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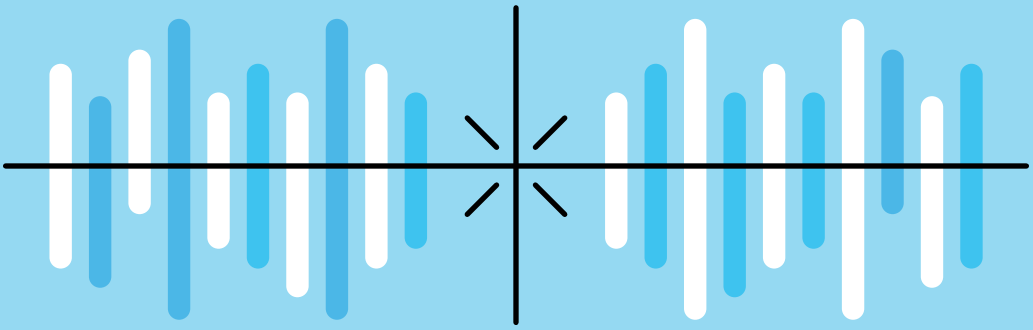

# Reimagining Product Development with AI

HBR Analytic Services **PULSE SURVEY**

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# Reimagining Product Development with AI

Many product development teams are turning to artificial intelligence (AI) to speed up individual work, automate repetitive tasks, and analyze customer information for insights. But because AI is largely being used to achieve efficiency gains on an individual level, teams have barely begun to tap its strategic potential to accelerate and improve product development and boost innovation.

**AI HAS THE** potential to unlock improvements across every stage of the product development process—and doing so will only become more important because organizations know their current product development life cycles need improvement. In a September 2025 Harvard Business Review Analytic Services survey of 332 members of the *Harvard Business Review* audience, all of whom are knowledgeable about and involved in making decisions about their organization's product development, 34% say their organization's current approach to product development is highly effective at producing the desired results. Another 16% describe the current approach as not very or not at all effective.

"It's really, really hard to ensure that what you learn in your discovery and research phase actually translates into a desirable product that is viable and able to keep pace with product evolution and growth," says Sareena Dalla Brookshire, an independent product adviser and the former chief product officer at Jersey City, N.J.-based financial solutions provider BNY Pershing. "Especially if you're building something that is truly innovative."

When it comes to product development, AI can enhance product groups' cross-functional collaboration and iterative creative work, as well as help teams focus on customer needs and make better decisions. In fact, the survey shows that organizations

## HIGHLIGHTS

**87%**

of survey respondents agree that in their organization's industry, having highly effective product development is critical to business success.

**83%**

agree that using artificial intelligence can significantly improve their organization's product development.

**34%**

say their organization's current approach to product development is highly effective at producing the desired results.

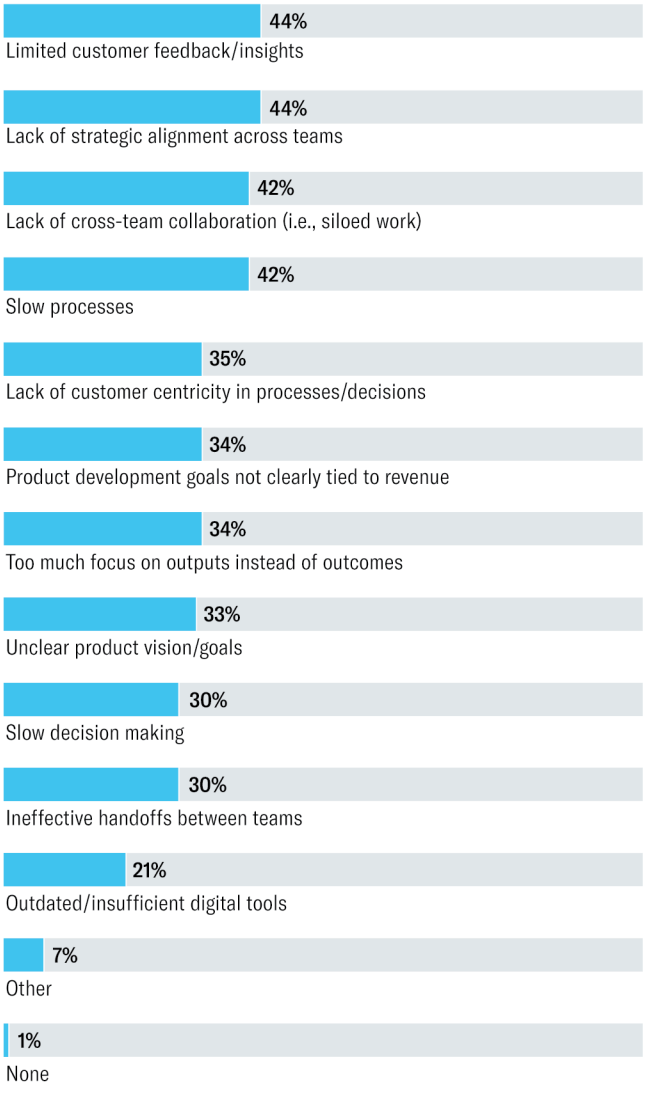
Due to rounding, some figures in this report may not add up to 100%.

FIGURE 1

### Top Product Development Challenges Organizations Face

**Limited customer feedback and a lack of strategic alignment lead the list**

Which of the following product development challenges does your organization experience? *Select all that apply.*




Base: 332 respondents. Not shown: Don't know, 0%.

Source: Harvard Business Review Analytic Services survey, September 2025.

are optimistic about AI, with 83% agreeing that using it can significantly improve their organization's product development. Yet its full value will ultimately come when companies leverage it to rethink product development from end to end, broadly reimagining how teams innovate and collaborate.

This report will illuminate how product development is evolving in an AI-powered world. It will examine top challenges with current approaches to product development, the benefits organizations seek by incorporating AI, and how they are currently using and considering using AI. It will also explore key obstacles to overcome in AI adoption and change management considerations for bringing the technology to product development.

## Common Obstacles Slowing Product Development

The rate of technological change and evolving consumer expectations mean that product development teams have to continually hone their approaches so that their offerings remain relevant. In addition, having to respond to these various demands means teams have multiple competing priorities to balance. "Each phase of the process has its own unique set of pain points," explains Brookshire.

Survey respondents report multiple challenges their organizations have faced when turning a product vision into a reality. The most-cited ones are limited customer feedback/insights and lack of strategic alignment across teams (each cited by 44% of respondents), followed by lack of cross-team collaboration (i.e., siloed work) and slow processes (each cited by 42%). FIGURE 1

One of the biggest factors underlying these challenges is that it is fundamentally difficult to know what products or features to build and then to get alignment among stakeholders. According to Teresa Torres, product discovery coach at Bend, Ore.-based consultancy Product Talk, this friction is why cultivating a "product mindset" is critical for successful teams. A great product both is based on the

> **“The product development cycle should be adjusted to AI, not just have it layered on top.”**
>
> Marcel Semmler, chief product officer, Bauer Media Group

company’s competitive positioning and meets the needs of its target customers. “Not everyone has that mindset, so it can feel like product teams are making arbitrary decisions sometimes,” she explains.

These dynamics are exacerbated when product development decision makers aren’t close to emerging customer needs. The best kind of leadership, says Torres, is when executives set the strategic direction and empower product teams to carry it out. “You’re not just letting product teams do anything they want,” she says. “You’re asking them to go out and discover the right products given your strategic context.” Unfortunately, Torres adds, that strategic approach is still missing at too many companies.

Data issues are another common challenge facing product teams, from siloed information to a lack of tools or workflows for sharing customer insights effectively. Without a single source of truth, product teams and their collaborative partners struggle to make well-informed decisions. “Data is a huge problem in product development organizations because without data, everything you do is just gut feeling,” says Marcel Semmler, chief product officer at Hamburg, Germany-based multimedia conglomerate Bauer Media Group. “And gut feeling is always worse than looking at data.”

Getting product development wrong can have serious business consequences. Survey respondents report their organizations have experienced myriad negative outcomes as a result of challenges in their product development process, including resources (time, money) being used inefficiently (mentioned by 60%), products being slow to market (53%), and products not achieving revenue targets (52%).

## Bringing Artificial Intelligence into the Mix

Many organizations are optimistic about how AI will enhance their product teams’ work. In the survey, for example, 81% agree that AI will accelerate their organization’s product development. Eighty-one percent also agree that implementing AI in product development will help their organization stay competitive with other organizations.

The survey shows that the most highly sought-after benefits of AI in product development are related to speed, cost, and quality. The top two benefits are faster time to value (mentioned by 44%) and faster iteration loops (40%), followed by lower product development costs and improved quality of work (both 31%), according to respondents whose organizations are using or considering using any of the product development AI use cases listed.

At the same time, unlocking AI’s full capabilities will require a long-term commitment. Determining the full extent of what these technologies can do for product development will take curiosity, patience, and a willingness to experiment. “Everyone acknowledges AI will change the way things are done, but there’s a wide spectrum of opinion about to what extent it will erase things or replace things or substitute things,” says Brookshire, the independent product adviser.

According to Bauer’s Semmler, the goal of integrating AI shouldn’t just be to automate existing processes, which will produce limited, if useful, gains. Instead, product executives should consider how to use the technology to rethink entire workflows. “Look at, from the ground up, how your product development cycle works. Where are the flaws? Where are the problems?” he says. “The product development cycle should be adjusted to AI, not just have it layered on top.”

## Finding Early Wins with AI

While redesigning entire workflows with AI should be a long-term goal, organizations can achieve more immediate impact by applying the technology to existing tasks and processes today.

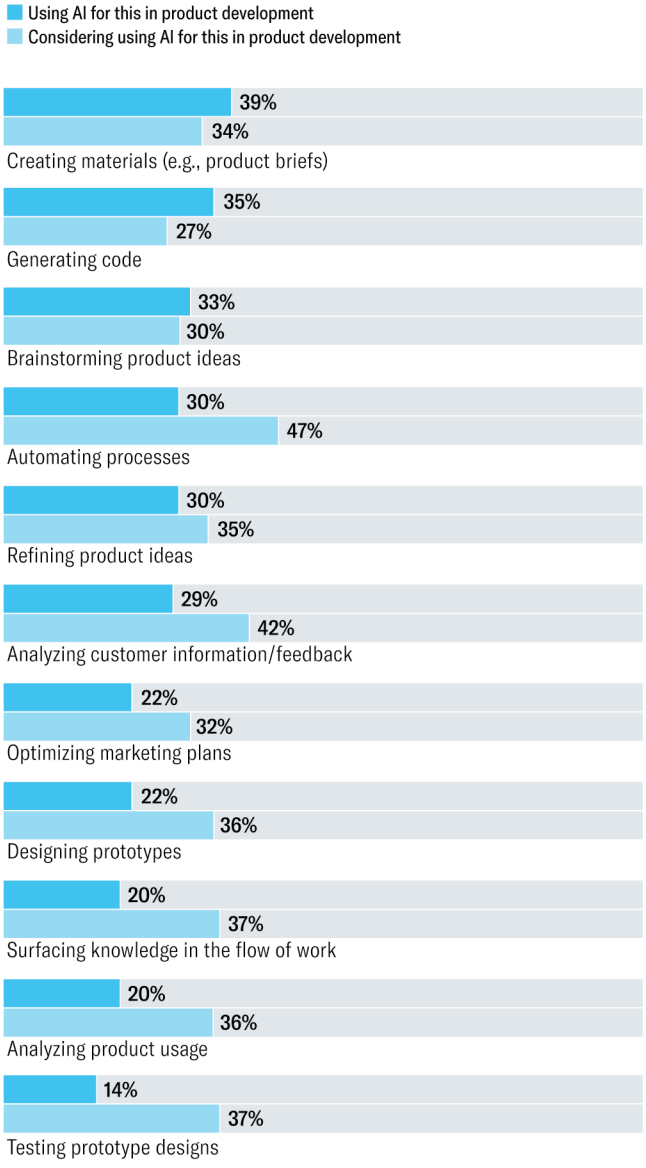
Steven Eppinger, professor of management science and innovation at the Massachusetts Institute of Technology (MIT) Sloan School of Management, agrees with taking

FIGURE 2

## Using Artificial Intelligence in Product Development

**Creating materials tops the lists, but organizations are considering many other possibilities**

In which areas of product development is your organization using, or considering using, artificial intelligence (AI)?




Base: 332 respondents. Not shown: Not considering using AI for this in product development, 13%–33% (varies by row); Don't know, 8%–19% (varies by row).

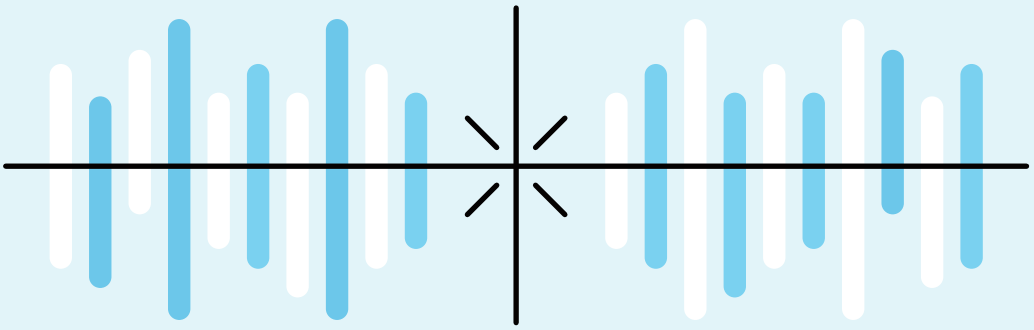
Source: Harvard Business Review Analytic Services survey, September 2025.

a short-term view at first, suggesting executives use AI to improve the established steps of product development before trying to reimagine them. As teams learn to harness the technology, they can expand its use into additional areas. "I would identify ways to have AI assist at every stage," he says. "Over time it's going to help with more and more parts of the whole workflow."

In the survey, respondents were asked about both current uses of AI in product development and use cases their organizations are considering. The most common current use cases are creating materials such as product briefs (mentioned by 39%), generating code (35%), and brainstorming product ideas (33%). The top use cases being considered from the list are automating processes (47%) and analyzing customer information/feedback (42%). FIGURE 2

In highlighting AI's ability to automate work and create materials, Eppinger says it's worth investigating which repetitive or routine tasks it can be trained to do. Even if handing a task to AI "merely" saves someone an hour or two, they're now freed up for more creative and strategic work. For example, putting together a so-called release package—a bundle of all the changes, assets, and documentation for a specific product or update—might take an employee hours. Training an AI system to compile the necessary materials could lead to considerable time savings for each release. "That kind of usage might be below the radar of more-strategic thinkers, but it just saves engineers and developers tons and tons of time," Eppinger says.

Beyond increasing productivity, another area where AI can make an impact right now is in discovery. Discovery has always been vital, but as Semmler points out, it's time-consuming. "Ideation, A/B testing, running experiments—every company wants to do all of that, but only the small minority are really doing it because experimentation can take weeks to get to a result," he explains. AI tools, however, can help discovery efforts happen faster, especially those that involve a number of participants, such as A/B testing and focus groups. It does so by shortening the time needed to gather and interpret user signals, as well as by simulating user



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behavior, generating test variations, and processing large volumes of data—helping teams get a faster first read on what to test with real customers. AI can therefore speed up the time to insight and improve decision making—helping teams feel more confident that they're building validated products that will deliver the right business outcomes.

Transforming prototyping is also among the fundamental shifts that AI will enable, says Product Talk's Torres. Currently, product teams spend a lot of time mocking up designs and walking customers through those designs to demonstrate how a product might work. "With AI prototyping tools, we can actually make the design look like a real product," she says. "Customers can interact with it. We can import their data into it." This method of prototyping can help gather the high-quality feedback that is essential for designing great products. The survey finds that although relatively few organizations are currently using AI for designing prototypes (22%) and testing prototype designs (14%), greater numbers are considering using AI in those areas (36% and 37%, respectively).

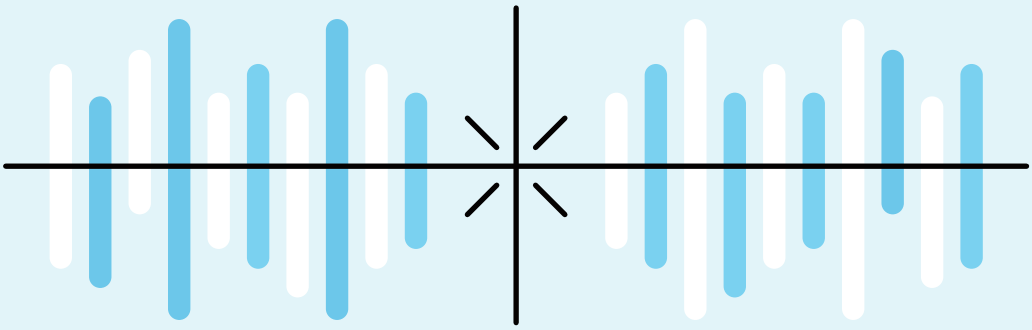
Still, Torres cautions against getting carried away in the pursuit of AI-driven efficiency. If teams aren't careful, trying to increase speed and lower costs can lead to cutting corners. AI tools are lowering the cost and complexity of building products, and Torres has seen that weaken teams' discipline for making decisions focused on business goals. "A lot of teams are already starting to frame this as, 'Why do any discovery? Why get feedback from customers? If it's cheap to build, let's just release something,'" she says. But that approach can create complicated products that are hard to use and don't clearly address customer needs. "I think a lot of companies are going to go through this learning curve in a very unpleasant way," she warns.

## New Mindsets, Team Structures, and Ways of Collaborating

Evolving product development for the AI age requires a shift in mindset. Some companies still view products as finite, linear projects with defined starts and ends. But a more forward-looking perspective, explains Torres, treats products as ongoing efforts and emphasizes gathering feedback, iterating, and updating products post-launch. In this approach, which is especially useful for digital offerings, though relevant to physical products too, teams continuously gather data about which features are working well or not and use that data for the next iteration.

Executives also need to consider how roles and team structures are changing with AI, thanks to enhanced flexibility. Traditionally, product groups have been based around what Brookshire calls "siloed roles and responsibilities": Engineers did the engineering, designers did the designing, and so on. New technologies are democratizing craft and helping people expand their skills. "This is going to be an adjustment as people start to step outside their function and think more broadly about the product," Brookshire says. The blending of traditional roles is likely to continue, she adds, changing how executives think about organizing teams and talent.

But as the lines between traditional roles blur, organizations should work to improve cross-functional collaboration, cautions Torres. Often, companies create products with each function handling its own tasks, such as the product development team gathering the project requirements, the design team doing the design elements, and the engineering team building the product. That approach tends to create extra



# But as the lines between traditional roles blur, organizations should work to improve cross-functional collaboration.

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work, she says, because it leads to less effective decision making. "You end up asking engineers to build things that are less than optimal because they weren't involved in the decisions about what to build," Torres explains. More effective is for key decisions to be made with input from a range of functions, which helps ensure that teams are aligned around common goals.

## Driving Collaboration and Innovation

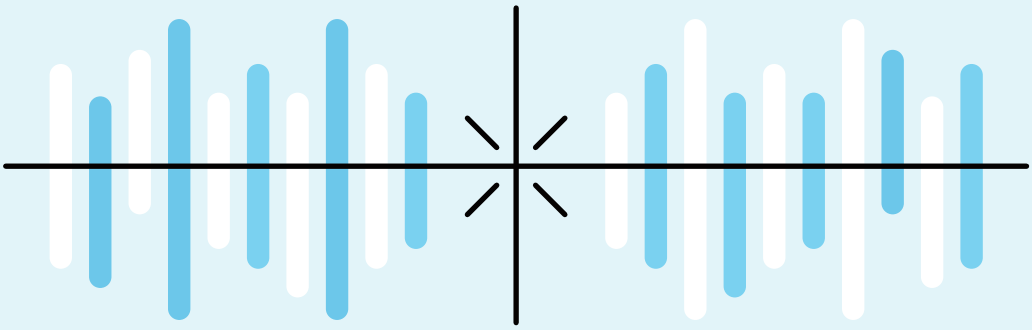
Along with accruing quick wins from AI, executives should also think about how the technology can be used to redesign collaboration across the entire product development process.

One critical aspect of doing this is to consider how AI can be used for team collaboration rather than just for individual productivity. Without this team-level emphasis, executives are unlikely to realize the technology's full potential and impact across the organization. Notably, the survey finds that 62% of respondents say AI's uses in product development at their organization so far focus primarily on individual work rather than collective work. Only 10% report that the primary focus is on helping teams collaborate to get work done, while 20% say AI usage is equally focused on both approaches.

Using AI for collaboration can also include integrating it as a member of the team. MIT's Eppinger says this approach is relatively rare so far given that most organizations still use AI as an individual, rather than a team, productivity booster. He points to brainstorming as one collaborative task where the technology could make a real impact. Though a person or group can come up with plenty of ideas, AI can come up with them much faster and at scale. Teams can look at AI's suggestions alongside employees' ideas and then feed the best ones back into the AI tool to iterate further. "It doesn't really matter whether something came from you or the AI or came from the AI and then you embellished it," Eppinger says. "You're just using the AI in conjunction with your team-based process."

Leveraging AI for teams could also mean deploying it in spaces where teams work together, such as visual collaboration platforms. These platforms have a digital canvas/whiteboard or similar interface to support collaboration and information sharing for product teams, sometimes with AI features that automate and organize teams' work. In the survey, 50% of respondents say their organization uses a visual collaboration platform for product development, with 81% of that group describing it as either critical or important to their product development workflows and processes.

Another aspect of AI-driven product development is to reimagine current workflows. "The analogy I'd use is classic digital transformation," says Brookshire. "The best companies didn't just digitize existing processes—they rethought entire processes from start to finish with a digital-first approach. It's the same with AI." There aren't many established best practices here yet, and what the reimagining looks like in product development may vary depending on a company's goals, industry, and other factors. Brookshire suggests product executives look for opportunities to redesign and automate workflows, find deeper customer insights, create more confidence around the products being built, and make delivery roadmaps more accurate. Once products are in the market, she also suggests organizations improve their ability to gather data about product performance, analyze it, and use it to enhance their processes further.



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>
> Akhil Seth, head of product (London office), New York City-based financial services provider

Taking these steps is no small task, yet it's likely to be how AI brings the greatest long-term value to product development—and will only become more important as executives see their competitors exploring these areas. "At the highest level, I do think it's a restructuring and redesigning of the entire process," Brookshire says.

The good news for executives, adds Torres, is that as they integrate AI into their workflows, some areas for improvement become obvious. Among these areas is the creation of product requirement documents (PRDs), which outline all the details and specifications of what will be built. PRDs are standard practice in product development, but the advent of AI can make them seem woefully outdated. "That document originated in the factory world, where we were trying to define six months of work before we started," Torres points out. "In a truly agile world, we're defining two weeks of work." AI can easily produce a 30-page PRD, and teams are using it to do so, but then other teams use AI to summarize the document, Torres says, so what's the point of making it?

"What's weird about product development is we have all these vestiges of this old world that we don't live in anymore that are still hanging on," Torres says. "We can ship updates to our customers daily. We can iterate as often as we need to. It's much easier to learn from our customers and make improvements, if we are willing. But too many teams skip this step. They finish a project and they move on to the next. They forget to ask, 'Does this actually work for our customers?'"

The survey finds there's ample opportunity to reimagine the steps of product development, since most steps aren't working as well as they could be. The earlier steps and the final one are particularly in need of improvement: Around one-third of respondents point to generating and evaluating product ideas (36%), conducting market research (36%), product roadmapping and planning (33%), and mapping the customer journey (32%) as underperforming. Just behind these stages, about a quarter (24%) say the final part of the process, supporting the product post-launch, is one of the steps most in need of improvement. FIGURE 3

## Current Limits of AI

AI is evolving quickly, yet executives should be mindful of areas where using the technology requires extra care. Chief among them is decision making. At its core, AI is a pattern-matching technology, and so while it can offer an answer to any question put to it, Eppinger says whether that answer has any validity depends strongly on the question.

He cites the example of ranking 100 product ideas, which an expert could do by drawing on their skills and knowledge. Even if someone couldn't articulate the difference between ideas 86 and 83, the person would certainly be right that both are much worse than idea two. "I would trust your judgment, because you've got all kinds of considerations in your head," he says. However, what gives Eppinger pause with AI is that it's often unclear why AI systems make decisions in the manner they do, even when a person prompts them with specific criteria. "I'm not saying AI will never be able to make decisions well, but so far, that's not the type of thing I want to trust it for," he notes.

In addition, executives should be cautious about relying on AI to perform beyond its programming. The technology is good at coming up with a result based on data it's been trained on, but it's less reliable at making an educated guess. An expert could make a logical leap based on their experience; AI doesn't have that capability. "I think where AI lacks is not being able to do intuitive decision making or think outside the box, like looking for pitfalls or potential roadblocks you might not be able to preemptively think about," says Akhil Seth, head of product in the London office of a New York City-based financial services provider.

Other limits of AI are less about its technological power and more about practical considerations—those tasks or contexts that people are simply better suited for. When it comes to customer research, for instance, AI may be useful for analyzing data, Semmler explains, but even the most advanced system can't replace the person-to-person conversations that can unearth valuable insights. "Going into your customer's office for a day to understand how they're

working and their problems—this kind of closeness will, for a long time, remain part of product [development]'s heart," he asserts. Before handing over critical tasks to the technology, product executives should be sure they've considered which ones still need and may always require the human touch.

Another practical consideration is that AI makes mistakes, such as inventing fake citations to support wrong conclusions. AI tools often warn users to check the technology's work, but as long as hallucinations and similar issues persist, product teams—and organizations overall—will continue to need human experts to monitor and oversee AI-generated work. Torres recommends that product development teams first focus on using AI in domains where their employees have expertise so they can catch what AI gets wrong and build an awareness of how to detect its errors. "Keep a really skeptical mindset when you're working in a domain you don't really understand," she says, "because then [you'll] be in a position to catch what [AI] gets wrong."

## Managing Data and Change

AI adoption must be accompanied by a company-wide effort around increasing data quality as well as setting up good governance for data systems and how sensitive information is used. Improving quality means, at minimum, breaking down data silos, cleaning data sets, and ensuring teams have easy access to all the information they need to make good decisions and collaborate. In addition, while decisions about who can access data and how it can be shared are not solely the province of product development, they should be made by relevant executives, such as those in IT and cybersecurity, before AI systems are put in place. "From a change management standpoint, the rules of the road around data and security are really important," says Brookshire. Special care should be taken in industries with stricter data laws, regulatory requirements, or privacy concerns, such as finance and health care, she adds.

FIGURE 3

### Stages of Product Development That Need Improvement

**Generating ideas and conducting market research lead the way**

Which steps in your organization's product development are the most in need of improvement? *Select up to three.*


Base: 332 respondents. Not shown: Don't know, 0%.

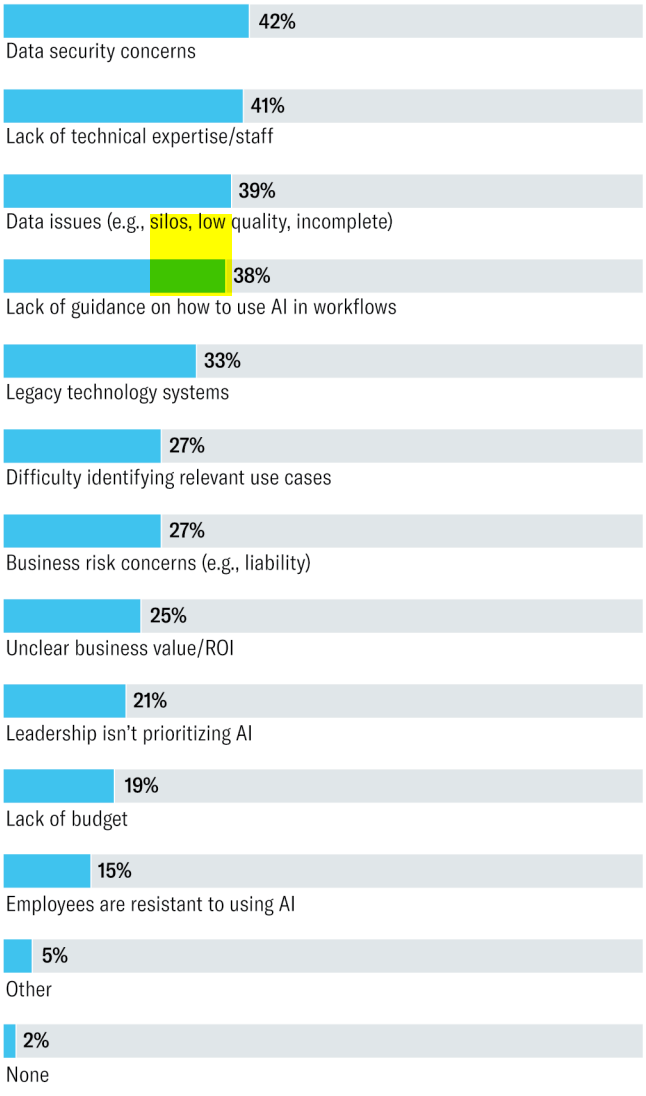
Source: Harvard Business Review Analytic Services survey, September 2025.

FIGURE 4

## Obstacles to Adopting AI in Product Development

**Data security worries and lack of technical expertise represent the most common barriers**

Which of the following are obstacles your organization is facing when it comes to adopting AI for product development? *Select all that apply.*




Base: 332 respondents. Not shown: Don't know, 2%.

Source: Harvard Business Review Analytic Services survey, September 2025.

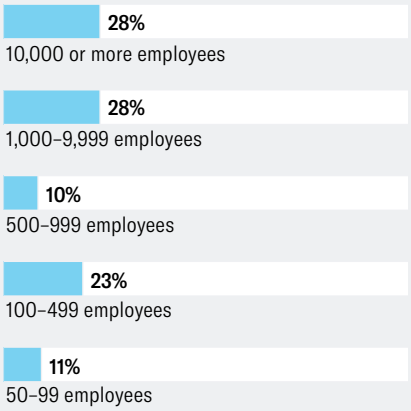
The survey finds that the top obstacles to using AI for product development are data issues and lack of know-how. The four hurdles mentioned the most all fell into those categories: data security concerns (cited by 42% of respondents); lack of technical expertise/staff (41%); data issues such as silos, low quality, and incompleteness (39%); and lack of guidance on how to use AI in workflows (38%). FIGURE 4

When investing in AI, executives would do well to give everyone throughout the organization the same tools, says Seth, the London head of product for the New York City-based financial services provider. If the selection of tools is left to each individual or team, organizations will quickly have a disparate set of systems that may not integrate with each other or give everyone the same capabilities, which can lead to tool sprawl and technical debt. To build the workforce's AI skills equally, Seth says, everyone should have the same tools, similar to how all employees use the same application for email. "The more standardization you do across tools, the more you put people at the same starting point," he explains.

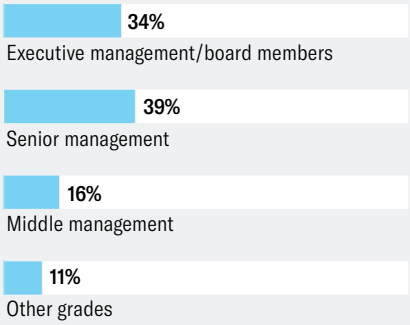
Ultimately, AI alone won't make a product team successful, argues Eppinger, who says a company's competitive differentiator is not its technology but the teams that use it—something executives shouldn't forget. "We all have access to more or less the same approaches and tools," he points out. "So having really good staff and thinking about innovation right and having a good strategy—I think those things will differentiate us when we're all using AI."

Harvard Business Review Analytic Services surveyed 332 members of the *Harvard Business Review* audience via an online survey fielded in September 2025. Respondents qualified to complete the survey if they work at an organization that does product development, they're knowledgeable about the product development process, and their role is involved in making decisions about it.

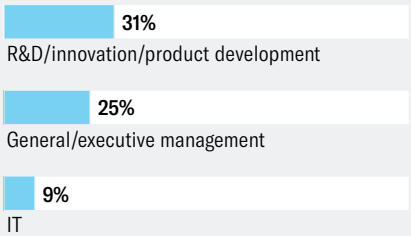
### ORGANIZATION SIZE




### SENIORITY

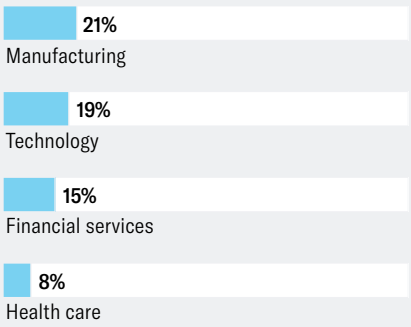



### JOB FUNCTIONS



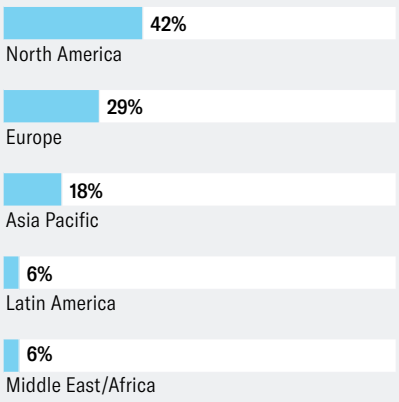

*All other functions less than 7% each.*

### INDUSTRIES




*All other sectors less than 8% each.*

### REGIONS



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