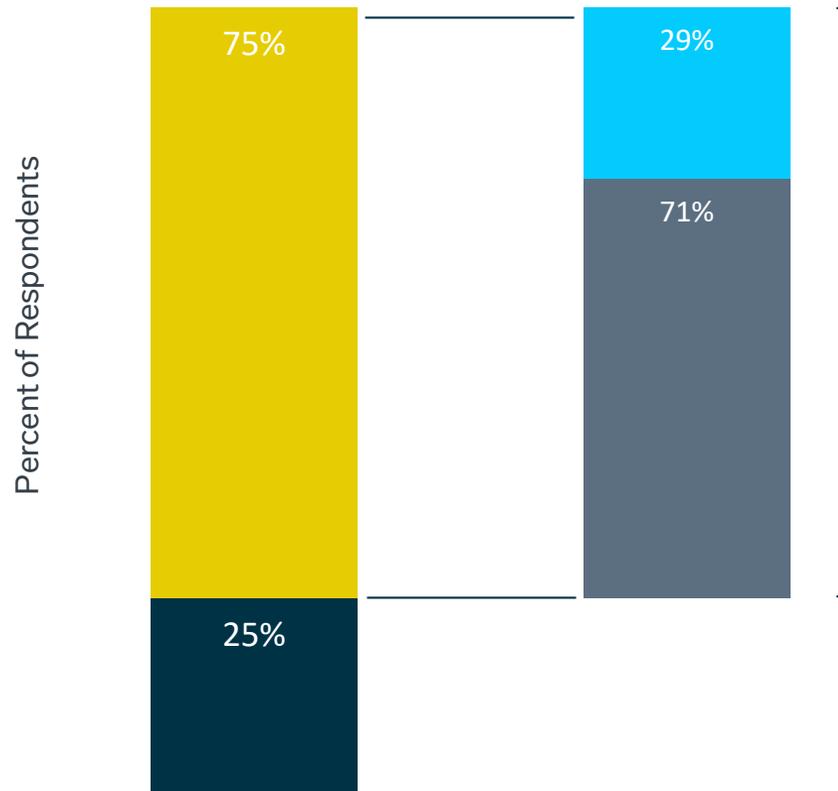
Copilots Are an Enterprise-Level Decision:
Over 75% of Q1 2024 respondents are looking to implement AI-powered copilots but only 29% of this group plan to allow employees to build their own.

But It Is a 2024 Priority:
As CXOs bear witness to the copilot wave, many hope to implement them quickly at the enterprise level — 84% of respondents plan to implement copilots in the next 12 months.

Source: Battery Q1 2024 Cloud Software Spending Survey
This presentation includes proprietary information of Battery Ventures

Main Concerns for Those Not Planning to Implement AI Copilots

Concern	Percentage
No Tangible Use Case Today	64%
Data Privacy	48%
Cost Prohibitive	44%
Security	44%
Reliability of AI-powered copilot performance	36%
Other	12%
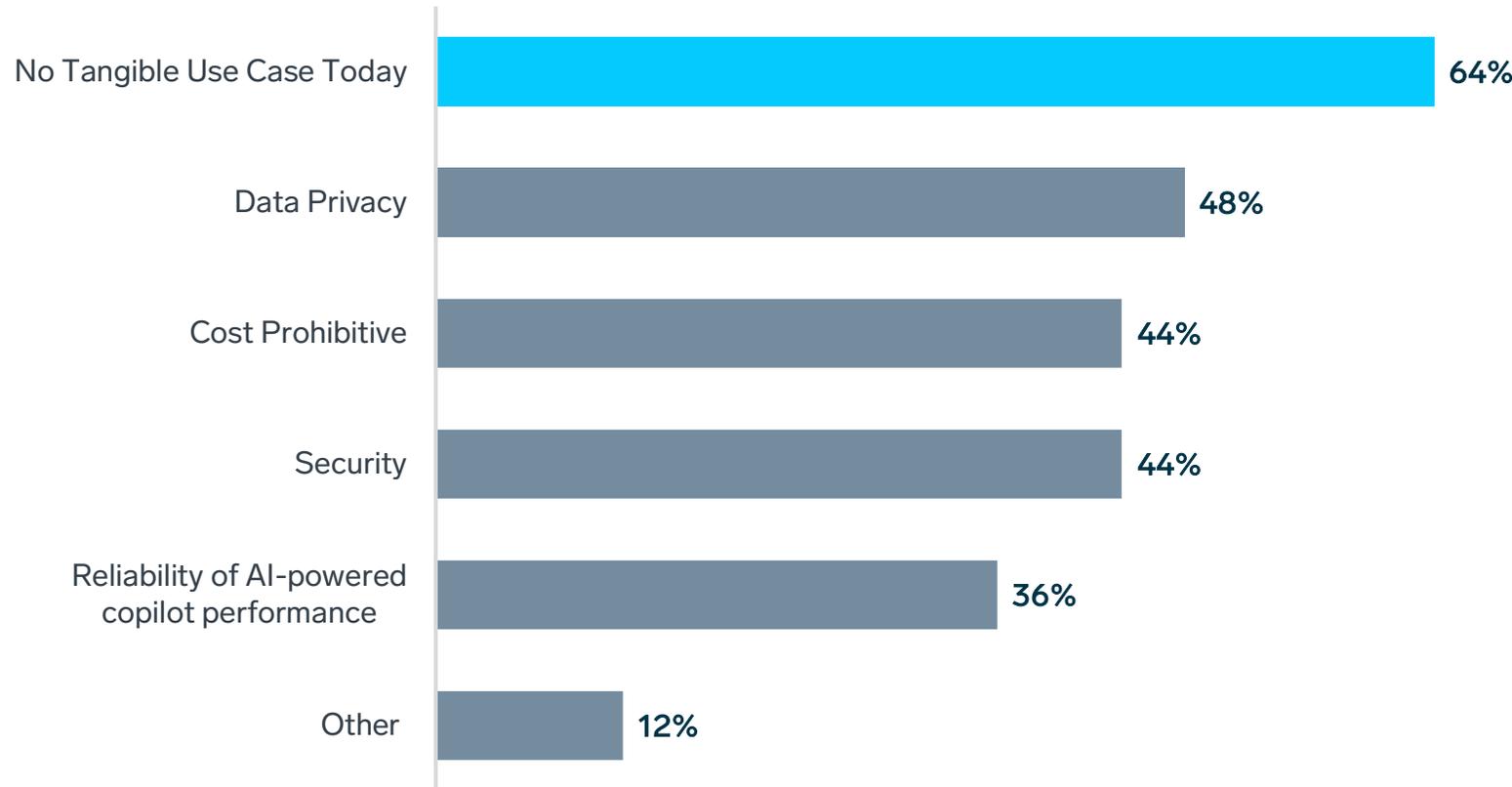
64%

of CXOs not planning to implement AI-powered copilots cite **lack of clear use case** as their key reasoning.

   Source: Battery Q1 2024 Cloud Software Spending Survey

Top 3 AI-Powered Copilot Use Cases

USE CASES FOR AI-POWERED COPILOTS RANKED TOP-3 BY CXOs

Employee Productivity	65%
Customer Service	64%
Sales	36%
Engineering	35%
Financial Operations	20%
Marketing	20%
Human Resources	18%
Supply Chain	8%
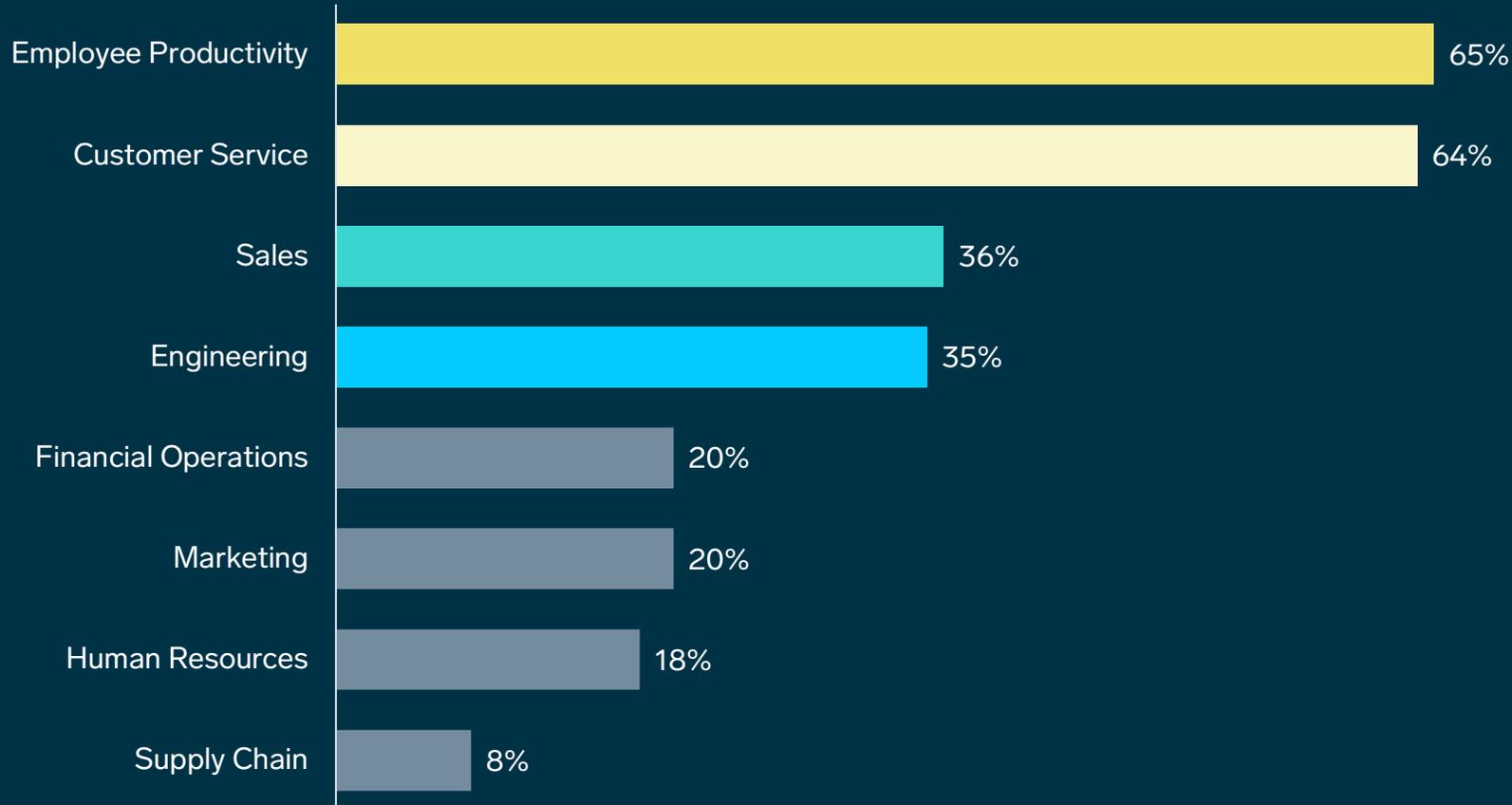
AI copilots are of particular **interest to CXOs for both employee-productivity and customer-service** use cases. Sales was also selected by nearly **one-third (30%)** of CXOs as a top-3 priority, but only 5% ranked sales as a #1 priority.

#1 PICK BASED ON URGENCY

Customer Service	30%
Employee Productivity	26%
Engineering	20%
Financial Operations	8%
Marketing	7%
Sales	5%
Supply Chain	3%
Human Resources	1%

     Source: Battery Q1 2024 Cloud Software Spending Survey
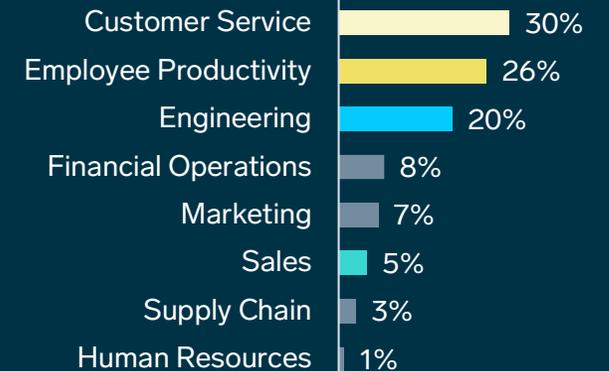
Startups vs. Incumbents for AI

COPILOT PREFERNCE FROM EXISTING VENDORS, NEW VENDORS OR BUILD IN-HOUSE

● New Vendor   ● Build Capability Internally   ● Existing Vendor

FINANCIAL OPERATIONS

| 62% | 15% | 23% | NETSUITE |

MARKETING

| 50% | 19% | 31% | HubSpot |

SUPPLY CHAIN

| 47% | 21% | 32% | SAP |

HUMAN RESOURCES

| 51% | 12% | 32% | workday |

EMPLOYEE PRODUCTIVITY

| 37% | 12% | 51% | monday.com |

CUSTOMER SERVICE

| 37% | 11% | 52% | zendesk |

ENGINEERING

| 39% | 8% | 53% | Atlassian |

SALES

| 29% | 5% | 66% | salesforce |
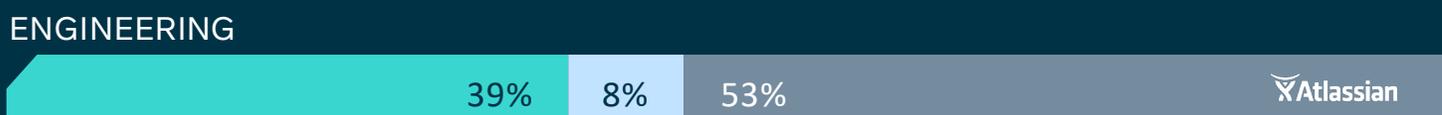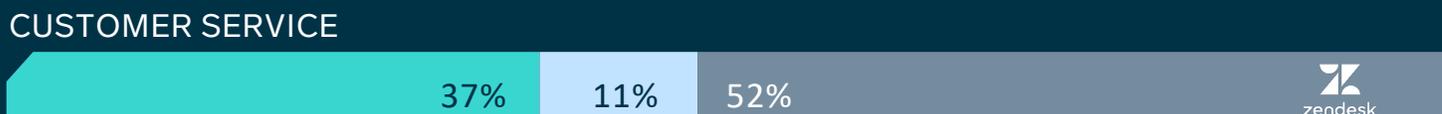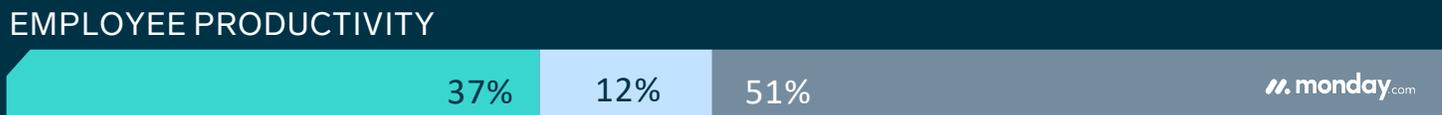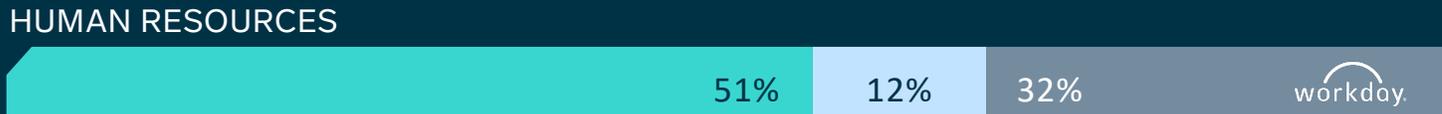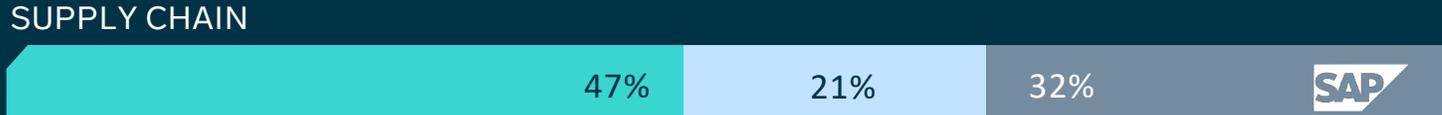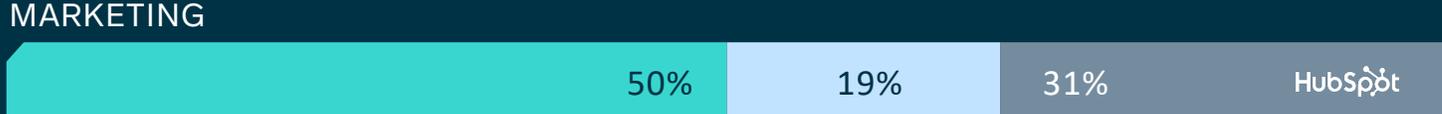
Disruption is coming to incumbents with AI as a driving force

1. On average, **45% of organizations are looking toward new vendors** to bring a wave of disruption within enterprises looking for vendors built for the age of AI.

2. Despite expected resistance from **HR and marketing departments on the adoption of AI-powered copilots, CXOs believe AI startups** have a meaningful opportunity to shake things up.

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