Enterprise Strategy Group™ by TechTarget

AI at the Endpoint: The Impact of AI on End Users and Endpoint Devices

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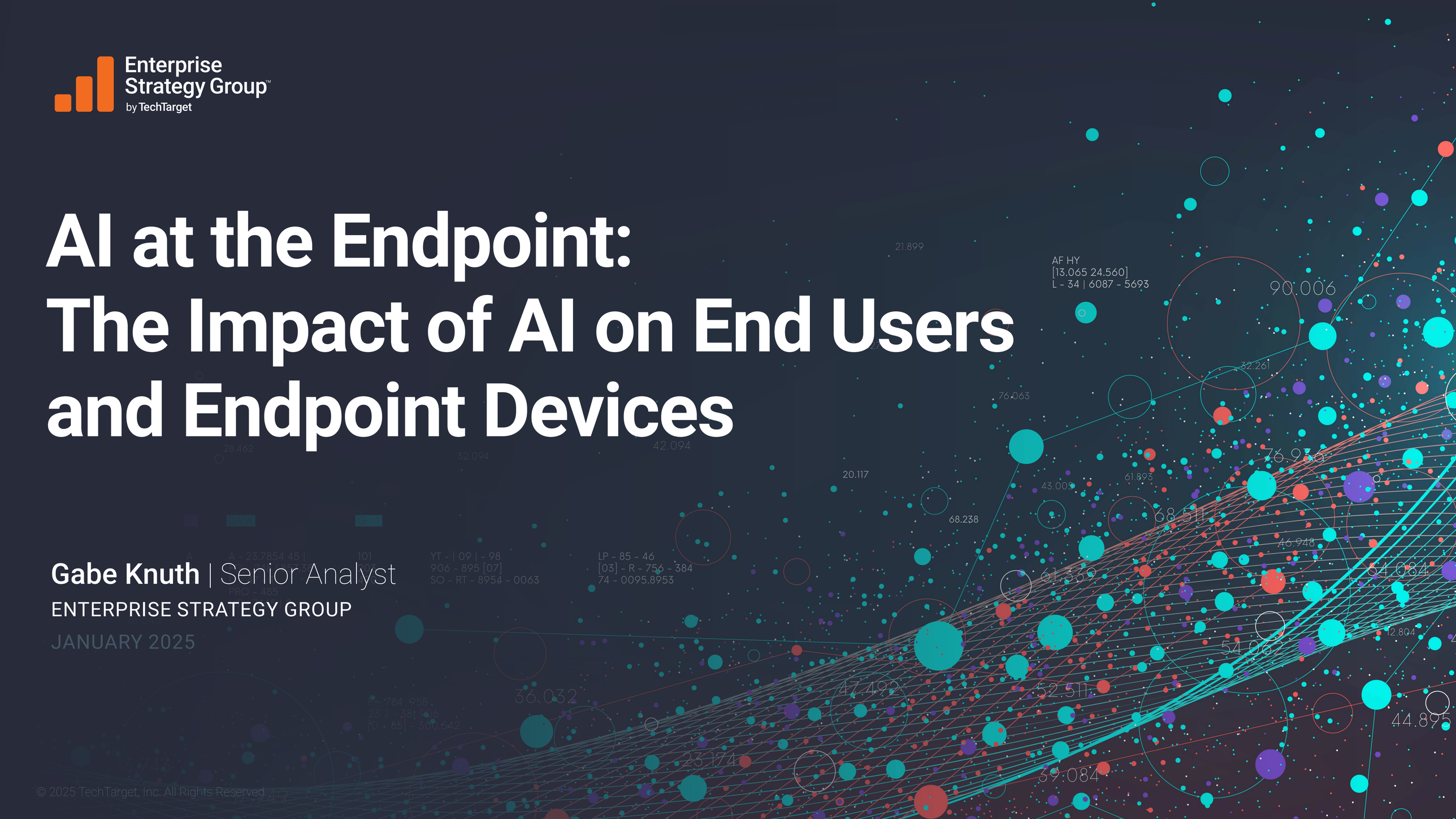


Research Objectives

As AI adoption accelerates, organizations are evaluating how AI-driven workloads impact end-user support, digital workspaces, and endpoint strategies. While AI PCs introduce new possibilities for local AI computing capabilities, their integration into enterprise environments is at an early stage, with practical use cases still emerging. Understanding how businesses align these technologies with IT and business objectives is important for establishing a baseline of expectations, driving adoption, and maximizing their potential.

At the same time, IT and security teams face growing challenges related to "shadow AI"—unsanctioned AI tools used by employees. These tools may enhance individual or team productivity but also introduce security and data governance risks. Organizations must assess the scope of this trend, the potential benefits, and the necessary controls to mitigate risks while supporting innovation.

Additionally, AI PCs are entering the market amid widespread endpoint refresh cycles, driven by both Windows 11 upgrades and post-pandemic hardware replacement. Enterprises must weigh the urgency of AI adoption against other IT priorities, balancing the need to stay competitive with a cautious approach to emerging AI hardware investments.

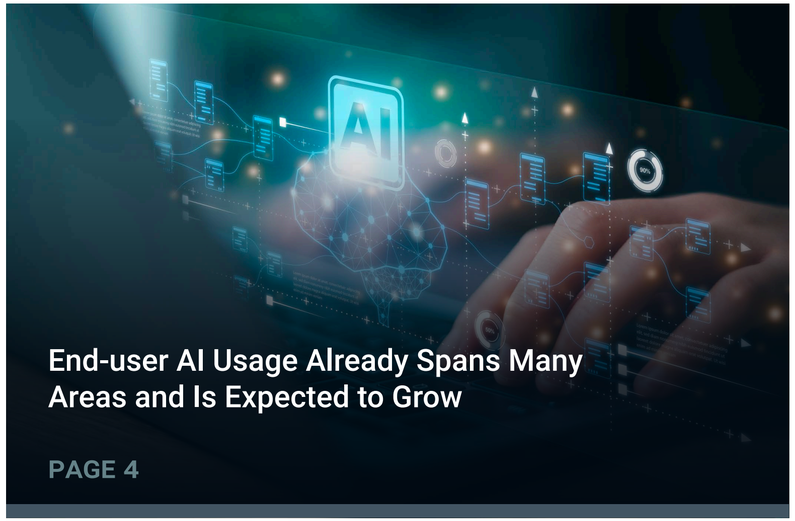
To gain further insights into these trends, TechTarget's Enterprise Strategy Group surveyed 750 business professionals in North America (US and Canada), including 330 IT professionals responsible for their organization's endpoint computing environment who have insight into how AI is impacting these environments, as well as 420 corporate knowledge workers (i.e., end users) who use or will use of AI as part of their daily workflows.

This study sought to:

- **Understand** early adoption plans, successes, use cases, and challenges for PCs with local AI compute capabilities.
- **Determine** the buying teams involved in purchases focused on AI for endpoints and end users (including hardware, software, and services) and how those teams predict their investments will change in the future.
- **Compare** the perception of AI application and service usage among IT teams to the actual usage of corporate knowledge workers to quantify the problem of "shadow AI."
- **Highlight** success metrics and use cases of AI for end users.

Note: Totals in figures and tables throughout this eBook may not add up to 100% due to rounding or organizations choosing more than one answer to select questions.

Key Findings



End-user AI Usage Already Spans Many Areas and Is Expected to Grow

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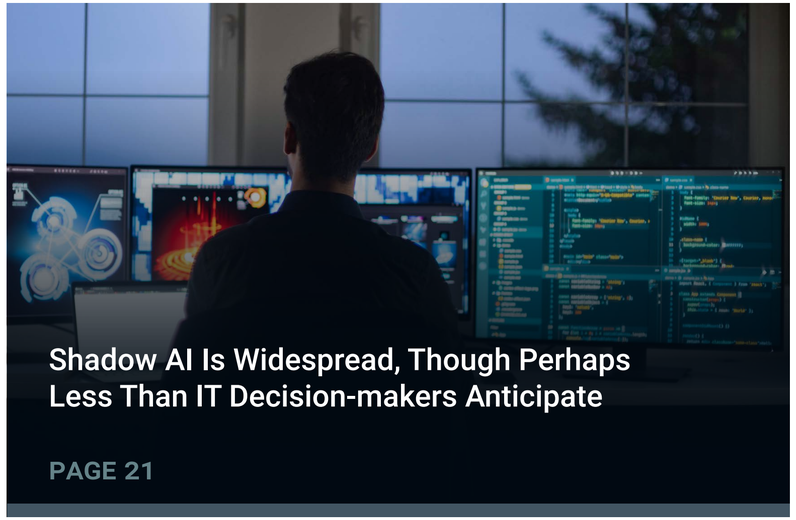

Shadow AI Is Widespread, Though Perhaps Less Than IT Decision-makers Anticipate

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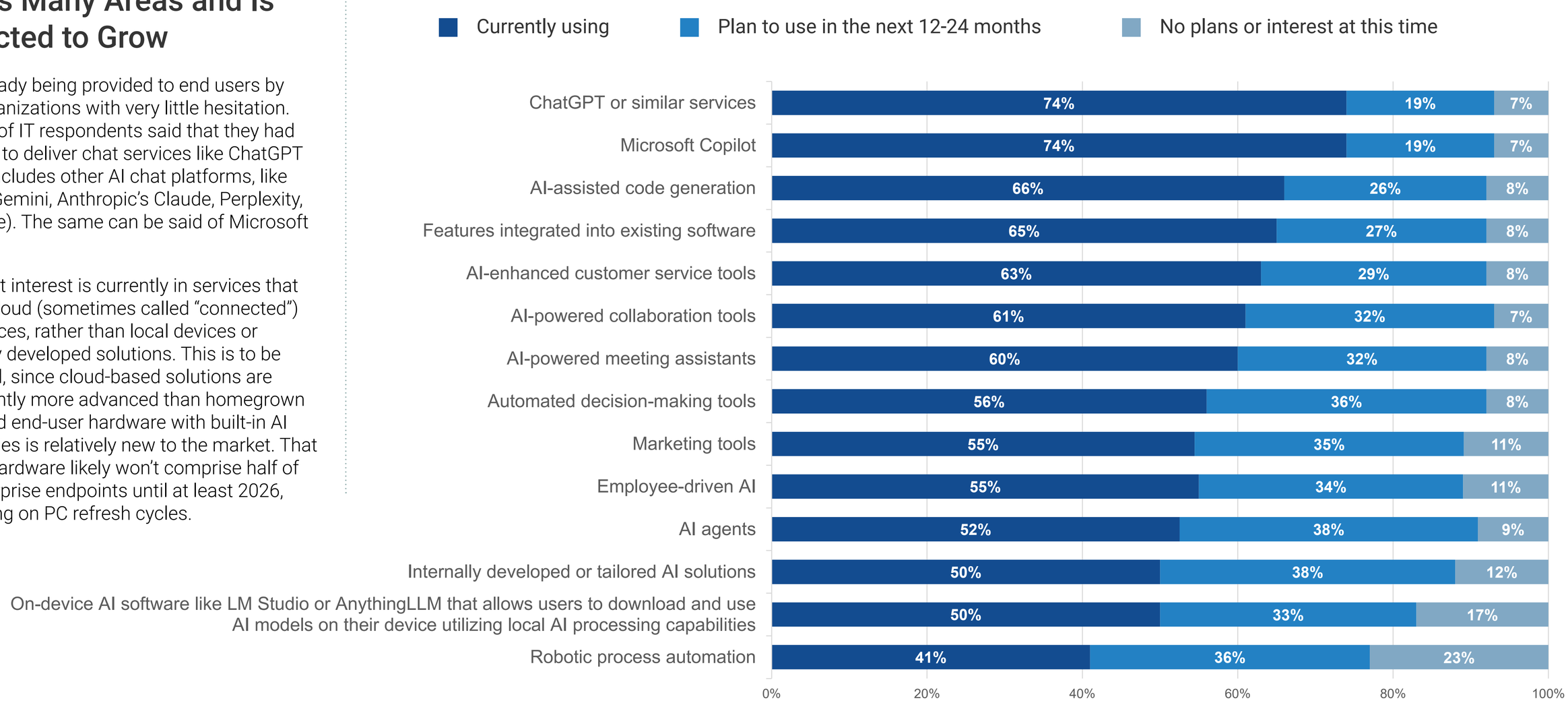
End-user AI Usage Already Spans Many Areas and Is Expected to Grow

End-user AI Usage Already Spans Many Areas and Is Expected to Grow

AI is already being provided to end users by their organizations with very little hesitation. Just 7% of IT respondents said that they had no plans to deliver chat services like ChatGPT (which includes other AI chat platforms, like Google Gemini, Anthropic's Claude, Perplexity, and more). The same can be said of Microsoft Copilot.

The most interest is currently in services that rely on cloud (sometimes called "connected") experiences, rather than local devices or internally developed solutions. This is to be expected, since cloud-based solutions are significantly more advanced than homegrown ones, and end-user hardware with built-in AI capabilities is relatively new to the market. That kind of hardware likely won't comprise half of the enterprise endpoints until at least 2026, depending on PC refresh cycles.

Ways organizations are providing AI tools to end users.



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Areas Positively Impacted by AI Are Widespread

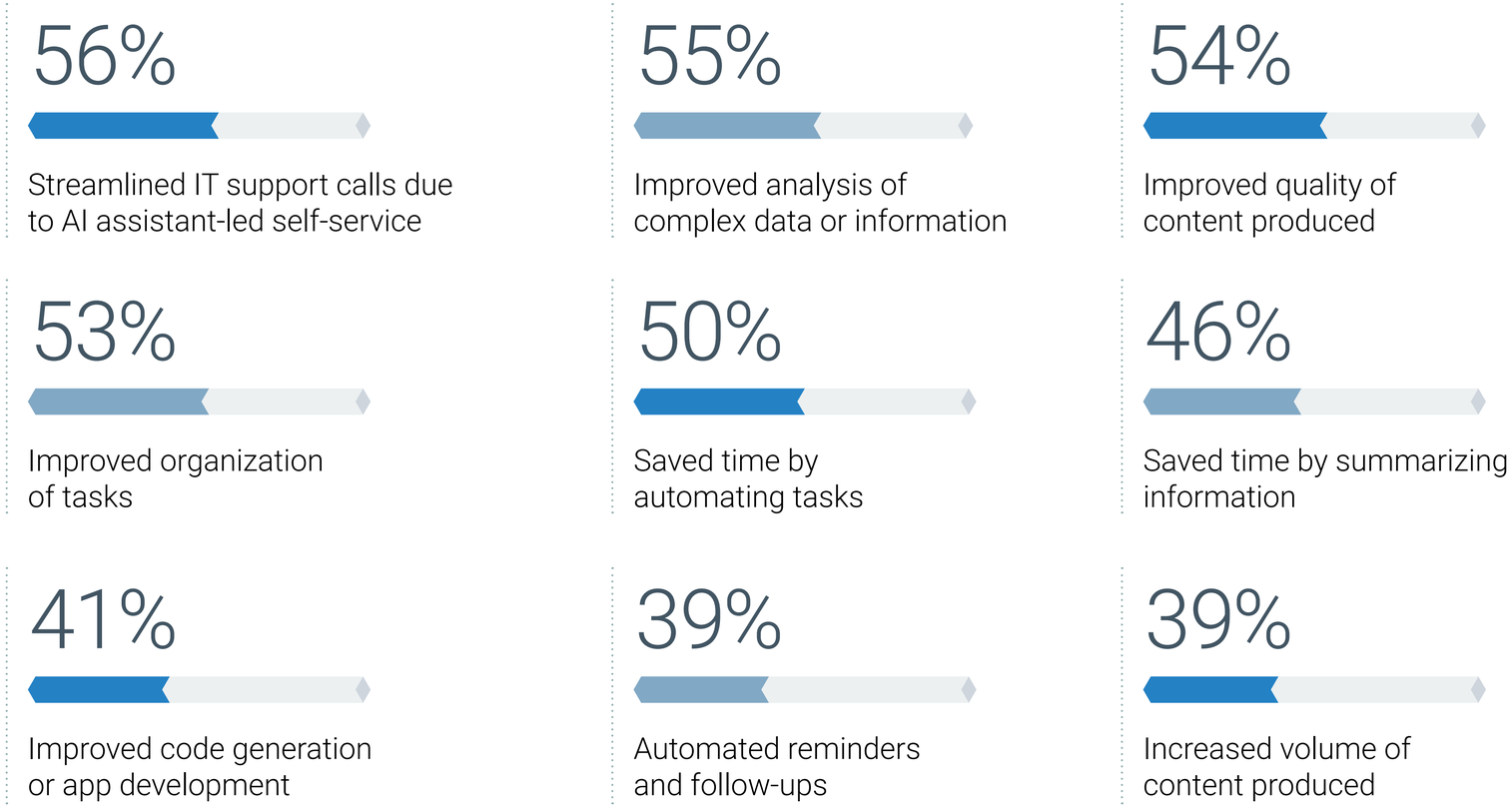
One of the most common areas in which AI is having an early positive impact is IT, where 56% of organizations note streamlined IT support as a result of AI assistant-led self-service. This is great news for several reasons:

- It lightens the load on IT at a time when those teams are tasked with so much and have resources that are spread thin.
- It improves the end-user experience.
- It's a tangible result that's easily quantified and shows improvements in cost or time.

Other benefits also fall under these categories, such as time saved by automating tasks, improved volume of content, and improved code generation.

Others are extremely valuable as well, even if they're harder to quantify, such as improved quality of content, task organization, or automated reminders and follow-ups.

Areas of business in which AI for end users is currently having an impact.



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While the Benefits of AI Are Clear, the Challenges Are Diverse

When asked about the challenges encountered providing AI services to end users, the results generally adhere to one of three categories: security and governance, knowledge and management complexity, and technology and infrastructure.

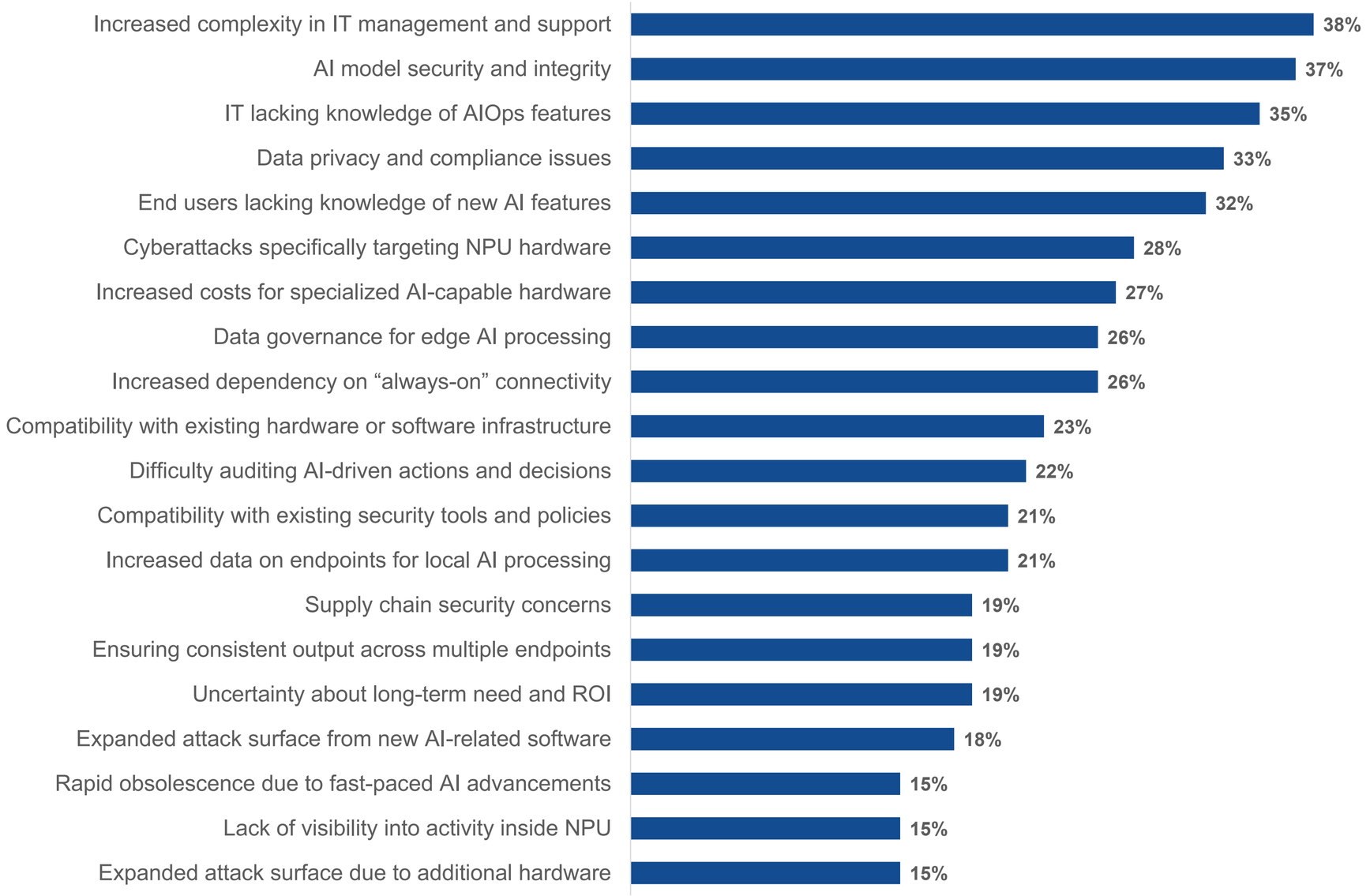
With security and governance, organizations are concerned about AI model security and integrity (37%) and data privacy or compliance issues (33%).

When it comes to knowledge and management complexity, IT professionals are concerned about increased complexity in IT management (38%) and their own lack of AIOps knowledge (35%), not to mention end users lacking knowledge (32%).

Finally, the primary concerns related to technology and infrastructure are common for any new technology: increased costs (27%) and compatibility (23%).

Organizations must seek vendors that can demonstrate how their products, services, or solutions can help ease these concerns through transparency, training, and a clear roadmap.

Challenges encountered due to end users using AI tools.



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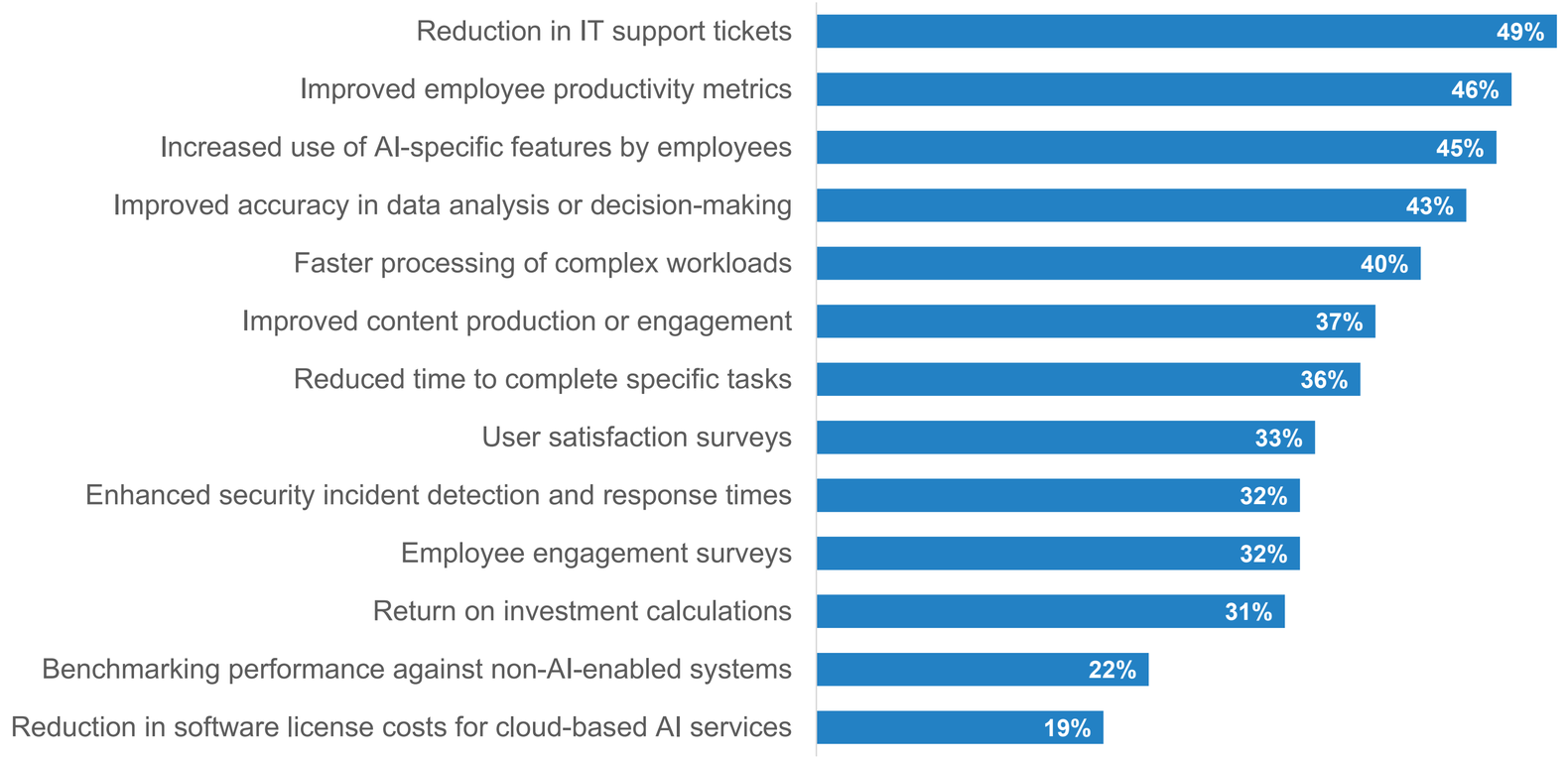
The Path to Success Is Clear

Still, organizations show a clear desire to adopt AI, and many have a plan to measure the success and value of these implementations. In the eyes of IT decision-makers, valuable AI products and services will bolster organizations' efforts to achieve goals around reducing IT support tickets, increasing employee productivity, improving the accuracy of data analysis and decision-making, and boosting content production, among other metrics and measurements.

Metrics used to measure the success and/or value of AI tools.



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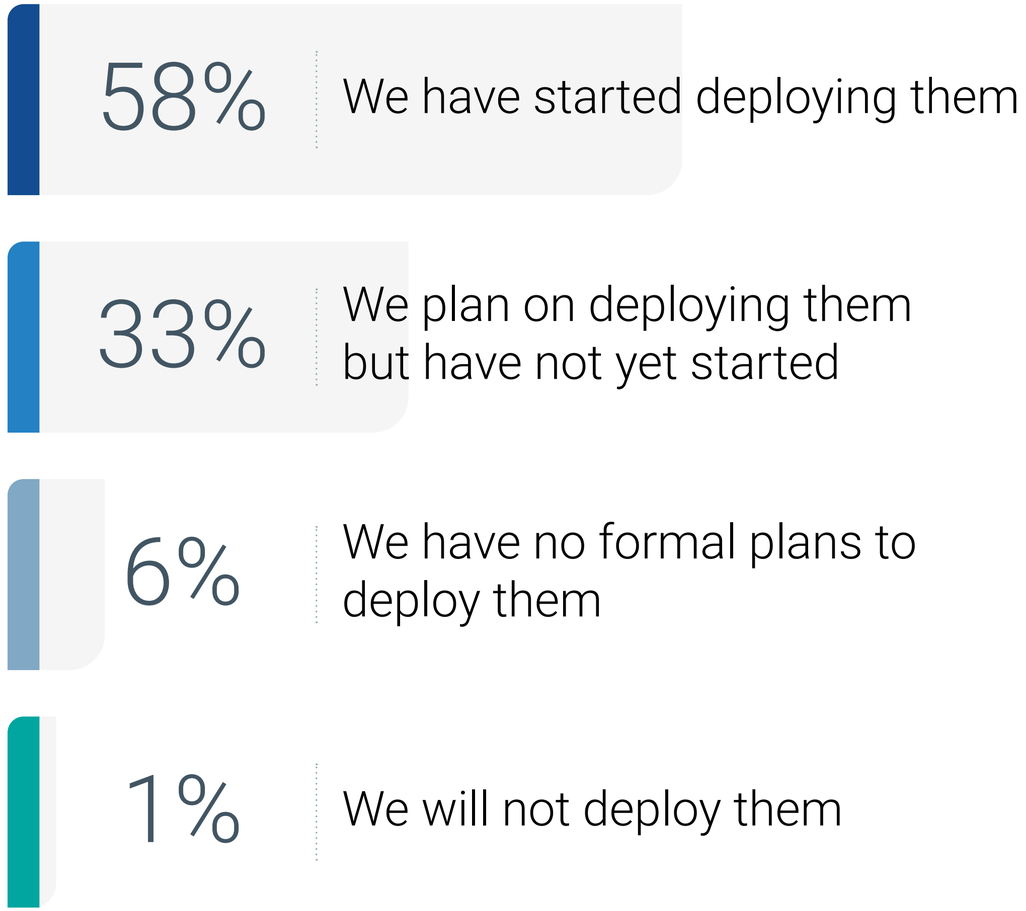
Organizations Are Deploying and Seeing Value From Endpoints With Built-in AI Capabilities

Organizations Are Eager to Deploy Endpoints With Local AI Processing

In the context of this research, the term “AI-enabled endpoint” describes a device with built-in, AI-specific hardware such as a neural or graphical processing unit (NPU and GPU, respectively). This includes PCs thought of as AI PCs and includes all such devices across hardware and OS platforms.

Given the fact that AI-enabled endpoints were just hitting the market when this research was conducted, the results indicate widespread early adoption. Indeed, more than half (58%) of organizations have already started deploying them, while another 33% intend to deploy them. Just 7% have no plans to or will not deploy them at all. This indicates that organizations are taking a proactive approach to AI at the endpoint, rather waiting for widespread use cases that leverage local AI processing to emerge.

Status of AI-enabled endpoint plans.



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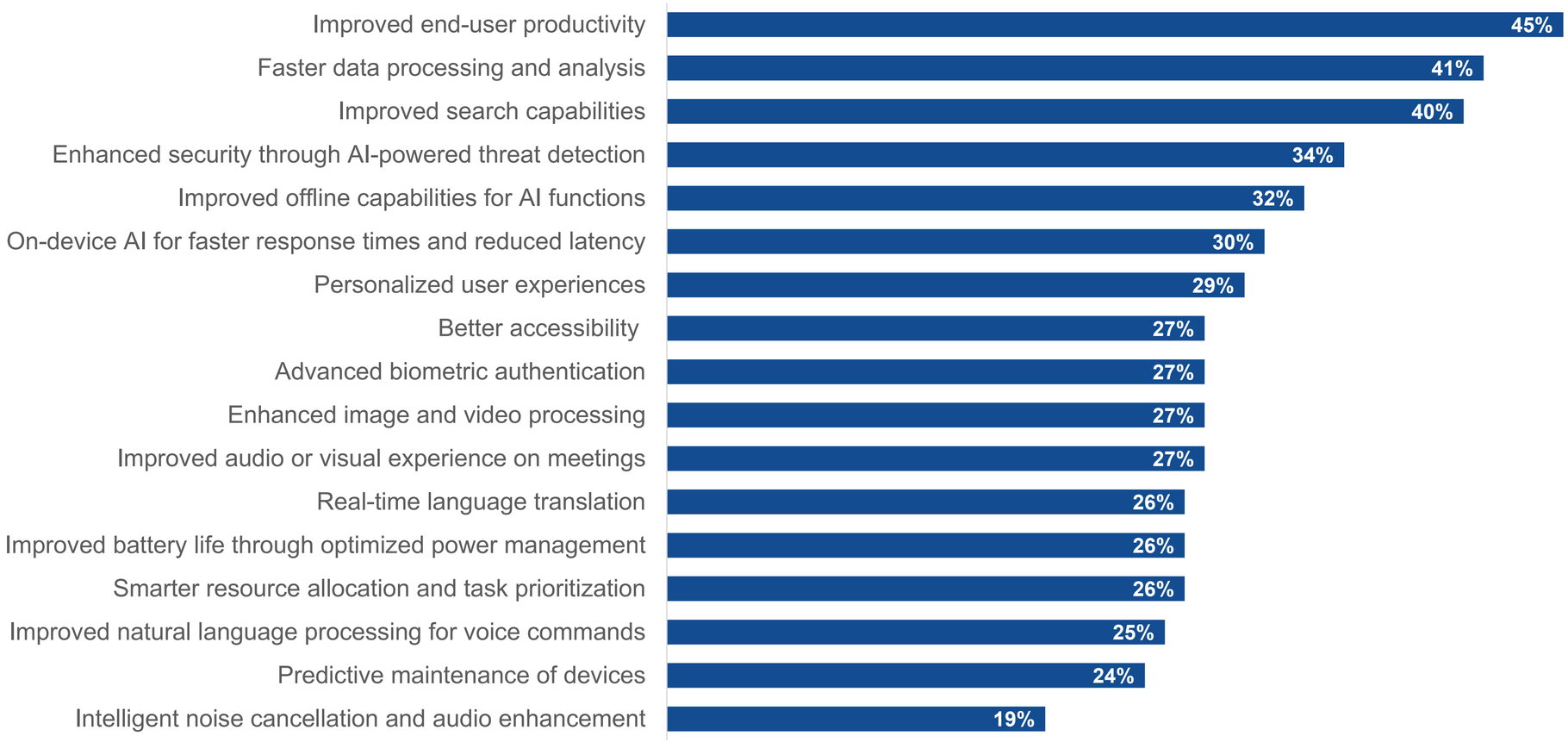
AI-enabled Endpoint Benefits Are Widespread

This early deployment trend is likely due to widespread realized or expected benefits that span all areas of the digital workspace ecosystem. Again, productivity is also the most commonly cited benefit when it comes to supporting end users (45%), followed by faster data processing and analysis (41%), and improved search capabilities (40%).

Most notably, however, is that these are outpacing the early and oft-repeated benefits of local AI processing, such as noise cancellation, improved audio and visual experience in meetings, and enhanced image and video processing.

This is great news because it shows that the market is starting to mature and achieve goals that give further tangible, quantifiable value.

Realized or expected benefits of deploying AI-enabled endpoints.



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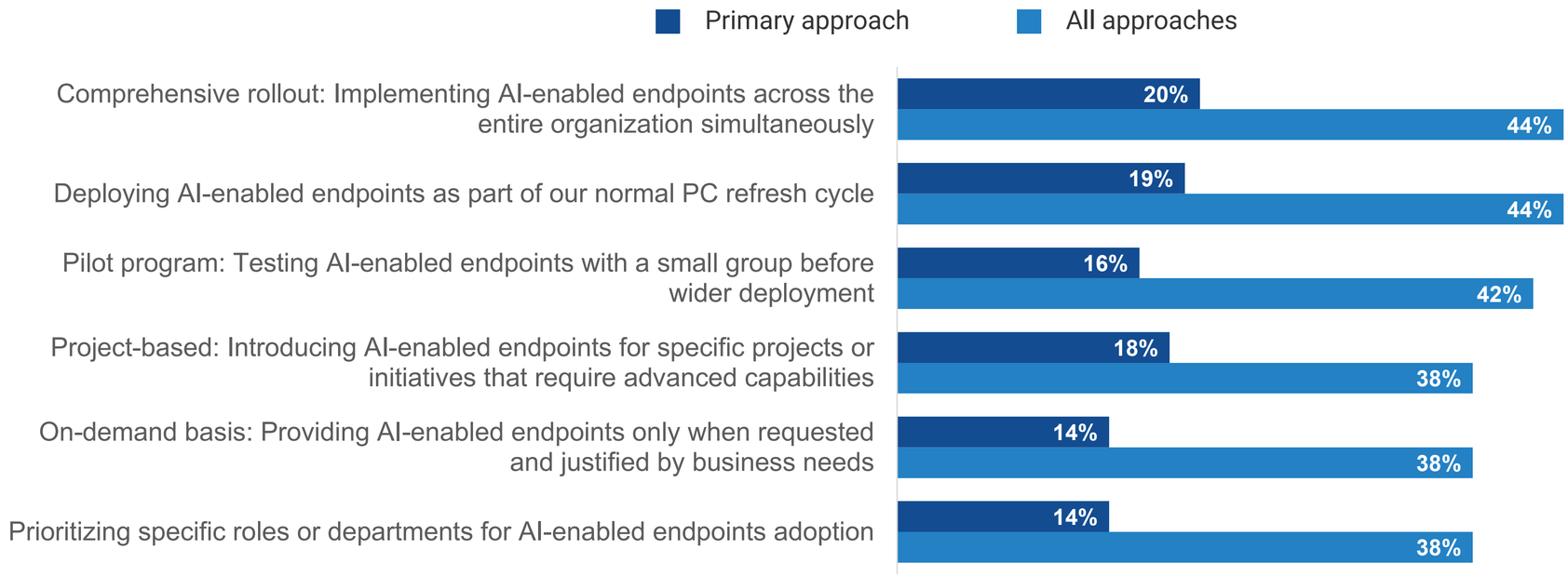
Organizations Are Eager to Deploy AI-enabled Endpoints

Deployments of AI endpoints are taking many forms, but one thing is clear: Organizations are eager to deploy them. Eight in ten respondents said that their organization has slightly (48%) or significantly accelerated (32%) their refresh cycles as a result of AI-enabled endpoints hitting the market.

Most notably, while expectations were that customers would take a wait-and-see approach, very few have delayed their refresh cycles, and only 17% have not changed their refresh cycle at all.

The approaches to deployments are spread out evenly among various techniques, with no clearly preferred method.

Approaches taken to deploy AI-enabled endpoints.



Effect the introduction of AI-enabled endpoints has had on endpoint device refresh cycle.

32%
We have significantly accelerated our refresh cycle

48%
We have slightly accelerated our refresh cycle

17%
We have not altered our refresh cycle

2%
We have slightly delayed our refresh cycle

1%
We have significantly delayed our refresh cycle

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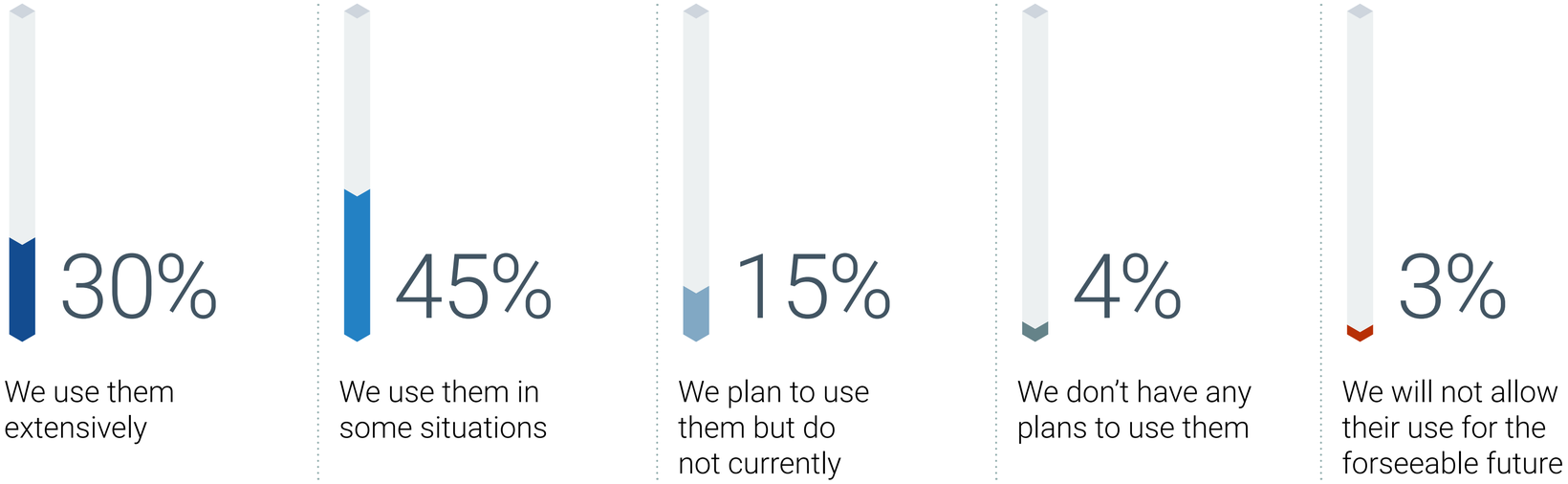
Unified Communication and Collaboration (UCC) Platform AI Features Are Generally Useful and in Widespread Use

Unified Communication and Collaboration Generative AI Features Are Slowly Being Adopted

Though unified communication and collaboration (UCC) tools were among the first universally used tools to leverage AI, adoption is still a bit hit or miss. Specifically, just 30% of organizations say they use built-in generative AI (GenAI) tools like automatic transcription or meeting-aware chatbots *extensively*.

Still, nearly half (45%) use them in some situations, and another 15% plan to use them eventually. It's likely that the market can expect widespread usage on the order of 90% in the near term.

Current approach to usage of GenAI features in UCC platforms.



"Still, nearly half (45%) use them in some situations, and another 15% plan to use them eventually. It's likely that the market can expect **widespread usage** on the order of 90% in the near term."

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UCC AI Features Are Driving Employee Productivity

As AI gains its foothold in UCC, the most useful features thus far have been around AI-driven scheduling, accessibility, live translation between languages, real-time transcription, and interactive chatbots that can listen and help catch people up on details. Notably, each of these is directly related the improved employee productivity success metrics.

Modern AI-based UCC features currently in use.

39%

AI-driven meeting scheduling and optimization

38%

Accessibility features

37%

AI-powered live translation for multilingual meetings

36%

Real-time speech-to-text transcription during meetings

35%

AI-driven meeting chatbot for catching up or asking about specific details

31%

Virtual backgrounds and image enhancement

29%

Background noise supression and voice enhancement

28%

Facial recognition for secure meeting access

27%

Intelligent video framing and tracking

27%

Automated meeting notetaking and action item generation

20%

Gesture recognition for non-verbal communication

1%

None of the above

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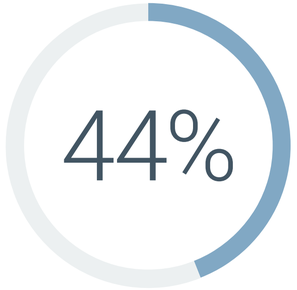
AI Is Increasing the Need for 5G Connectivity

Already, organizations have many users who require alternative connectivity sources like 5G, public Wi-Fi, hotspots, etc. In fact, 57% of respondents said that more than one quarter of their users need alternate connectivity.

This is likely to increase as AI features in unified communication and collaboration platforms (and AI in general) further drive demand for quality connectivity. In fact, 44% of organizations say AI has led to a significant increase in 5G connectivity needs, with a combined 83% saying their needs have increased to some extent.

Effect AI has had on 5G connectivity needs.

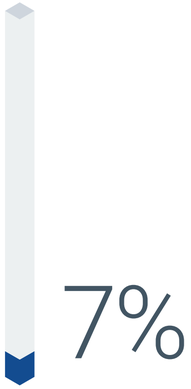


Our connectivity needs have increased significantly

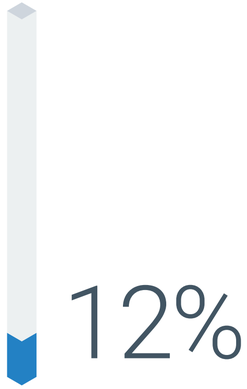
Our connectivity needs have increased slightly

Our connectivity needs have not changed or have decreased

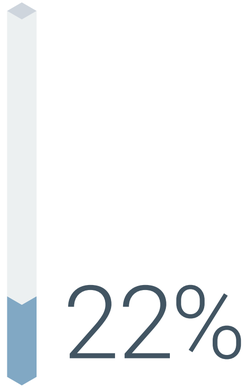
Approximate percentage of users who work outside the office or in areas where they may rely on alternative connectivity sources.



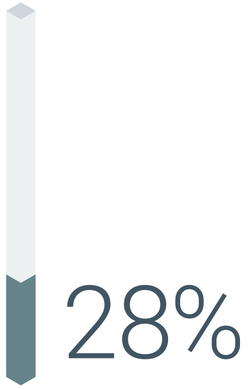
0%



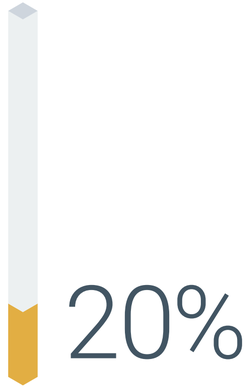
1% to 10%



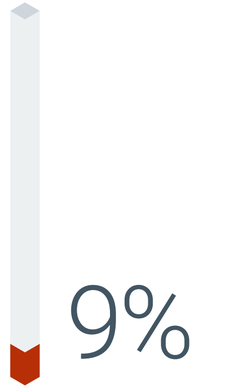
11% to 25%



26% to 50%



51% to 75%



76% to 100%

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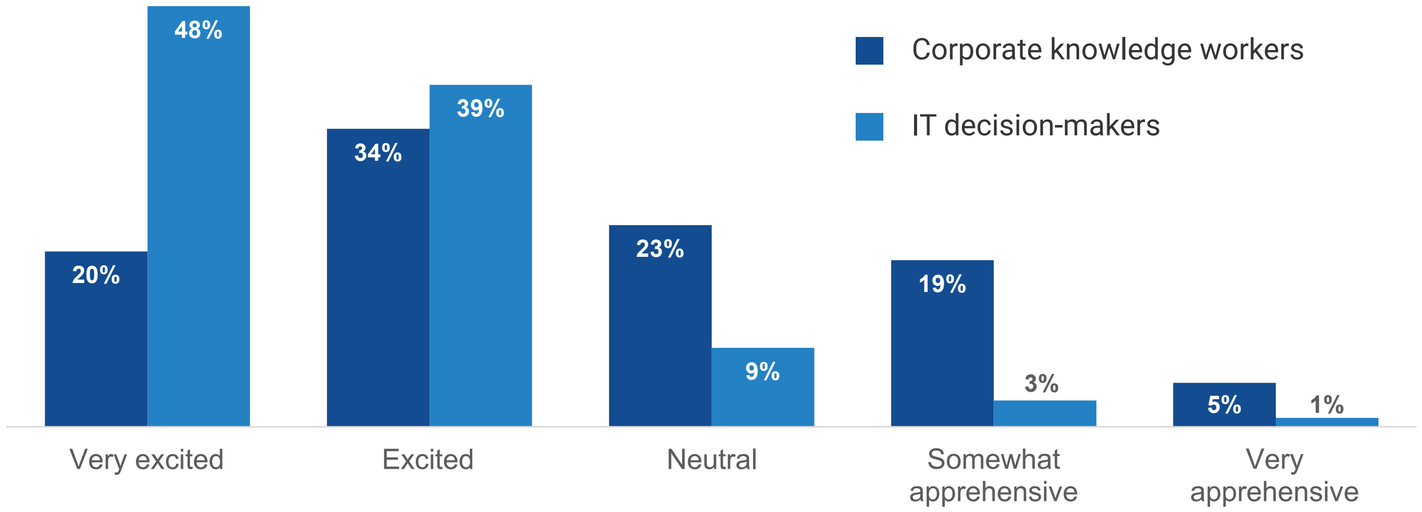
Significant Disconnects Exist Between IT and End-users

Corporate Knowledge Worker Excitement for AI Lags That of IT Decision-makers

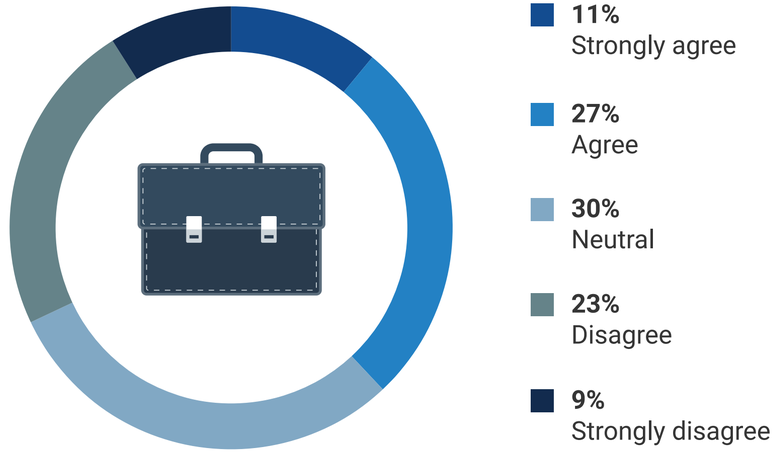
Comparing corporate knowledge worker and IT decision-maker sentiment reveals that IT is more excited about the usage of AI than end users. Indeed, IT professionals were more than twice as likely (48% versus 20%) to report being very excited. While this is somewhat expected, the data serves as a quantification of the disconnect between IT and the business at large and their knowledge workers.

This is further corroborated by two questions aimed specifically at end-user sentiments around AI and their jobs. Opinions as to whether AI will create more job opportunities than it eliminates are generally split, with 38% saying it will, compared with 32% who think it will not. When asked if they were nervous that their specific job or position will be replaced by AI, many corporate knowledge workers were optimistic, with 50% saying they do not believe that will happen. Still, nearly one in three end users voiced some concern in this regard, which contributes to overall apprehension.

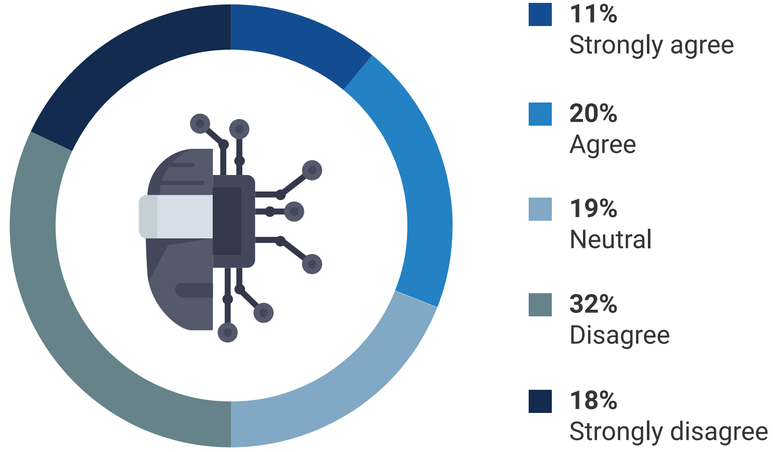
Personal feelings with respect to the general usage of AI technology.



I believe AI will create more job opportunities than it eliminates.



I am nervous that my job or position will be replaced by AI in the next three to five years.



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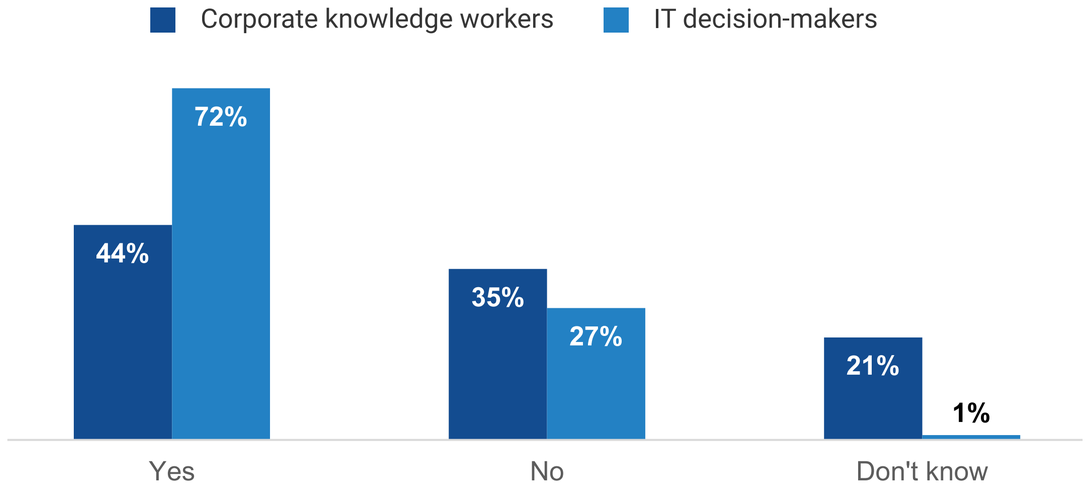
IT and Corporate Knowledge Workers Have Different Perceptions of AI Policies

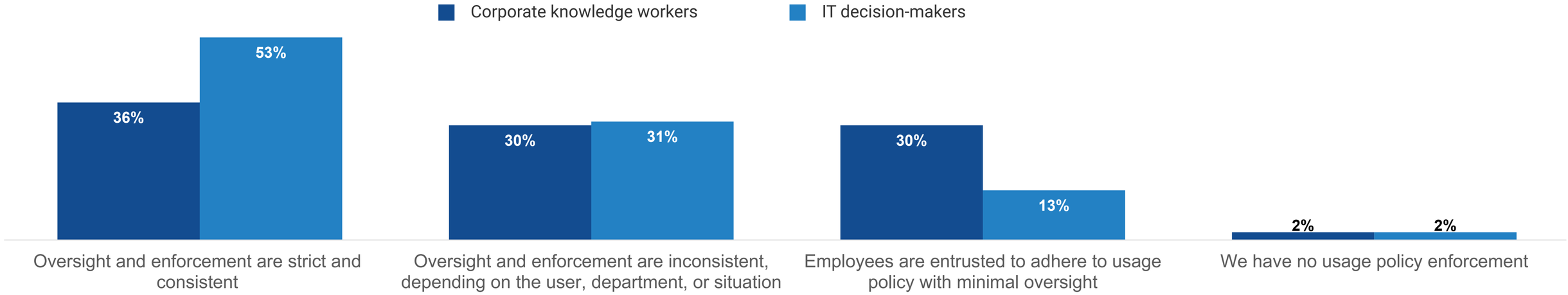
The data also reveals a significant disconnect between IT and corporate knowledge workers on the topic of AI policies. Overall, corporate knowledge workers were significantly more likely to be *unaware* of an organizational AI policy. And those who were aware of their organization's policy were more likely to misjudge the oversight and trust that IT has for their AI usage.

In fact, the only place where corporate knowledge workers and IT agree is that, for nearly a third of each cohort, oversight and enforcement of the AI policy is inconsistent. Ultimately, this signals a need for more effective communication between IT and corporate knowledge workers so that end users are aware of the policy, the risks of using AI, and the potential ways that IT can enforce the policy.

Do organizations have a policy for the usage of AI technology by end users?



How organizations enforce AI usage policies.



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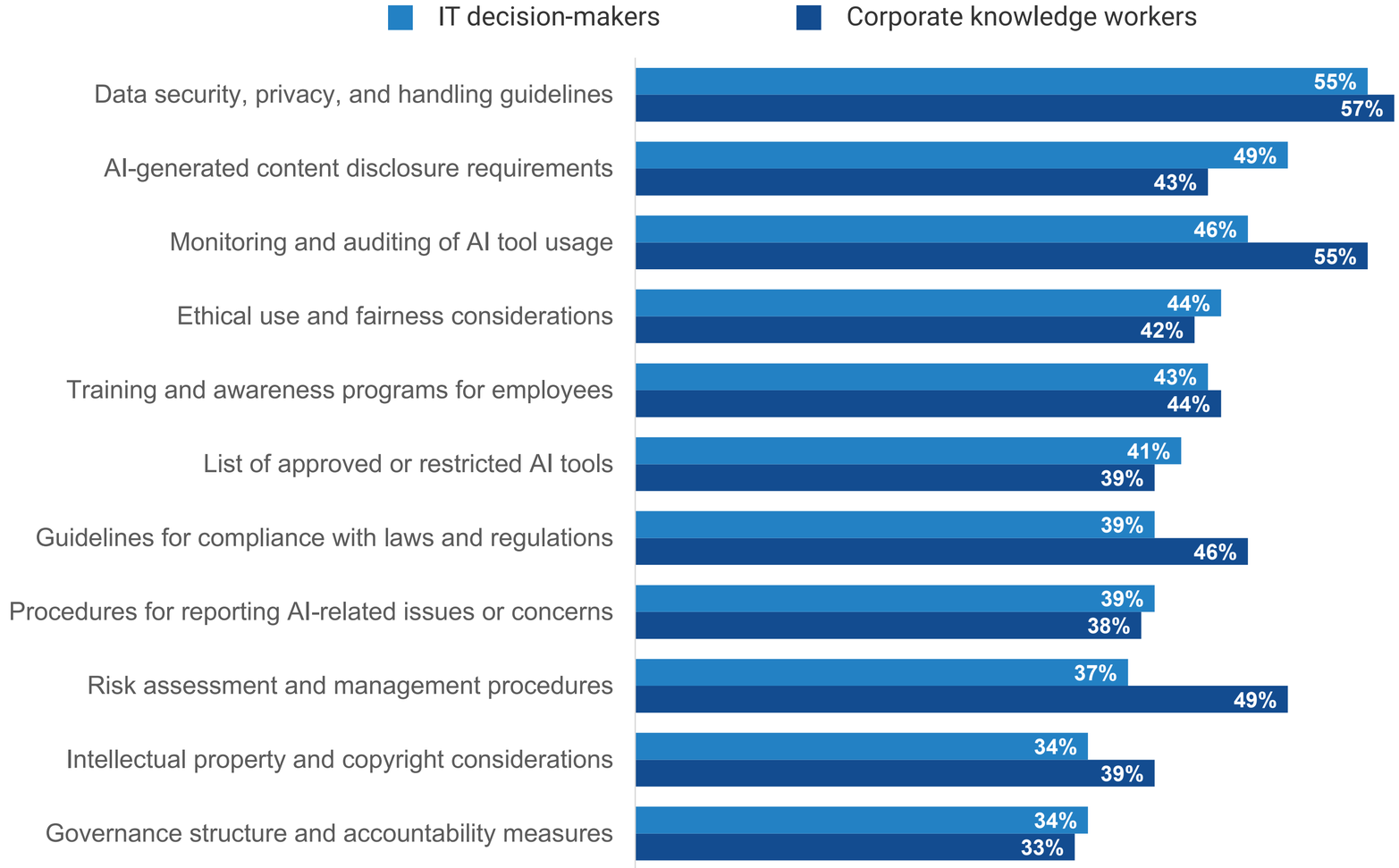
> “Ongoing communication is needed between IT and end users because **‘shadow AI’** is real.”

Bridging the AI Policy Gap Through Communication

When both end users and IT are aligned on the existence and contents of an AI policy, there is greater understanding in terms of security, compliance, and governance. With a couple of exceptions, both groups are essentially in lockstep across the board when it comes to AI governance.

Still, maintaining this alignment requires more than just documentation. Ongoing communication is needed between IT and end users because “shadow AI” is real and can have significant consequences.

Elements of AI usage policies.



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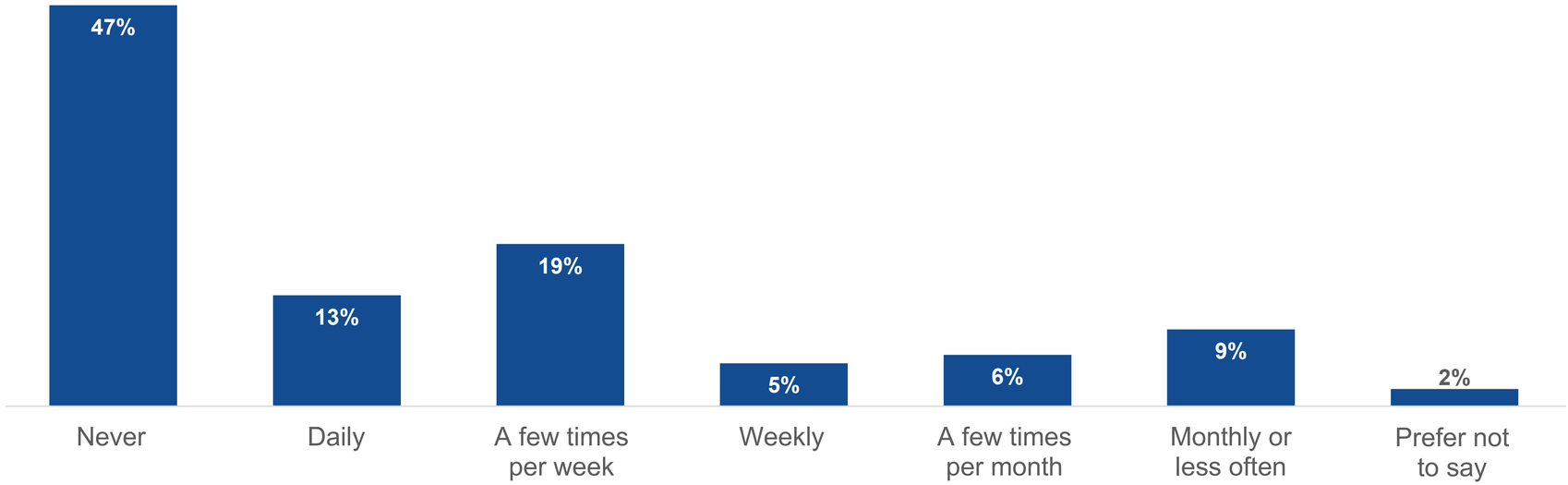
Shadow AI Is Widespread, Though Perhaps Less Than IT Decision-makers Anticipate

"Corporate knowledge workers were asked how often they personally use AI tools that are **not officially sanctioned by their organization,** and only 47% said 'never.'"

Unsanctioned AI Usage Is Widespread

Shadow AI (i.e., unsanctioned AI usage) has been a concern since generative AI entered the public consciousness, and for good reason. No business wants to be in the headlines because of a public GenAI platform trained on their internal corporate, privileged, or private data. To get a handle on this, corporate knowledge workers were asked how often they personally use AI tools that are not officially sanctioned by their organization, and only 47% said "never."

Frequency of usage of AI tools that are not officially authorized or supported.



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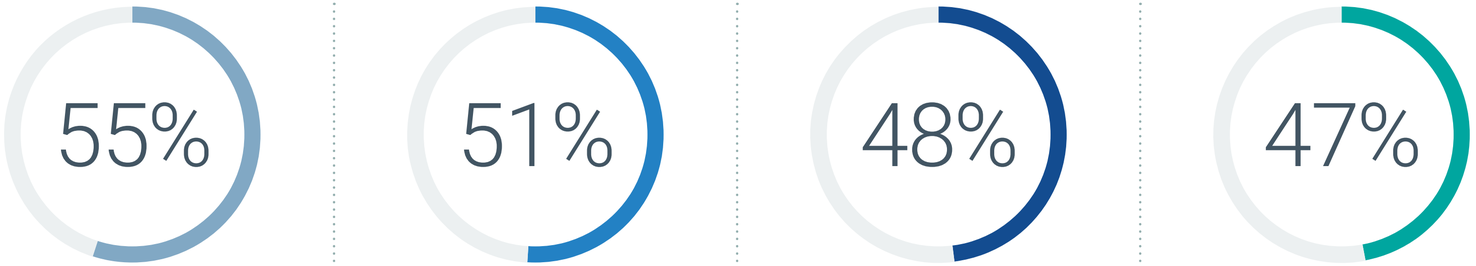
Privileged, Private, or Confidential Data Is Being Shared With Unauthorized Tools and Services

Even more concerning is the perception among nearly half of end users that their coworkers are sharing *privileged, private, or confidential data* via unauthorized AI tools at least occasionally. This is despite 55% of IT decision-makers saying their organization actively monitors and issues warnings or takes disciplinary action for shadow AI activities. This suggests that the tools to detect and prevent shadow AI are lagging the expanding edge of the technology as its capabilities grow, which again begs for better communication of the risks of shadow AI while waiting for the tooling to catch up.

Do coworkers share privileged, private, or confidential data with an unauthorized AI tool?

How organizations address the use of 'shadow AI' tools by end users.



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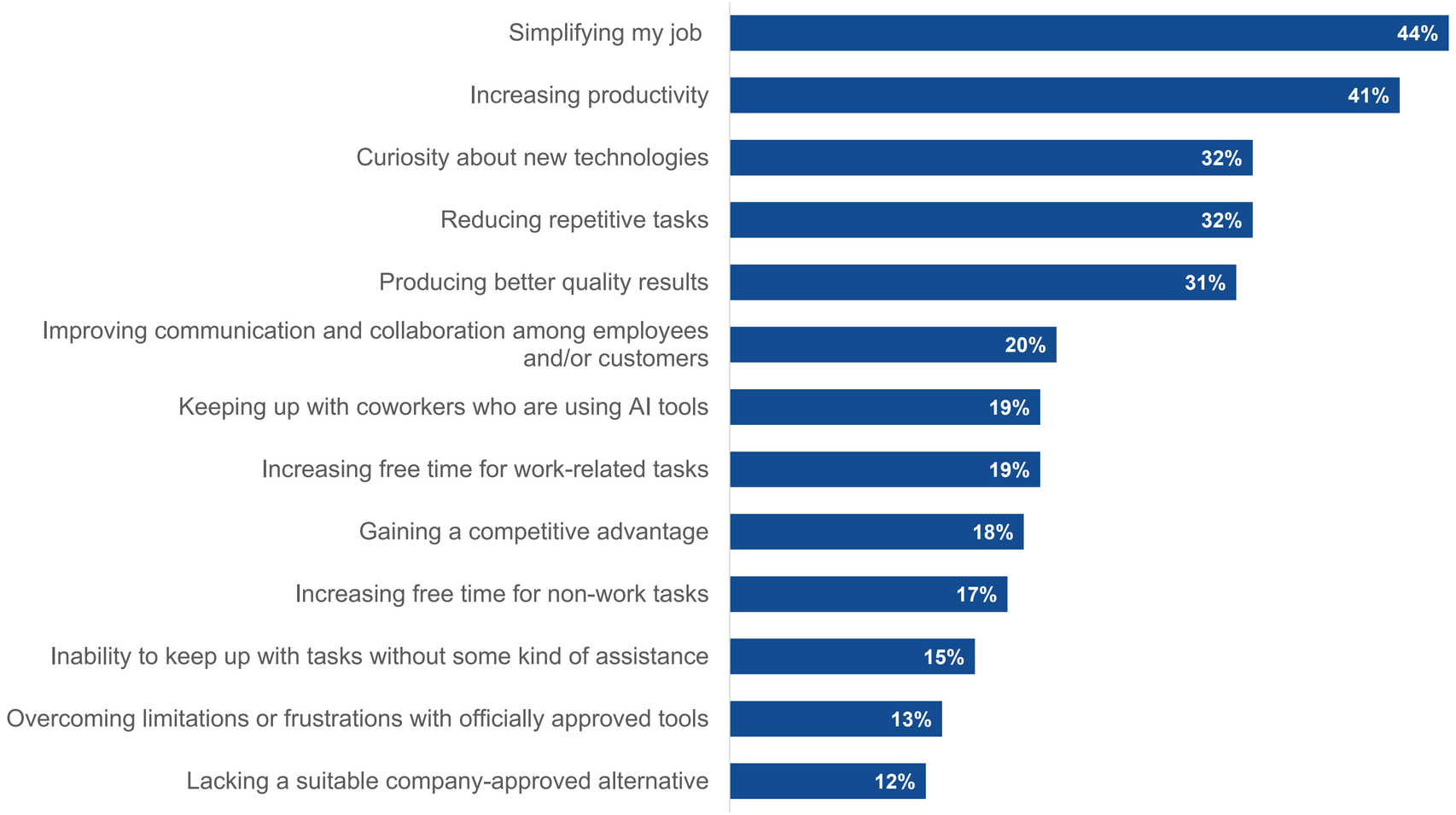
Learning From Shadow AI

Though shadow AI is generally frowned upon, there are lessons to be learned from how and why end users are engaging it. In many cases, the reasons align with overall business objectives for using AI. In such cases, it's important to determine why the user is taking matters into their own hands, since the majority of cases are not malicious. Asking the following can shed some light on the situation:

- Is it because IT wasn't providing the right tools?
- Is it because the end user didn't know that tools already existed?
- Is it because the user experiences competitive pressures that stem from other people using AI or to keep pace with rapid growth?
- Is it because the team doesn't have enough resources, so they turn to AI for assistance?

Primary reason end users leverage AI tools that are not officially authorized.



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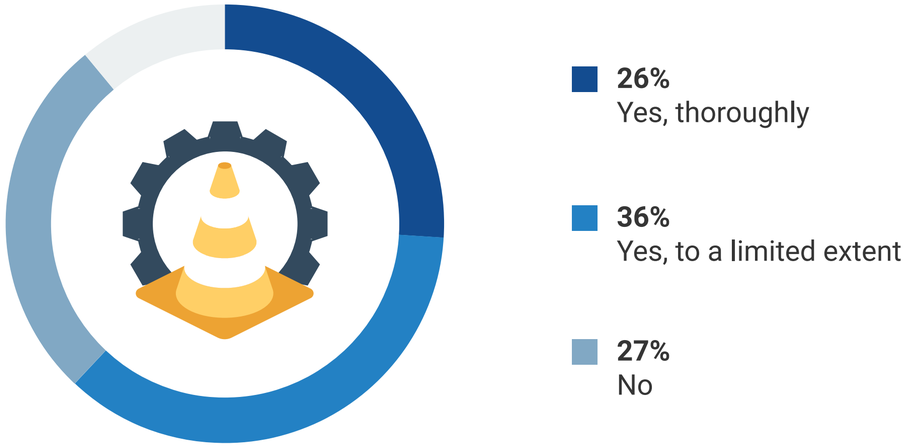
Again, Communication Is Key

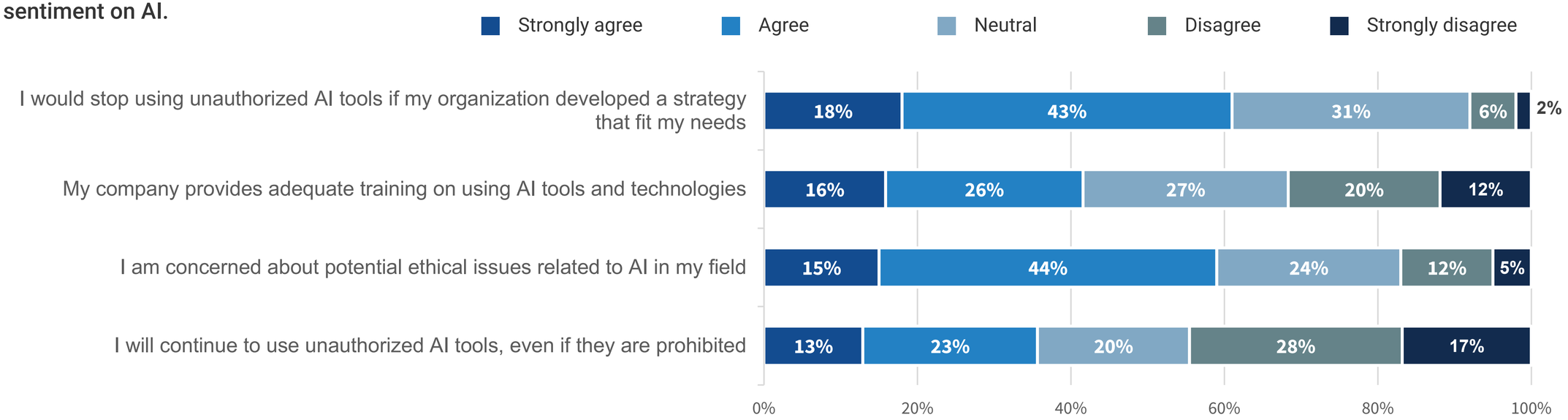
Further emphasizing that end users don't necessarily have bad intentions when using unauthorized AI tools is the fact that 61% said they'd stop this practice if their organization developed a strategy that would suit their needs. Nearly one-third (32%) of organizations say their organization doesn't give them enough training on how to use AI tools and technologies, and 59% say they are concerned about the ethical issues related to AI. These aren't the kind of results one would expect to see from people who want to buck the organizational trend for improper reasons. Case in point, while 36% said they'd continue to use shadow AI tools even if they are prohibited, 45% indicated they would stop the practice.

One final data point illustrates the need and desire from end users for better communication: Just 26% of end users said their organization has *thoroughly* communicated the security, privacy, and compliance risks of AI.

Have organizations explained the security, compliance, and privacy risks of using AI to end users?



End user sentiment on AI.



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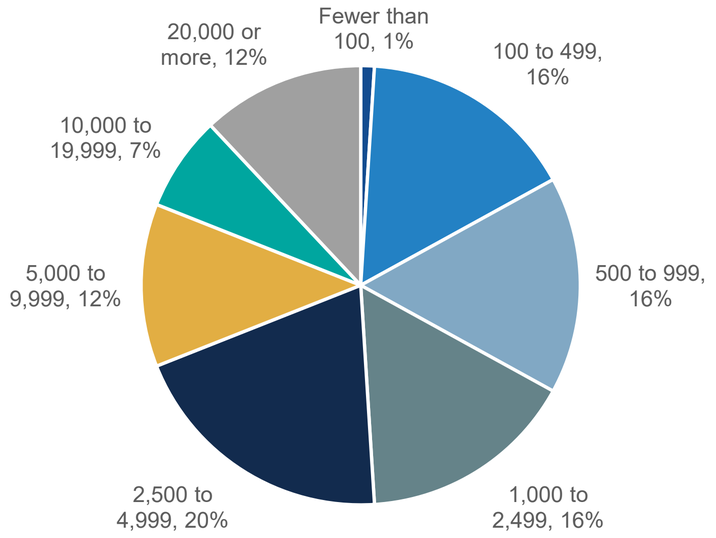
RESEARCH METHODOLOGY AND DEMOGRAPHICS

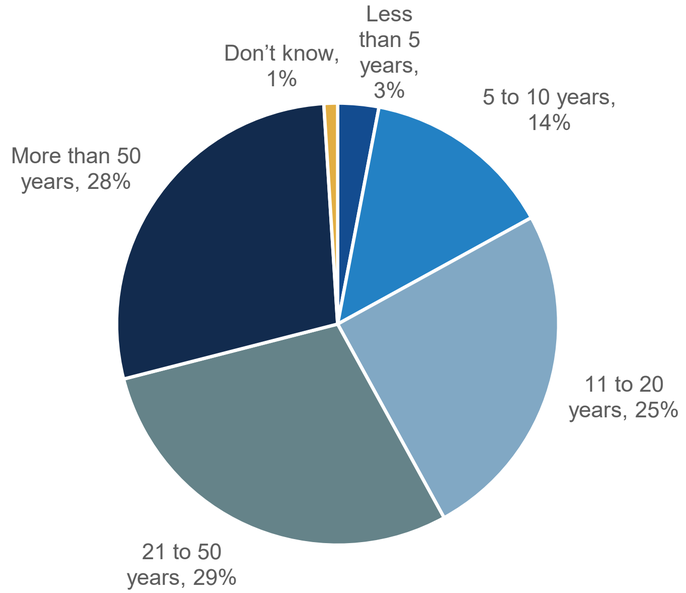
To gather data for this report, TechTarget's Enterprise Strategy Group conducted a comprehensive online survey of IT decision-makers and corporate knowledge workers from private- and public-sector organizations in North America between November 1, 2024, and November 13, 2024. To qualify for this survey, IT decision-makers were required to be responsible for their organization's endpoint computing environment with insight into how AI is impacting these environments, while corporate knowledge workers (i.e., end users) had to be current or future users of AI as part of their daily workflows. All respondents were provided an incentive to complete the survey in the form of cash awards and/or cash equivalents.

After filtering out unqualified respondents, removing duplicate responses, and screening the remaining completed responses (on a number of criteria) for data integrity, we were left with a final total sample of 330 IT decision-makers and 420 corporate knowledge workers.

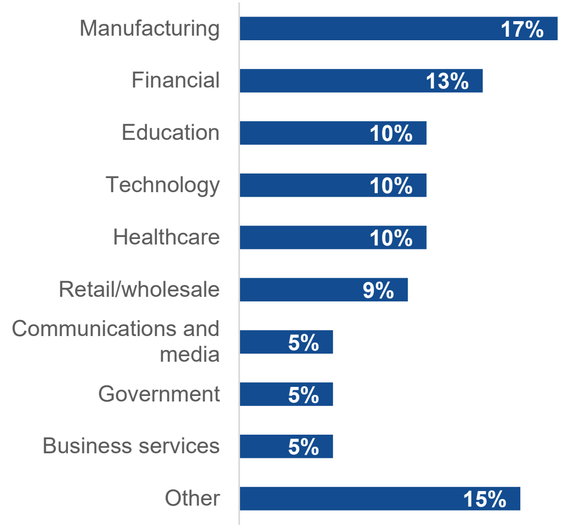
Respondents' organizations by number of employees.



Respondents' organizations by years in operation.



Respondents' organizations by industry.



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