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Understanding Employee Productivity and Satisfaction Benefits of Next-Generation AI PCs as You Plan Your Next Refresh

Tom Mainelli
Group Vice President,
Device and Consumer Research, IDC

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IDC Opinion

Artificial intelligence (AI) isn't new, but the technology has seen a steep ramp-up in interest and use in the past 18 months, driven in part by the rollout of new end user–focused products such as Copilot for Microsoft 365, ChatGPT, and Google Gemini. Both AI broadly and generative AI (GenAI) specifically are already having a profound impact on businesses as the number of use cases grows daily and more employees across a wide swath of job roles interact with these technologies. In 2023, Microsoft rolled out Copilot in Windows, making it possible for Windows 10 and Windows 11 users to experience integration of AI features with the PC operating system.

A key challenge around AI is the complexity of implementation, especially in a mixed environment where connectivity isn't always a given. The rollout of new AI-enabled PCs, with the ability to run some AI workloads locally, helps address this complexity while driving additional benefits, including faster performance, lower latency, and the ability to complete tasks offline.

PCs have always been able to run some AI locally, typically leveraging the central processing unit and graphics processing unit. Both of these processing units have their place in driving AI workloads and will continue to be key as developers create more AI software. However, running AI on these processing units can divert processing performance from other tasks, and they often require significant amounts of power, which can be problematic for battery-powered laptops.

In 2023, the first Windows-based PCs appeared with neural processing units (NPUs), purpose-built to run AI tasks. The first-generation AI PCs, called hardware-enabled AI PCs in IDC's taxonomy, included NPUs with around 11 tera/trillion operations per second (TOPS) of performance. These systems started the industry engine in motion. In mid-2024, the first crop of AI PCs with NPUs offering >40 TOPS AI performance began to ship. IDC calls these systems next-generation AI PCs in our taxonomy. Microsoft and its partners have branded

these systems Copilot+ PCs. These more powerful NPUs create an environment where AI can run persistently and pervasively in the operating system while doing so in an efficient manner that doesn't impact performance or battery life. In addition to supporting these new NPUs, the latest version of Windows 11, designed specifically for these Copilot+ PCs, includes Microsoft's new Windows Copilot Runtime. Created to enable developers to leverage AI capabilities, Windows Copilot Runtime includes a set of application programming interfaces that use more than 40 on-device AI models that ship with Windows. IDC is forecasting a steep ramp of AI PCs into the market over the next few years, and the next-generation category will drive much of this growth.

Companies should consider the benefits of next-generation AI PCs as they build out their AI strategies. Many of these companies are concurrently planning their final push toward a much-needed fleet refresh as the Windows 10 end of service (EOS) approaches in October 2025. Many of these PCs were acquired over four years ago and suffer from aging batteries and a lack of modern collaboration features such as good cameras and microphones. Forward-looking information technology decision-makers (ITDMs) and line-of-business (LOB) managers see the value in investing in this new breed of PCs today to stay ahead of the competition and reap the long-term benefits as new AI features, applications, and use cases appear. It's early days, but we believe next-generation AI PCs represent a new computing era that will dramatically change how end users interact with their computers, driving new levels of productivity, collaboration, and employee satisfaction.

METHODOLOGY

In May 2024, IDC conducted a survey to better understand companies' current thinking on the use of AI and GenAI in business and their interest in next-generation AI PCs. The survey interviewed 1,018 respondents in companies with 25+ employees in four countries: the United States (39%), the United Kingdom (21%), Germany (20%), and France (21%). The respondent pool was roughly evenly split between IT decision-makers and line-of-business managers, each with a role directly impacting their company's PC purchases. Unless otherwise noted, results in this document represent the total of all four countries.

Situation Overview

As noted previously, AI workloads aren't new. However, recent product announcements and advancements have driven both companies' and end users' understanding of these technologies and their desire to leverage them to drive better business outcomes.

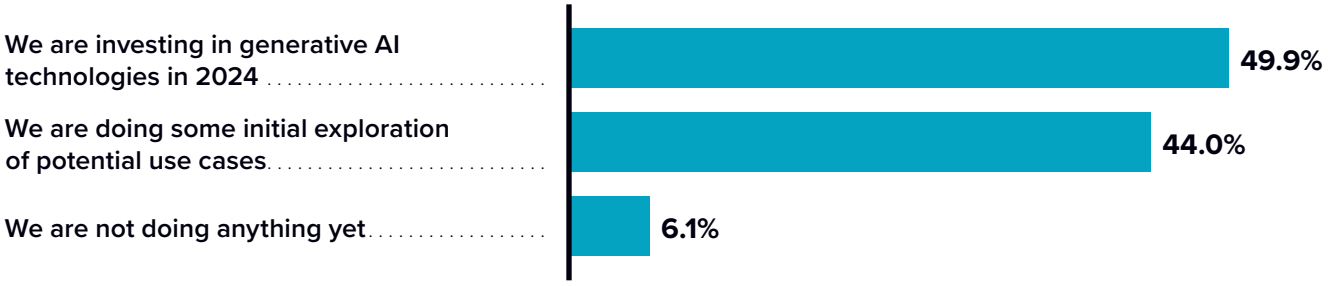
In our May 2024 survey, just 2.1% of respondents admitted to being not at all familiar with AI technologies in business settings that are enabling end-user productivity. Another 18.4% of respondents said they were somewhat familiar, while an overwhelming majority said they were moderately familiar (39.4%) or very familiar (40.2%). If you find yourself in either of the first two categories, it's time to accelerate your education, or you could find yourself and your business falling behind the competition.

Digging deeper, we asked respondents to articulate their company's current approach to generative AI, a type of AI that helps with content creation and information retrieval. Here again, only a small percentage (6.1%) said they weren't doing anything yet. As shown in **Figure 1**, another 44% said they're exploring potential use cases, while nearly half noted that their company is already investing in GenAI technologies in 2024. Take a moment to consider where your organization lands as it relates to this question.

FIGURE 1

Companies' Current Approach to GenAI

What is your organization's current approach to generative AI?
(Percentage of respondents)



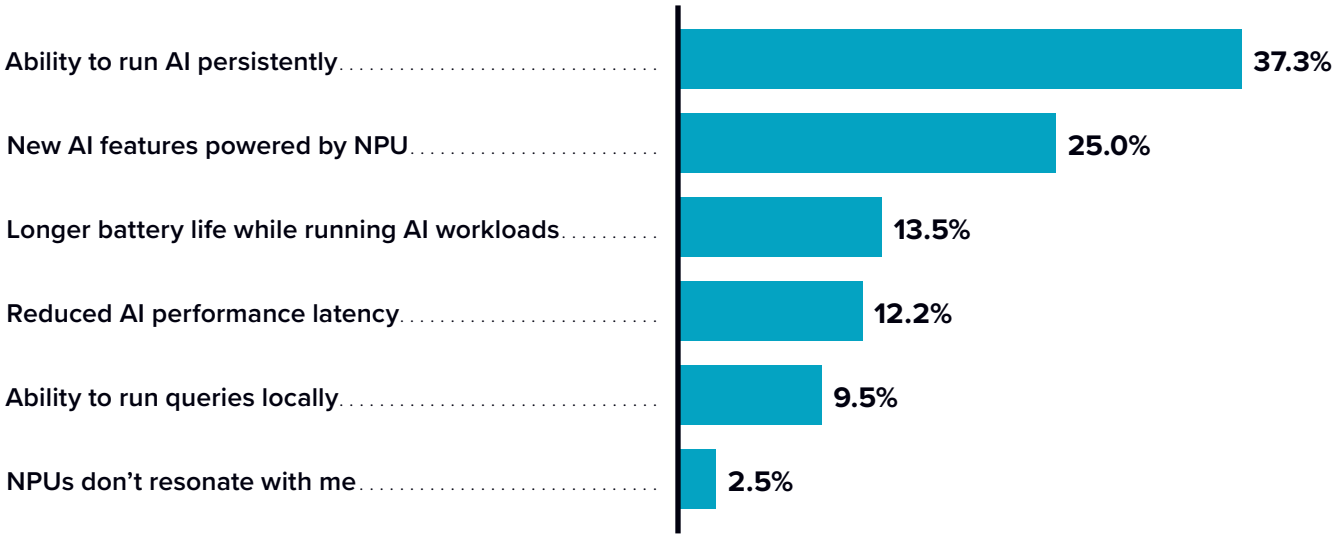
n = 1,018; Source: IDC's *Next-Generation AI PC Survey*, 2024

While many of today's AI workloads are cloud based, a growing percentage of companies have begun to grapple with the fact that for AI to continue to scale cost effectively and power efficiently, more of those workloads will need to move to the edge. While the AI PC as a category is still quite new, respondents in our survey showed an inherent grasp of the possibilities these new devices represent. When we asked which advantages of having a PC with an NPU resonated most with respondents, the top response was the ability to run AI persistently (37.3%). New AI features powered by the NPU was second (25%), followed by longer battery life while running AI workloads (13.5%) (see **Figure 2**).

FIGURE 2

Key Perceived Advantages of Next-Generation AI PC/40+ TOPS NPU

Which advantages of having an NPU resonate the most with you?
(Percentage of respondents)

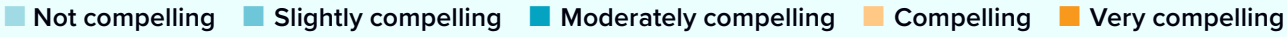


n = 1,018; Source: IDC's *Next-Generation AI PC Survey*, 2024

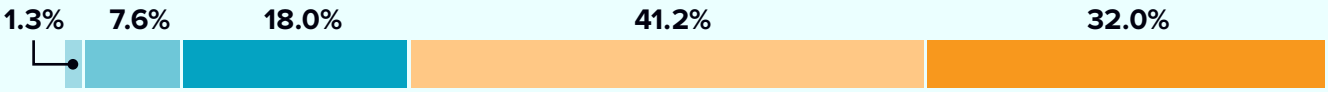
Understanding the Benefits of Next-Generation AI PCs

We ran our survey before next-generation AI PCs were announced, so even tech-savvy respondents had yet to hear about the benefits these new devices promise. To gauge their interest in this new category of PCs, we articulated the long list of new features driven by the 40+ TOPS NPU.

What follows is a list of questions tied to these features and the degree to which respondents found them compelling. Note that some sentences were edited from the survey content for brevity and clarity.

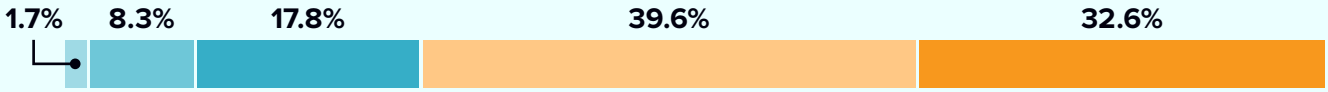


- Many employees are overwhelmed by the amount of information they deal with daily. One key benefit of next-generation AI PCs might be to simplify tasks using AI integrated with the operating system to summarize the contents of files and visualize the data in those files to enable users to **get answers and insights.**
  How compelling do you find the description of this feature?



On average, how much working time could an employee in your company save per day by using this feature? Estimated mean time savings per day: 36 minutes.

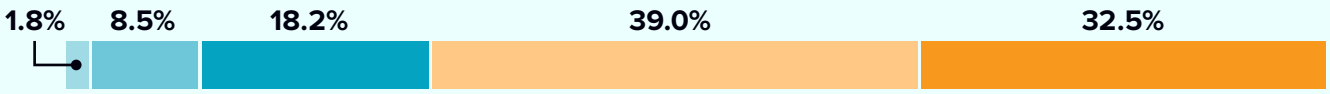
- In every organization, employees often spend time looking for past files. A key benefit might be the ability for users to search and find anything that is present on their computer screen, running the AI locally without the need to go to the cloud to enable users to **describe it to find it.**
  How compelling do you find the description of this feature?



Estimated mean time savings per day: 27 minutes.

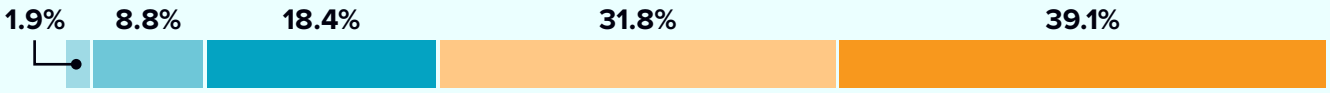
For an accessible version of the data in these figures, see Pages 7–9 Supplemental Data in Appendix 2.

- A key benefit might be to enable quick actions such as finding documents and presentations or composing emails faster and easier by presenting helpful suggestions and making common tasks easier through simple commands to enable users to **create and transform.**
  How compelling do you find the description of this feature?



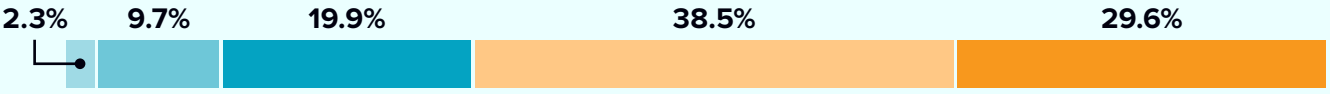
Estimated mean time savings per day: 32 minutes.

- A key benefit might be to reduce communication barriers and increase accessibility by offering real-time translations of other languages locally on the device to enable users to **instantly translate.**
  How compelling do you find the description of this feature?



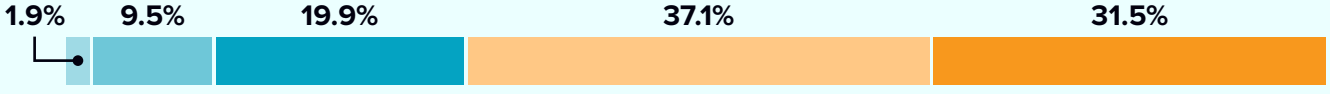
Would this feature help make calls more productive and improve communication among your employees and clients? Yes: 95%; No: 4.3%; I don't know: 0.7%.

- A key benefit might be more professional-looking video calls under less-than-optimal ambient conditions as your device automatically adjusts lighting and filters, and approximates eye contact to enable users to drive **effective meetings.** **How compelling do you find the description of this feature?**



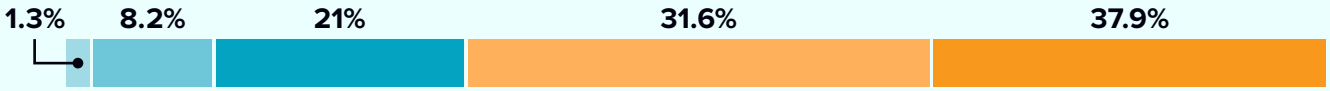
Would this feature encourage more people to turn on their video during calls and promote enhanced communication among employees and clients?
Yes: 86.2%; No: 13.6%; I don't know: 0.2%.

- A key benefit might be that it keeps employees actively engaged in their work by offering new information and proactive suggestions to enable users with **more immersive experiences.**
  How compelling do you find the description of this feature?



Would this feature help drive improved employee job satisfaction and retention?
Yes: 89.9%; No: 9.8%; I don't know: 0.3%.

- Next-generation AI PCs could provide layers of hardware-backed protection to shield employee credentials and other sensitive data against evolving threats. In addition, enhanced data controls enable you to choose which information can be used to personalize your experience via **hardware-backed protection. How compelling do you find the description of these features?**



Would these features help create a more secure environment for your company's data?
Yes: 96.5%; No: 3.3%; I don't know: 0.2%.

For an accessible version of the data in these figures, see Pages 7–9 Supplemental Data in Appendix 2.

Early Appetite for Next-Generation AI PCs

Across the breadth of these new next-generation AI PC features, most respondents see the potential benefits in terms of making employees more productive and collaborative. Beyond the clear potential for time savings that many of these features represent, which translates to cost savings and higher productivity, the resulting reduction in friction around everyday tasks is also likely to drive enhanced employee satisfaction as they're able to focus on the parts of their job that matter.

Respondents are ready to act on their interest in next-generation AI PCs. When initially asked about appetite, prior to articulating all the new features, almost two-thirds of respondents indicated they were planning on buying NGAI PCs within the first year. Once this same group of respondents had the previously mentioned features and functionality described to them, nearly three-quarters indicated they would purchase within the first year, with over 90% wanting to buy within the first two years. Moreover, an overwhelming majority said they'd be willing to pay more per PC to acquire them (see **Figure 3**, next page).

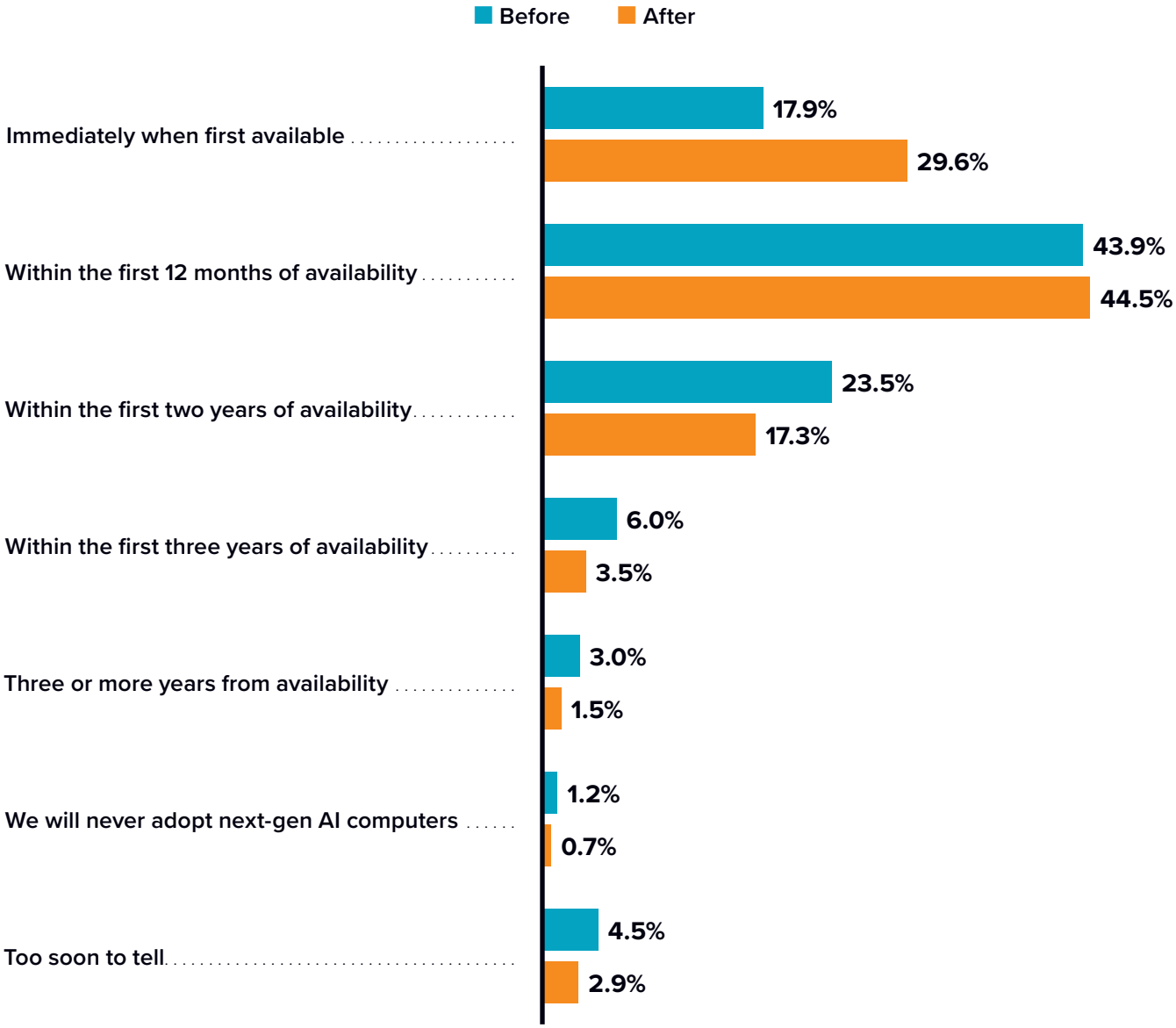
FIGURE 3

Interest in Next-Generation AI PC Before and After Feature Descriptions

How soon do you expect your organization to adopt usage of "next-generation AI computers"?

Assume all the features that you were presented with are possible with a next-generation AI computer. Now that you know more about some of the features that a next-generation AI computer with a powerful NPU and more memory and storage capacity might bring to your organization, when do you now expect your organization to adopt usage of next-generation AI computers?

(Percentage of respondents)



n = 1,018; Source: IDC's *Next-Generation AI PC Survey*, 2024

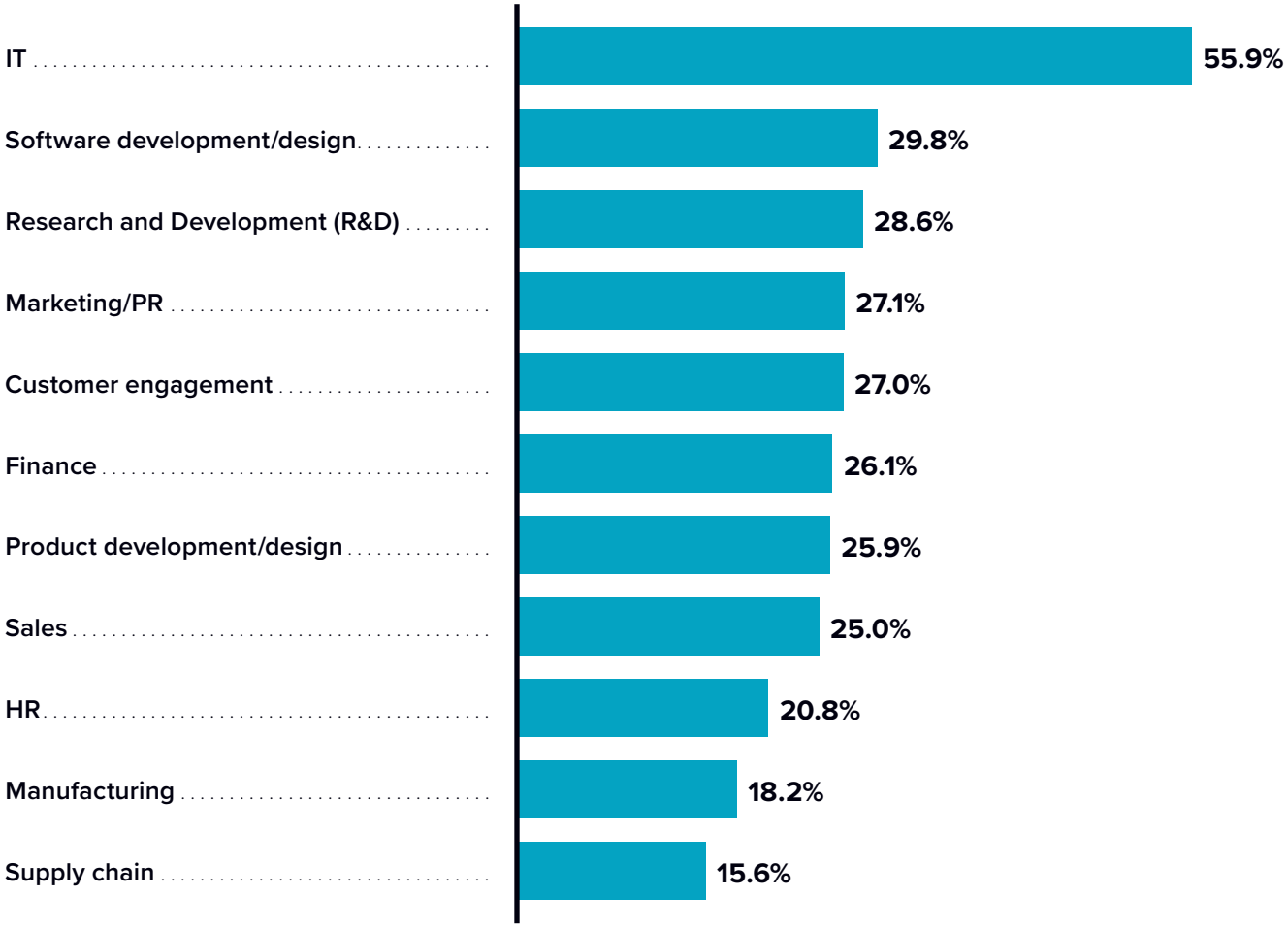
For an accessible version of the data in this figure, see Figure 3 Supplemental Data in Appendix 2.

Survey respondents aren't just ready to buy next-generation AI PCs; they are already thinking about who inside their organization could benefit most from these new features and functionality. When we asked which departments they expected to deploy these PCs into first, IT was the clear leader, followed by software development and then research and development (see **Figure 4**).

FIGURE 4

Department Prioritization for Next-Generation AI Computers

What departments will be prioritized in getting "next-generation AI computers" first in your organization?
(Percentage of respondents)



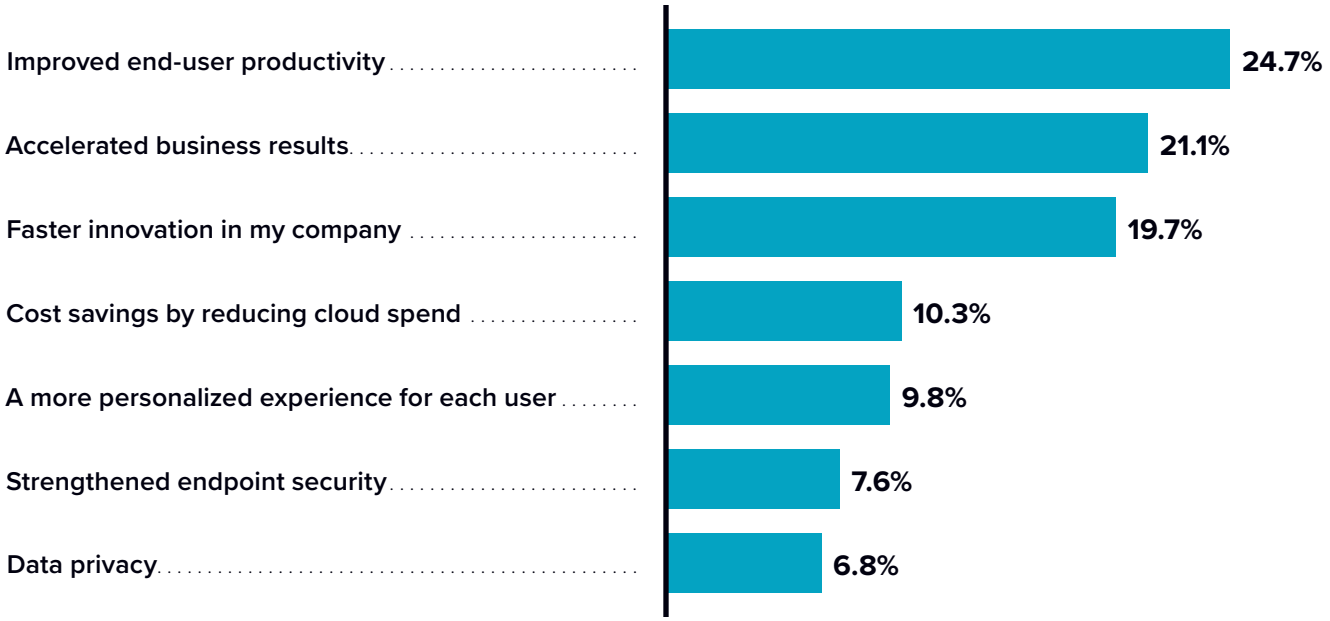
n = 1,018; Source: IDC's *Next-Generation AI PC Survey*, 2024

While it's clearly early days in terms of the rollout of next-generation AI PCs, respondents also have a clear view of how they think the devices could benefit their companies and their end users. When we asked what they saw as the primary benefit of running AI locally, nearly a quarter pointed toward improved end-user productivity (24.7%), followed by accelerated business results (21.1%) and faster innovation in the company (19.7%) (see **Figure 5**).

FIGURE 5

Key Benefits of Local AI

Which of the following would be the primary benefit you see from your users running AI workloads locally? (Percentage of respondents)



n = 1,018; Source: IDC's *Next-Generation AI PC Survey*, 2024

Future Outlook

Smart companies are closely examining next-generation AI PCs as they plan their next refresh. Our survey showed that, on average, respondents' companies still have more Windows 10 systems in their installed base than Windows 11 PCs. These PCs will need to be refreshed before the Windows 10 EOS in October 2025 or companies will need to pay a steep fee to keep these outdated systems secure. And this doesn't address the productivity issues associated with these older PCs.

As companies look to the future, it makes sense to buy ahead of the curve rather than behind it when it comes to AI capabilities. While it's early days for AI PCs, it is important to note that the PCs you buy and deploy today will be in place for the next three to four years. If you don't plan for future requirements, you risk saddling your employees with outdated technology in the coming years. Equipping your workforce with next-generation AI PCs creates a hardware baseline upon which to build a flexible, scalable set of future AI tools.

IDC expects commercial buyers to move quickly to embrace AI PCs. Our May 2024 worldwide forecast shows the broader category growing from 24 million units in 2023 to 54 million units in 2024, with the category growing to represent nearly 60% of the entire PC market by 2028, driven primarily by commercial buyers. Moreover, IDC expects the subcategory of next-generation AI PCs, which launched in June 2024, to grow by 293% year over year in 2025.

In this paper, we've outlined some of the key initial features of next-generation AI PCs. These represent the tip of the iceberg, as we'll see independent software vendors (ISVs) quickly begin to leverage these new capabilities in their existing apps, as well as new apps not yet envisioned. Perhaps the most powerful feature of these new PCs is their updated AI-first OS, which will evolve and improve over time, with specific capabilities geared toward improving each user's experience by getting to know how they work and use the device. Over time, this AI infusion will change how we use the PC, potentially abstracting away the current paradigm of launching an app to start a job. The future of apps could be no app at all.

As your company plans for its AI-enabled future, it's important that ITDMs and LOB managers interact frequently with the organization's early adopters. Understand what features, apps, and use cases are available today and which ones are likely to emerge in the near future.

Challenges/Opportunities

One of the key challenges around next-generation AI PCs is the fact that the very first systems to ship will use Qualcomm's Snapdragon X-branded silicon. Qualcomm uses the ARM instruction set versus the more familiar X86 instruction set used by Intel and AMD (which will ship in next-generation AI PCs in the near future). One traditional benefit of ARM architecture is systems with better battery life; a traditional downside is apps written to run on X86 must run in emulation on ARM. In addition to working with ISVs to have many apps rewritten to run natively on ARM, Microsoft has announced an updated emulator in the latest version of Windows 11 called Prism, which it says will support legacy apps with little to no performance penalty. Early reviews of these new PCs' performance have been very positive.

Next-generation AI PCs represent a clear opportunity in that they can drive a substantial return on investment if placed in the right hands. Equipping employees with these PCs will position your company for the future.

Conclusion

The next generation of PCs is here, and companies that want to skate to where the puck is going in terms of AI should huddle with their hardware partners, ISVs, and key evangelists inside the company. To remain competitive in terms of both business opportunities and employee productivity and satisfaction, every company should have a long-term plan around AI and how they'll support it on every endpoint in the organization.

Appendix: Supplemental Data

This appendix provides accessible versions of the data for the complex figures in this document. Click "Return to original figure" below each table to get back to the original data figure.

PAGES 7–9 SUPPLEMENTAL DATA

	Not compelling	Slightly compelling	Moderately compelling	Compelling	Very compelling
Many employees are overwhelmed by the amount of information they deal with daily. One key benefit of next-generation AI PCs might be to simplify tasks using AI integrated with the operating system to summarize the contents of files and visualize the data in those files to enable users to get answers and insights. **How compelling do you find the description of this feature?**	1.3%	7.6%	18.0%	41.2%	32.0%
In every organization, employees often spend time looking for past files. A key benefit might be the ability for users to search and find anything that is present on their computer screen, running the AI locally without the need to go to the cloud to enable users to describe it to find it. **How compelling do you find the description of this feature?**	1.7%	8.3%	17.8%	39.6%	32.6%
A key benefit might be to enable quick actions such as finding documents and presentations or composing emails faster and easier by presenting helpful suggestions and making common tasks easier through simple commands to enable users to create and transform. **How compelling do you find the description of this feature?**	1.8%	8.5%	18.2%	39.0%	32.5%
A key benefit might be to reduce communication barriers and increase accessibility by offering real-time translations of other languages locally on the device to enable users to instantly translate. **How compelling do you find the description of this feature?**	1.9%	8.8%	18.4%	31.8%	39.1%

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	Not compelling	Slightly compelling	Moderately compelling	Compelling	Very compelling
A key benefit might be more professional-looking video calls under less-than-optimal ambient conditions as your device automatically adjusts lighting, filters, and approximates eye contact to enable users to drive effective meetings. **How compelling do you find the description of this feature?**	2.3%	9.7%	19.9%	38.5%	29.6%
A key benefit might be that it keeps employees actively engaged in their work by offering new information and proactive suggestions to enable users with more immersive experiences. **How compelling do you find the description of this feature?**	1.9%	9.5%	19.9%	37.1%	31.5%
Next-generation AI PCs could provide layers of hardware-backed protection to shield employee credentials and other sensitive data against evolving threats. In addition, enhanced data controls enable you to choose which information can be used to personalize your experience via hardware-backed protection. **How compelling do you find the description of these features?**	1.3%	8.2%	21.0%	31.6%	37.9%

n = 1,018; Source: IDC's *Next-Generation AI PC Survey*, 2024

Return to original figure

FIGURE 3 SUPPLEMENTAL DATA

Interest in Next-Generation AI PC Before and After Feature Descriptions

	Before	After
Immediately when first available	17.9%	29.6%
Within the first 12 months of availability	43.9%	44.5%
Within the first two years of availability	23.5%	17.3%
Within the first three years of availability	6.0%	3.5%
Three or more years from availability	3.0%	1.5%
We will never adopt next-gen AI computers	1.2%	0.7%
Too soon to tell	4.5%	2.9%

n = 1,018; Source: IDC's *Next-Generation AI PC Survey*, 2024

Return to original figure

About the IDC Analyst

Tom Mainelli
Group Vice President, Device and Consumer Research, IDC

Tom manages the Device and Consumer Research Group, which covers a broad range of hardware categories, inclusive of both home and enterprise markets, as well as IDC's growing consumer research practice. The device research includes PCs, tablets, smartphones, wearables, smart home products, thin clients, displays, and virtual and augmented reality headsets. He also manages IDC's supply-side research team that tracks display and ODM production across a wide range of products. IDC's consumer practice, built upon its Consumer Technology Strategy Service, tracks numerous consumer-focused metrics utilizing frequent surveys and IDC-branded indexes. The consumer research also includes in-depth services focused on gaming and video. In his role as group vice president, he works closely with company representatives, industry contacts, and other IDC analysts to provide in-depth insight and analysis across a wide range of both commercial and consumer topics. He also oversees the collection of historical shipment data and the forecasting of shipment trends in cooperation with IDC's Tracker organization. A frequent public speaker, he travels often and enjoys the opportunity to work with colleagues and clients all over the world.

More about Tom Mainelli

Message from the Sponsor

Industries worldwide rely on Microsoft innovations in AI to transform, solve problems, and seize new opportunities.

On May 20, 2024, Microsoft announced Copilot+ PCs, the fastest, most intelligent Windows PCs ever built, bringing powerful intelligent edge computing to your desktop experience. With powerful new silicon capable of an incredible 40+ TOPS (trillion operations per second), all–day battery life and access to the most advanced AI models, Copilot+ PCs will enable organizations of any size to benefit from devices uniquely designed for AI and performance. Copilot+ PCs are business-ready, Secured-core PCs that include Microsoft Pluton for extra protection. Discover how you can empower your workforce to leverage Copilot+ PCs.

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IDC Research, Inc.
140 Kendrick Street, Building B, Needham, MA 02494, USA
T +1 508 872 8200

idc.com @idc @idc

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