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State of Design & Make

A GLOBAL, ANNUAL, LONGITUDINAL STUDY for leaders who design and make places, objects, and experiences.

2024
2025
2026
2027

Contents

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About the report

The *State of Design & Make* report is a global, annual, longitudinal study for leaders who design and make places, objects, and experiences. It identifies the most pressing issues shaping today's businesses and helps leaders make informed, strategic decisions about how to prioritize and invest for the future.

For the *2025 State of Design & Make* edition, Autodesk surveyed and interviewed 5,594 industry leaders, futurists, and experts across Design and Make industries: architecture, engineering, construction, and operations (AECO); design and manufacturing (D&M); and media and entertainment (M&E). Survey data has been broken down by global region: Asia-Pacific (APAC); Europe, Middle East, and Africa (EMEA); and the Americas (AMER). This is the third longitudinal year of this report series with data comparisons from the previous two reports.

What is Design and Make?

A convergence of technologies and methodologies in industries that produce digital and built assets over the past 40-plus years has resulted in a distinct category of work: Design and Make. Design and Make shapes the surrounding world, translating complex ideas into powerful experiences, whether it's transforming a sketch into a school, turning a concept into a car, or making a myth into a movie. Globally, Design and Make employs, conservatively, 295.7 million people.[1]

Before digitalization, much of this work took place in discrete, siloed phases, handed off from specialist to specialist. With the advent of digital workspaces and modeling tools, these phases have converged into a centralized way of working informed by data-driven insights. Today, teams collaborating on Design and Make projects see their work as part of a larger, interconnected process. Digital tools and standards make it easier to map interdependencies, refine processes, and democratize solutions.

For the professionals immersed in it every day, Design and Make is more than a way of working—it's a philosophy and a mindset. It represents a deep belief that every challenge and complexity can be overcome with the right tools and the right skill set. Designers and makers are optimists united by a shared drive to make a better world for all.

[1] World Economic Forum, 2023

Introduction

Leaders in Design and Make industries report that they are confronting daunting headwinds, from increased geopolitical uncertainty and inflation to talent gaps and challenges implementing emerging technologies like artificial intelligence (AI). But for the third year, digital transformation has proven to help Design and Make organizations identify opportunity amid disruption, providing benefits nearly across the board.

2025 State of Design & Make key findings

Leaders were clear on the challenges they are facing.

Cost control remains top of mind for organizations amid continued inflation and increasing supply-chain fragility. Implementation of AI and emerging technologies is the second most-cited challenge, one that is compounded by both cost and labor concerns. Talent remains a perennial problem, with nearly two-thirds of organizations experiencing a skills gap and the majority of companies saying lack of skilled talent is hindering growth.

Optimism about AI is down, and concern about its destabilizing effects is up among leaders in Design and Make as organizations struggle with implementation and finding practical use cases for the new technology. And, finally, global uncertainty is depleting organizational confidence and increasing feelings of unpreparedness.

Despite this uncertainty, business leaders in Design and Make are still feeling bullish in some areas as they identify opportunity amid disruption:

- Although overall investments are down year-over-year, more than two-thirds of leaders say they will increase overall future investments.
- Sustainability is experiencing a surge of optimism, with nearly all leaders saying their organizations are taking steps to be more sustainable. Sustainability also continues to be a key differentiator in talent acquisition.
- This year, AI solidified its place as the top sustainability enabler for Design and Make organizations, with applications from natural-disaster mitigation to project lifecycle management.

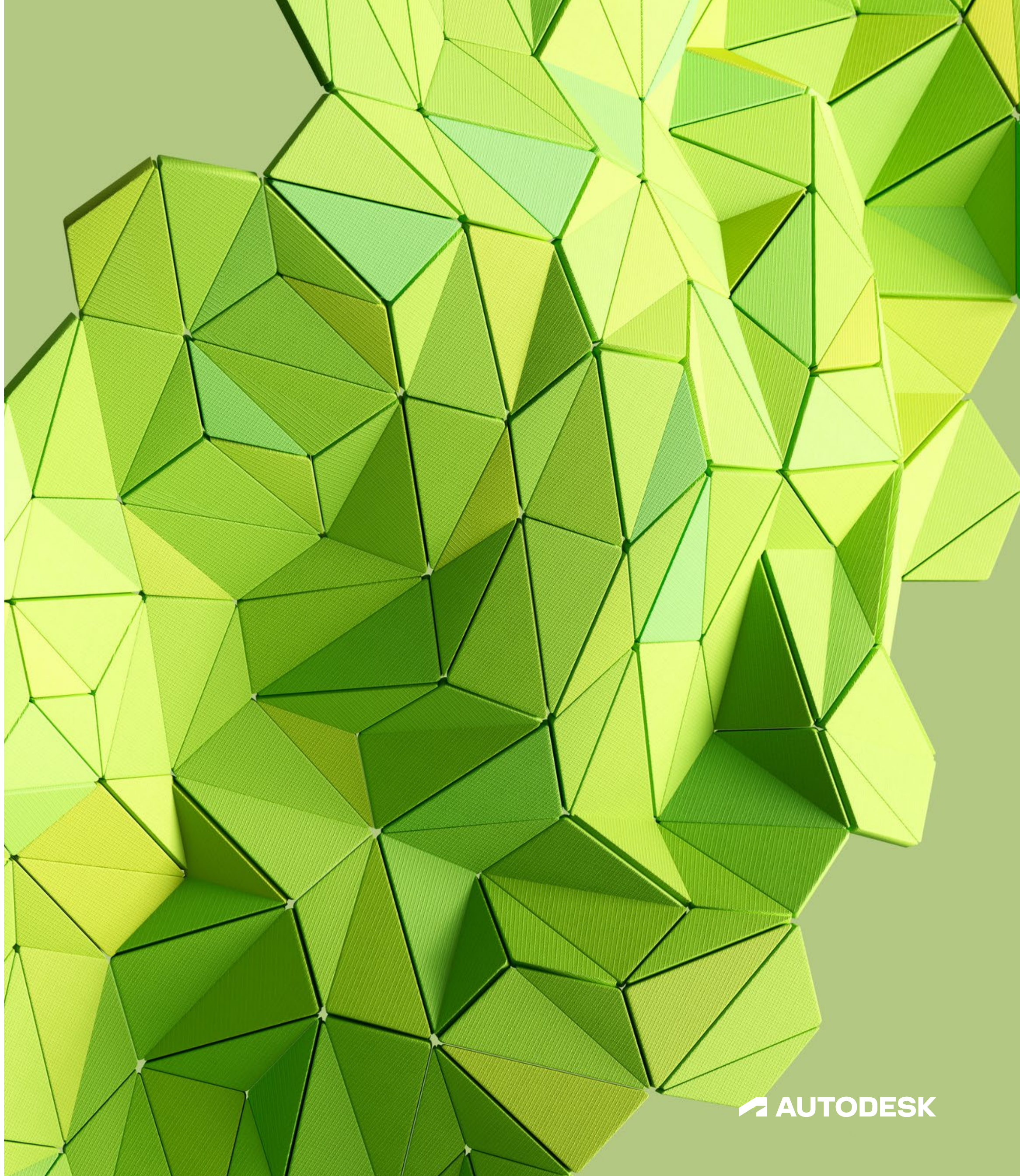
One standout finding this year is that most leaders surveyed say digital transformation efforts led to improvements at their organizations. The majority of organizations benefiting from digital transformation are seeing more than 50% improvements in categories such as customer satisfaction, innovation, and productivity. Digitally mature companies tend to invest more heavily in technology, and those investments are now paying outsize dividends during the current period of caution.

The digital maturity difference

In this report, “digitally mature” companies are defined as those that are approaching or have achieved the goal of their digital transformation journey. “Less digitally mature” companies are defined as those that are in the early stages or right in the middle of their digital transformation journey.

- Digitally mature organizations are 41% more likely to diversify their supply chains, and leaders at these organizations feel more prepared to handle unforeseen changes compared to less digitally mature companies, giving them an advantage when it comes to resilience.
- These organizations are also more likely to leverage internal data to gain a competitive edge, more quickly develop products and services, and complete projects faster than other companies.
- Digital maturity eases talent concerns, with a 22-point improvement in talent acquisition and retention from their technological advancement over less digitally mature organizations.
- Organizations that are digitally mature are more likely to enter new markets and increase investments into acquisitions, allowing them to expand while others are contracting.

There’s no question that leaders in Design and Make industries are confronting a challenging geopolitical and macroeconomic environment. But given the findings of the *2025 State of Design & Make* survey, a resilience agenda centered on digital transformation can provide strong protection against uncertainty.



INSIGHT 1

Digital transformation efforts have an overwhelmingly positive impact

01

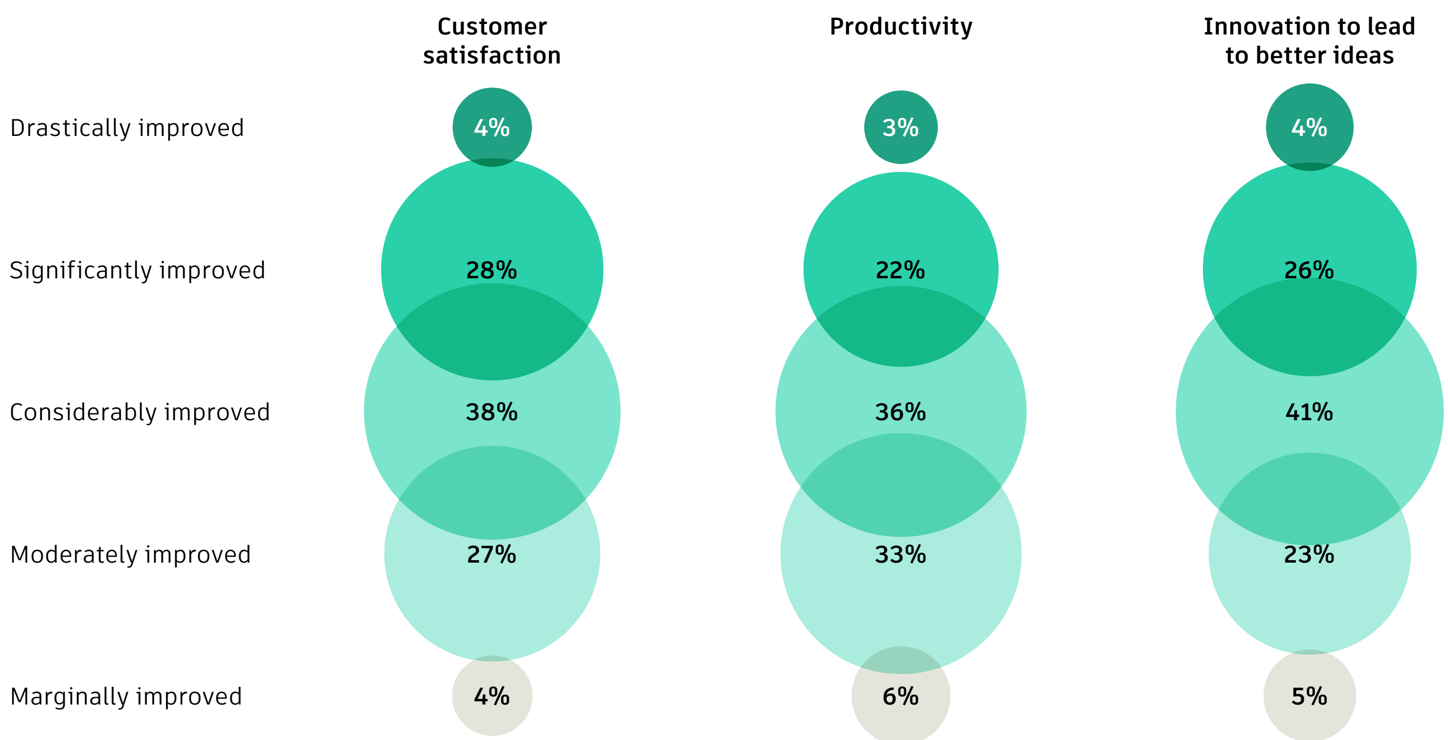
INSIGHT 1

Implementation of new technology is a perennial challenge for leaders in Design and Make industries, but those who tackle the complexities of digital transformation are reaping the rewards of their efforts. In fact, most leaders surveyed for the *2025 State of Design & Make* report have already realized a 50%-plus return on their digital transformation efforts through increases in innovation, productivity, and other categories.

50%+
return on investment from digital transformation

Digital transformation efforts have an overwhelmingly positive impact

Majority of organizations realize more than 50% ROI from digital transformation



Survey question: Has your company or organization experienced any of the following benefits of digital transformation? Select all that apply.
Followed by survey question: You selected [benefit] as a benefit of digital transformation. How much has digital transformation improved [benefit]?
Response scale: “Marginally,” “Moderately, by 25%,” “Considerably, by 50%,” “Significantly, by 75%,” and “Drastically, by 100%.”

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INSIGHT 1

Along with improvements in customer satisfaction, productivity, and innovation, leaders benefiting from digital transformation report it is also having positive effects on company reputation (72%), expansion of products and services (68%), and improved data exchange (67%).

"Our digital transformation program today will create huge amounts of efficiency, allowing us to go 50% faster and 30% cheaper."

NITESH ALAGH
Business Lead – Digital Engineering, Sustainability & Emerging Tech,
Severn Trent Water, a water and wastewater utility company headquartered in the UK

"When it comes to modernization and digitalization, we will continue to invest in these areas because it helps us get more done and increase our profitability."

ANNA NONEDER
BIM and Change Manager, Lindner Group, an interior construction specialist headquartered in Germany

Digital maturity benefits the entire organization:

In this report, "digitally mature" companies are defined as those that are approaching the goal or have achieved the goal of their digital transformation journey. "Less digitally mature" companies are defined as those that are in the early stages or right in the middle of their digital transformation journey.

Respondents from digitally mature companies report they are ...

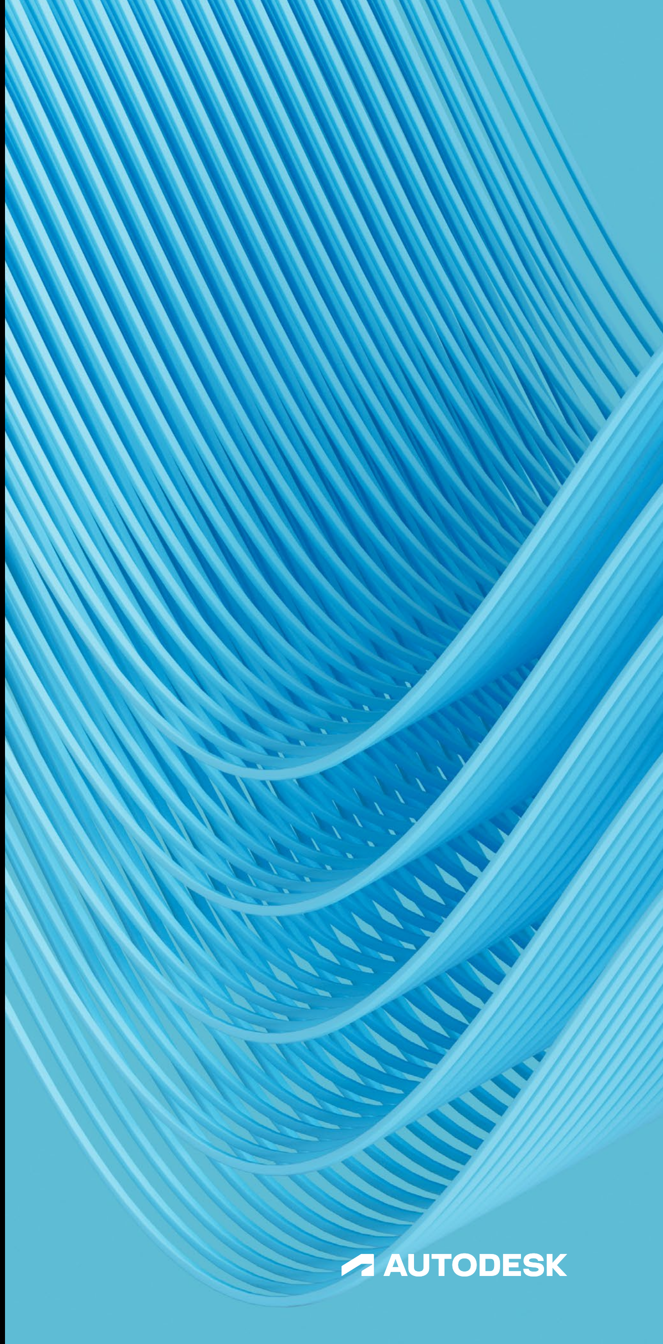
+30%
... more likely to have experienced "above average" or "exceptional" **performance**

+29%
... more likely to "agree" they **are prepared** for the future

+35%
... more likely to have "increased" or "strongly increased" **investment** in the past 3 years

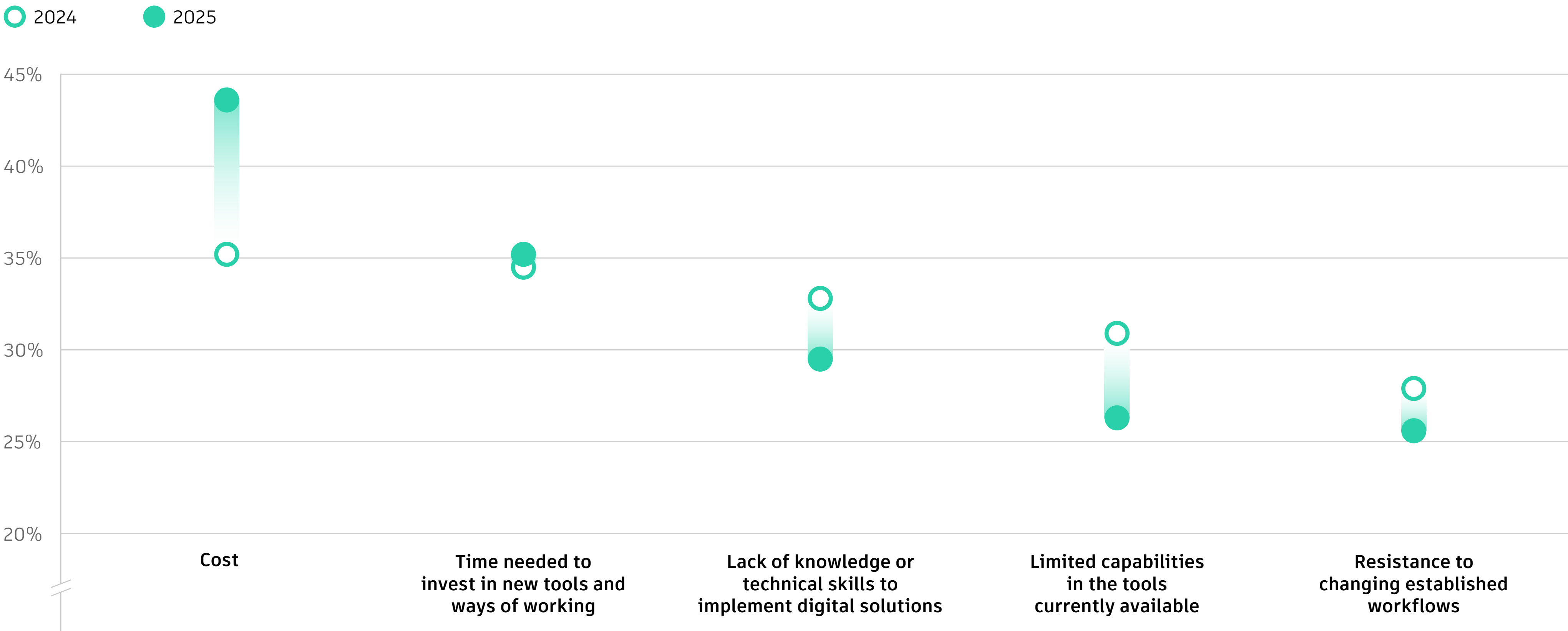
+26%
... more likely to have kept up "very well" with **change in the industry**

With results like these, less digitally mature organizations thinking about reducing their digital transformation investments in the next few years should reconsider. The benefits of digitalization are clear, and the longer organizations take to get up to speed, the greater the drag on their performance could be. While sometimes challenging, the long-term benefits of digital transformation far outweigh short-term struggles.



INSIGHT 1

Cost, time, and talent are the biggest barriers to digital transformation



Survey question: What are the barriers to digital transformation in your company or organization? Select all that apply.

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INSIGHT 1

> *“The biggest barrier to digital transformation is time. We have so many projects, so many client demands to design quickly and yesterday. The speed of change is rapid. Enabling our staff to have enough time to be trained and be familiar and ensure the adoption is key. I find it’s not the willingness of staff—it’s the availability of staff.”*
>
> **DR. MAX CLARK**
> Senior Vice President, EMEA CTO & Sector Manager, Parsons, a global engineering firm headquartered in the United States

The cost of digital transformation is a growing challenge for many organizations, with 44% of leaders saying it’s their main barrier, up from 35% in 2024 and reflecting a global increase in concern about cost control. But given the outsize returns organizations are seeing from their digital transformation investments, cost-cutting measures could have equally outsize negative effects if they impact technology initiatives.

Concerns about cost are followed by the persistent challenges of time and talent, tied for second this year as the most-cited obstacles as organizations struggle to meet implementation goals while also trying to do more with fewer resources.

The more digitally mature an organization, the less concerned its leaders are with cost and talent and the more concerned they are with the actual technology. Digitally mature companies less often cite cost (41% compared to 46%) and more often cite the limited capabilities of tools (29% compared to 24%) as a barrier. These organizations also have an advantage when it comes to talent, with 27% of leaders saying digital transformation has improved talent acquisition and retention compared to 18% at less digitally mature companies.

INSIGHT 2

Sustainability transitions from pressure to profitability

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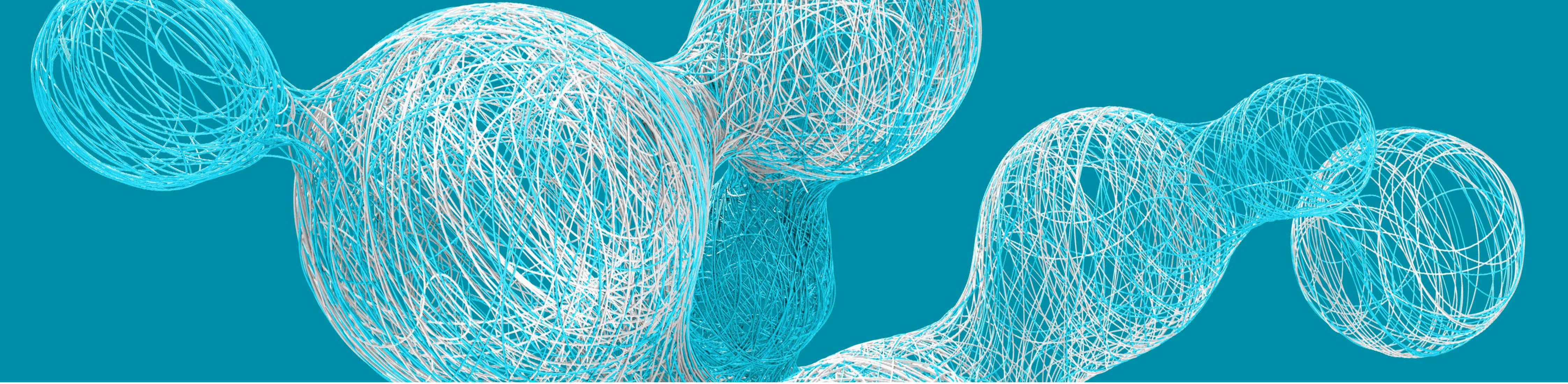

INSIGHT 2

Increasing awareness of the business value of sustainability has many leaders changing their perspective, seeing sustainability initiatives less as an obligation and more as an opportunity for greater performance. The number of executives globally who understand the business case for sustainability tripled between 2022 and 2023,[2] and the majority of *2025 State of Design & Make* survey respondents say that sustainability is crucial for future business growth in the next three years.

This signals a shift in sentiment and priorities, driven by both the short- and long-term opportunities that sustainability can provide. Seventy-two percent of business leaders believe that sustainability measures can generate in excess of 5% of their annual revenue, a figure that has remained relatively strong compared to last year (79%), despite this year's cost concerns.

While organizations across Design and Make industries are still influenced by stakeholders to become more sustainable, that influence appears to be waning. For instance, this year, 72% of leaders say their sustainability initiatives were influenced by customers, compared to 83% in 2024—a 13% year-over-year decline.

"All the work that we're doing towards sustainability differentiates us with clients."

MOHAMAD KASSIR
Global BIM Manager, Egis Group, an engineering and consulting firm headquartered in France

[2] World Economic Forum, 2023

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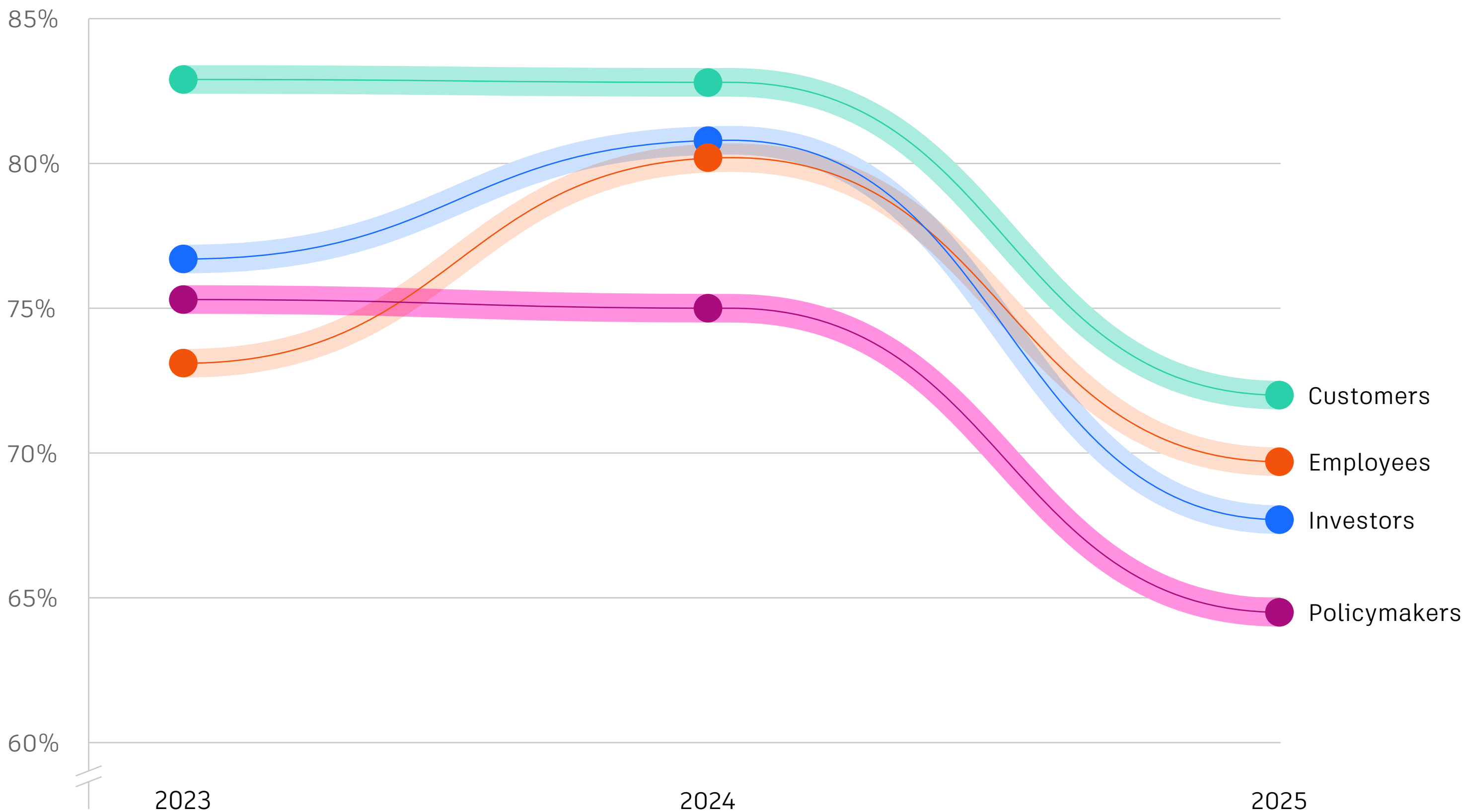
INSIGHT 2

Stakeholder influence is in decline

Leaders have other reasons for sustainability initiatives



Survey question: How influential are the following groups in motivating your company or organization to create and meet sustainability goals?
5-point scale. Top two = influential.

> ***"I am optimistic about the future. We have technology that will help us build new infrastructure, consuming less resources. We're becoming better and are investing in better, and greener, solutions."***
>
> **MARCELO PILLER**
> Director of Engineering and Innovation, OEC Engenharia, an engineering and construction firm headquartered in Brazil

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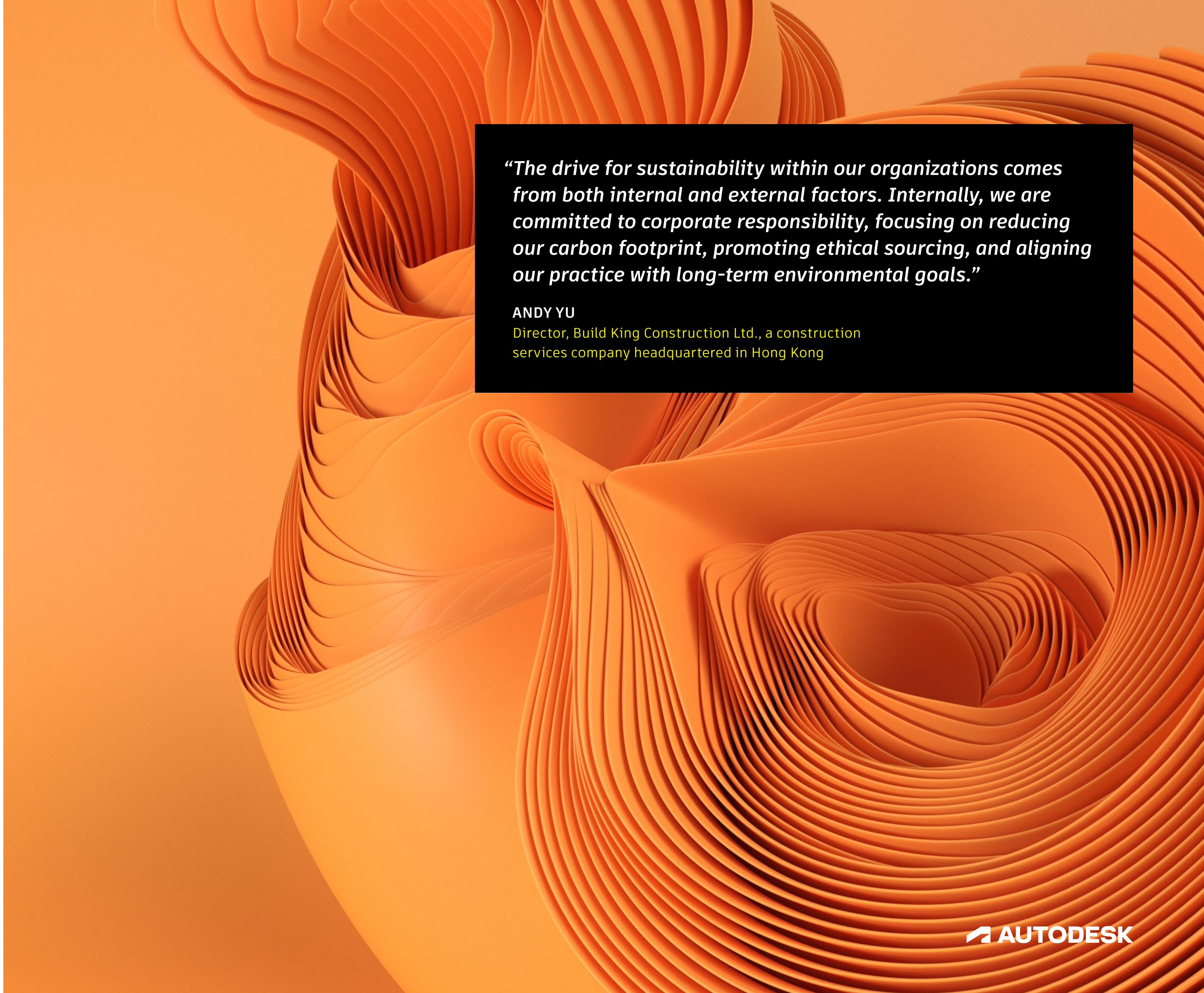
INSIGHT 2

The decline in stakeholder influence is universal across all groups, including customers, employees, investors, and policymakers. New to the survey this year as possible influencers are partners (70%), who rank the same as employees, and suppliers (65%), which are just above policymakers in the 2025 results.

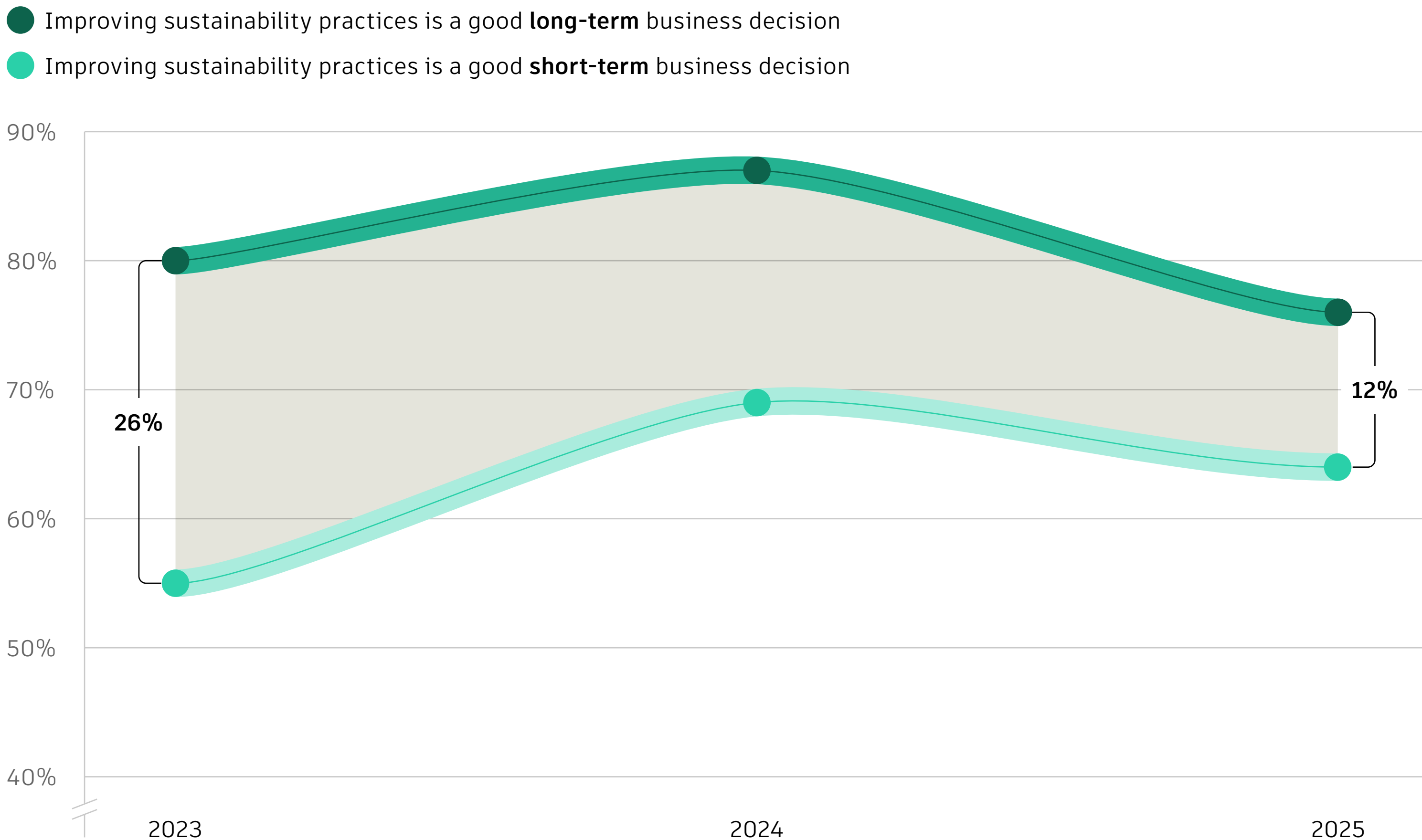
Although the influence of stakeholder groups is down, sustainability efforts remain steady, with 95% of leaders reporting their organizations are making changes to be more sustainable. This suggests that organizations are starting to take the reins on sustainability initiatives by incorporating them into long-term strategy rather than allowing external influences to guide decisions.



> *"The drive for sustainability within our organizations comes from both internal and external factors. Internally, we are committed to corporate responsibility, focusing on reducing our carbon footprint, promoting ethical sourcing, and aligning our practice with long-term environmental goals."*
>
> **ANDY YU**
> Director, Build King Construction Ltd., a construction services company headquartered in Hong Kong

INSIGHT 2

Closing the gap between long-term and short-term strategy



> *"We have ongoing enhancements to our sustainability practices and use of technology, and we see them as two sides of the same coin. At the end of the day, sustainability helps reduce costs."*
>
> **ENG. TAREK ELGAMAL**
> Chairman, Redcon Construction, an engineering, construction, and infrastructure company headquartered in Egypt

Percentage of respondents who agree to statements: 1. Improving sustainability practices is a good long-term business decision. 2. Improving sustainability practices is a good short-term business decision. 5-point scale. Top two = agree. Gap = difference between long-term and short-term for each year.

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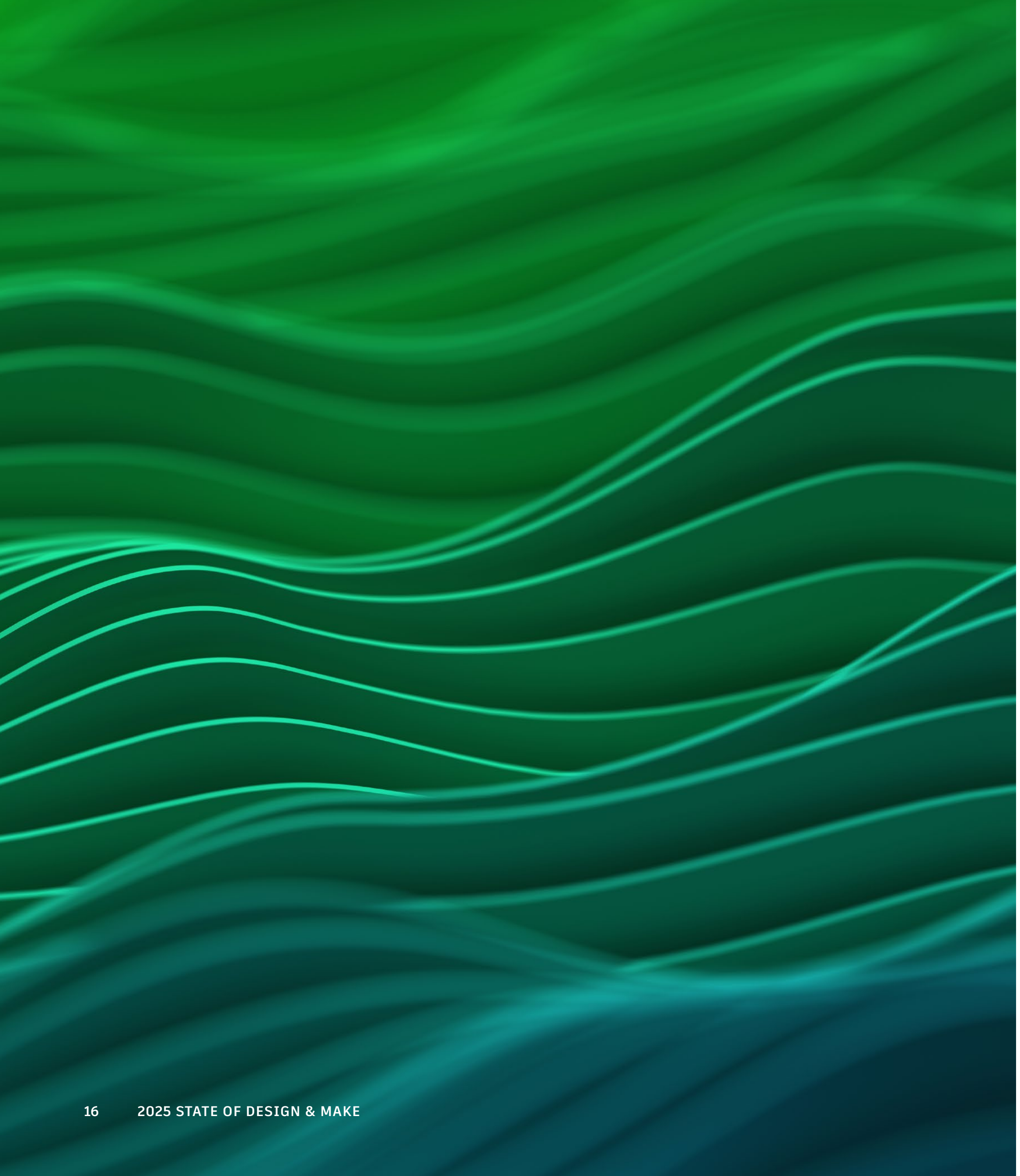


INSIGHT 2

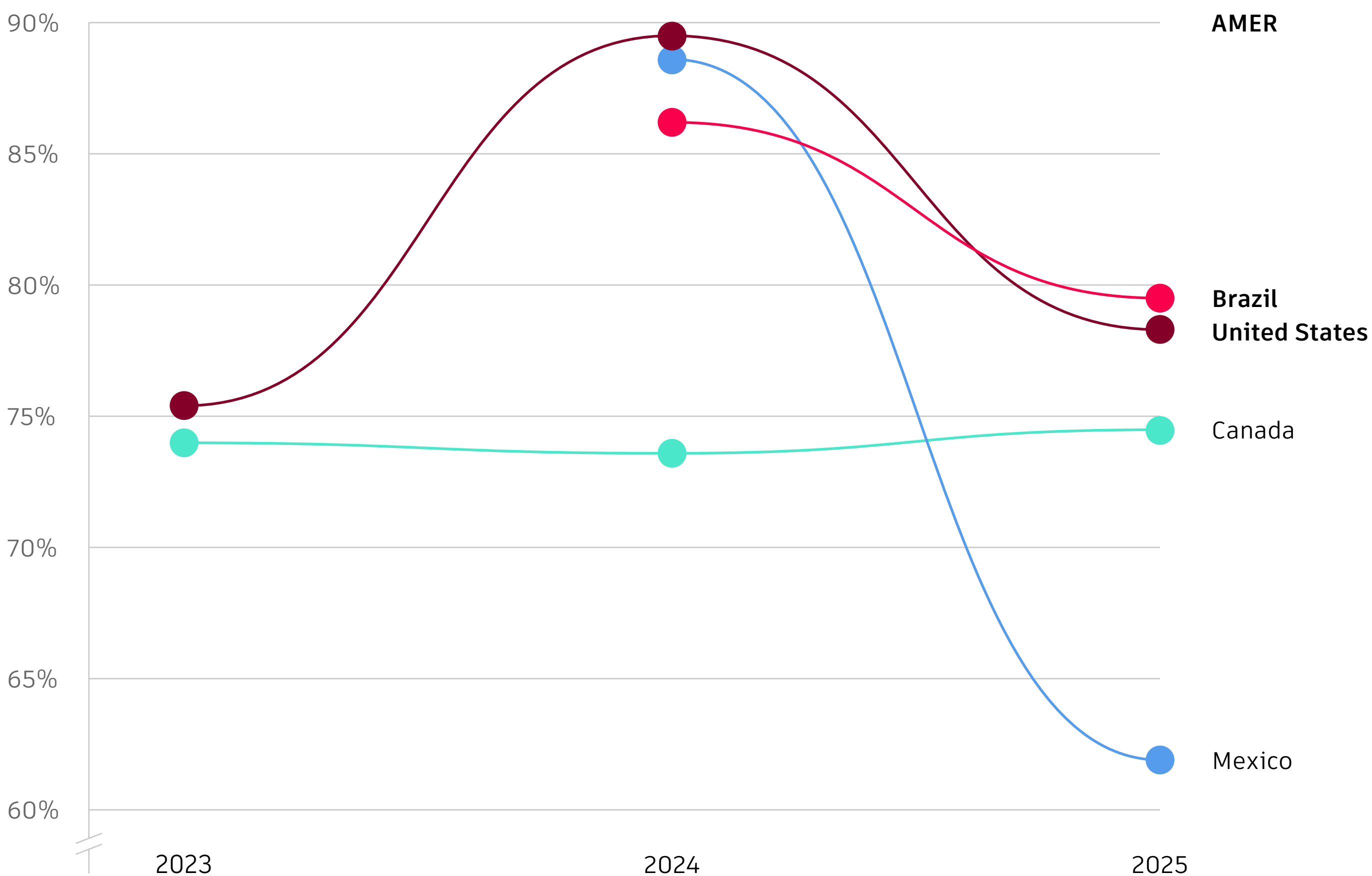
At the heart of this perspective shift is the growing understanding that, while historically seen as a long-term revenue play, improving sustainability is also a good near-term strategy. This year, the gap between leaders who see sustainability as a short-term versus long-term strategy has narrowed to just 12%, signaling that sustainability is seen as good for business overall.

Digitally mature companies appear to be at an advantage when it comes to reaping sustainability benefits. Eighty-five percent of digitally mature organizations see long-term benefits from sustainability and 74% see short-term benefits, compared to just 67% and 53%, respectively, at less digitally mature organizations.

Sustainability efforts are also easing talent struggles at digitally mature companies, with 75% of leaders reporting their sustainability efforts help attract and retain talent, compared to 54% at less digitally mature companies. Industry interviews reinforce these findings, with leaders saying younger skilled workers want to join organizations that are both technologically advanced and committed to building a better future.

Leaders at digitally mature companies appear to be seeing the transformational potential of sustainability across their organizations—and are likely increasing their budgets to match. Seventy-four percent of leaders say they will increase their investments in environmental sustainability, compared to just 52% at less digitally mature companies.

Brazil and the United States are most influenced by customers



Percentage of respondents who agree that customers are influential when it comes to their sustainability goals. Survey question: How influential are the following groups in motivating your company or organization to create and meet sustainability goals? 5-point scale. Top two = influential.

INSIGHT 2: AMER

In the Americas, Brazil is where the largest percentage of business leaders surveyed (80%) say customers are influential in motivating companies to be more sustainable. The United States is close behind, with 78% of respondents citing customers as influential. However, both countries show declines compared to the previous survey. In 2024, 86% of respondents in Brazil and 90% of US respondents considered customers to be influential in motivating companies to create and meet sustainability goals.

The influence of customers dropped most significantly in Mexico, with a year-over-year decrease from 89% to 62%, making Mexico the Americas country where the lowest percentage of business leaders consider customers to be influential in motivating sustainability efforts.

> *"I think about 95% of our matrix are clean energy. So it's hydropower power plants; it's solar grids and all those technologies. I'm very proud to say, yes, we are very, very, very busy on the work and sustainability point."*
>
> **VINICIUS PRATA**
> Leader of the Power Generation BIM Committee, Eletrobras, an electric power generation and transmission company headquartered in Brazil

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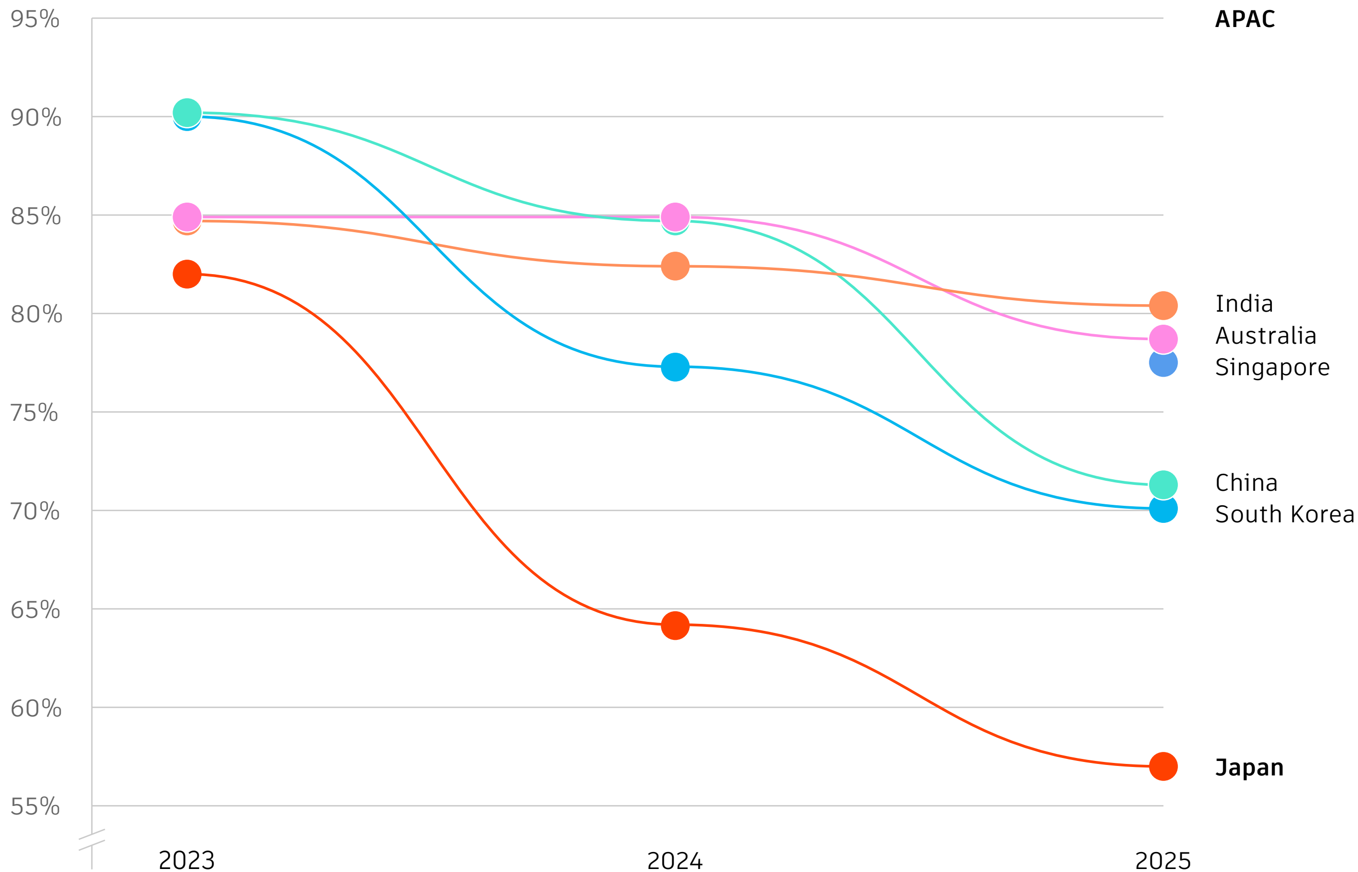
INSIGHT 2: APAC

Today, Japan has the lowest percentage (57%) of business leaders saying that customers are influential in motivating sustainability efforts, trending down from 64% in 2024.

The steepest year-over-year decline in the influence of customers was in China, where the percentage of leaders saying that customer influence drove sustainability efforts fell from 85% to 71%. In Australia, where the percentage of respondents saying customers were influential held steady at 85% for the past two years, that percentage dropped this year to 79%.

> ***"Our company's ultimate goal is to promote social progress. This naturally attracts people with the same values, which are the driving force for our practices."***
>
> **JUN XUE**
> Digital Design Director, Industrial Design, Xiaomi EV, an electric vehicles manufacturer headquartered in China

Japan least influenced by customers



Percentage of respondents who agree that customers are influential when it comes to their sustainability goals. Survey question: How influential are the following groups in motivating your company or organization to create and meet sustainability goals? 5-point scale. Top two = influential. Data for Singapore was not gathered for the 2023 and 2024 surveys.

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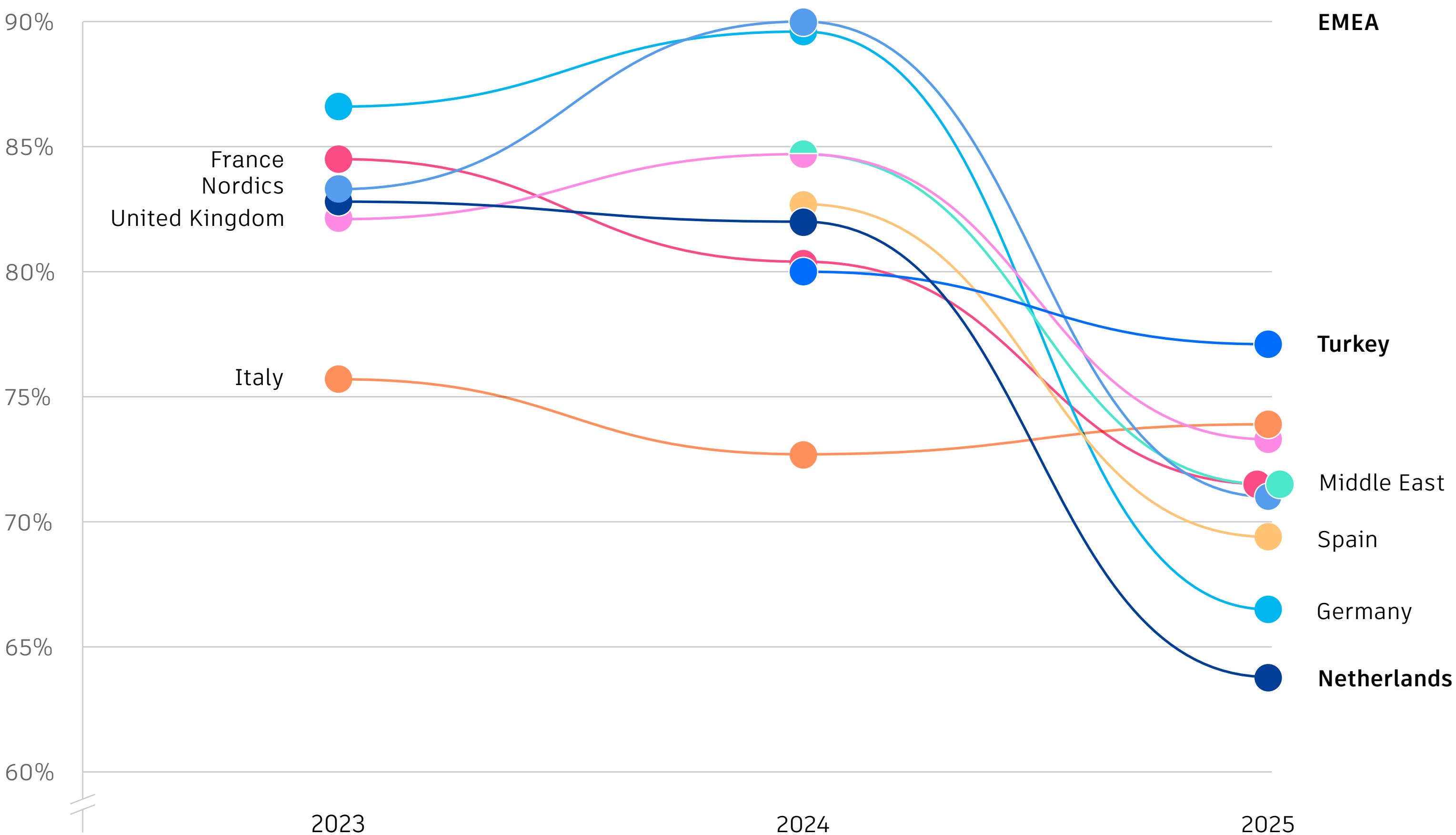
INSIGHT 2: EMEA

Turkey most influenced by customers, Netherlands the least



Percentage of respondents who agree that customers are influential when it comes to their sustainability goals. Survey question: How influential are the following groups in motivating your company or organization to create and meet sustainability goals? 5-point scale. Top two = influential.

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INSIGHT 2: EMEA

Turkey is the EMEA country where the highest percentage of business leaders (77%) say that customers influence sustainability initiatives. Turkey is also one of the EMEA countries with the lowest percentage of respondents saying that their companies are not engaged in any sustainability actions (2%), the other being the Middle East, also at 2%.

Some countries saw significant year-over-year declines in the percentage of business leaders who consider customers influential, including Germany (90% to 67%) and the Nordics (90% to 71%). The drop in customer and other external influences could suggest organizations taking the lead when it comes to sustainability initiatives.

> ***"Sustainability is very important for us, of course, because of the nature of what we do—because we design buildings and infrastructures in transportation and for energy. And these sectors represent, together, close to 70% of carbon emissions worldwide."***
>
> **PIERRE-YVES MASSILLE**
> CTO, Egis Group,
> an engineering and consulting firm headquartered in France

INSIGHT 3

AI solidifies its place as the top sustainability enabler

03

INSIGHT 3

For the second year running, AI is the top sustainability enabler for Design and Make industries, with 39% of leaders saying they use AI to be more sustainable, more than any other action; this is up from 34% in 2024 and 26% in 2023.

With nearly all organizations taking steps to be more sustainable, many are turning to AI technology to help enable sustainable outcomes. For instance, in the design and manufacturing industries, where 80% of a product's environmental impact is influenced by decisions made at the design stage,[3] AI is helping leaders think about sustainability from conception through production.

39%

of businesses have used AI to be more sustainable

"AI holds incredible potential to transform how we predict and respond to challenges. While we, as an industry, are still on that journey, I am confident that our predictive capabilities will continue to evolve, enabling us to anticipate and address issues with greater precision. As climate-change mitigation efforts advance, they will bring a degree of much-needed certainty to the future. It's equally important that these advancements are reflected in regulator-set objectives, aligning innovation with actionable goals to drive tangible progress."

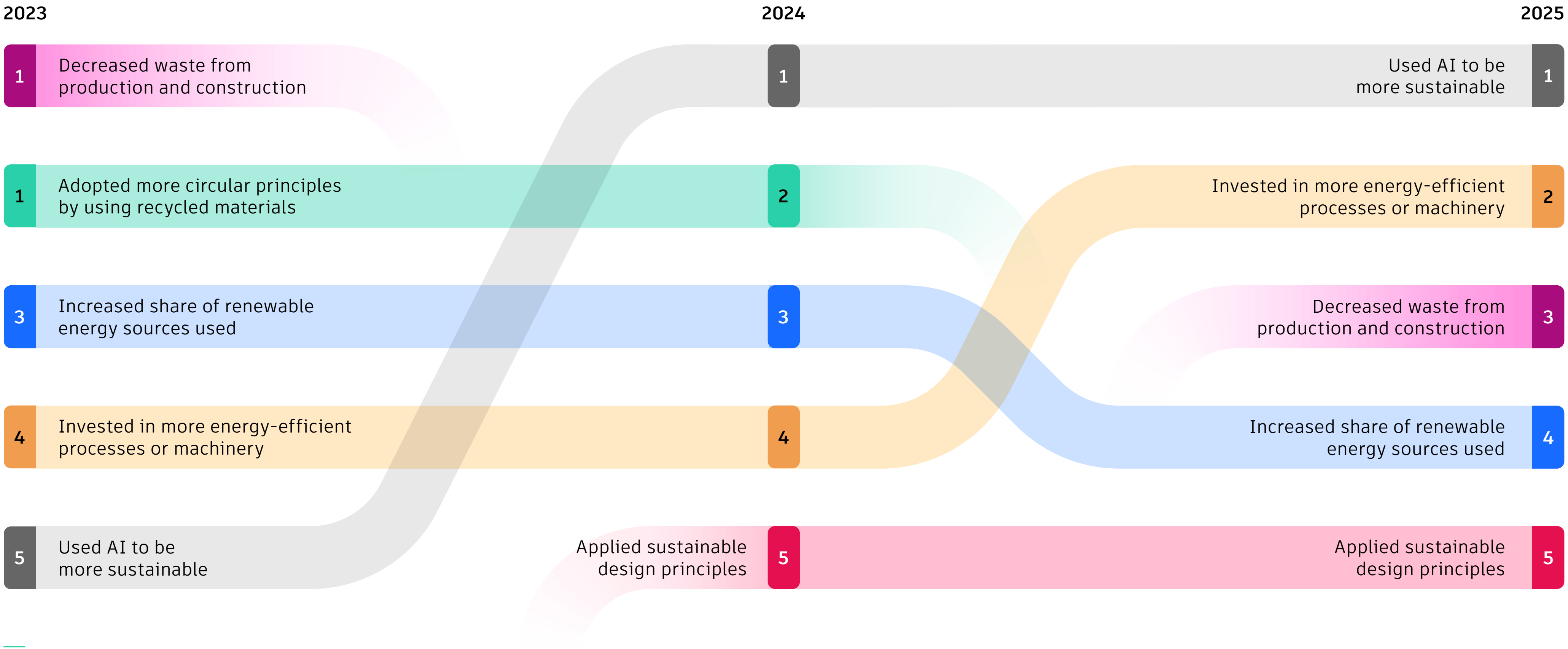
NITESH ALAGH
Business Lead – Digital Engineering, Sustainability & Emerging Tech, Severn Trent Water, a water and wastewater utility company headquartered in the UK

[3] Ellen MacArthur Foundation

INSIGHT 3

The continuing integration of AI and sustainability

AI is the top sustainability enabler for the second year in a row



Survey question: What changes has your company or organization already made to be more sustainable? Select all that apply. 12 response options.

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INSIGHT 3

> *"I'm excited about the sustainability efforts the industry has been working towards. We're just beginning to develop the tools that can support where we want to be, and it's exciting to see technology get to the point where we can start to meet sustainability goals."*
>
> **BRIAN ALTING**
> Principal and Director of Technology, Moody Nolan, an architecture design firm headquartered in the United States

The integration of AI into sustainability efforts is having an impact across Design and Make industries. Among other things, artificial intelligence helps to mitigate the impact of natural disasters by visualizing flood impacts; reduce carbon footprint by optimizing building energy use and preventing material waste; and assess product lifecycles, providing a detailed view of environmental impact from materials sourcing through disposal.

Not surprisingly, digitally mature companies report using the technology for sustainability more than less digitally mature organizations (43% and 35%, respectively). At data-effective organizations—those at which leaders said they are "very effective" at leveraging data—45% of leaders are using AI to enable sustainability, compared to 38% of other organizations. These numbers could highlight an AI implementation gap—one that may widen as technology advances and provide a competitive advantage for data-centric organizations.

Ironically, the AI technology enabling more sustainable outcomes is also increasingly taxing on the environment. Data centers require a large amount of water and energy to run and cool, and they produce electronic waste that is difficult to dispose of. Design and Make organizations are exploring solutions to this problem to offset the impact of data centers, including carbon-removal technology or carbon-offset programs.

INSIGHT 3: APAC

In 2024, China was the global leader in using AI for sustainability—but no longer. Then, 53% of leaders in China said their organizations used AI for sustainability efforts. This year, that number dropped to 38%.

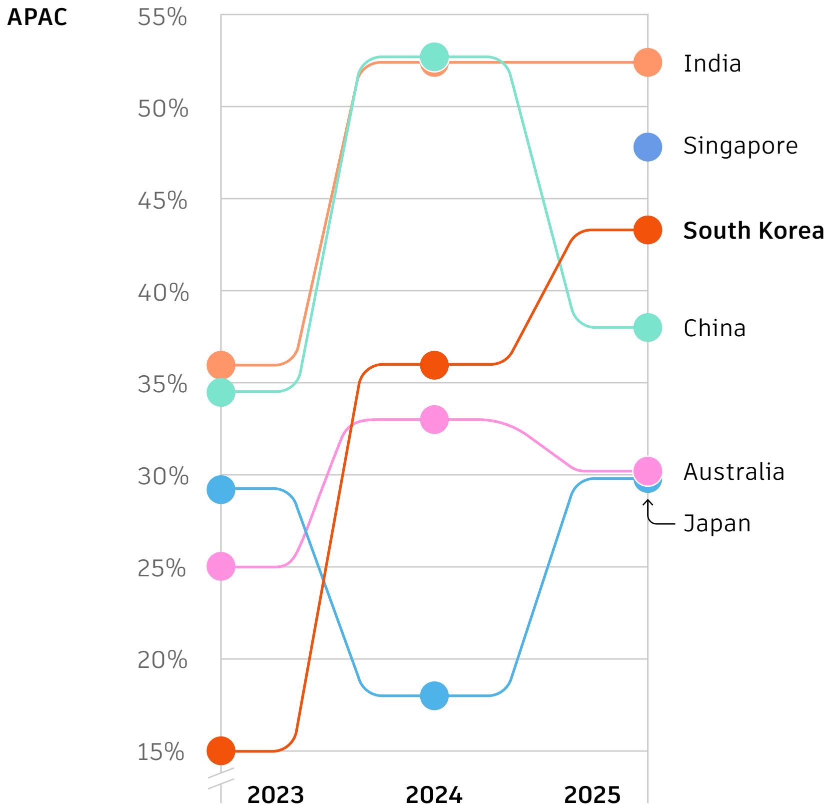
Taking the lead on incorporating AI into sustainability efforts this year is India, with 52% of business leaders using AI as a sustainability enabler. While this number remains flat for the past two years, it suggests a steady commitment to the strategy and is well above the global average of 39%.

The steepest and most consistent increase in AI adoption for sustainability is among business leaders in South Korea, with 43% of leaders saying they use the technology, up from 36% in 2024 and 15% in 2023.

Within APAC, the countries where the lowest percentage of respondents say their companies are using AI to drive sustainability are Japan and Australia (30%).

> ***"We are very interested in increasing work efficiency and productivity for individual employees that we have. An AI-based productivity gain is what we are going after. We try to harness AI and other related tools to improve the efficiency and productivity of every architect so they can do more with their time."***
>
> **YONGSIK JEONG**
> Vice President, Sustainable Design Team, Samoo Architects & Engineers, a global architecture and engineering firm headquartered in South Korea

South Korea sees the largest increase in AI adoption for sustainability



Percentage of respondents who selected "Used AI to be more sustainable." Survey question: What changes has your company or organization already made to be more sustainable? Select all that apply. 12 response options. Data for Singapore was not gathered for the 2023 and 2024 surveys.

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INSIGHT 3: EMEA

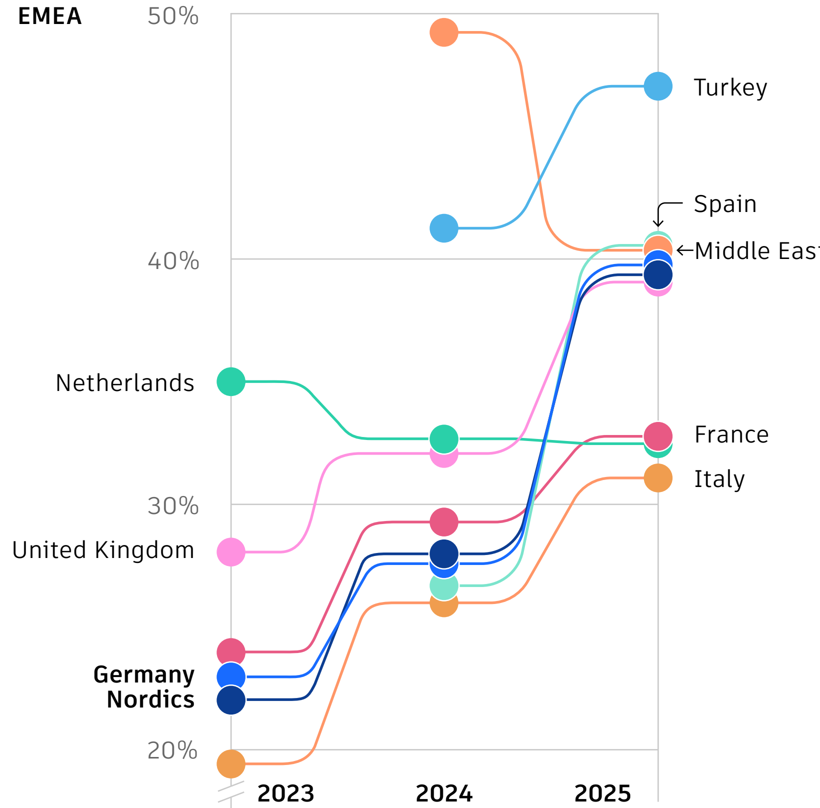
Today, Turkey has the highest percentage (47%) of business leaders in EMEA who say they are using AI to become more sustainable, unseating the Middle East, where the percentage dropped to 40% from 49% in 2024.

Germany and the Nordics saw the largest increases in the region in the percentage of respondents who say their companies are leveraging AI for sustainability, from 28% to 40% in Germany and from 28% to 39% in the Nordics, representing a 43% and 39% year-over-year increase, respectively. Governments in Germany and Turkey, for example, have invested in AI technology for sustainability as part of a larger AI strategy, and those efforts are starting to yield downstream results at the organizational level.

"The Middle East is becoming more and more driven by sustainability. It's required by the client. It is embedded within our clients' respective master plans and visions that they have laid out publicly, including the Bahrain, Qatar, Abu Dhabi, and Saudi Visions 2030; Oman Vision 2040; and the Dubai 2040 Urban Master Plan."

DR. MAX CLARK
Senior Vice President, EMEA
CTO & Sector Manager, Parsons,
a global engineering firm
headquartered in the United States

Germany, Nordics see largest jump in AI adoption for sustainability



Percentage of respondents who selected "Used AI to be more sustainable." Survey question: What changes has your company or organization already made to be more sustainable? Select all that apply. 12 response options.

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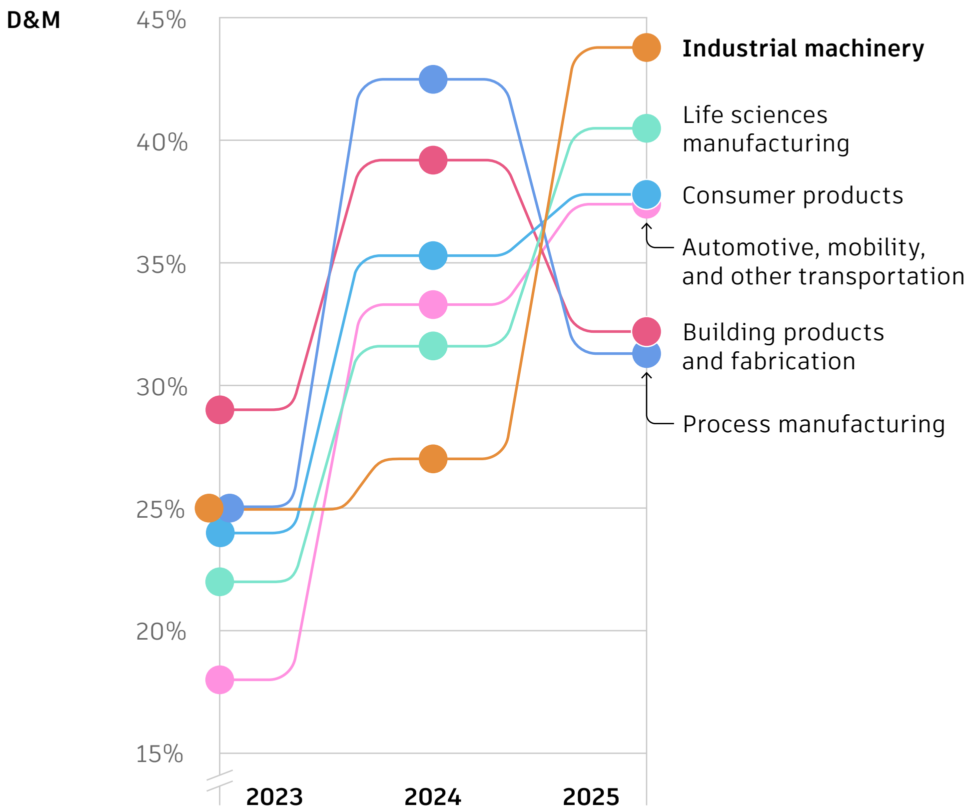
INSIGHT 3: D&M

Industrial machinery is currently the sector in product design and manufacturing that is using AI the most to enable sustainable outcomes. This sector also showed the steepest year-over-year increase in AI use for sustainability, with 44% of organizations using the technology to achieve their goals. Leaders in industrial machinery say they are using AI starting at the design phase, baking sustainability into the entire project from inception.

"AI has more elements that can be used to judge whether or not something can actually be applied, rather than just conceptual presentations."

HIDENORI SAITO
Department Manager of the DX Strategy Division and BIM Management Office, Takasago Thermal Engineering, an air conditioning equipment company headquartered in Japan

Industrial machinery leads the way for AI-enabled sustainability efforts



Percentage of respondents who selected "Used AI to be more sustainable." Survey question: What changes has your company or organization already made to be more sustainable? Select all that apply. 12 response options.

Solution spotlight

Yamaha Motor and Final Aim collaborated to design the Concept 451, an electric utility vehicle tailored for agricultural and mountainous terrain, unveiled at the Tokyo Auto Salon 2024. Using generative AI, Final Aim explored extensive design possibilities, creating more than 2,000 concepts. The AI facilitated communication and iterative design processes, resulting in a unique, asymmetrical electric vehicle (EV) structure. Final Aim also developed a blockchain-based platform, Final Design, to securely manage design data and intellectual property. This project highlights generative AI's potential in design, addressing both creative and practical challenges while safeguarding intellectual property through innovative technology.

READ MORE
about Yamaha EV

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INSIGHT 4

The AI hype cycle meets reality

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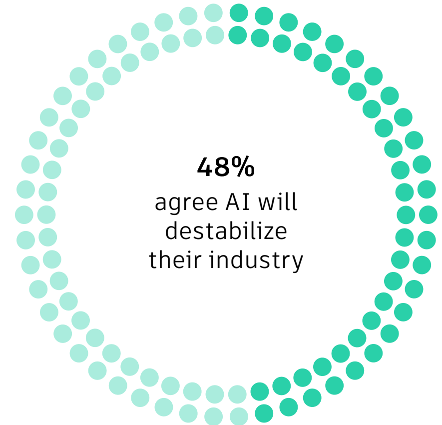
INSIGHT 4

Since the introduction of ChatGPT in late 2022, businesses have been racing to tap the potential of artificial intelligence, making it a strategic priority across industries. The *2024 State of Design & Make* survey results underscored this enthusiasm, with 78% of leaders saying that AI would enhance their industry.

But the reality of AI hasn't yet lived up to the hype, according to leaders in Design and Make industries. Sentiment toward AI and other emerging technologies is down significantly year-over-year, with just 69% of business leaders saying AI will enhance their industry—representing a 12% drop from 2024. Industry disruption from AI is also a major concern, with nearly half of leaders now agreeing that AI will destabilize their industry.

This global drop in sentiment across industries signifies that AI is following the classic tech hype cycle, as leaders face the reality of implementation, an ongoing technical skills shortage, and the limitations of the current technology.

"When generative AI first appeared, there was an excessive sense of expectation towards generative AI and AI in general, and I think that we have just passed the peak of that," says Fumihiro Ojima, general manager, Digital Innovation Department, Value Creation Office, Tokyu Construction Co. Ltd., a Japanese civil engineering and building construction company. "There was an impression that generative AI could do anything, but, in fact, there are things that it is suited to and things that it is not suited to, and I think that we have finally come to understand that."



INSIGHT 4

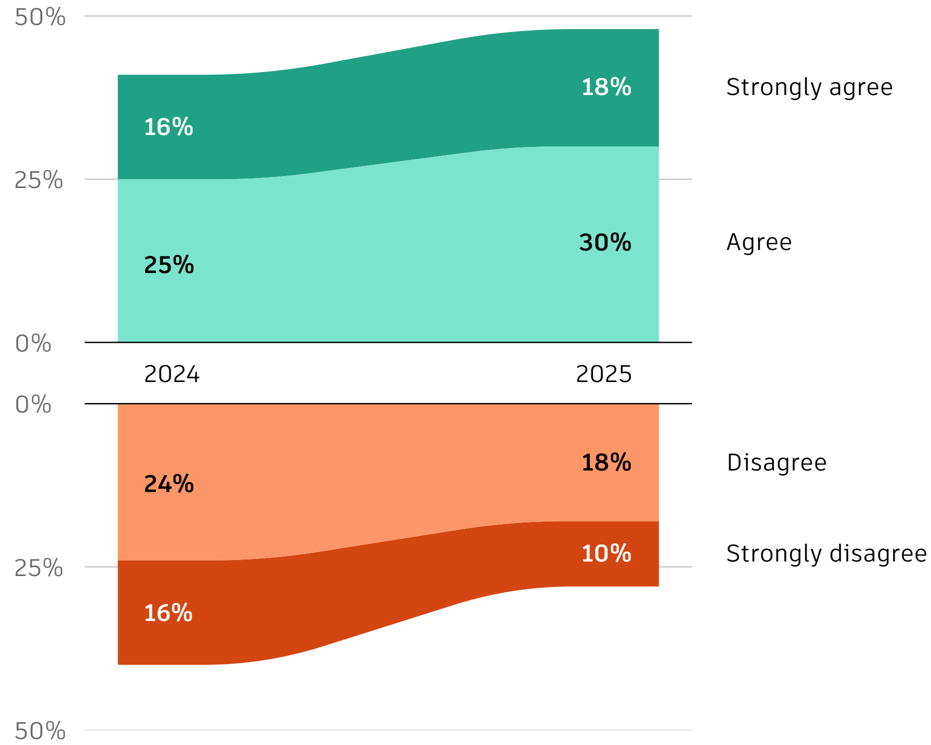
> ***"We prefer technology that evolves with the industry—tools with AI features tend to offer smarter, more adaptive solutions, making them our go-to choice."***
>
> **AMARNATH PATNAM**
> Head – Design Technology, Sobha Realty,
> a real estate developer headquartered in the UAE

Nearly half (48%) of leaders and experts agree AI will destabilize their industry, up from 41% in 2024 and representing a 20% year-over-year increase. This indicates leaders are becoming more concerned about AI and emerging technologies as their implementation in their industry, and at their organizations, grows.

From the standpoint of digital maturity, there is a stark difference in perceptions of disruption. Digitally mature companies are far more likely to say that AI will destabilize their industry (56%) compared to less digitally mature companies (40%). This makes sense when considering that digitally mature organizations would likely have more processes, systems, and workers impacted by AI implementation.

Concern about AI-related industry disruption is up

Nearly half of business leaders agree AI will be destabilizing



Survey question: When you think about artificial intelligence (AI) in your industry and company, to what extent do you agree or disagree with the following? AI will destabilize my industry. 5-point scale.

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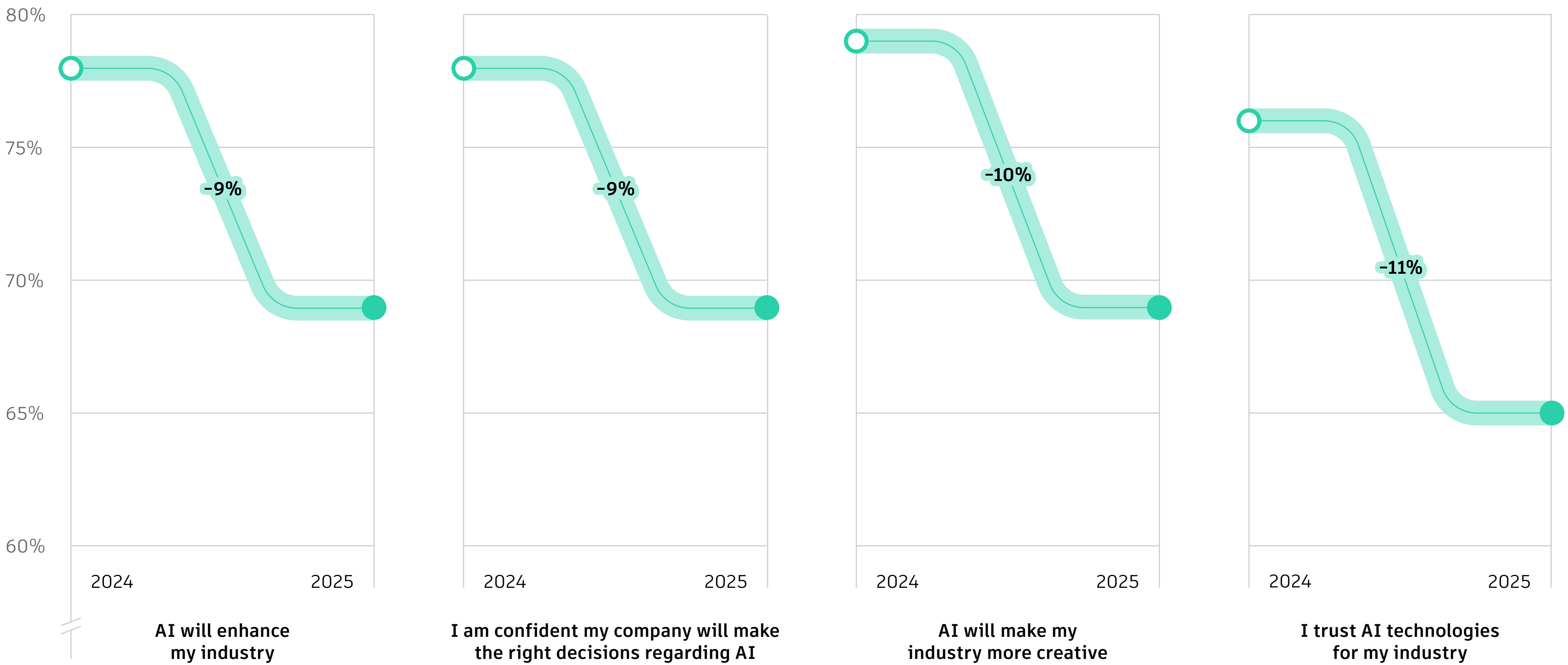
INSIGHT 4

AI sentiment is down across the board



Percentage of respondents who agree to statements: 1. AI will enhance my industry. 2. AI will make my industry more creative. 3. I am confident my company will make the right decisions regarding AI. 4. I trust AI technologies for my industry. Survey question: When you think about artificial intelligence (AI) in your industry and company, to what extent do you agree or disagree with the following? 5-point scale. Top two = agree.

INSIGHT 4

Concern about disruption is up and overall positivity about AI has dropped significantly from 2024. Most notably, trust in AI technology for Design and Make industries has decreased 11 percentage points year-over-year, representing a 17% change in sentiment.

One of the many reasons for this sharp decline is concern about cybersecurity incidents; privacy issues; biased or harmful outcomes; and limited control over how, where, and when their data is used. For example, organizations struggle to manage how to use third-party AI tools without exposing their sensitive data or sensitive customer data. Also challenging is the implementation of AI solutions across the organization, both in terms of time and money. In interviews, leaders said that in some industries or regions, AI regulations are lagging behind the pace of technology, leaving businesses in a difficult position when it comes to implementation, limitations on use, and liability.

"It's not easy to use AI in Germany, because of cybersecurity rights. Some people see opportunities to use AI, others don't know what to do with it, and some are afraid of using it because they don't know where their data is going or what it's being used for."

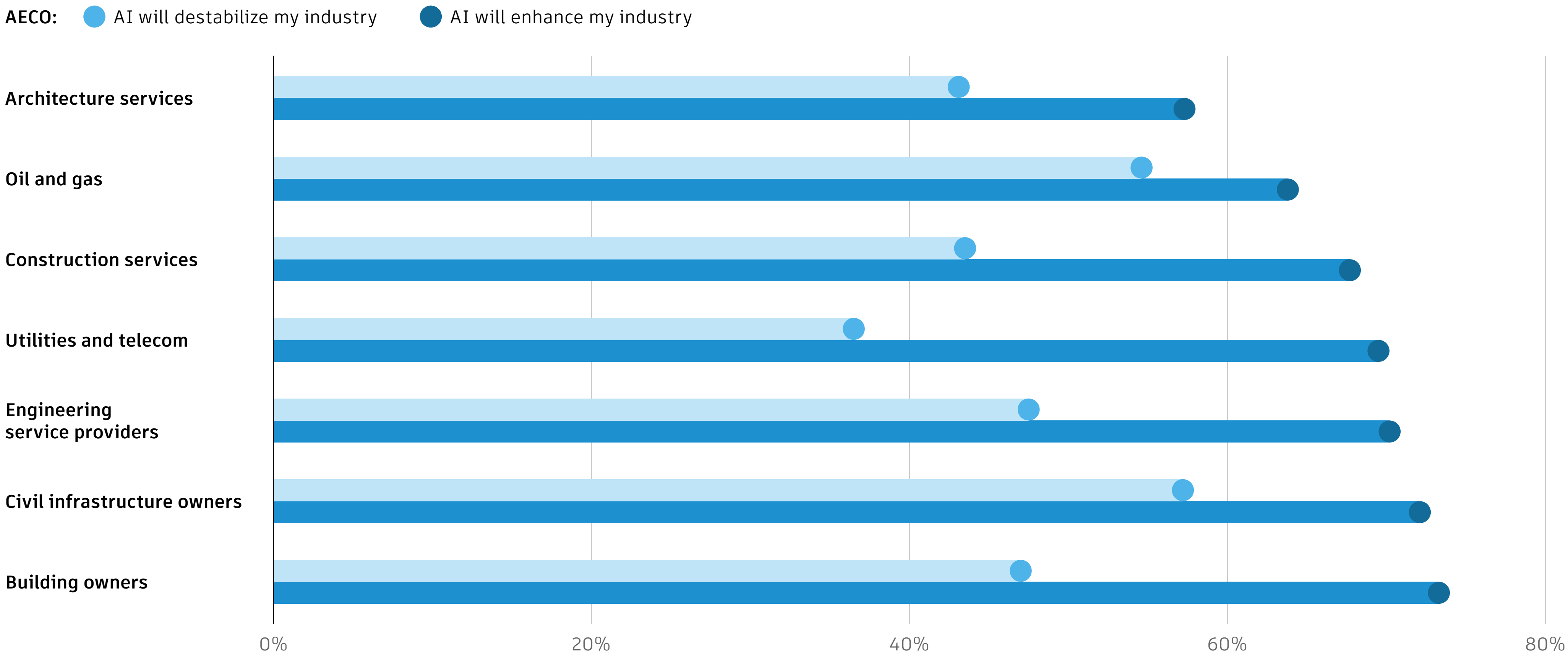
CHRISTIAN AHLERS
CAD Systems Administrator, Lindner Group,
an interior construction specialist headquartered in Germany

"AI requires a much larger investment than we expected. So there is a bit of a delay moving forward. And not all things related to AI are positive signals; there are clear limitations. We look at AI in two different ways: We can use AI more practically in our work processes, and our employees can harness AI to effectively increase their efficiency and productivity. We are also exploring new business areas related to AI, which is a long-term effort that requires more time. We see AI developing very fast. The level of technology we looked into last year is completely different, and we clearly believe that we will be able to reach ROI when we invest in AI for new business opportunities and business areas."

YONGSIK JEONG
Vice President, Sustainable Design Team, Samoo Architects & Engineers,
a global architecture and engineering firm headquartered in South Korea

INSIGHT 4: AECO

Utilities and telecom are least concerned about AI



Percentage of respondents who agree to statements: 1. AI will destabilize my industry. 2. AI will enhance my industry.
Survey question: When you think about artificial intelligence (AI) in your industry and company, to what extent do you agree or disagree with the following? 5-point scale. Top two = agree.

INSIGHT 4: AECO

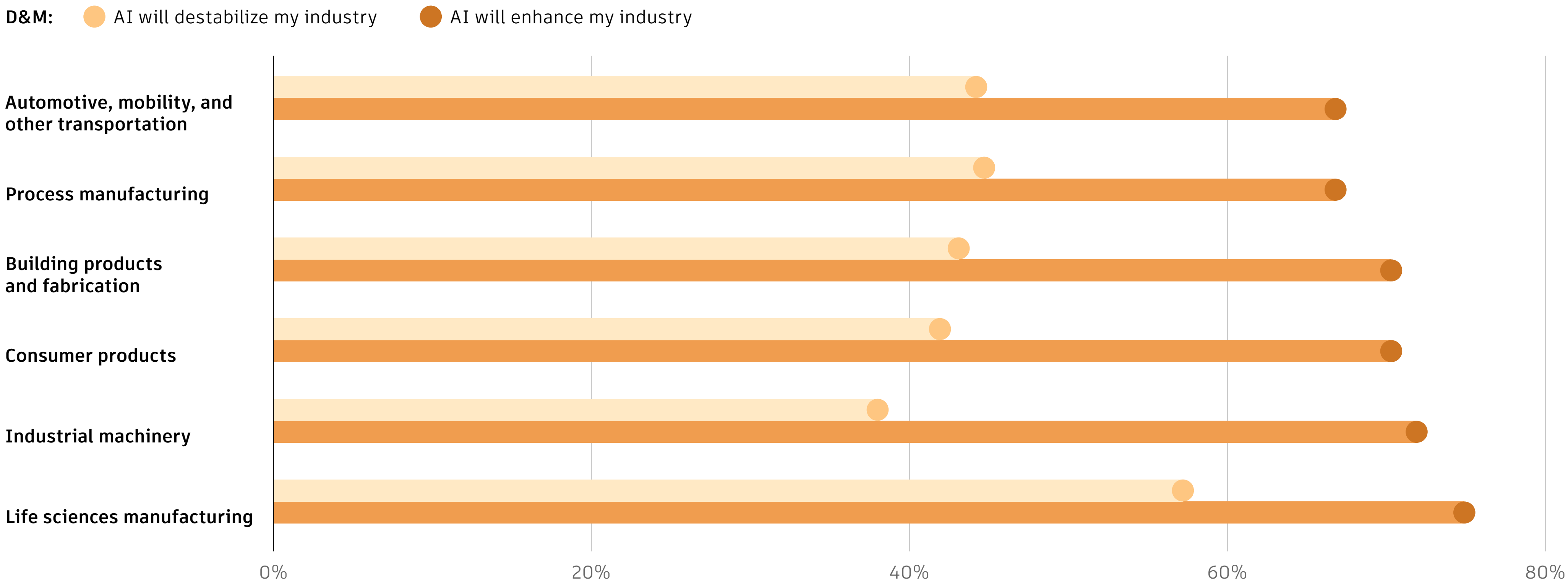
In AECO industries, leaders in utilities and telecom, one of the most enthusiastic sectors about the potential for AI, are least concerned about industry destabilization, with 70% saying AI will enhance their industry. Seen less as a replacement for current workers than as a tool to enhance their work, AI is being used by utilities firms to predict service disruptions and plan preventative maintenance, lowering energy consumption and optimizing grid usage.

On the flip side, architecture sees the least potential in AI technology, with just 57% saying AI will enhance their industry, well below the global average.

> *"We are actually quite optimistic about AI and the future of AI in our industry. There is big concern about AI taking over the industry and changing it completely and potentially putting architectural firms out of business. We actually look at this as another step, albeit a potentially exponential jump, in the evolution of how we will work with new innovative tools that will help in streamlining our design activities and providing us with more intelligent ways to create, improve how we design buildings, and improve overall productivity and efficiency."*
>
> **AMMAR AL ASSAM**
> CEO, Dewan Architects, an architecture firm headquartered in the UAE

INSIGHT 4: D&M

Life sciences sees possibility amid disruption



Percentage of respondents who agree to statements: 1. AI will destabilize my industry. 2. AI will enhance my industry.
Survey question: When you think about artificial intelligence (AI) in your industry and company, to what extent do you agree or disagree with the following? 5-point scale. Top two = agree.

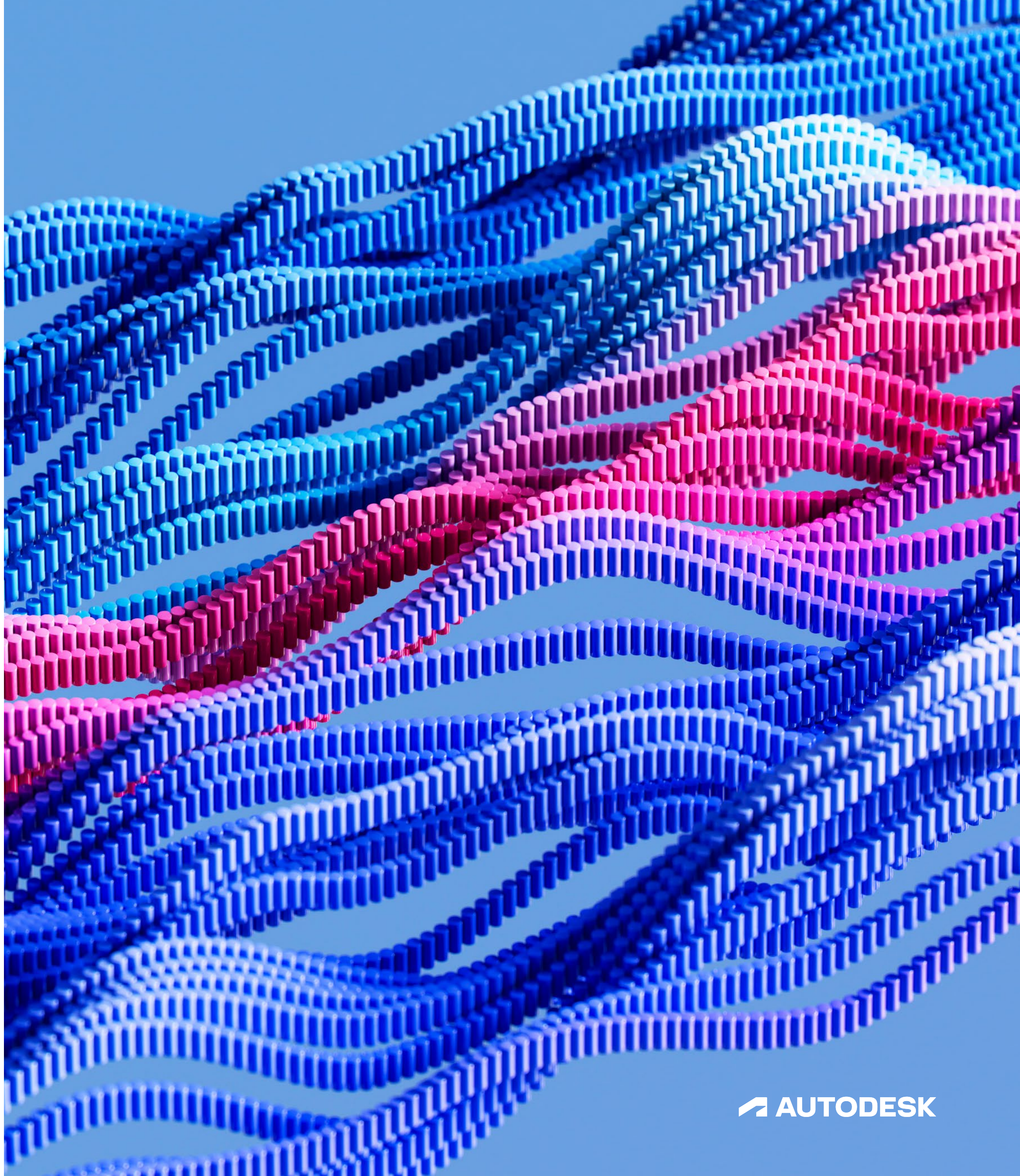
INSIGHT 4: D&M

For product design and manufacturing companies, concern about industry destabilization from AI is lower than the global average. Similarly, the positive sentiment about AI's ability to enhance their industry is generally above average, suggesting D&M, as a whole, is benefiting from the implementation of AI solutions at their organizations.

One standout sector is life sciences, which is both most concerned about disruption (57%) and most enthusiastic about AI enhancing the industry (75%). This seeming contradiction implies that leaders in life sciences see AI as an inevitable disruption but one that will come with great benefits.

"Certainly, there are AI tools that help with creativity, but I don't think AI will ever take over an engineer or a scientist or a designer's job. I think AI will be a fantastic assistant and boost efficiency and productivity."

BLAINE BUENGER
Technology Director, Infrastructure Solutions, Foth, a science, engineering, and technology company headquartered in the United States



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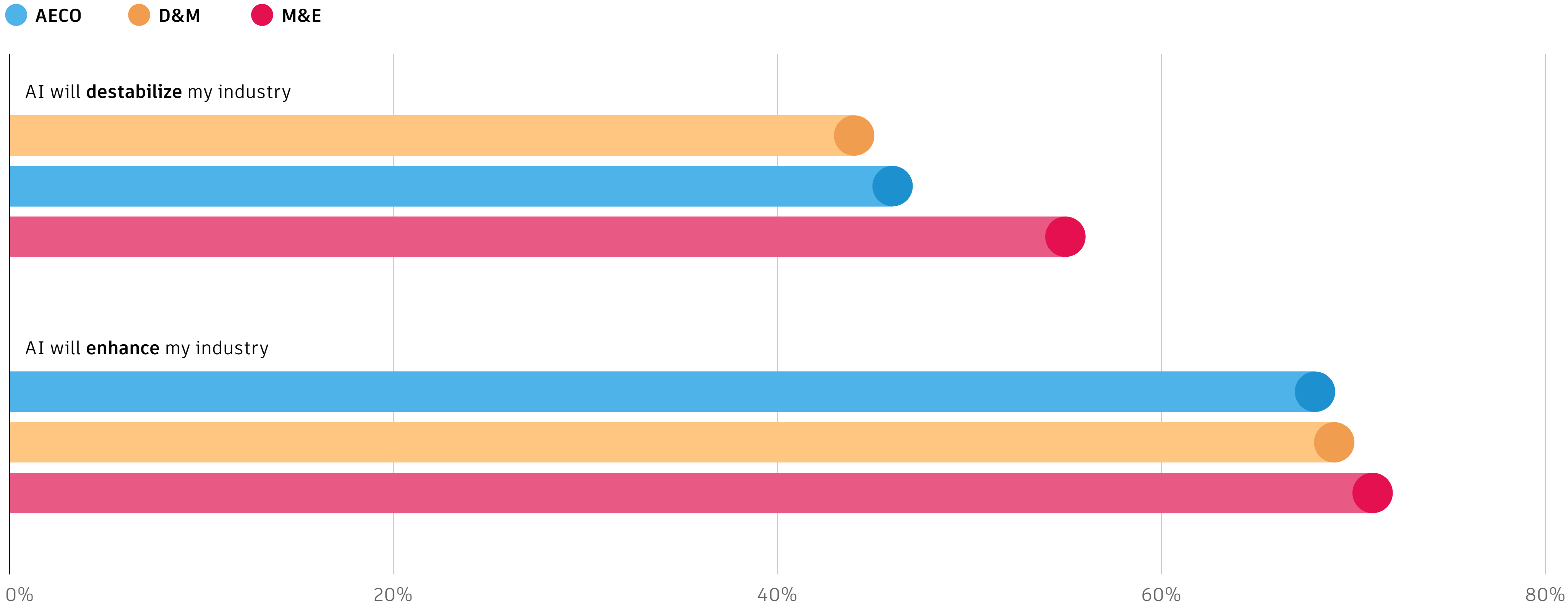
INSIGHT 4: M&E

Media and entertainment is experiencing the most AI disruption and the most benefit



Percentage of respondents who agree to statements: 1. AI will destabilize my industry. 2. AI will enhance my industry.
Survey question: When you think about artificial intelligence (AI) in your industry and company, to what extent do you agree or disagree with the following? 5-point scale. Top two = agree.

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INSIGHT 4: M&E

Leaders in M&E are 25% more likely than leaders in D&M and 20% more likely than AECO leaders to say that AI will destabilize their industry. In fact, the entertainment industry is already seeing the effects of AI disruption, including strikes from writers and actors protesting the use of AI and game developers seeking unionization to ensure AI doesn't endanger job security. But amid this concern is an optimism for AI in the future of the industry—71% of M&E leaders think AI will enhance their industry, compared to 69% in product design and manufacturing, and 68% in architecture, engineering, construction, and operations.

"We use AI to ideate for discussions. But there are no big studios that are distributors who touch AI-generated images, because of the legal issues. Who owns the intellectual right to the material, and where did it plagiarize it from? As a company, at this point, we are consciously staying away from using it for more than ideating. We do not create any final images, pixels, or writing with those tools."

VEERENDRA PATIL
Founder and Creative Director, Zebu Animation Studios, an animation studio headquartered in India

"z-emotion harnesses AI for two key areas: high-fidelity cloth simulation in real time for gaming and feature films and virtual try-on for the fashion industry, leveraging 3D digital fashion technology to generate infinite combinations of synthetic garment data sets."

DONGSOO HAN
CEO, z-emotion, a 3D fashion technology company headquartered in South Korea

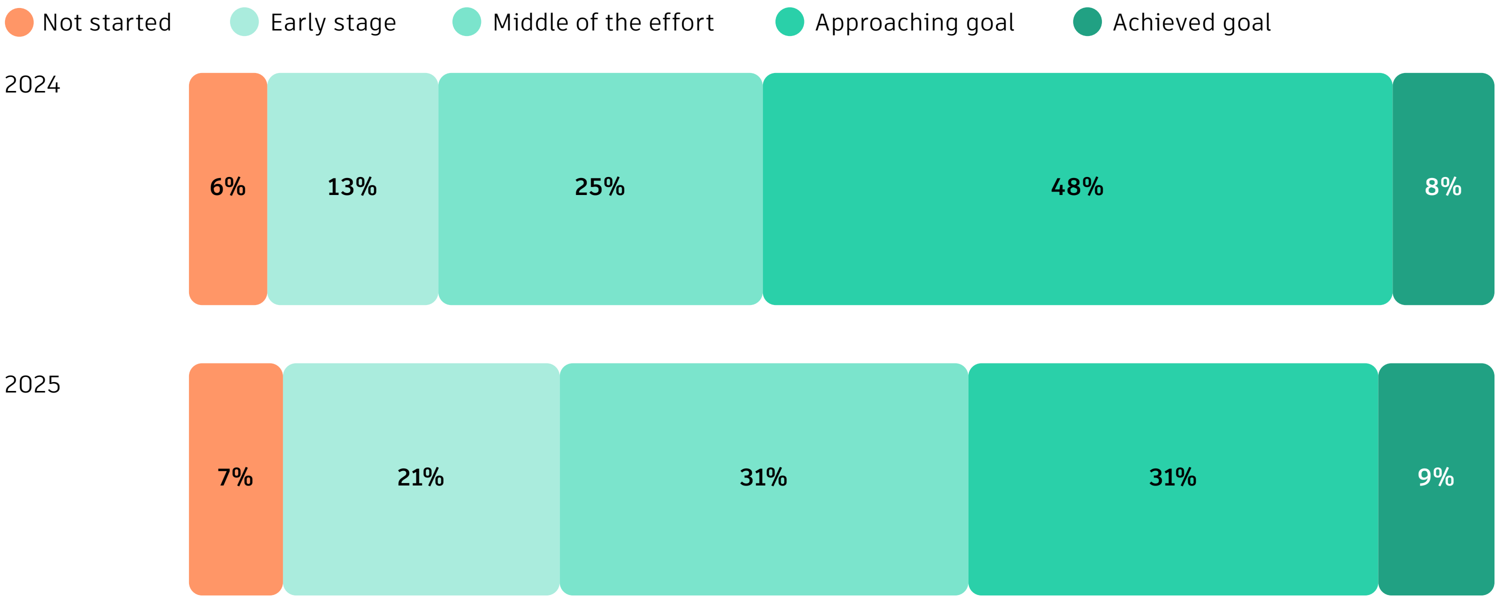
Solution spotlight

Since its launch in 2018, Untold Studios—the world's first fully cloud-based creative studio—has leveraged software for scalable collaboration in animation and visual effects across music, film, TV, and advertising. This approach has attracted top global talent, growing the team from 16 to more than 240 in five years and earning it multiple awards nominations, including BAFTA, Emmy, and Grammy. Untold Studios integrates emerging technologies such as universal scene description (USD) into its workflows, allowing the company to scale quickly and manipulate data more precisely.

→ **READ MORE** about Untold Studios

INSIGHT 4

AI journeys adjust to reflect implementation realities



Survey question: Where is your company or organization in incorporating artificial intelligence (AI) technology? 5-point scale.

"AI is a subset of technology. It's an enabler, not an end result. AI is there to help us drive our business forward and have tangible results. AI is not the end state. I think lots of people get excited about buzzwords. Some time ago, it was digital. *Before that, it was* cloud. *Before that, maybe talking about* BIM. *To me, it is an all-encompassing improvement of efficiency for our delivery, especially in the engineering sector. I think the challenge is, as we become more used to it, the technology moves from a buzzword to business as usual."*

DR. MAX CLARK
Senior Vice President, EMEA CTO & Sector Manager, Parsons, a global engineering firm headquartered in the United States

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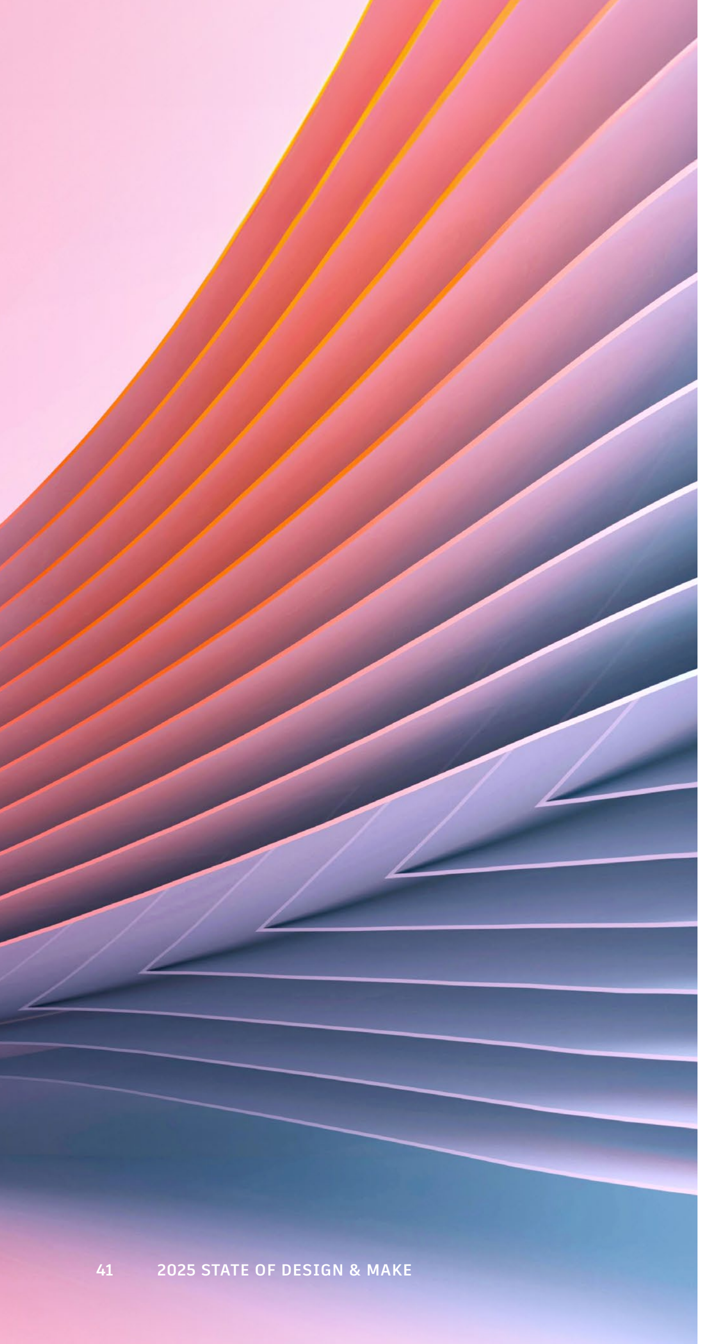


INSIGHT 4

> *"In the past few years, there has been a lot of hype around AI. Everyone had high expectations, but actual progress might be slower or more complicated than we imagined. And AI's outputs are not as accurate as we wanted. It's rationality returning over expectation."*
>
> **JUN XUE**
> Digital Design Director, Industrial Design, Xiaomi EV, an electric vehicles manufacturer headquartered in China

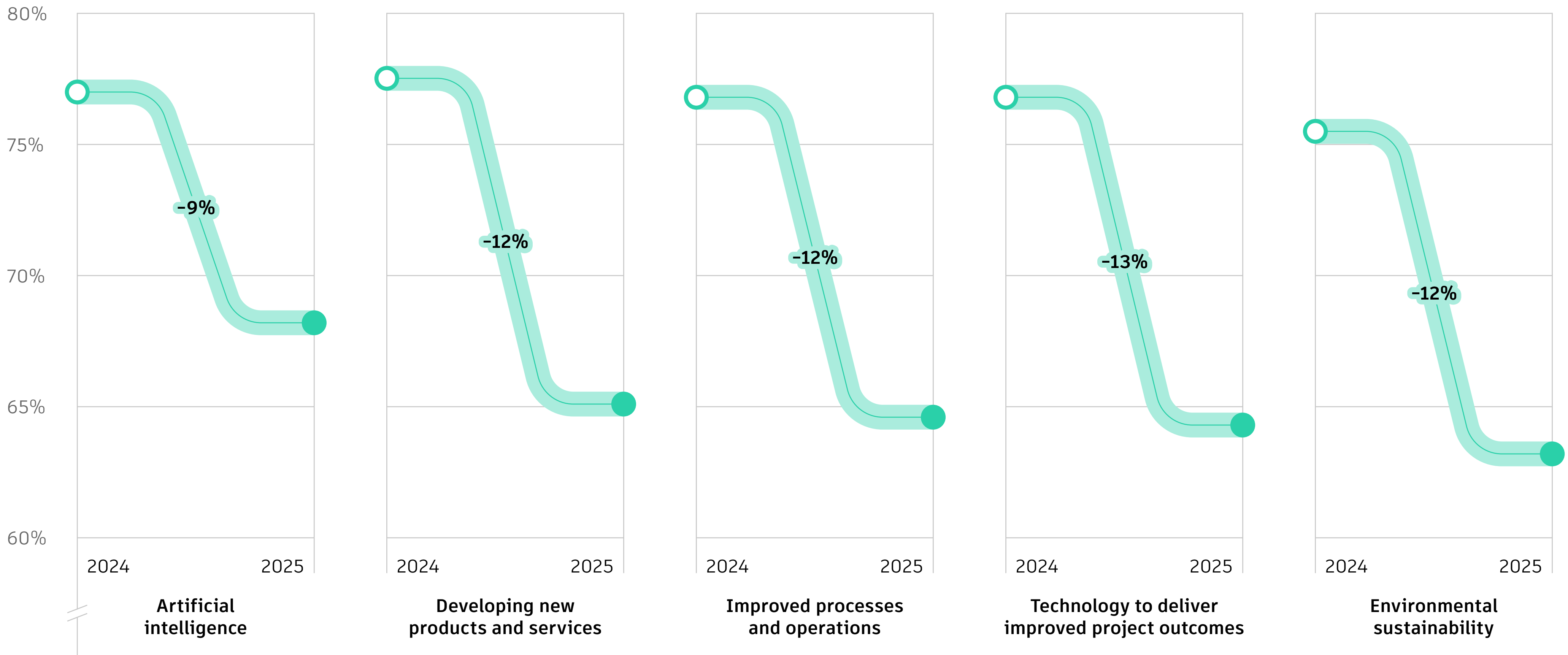
In 2024, leaders were confident about progress toward reaching their AI goals, with 56% saying they were approaching or had already achieved their goals. This year, as leaders are faced with the complexities of implementing AI solutions across their organizations, they are rethinking where they are on their AI road maps.

Only 40% of leaders say they are approaching or have achieved their AI goals, a 16-point decrease that represents a 29% year-over-year decline. Leaders are more conservative this year when estimating their progress, with a 37% year-over-year increase in leaders who say they are in the early or middle stages of their AI journey. Along with other survey results, this finding suggests that leaders could be struggling to progress with AI as they encounter a confluence of cost, talent, and time concerns and that the technology is not quite mature enough to easily implement across organizations as leaders hoped.

Their response is to invest, but there is a stark divide in who is betting big on artificial intelligence. Seventy-seven percent of leaders at digitally mature organizations say they will increase investment in AI, compared to 59% at less digitally mature companies. These increased investments could lead to outsize benefits for more digitally mature organizations that are already seeing benefits in hiring, productivity, and innovation from digital transformation efforts.

INSIGHT 4

Investments dip overall but remain high in AI



Survey question: How do you think your company or organization's investment in the following will shift in the next 3 years?
5-point scale. Top two = increase. Drop = increase for 2024 minus 2025.

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INSIGHT 4

Despite implementation challenges and a dip in sentiment, Design and Make leaders are still optimistic about AI's potential. When asked how their organizations' investments will shift over the next few years, 68% of respondents say their investments in AI will increase. And while AI and emerging tech investments are down 9 points from 2024, this represents a smaller dip than the average 13-point overall decrease in future investments.

"Last year was a really exceptional year in terms of AI. The excitement about the potential that AI could actually deliver has gone down to a more realistic approach, where we're understanding that the journey is long and we're really in the beginning. That puts back that some of the expectations were maybe unrealistic given the current capabilities of AI. But we remain proactive in driving future advancements."

MOHAMAD KASSIR
Global BIM Manager, Egis Group, a engineering and consulting firm headquartered in France

"I would say the most exciting thing is to be on the journey with technology, to see how technology is actually moving and expanding. Just going five years back, some of these technologies that we are seeing today were actually, more or less, really science-fiction future."

LARS ALBJERG
Head of BIM, Novo Nordisk, a pharmaceutical company headquartered in Denmark

INSIGHT 5

Cost, tech, and talent are top concerns

03
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INSIGHT 5

In the wake of a year of geopolitical and economic turmoil, continued inflation, and supply-chain fragility, it's not surprising that cost control is top of mind for leaders in Design and Make industries, with 33% citing it as their main business challenge.

Spending is down in nearly all categories, from technology to talent, as leaders hope to mitigate the continued challenges of a post-pandemic economy. This dip in future investments could compound both talent and technology troubles, as organizations will struggle to do more with less.

"Another key challenge is the cross-industry integration of technological advancements. Originally focused on single-function core equipment, we now need to develop more versatile solutions applicable across multiple fields and provide downstream customers with the world's leading high-value-added process solutions; digital-intelligence-integrated plant solutions, including process packages; and value-added services covering the full lifecycle. Lack of cross-industry technology integration capability could confine us to specific supply-chain segments, rendering us unable to offer comprehensive solutions to our clients."

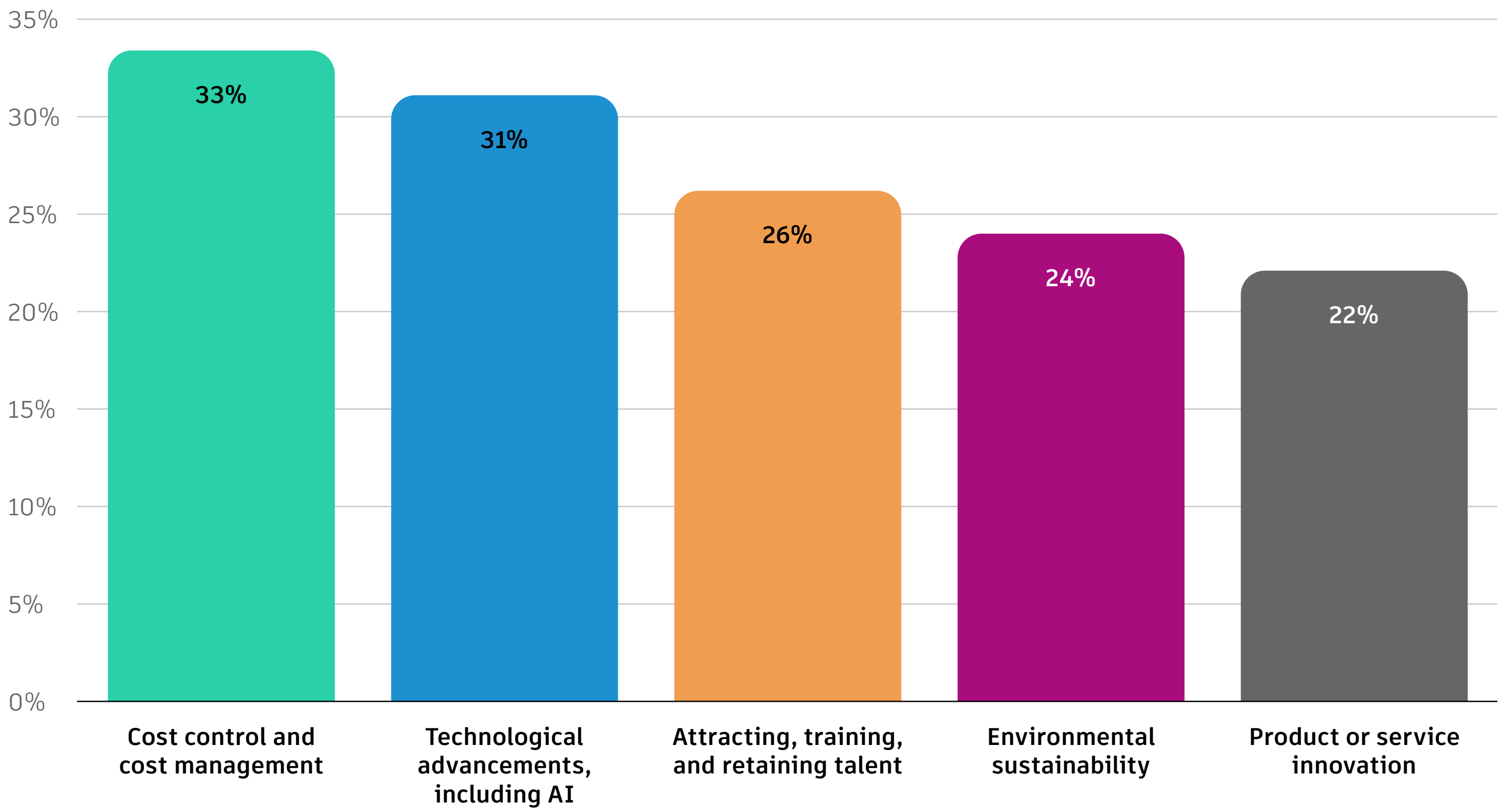
WEI FENG LU

Senior Vice President, Morimatsu International Holdings Company Ltd., a global manufacturing and solutions company headquartered in China

INSIGHT 5

Cost control is the top global challenge

AI and other emerging technologies a close second



Survey question: What are the top three challenges your company or organization faces today? Select up to three. 13 response options.

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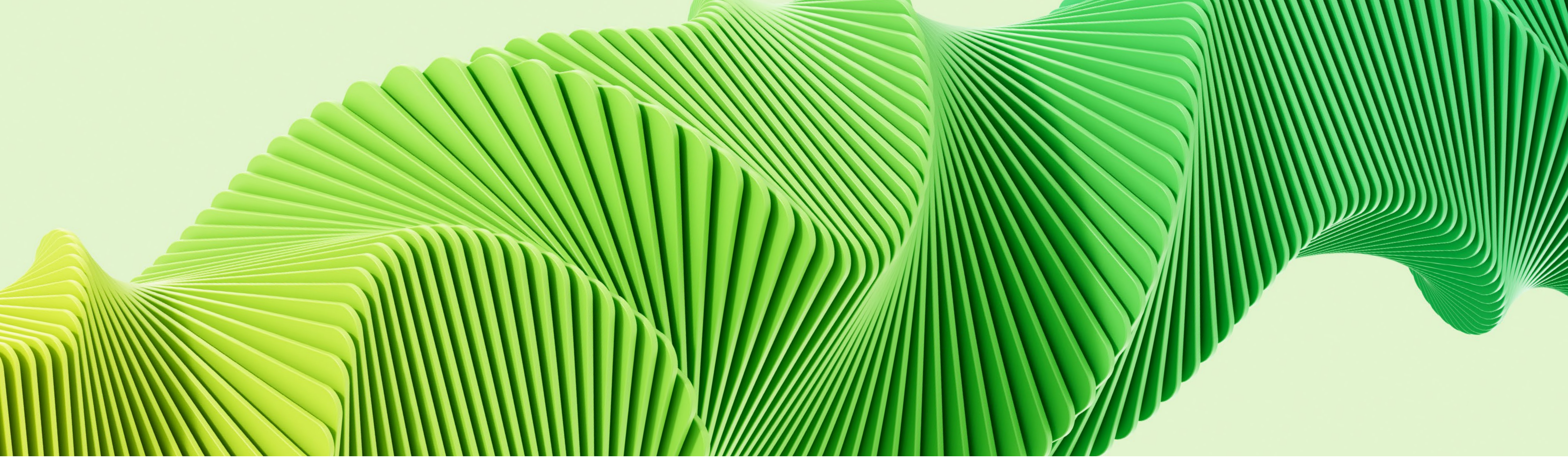

INSIGHT 5

Thirty-one percent of leaders identify technological advances (including AI) as a top challenge as their organizations struggle to implement new and emerging technologies. Cost-control measures will likely have a downstream impact here and could affect how quickly companies are able to reach their technology and digital transformation goals.

Ironically, cutting investment in technology can have a negative impact on budgets because new tools and processes can often lead to greater efficiencies across the organization. For instance, leaders at data-effective organizations see cost as less of a challenge—just 26% identify it as a top concern, compared to 35% at other organizations.

Talent remains a perennial struggle, identified by 26% of leaders as a top challenge at their organization. The search for skilled talent is especially difficult, with nearly two-thirds of leaders saying they struggle to find the skills they need. Exacerbating the talent crunch is the growing number of organizations that are letting people go because they lack the right technical skills, further widening their talent gap.

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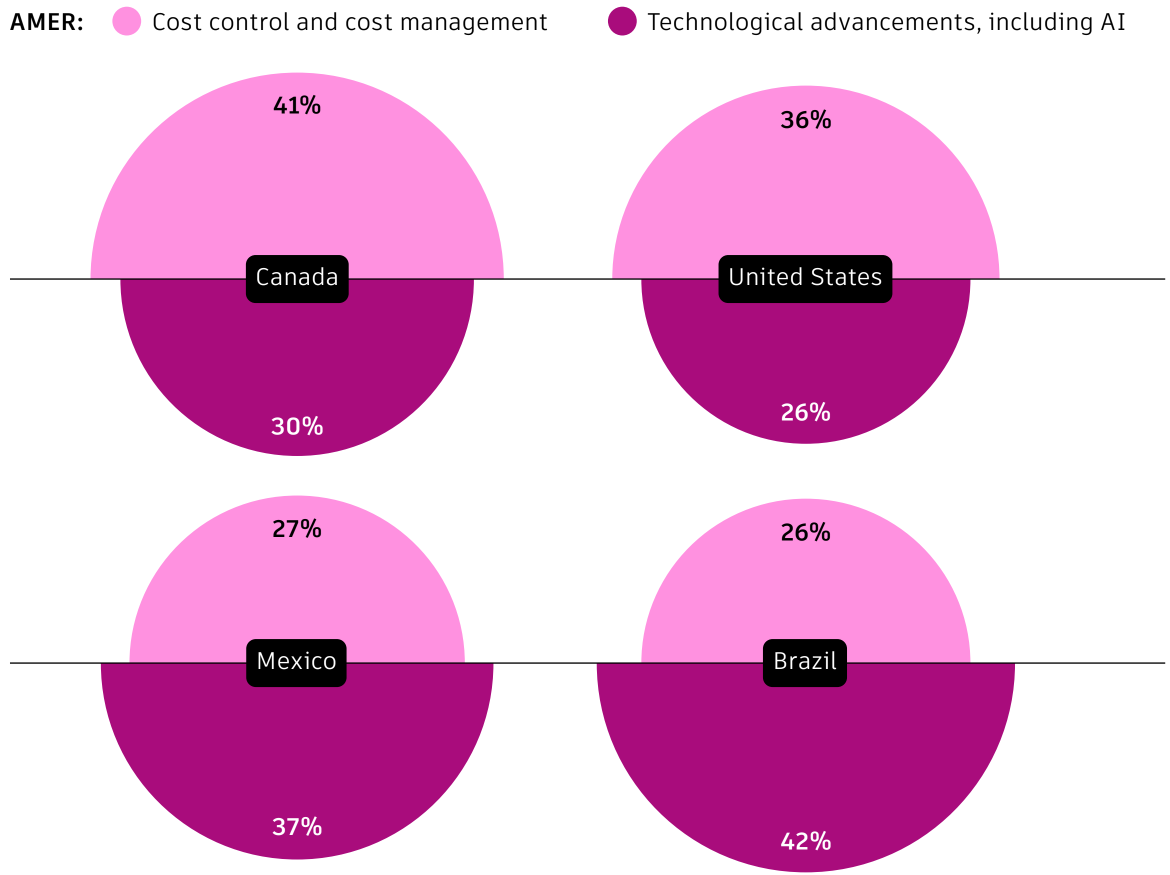
INSIGHT 5: AMER

> *"I think our biggest issues now are cost and the new processes that we are trying to implement at the company."*
>
> **VINICIUS PRATA**
> Leader of the Power Generation BIM Committee, Eletrobras, an electric power generation and transmission company headquartered in Brazil

In contrast with global results this year, the Americas are split on their view of top challenges.

While cost control is the concern most likely to be listed as a top challenge among respondents in the United States (36%) and Canada (41%), respondents in both Brazil and Mexico are more concerned about AI implementation than cost.

Americas split on top organizational challenge



Percentage of respondents who selected "cost control and cost management" and "technological advancements, including AI" as their top challenge.
Survey question: What are the top three challenges your company or organization faces today? 13 response options.

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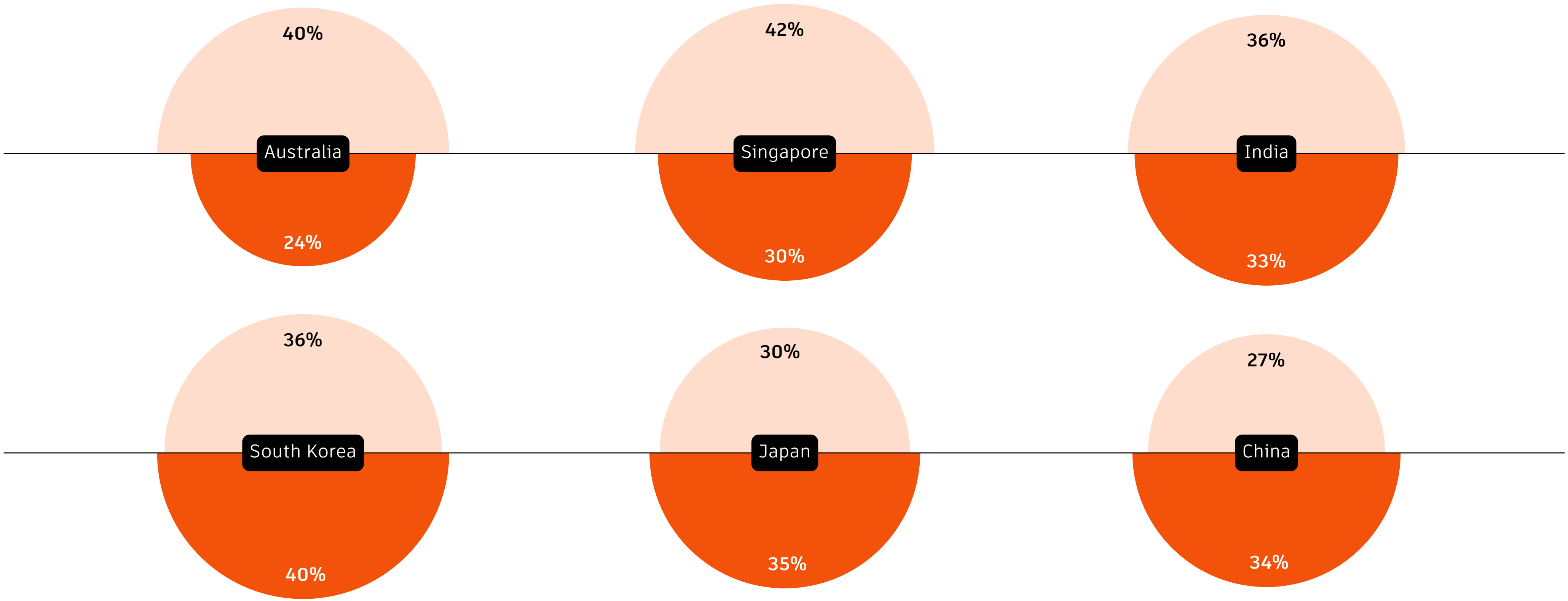
INSIGHT 5: APAC

APAC region split on top challenge

APAC: Cost control and cost management · Technological advancements, including AI



Percentage of respondents who selected “cost control and cost management” and “technological advancements, including AI” as their top challenge.
Survey question: What are the top three challenges your company or organization faces today? 13 response options.

INSIGHT 5: APAC

When leaders in APAC were asked about their organizations' top three challenges, their answers tended to differ depending on the country.

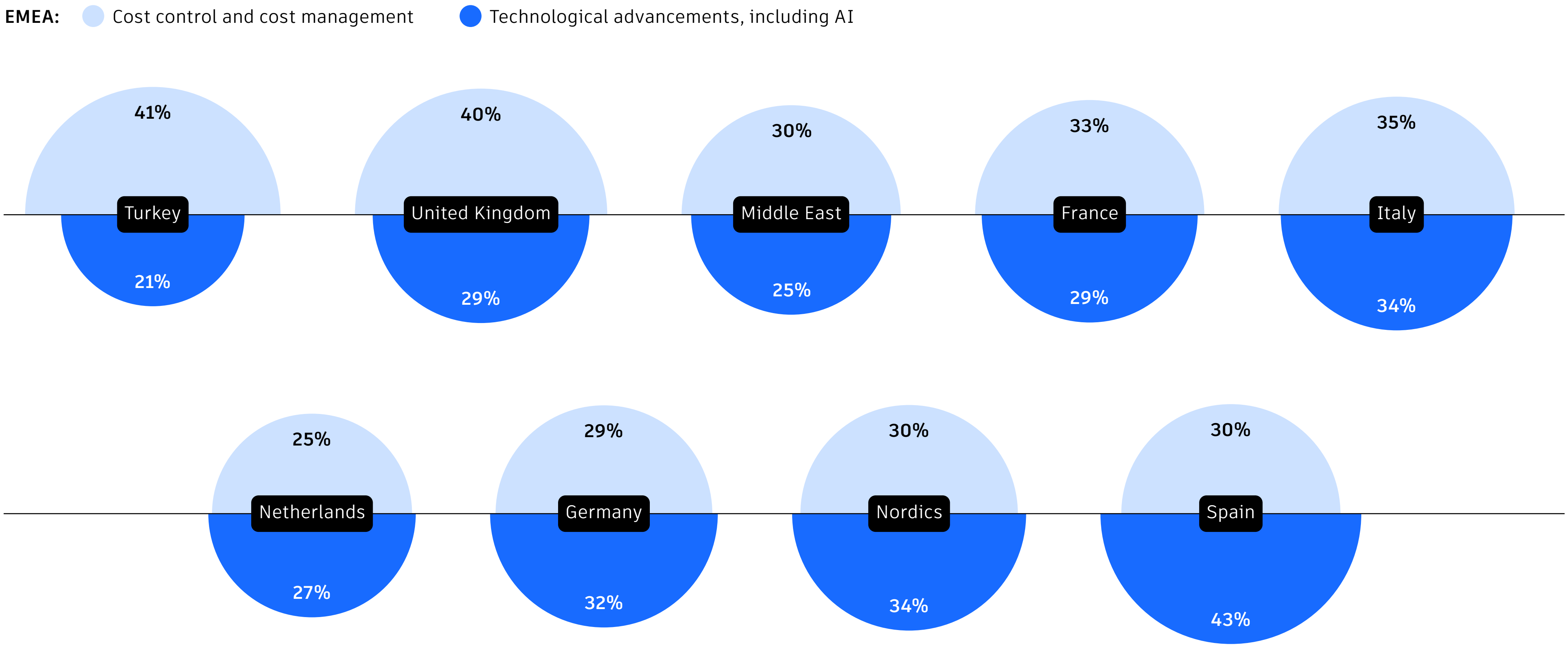
Japan is the only country surveyed where attracting, training, and retaining talent is the most cited challenge; leaders in Australia, India, and Singapore are more concerned with cost, aligning with global findings.

In contrast, respondents in South Korea, Japan, and China say they are more concerned with technology than with costs, signaling that these countries could be encountering significant roadblocks with implementation at their organizations. Leaders in Australia are both the most concerned about costs (40%) and the least concerned about technology and AI (24%), a deviation from global results.

> ***"We are a very old organization with aging infrastructure. There's a certain amount of investment year-over-year that is purely to keep the facilities running."***
>
> **SHARMY FRANCIS**
> Manager – Innovation, InfraBuild, a steel manufacturing company headquartered in Australia

INSIGHT 5: EMEA

EMEA region split on top challenge



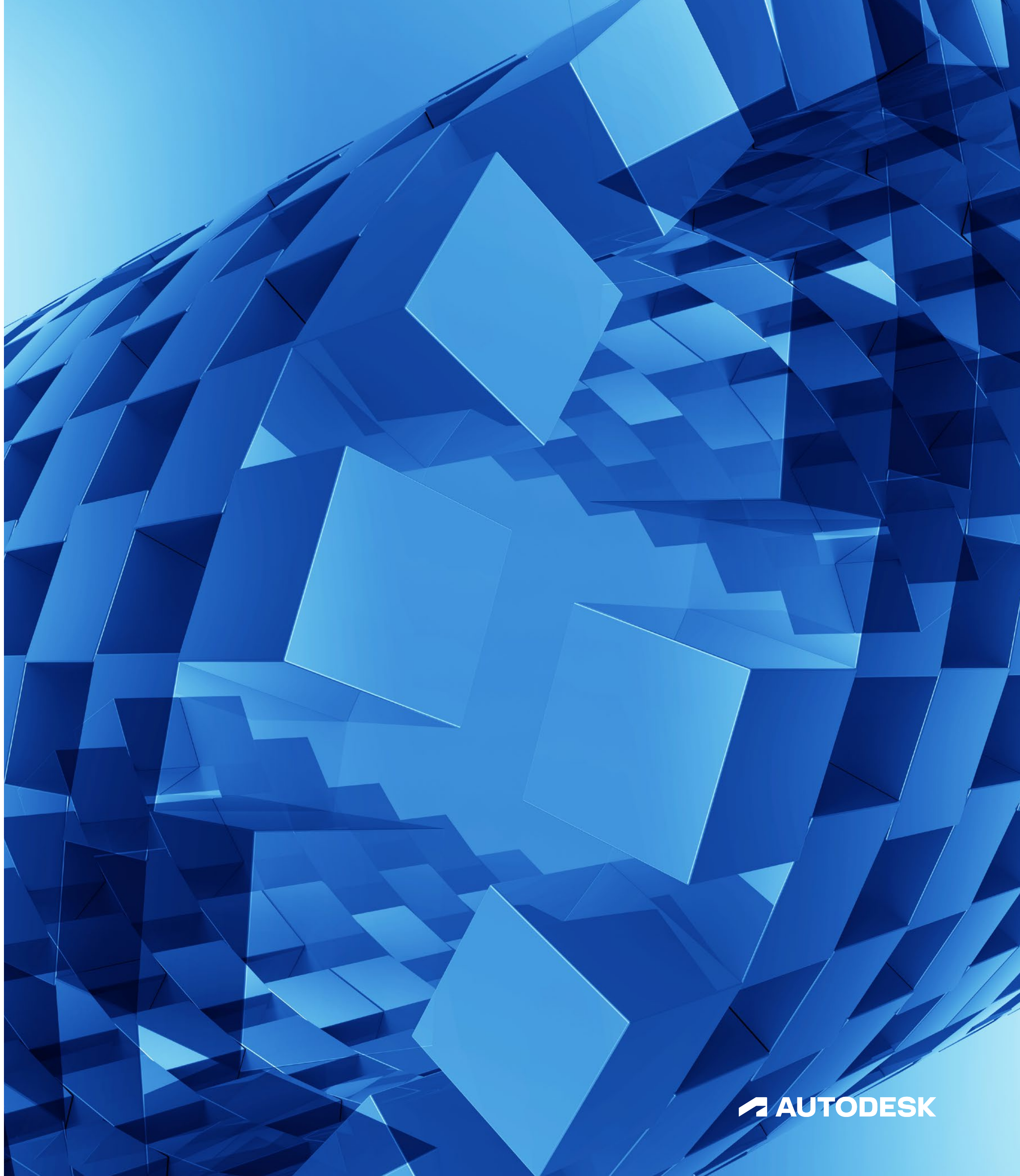
Percentage of respondents who selected “cost control and cost management” and “technological advancements, including AI” as their top challenge.
Survey question: What are the top three challenges your company or organization faces today? 13 response options.

INSIGHT 5: EMEA

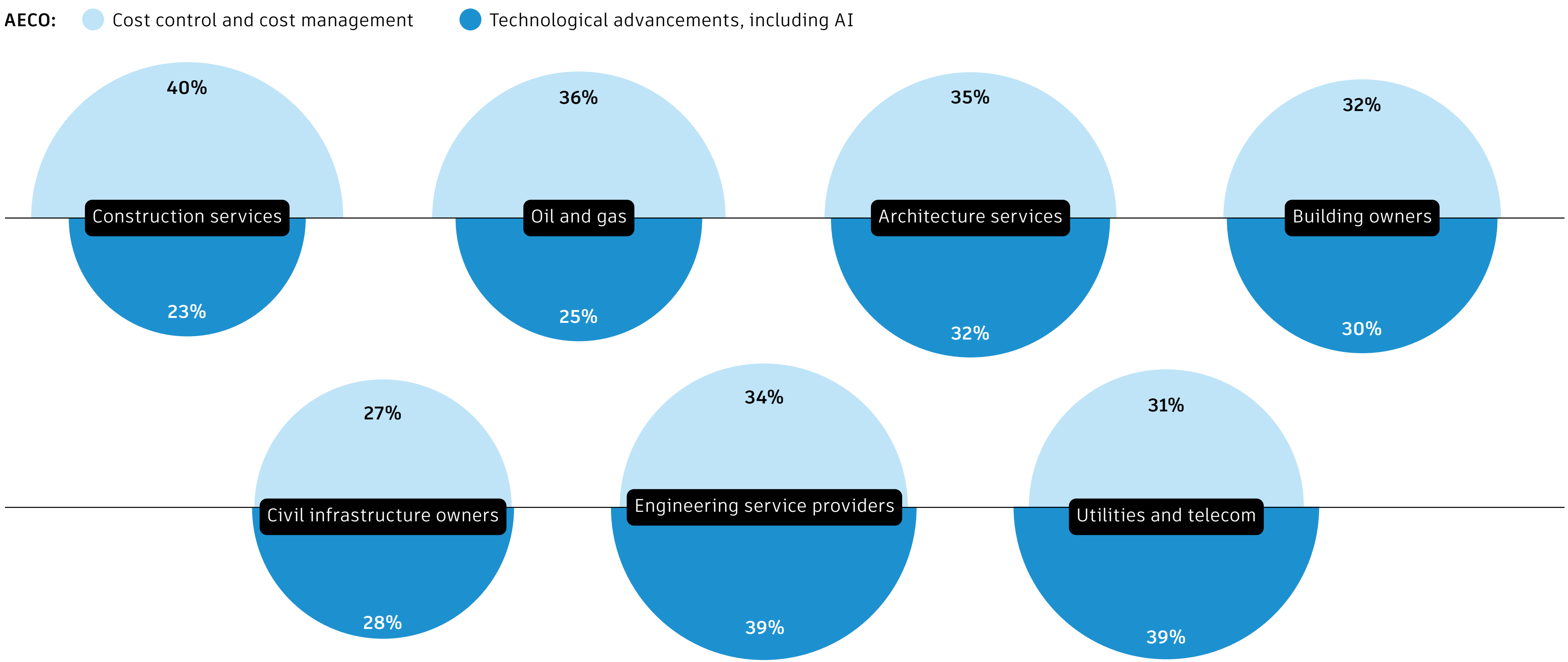
EMEA is a land of contrasts when it comes to the top challenges identified by respondents. This region includes both the country where the smallest percentage of respondents say technology, including AI, is a top challenge, Turkey (21%), and the country where the largest percentage of business leaders sees it as a top challenge, Spain (42%).

During qualitative interviews, business leaders in the region cited security concerns and regulatory confusion as common obstacles for implementation of AI solutions.

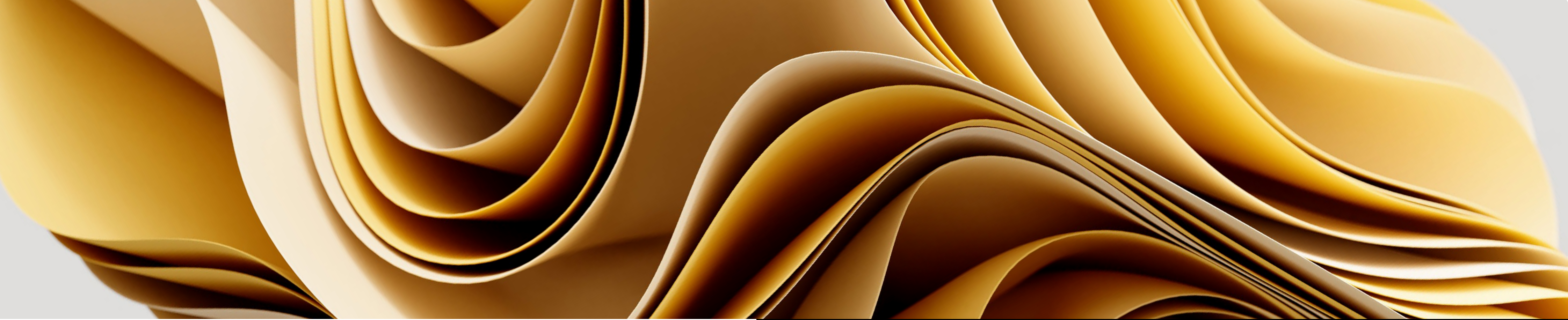
> ***"Our industry is interested in the application of AI to automate designing and creating maps. But concerns about security have prevented us from exploring AI further."***
>
> **GREGORY ZATKA**
> Head of Digital Assets Management, EuroAirport Basel-Mulhouse-Freiburg, a French international airport



Construction services is least concerned about AI, most concerned about cost



Percentage of respondents who selected “cost control and cost management” and “technological advancements, including AI” as their top challenge.
Survey question: What are the top three challenges your company or organization faces today? 13 response options.



INSIGHT 5: AECO

Within AECO, leaders in construction services are most concerned with cost control (40%) and less concerned with technology advancements and AI (23%). Although the contrast is less dramatic, other segments—including oil and gas, architecture services, and building owners—are also more preoccupied with costs than with technology and AI.

On the other hand, a higher percentage of respondents working in utilities and telecom and engineering services sees technology, including AI (39%), as a top challenge than costs (31%). This isn't surprising for utilities, given that the sector is historically slower to adopt new technologies amid increased security concerns around data.

"Our projects can be 10–15 years and longer. To be successful, we must continuously plan for technological change, all within a live project environment."

ROBERT HICKS
Strategic Partnership Manager, Skanska, a global project development and construction company headquartered in Sweden

Solution spotlight

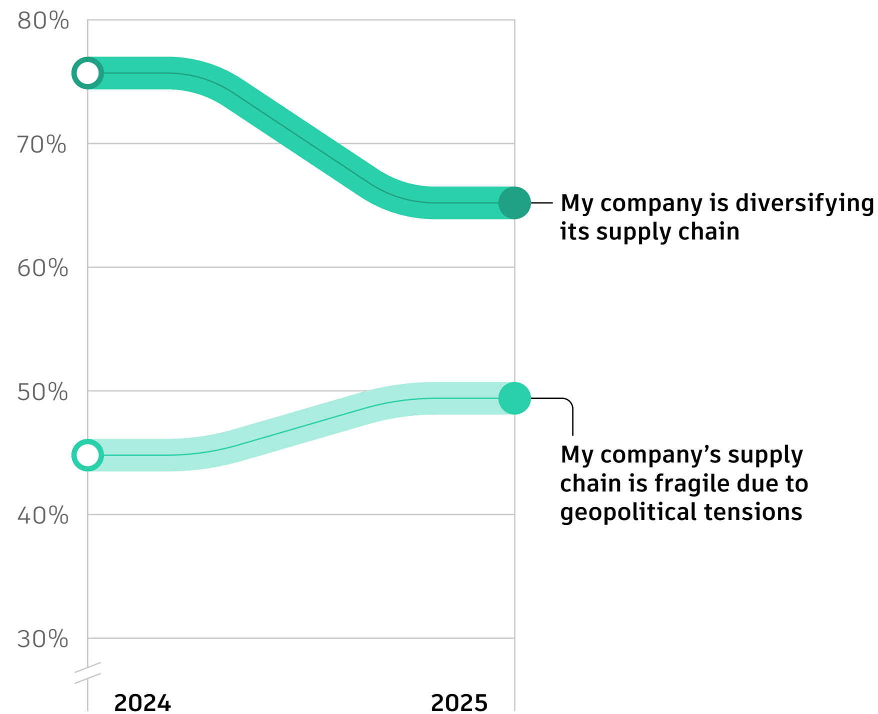
Norway is one country embracing AI in AECO. Construction engineering company Norconsult designed the Sotra suspension bridge using a fully digital approach. The project used a cloud platform for 3D modeling, reporting, cost control, and facility management, eliminating traditional drawings. The digital model minimized errors and provided clear visibility into progress, saving time and effort, while automation streamlined repetitive tasks. This led to significant cost control, reducing hand drawings by 99.5% and cutting drawings from 4,000 to just 15. APIs facilitated efficient data management and workflow integration.

→ READ MORE
about Sotra suspension bridge

INSIGHT 5

Supply chains remain fragile and undiversified

Supply chain diversification is down despite increased global uncertainty



Percentage of respondents who agree to the statements: 1. My company's supply chain is fragile due to geopolitical tensions. 2. ...to be more resilient... My company is diversifying its supply chain. 5-point scale. Top two = agree.

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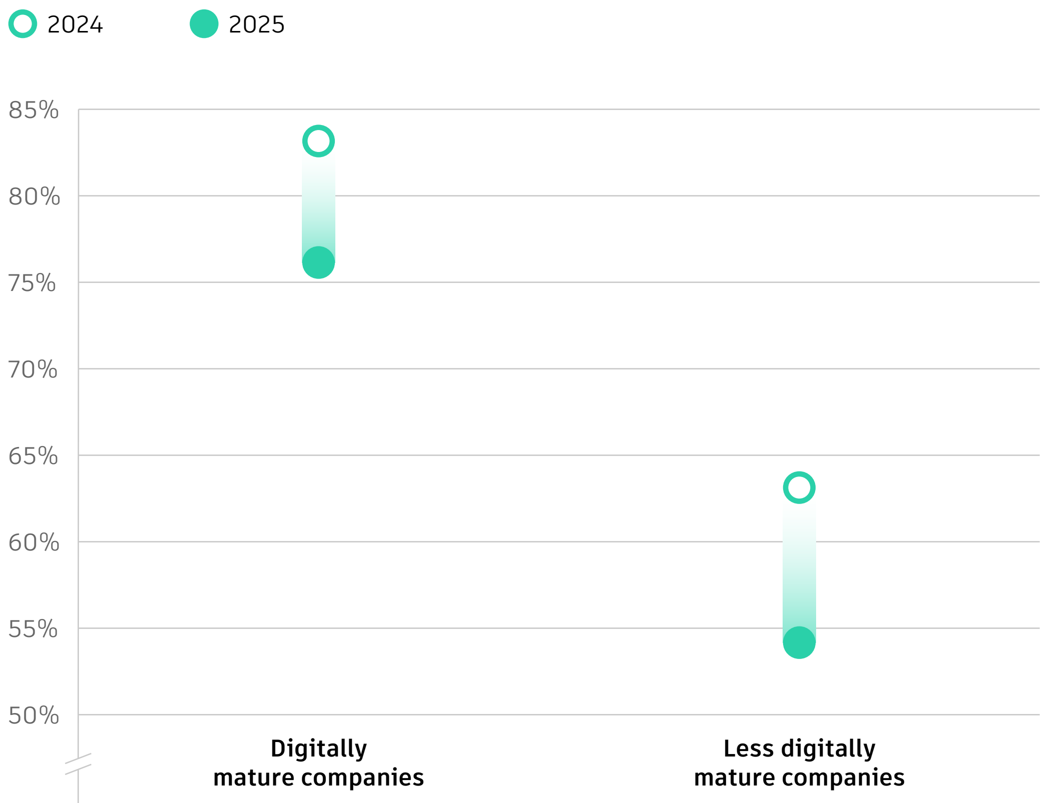
INSIGHT 5

Digitally mature companies 41% more likely to diversify their supply chains



Percentage of respondents who agree to the statements: ...to be more resilient... My company is diversifying its supply chain. 5-point scale. Top two = agree. For the definition of digital maturity, see glossary.

> *"Over the past 30 years, China's supply chain has become relatively mature and internationally well-identified. The current challenge lies in the fragility of overseas supply chains. For example, our factory in Malaysia faces significant challenges if it solely relies on non-Chinese supply chains. We are actively expanding new overseas supply chains to address these vulnerabilities."*
>
> **WEI FENG LU**
> Senior Vice President, Morimatsu International Holdings Company Ltd., a global manufacturing and solutions company headquartered in China

Supply-chain reliability continues to be a concern worldwide, with 49% of business leaders saying their supply chain is fragile due to geopolitical tensions, up from 45% in 2024.

Despite this increased fragility, there is a global, industry-wide decline in the percentage of leaders who say their organizations are diversifying their supply chains. This year saw an 11-point drop (to 65%) in the number of leaders saying their companies are diversifying their supply chains.

During interviews, leaders cited the cost of diversification, competing demands within the organization, and the lack of alternative options to their current supply chain as ongoing struggles with supply-chain resilience.

But one additional and critical factor companies need to consider when it comes to supply-chain stability is digital maturity. Survey results this year revealed that digitally mature organizations were 41% more likely to diversify their supply chains—giving them a significant edge when it comes to resilience.

INSIGHT 6

Leaders are cautious in the near term

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INSIGHT 6

This year saw a general cooling of sentiment across Design and Make industries, with the majority of business leaders feeling both more uncertain about the future and less prepared to handle unforeseen changes.

Sixty-five percent of leaders surveyed for this year's report agree that the global landscape is now more uncertain, a 10-point jump that represents a 19% increase year- over-year. Leaders are also less confident in their organization's ability to weather unforeseen obstacles, with just 61% saying they are well prepared, down from 73% in 2024.

This conflation of uncertainty and unpreparedness is having far-reaching impact across Design and Make industries. From a general reduction in spending to a decreased enthusiasm for new technologies, leaders are experiencing a lack of organizational confidence.

Leaders feel the future global landscape is more uncertain

+10 points
from 2024

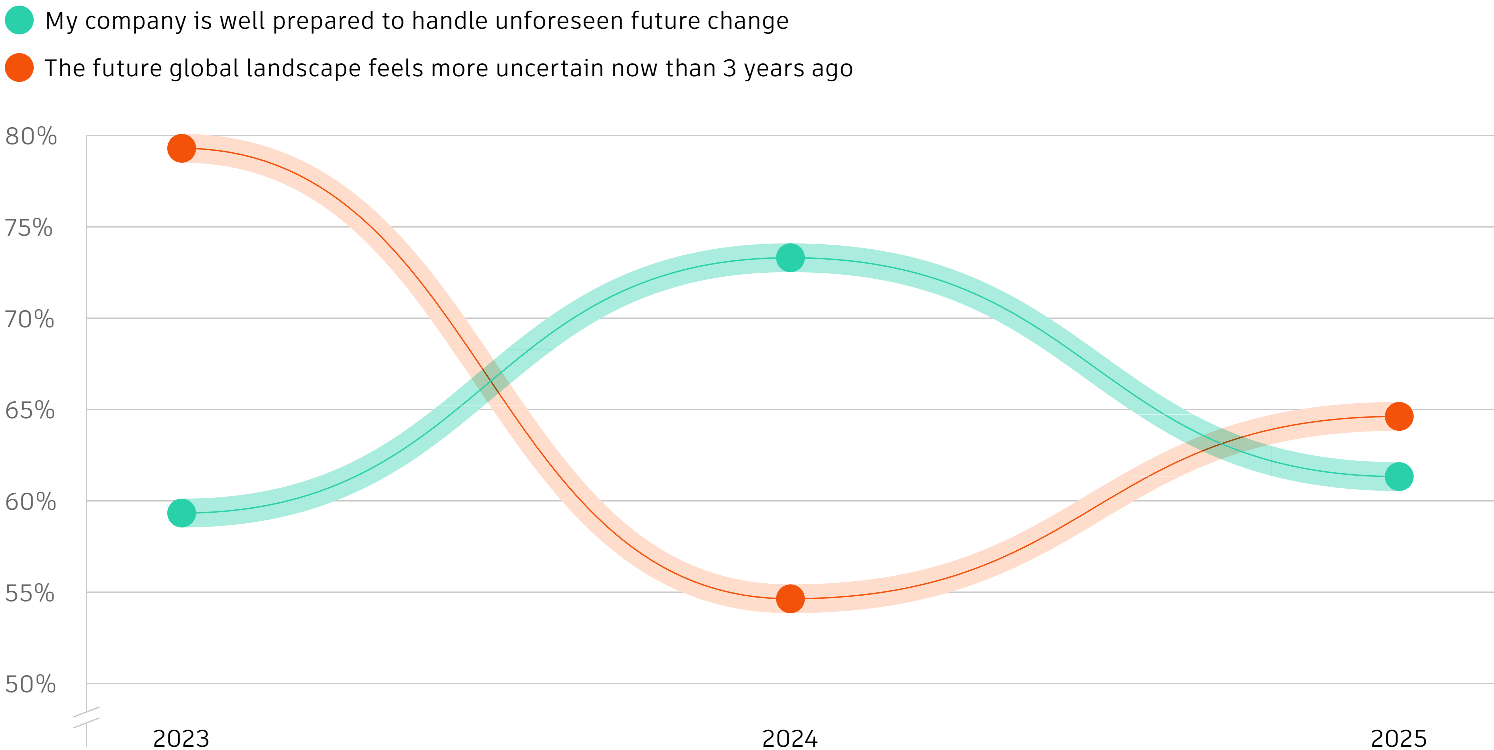
Leaders feel less prepared to handle unforeseen future changes

–12 points
from 2024

INSIGHT 6

Leaders feel more uncertain about the future and less prepared to face it

Global uncertainty is affecting organizational confidence



Percentage of respondents who agree to statements: 1. My company is well prepared to handle unforeseen future macroeconomic and geopolitical changes. 2. The future global landscape feels more uncertain now than 3 years ago. 5-point scale. Top two = agree.

"We're obviously concerned about the state of the world we're in today, with multiple wars, geopolitical stresses, environmental issues, and how all this affects our region. There's a lot of tension in the world right now, and as humans, of course, we do worry about this—this will affect us today as society and individuals—but also how this can potentially affect business and, more importantly, how this may affect the future of our children and future generations and so on."

AMMAR AL ASSAM
CEO, Dewan Architects, an architecture firm headquartered in the UAE

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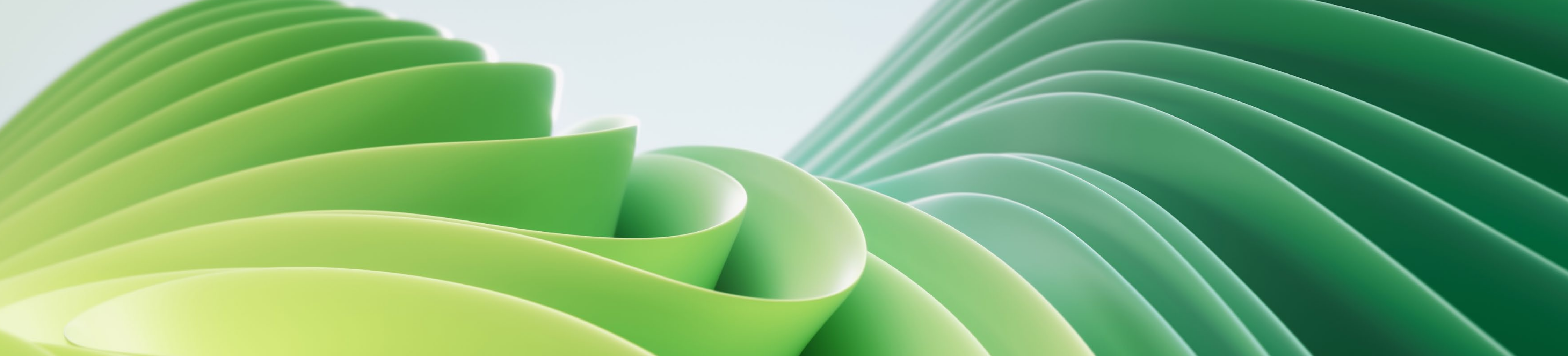


INSIGHT 6

But amid uncertainty, some organizations are faring better than others. Leaders at digitally mature organizations, for example, feel better prepared to handle unforeseen changes—76% of leaders at these companies feel prepared, compared to only 47% at less digitally mature organizations. And data-effective organizations are most confident, with 84% of leaders at those organizations feeling prepared to handle unforeseen changes. This points to yet another advantage of digitalization across Design and Make industries: increased resilience.

> ***"You can also look at declining global sentiment in a different way, and we took a very optimistic approach and said that there were opportunities out of the devastation that were caused by the pandemic. So it fast-tracked and forced a lot of people to go into the cloud and communicate better. And we were struggling with that. We are invited to work on projects around the globe, and clients expected us to do joint ventures with people across the world. It hadn't really been mainstream, but it was starting to become mainstream. All of these things came together and enabled us to be agile enough to switch from 700 people or more in offices to everybody at home in two weeks, with minimal loss of production because of that connectedness."***
>
> **BRAD SONTER**
> Practice Design Technology Lead, Cox Architecture,
> a design-focused architectural practice headquartered in Australia

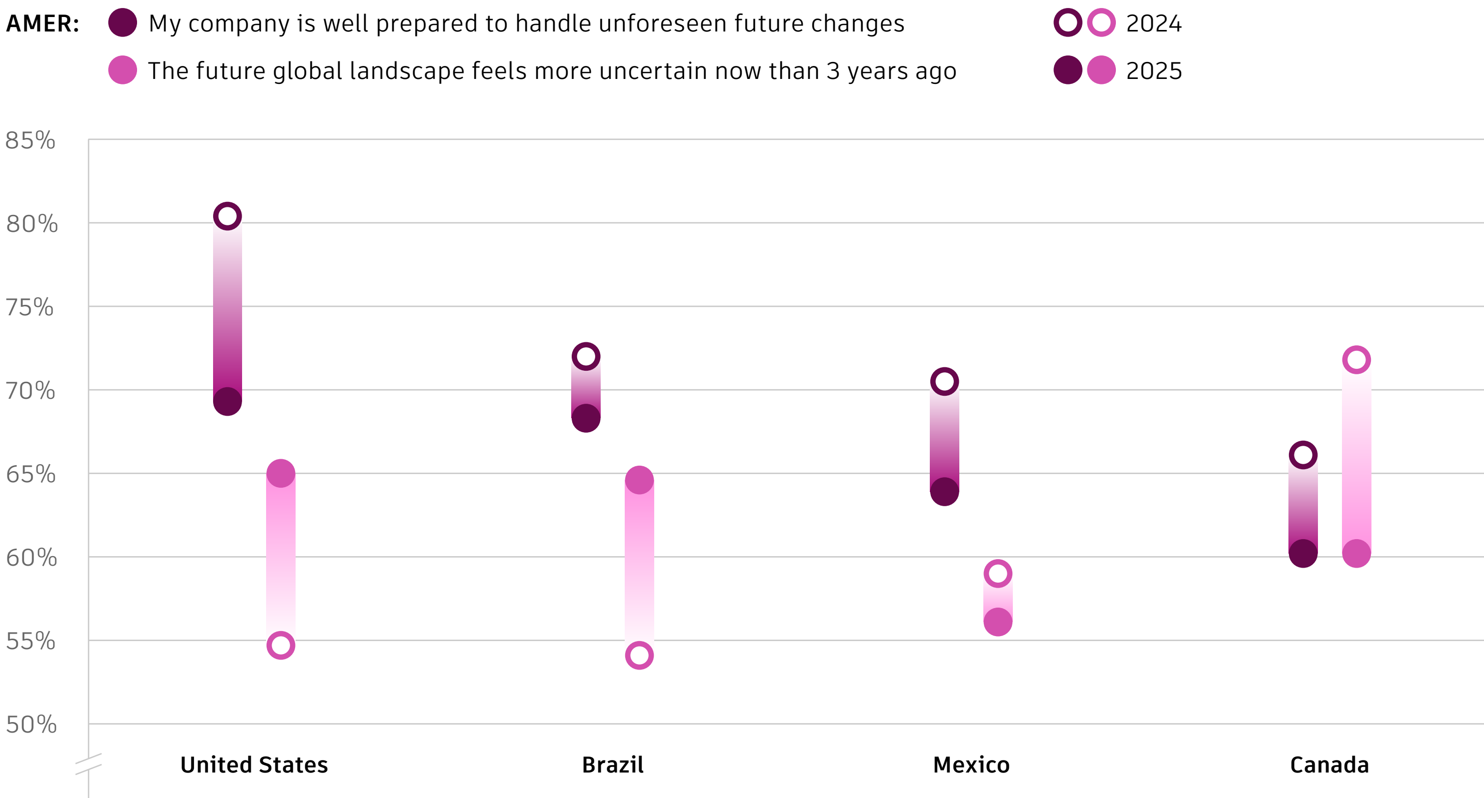
AUTODESK

INSIGHT 6: AMER

The United States and Brazil both saw roughly 10-point increases in the number of respondents who agree that the future global landscape feels more uncertain. And the United States is also feeling less prepared than the previous year, with 69% of leaders saying they feel prepared to handle unforeseen changes, a decrease of 11 points.

In Mexico and Canada, the trend was reversed. In Mexico, slightly fewer (56%) agree that uncertainty is greater now compared to the survey a year earlier (59%). In Canada, the difference was more significant. In 2024, 72% of survey respondents in Canada agreed that the future felt more uncertain; in this year's survey, only 60% agree, signaling that Canada is one of the few regions optimistic about the current global landscape.

The United States sees the biggest decrease in preparedness, Canada the largest decrease in uncertainty

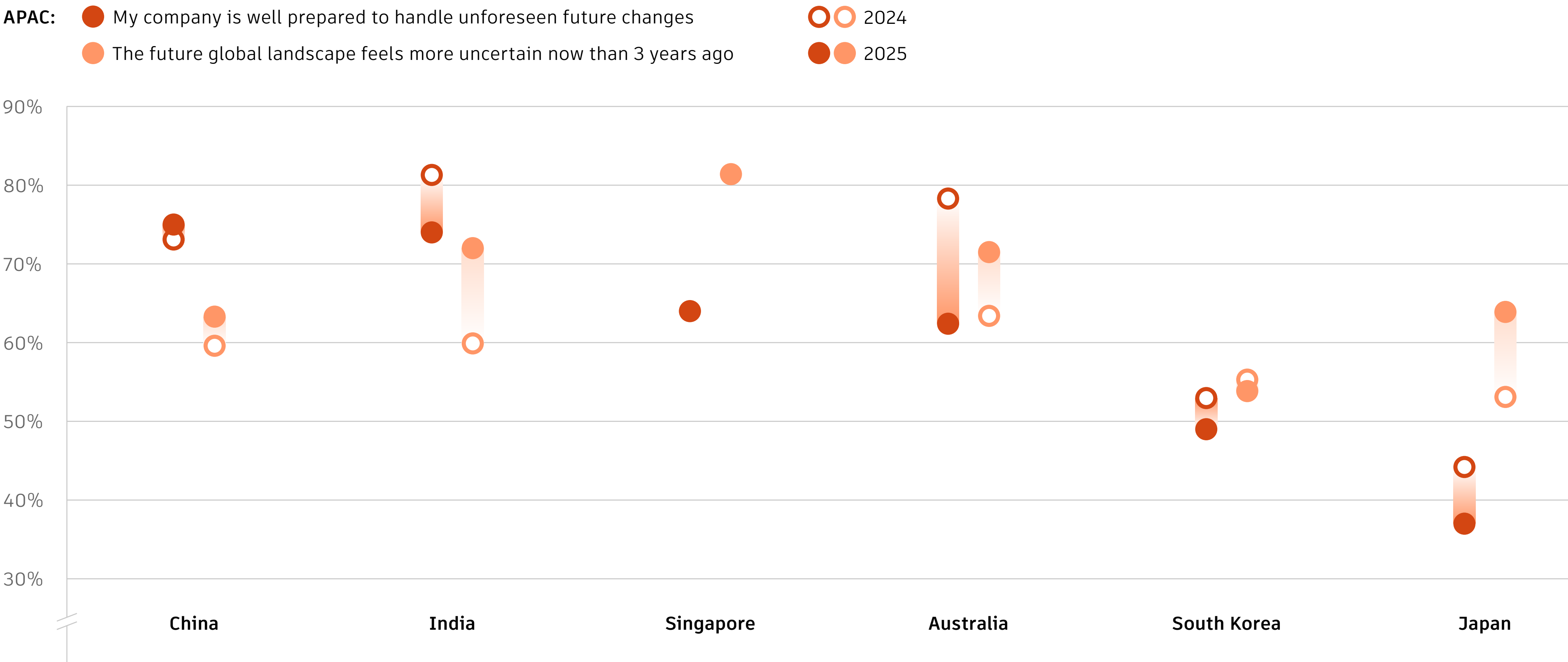


Percentage of respondents who agree to statements: 1. My company is well prepared to handle unforeseen future macroeconomic and geopolitical changes. 2. The future global landscape feels more uncertain now than 3 years ago. 5-point scale. Top two = agree.

AUTODESK

INSIGHT 6: APAC

Japan's leaders feel the least prepared, Singapore's the most uncertain



Percentage of respondents who agree to statements: 1. My company is well prepared to handle unforeseen future macroeconomic and geopolitical changes. 2. The future global landscape feels more uncertain now than 3 years ago. 5-point scale. Top two = agree. Data for Singapore was not gathered for the 2023 and 2024 surveys.

AUTODESK

INSIGHT 6: APAC

Most APAC business leaders echoed global trends, with an increase in the perception of uncertainty and a decline in feeling well prepared to handle unforeseen changes in the future.

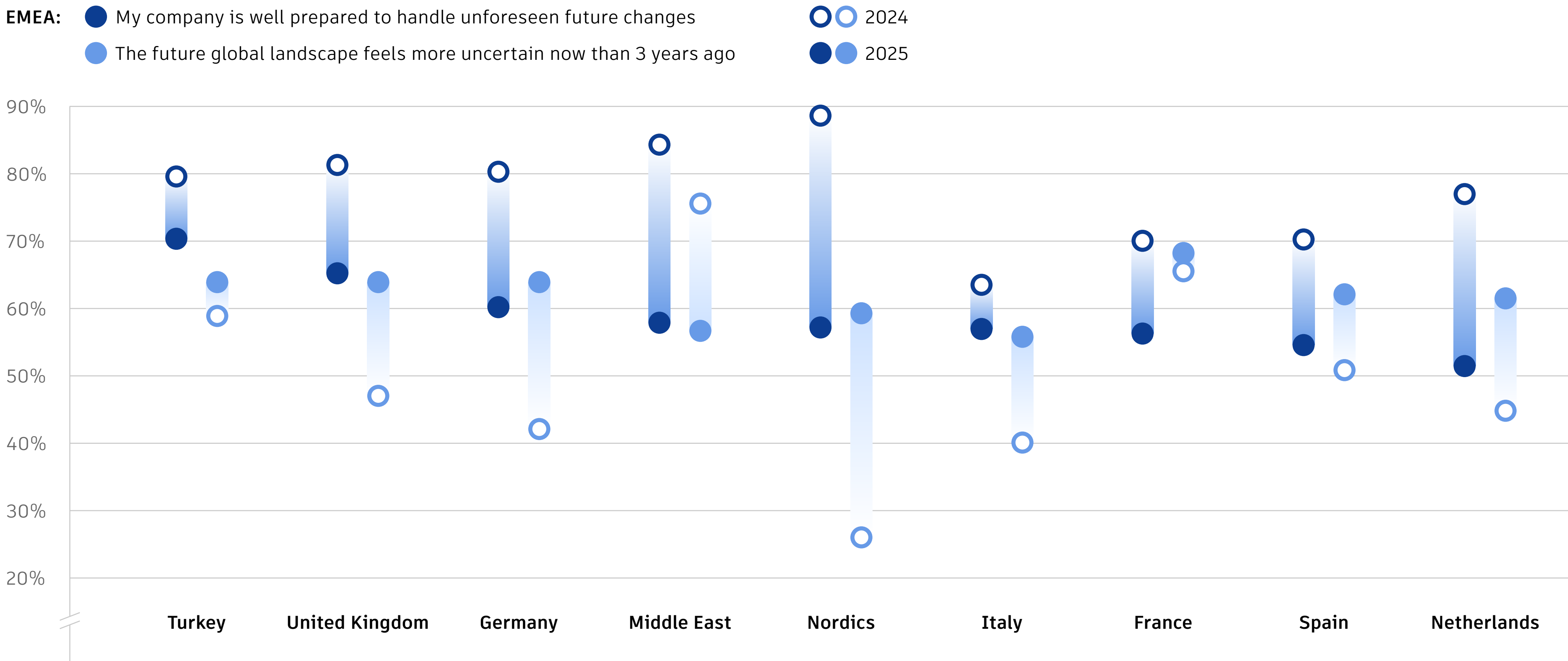
China was the only country that saw an increase, however slight (60% to 63%), in the percentage of respondents agreeing that their companies are well prepared to handle unforeseen changes. Leaders in Japan (37%) and South Korea (49%) feel less prepared to handle unforeseen macroeconomic and geopolitical changes.

Overall, Singapore had the highest percentage of respondents saying that uncertainty is on the rise, with 81% agreeing the future global landscape is more uncertain, while South Korea is feeling the most confident about the global landscape, with a 2-point decline in uncertainty.

> ***"In uncertain times, many businesses prioritize stability over expansion. Issues such as supply chain, rising costs, and market instability lead companies to focus more on efficiency improvement and digital transformation."***
>
> **ANDY YU**
> Director, Build King Construction Ltd., a construction services company headquartered in Hong Kong

INSIGHT 6: EMEA

Nordics sees the largest swing in both preparedness and uncertainty



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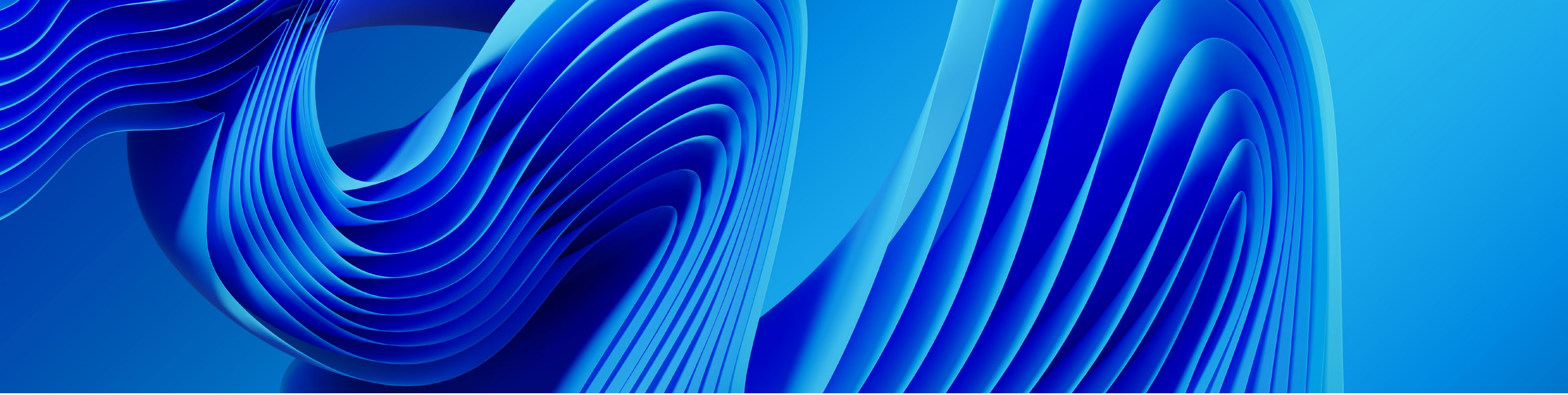


INSIGHT 6: EMEA

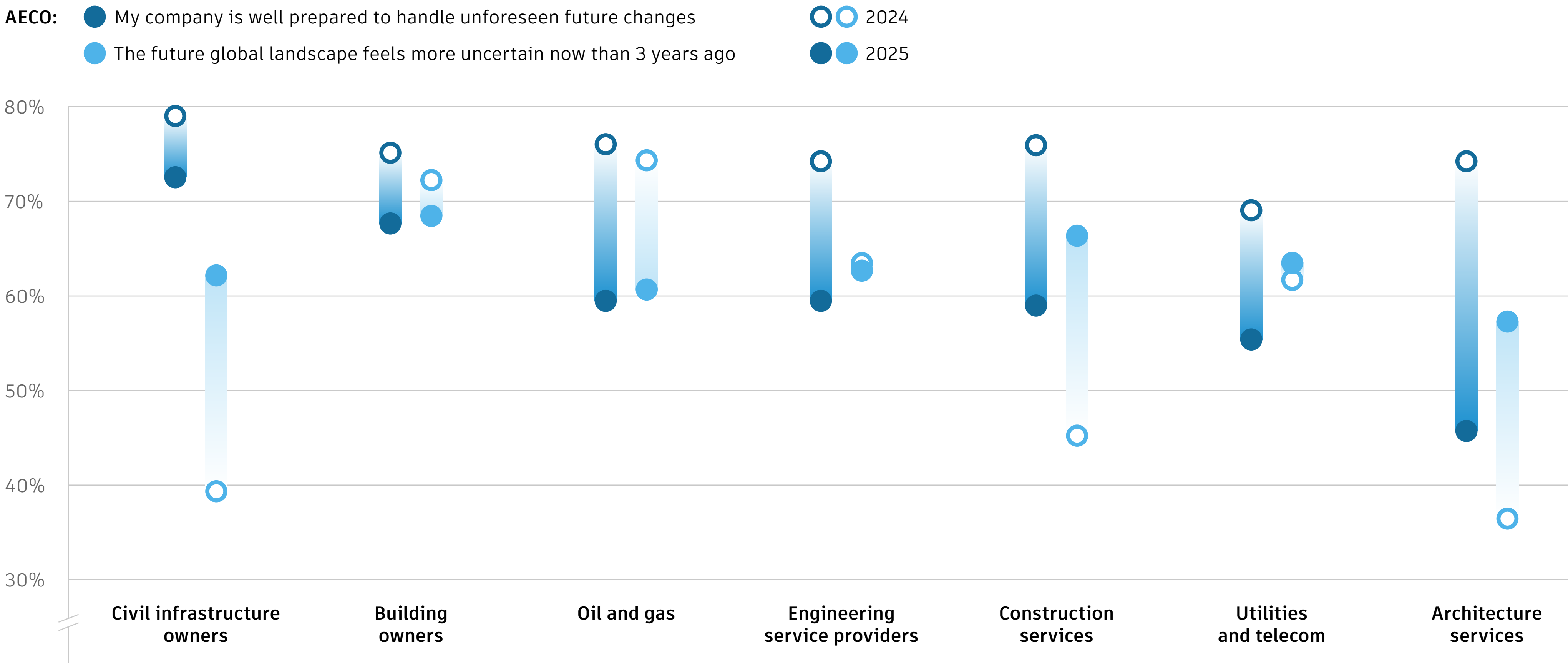
In EMEA, the Nordics saw the largest change in sentiment year-over-year. Just 57% of leaders in the region feel prepared to handle unforeseen macroeconomic or geopolitical changes, down significantly from 88% in 2024.

The Nordics also saw a dramatic increase in the percentage of respondents who agree that uncertainty is on the rise, from 26% to 59%. This swing in both uncertainty and preparedness is due to a confluence of factors. In interviews, leaders said this swing in both uncertainty and preparedness was a delayed effect from the larger global economic downturn that just started impacting the construction industry in the region, along with uncertainty around the impact of various tariffs and trade embargoes.

> ***“We are a very diversified company because we work in more than 100 countries on many elements of the value chain and in many verticals: rail, energy, buildings, et cetera. So if there is a negative impact here, it’s mitigated by the rest of the activities. So we are not too worried, but, for sure, the industry has to be careful of what is happening. The geopolitical situation can have an impact.”***
>
> PIERRE-YVES MASSILLE
> CTO, Egis Group, an engineering and consulting firm headquartered in France

INSIGHT 6: AECO

Architecture services sees large shift in both preparedness and uncertainty



Percentage of respondents who agree to statements: 1. My company is well prepared to handle unforeseen future macroeconomic and geopolitical changes. 2. The future global landscape feels more uncertain now than 3 years ago. 5-point scale. Top two = agree.

INSIGHT 6: AECO

AECO, in general, is feeling less prepared to handle unforeseen changes than the previous year, with architecture services seeing the steepest decline, from 74% to 46%, representing a 38% change year-over-year. Leaders in architecture services not only feel their organizations are less prepared to handle unforeseen changes, but their confidence in the future has also fallen—there is a 21-point year-over-year increase in the number of leaders who see the future as uncertain. From increased materials costs to the shifting regulatory landscape and disruption from AI, architecture services is currently seeing, and feeling, the effects of ongoing global uncertainty.

"The future appears to be progressing towards a significant divide between technology adopters and nonadopters, with this gap continually widening. This presents opportunities for smaller companies to leverage emerging technologies and establish new trends. However, it is important to acknowledge that integrating such technology on a large scale within established companies may not always be feasible."

OLIVER HALL
BIM Manager - Senior Staff, Stefan Antoni Olmesdahl Truen Architects (SAOTA), an architecture and design firm headquartered in South Africa

INSIGHT 7

The search for talent intensifies, with a focus on AI skills

05

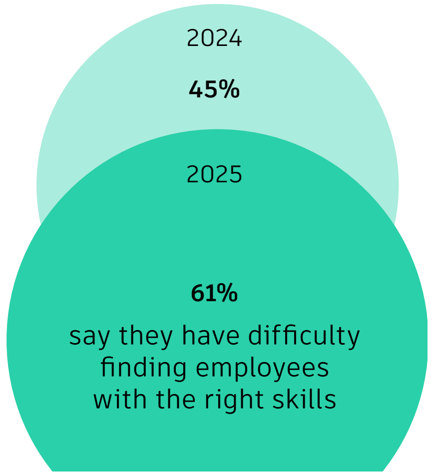
06

07

08

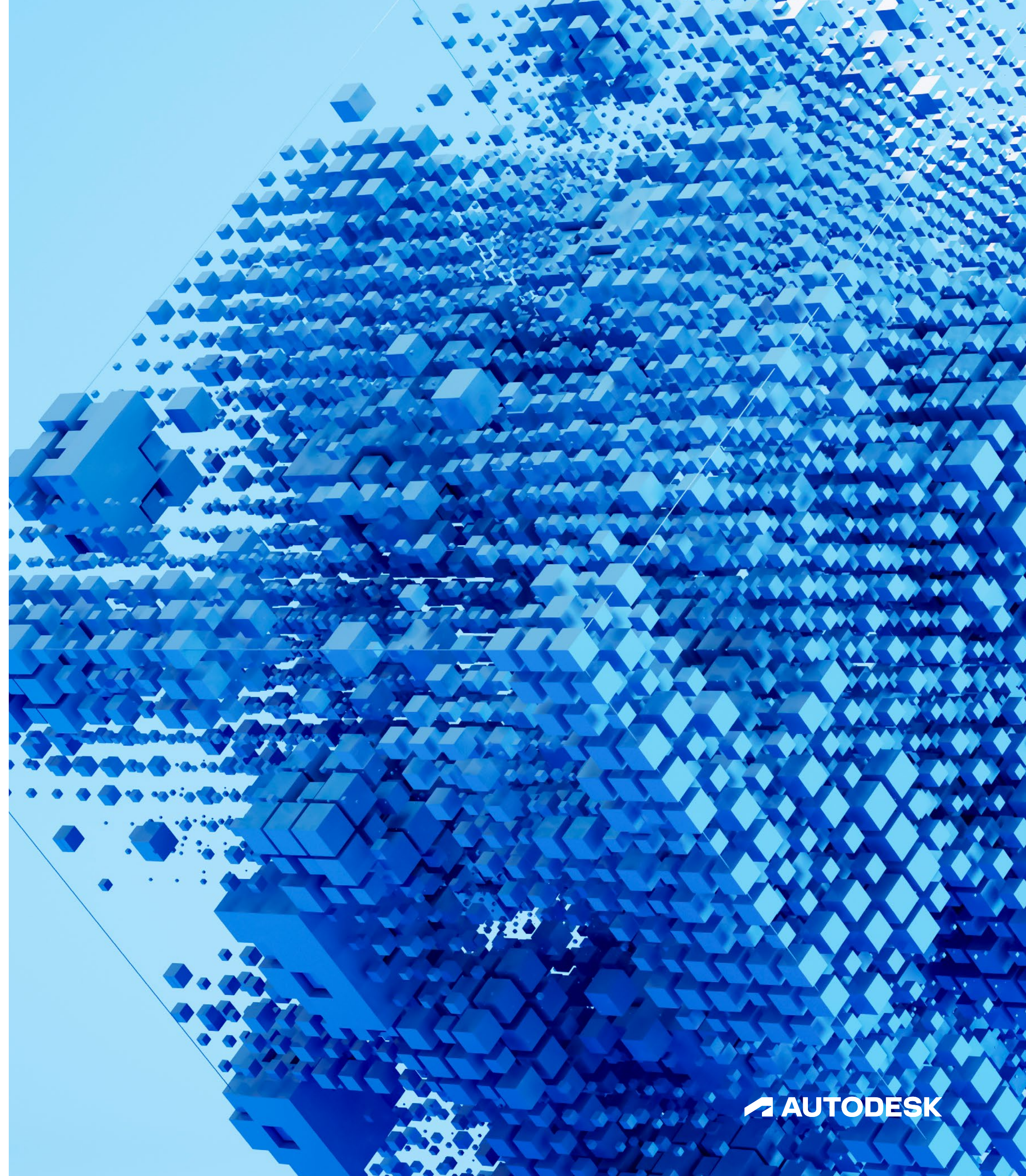
INSIGHT 7

Design and Make industries have struggled in recent years to find skilled talent, and this year, that struggle has become acute enough to hinder growth. Fifty-eight percent of business leaders say that lack of access to skilled talent is a barrier to their company's growth, up from 43% in 2024.



The skilled talent gap increased in nearly every country surveyed—in some cases, quite significantly. Germany, for example, saw an increase from 28% to 61% in the number of organizations saying skilled talent is difficult to find. In the Nordics, this number jumped from 18% to 51%, representing a 183% year-over-year increase.

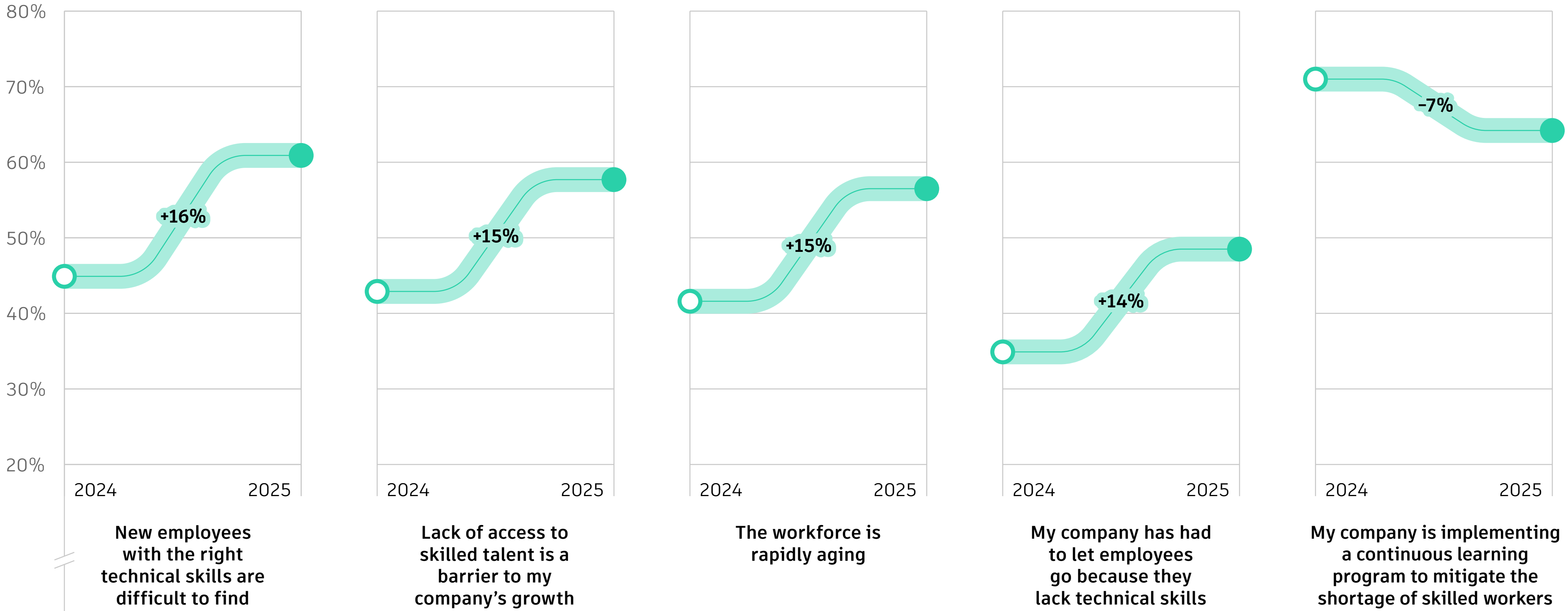
When it comes to bridging and filling the skills gap, digitally mature companies are at a distinct advantage. Seventy-seven percent of digitally mature companies will invest more in digital training, compared to 59% of less digitally mature companies. They are also more likely to implement continuous learning programs than less digitally mature companies, at 74% and 55%, respectively. Digitally mature companies also see a boost when it comes to talent. Twenty-seven percent of digitally mature companies report improved talent acquisition and retention as a benefit of digital transformation, compared to only 18% of less digitally mature companies.



INSIGHT 7

Nearly two-thirds of organizations are confronting a skills gap

36% year-over-year increase in leaders who say they struggle to find candidates with technical skills



Percentage of respondents who agree to statements: 1. New employees with the right technical skills are difficult to find. 2. My company has had to let employees go because they lack technical skills. 3. Lack of access to skilled talent is a barrier to my company's growth. 4. The workforce is rapidly aging. 5. My company is implementing a continuous learning program to mitigate the shortage of skilled workers. 5-point scale. Top two = agree.

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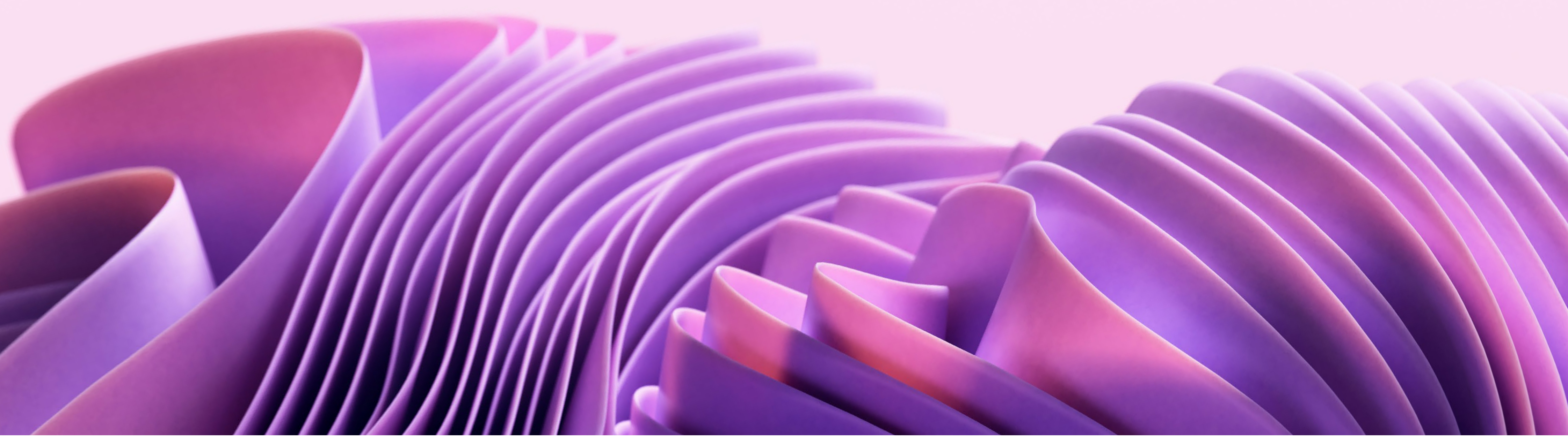


INSIGHT 7

Sixty-one percent of business leaders worldwide agree that new employees with the right technical skills are difficult to find, up from 45% the previous year. Moreover, the number of leaders who say they have had to let people go because they lack technical skills has jumped to 49%, up from 35%, compounding labor-shortage problems.

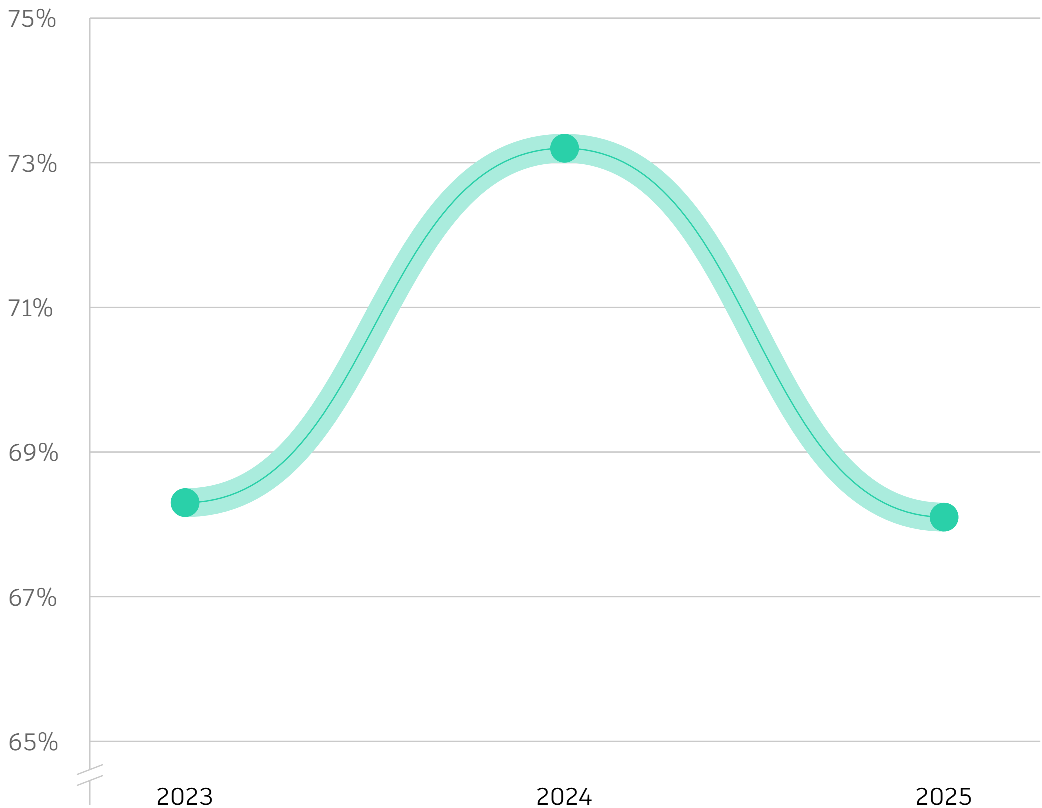
Despite these struggles, leaders are confident in their organizations' ability to tackle talent issues. In the analysis of open-ended survey questions asking respondents how their company is addressing this lack of access to skilled talent, only 5% say their company is not handling the issue, down from 11% last year. These organizations say they are focused on increasing talent acquisition through working with recruiters or using targeted job postings.

Leaders are also much more confident that their organizations are handling the challenge of a rapidly aging workforce; just 5% of leaders think their organizations are not handling the issue, compared to 20% last year.

> ***"Finding the right talent is challenging. They have to know how to work with the software and have a technical understanding of the product we are designing. It can be very hard and very expensive to find people."***
>
> **CHRISTIAN AHLERS**
> CAD Systems Administrator, Lindner Group, an interior construction specialist headquartered in Germany

INSIGHT 7

Despite the skills gap, investment in training is down



Percentage of respondents who agree to the statement: In the next 3 years, my company is planning to invest more in digital skills training. 5-point scale. Top two = agree.

Solution spotlight

Steelcase—a furniture manufacturer for offices, hospitals, and classrooms—addresses the skills gap through various initiatives focused on workforce development and inclusion. Recognizing the importance of a diverse and sustainable workforce, Steelcase partners with organizations such as the West Michigan Center for Arts and Technology (WMCAT) to provide hands-on arts and technology programming, gap-year programs, and adult workforce development. Additionally, Steelcase's Camp Ignite empowers underrepresented teens through leadership training and internships, preparing them for future careers. The company also supports women in manufacturing at its Pune, India, plant through educational programs and flexible work arrangements. These efforts aim to build a diverse talent pipeline, enhance workforce skills, and create a culture of inclusion, ultimately benefiting both the company and the communities it serves.

READ MORE about Steelcase

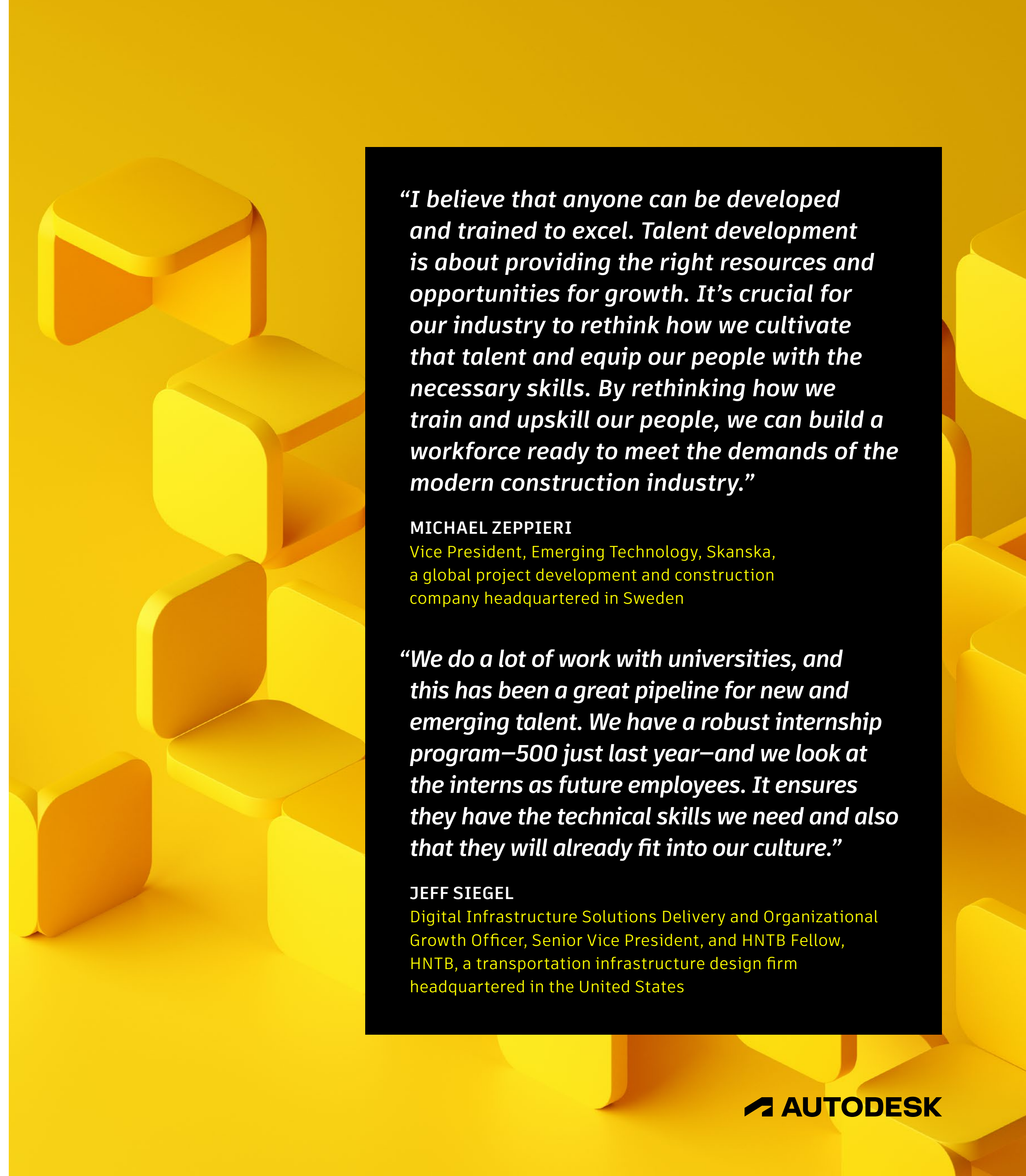
INSIGHT 7

One way to bridge the skills gap is to invest more in workforce training through continuous learning programs, but implementation of continuous learning programs has declined to 64% from 71% in 2024.

Budget aside, training holds other challenges. Nearly half of all respondents (48%) say they do not have the resources to design internal training programs, up 10 points over 2024, indicating that the tight labor market is impacting initiatives across organizations.

Confronted by multiple implementation obstacles, some organizations are turning to third parties to train their employees. While external training programs seem like an ideal solution for those organizations tight on resources, their efficacy remains in doubt, with 52% of leaders saying these do not meet the needs of their organizations.

Notably, for companies held back by lack of access to skilled talent, just 9% said they were using AI to fill this gap. Instead, organizations are focused on hiring workers with AI skills.



"I believe that anyone can be developed and trained to excel. Talent development is about providing the right resources and opportunities for growth. It's crucial for our industry to rethink how we cultivate that talent and equip our people with the necessary skills. By rethinking how we train and upskill our people, we can build a workforce ready to meet the demands of the modern construction industry."

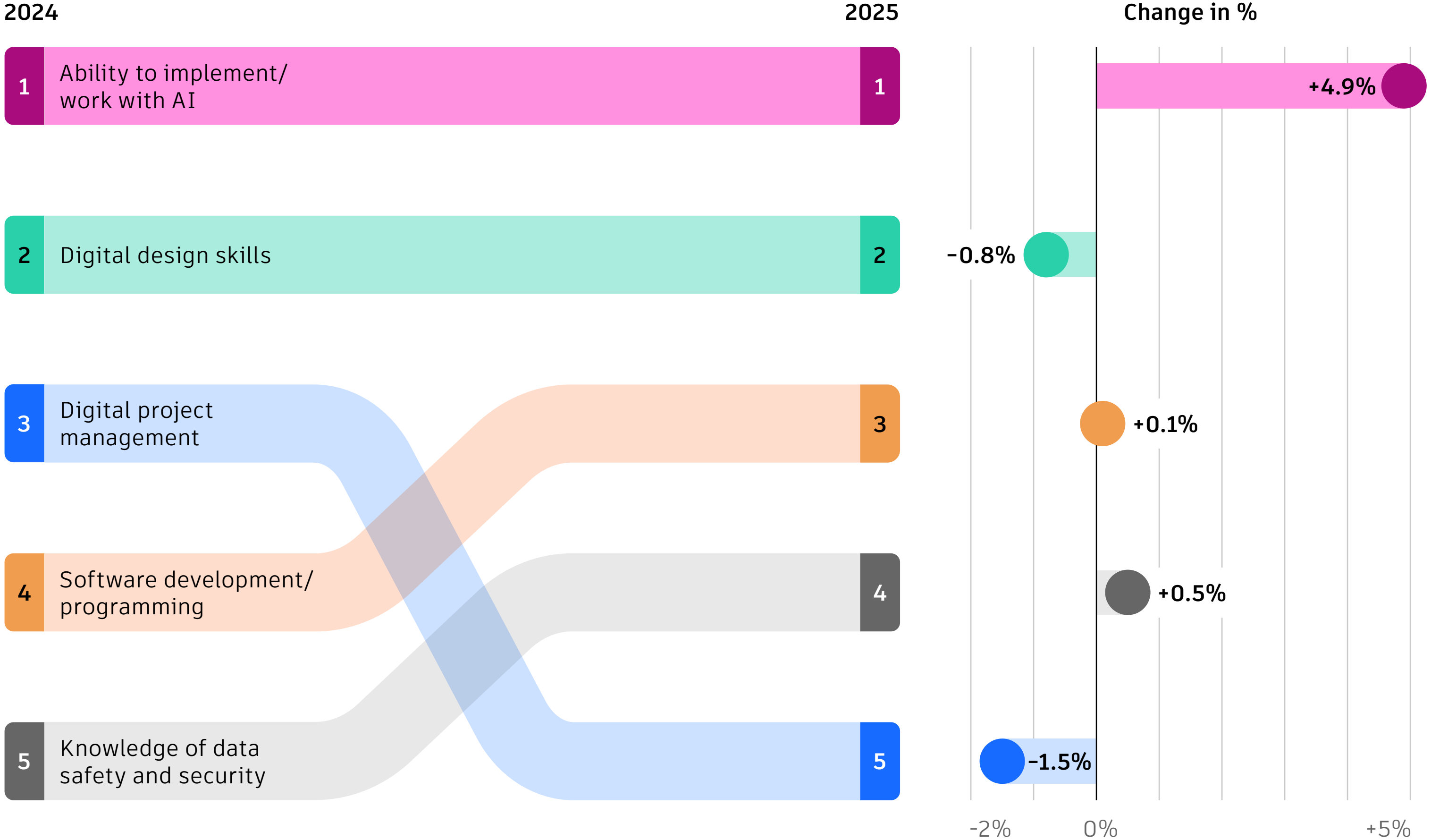
MICHAEL ZEPPIERI
Vice President, Emerging Technology, Skanska, a global project development and construction company headquartered in Sweden

"We do a lot of work with universities, and this has been a great pipeline for new and emerging talent. We have a robust internship program—500 just last year—and we look at the interns as future employees. It ensures they have the technical skills we need and also that they will already fit into our culture."

JEFF SIEGEL
Digital Infrastructure Solutions Delivery and Organizational Growth Officer, Senior Vice President, and HNTB Fellow, HNTB, a transportation infrastructure design firm headquartered in the United States

INSIGHT 7

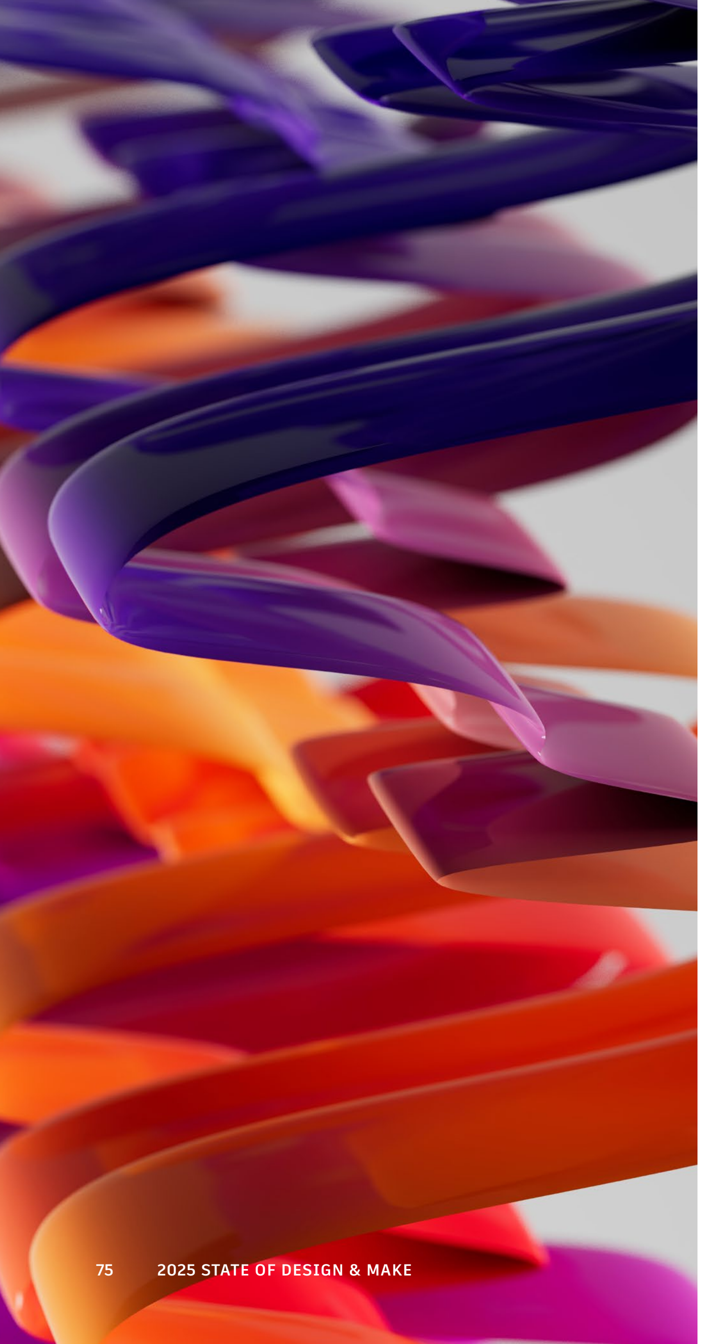
AI skills top the list of future hiring priorities



Survey question: What technical or digital skills do you believe your company or organization will be prioritizing when hiring over the next 3 years? Select all that apply. 12 response options.

"Resourcing is the biggest challenge. It's number one. We can't replace the human; therefore, resourcing is vital. It's becoming more difficult as technology is becoming more advanced for people to understand it, get trained for it, and engaged in it. It's becoming more difficult, and it's not going to get any less difficult. We're being asked as practitioners to do more with less time. We're time poor, and a lot of people don't have the time to go and upskill."

BRAD SONTER
Practice Design Technology Lead, Cox Architecture, a design-focused architectural practice headquartered in Australia



INSIGHT 7

Forty-six percent of leaders say the ability to work with AI will be their top priority when hiring in the next few years, up from 41% in 2024. This indicates that, despite a more cautious approach to the technology this year, leaders are still dedicated to integrating AI into their organizations.

At the industry level, utilities and telecom see the most need for AI skills, with 58% of leaders saying they are a priority. Considering this industry also sees AI and technology as its top challenge, it makes sense that leaders are prioritizing the tech skills that will ease implementation concerns.

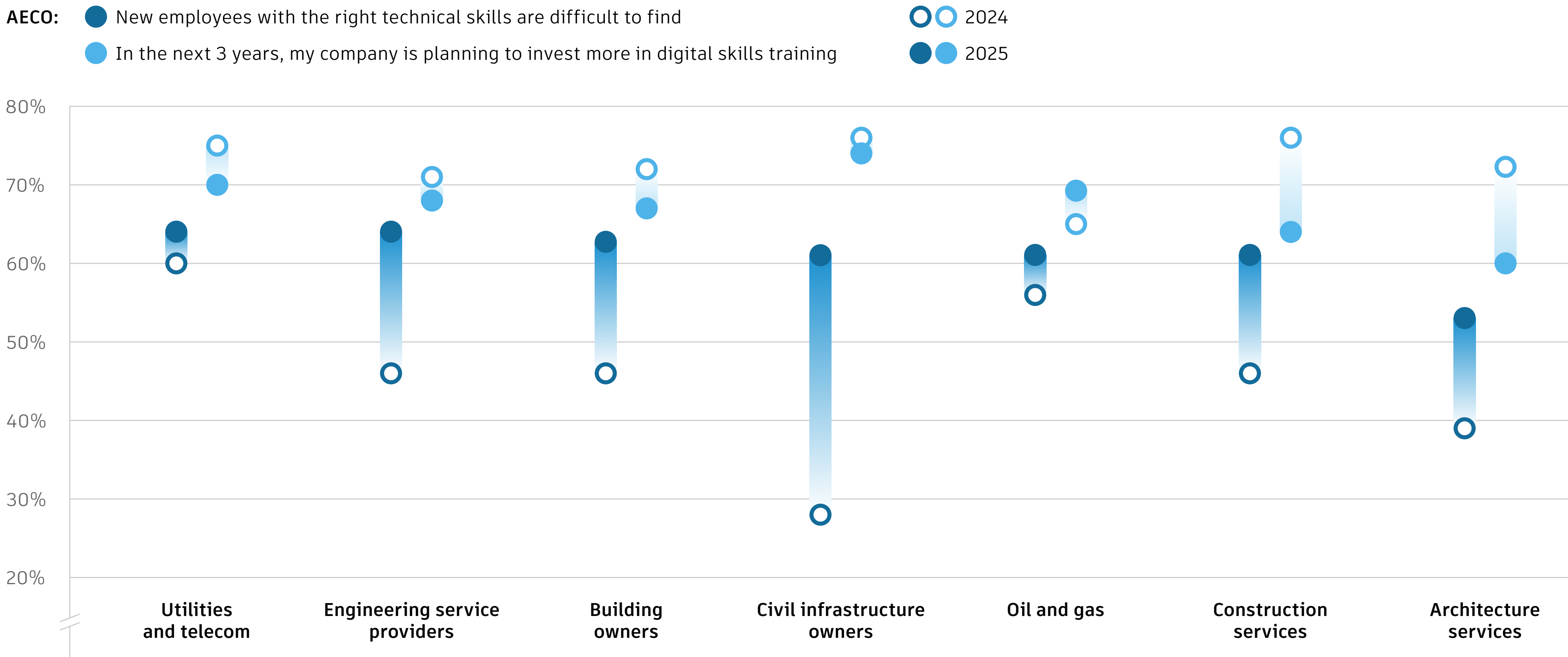
"In the next few years, with the advent of generative AI, we need a different kind of talent. We need artists. We need creative thinkers. We need problem solvers. We don't need button pushers, because those are the tasks that will get automated."

VEERENDRA PATIL
Founder and Creative Director, Zebu Animation Studios, an animation studio headquartered in India

"But from the design, construction, and the operation perspective, AI plays a very critical role. From a productivity perspective, we can use different AI processes to help maybe come up with design suggestions in terms of optimizing maybe airflow, optimizing space."

DR. KAREN BLAY, MCP, BSC, PGCERT, MSC, PHD, FHEA, MACM, MCIOB, MIHEEM
Senior Lecturer in Digital Construction and Quantity Surveying, Loughborough University, a public research university in England

Civil infrastructure sees dramatic technical skills shortage



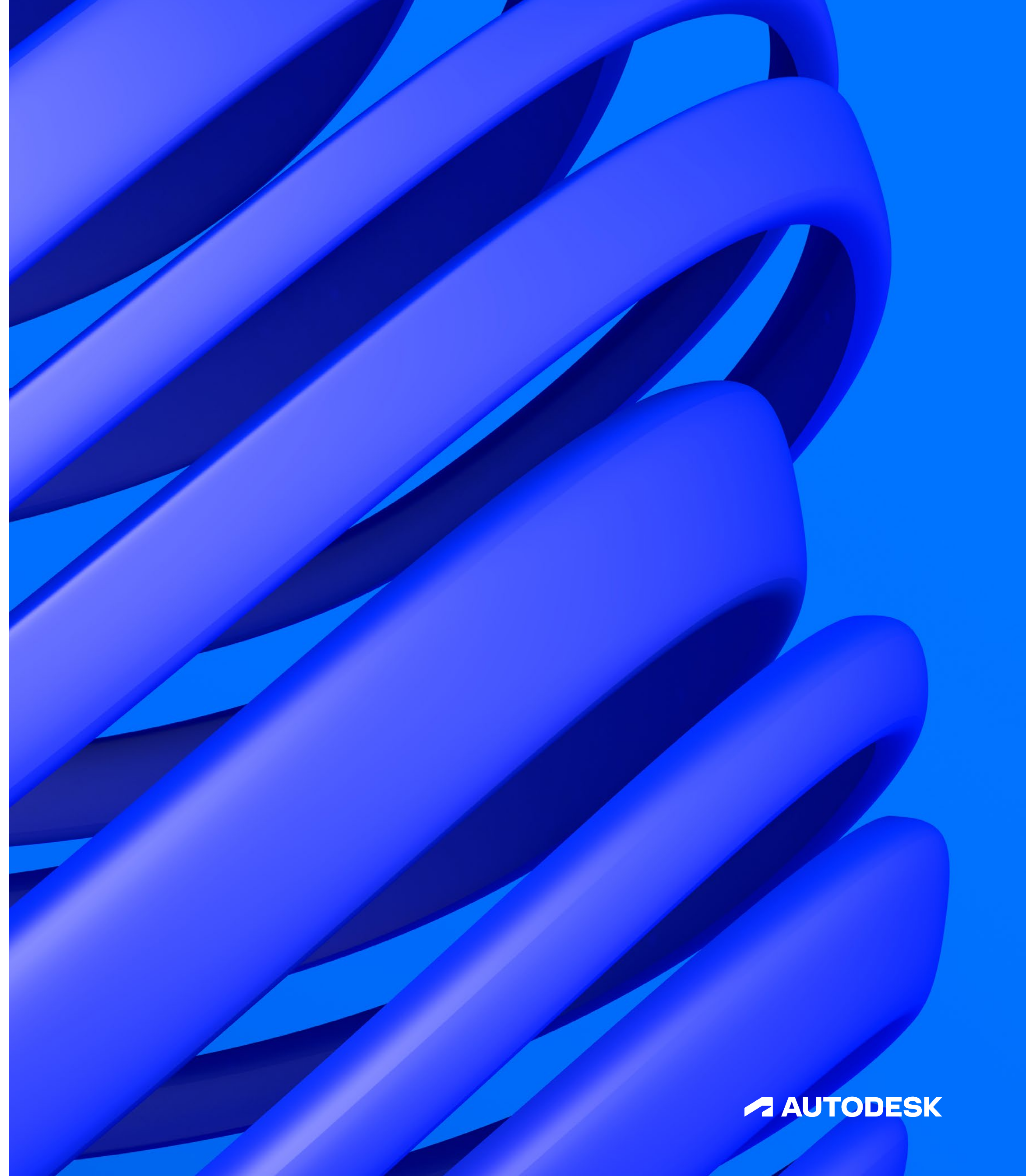
Percentage of respondents who agree to statements: 1. New employees with the right technical skills are difficult to find. 2. In the next 3 years, my company is planning to invest more in digital skills training. 5-point scale. Top two = agree.

INSIGHT 7: AECO

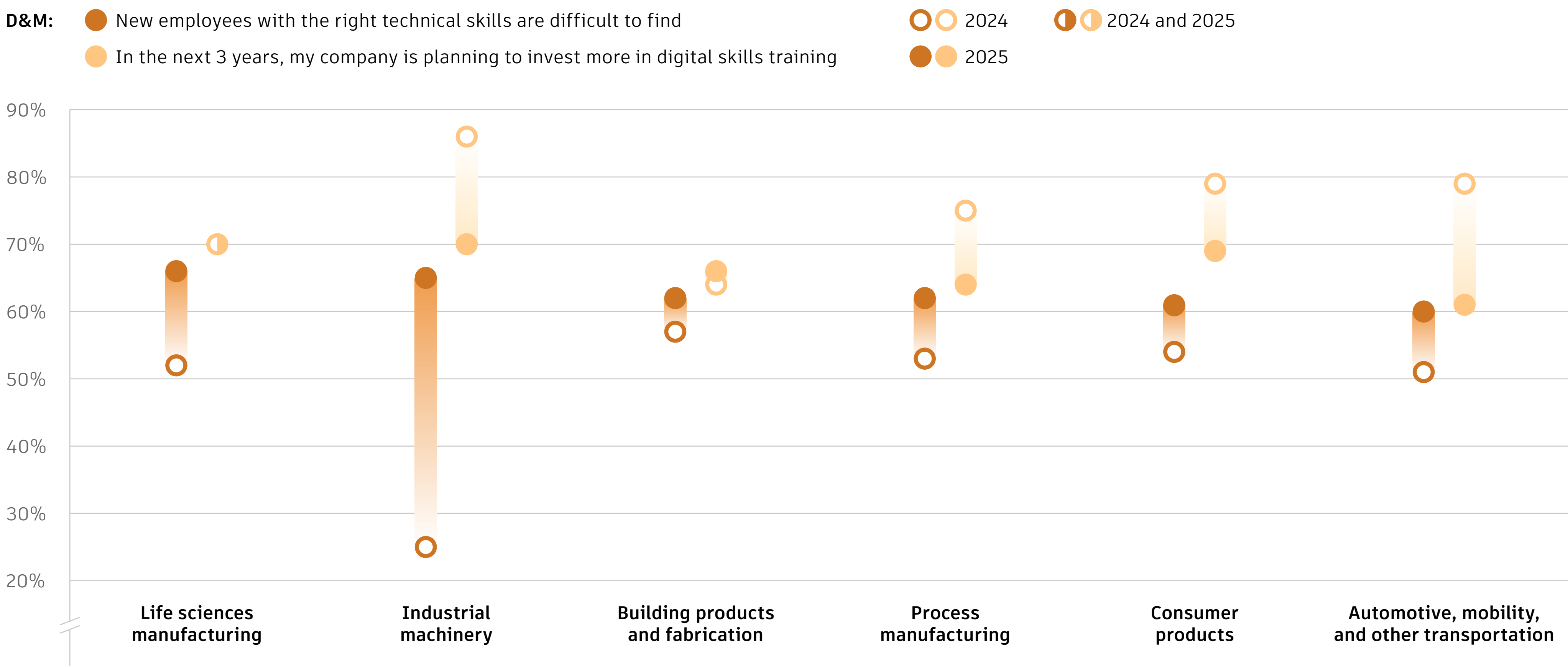
Civil infrastructure organizations are experiencing a major increase in their skills gap. This year, 61% of leaders in the sector say the right technical skills are hard to find, up from 28% in 2024 and representing a 118% year-over-year change. Concerns about an aging workforce are compounded by the industry's difficulty in attracting young talent who see civil engineering as less technologically advanced than other sectors.

"Recruiting younger generations is a challenge. People don't think our industry is cool enough," says Linn Areno, head of digital development at Skanska Sweden, a global project development and construction company. "Personally, it's quite hard because everyone else is depending on our industry. You don't have anything if you don't have roads, if you don't have houses. Younger generations want to do cool computer stuff." To combat this image and attract future generations, Skanska invests in outreach programs for students of all ages, from university students to preschoolers.

> *"One problem is education. Nowadays, we are making people more general instead of training for specialties. Today, we see mechanical engineers instead of, say, a mechanical engineer for the utility industry or a mechanical engineer for the automotive industry. So for us, we say that it will take an engineer one to three years, at least, to be ready to work effectively."*
>
> **VINICIUS PRATA**
> Leader of the Power Generation BIM Committee, Eletrobras, an electric power generation and transmission company headquartered in Brazil



Industrial machinery sees dramatic jump in skills shortage



Percentage of respondents who agree to statements: 1. New employees with the right technical skills are difficult to find. 2. In the next 3 years, my company is planning to invest more in digital skills training. 5-point scale. Top two = agree.

AUTODESK

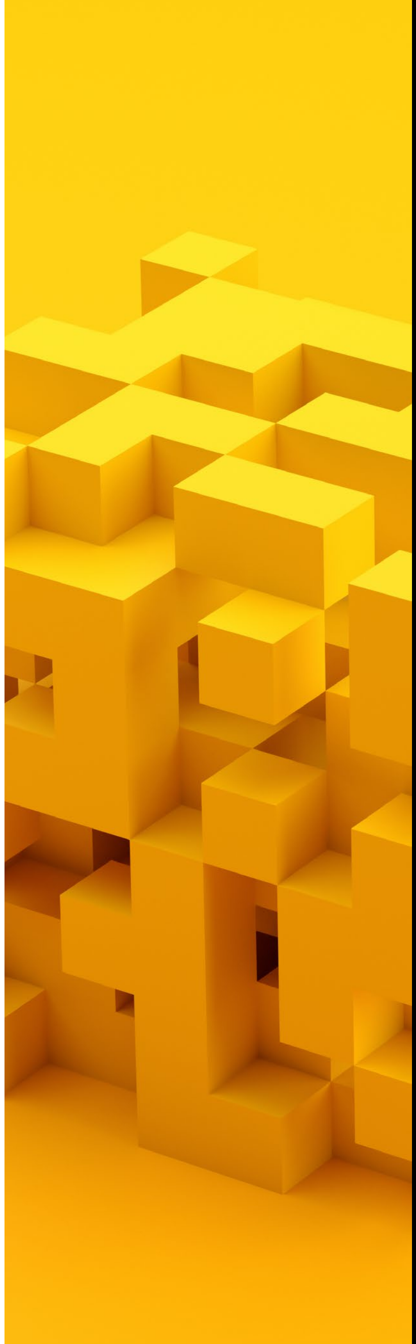
INSIGHT 7: D&M

The industrial machinery sector saw the largest increase in the number of leaders who say they struggle to find the right technical skills—up to 65% from 25% in 2024, representing a dramatic 160% increase year-over-year. And while it also had one of the highest percentages of leaders saying their companies plan to invest more in digital skills training, that figure is down 16 points to 70% this year. Leaders cite the old-fashioned image of the sector as a reason why they are struggling to find talent—younger employees, they say, are drawn to industries they see as more technologically advanced.

To address this issue, leaders in the sector say they are focused on outreach, recruitment, and internship programs with students to attract them to the industry right at the start of their careers.

"As with the construction industry, as a whole, there is a shortage of skilled workers, and in Japan, the issue of how to respond to the Work Style Reform is a challenge. But as a means of solving this, we are introducing new technology to improve productivity."

HIDENORI SAITO
Department Manager of the DX Strategy Division and BIM Management Office, Takasago Thermal Engineering, an air conditioning equipment company headquartered in Japan



Solution spotlight

Revolution Workshop's workforce development programs offer more than jobs; they provide a pathway to stable, prosperous futures for people from underserved neighborhoods in Chicago's West and South sides. Revolution's Trade Pathways and Professional Pathways programs focus on practical skills training and holistic support, including financial literacy, conflict resolution, and goal setting. This comprehensive approach prepares participants for careers in construction, ensuring they are job-ready and able to succeed. The Professional Pathways program, in particular, offers training in engineering, architecture, and construction management, addressing the industry's need for new skilled workers as older ones retire. By fostering relationships with employers and providing tailored training, Revolution Workshop bridges the gap between supply and demand in the construction workforce, promoting diversity and helping communities thrive.

→ **LEARN MORE**
about Revolution Workshop

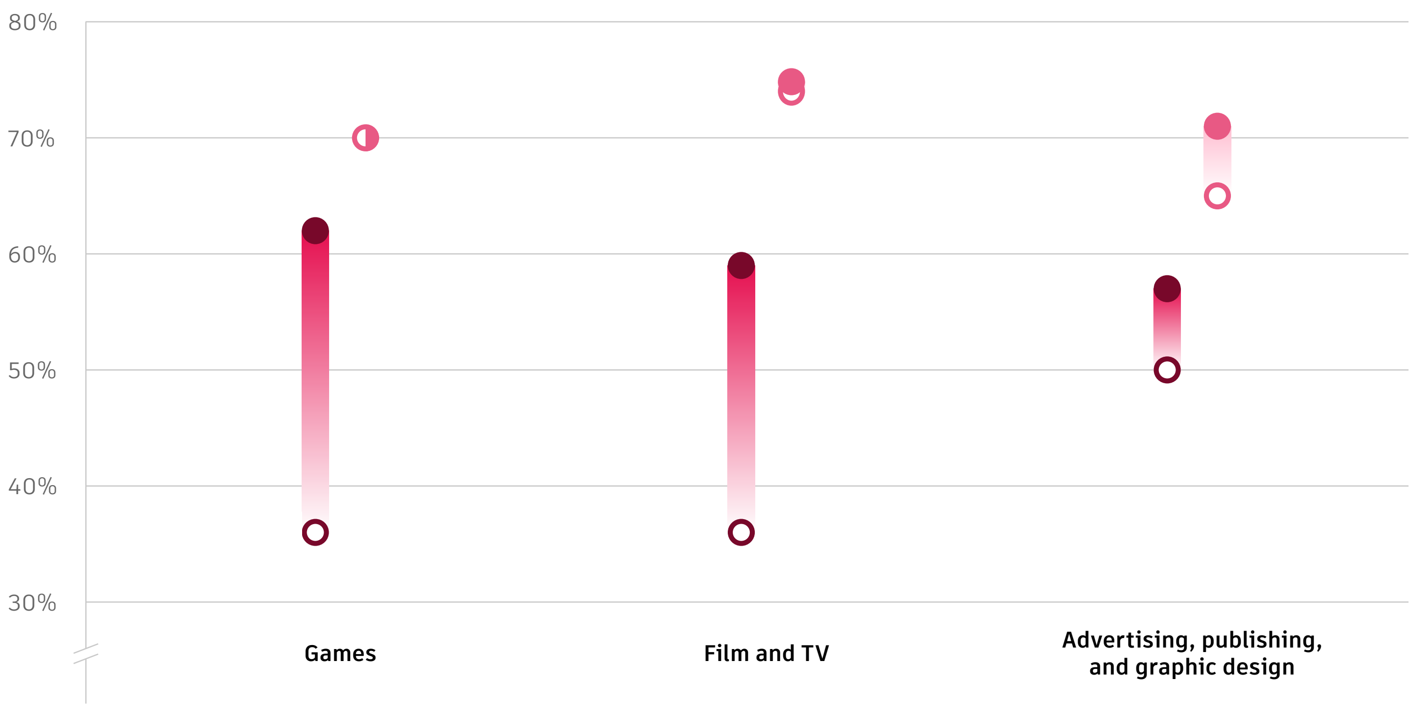
AUTODESK

INSIGHT 7: M&E

Games sector sees biggest challenge with finding skilled talent

M&E: New employees with the right technical skills are difficult to find
In the next 3 years, my company is planning to invest more in digital skills training

2024 | 2024 and 2025 | 2025



Percentage of respondents who agree to statements: 1. New employees with the right technical skills are difficult to find. 2. In the next 3 years, my company is planning to invest more in digital skills training. 5-point scale. Top two = agree.

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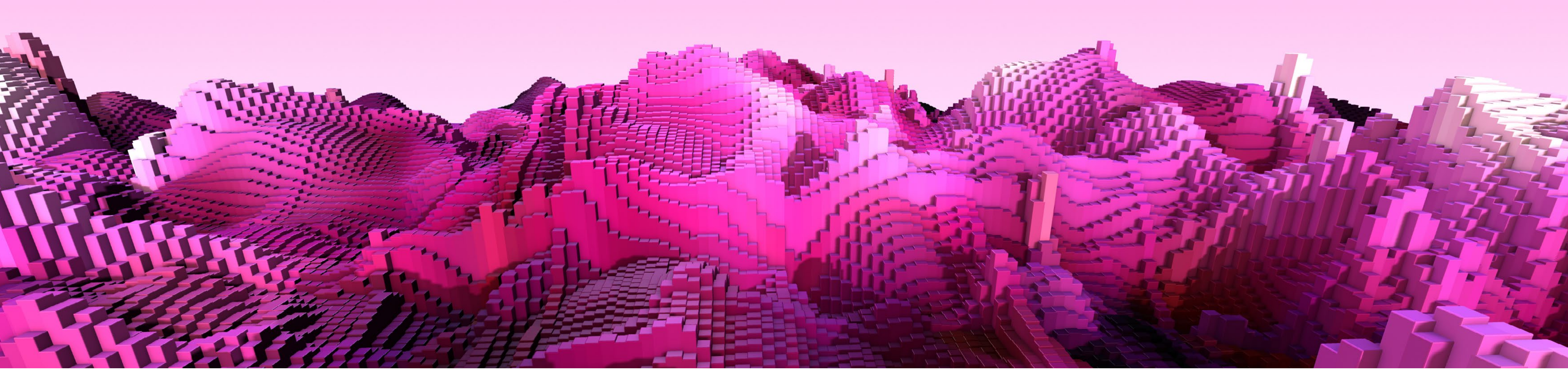

INSIGHT 7: M&E

Media and entertainment leaders are no stranger to the talent crunch, with 59% saying they struggle to find the right technical skills.

Driven by recent significant layoffs across the sector, games is seeing the largest talent shortage, with 62% of leaders agreeing that it's difficult to find skilled talent, up from 36% last year, but film and TV (59%) and advertising (57%) are also feeling the talent crunch.

To address this gap, leaders in M&E plan to increase investment in digital skills training, contrary to the drop in digital investments seen across AECO and D&M. This makes sense when considering the outsize and disruptive impact AI and emerging technologies have had on the industry, from intellectual property concerns to massive writer and actor strikes. It suggests the industry is looking to minimize future disruption and keep pace with rapidly advancing technology in the sector.

> ***"We created a program called Learn OK Please because tools are changing. Our 2D animation artists are learning how to use 3D software, and our 3D artists are learning how to use illustration. We do a lot of cross-training. The era of superspecialization is over. You need to have multiskilled artists and dependency departments. If you're doing texturing, you should be able to understand lighting, surfacing, and basic compositing."***
>
> **VEERENDRA PATIL**
> Founder and Creative Director, Zebu Animation Studios, an animation studio headquartered in India

INSIGHT 8

Investments remain strong but reflect uncertainty

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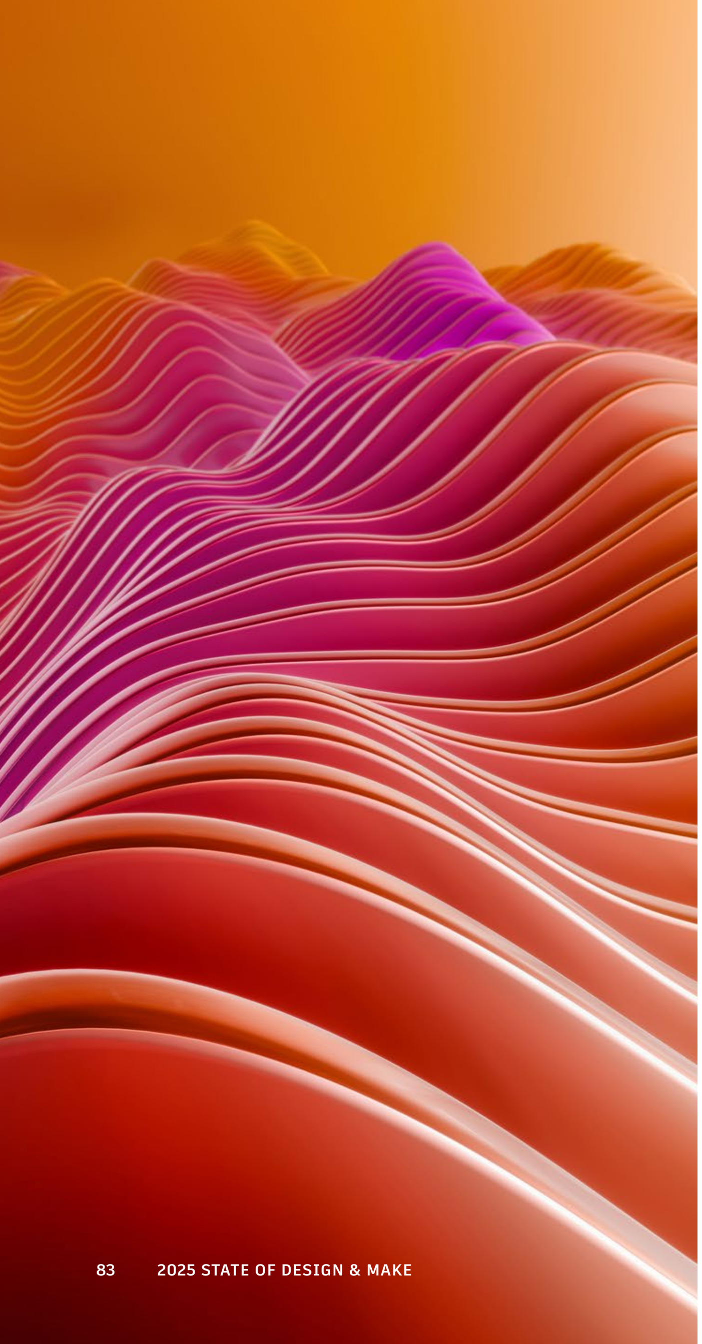


INSIGHT 8

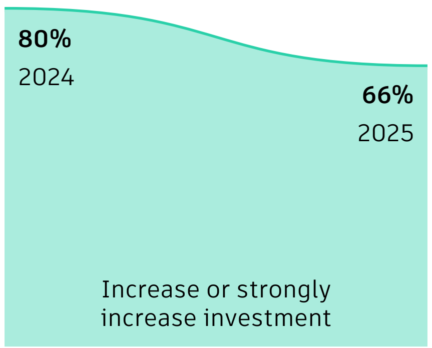
> *"Companies are all preparing for tougher times ahead and are thus avoiding blind expansion. Resources are limited, and there is increased uncertainty, so it is common for businesses to scale back operations to maintain security. Additionally, market opportunities have decreased, leading to a lower success rate, which also causes investments to diminish. This is part of entering a cyclical downturn, and such reactions are normal."*
>
> **WEI FENG LU**
> Senior Vice President, Morimatsu International Holdings Company Ltd., a global manufacturing and solutions company headquartered in China

Future investment projections have fallen this year but are still robust: 66% of business leaders say their organizations will increase or strongly increase their investments over the next three years. While this reflects confidence in the future, this number is down from 80% in 2024, indicating that leaders are being more conservative in an uncertain geopolitical and macroeconomic environment.

However, digitally mature organizations are significantly more bullish on the future, with 80% of leaders planning to increase future investments, compared to 53% at less digitally mature companies.

Further, future investments are higher at data-effective companies, where 86% of leaders say they will increase future investments. This indicates that organizations are seeing outsize benefits from their investments and that digital transformation efforts may have eased implementation challenges, resulting in long-term cost savings and productivity gains.

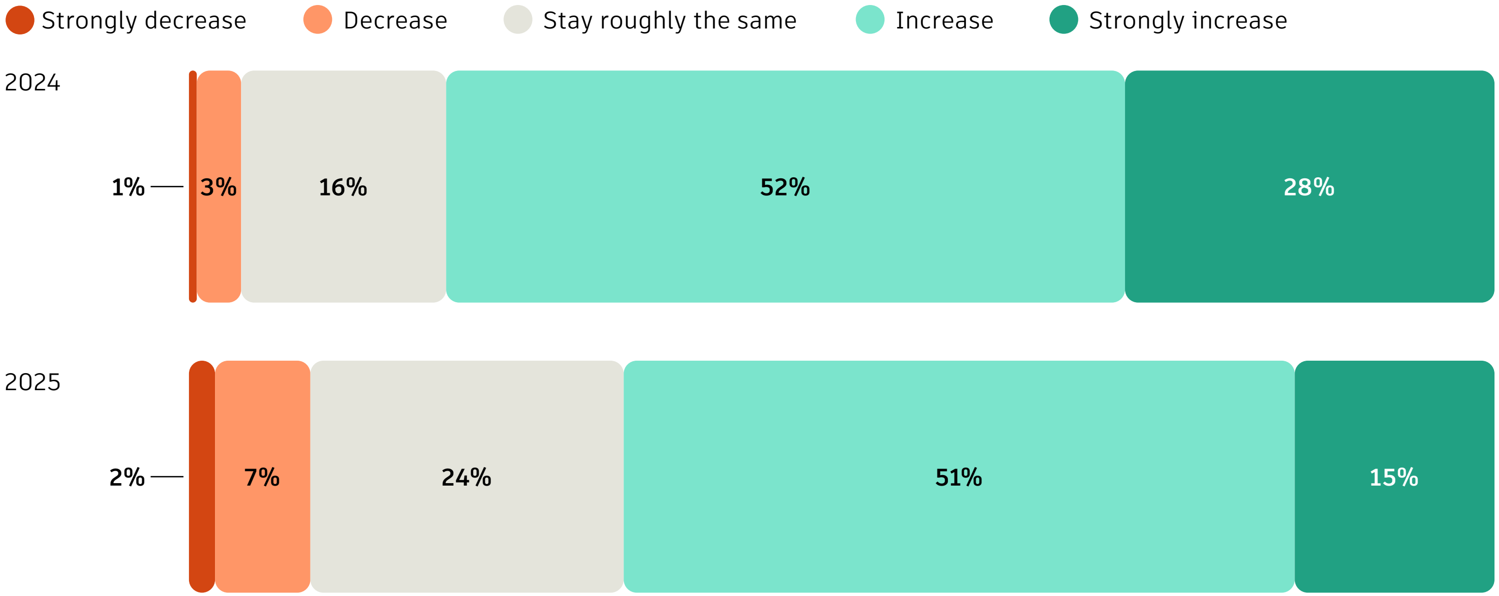
Businesses scale back investment plans



INSIGHT 8

Future investments still robust

Two-thirds of organizations will increase their investments, down from 2024



Survey question: How do you think your company or organization's level of investment will shift over the next 3 years?
5-point scale.

AUTODESK

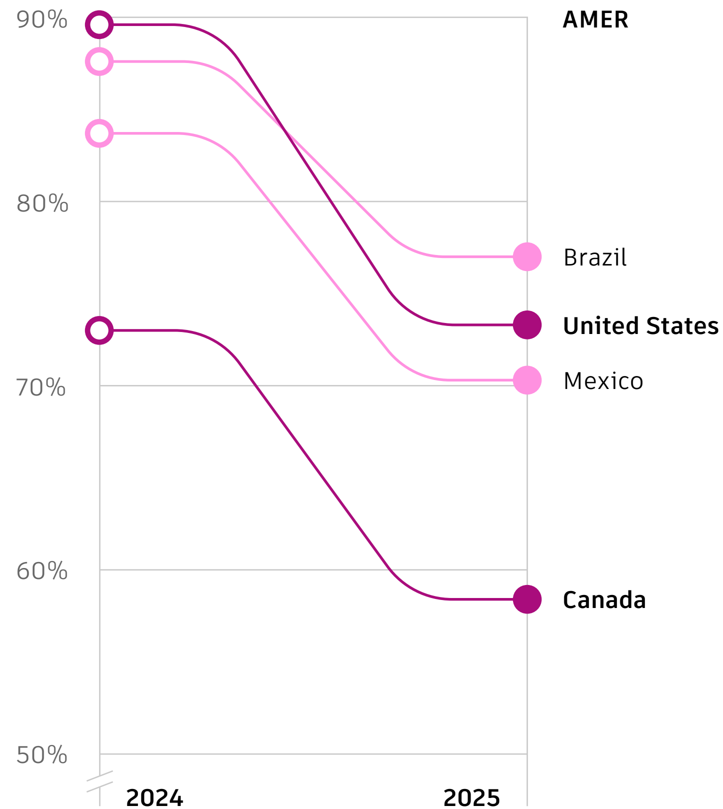
INSIGHT 8: AMER

In the *2024 State of Design & Make* report, the United States was especially positive, with 90% of survey respondents saying that their company's level of investment would increase over the next three years.

One year later—driven by high interest rates, among other factors—that figure is down to 73%, representing a 19% decline. Canada is similarly cautious this year, with just 58% of survey respondents saying their companies will increase or strongly increase their investments in the next three years—a 21% year-over-year decline.

> *"I think reduction in spending is due to the uncertainty of the economy. We want to focus on the things that we know we do well and not increase or introduce any new risk."*
>
> **BLAINE BUENGER**
> Technology Director, Infrastructure Solutions, Foth, a science, engineering, and technology company headquartered in the United States

Canada and the United States see the largest decline in future investments



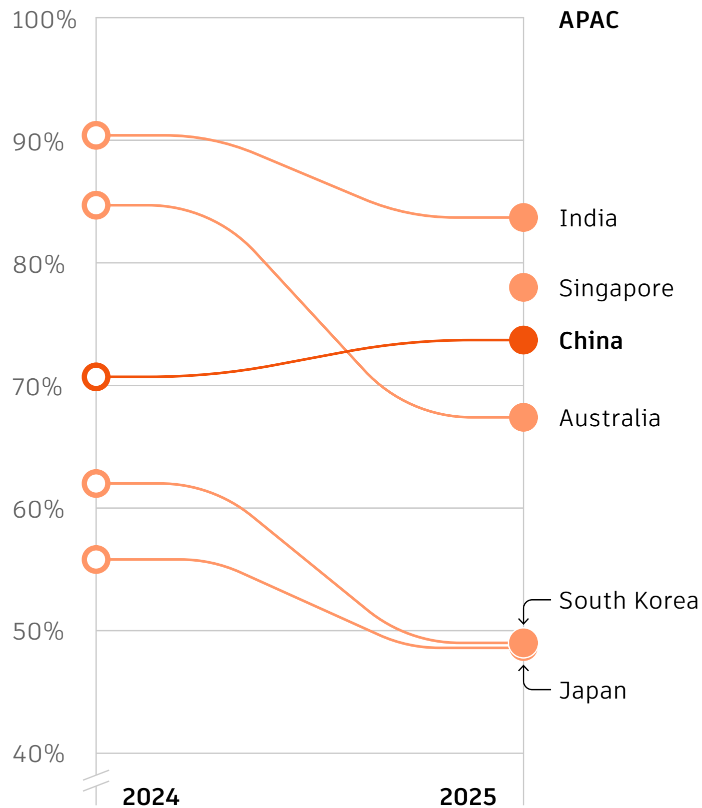
Survey question: How do you think your company or organization's level of investment will shift over the next 3 years? 5-point scale. Top two = increase.

INSIGHT 8: APAC

> *"Korea is less optimistic. There are large-scale project-financing business divisions. But because of high interest rates, the project-financing businesses are not as active as in the past. And during the past three years, there was a market increase in raw material prices, including reinforced steel, concrete, and labor. These elements hamper the profitability of different initiatives and projects."*
>
> **YONGSIK JEONG**
> Vice President, Sustainable Design Team, Samoo Architects & Engineers, a global architecture and engineering firm headquartered in South Korea

In contrast to the rest of the world, China did not see a decline in the percentage of leaders who say they will increase investment over the next three years. The APAC region generally saw steep year-over-year declines in the number of leaders who say organizational investments will increase or strongly increase. While China may be the only country where more leaders are saying they will be increasing their investments, India still leads the region, with 84% of leaders saying they will increase investments.

China is the only country increasing future investment



Survey question: How do you think your company or organization's level of investment will shift over the next 3 years? 5-point scale. Top two = increase. Data for Singapore was not gathered for the 2023 and 2024 surveys.

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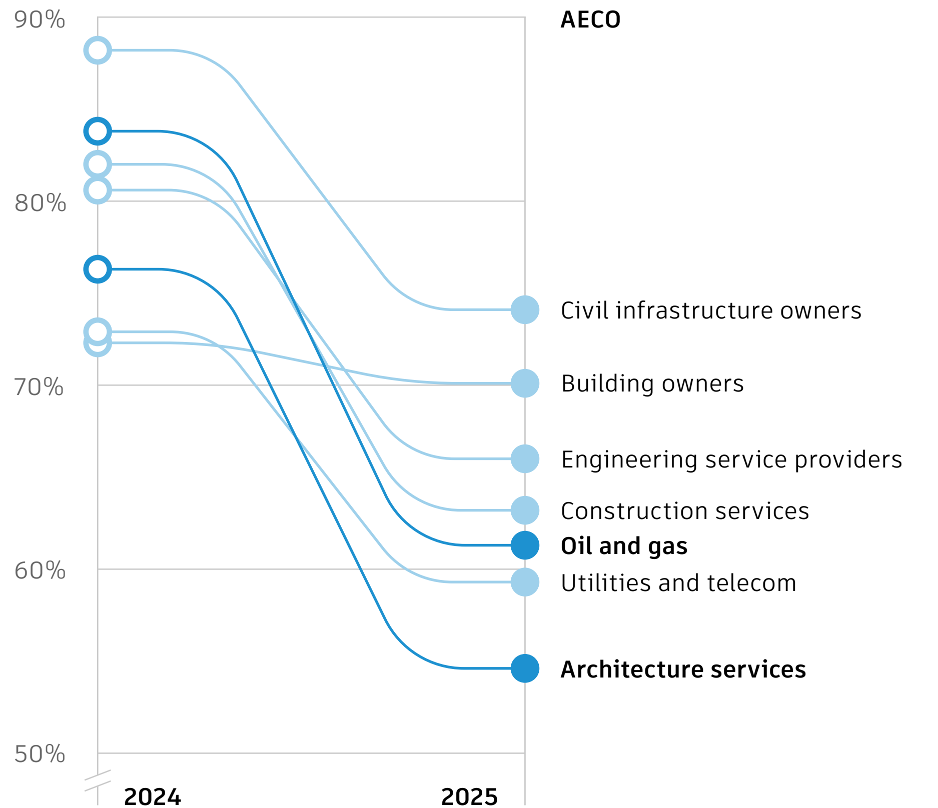
> *"We service the Australian market, and, other than New Zealand, we don't export. We are somewhat of an island, and even our island is seeing the effects of what's going on in the world. Construction is down, investment is down, and available funding is down. That's a reaction to what's going on in the world."*
>
> **SHARMY FRANCIS**
> Manager – Innovation, InfraBuild, a steel manufacturing company headquartered in Australia

While all sectors in AECO are seeing a decline in the percentage of leaders that will increase future investments, architecture services and oil and gas are seeing the sharpest decline.

Architecture services, specifically, is reining in spending, with just 55% of leaders in this sector saying they will increase investments in the next three years, a 28% decline year-over-year. This makes sense when considering the unique confluence of pressures for the sector from rising materials and labor costs to supply-chain fragility.

Oil and gas also saw a steep year-over-year decline in spending, with 61% of leaders saying they will increase investments, compared to 84% in 2024. Oil producers are taking a more conservative approach to spending owing to a host of factors—concerns about oversupply amid a tightening of consumer spending, for example—and are reducing capital investments and focusing on improving operational efficiencies.

Architecture services, oil and gas see sharpest decline in investment level



Survey question: How do you think your company or organization's level of investment will shift over the next 3 years? 5-point scale. Top two = increase.

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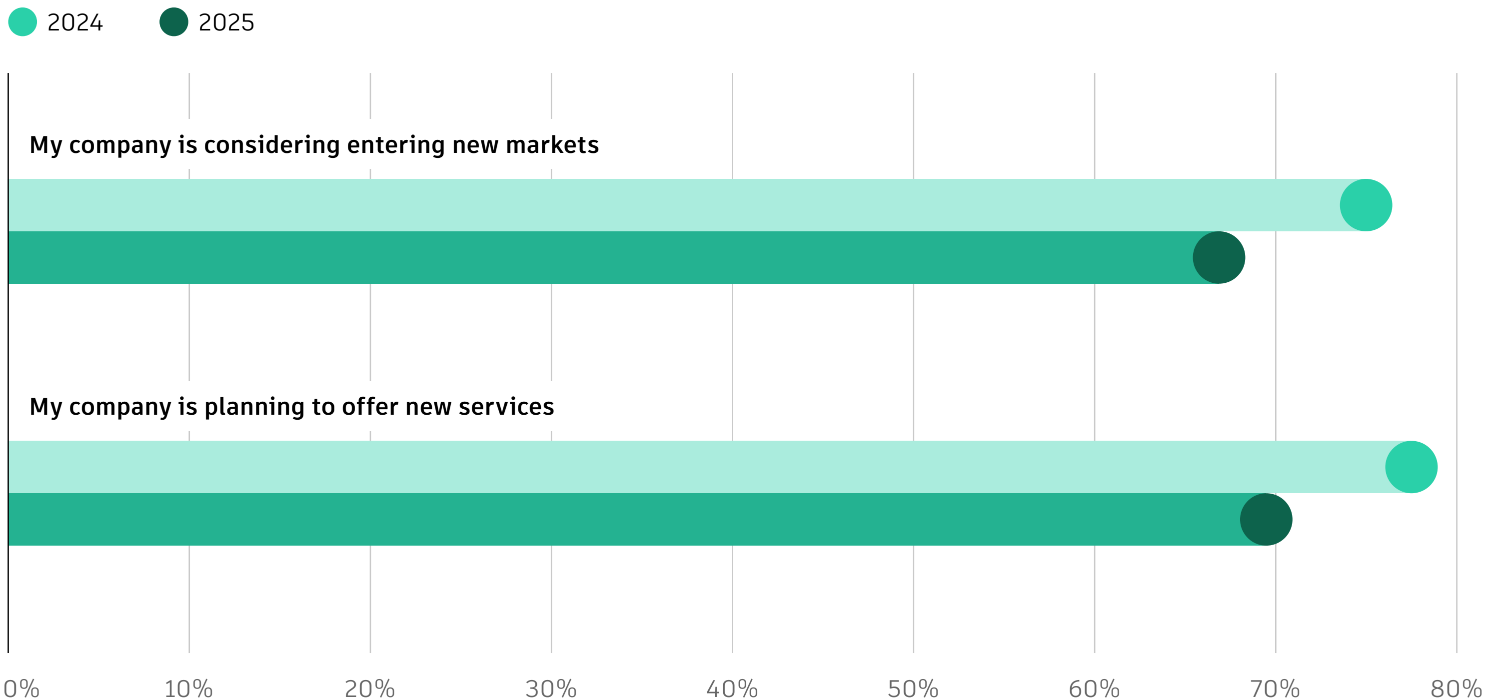
INSIGHT 8

Companies are pulling back on expansion efforts



Percentage of respondents who agree to statements: 1. My company is considering entering new markets. 2. My company is planning to offer new services.
Survey question: To what extent do you agree or disagree that your company or organization is doing the following to be more resilient? 5-point scale. Top two = agree.

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INSIGHT 8

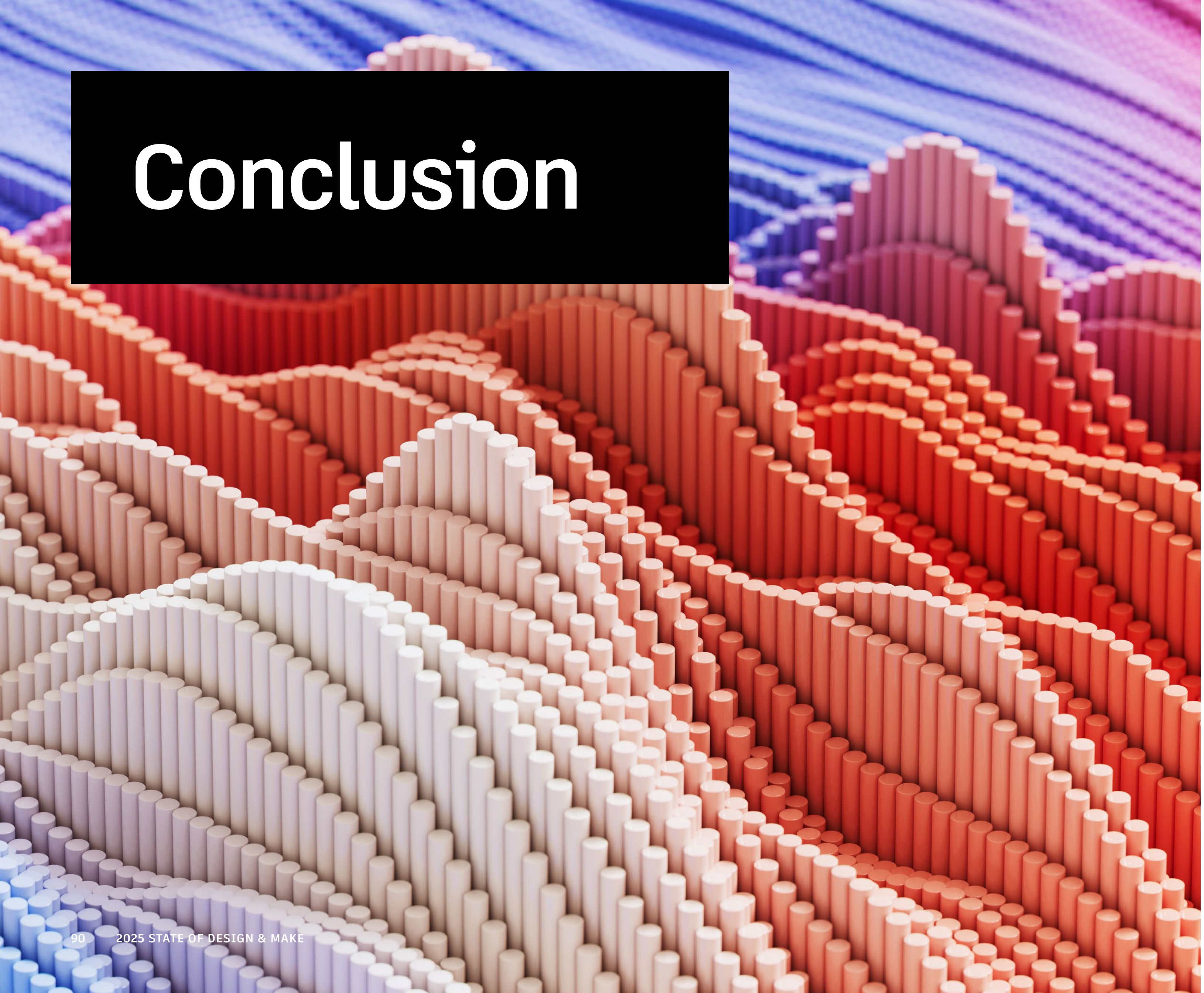
Most leaders surveyed for the *2025 State of Design & Make* report say their companies continue to invest in entering new markets and in offering new products and services but at a lower rate than the previous year—67% of leaders say they will enter new markets this year, compared to 75% in 2024. Enthusiasm for offering new services is also down, with 69% of leaders this year saying they will offer new services, compared to 77% previously.

These findings echo the global drop in sentiment seen this year and align with efforts to control costs in the near term.

But as with so many aspects concerning Design and Make industries, digitally mature organizations are much less likely to be affected by this general belt-tightening. Seventy-seven percent of digitally mature companies say they are considering entering new markets, compared with 57% of less digitally mature companies. They are also more likely (79%) to offer new products and services than their counterparts (60%) and to increase their investments into acquisitions (67% compared to 42%). These actions give digitally mature organizations a competitive advantage, allowing them to expand while others contract under market pressures.

"Resources are limited, and with increased uncertainty, businesses tend to adopt a more cautious approach. Therefore, in the current climate of diminished confidence, a defensive strategy is natural, and reducing investments is a rational decision. It is not wise to make substantial investments when the direction is unclear; being cautious is prudent."

WEI FENG LU
Senior Vice President, Morimatsu International Holdings Company Ltd., a global manufacturing and solutions company headquartered in China



Conclusion

Regardless of recent headwinds, leaders in Design and Make industries are focused on solving today’s problems with an eye toward future opportunity. While cautious in the near term, leaders who want to gain a competitive edge need to think about the long-term benefits of investing in digital transformation now—and the implications that falling behind could have across the organization.

Methodology

For the 2025 report, Autodesk surveyed and interviewed 5,594 industry leaders, futurists, and experts in the architecture, engineering, construction, and operations; product design and manufacturing; and media and entertainment industries from countries around the globe. This report contains key findings from this research, including details at the sector and regional level.

The quantitative data (n=5,560) was collected between May and August 2024 through a 20-minute online survey.[4] Autodesk partnered with Qualtrics for the collection of this data. In addition, 34 qualitative interviews with business leaders and futurists were conducted in October and November 2024.

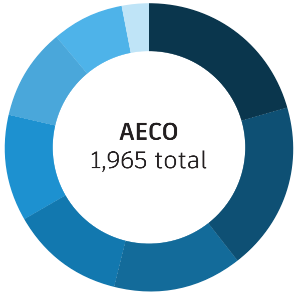
68%
of survey participants are decision-makers in their companies

11 years
is the average time of experience in their industry

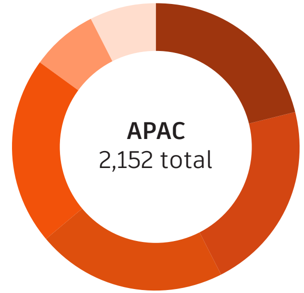
34%
of respondents said that they primarily use Autodesk Design and Make software

[4] *2025 State of Design & Make questionnaire*

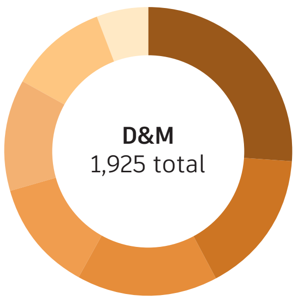
SURVEY RESPONDENT BREAKDOWN



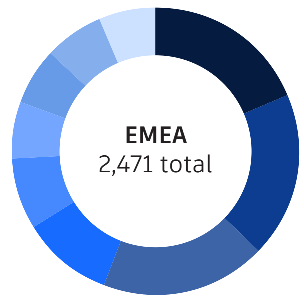
- 21% Construction services
- 19% Engineering service providers
- 15% Utilities and telecom
- 13% Building owners
- 12% Architecture services
- 10% Civil infrastructure owners
- 8% Oil and gas
- 3% Mining



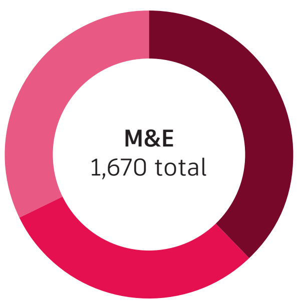
- 22% Australia
- 21% China
- 21% India
- 21% Japan
- 8% Singapore
- 7% South Korea



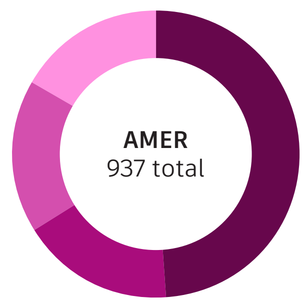
- 26% Consumer products
- 16% Automotive, mobility, and other transportation
- 16% Process manufacturing
- 13% Industrial machinery
- 12% Building products and fabrication
- 11% Life sciences manufacturing
- 6% Aerospace and defense equipment



- 19% France
- 19% Germany
- 19% United Kingdom
- 11% Middle East
- 8% Nordics
- 6% Italy
- 6% Netherlands
- 6% Spain
- 6% Turkey



- 38% Advertising, publishing, and graphic design
- 32% Games
- 30% Film and TV



- 49% United States
- 17% Brazil
- 17% Canada
- 17% Mexico

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Glossary

AI leaders:
Respondents were asked where their companies were in incorporating artificial intelligence (AI) technology. Respondents who identified their organization as "approaching the goal" or having "achieved the goal" are considered AI leaders.

Data effective companies:
Respondents were asked, "How effective would you say your company or organization is at leveraging data?" Those who responded with "very effective" on a 4-point scale are referred to as data-effective companies. This is 19% of respondents.

Digital maturity:
Respondents were asked how far their companies were in their transformation journeys. Respondents who described their organization as "early stage" or "right in the middle" of their digital transformation journeys are considered less digitally mature companies. Those who responded "approaching the goal" or having "achieved the goal" of digital transformation are considered more digitally mature companies. Of *2025 State of Design & Make* respondents, 2,784, or 50%, are digitally mature.

Industry:
AECO: Architecture, engineering, construction, and operations

- Architecture services
- Building owners (i.e., developers, real estate companies, governments)
- Civil infrastructure owners (e.g., transportation infrastructure, water infrastructure)
- Construction services
- Engineering service providers
- Mining
- Oil and gas
- Utilities and telecom

D&M: Design and manufacturing

- Aerospace and defense equipment
- Automotive, mobility, and other transportation (including supply chain)
- Building products and fabrication
- Consumer products
- Industrial machinery
- Life sciences manufacturing
- Process manufacturing

M&E: Media and entertainment

- Advertising, publishing, and graphic design
- Film and TV
- Games

Leaders and experts:

- *Leaders:* Sixty-eight percent of survey participants are decision-makers in their companies. In this report, this group is referred to as leaders. Job roles for the leaders group include business owners/entrepreneurs, directors, and VP- and C-level executives.
- *Experts:* The remaining 32% of respondents are referred to as experts. This group includes respondents at the nonmanagerial level and managers.

Region:
APAC: Asia-Pacific
Australia, China, India, Japan, Singapore, South Korea

EMEA: Europe, the Middle East, and Africa
France; Germany; Italy; Middle East (Saudi Arabia, United Arab Emirates); Netherlands; Nordics (Denmark, Finland, Norway, Sweden); Spain; Turkey; United Kingdom

AMER: North, Central, and South America
Brazil, Canada, Mexico, United States

Sustainability:
The survey questions about sustainability, for example, in the list of changes companies are making, focus on environmental sustainability; however, this definition was not explicitly stated.

In one-on-one interviews, a descriptive definition was used incorporating the United Nations definition: "Meeting the needs of the present without compromising the ability of future generations to meet their own needs." Respondents were told this includes efforts related to the environment (mitigating the effect on climate change); the community (social well-being, improving the life of populations); and corporate governance.

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Thank **you**

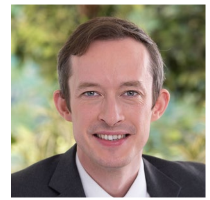
Autodesk would like to thank the following industry leaders who participated in in-depth interviews to discuss industry trends and ways their companies are responding to changing times.

Andy Yu
Director
Build King Construction Ltd.

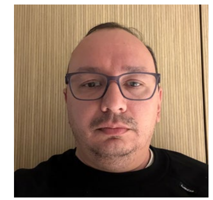
Brad Sonter
Practice Design Technology Lead
Cox Architecture

Ammar Al Assam
CEO
Dewan Architects

Mohamad Kassir
Global BIM Manager
Egis Group



Pierre-Yves Massille
CTO
Egis Group



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Leader of the Power Generation BIM Committee
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Gregory Zatka
Head of Digital Assets Management
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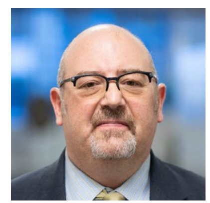
Blaine Buenger
Technology Director, Infrastructure Solutions
Foth



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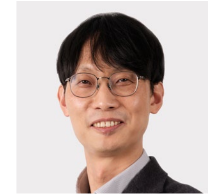

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Vice President, Sustainable Design Team
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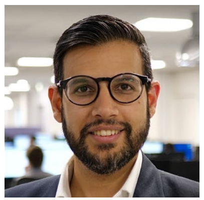

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Vice President, Emerging Technology
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Linn Areno
Head of Digital Development
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Amarnath Patnam
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Sobha Realty

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BIM Manager – Senior Staff
Stefan Antoni Olmesdahl Truen Architects (SAOTA)

Hidenori Saito
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Takasago Thermal Engineering

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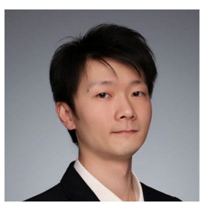
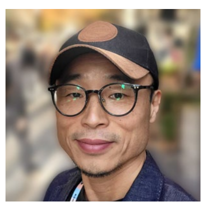
Tokyu Construction Co., Ltd.



Jun Xue
Digital Design Director, Industrial Design
Xiaomi EV

Veerendra Patil
Founder and Creative Director
Zebu Animation Studios



Dongsoo Han
CEO
z-emotion

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About Autodesk

Autodesk is changing how the world is designed and made. Its technology spans architecture, engineering, construction, product design, manufacturing, and media and entertainment, empowering innovators everywhere to solve challenges big and small. From greener buildings to smarter products to more mesmerizing blockbusters, Autodesk software helps customers design and make a better world for all. For more information, visit autodesk.com or follow @autodesk on social media.

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