



IT Buyer Survey 4.0

Discussion Materials

JULY 15, 2022



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A close-up, low-angle shot of a blue printed circuit board (PCB) populated with various electronic components. The board is the central focus, with a prominent black integrated circuit (chip) in the middle-right. To its left are several electrolytic capacitors of different sizes and colors (blue, silver). The background is dark and out of focus, showing more of the board and other components. The lighting is dramatic, highlighting the textures of the components and the board's surface.

Overview

Context for this document

The following pages contain select data analysis for BCG's 4th launch of its IT Buyer survey

Details for all survey launches are as follows

- **Survey 1:** April 24-May 5, 2020 (N=674)
 - Primarily targeted US
- **Survey 2:** Oct 23-Nov 9, 2020 (N = 694)
 - Broadened reach to US and Europe
- **Survey 3:** Oct 9-Nov 20, 2021 (N = 786)
 - Further broadened reach across NAMR, Europe, Hong Kong, Singapore, & Australia
- **Survey 4:** June 30-July 11, 2022 (N = 341)
 - Focused on US and Europe

We target ~341 IT buyers to understand priorities and other trends in selected focus areas across the IT stack

Key focus areas for the survey ...



IT Buyer Sentiment

- Top of mind topics
- Sentiment for overall IT spend and products
- OpEx vs CapEx planning
- Supplier consolidation and expansion



Strategic priorities

- Ranking of strategic priorities within five categories
 - 1) Strategic advantage/capabilities
 - 2) Risk management
 - 3) Revenue Growth
 - 4) Cost management
 - 5) Business operations / productivity
- Rationale for strategic priorities



Recessionary impact

- Look-back to COVID and crisis adjustments
- Recession impact on IT Spend overall, SW and Infra / HW
- Measures taken to adjust spending plus rationales



Supply Chain constraints

- Impact of inflation on spending
- Supplier price increases
- Counter measures and rationales

... across the IT stack

Enterprise apps

Middleware

Infrastructure (HW + SW)

AI/ML

IT & Prof Services

Devices

Target respondent demographics

-55% respondents from NAMR, -45% respondents from Europe, during July 2022

-71% are large (>\$1B) size companies and -29% mid-sized companies

Respondents at Dir/Sr. Dir and above for all regions, with clear view of company IT priorities & budget

Broad vertical coverage with 20+ respondents each across IG, Tech, FI, HC, Retail, and other prof. svcs verticals

Initial insights

Buyer Sentiment

- Overall spending on IT expected to slightly slow down; first signs of cautions in spend amidst market volatility showing
- Cloud Services and Security see the most spend increases while Devices, server and storage infrastructure will likely see cuts in spend
- Where spend increases, the focus is primarily on driving digital transformation / automation; decreases control costs for a potential downturn

Strategic Priorities

- Overall IT priorities mostly expected to remain in line with the prior year but cost management increasingly on buyers' mind as potential recession looms
- Overall, buyers focus on long-term priorities with special attention to cyber security and experience management
- Strategic priorities and spend associated with automation across cost management, biz ops / productivity and risk management

Potential Recessionary Impact

- Almost all respondents anticipate a recession in the next 1-3 years
- Most current plans do not yet account for a potential recession in the next 12 months; next budgeting cycle likely to see stronger adjustments in spend
- Compared to the early days of COVID, adjustments to spend likely more controlled with most companies gradually adjusting vs hard cuts in early 2020
- In spend reductions, Devices drive the largest change followed by server infra, app dev and AI / ML capabilities

Prices and suppliers

- Many suppliers have already started to increase prices in response to inflation and shortages; further increases of ~5-10% expected in the next 12 months
- Devices and Network infrastructure affected the most by supply shortages
- As buyers continue to face extended delivery times and cancellations, they increasingly order in advance and prioritize vendor reliability over cost

Buyer Sentiment

A group of five business professionals, three men and two women, are walking through a modern office hallway. They are dressed in business casual attire and appear to be in conversation. The hallway features large windows on the right side, providing a view of an urban landscape. The lighting is warm and ambient, with recessed ceiling lights. The overall atmosphere is professional and collaborative.

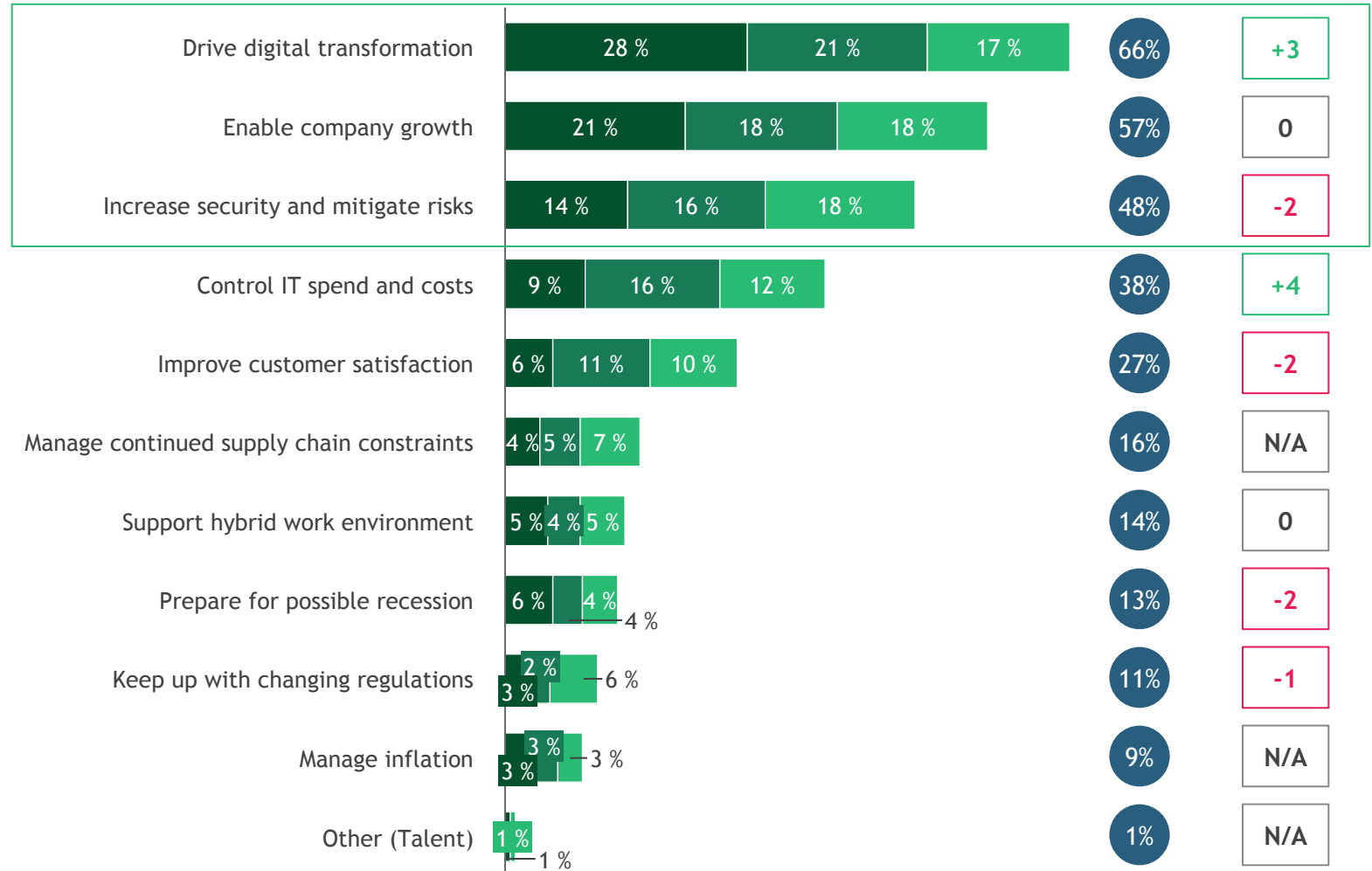
Digital transformation, growth, and security top of mind for many IT leaders

Cost control important but no pronounced recession fears

What is top of mind right now for you as an IT business leader? Please rank your top 3 choices

% Respondents

Rank Change vs. Q4 2021¹



Legend: Rank 1 (darkest green), Rank 2 (medium green), Rank 3 (lightest green), x% (circle) % of respondents who ranked 1, 2 or 3 total

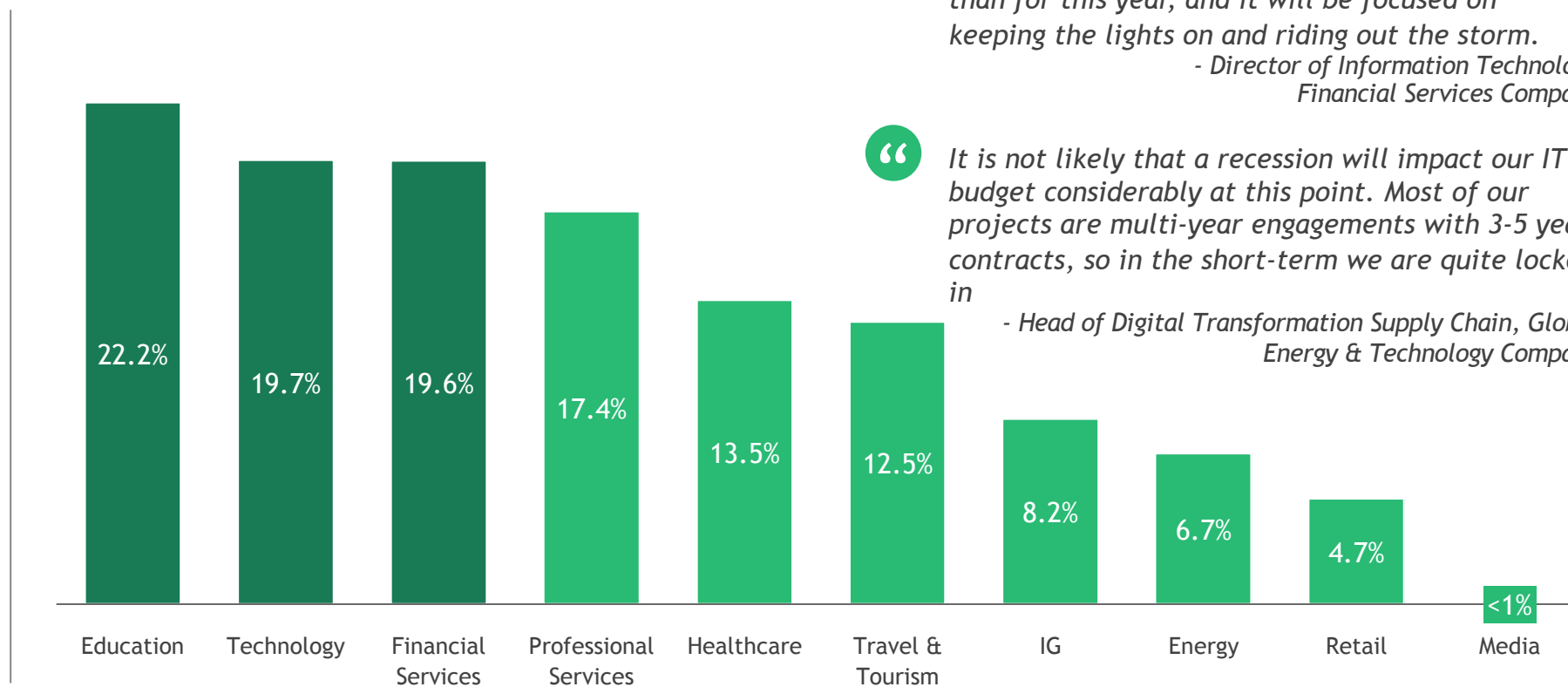
1. Comparison vs. Q4 2021 made to rationales for IT priorities. "N/A" means that these options were not asked then, and do not impact Rank Change for the rest.

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341; IT Buyer Pulse Check 3.0 (October 2021), N = 676 (APAC respondents excluded)

Deep-dive | While overall not top of mind for most, recession concerns tend to vary by industry; Education, Tech and Fin Serv with highest scores

Respondents who picked 'Recession' as one of the top three topics in %

Only 13%
of respondents rank recession in their three most top of mind topics



“ A recession is very likely. If it happens, we can expect headcount reductions for non-essential roles, and a freeze in budget for non-essential projects. Our budget for next year will be lower than for this year, and it will be focused on keeping the lights on and riding out the storm.
- Director of Information Technology
Financial Services Company

“ It is not likely that a recession will impact our IT budget considerably at this point. Most of our projects are multi-year engagements with 3-5 year contracts, so in the short-term we are quite locked in
- Head of Digital Transformation Supply Chain, Global Energy & Technology Company

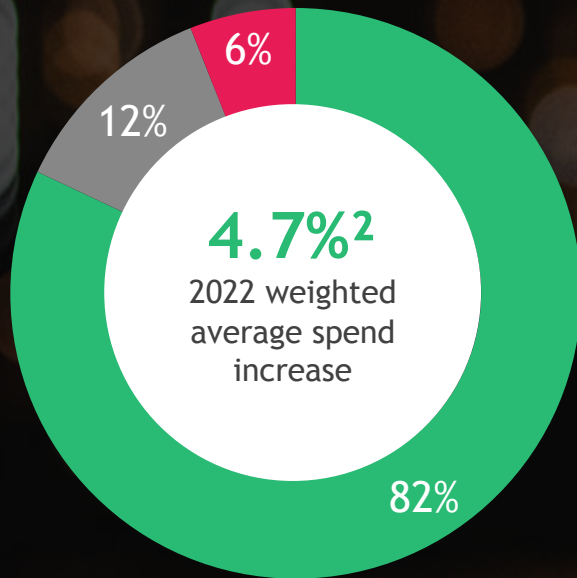
Note: Government industry analysis excluded due to small sample size
Question: What is top of mind right now for you as an IT business leader? Please rank your top 3 choices
Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

Overall IT spend expected to increase YoY but showing first signs of slow down amidst goals to control IT spend

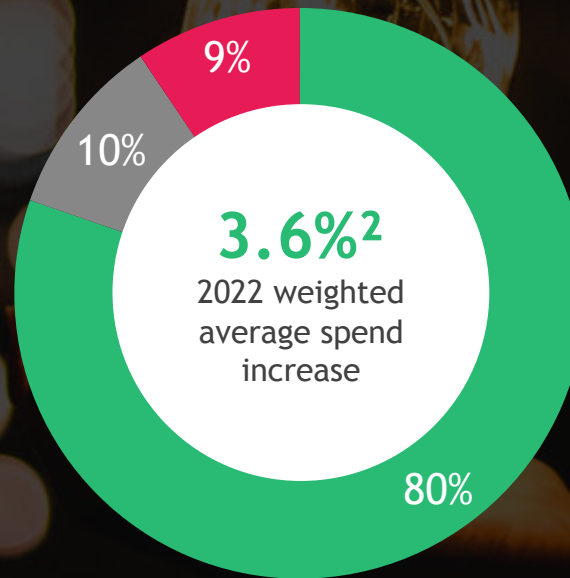
How do you expect your company's overall IT spend to change for 2022 vs 2021 and for 2023 vs 2022?

% Respondents

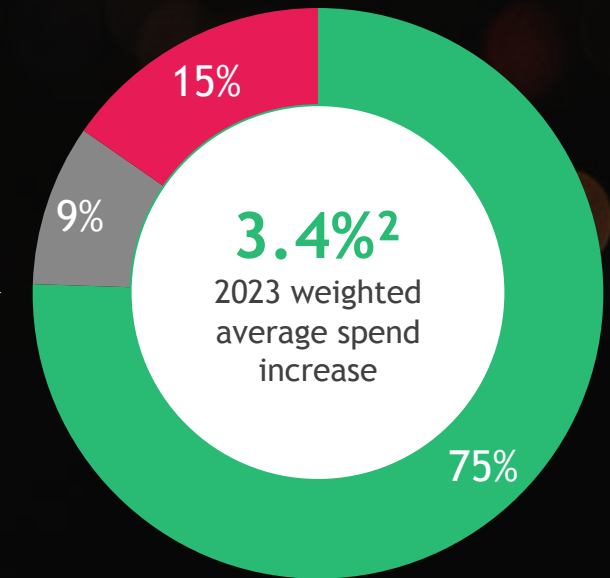
2022 Initial Plan¹



2022 Adjusted Plan



2023 Plan



■ Increase ■ No change ■ Decrease

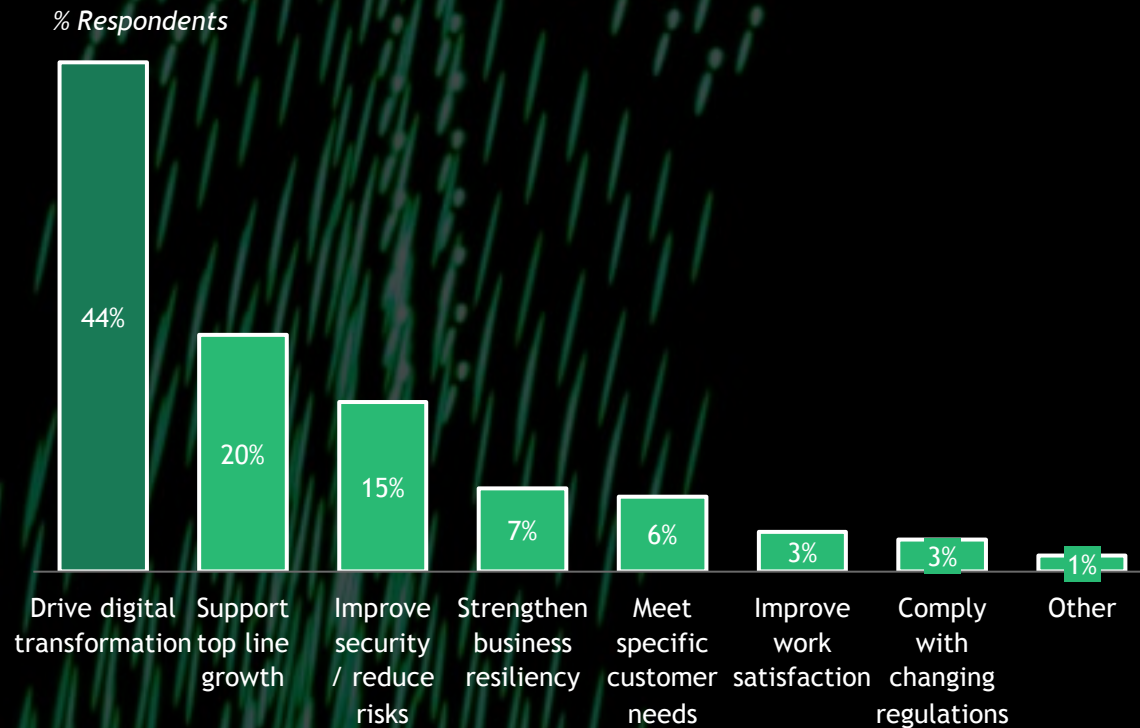
1. Data for the 2022 initial plan was gathered in the IT Buyer Pulse Check 3.0 (October 2021)

2. Respondents indicated relative amount of spending inc/dec. via multiple choice options, weighted avg. calculated based on the lowest absolute value for the range (e.g., Inc/dec. by 2-5% assigned value of +/- 2%)

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341; IT Buyer Pulse Check 3.0 (October 2021), N = 676 (APAC respondents excluded)

Digital transformation behind most of the increase in spend ...

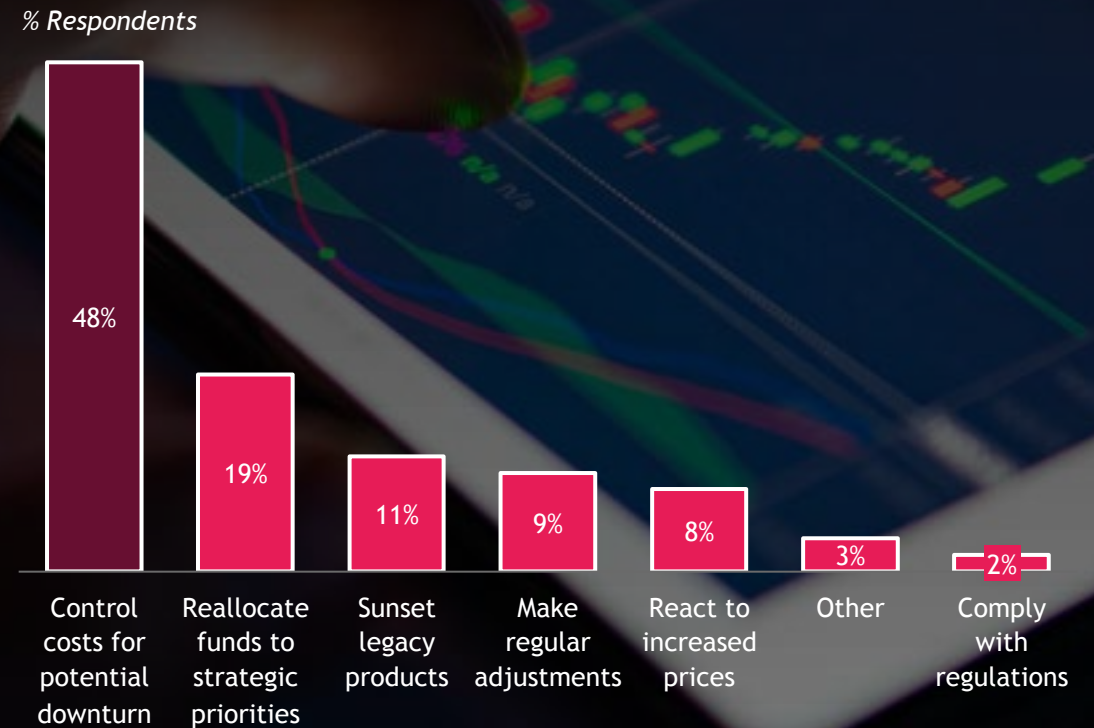
You stated that, in at least one year, you're looking to increase YoY overall IT spend. What is the main driver behind increasing overall IT spend?



Note: "Other" refers to: on the left, to inflation or expected acquisitions; on the right, to forecasting a recession or because they finished a major project.
Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

... whereas cost control for potential downturn drives decreases

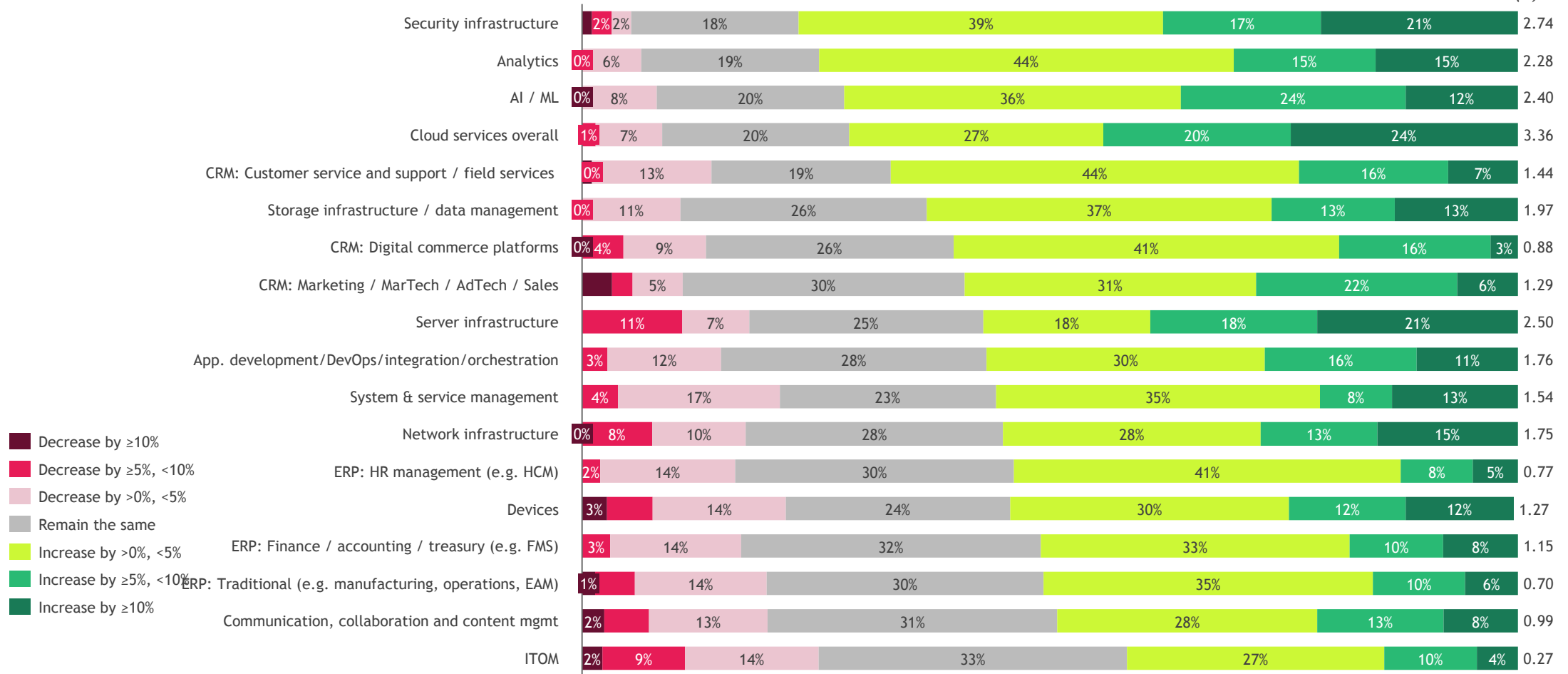
You stated that, in at least one year, you're looking to decrease YoY overall IT spend. What is the main driver behind decreasing overall IT spend?



Deep-dive | Despite growing cost awareness, user counts for user driven products are not yet seeing major adjustments

For the spend categories driven by headcount, how do you expect the headcount to change in the next 12 months?

Weighted Average Net Headcount Increase (%)¹



1. Respondents indicated forecasted headcount inc/dec. via multiple choice options, weighted avg. calculated based on the lowest absolute value for the range (e.g., Inc/dec. by 2-5% assigned value of +/- 2%)

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

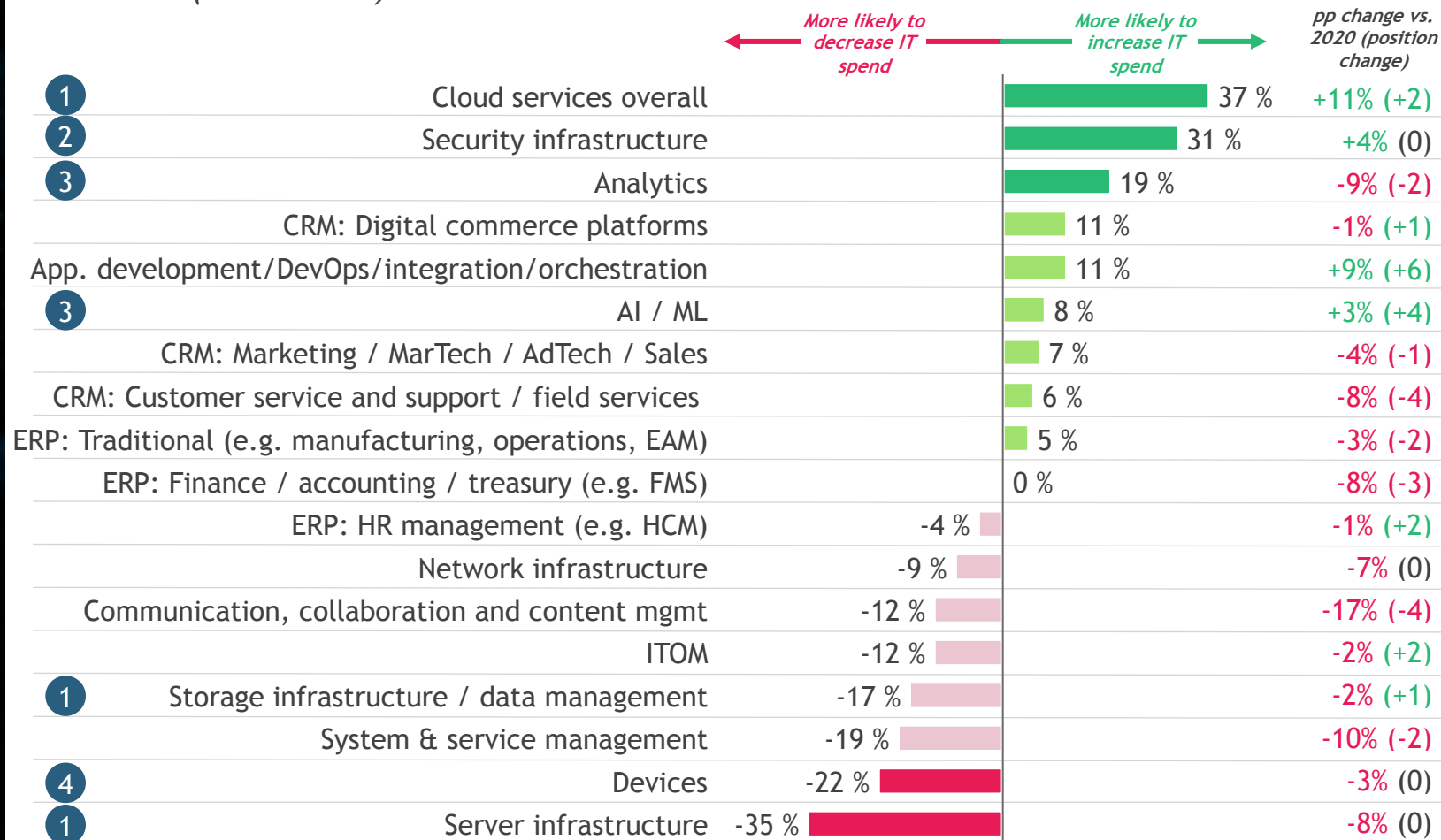
↑
100%

Digital Transformation and Security expected to drive spend change likelihood¹

- 1 Cloud services likely to see strong increase in spend, while on-prem infra will likely decrease in push for digital transformation
- 2 Spend on Security Infrastructure expected to increase in continued importance of risk and identity management
- 3 Digital transformation also expected to drive investment into Analytics, App dev. and AI capabilities
- 4 Decrease in spend for devices may indicate companies are foreseeing longer hardware refresh cycles

Largest spend increases expected in cloud services, security infrastructure, and analytics

Please select the top 3 products where you expect your company to have the largest spend increases / decreases (in terms of %) over the next 12 months.







1. Percentage is the net respondents increasing spending (percentage calculated by percent of respondents increasing spending minus percent of respondents decreasing spending)

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341; BCG IT Buyer Pulse Check 2.0 (November 2020), N = 694

Suppliers | Trend reversal in supplier landscape; many IT buyers looking to consolidate after phase of expansion

Net expansion (-consolidation) 2021 vs 2022 (in %)

| | 2021 | 2022 | Trend |
|------------------------------|------|------|--|
| Average | 6 | -10 | Trend reversal to net consolidation |
| AI / ML | 44 | 23 |  Net expansion |
| Security Infrastructure | 27 | 4 | |
| Analytics | 33 | 1 | |
| App / DevOps / Integration | 16 | -4 |  Trend reversal to net consolidation |
| Cloud Services | 32 | -4 | |
| CRM | 5 | -8 | |
| ITOM | 0 | -14 |  Net consolidation |
| Devices | -6 | -13 | |
| ERP | -11 | -17 | |
| System & Service Mgmt | -9 | -18 |  Net consolidation |
| Comm., collab & content mgmt | -7 | -18 | |
| Storage / data mgmt | -9 | -22 | |
| Network Infrastructure | -12 | -24 | |
| Server Infrastructure | -21 | -30 | |

Only 3 out of 14 product categories still see expansion in suppliers; all others reversed or increased trend toward consolidation

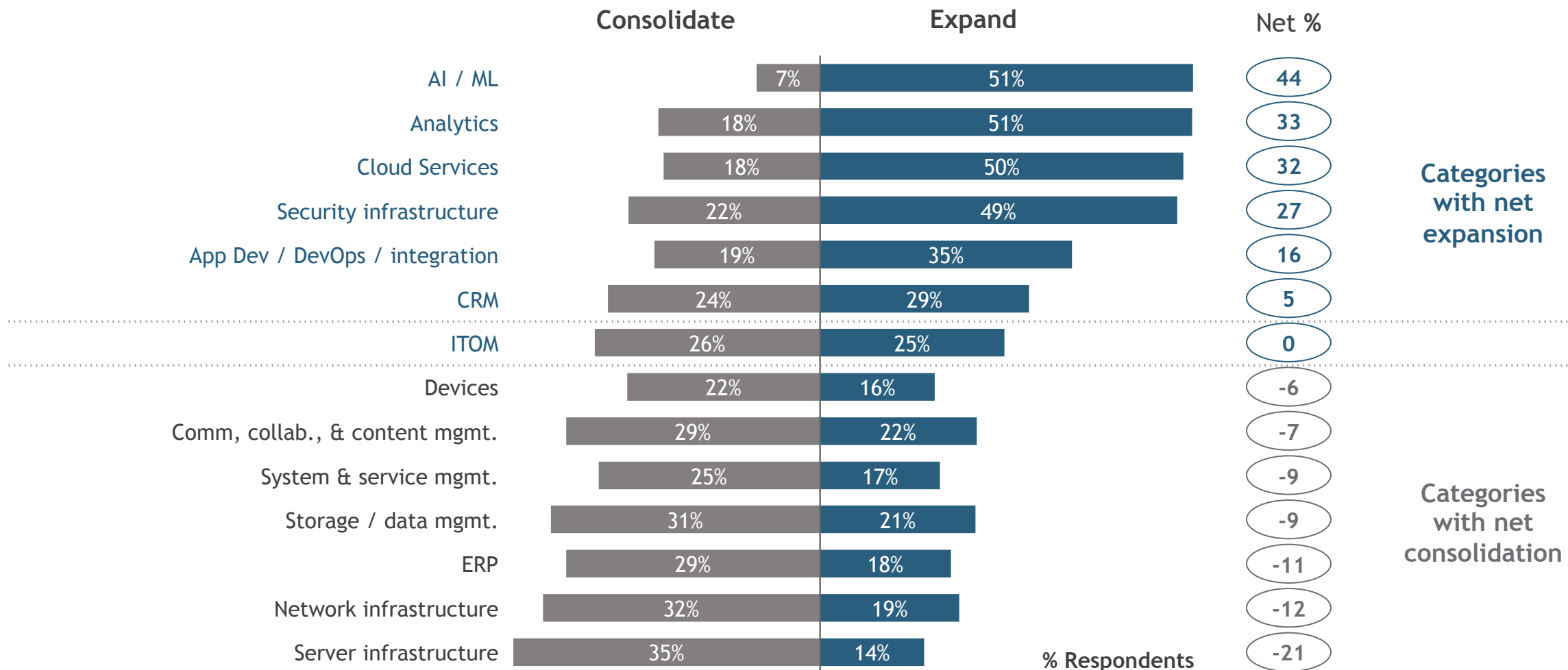
1. Net supplier expansion (consolidation) refers to the % of respondents that expect to expand their suppliers for the category minus the % that expect to consolidate them.

Note: Responses to answer choices, "Don't know/not applicable" and "No change" not shown

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341; IT Buyer Pulse Check 3.0 (October 2021), N = 676 (APAC respondents excluded)

Deep-dive 2021 | At end of last year strong preference for supplier expansion and 'best of breed' approach

In which of the following categories is your company looking to consolidate or expand IT systems or suppliers?



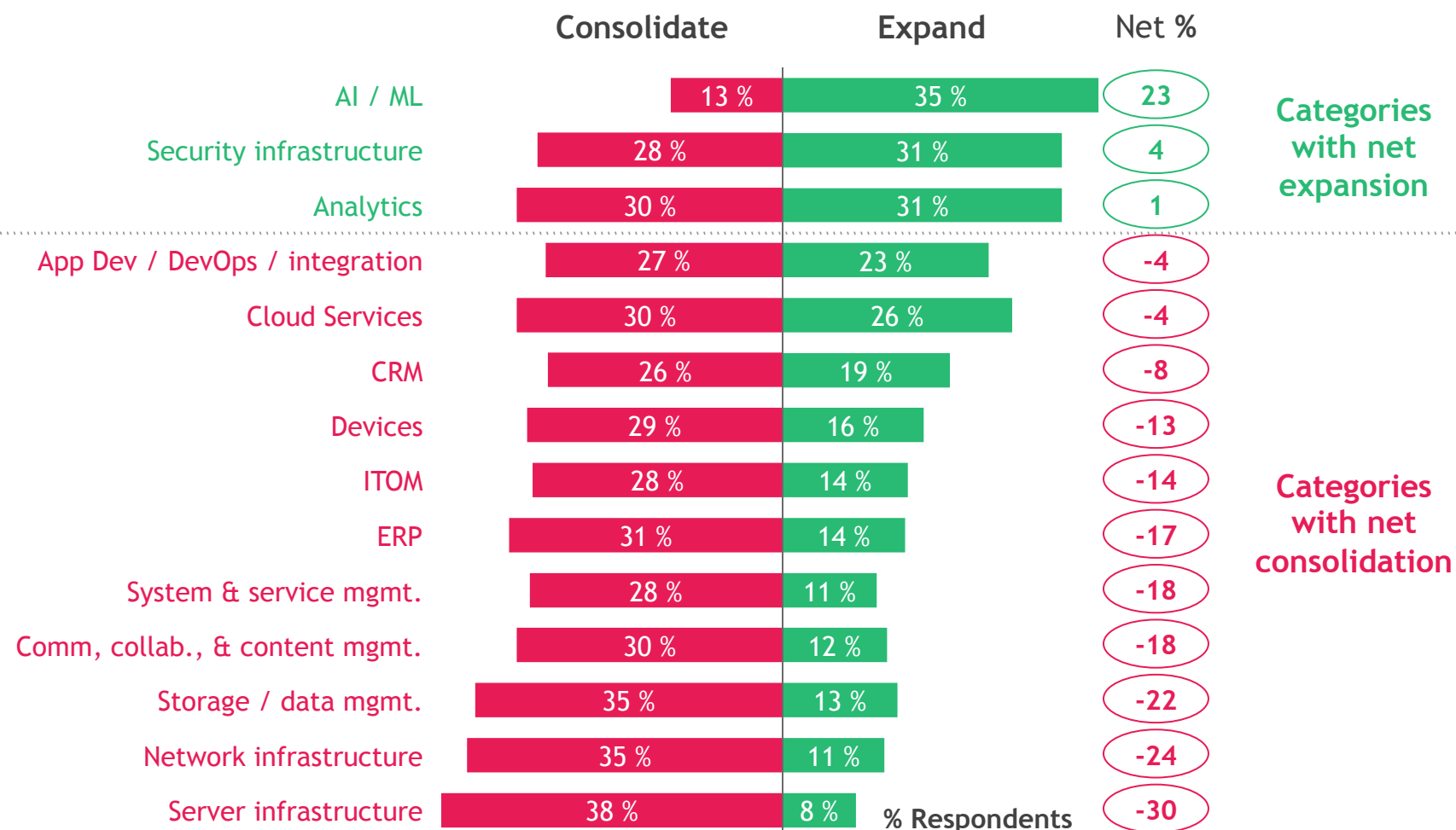
Categories with net expansion

Categories with net consolidation

Note: Responses to answer choices, "Don't know/not applicable" and "No change" not shown
 Source: IT Buyer Pulse Check 3.0 (October 2021), N = 676 (APAC respondents excluded)

Deep-dive 2022 | For most products, buyers now look for suites and one-stop shops

In which of the following categories is your company looking to consolidate or expand IT systems or suppliers?



Note: Responses to answer choices, "Don't know/not applicable" and "No change" not shown
 Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

“

"As we try to streamline our organization, we also move to a leaner supplier landscape. We are rationalizing several ERPs into a single one across orgs"

- Head of Digital Transformation Supply Chain, Global Energy & Technology Company

“

"We are shifting from a decentralized model to a centralized one. This means we reduce the number of apps and consolidate suppliers."

- Vendor Management Director, Major US Healthcare Provider



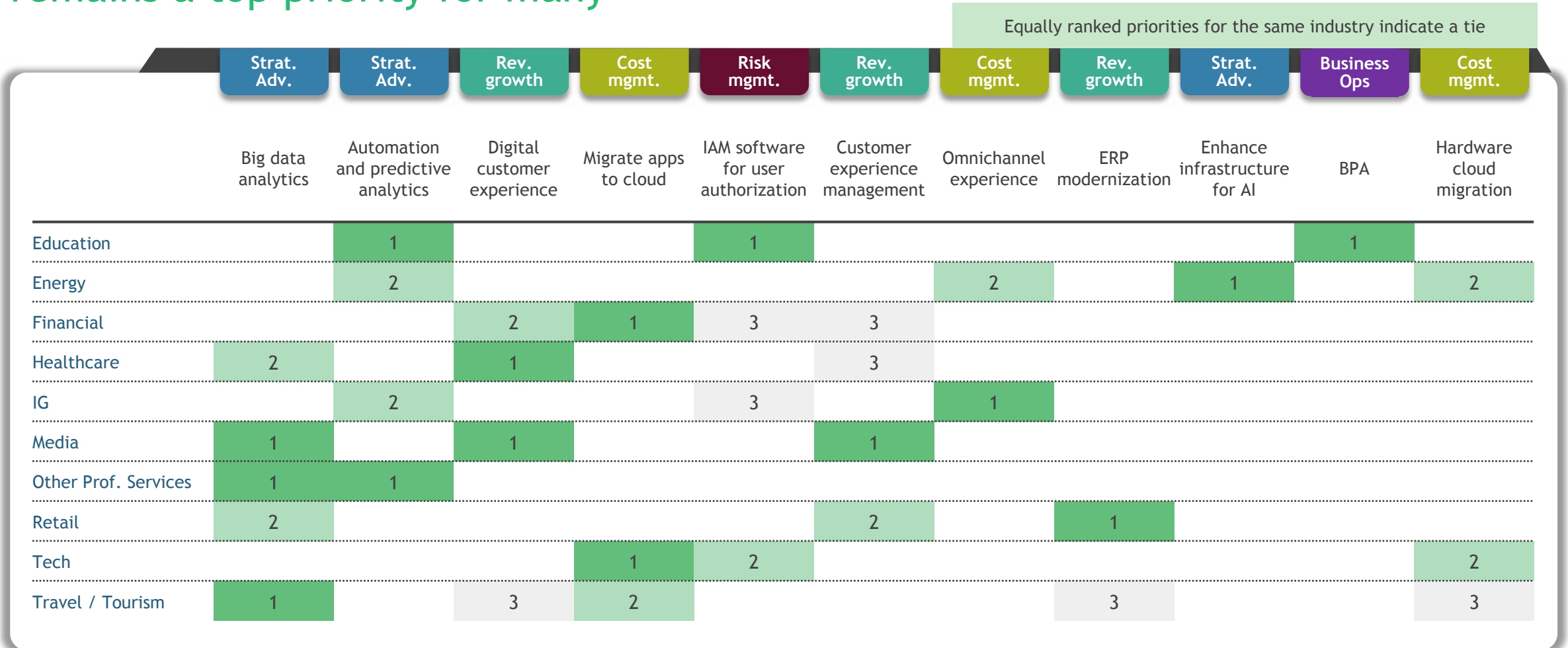
Strategic Priorities

Trends | Priorities remain consistent over time but as with spend, first signs of deceleration across many initiatives



Note: Survey 2 & 3 data in response to: "How do each of the following initiatives align with your IT priorities for the next 12 months? (major priority, minor priority, not a priority). "Sales intelligence and enablement" and "Supply chain and cost saving" were set at 0% in Y-axis due to lack of data from previous survey
 Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341; IT Buyer Pulse Check 3.0 (October 2021), N = 676 (APAC respondents excluded)

Top priorities | Priorities vary by industry, but analytics and digital experience remains a top priority for many



Note: Survey data in response to Q: "How do each of the following initiatives align with your IT priorities for the next 12 months? (major priority, minor priority, not a priority); rankings based on % who stated initiative was a "major priority"; only top 1-3 rankings shown for each industry, not all top 3 industry rankings present within top initiatives
 Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

Emerging technologies, such as Big Data, AI and Cloud Services, are being adopted at different rates across industries

High industry dispersion/ lower consensus

Industry
std. dev.¹

| Strategic priority | Q4 '21 | Q2 '22 |
|-------------------------------------|--------|--------|
| Big data analytics | 7% | 22% |
| Migrate apps to cloud | 5% | 22% |
| ERP modernization | 13% | 19% |
| Omnichannel experience | 16% | 19% |
| Hardware cloud migration | 5% | 18% |
| Enhance infrastructure for AI | 5% | 18% |
| DevOps for better alignment | 13% | 17% |
| Supply chain and cost saving | #N/A | 14% |
| Network infra. modernization | 9% | 14% |
| Zero trust architecture | 11% | 14% |
| IAM software for user authorization | 8% | 14% |
| BPA | 7% | 14% |

Initiatives with largest dispersion increase

Moderate industry dispersion/ moderate consensus

Industry
std. dev.¹

| Strategic priority | Q4 '21 | Q2 '22 |
|-------------------------------------|--------|--------|
| Threat protection through CASB | 12% | 13% |
| Reduce infra. vendors | 9% | 13% |
| Automation and predictive analytics | 7% | 13% |
| Remote work tools | 8% | 13% |
| OMS | 8% | 13% |
| Enhance IT ops w/ AIOps | 7% | 13% |
| Customer analytics solutions | 10% | 13% |
| DLP tools to min. data exfil risk | 10% | 12% |
| Agile ways of working | 12% | 12% |
| Customer experience management | 10% | 12% |
| SCM modernization | 10% | 11% |
| CLM | 8% | 11% |
| Sales intelligence and enablement | #N/A | 11% |
| RPA | 8% | 11% |
| CPQ | 8% | 11% |

Low industry dispersion/ higher consensus

Industry
std. dev.¹

| Strategic priority | Q4 '21 | Q2 '22 |
|----------------------------------|--------|--------|
| RegTech solutions | 11% | 10% |
| Support as-a-service | 7% | 10% |
| Digital customer experience | 8% | 10% |
| App modernization | 6% | 10% |
| Modernize HR | 7% | 9% |
| VDI | 9% | 9% |
| Marketing automation | 8% | 9% |
| EPP/ EDR | 7% | 8% |
| ITSM | 7% | 8% |
| Reskilling/Up-skilling | 12% | 7% |
| BPO/BPaaS | 7% | 7% |
| Sales force automation solutions | 7% | 5% |

Strat. Adv. Risk mgmt. Rev. growth Cost mgmt. Business ops Dispersion High Low

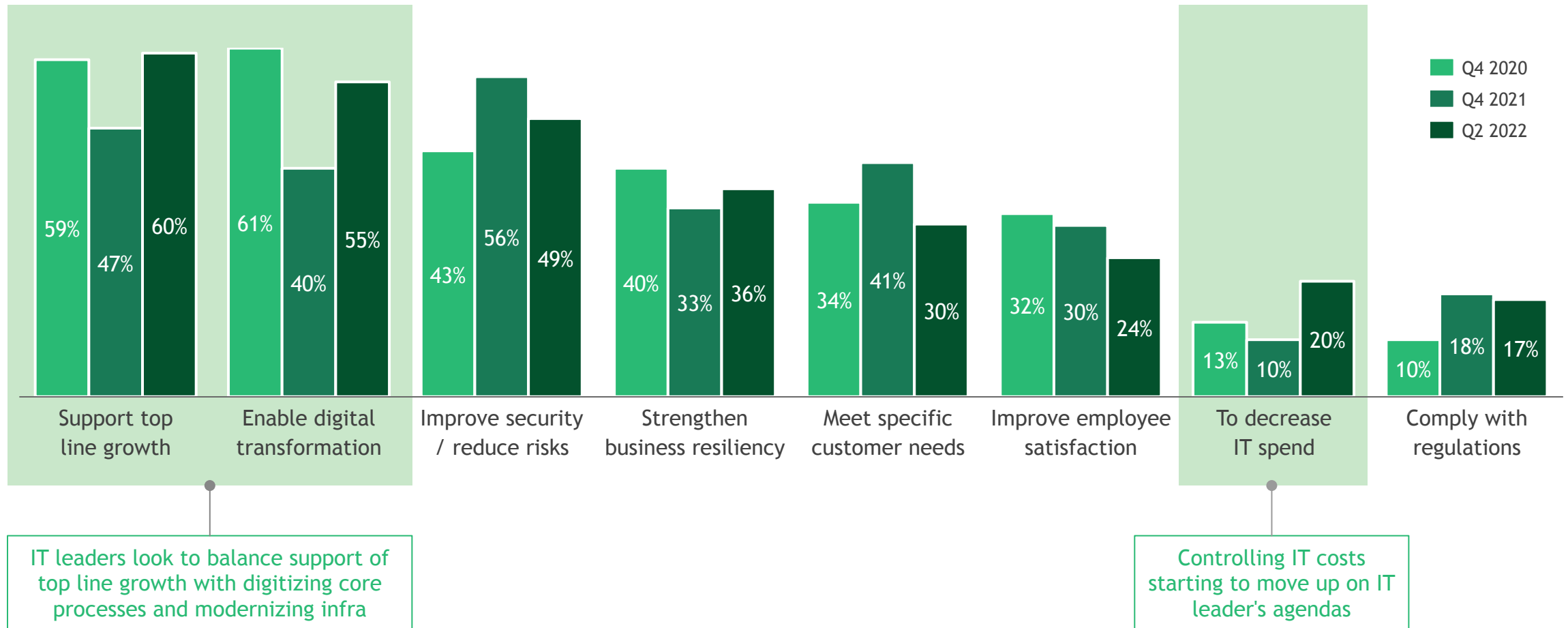
1. Standard deviation across industries in those stating initiative was a "major priority"

Question: "How do each of the following initiatives align with your IT priorities for the next 12 months? (major priority, minor priority, not a priority). Average dispersion increase comes from difference in sample.

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341; IT Buyer Pulse Check 3.0 (October 2021), N = 676 (APAC respondents excluded)

Rationales | Study shows trend toward efficient growth; buyers seek to enable top line growth, while improving digital capabilities and ensuring security

% Respondents



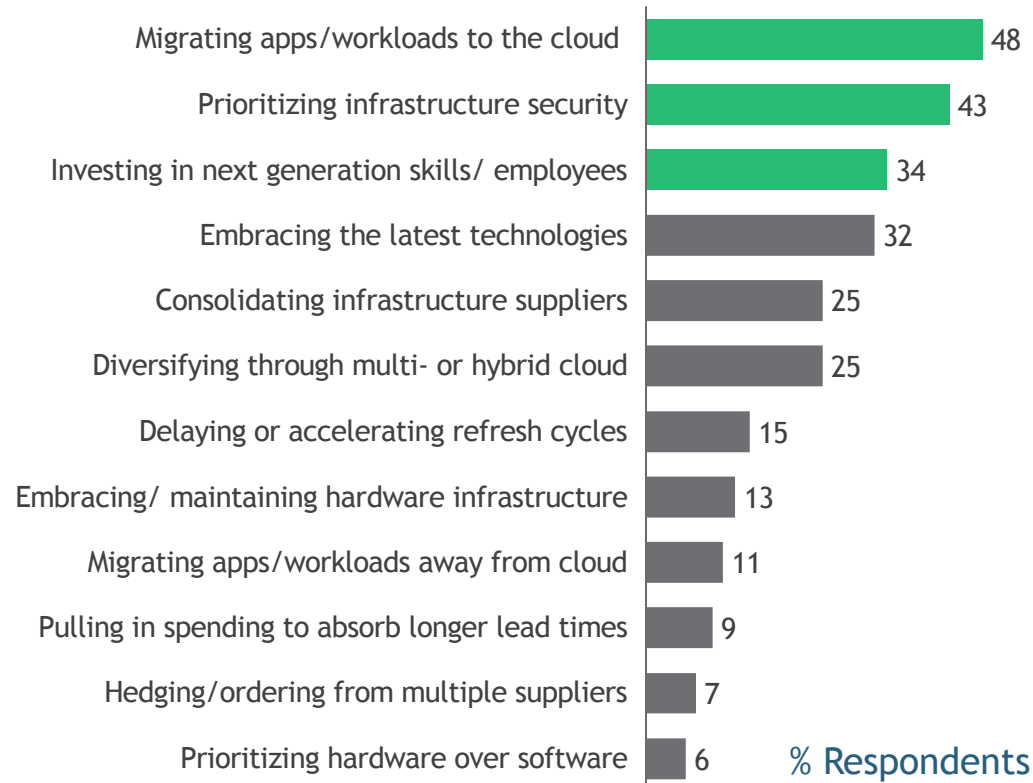
Question: What are the top 3 rationales for your company's strategic priorities overall over the next 12 months?

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341; IT Buyer Pulse Check 3.0 (October 2021), N = 676 (APAC respondents excluded); BCG IT Buyer Pulse Check 2.0 (November 2020), N = 694

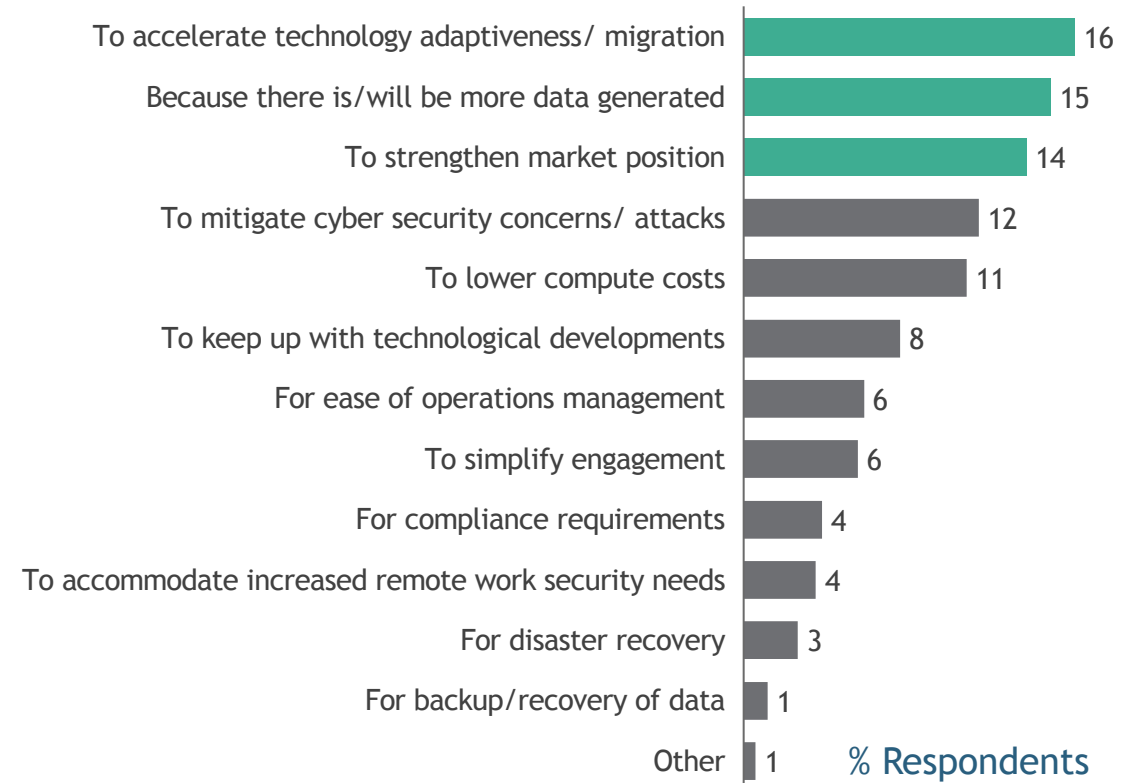
Infrastructure | Strategies focused on migrating to the cloud and prioritizing security; adaptiveness and focus on data are the main strategic drivers



What are the top strategies your company is deploying for your direct infrastructure needs?



What is the primary reason your company is deploying these strategies?



Backup | Rationales consistent across strategies with strong focus on accelerating technology adaptiveness and migration

| Infra. strategy ¹ | Rationale ² | To accelerate tech adaptive-ness/ migration | Because there is/will be more data generated | To strengthen market position | To mitigate cyber security concerns/ attacks | To lower compute costs | To keep up with tech develop-ments | For ease of operations mgmt | To simplify engage-ment | For compliance require-ments | To accom-odate remote work security needs | For disaster recovery | For backup/ recovery of data |
|---|------------------------|---|--|-------------------------------|--|------------------------|------------------------------------|-----------------------------|-------------------------|------------------------------|---|-----------------------|------------------------------|
| Prioritizing infrastructure security | | | | ✓ | ✓ | | | | | | | | |
| Migrating apps/workloads to the cloud | | ✓ | ✓ | | | ✓ | | | | | | | |
| Embracing the latest technologies | | ✓ | ✓ | | | | | | | | | | |
| Investing in next generation skills/ employees | | ✓ | ✓ | ✓ | | | | | | | | | |
| Diversifying through multi- or hybrid cloud | | ✓ | ✓ | | | | | | | | | | |
| Consolidating infrastructure suppliers | | ✓ | | | | ✓ | | | | | | | |
| Delaying or accelerating refresh cycles | | ✓ | ✓ | | | ✓ | | | | | | | |
| Embracing/maintaining hardware infrastructure | | | ✓ | ✓ | ✓ | | | ✓ | | | | | |
| Hedging/ordering from multiple suppliers | | | ✓ | ✓ | | | | | | | | | |
| Migrating apps/workloads away from cloud | | ✓ | | | | | | | | | | | |
| Pulling in spending to absorb longer lead times | | | | ✓ | | ✓ | | | | | | | |
| Prioritizing hardware over software | | ✓ | | | ✓ | | | | | ✓ | | | |

1. What are the top strategies your company is deploying for your direct infrastructure needs? 2. What is the primary reason your company is deploying these strategies?
 Note: Rationales identified for each strategy are those that are at least 1 standard deviation above the population average likelihood for that response
 Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

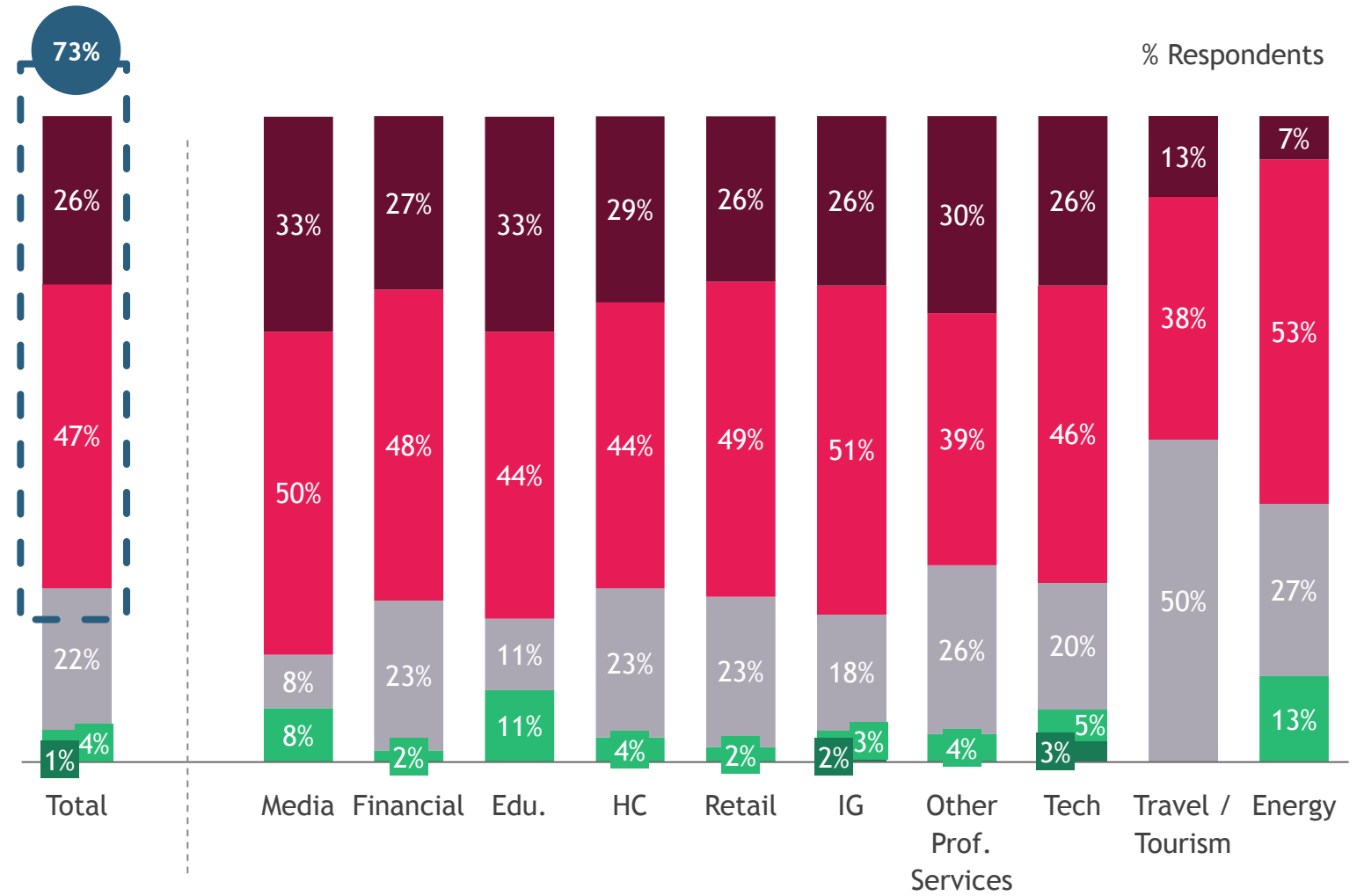
The background of the image is a blurred financial candlestick chart. The chart features green and red candlesticks, with a white line representing a moving average or trend line. The overall scene is dark, with the chart elements appearing as soft, out-of-focus shapes. The text 'Recessionary Impact' is overlaid in the center-left area in a clean, white, sans-serif font.

Recessionary Impact

On a scale of 1-5, how likely do you think it is for a market-wide recession to occur within the next 1-3 years?

73%

of IT buyers see the onset of a market-wide recession to be likely or very likely in next 1 - 3 years

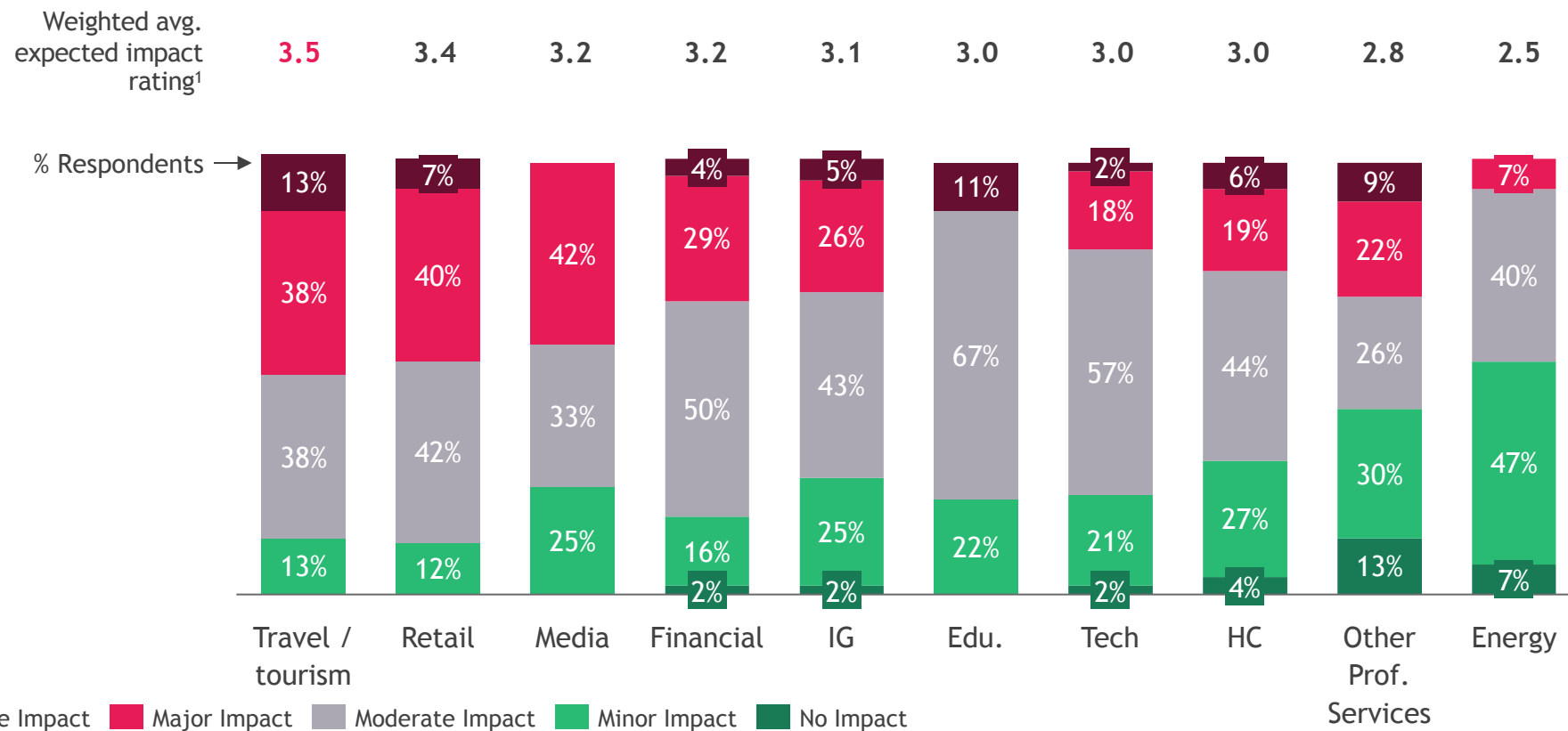


Very likely Likely Neither unlikely nor likely Unlikely Very unlikely

Note: Government industry analysis excluded due to small sample size
Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

Backup | While most buyers see a recession as likely, expected impact on their respective industries varies

On a scale of 1-5, how impactful would a recession be to the growth of your industry, specifically?

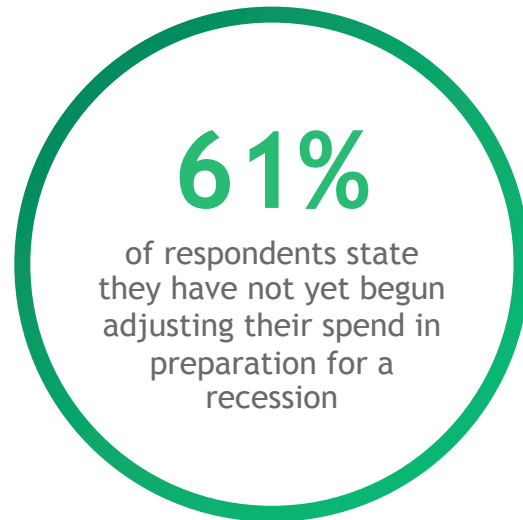


1. Weighted avg. calculated based on the numerical value associated with each impact rating (e.g., 5 - Severe impact and 1 - Minor impact)

Note: Government industry analysis excluded due to small sample size

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

Most companies have not yet begun to adjust IT spend but are displaying increased caution



“

"As of now, we *have not yet decreased spend* in preparation for a potential recession. However, *there are some signals that a recession may occur*; customers are postponing orders, and there are complaints about price increases. Now, *more argumentation is needed to get projects approved* and *CAPEX is being watched more carefully.*"

- IT Director, IG, US

“

"(My country) is more vulnerable to a recession. It seems to have *no impact in IT spending so far. Money is still being spent, but risk is top of mind again.* We see the weaponizing of audits, and *slower, more structured decision-making.*"

- IT Director, Education, Europe

“

"I have mixed feelings about recession. *We haven't made any changes for this year, but the budget for next year will be focused on what is really essential.*"

- IT Director, Financial, US

Should we fall into a recession next year, many IT buyers are likely to significantly adjust their spend

48%
of IT buyers
anticipate a decrease
in IT spend (versus
current plan) should
we fall into a
recession

Current plan

Weighted avg. expected overall IT spend change¹

+3.4%

Anticipated YOY spend
increase for 2023 vs
2022 in **current plans**

Potential recession

Weighted avg. expected overall IT spend change¹

-0.2%

VS

Anticipated YOY spend
decrease for 2023 vs 2022 in
recessionary scenario

1. Respondents indicated relative amount of spending inc/dec. via multiple choice options, weighted avg. calculated based on the lowest absolute value for the range (e.g., Inc/dec. by 2-5% assigned value of +/- 2%)

Questions: Comparing your current plan versus a recessionary scenario, how does your spend change? If there was a recession in 2022 / 2023, how do you expect your company's overall IT spend to change for 2022 vs 2021 and for 2023 vs 2022?

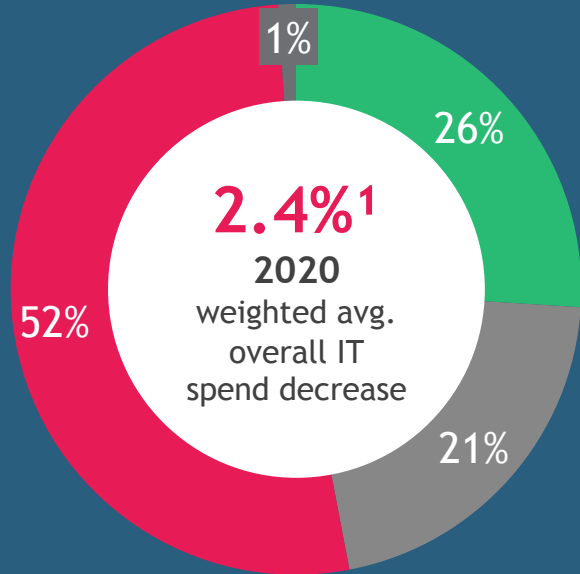
Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

Compared to COVID, recessionary spend adjustments likely to be softer and more gradual over time

COVID Response

In March/April 2020, how did your company's overall IT spend change vs the 2020 planned spend (in \$)?

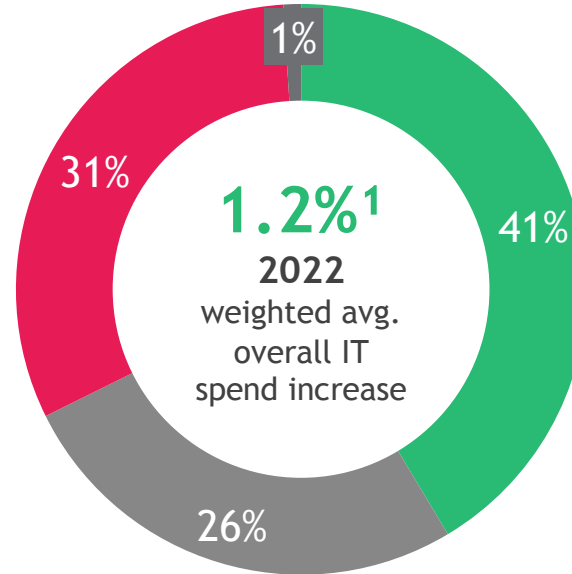
% Respondents



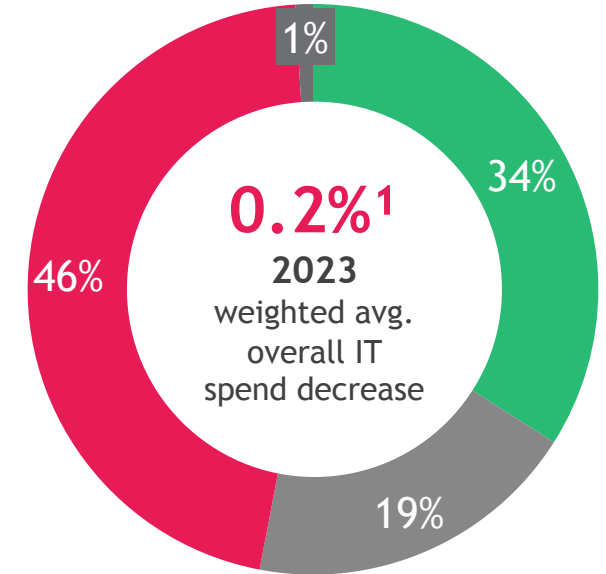
Recessionary Scenario

If there was a recession in 2022 / 2023, how do you expect your company's overall IT spend to change for 2022 vs 2021 and for 2023 vs 2022?

% Respondents



% Respondents



■ Increase ■ No change ■ Decrease ■ Don't Know

1. Respondents indicated relative amount of spending inc/dec. via multiple choice options, weighted avg. calculated based on the lowest absolute value for the range (e.g., Inc/dec. by 2-5% assigned value of +/- 2%)

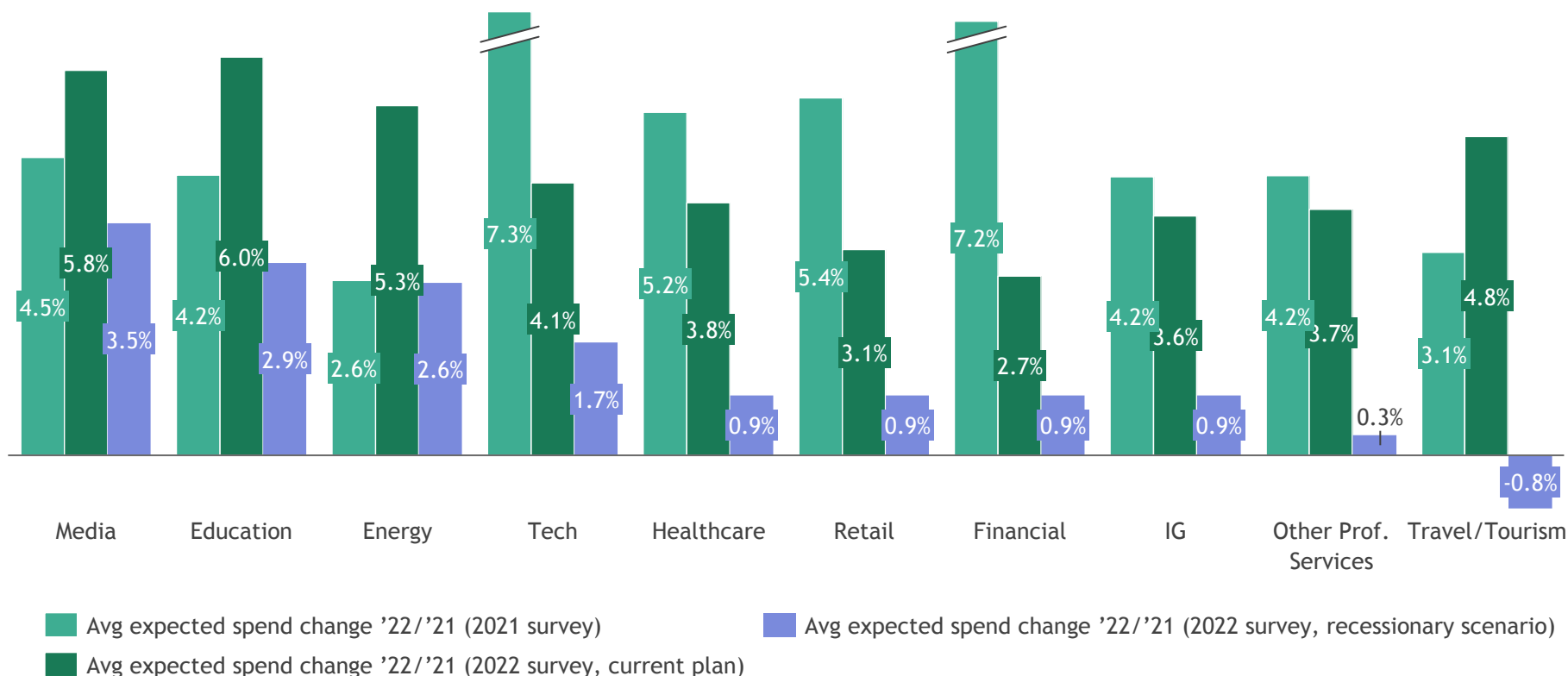
Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

Deep-dive | Signs of slow down in spend across industries as spend estimates see significant in-year corrections compared to previous expectations

How do you expect your company's overall IT spend to change for 2022 vs 2021?

If there was a recession in 2022 / 2023, how do you expect your company's overall IT spend to change for 2022 vs 2021?

Average estimated spend change YOY in %



Current expectations for 2022 average IT spend change are lower than last year's

A future recessionary scenario is likely to further lower 2022 average IT spend change

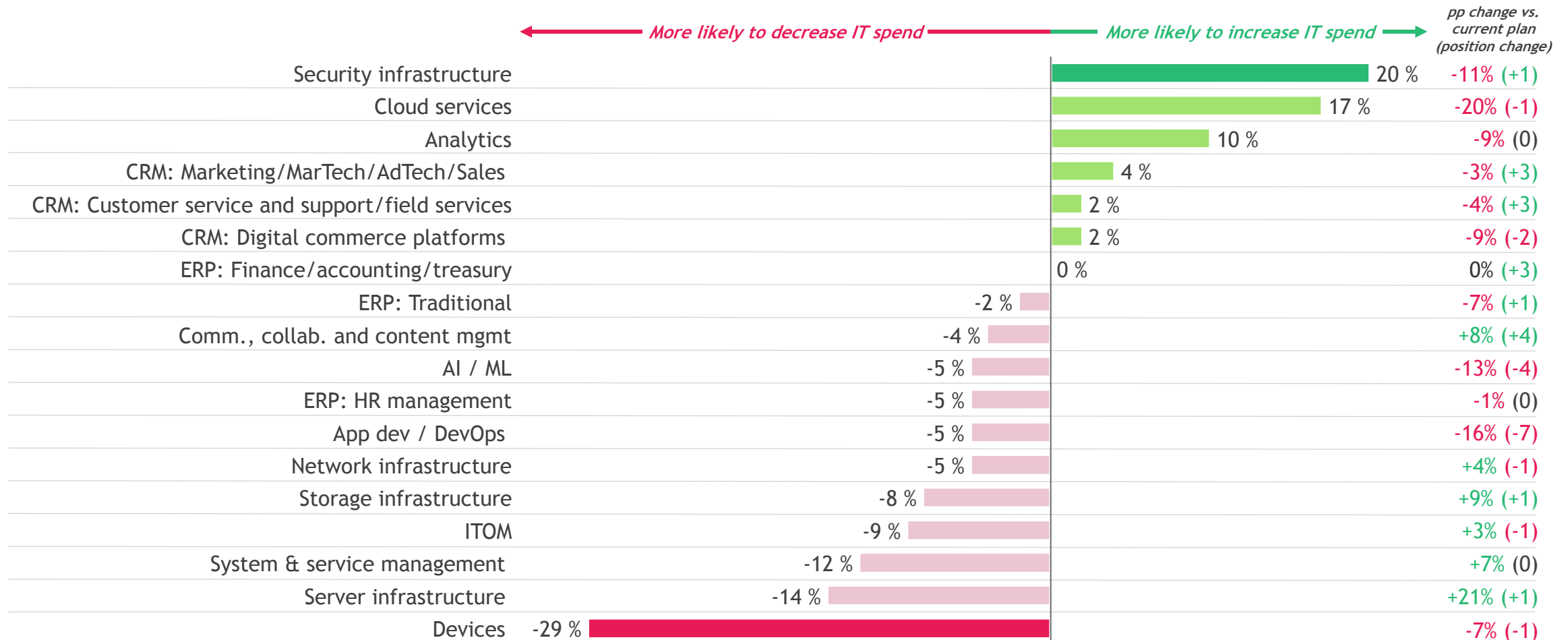
1. Respondents indicated relative amount of spending inc/dec. via multiple choice options, weighted avg. calculated based on the lowest absolute value for the range (e.g., Inc/dec. by 2-5% assigned value of +/- 2%)

Note: Government industry analysis excluded due to small sample size

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341; IT Buyer Pulse Check 3.0 (October 2021), N = 676 (APAC respondents excluded)

In a recessionary scenario, largest spend increases are expected in security infrastructure, cloud services, and analytics

Please select the top 3 products where you expect your company to have the largest spend increases / decreases (in terms of %) if there was recession in 2022 / 2023



1. Percentage is the net respondents increasing spending (percentage calculated by percent of respondents increasing spending minus percent of respondents decreasing spending)

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

Backup | Current spend concentrated in products that deliver business modernization through digital transformation

Industries in order of decreasing average net respondents increasing pricing

| | Media | Travel | Edu. | HC | Tech. | Other prof. | Financial | IG | Retail | Energy |
|----------------------------|-------|--------|------|------|-------|-------------|-----------|------|--------|--------|
| CRM: Customer service | 8% | 13% | 11% | 4% | 0% | 17% | 16% | 0% | 0% | 7% |
| CRM: Digital commerce | 25% | 13% | 11% | 4% | -3% | 22% | 20% | 3% | 33% | 13% |
| CRM: Marketing | 0% | 25% | 11% | 6% | 3% | 4% | 9% | 3% | 12% | 13% |
| ERP: Finance | 8% | -13% | 0% | -8% | 5% | -4% | -2% | 3% | -5% | 27% |
| ERP: HR | -17% | -25% | -11% | -10% | 0% | 4% | 2% | -5% | -5% | -13% |
| ERP: Traditional | -8% | 0% | 22% | 0% | -8% | -4% | -5% | 30% | 12% | 7% |
| Comm., collab. and content | 0% | -13% | -22% | -8% | -16% | -4% | -13% | -15% | -12% | -20% |
| ITOM | -8% | -13% | 0% | -6% | -13% | -26% | -13% | -10% | -21% | -7% |
| App dev / DevOps | 17% | -13% | -22% | 4% | 20% | 22% | 18% | 5% | 16% | 0% |
| AI / ML | 0% | 13% | -22% | 8% | 21% | 13% | 13% | 3% | -5% | 0% |
| Analytics | 50% | 38% | 0% | 25% | 15% | 17% | 13% | 21% | 26% | 0% |
| System & service mgmt. | -17% | -50% | -22% | -6% | -18% | -35% | -27% | -15% | -19% | -13% |
| Cloud services | 33% | 75% | 44% | 13% | 51% | 35% | 57% | 26% | 35% | 27% |
| Security infrastructure | 33% | 50% | 44% | 25% | 34% | 26% | 27% | 44% | 23% | 13% |
| Storage infrastructure | -33% | -13% | -22% | -6% | -21% | -17% | -14% | -20% | -21% | 0% |
| Network infrastructure | 0% | -13% | 22% | 0% | -11% | -13% | -18% | -10% | -12% | 0% |
| Server infrastructure | -58% | -38% | 11% | -21% | -30% | -26% | -52% | -41% | -42% | -20% |
| Devices | -17% | -25% | -44% | -15% | -20% | -26% | -27% | -23% | -16% | -33% |

1. Percentage is the net respondents increasing spending (percentage calculated by percent of respondents increasing spending minus percent of respondents decreasing spending)

Note: Government industry analysis excluded due to small sample size

Question: Please select the top 3 products where you expect your company to have the largest spend increases / decreases (in terms of %) over the next 12 months.

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

Backup | In recessionary scenario, industries seem reluctant to cut cloud services and security spend

Industries in order of decreasing average net respondents increasing pricing

| | Energy | Retail | HC | Edu. | Tech. | Other prof. | Media | Travel | Financial | IG |
|----------------------------|--------|--------|------|------|-------|-------------|-------|--------|-----------|------|
| CRM: Customer service | -20% | 0% | 8% | 11% | 10% | 4% | 0% | 0% | 2% | -3% |
| CRM: Digital commerce | -13% | 0% | -6% | -11% | 7% | 13% | 8% | 25% | -5% | 8% |
| CRM: Marketing | -20% | 14% | 0% | 0% | 2% | 9% | 33% | 0% | 0% | 3% |
| ERP: Finance | 7% | -7% | 12% | 22% | 5% | 4% | -17% | -38% | -5% | -5% |
| ERP: HR | -20% | 2% | 4% | 0% | -8% | -4% | -8% | -25% | -7% | -3% |
| ERP: Traditional | 0% | -2% | 4% | 0% | -7% | 0% | -25% | 0% | -4% | 0% |
| Comm., collab. and content | -13% | -2% | 10% | 0% | -5% | 0% | 0% | -38% | -9% | -5% |
| ITOM | 0% | -23% | 0% | -11% | -2% | -17% | -17% | -25% | -5% | -10% |
| App dev / DevOps | 13% | -9% | -10% | 0% | 11% | -13% | 8% | 0% | -11% | -15% |
| AI / ML | -7% | -5% | -8% | -11% | -3% | -9% | 17% | 13% | -2% | -8% |
| Analytics | 7% | 23% | 6% | -11% | 0% | 4% | 42% | 0% | 16% | 10% |
| System & service mgmt. | -20% | -16% | -17% | 11% | -16% | -9% | -25% | 0% | -9% | -7% |
| Cloud services | 33% | 19% | 4% | 11% | 23% | 0% | 8% | 63% | 21% | 15% |
| Security infrastructure | 33% | 30% | 15% | -11% | 20% | 22% | 0% | 50% | 16% | 23% |
| Storage infrastructure | 0% | -9% | -12% | -11% | -3% | -17% | -8% | 0% | -9% | -5% |
| Network infrastructure | 27% | -7% | -6% | -11% | -7% | 0% | -8% | -38% | -5% | -7% |
| Server infrastructure | 13% | -12% | -17% | 11% | -25% | -9% | -8% | -13% | -13% | -18% |
| Devices | -33% | -23% | -17% | -22% | -36% | -17% | -50% | -25% | -32% | -36% |

1. Percentage is the net respondents increasing spending (percentage calculated by percent of respondents increasing spending minus percent of respondents decreasing spending)

Note: Government industry analysis excluded due to small sample size

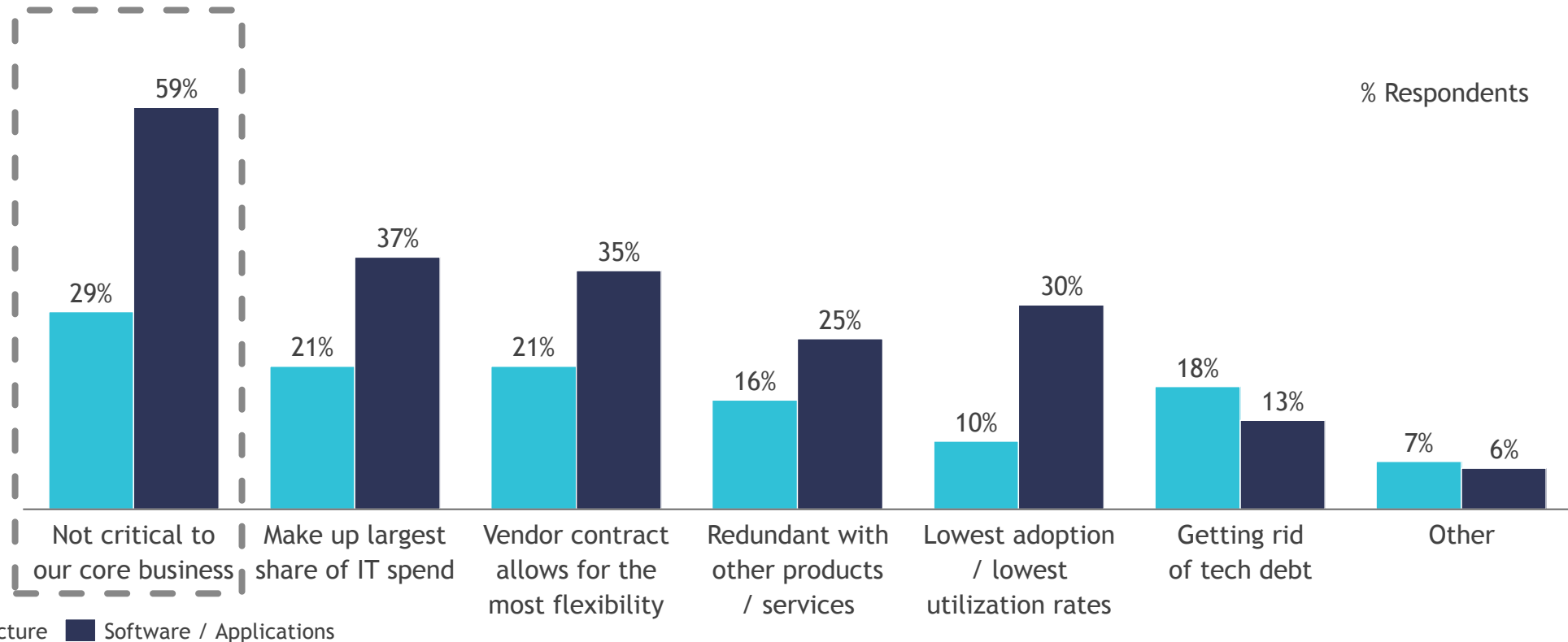
Question: Please select the top 3 products where you expect your company to have the largest spend increases / decreases (in terms of %) if there was recession in 2022 / 2023.

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

Deep-dive | Products with less connection to the core business more likely to get cut in a recession

Why are these products driving most of the decrease in your IT spend?

Only asked for the top 3 products where respondents expect their company to have the largest spend decreases (in terms of %), if there was recession in 2022 / 2023



Note: Respondents were asked to specify if they selected "Other"; responses include less relevance in the market, product usage can be paused without too much impact, delayed implementation, delayed investment, delayed hardware refresh, and increased efficiencies

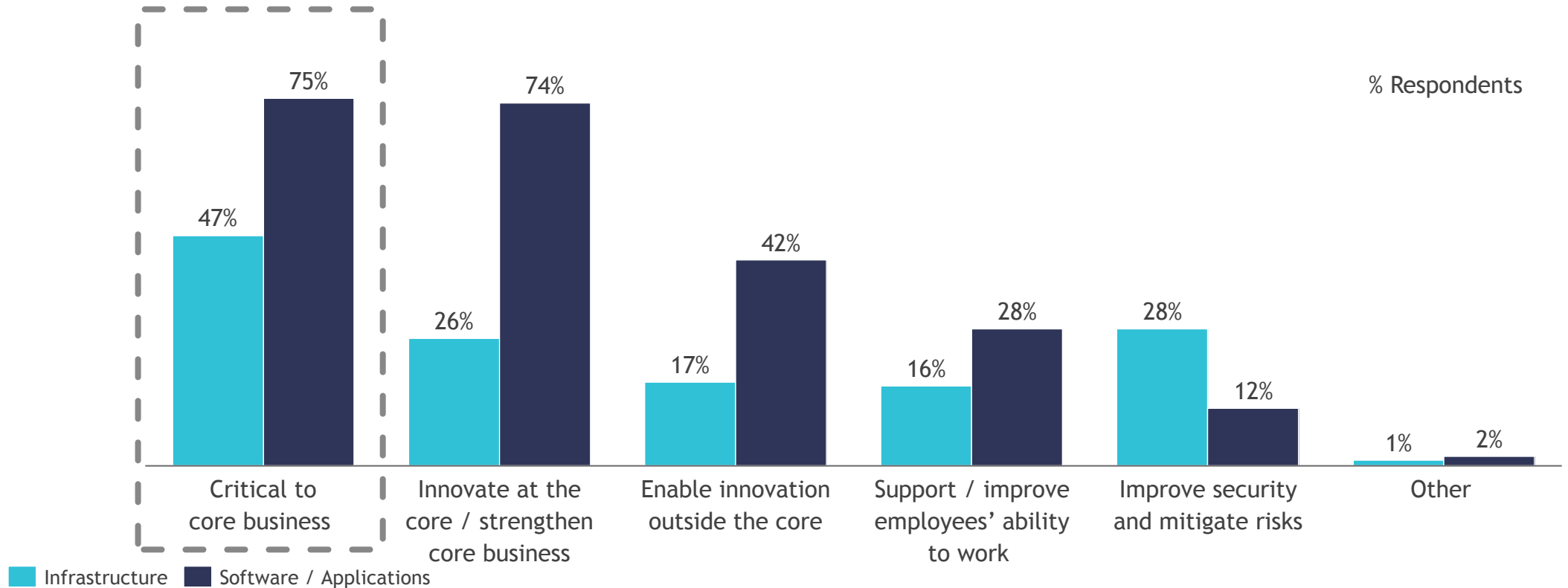
Respondents can be double-counted for each answer option if they chose to decrease spend in both software and infrastructure

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

Deep-dive | Increases in IT spend driven primarily by products strengthening the core business

Why are these products driving most of the increase in your IT spend?

Only asked for the top 3 products where respondents expect their company to have the largest spend increases (in terms of %), if there was recession in 2022 / 2023

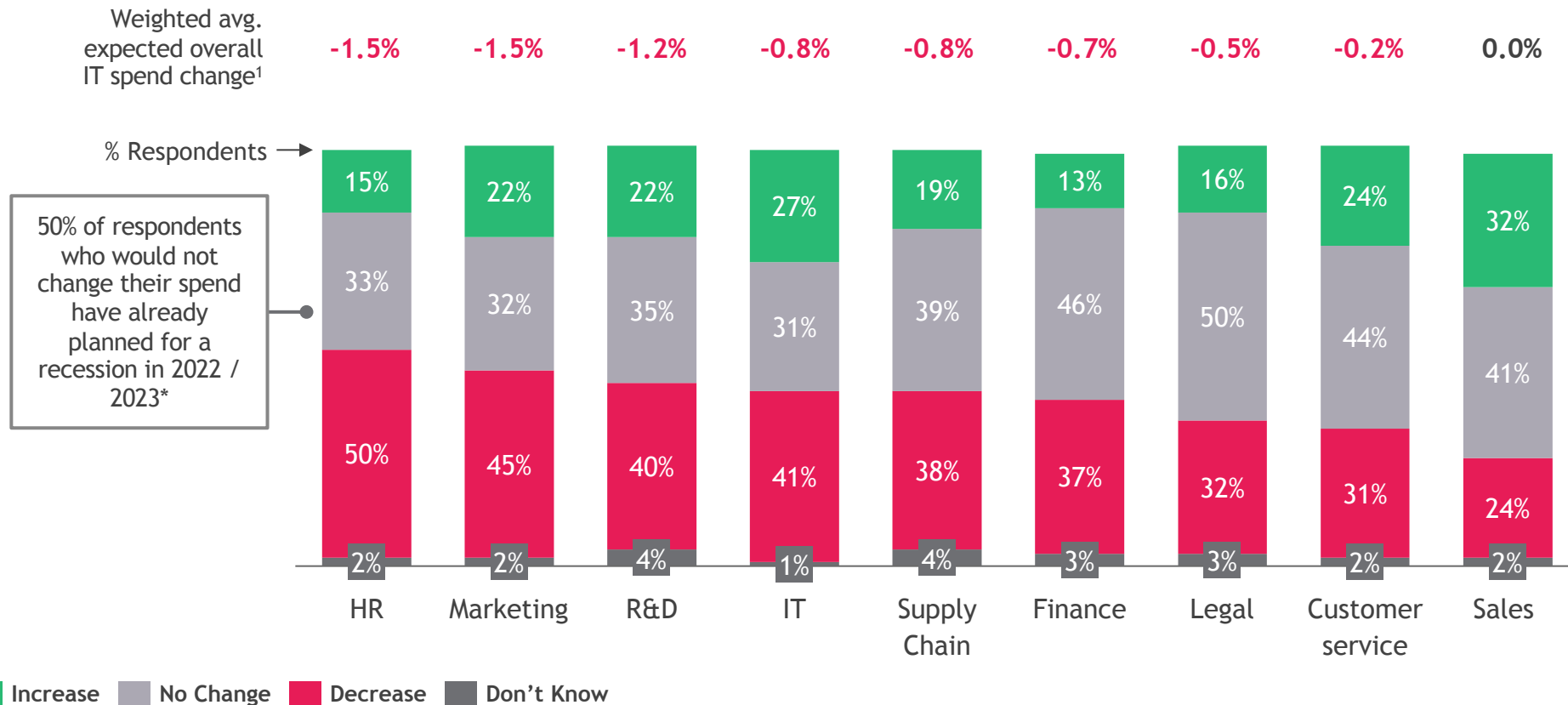


Note: Respondents were asked to specify if they selected "Other"; responses include moving to a new vendor, having to hire more experienced personnel, and requiring elastic compute. Respondents can be double-counted for each answer option if they chose to decrease spend in both software and infrastructure.

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

In recessionary scenario, HR and Marketing software most likely to see cuts

If there was a recession in 2022 / 2023, how would your company's software / applications spend change for each of the following departments?

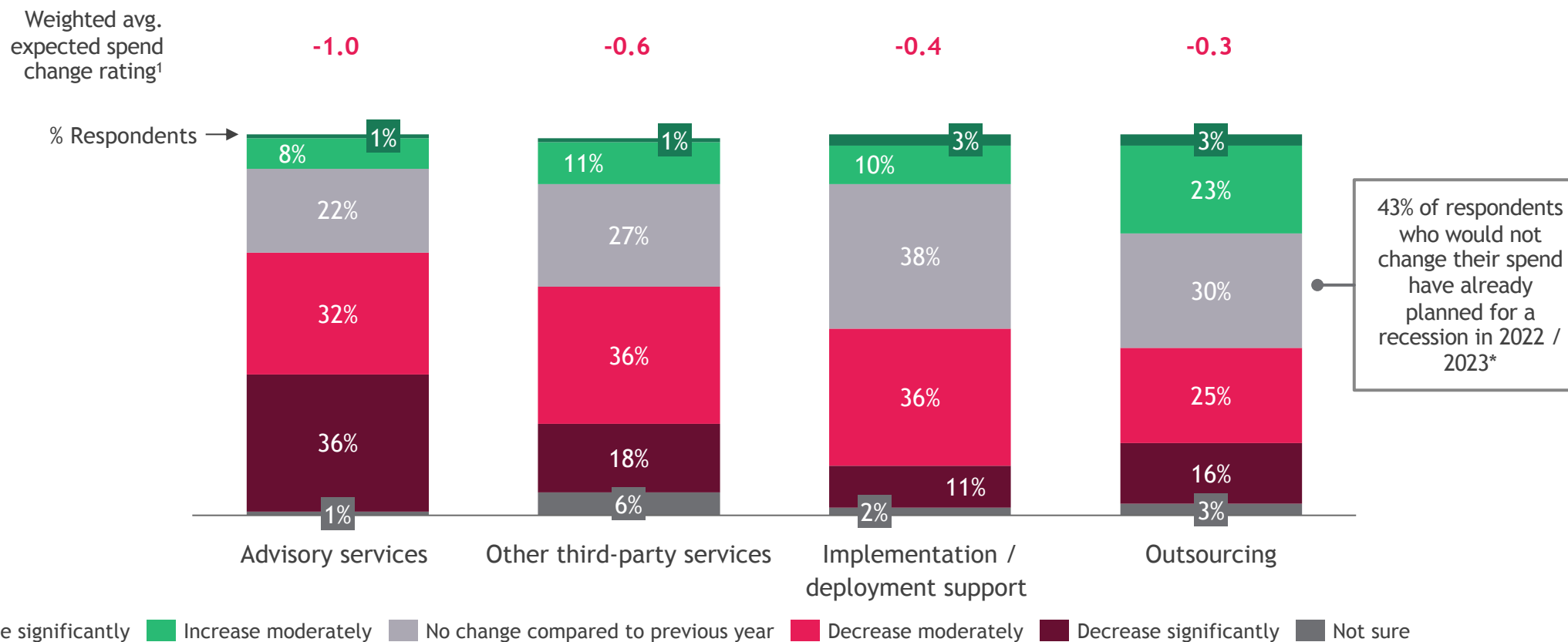


1. Respondents indicated relative amount of spending inc/dec. via multiple choice options, weighted avg. calculated based on the lowest absolute value for the range (e.g., Inc/dec. by 2-5% assigned value of +/- 2%)

*Remaining respondents do not believe a recession would impact their industry or company. Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

Third party services that are more integrated and working on core topics are less likely to be cut

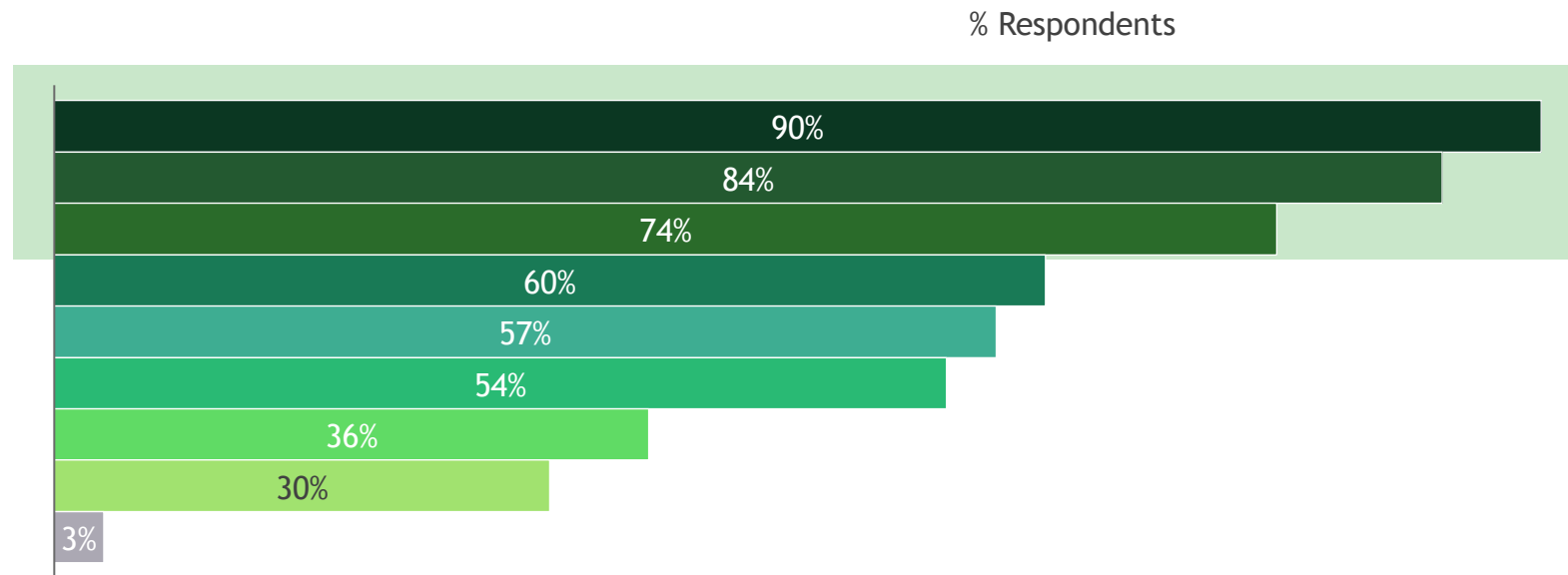
If there was a recession in 2022 / 2023, how would your company's IT spend from third-party services change?



1. Weighted avg. calculated based on the numerical value associated with each answer (e.g., Increase significantly = 2 and Decrease significantly = -2)
 *Remaining respondents do not believe a recession would impact their industry or company. Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

Buyers are likely to utilize license rationalization as their go-to action to cut software spend

In a recessionary scenario, what measures do you expect your company to take to reduce software / applications spend? Select all that apply.
Only asked for the top 3 software products where respondents expect their company to have the largest spend decreases (in terms of %), if there was recession in 2022 / 2023



Buyers expect to deploy a wide set of measures, with a focus on license rationalization, requesting discounts, and contract flexibility

- Rationalize the number of licenses or seats
- Switching to cheaper alternatives
- Moving from subscription-based to consumption-based pricing models
- Asking suppliers for discounts
- Stopping the use of certain products / services altogether
- Consolidating onto a single vendor / buying a suite of products
- Negotiating flexibility on contract terms
- Decrease consumption of consumption based software products
- Other

Note: Respondents were asked to specify if they selected "Other"; responses include building in-house solutions, delaying investments / implementation, decreasing or stopping development
 Respondents are double-counted for each answer option as multi-select was allowed
 Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

How would a recession in 2022 / 2023 impact your company's current major IT spend priorities / minor IT spend priorities / non-priority initiatives?

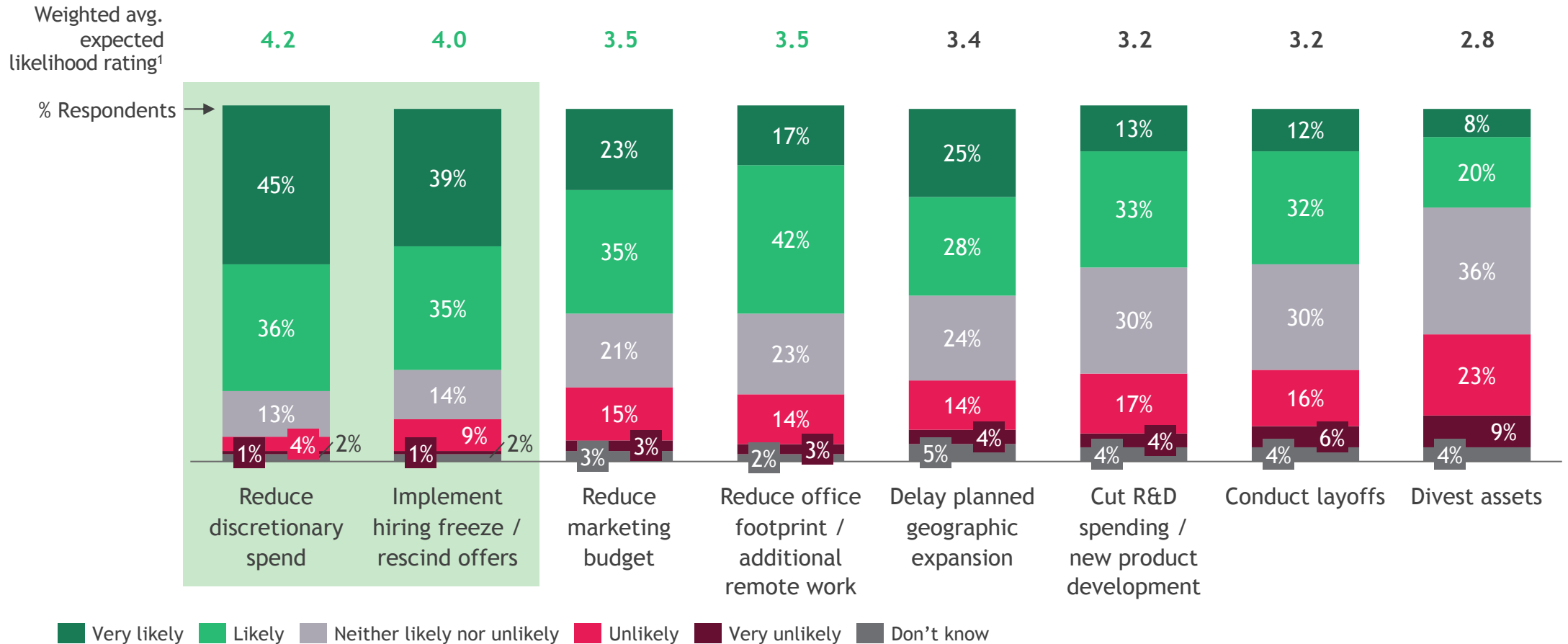
Efficient growth: in a recessionary scenario, cost management initiatives see most acceleration, but revenue growth initiatives stay important to sustain top-line

| | Major Priority | Minor Priority | Non-Priority |
|---------------------------------|----------------|----------------|--------------|
| Cost Management Initiatives | ↑ | ↑ | ↑ |
| Revenue Growth Initiatives | ↑ | ↑ | → |
| Strategic Advantage Initiatives | → | → | ↓ |
| Risk Management Initiatives | → | ↓ | ↓ |
| Business Operations Initiatives | ↓ | ↓ | ↓ |

↑ Accelerate initiatives ↓ Pause or delay initiatives → No change to initiatives

Deep-dive | In recessionary scenarios, companies likely to first cut discretionary spend and freeze hiring

If there was a recession in 2022 / 2023, how likely is your company to implement any of the following measures?



1. Weighted avg. calculated based on the numerical value associated with each likelihood (e.g., 5 - Very likely and 1 - Very unlikely)
 Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

An aerial photograph of a port area. In the center, a large white container ship is docked. The deck of the ship is visible, showing several stacks of colorful intermodal containers in shades of red, green, blue, and white. Four large gantry cranes, with blue metal frames and orange vertical supports, are positioned along the length of the ship. The cranes are currently in a retracted position. The water of the harbor is visible at the bottom of the frame, and a small tugboat can be seen near the ship's stern. The overall scene is captured from a high angle, looking down at the ship and its equipment.

Supply Chain Constraints

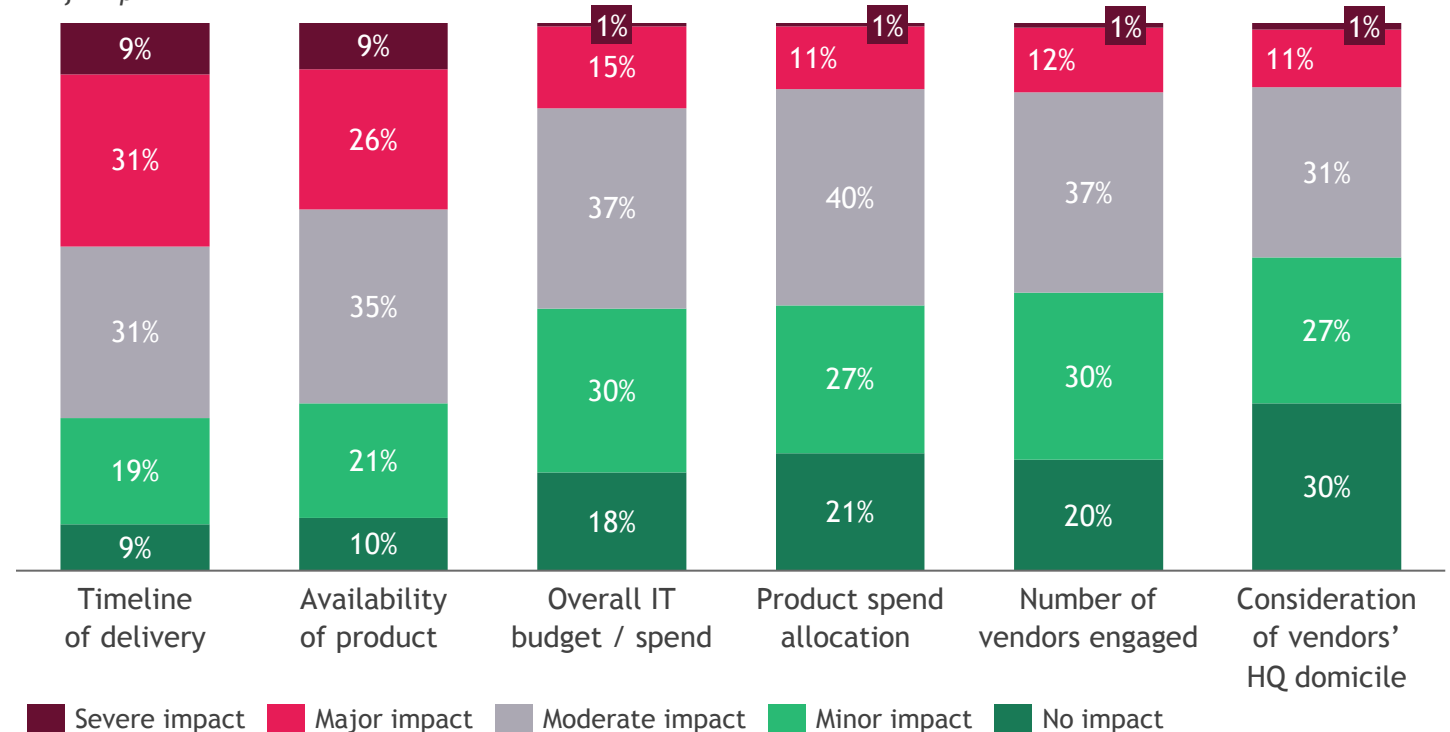
Supply chain constraints continue to impact IT purchasing, especially with respect to the timeline of delivery and availability of product

Only ~23 %

of IT buyers believe supply chain constraints continue to have a significant impact¹ on their IT purchasing decisions

... however, delivery timelines and availability of product remain an issue for some buyers

% of respondents



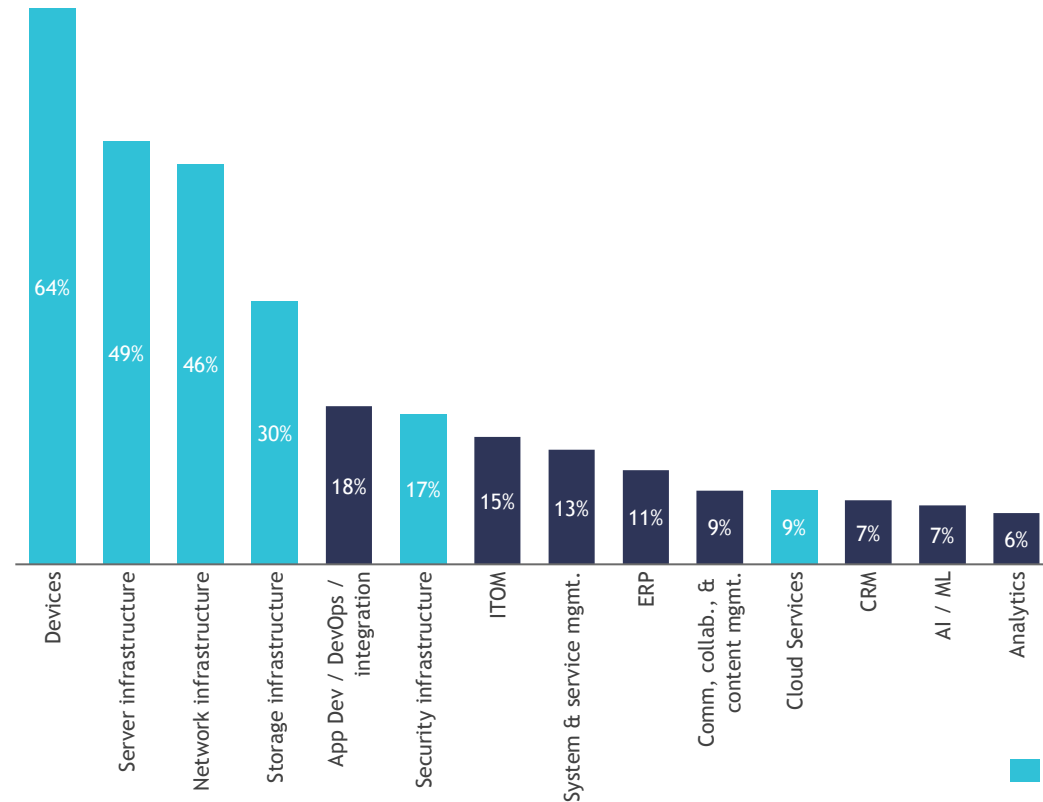
1. Respondents who responded with Major or Severe Impact

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341; Question: On a scale of 1-5, how concerned are you about continued supply chain constraints in IT negatively impacting your company? How do continued supply chain constraints impact your company's IT purchasing?

Backup | Infrastructure products, especially hardware disproportionately affected by supply chain constraints

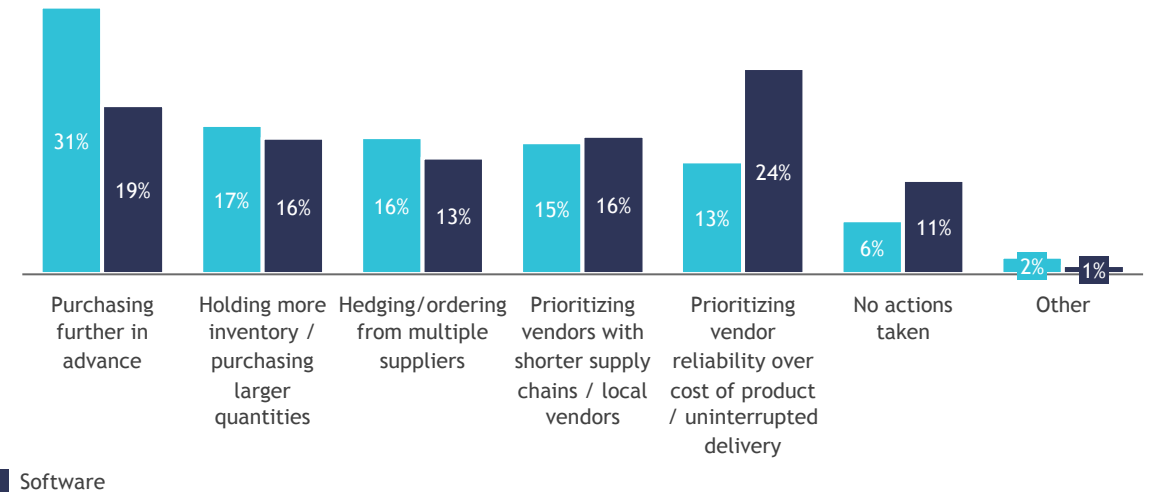
Hardware Products most affected by supply chain constraints

% of respondents



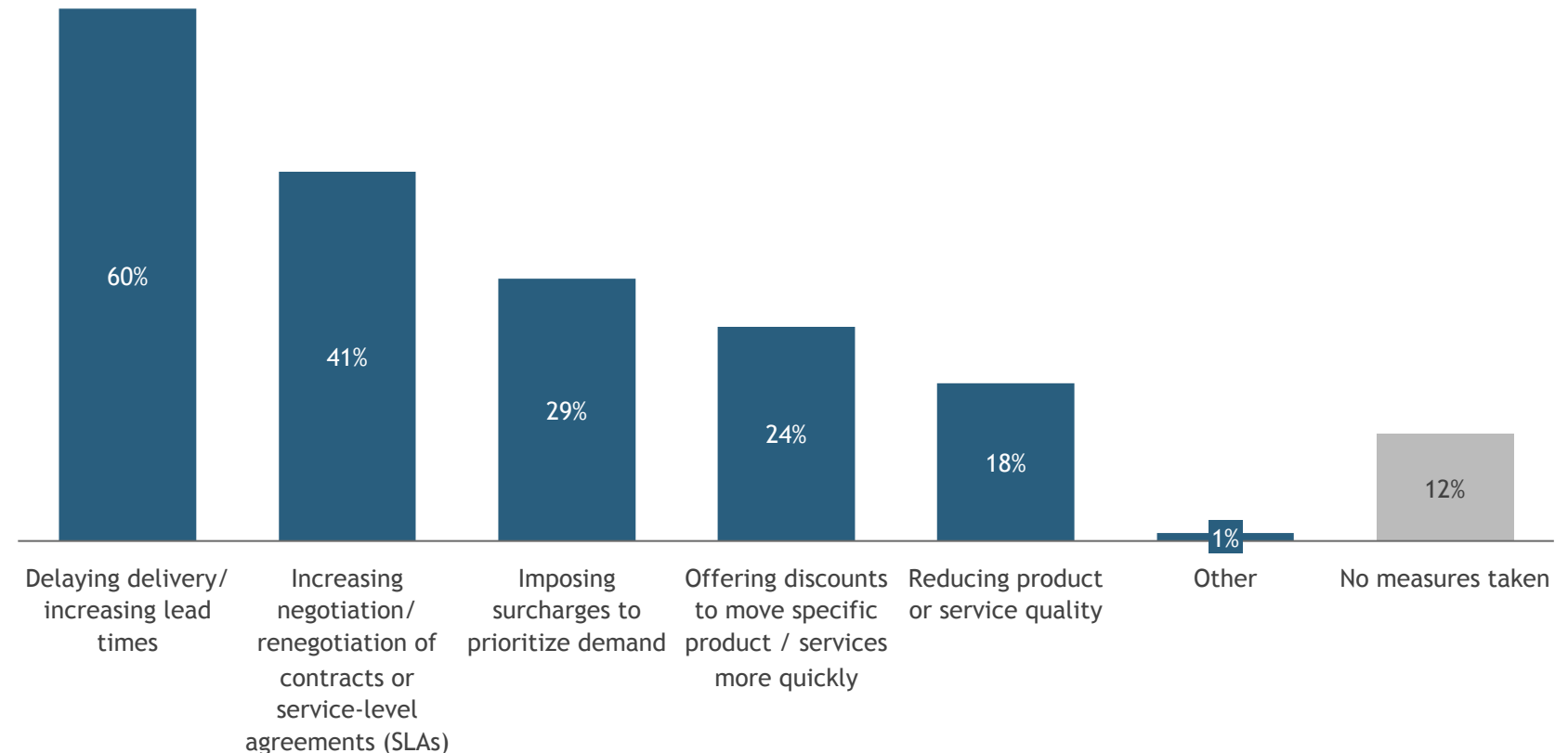
Advance purchasing primary risk mitigation for buyers in Infra, while vendor reliability key for software

% of respondents



Majority of buyers reported their IT suppliers have delayed delivery and/or increased lead time

What measures, if any, have your suppliers taken to address recent supply chain disruptions?



Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

~60%

of IT buyers see their suppliers deploy two or more measures to combat rising inflation

Delayed deliveries and renegotiation of contracts and SLAs seen as most common mitigation measures from suppliers

Buyers expect overall inflation as well as suppliers' prices to continue their upward trend

Majority of IT suppliers have already raised their prices

~ 83%

of IT buyers state that many or almost all suppliers have increased their prices in the last 12 months

Buyers anticipate further increases from suppliers ...

~ 81%

of IT buyers anticipate more or almost all their suppliers to increase prices over the next 12 months

... as inflation is expected to rise even above current levels

~ 51%

of IT buyers expect inflation to rise further above current levels

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Appendix

~340 NAMR and European respondents from mid-size and large companies across a broad range of verticals

| Industry ¹ | Company revenue ² | Functional role ³ | Title ³ | Primary base operations ³ |
|---|---|---|---|---|
|  |  |  |  |  |
| IG 61 | >\$50B 25 | IT/Digital/Data 241 | President/Owner/C-Suite 141 | North America 188 |
| Tech 61 | >\$10B to \$50B 68 | Owner/president 66 | EVP/SVP 71 | Europe 153 |
| Financial 56 | >\$5.0B to \$10B 42 | Supply chain/operations 18 | VP/GM 79 | |
| Healthcare 52 | >\$1.0B to \$5.0B 106 | Sales/marketing 8 | Director/Sr. Director 50 | |
| Retail 43 | >\$500M to \$1.0B 36 | Finance/accounting 7 | | |
| Other prof. services 23 | >\$100M to \$500M 64 | HR/talent/people 1 | | |
| Energy 15 | | | | |
| Media 12 | | | | |
| Education 9 | | | | |
| Travel/tourism 8 | | | | |
| Government 1 | | | | |

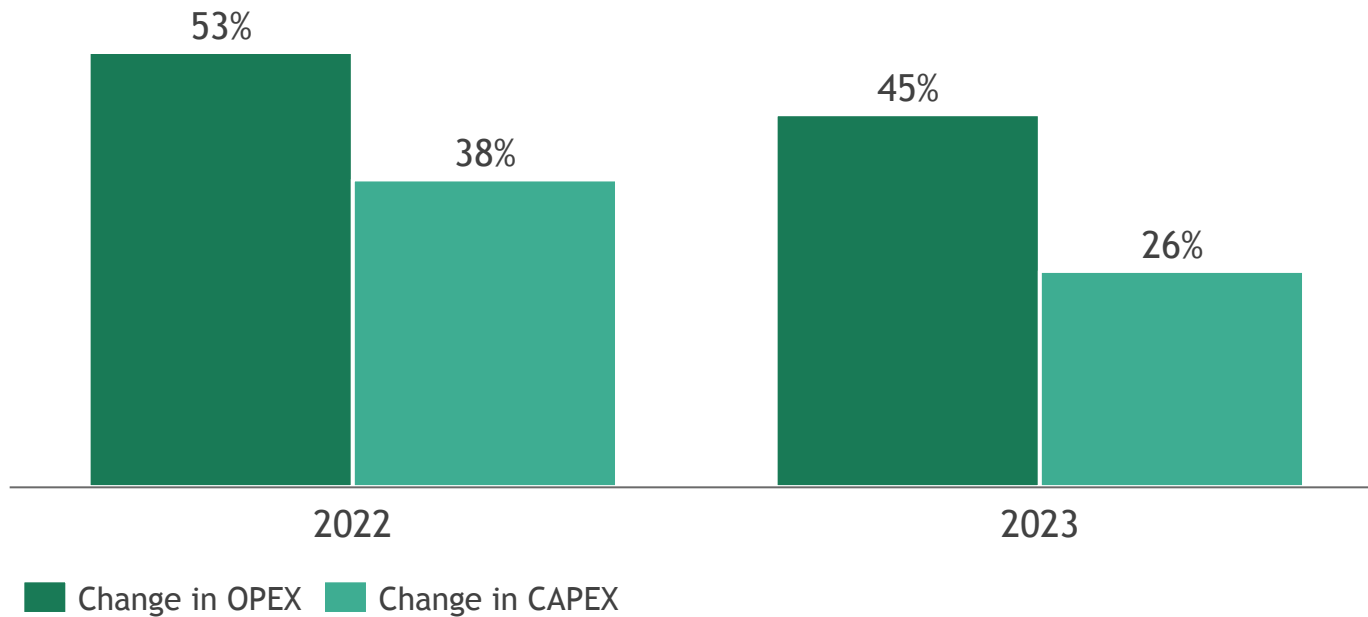
1. In which industry does your current company primarily operate? 2. To the best of your ability, please estimate your company's full fiscal year 2021 revenue in USD 3. Which function best describes your department or functional role at your company? 4. What of the following best describes your current level at your company? 5. In what country does your current company base its primary operations?

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

Backup | Both OpEx and CapEx expected to see positive increases YoY, no clear strategic or opportunistic shift to be identified

How has your company's OpEx vs. CapEx changed for 2022 vs. 2021? How do you expect your company's OpEx vs. CapEx to change in 2023 vs. 2022?

OPEX and CAPEX Net Increase¹ for 2022 and 2023



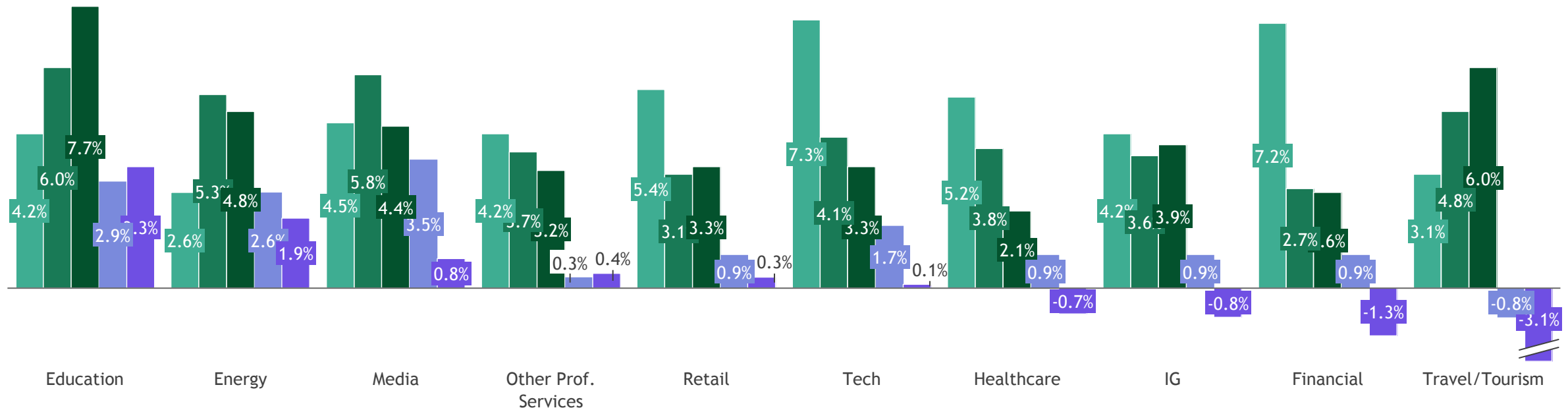
1. Net increase = (# of respondents who expect an increase - # of respondents who expect a decrease) / total number of respondents
Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341

Deep-dive | Signs of slow down in spend across industries as spend estimates see significant in-year corrections compared to previous expectations

How do you expect your company's overall IT spend to change for 2022 vs 2021 and for 2023 vs 2022?

If there was a recession in 2022 / 2023, how do you expect your company's overall IT spend to change for 2022 vs 2021 and for 2023 vs 2022?

Average estimated spend change YOY in %



- Avg expected spend change '22/'21 (2021 survey)
- Avg expected spend change '22/'21 (2022 survey, current plan)
- Avg expected spend change '22/'21 (2022 survey, recessionary scenario)
- Avg expected spend change '23/'22 (2022 survey, recessionary scenario)
- Avg expected spend change '23/'22 (2022 survey, current plan)

1. Respondents indicated relative amount of spending inc./dec. via multiple choice options, weighted avg. calculated based on the lowest absolute value for the range (e.g., Inc/dec. by 2-5% assigned value of +/- 2%)

Note: Government industry analysis excluded due to small sample size

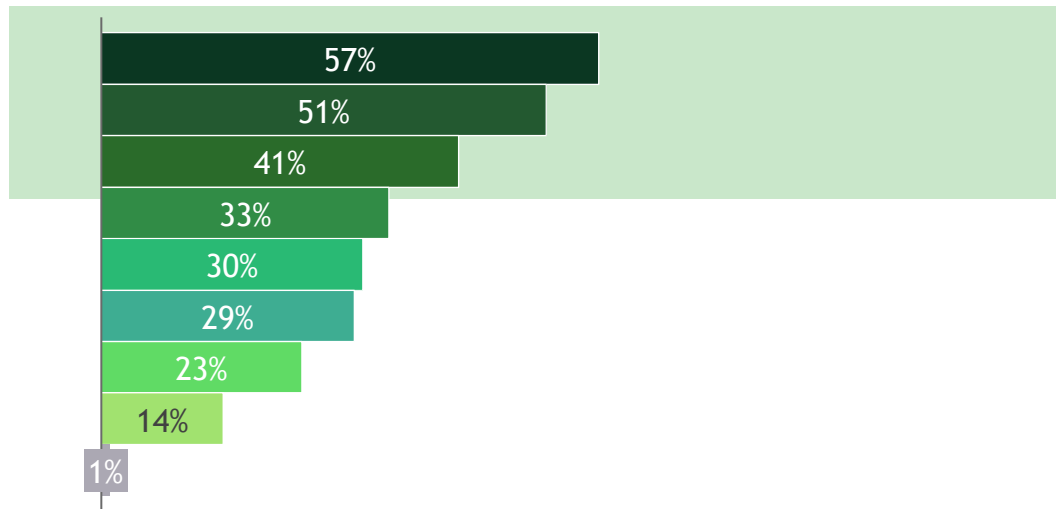
Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341; IT Buyer Pulse Check 3.0 (Oct- Nov 2021), N = 676 (APAC respondents excluded)

Backup | At the onset of COVID, many buyers sought to negotiate contract flexibility; today, license rationalization is go-to action to cut software spend

COVID Onset

In March/April 2020, what measures did your company take to reduce software / applications spend? Select all that apply.

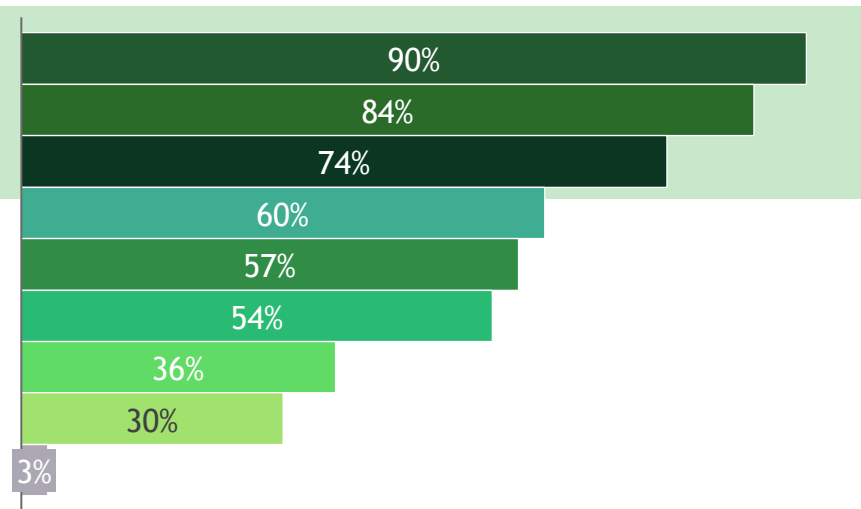
% Respondents



Recessionary Scenario 2022/2023

In a recessionary scenario, what measures do you expect your company to take to reduce software / applications spend? Select all that apply.

% Respondents



Overall, top 3 measures in both scenarios similar but in COVID focus was more on contract flexibility vs license rationalization today

Today, buyers also deploy a wider set of measures

- Negotiating flexibility on contract terms
- Stopping the use of certain products / services altogether
- Moving from subscription-based to consumption-based pricing models
- Rationalize the number of licenses or seats
- Decrease consumption of consumption based software products
- Consolidating onto a single vendor / buying a suite of products
- Asking suppliers for discounts
- Switching to cheaper alternatives
- Other (please specify)

Note: Respondents were asked to specify if they selected "Other"; responses for COVID include stopping projects and reducing external IT support; responses for recessionary scenario include building in-house solutions, delaying investments / implementation, decreasing or stopping development

Respondents are double-counted for each answer option as multi-select was allowed

Source: IT Buyer Pulse Check 4.0 (July 2022), N = 341



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