THE STATE OF TECHNOLOGY IN THE CONSTRUCTION INDUSTRY

Research report

WIPFLI

Wipfli's 2025 national survey of construction executives reveals a sector in transition. With 80% of executives having experienced one or more data breaches in the past year, cybersecurity is the top priority for tech investment. While most respondents say their firms are actively investing in a wide range of technology solutions, many also report that their teams are challenged to fully utilize existing systems. Our data also suggest that construction industry leaders have not yet realized the full potential of innovations like AI and automation to influence business practices rather than simply accelerate them.

In this report, we take the pulse of the industry when it comes to technology, and we highlight opportunities for construction and real estate industry leaders to capture the full value of their tech investments.

Table of contents

Executive summary

Wipfli's 2025 construction executive survey offers a snapshot of a sector that recognizes the value of technology — but still has ground to cover in realizing its full potential. Based on feedback from 308 industry leaders, the findings highlight a growing divide between aspiration and execution.

Our survey respondents indicated that construction firms are investing in cybersecurity, AI, cloud platforms and green building tech — yet many struggle to optimize the tools they already have. Wipfli's team of construction and real estate consultants, who have advised construction executives on technology integration for many years, consistently observe that employee adoption, lack of centralized governance and siloed purchasing decisions have led to fragmented tech stacks and unrealized ROI. Our survey showed that while 82% of respondents claim to have an AI strategy, most are operating at the entry level, relying on consumer-grade tools for routine tasks rather than integrating AI into business workflows or strategic decision-making.

Feedback from

308 leaders in the construction industry

Key insights

Construction executives are most interested in cybersecurity, AI, cloud platforms and green building technology.

Many leaders, especially at smaller firms, say their teams struggle to reach full tech adoption and integration of existing tech tools.

While most have an AI strategy, AI implementation has not yet reached its full potential of automating workflows and informing strategic decision-making.

80% of executives have experienced a data breach in the past year, and nearly 50% have experienced three or more.

Cybersecurity is the top investment priority for the coming year.

Cybersecurity is a particular pain point. Among the executives we surveyed, eight in 10 say they experienced a data breach last year, and nearly half saw three or more. Industry leaders have put cybersecurity at the top of the priority list, with 73% of respondents planning to invest in cybersecurity tools in the coming year. Larger firms are leading the way in security upgrades, but as Wipfli's consulting team notes, cybersecurity concerns are here to stay, with cybercrimes continuing to evolve, so this risk will be an ongoing issue for construction firms of all sizes to monitor and address.

The research also shows that while most construction executives understand the importance of data analytics, only one-third have achieved real-time, automated decision-making — a necessary precursor to truly leveraging AI's predictive power.

Wipfli recommends a holistic, enterprisewide approach: Align tech strategy with business goals, involve C-suite leaders in platform decisions, prioritize cybersecurity and invest in training to improve system utilization. The tech journey in construction is just getting started. Integration — not just adoption — is what will drive competitive advantage over the next decade.

Methodology and demographics

Wipfli conducted a national online survey of 308 construction and real estate leaders in the spring of 2025.

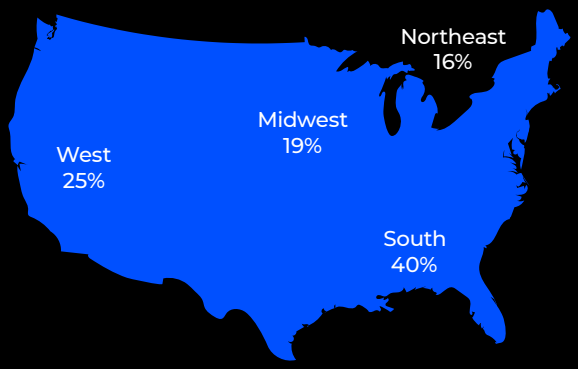
The individuals completing the surveys were executives, with half holding C-suite titles and 42% at the VP level. The companies they work for do general contracting, residential development, commercial real estate development, specialty trades or a mix of multiple categories. Almost three-quarters of respondents said their firms did general contracting work.

In terms of annual revenue, our cohort had an even distribution across small, medium and large firms, defined as <$50M, $50M-$249M and $250M+, respectively. Companies' geographic spread closely reflects the overall U.S. construction market.

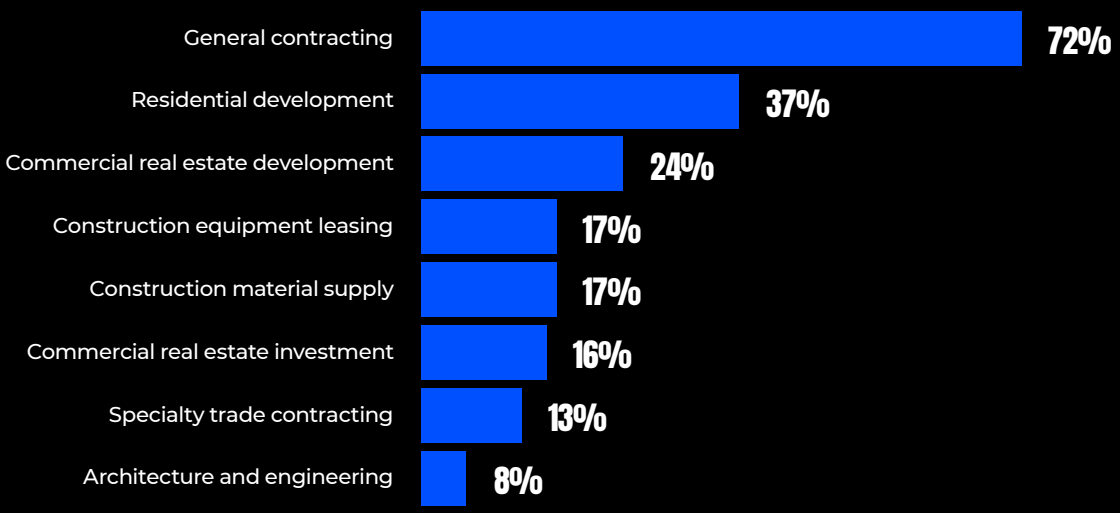
Profile of survey respondents

Annual revenue

Geography



Firm activities



Tech sophistication and business integration in the construction industry

Leaders know integration is the right answer — but are they there yet?

Wipfli's survey included 11 questions where respondents were asked to self-report their level of technology maturity. Those questions included self-evaluation of their firms' technology integration, strategy, standardization, budgeting, data integration, use of analytics and artificial intelligence (AI), plus how they identify and address technology gaps, selection, management and optimization of their application portfolio.

We rolled up those responses into an overall score ranging from 10 (the minimum possible score) to 44 (the maximum possible score), and put respondents into a "high," "medium" or "low" category based on their overall score. The average maturity score across all respondents was 33.7.

The "high-maturity" group includes more executives from the largest firms with annual revenues of $250M or higher, which presumably have more resources to invest in technology than smaller firms.

Technology maturity in the construction industry

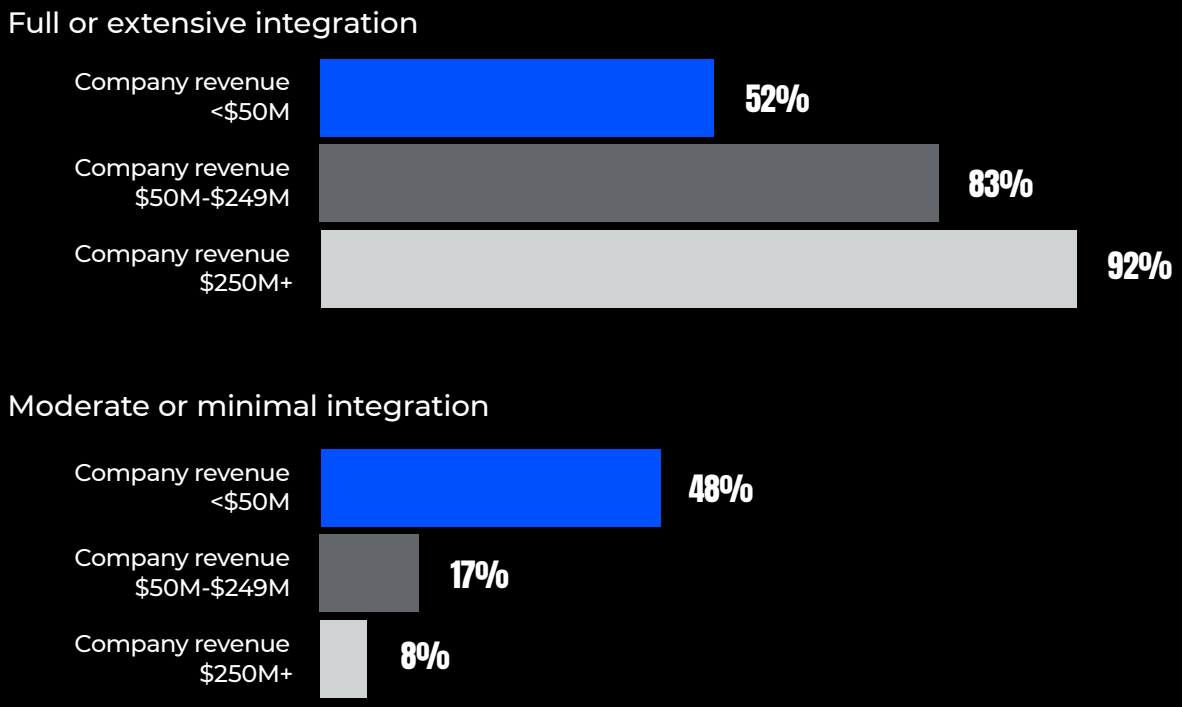
Likelihood of having a technology strategy in place

By company revenue

Overall, two-thirds of respondents say they have a technology strategy that is documented and/or integrated with the overall business strategy. However, there's a clear difference between respondents affiliated with the smallest firms and those working for companies that are midsize or larger. Among executives at midsize or larger firms, seven in 10 report having a tech strategy, compared to six in 10 executives at the firms with revenues under $50M.

In our survey, 43% of respondents said their operations were fully and seamlessly integrated with advanced technologies, and an additional 33% said their tech integration was not quite full, but extensive, with most processes being technology-driven rather than manual.

Smaller firms are notably less tech-driven



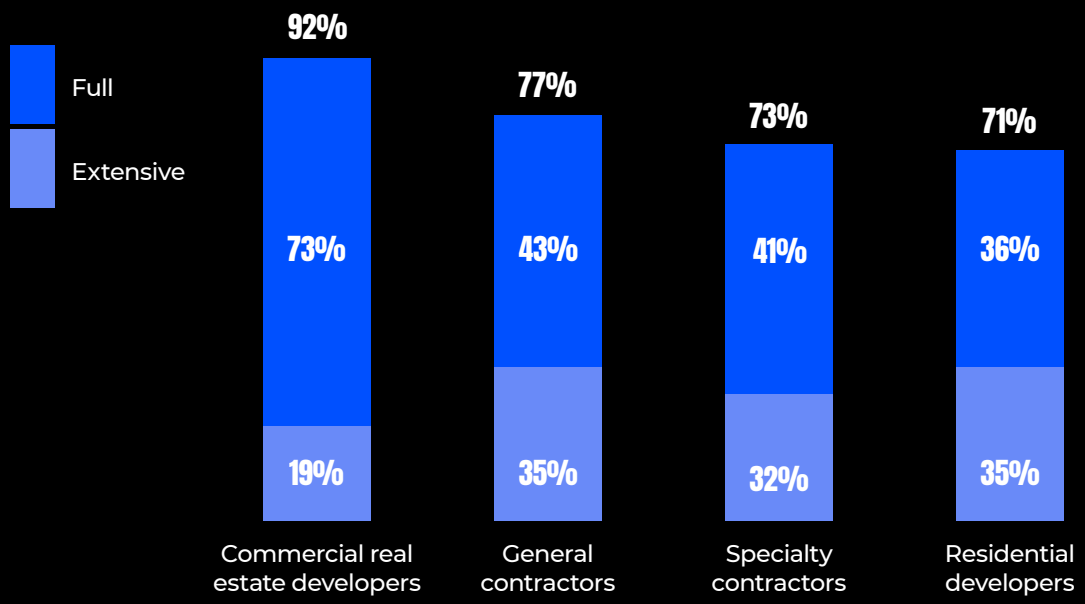
Wipfli's construction advisory team members suspected there is likely some social desirability bias happening, where respondents provide more favorable responses than reality. "Having worked with many of the largest players in the industry, what we've seen is that even among the firms furthest along in their technological maturity journeys, they still know they have a lot of areas that need improvement," said Brad Werner, partner, who leads Wipfli's construction and real estate practice. "The tech journey is never complete."

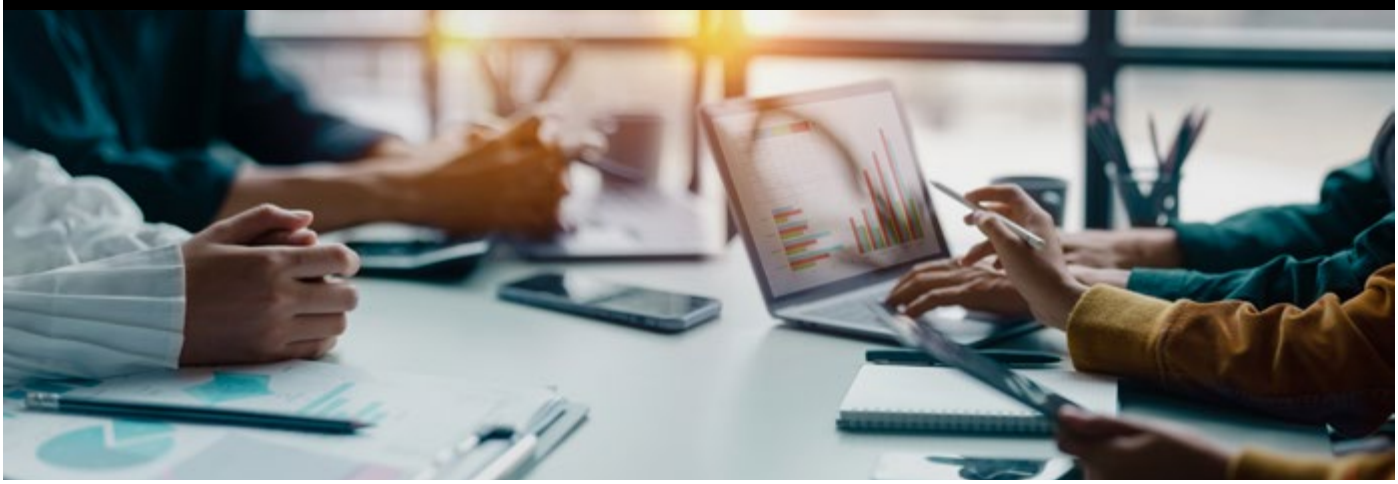
Brian Bohman, a partner in Wipfli's construction and real estate practice, added: "With how fast technology is changing and evolving, trying to keep up is a challenge, and quite often, leaders can become victims of 'not knowing what they don't know.'"

While objective parties may well score these companies differently on their technology maturity, the scores are a valid measure of where the industry sees itself as far as technology, which plays a role in technological investment and decision-making.

Tech integration varies by business type

Firms with "full" or "extensive" tech integration





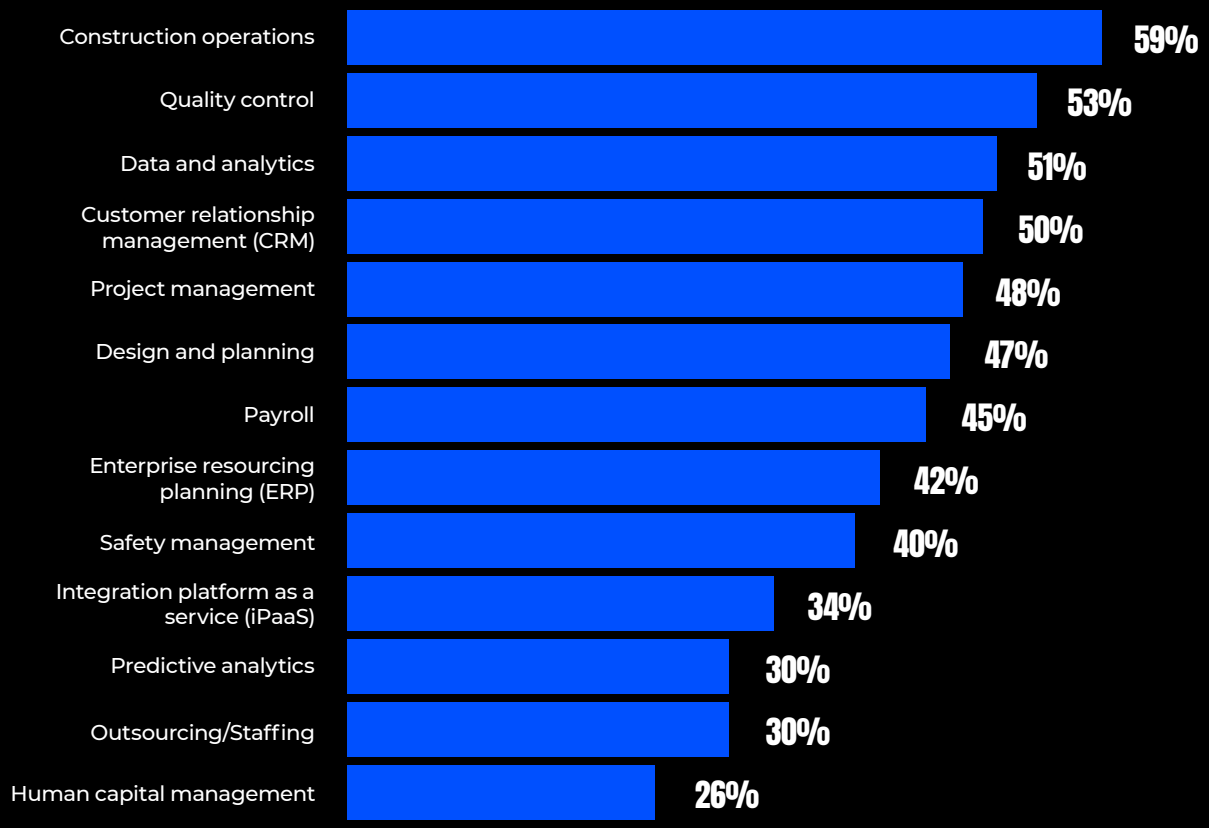
When this question was broken out by revenue size, we found that executives from the smaller firms were more likely to indicate lower levels of integration. Among companies with revenues under $50M, 48% said their level of tech integration was either “moderate” or “minimal,” where many business processes are still manually driven. Only 17% of the midsize companies and only 8% of the largest companies put themselves in this category.

Respondents’ level of self-reported tech integration showed some variation based on firm type. Commercial real estate (CRE) developers were on the high end, with 92% of respondents in this category reporting full or extensive tech integration. Among general contractors, specialty contractors and residential developers, roughly 70% to 80% of respondents were in this category.

According to our survey respondents, construction operations, quality control, data and analytics and customer relationship management (CRM) are the areas with the most significant technology integration. Enterprise resource planning (ERP) systems, rather than being at the top, were in the middle, and areas like integration platform as a service (iPaaS), predictive analytics, outsourcing and human capital management ranked much lower.

Technology integration areas

Construction operations, quality control, data analytics and CRM are the areas with most significant technology integration.



Cybersecurity

A concern and a priority, but not yet a strength

With large sums of money frequently being transferred by ACH wire and heavy use of mobile devices to conduct financial transactions from the field, the construction industry is particularly vulnerable to cyber breaches.

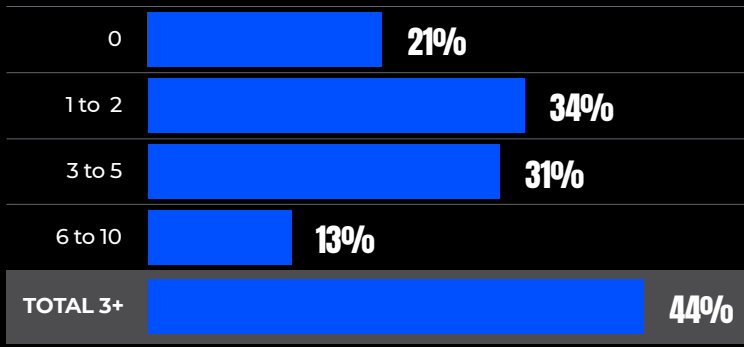
As Bohman explains: "The construction industry is vulnerable to cyber breaches due to mobile device security issues and the fact that cybercriminals often convince customers that a contractor's ACH wire instructions have changed. They then provide a fraudulent routing number for customer payments, often in a communication on the contractor's letterhead, which criminals can access from public websites."

Our survey findings quantify this heightened risk, with eight in 10 construction industry execs saying they experienced at least one unauthorized network access incident in the past year. Just under half (44%) reported experiencing three or more breaches in the last 12 months, with midsize and large firms ($50M+) more likely than smaller companies to report multiple breaches.

Our survey showed that cybersecurity has become a top priority for the construction industry. We asked respondents whether they had made improvements, or planned to do so, across eight different security categories. For each category, 70% or more of respondents indicated they were currently making or had made improvements within the past year.

Construction and real estate firms frequently face security breaches

Number of security breaches in the past year



	By revenue size		
	<$50M	$50M-$249M	$250M+
0	27%	15%	23%
1 to 2	47%	35%	22%
3 to 5	21%	34%	39%
6 to 10	6%	15%	17%
TOTAL 3+	**27%**	**50%**	**56%**

The executives who said exposure to data breaches was a challenge for their firm were also the most likely to say they planned further cybersecurity investment; 84% of executives who counted data breach exposure among their firm's challenges said they were very likely to invest in cybersecurity solutions in the coming year. In contrast, among executives who reported other challenges with tech infrastructure, between 69% and 77% said they were planning to invest in cybersecurity solutions.

While our consultants were encouraged by the prioritization of this key area, the data still revealed some concerning gaps.

"With so many construction firms being hit by not just one but three or more data breaches in the prior year, the number of companies intending to invest in cybersecurity should be 100% across the board," said Werner. "If they haven't received a threat in the past year, they will in the future."

Ryan Rademann, a partner in Wipfli's construction and real estate practice, was concerned that a lack of peer-to-peer information sharing about cybersecurity may make firms less aware of best practices — an additional challenge in an already daunting landscape where threat actors are becoming increasingly sophisticated.

"Even in an industry that has an abundance of productive peer groups and a culture of best-practice transparency, cybersecurity is one area where company leaders may hold details close," said Rademann. "Ironically, executives' lack of vulnerability may be making them more vulnerable in this area, particularly when cybercriminals may be more prone to collaborating to gain access to critical systems."

As a way to overcome this, Danielle Johnson, director of digital strategy at Wipfli, recommends that companies incorporate a virtual chief information security officer, or vCISO, into their team. "Having that outsourced expertise provides greater context on industrywide trends and best practices than companies can gain from an internal team alone. That, coupled with frequent penetration testing, can offset any potential knowledge gaps."

Future investment vs. current utilization

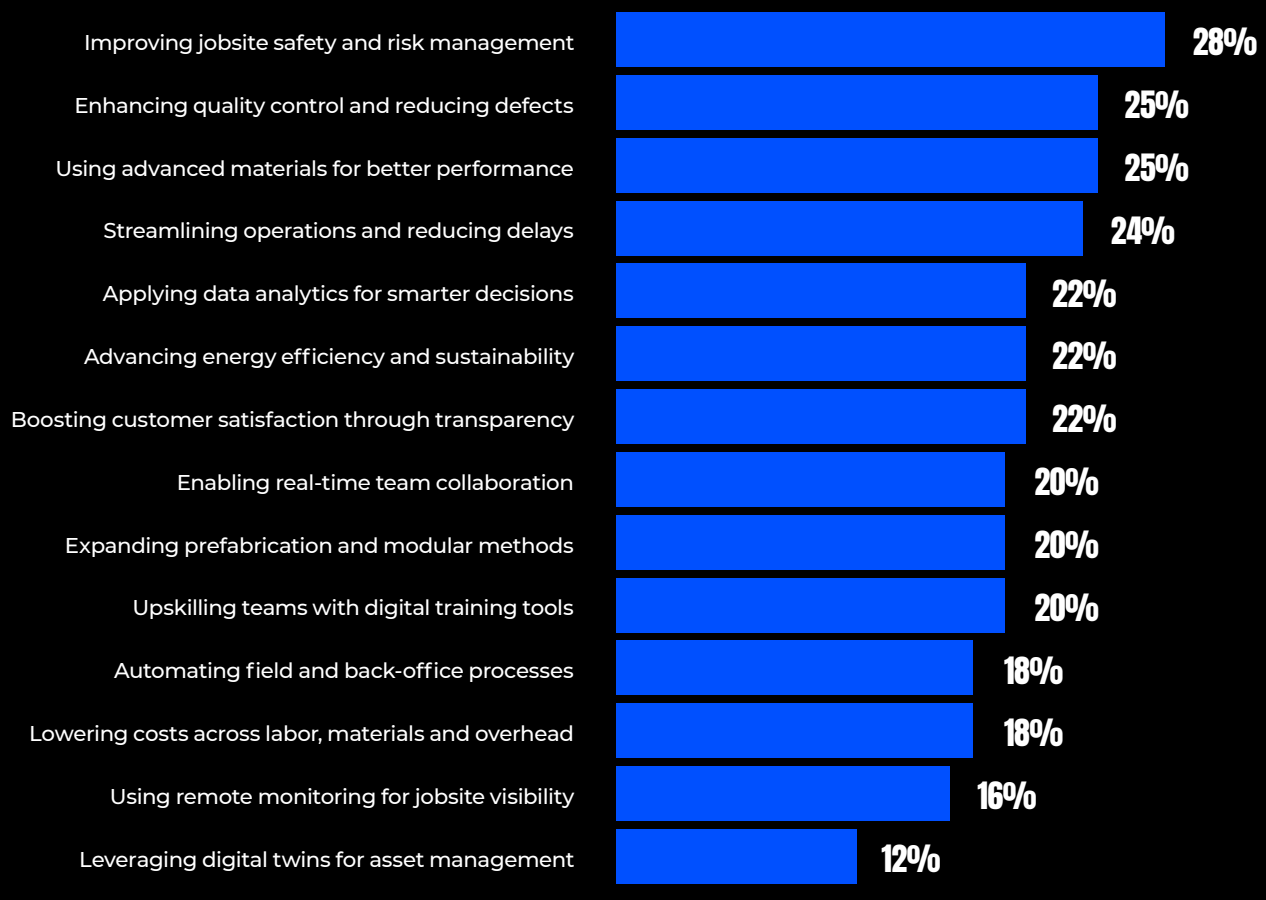
Construction executives intend to invest in a lot of new tech — yet many firms are not fully utilizing what they already have.

Respondents were asked which areas offered the most promising opportunities for technology to improve business performance. Their answers highlight the multitude of ways that technology can accelerate productivity and profitability in the construction industry.

As far as planned tech investments over the next 12 months, respondents' top priorities were cybersecurity solutions, AI and machine learning, cloud computing and green building technologies.

While executives recognize the many ways that technology could enhance productivity and efficiency, the data also suggest that their firms are not fully utilizing the tech tools they've already invested in. Specifically, respondents indicated that employee utilization of existing systems is a challenge.

Construction leaders highlight tech's most promising use cases

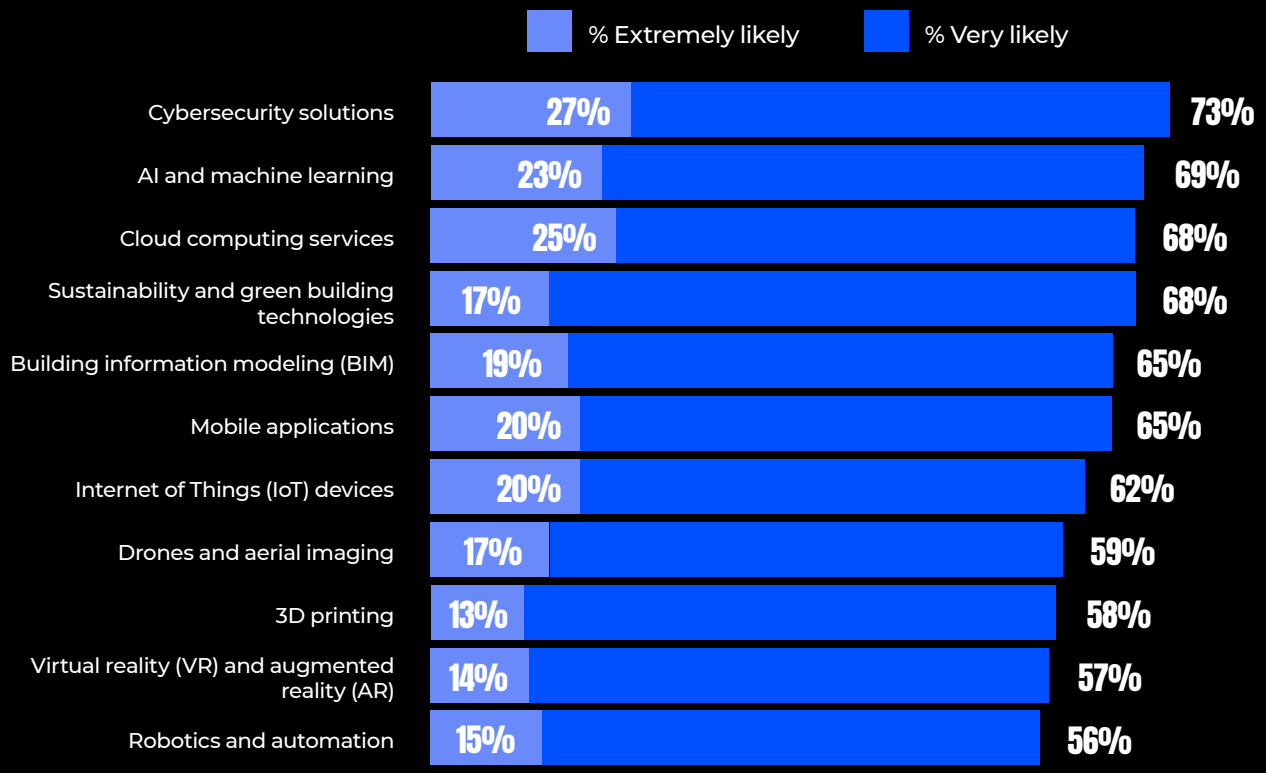


Respondents from the biggest firms said their main challenges were cost and cybersecurity, while those from smaller and midsized firms were more likely to mention challenges with employee use of systems, which reduced the effectiveness of adoption and business integration. Just 35% of the largest firms said they were challenged by employees struggling to utilize existing technology effectively versus 47% of the smallest firms acknowledging this risk.

In this data, the Wipfli consulting team highlighted the opportunity to implement more training, stronger change management programs and digital adoption tools. Construction industry leaders may also want to look for turnkey solutions with robust implementation support programs, including training, so their companies can leverage the full value of their technology investments.

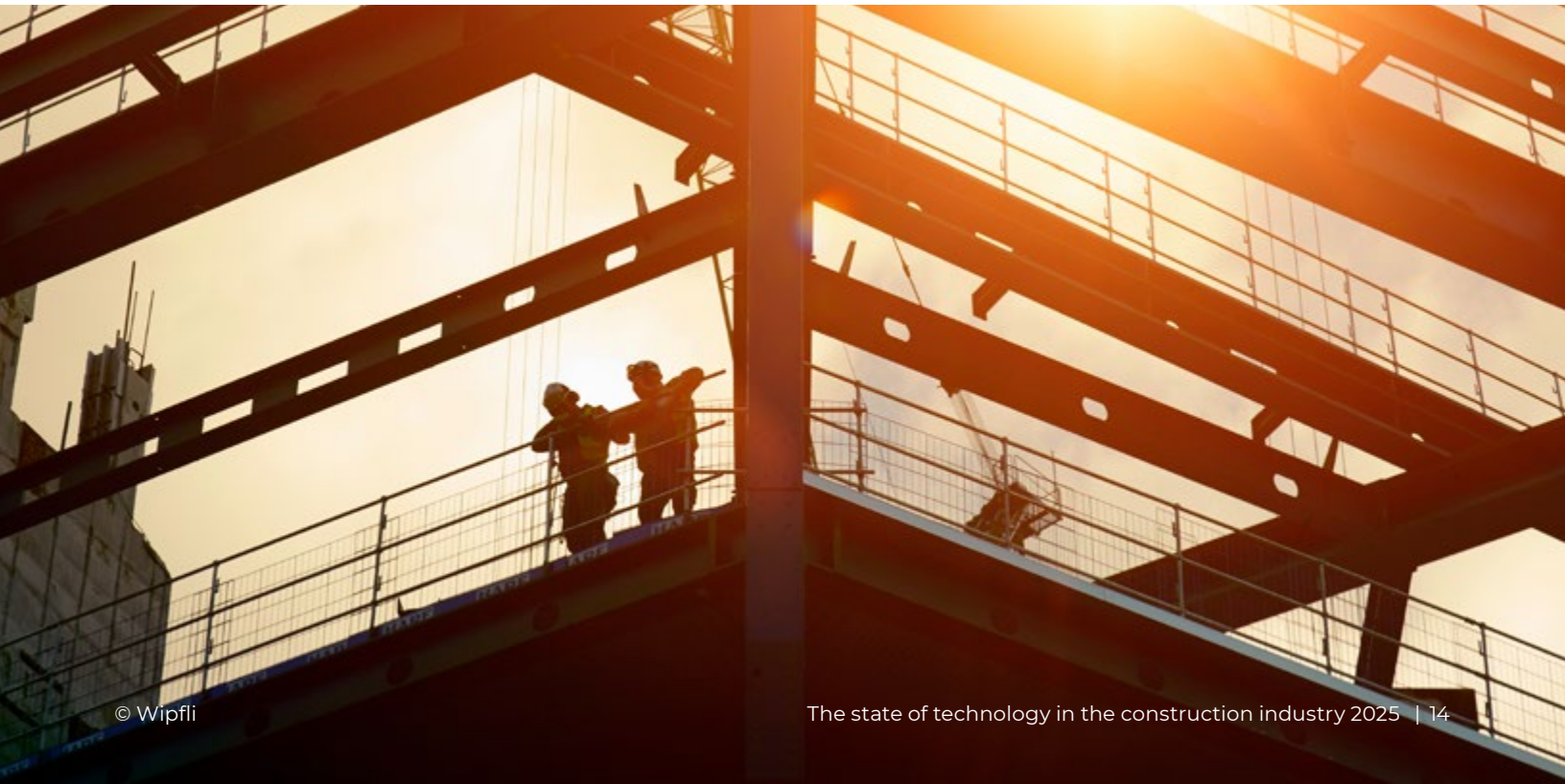
Werner added that the long-term value of technology investment isn't limited to business productivity and efficiency. It can also show up in other areas of the business, such as talent attraction and retention. "People leave companies with obsolete tech and frustrating, manual processes," he said. "Great talent wants to work with the best platforms and productivity tools."

Cyber, AI, cloud computing and sustainability are most likely investments in next 12 months



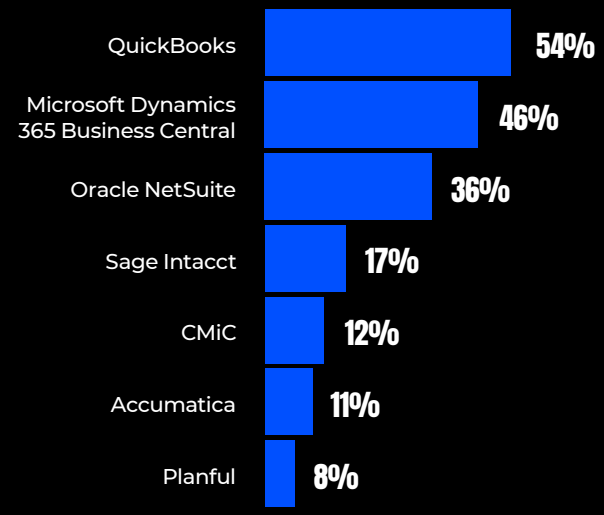
Biggest technology challenges by firm size

		By revenue size		
		<$50M	$50M-$249M	$250M+
Cost of implementation and/or integration	44%	43%	39%	50%
Employees struggle to use existing technologies effectively	42%	47%	44%	35%
Exposure to potential data breaches and cyberthreats	40%	36%	35%	50%
Difficulty in integrating separate systems and applications	40%	38%	41%	41%
Reliance on legacy or outdated systems that hinder efficiency	40%	26%	48%	45%
Inability to scale IT resources in line with business growth	34%	22%	35%	44%
Issues with data readiness/quality/ governance	32%	29%	30%	39%

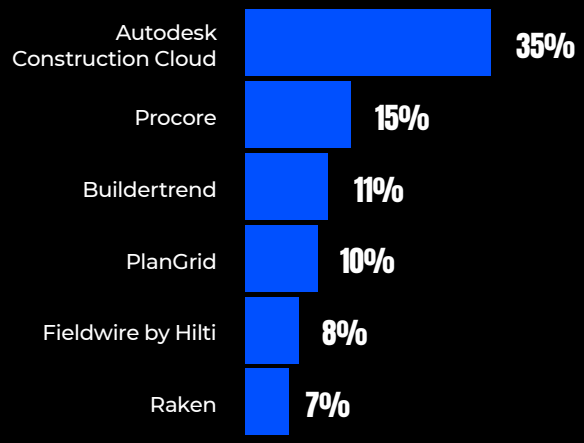


What are companies using? These were the most popular software and applications.

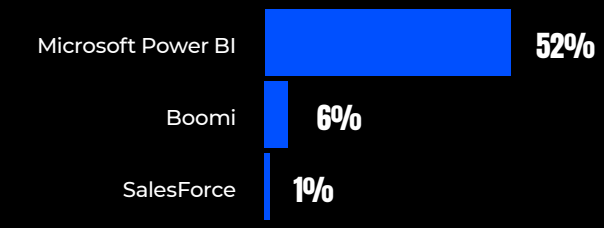
Accounting and financial management



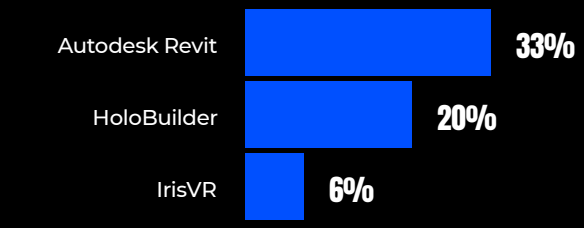
Project and construction management



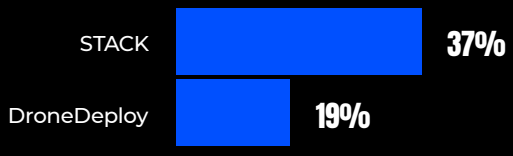
Business intelligence and integration

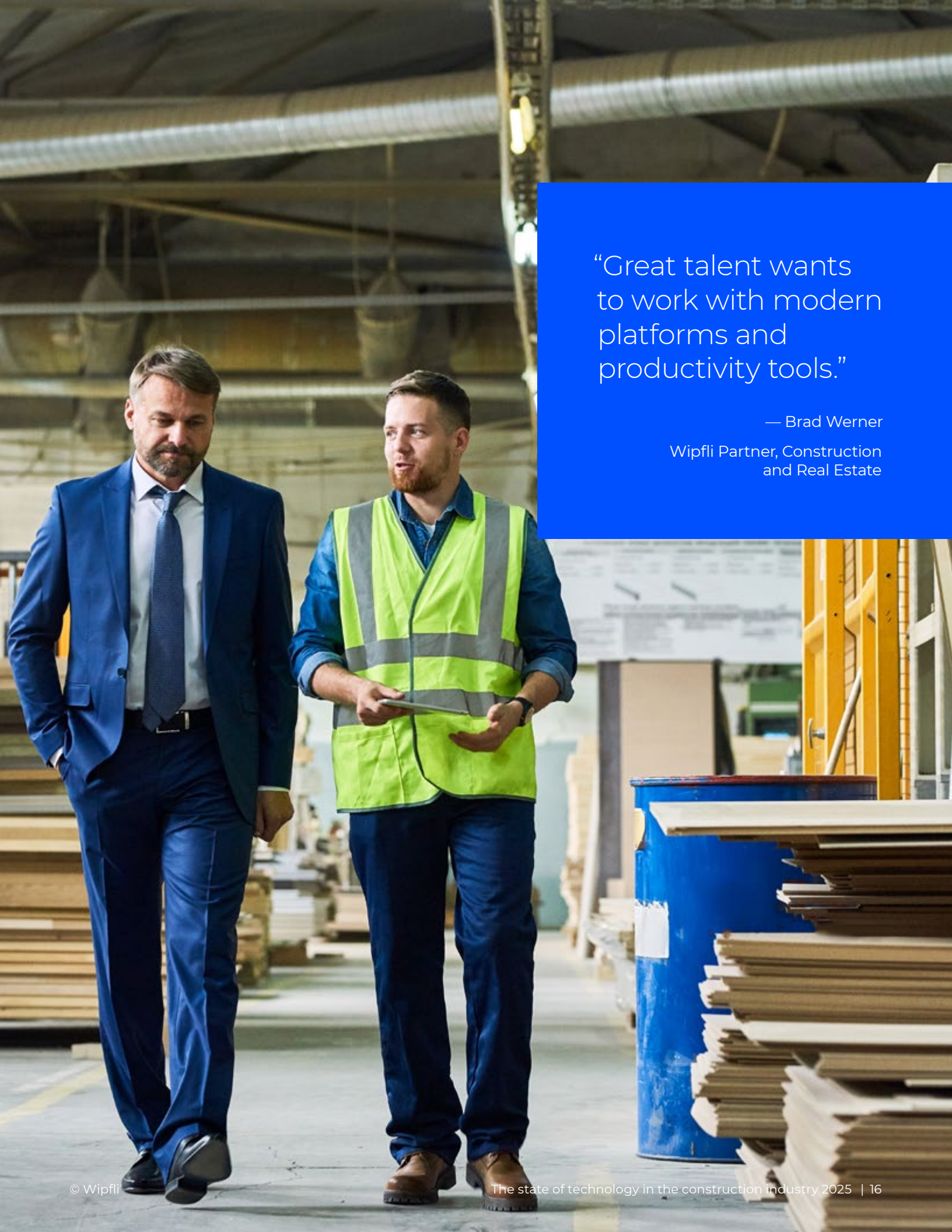


Design and visualization



Field and site technology





> “Great talent wants to work with modern platforms and productivity tools.”
>
> — Brad Werner
>
> Wipfli Partner, Construction and Real Estate

Defining AI readiness

Use of AI for full automation and data analytics is "not there yet."

Most executives (82%) claim to have a defined AI strategy, with a notable spread across revenue size. While 95% of execs at the largest firms report having an AI strategy, only 66% of those at the smallest firms say the same.

Wipfli's advisors have consistently observed discrepancies between firms' perception of AI and their actual implementation. Alex Bilinski, master consultant at Wipfli, is used to educating clients about AI as part of his role with Wipfli's AI team. As Bilinski explains, there are three tiers of AI capability and they are not all created equal.

"Often, companies think if they're using a consumer-grade AI tool like Microsoft Copilot or ChatGPT, they've integrated AI into their business," he says. But using an AI assistant for composing emails and summarizing meetings isn't the same as full integration. As firms mature in their AI readiness journey, they move into departmental-grade AI tools, such as Copilot Studio, which offers opportunities to extend functionality beyond individual tasks into teamwide business functions. Then, there is the third tier — enterprise-grade — in which AI solutions are built from scratch and fully customized to transform the entire business through automated workflows. "An example of this final tier might be a bank that uses AI to conduct automated commercial property appraisals," Bilinski said.

AI readiness varies by company size

By revenue size

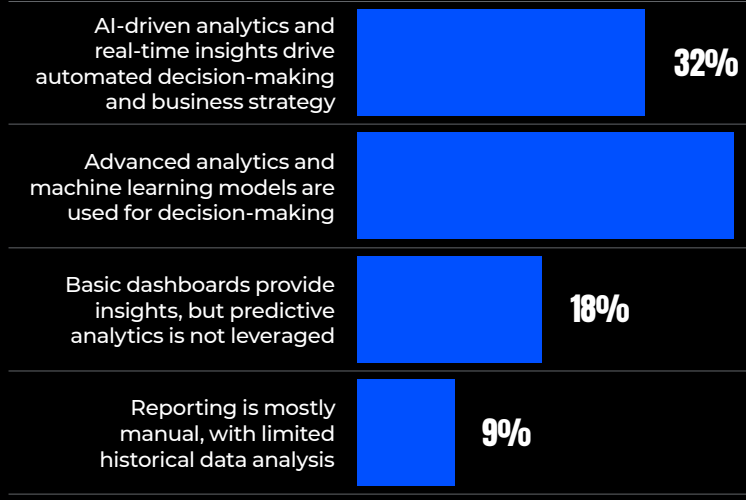
		<$50M	$50M-$249M	$250M+
Have an AI strategy aligned with specific business objectives and/or that drives innovation across the firm	82%	66%	84%	95%
No defined AI strategy	18%	34%	16%	5%

While our survey data showed that executives at larger firms are further along in terms of AI readiness, there remains a great deal of opportunity for firms to improve their fluency. “If AI is the new language of business, we’re now at the point where leaders are moving from conversational use to practical business application,” says Werner.

Our survey findings indicated that data analytics adoption is also in its adolescent phase — which further emphasizes the fact that most respondents are not yet leveraging AI in those second and third tiers.

While nearly three-quarters of respondents use advanced analytics in their business, only one-third claim to have real-time insights and automated decision-making, and this group is mostly driven by firms with more than $250M in revenue. Among executives at small and midsize firms, the plurality are in the second category, where advanced analytics provide decision-making input, but not yet in real time. Among executives at the smallest companies, 29% are still using basic dashboards, and 9% are using mostly manual reporting.

Data analytics adoption is still in its adolescence



By revenue size

	<$50M	$50M-$249M	$250M+
AI-driven analytics and real-time insights drive automated decision-making and business strategy	17%	32%	47%
Advanced analytics and machine learning models are used for decision-making	46%	42%	35%
Basic dashboards provide insights, but predictive analytics is not leveraged	29%	18%	6%
Reporting is mostly manual, with limited historical data analysis	9%	8%	12%

Based on their advisory experience, Wipfli consultants agreed that companies in the construction and real estate industry have a long way to go on the analytics journey.

According to Rademann: "Construction firms haven't been able to prioritize this area, because they're busy with other immediate needs, like cybersecurity intrusions, keeping up with upgrades for on-prem legacy systems and migrating to the cloud. The two nonnegotiables are making sure that your two most important systems (CRM and ERP) are running smoothly and talking to each other. Analytics are something you can get into once those other things are on track."

But, Rademann continued, putting off data and analytics also creates employee frustrations. "If the tech isn't fully integrated, organizations don't have that single pane of glass to watch the performance of their business. Competing today demands not just that single view but also one that is near real-time."

Johnson agreed that management reporting dashboards are not the same as data analytics — though the two concepts are often synonymous. "The real value of analytics isn't reporting what's already happened — it's revealing what's likely to happen next. If your data only reflects the current state, you're missing its greatest potential: informing smarter, future-facing decisions."

The Wipfli team emphasized that a company's analytics is only as useful as the source systems it's connected to — another key point in the AI-readiness discussion. "While 51% of respondents said they feel data and analytics is an area of significant technology integration in their business, this is an area we know we need to increase," said Rademann. "That will help firms prepare to take the leap into AI."

The real value of analytics isn't reporting what's already happened — it's revealing what's likely to happen next. If your data only reflects the current state, you're missing its greatest potential: informing smarter, future-facing decisions.

An enterprise wide approach to use case evaluation

More standardization can help ensure greater ROI.

About two-thirds of all construction-industry executives have a centralized or governing body for standardizing their firm's approach to technology, with the largest firms more likely than smaller companies to have a centralized architecture for seamless integration. While 52% of executives with firms $250M+ said they had a centralized strategy that ensured full businesswide alignment, adaptability and seamless integration, only 37% of respondents with the smallest firms said the same.

While 78% of executives said their firms conduct regular assessments or have continuous monitoring to identify tech gaps, companies are less rigorous about their evaluation process for new investments. Only 38% said their firms have a structured process in place to ensure application selection and implementation alignment with business needs, security and scalability. Even fewer — 23% — follow a strategic roadmap, leveraging automation, AI and data-driven insights. More concerning is the fact that 18% of respondents said applications are selected based on immediate needs, with minimal integration planning.

Leaders of larger firms take a more standardized approach to tech

By revenue size

		<$50M	$50M-$249M	$250M+
A centralized architecture strategy ensures full alignment, adaptability and seamless integration	43%	37%	41%	52%
A governance body enforces technology standards, reducing redundancy and inefficiencies	25%	29%	28%	19%
Some standardization exists, but legacy systems and exceptions create inconsistencies	21%	24%	24%	16%
Each business unit selects and manages its own technology with minimal coordination	11%	11%	8%	14%

In light of this data, our advisors encourage top leadership to champion a standardized, strategic and enterprisewide approach to technology investment.

"Technology purchases exploded during COVID-19, when individual teams were procuring whatever tools they thought they needed, as quickly as possible. This has left many firms with fragmented tech stacks and very high tech debt," said Johnson.

However, Johnson added that leaders shouldn't get discouraged; these situations can be reversed more quickly than they may think, particularly in the construction industry. "In many other industries, such as manufacturing, companies will buy one giant piece of technology — say, an ERP — and that package is their everything." This model means the stakes of tech investments are very high; one wrong decision can cost millions and set the company back years. "But in construction, it's possible to buy several smaller applications and get them all to talk to each other. This approach can deliver a lot of incremental value."

Application selection is not fully consistent or strategic

By revenue size

		<$50M	$50M-$249M	$250M+
Application selection and implementation follow a strategic roadmap, leveraging automation, AI and data-driven insights	23%	11%	24%	35%
A structured evaluation process ensures alignment with business needs, security and scalability	38%	50%	41%	23%
Some standard selection criteria exist, but integration and long-term fit are not always considered	21%	25%	20%	19%
Applications are selected based on immediate needs, with minimal evaluation or integration planning	18%	14%	15%	24%

Key takeaways

Our survey of executives clearly shows that leaders see tremendous value in using technology to move their businesses forward.

They're excited to invest in a wide range of solutions, and they also see the need to ensure their security posture remains strong alongside these integrations. They believe their firms are well on their way to leveraging the current and next generations of tech tools to make their operations more efficient, higher quality, safer and more sustainable.

What they may not fully realize is that there is still a lot of work to do. The technology journey is never complete, and complacency isn't helpful in an arena that is constantly iterating — and where threat actors are evolving just as fast.

Here are some specific takeaways:

When it comes to cybersecurity, companies can never take a break.

This year's survey results show that construction industry executives are taking cybersecurity very seriously — and they should be. As a priority, cybersecurity needs to be "always on," whether the business has been infiltrated recently or it's one of the fortunate few that hasn't suffered a major data breach.

As we all get more comfortable with AI, firms must move beyond off-the-shelf solutions.

Like all innovations, AI-driven automation is moving from novelty to norm. Soon, most companies will be improving their business processes and even making major strategic decisions based on the insights coming out of their AI engines. Those whose AI output is limited to meeting summaries and emails will be left behind.

1. When it comes to cybersecurity, companies can never take a break.
2. As we all get more comfortable with AI, firms must move beyond off-the-shelf solutions.
3. AI can help companies see the future — if they're ready for it.
4. When it comes to tech investments, companies are leaving value on the table.
5. Top leadership should champion an enterprise-level tech strategy.

AI can help companies see the future — if they're ready for it.

There's a huge opportunity for firms to use AI-driven capabilities for data analytics — and for forward-facing analysis in particular. We're used to telling data stories in the past tense, as in the dashboards we use to show past-quarter performance. But with AI, data's greatest value will be identifying future trends and opportunities. However, that use case will only work if the systems that gather the data are all fully integrated.

When it comes to tech investments, companies are leaving value on the table.

In our survey, executives' responses indicated that many companies are struggling to fully use the tools they already have. To help ensure they maximize the value of their tech investments, leaders may be wise to consider turnkey packages that include ongoing training. While that support may cost a bit more, it pays for itself in the long run.

Top leadership should champion an enterprise-level tech strategy.

The CEO needs to be involved in the decisions around key platforms that will empower their businesses for the next decade.

As Werner says, while C-suite leaders may not have the capacity to participate in all the decision-making on technology governance — nor do they necessarily need to dive that deeply into the details — they do need to pay attention to two key elements from a de-risking perspective.

"The first is cybersecurity and 'protecting the house.' Intrusions are not just happening to some firms in some years, but to every firm, every year," said Werner. "The second is the decision-making around what the architecture and platforms look like. This needs to involve a centralized team that understands the entire tech stack. The COVID days are over; no longer can we allow each team to choose their own tech. Integration is what allows for value acceleration, and that can only happen when all the pieces — both technology and people — talk to each other seamlessly."

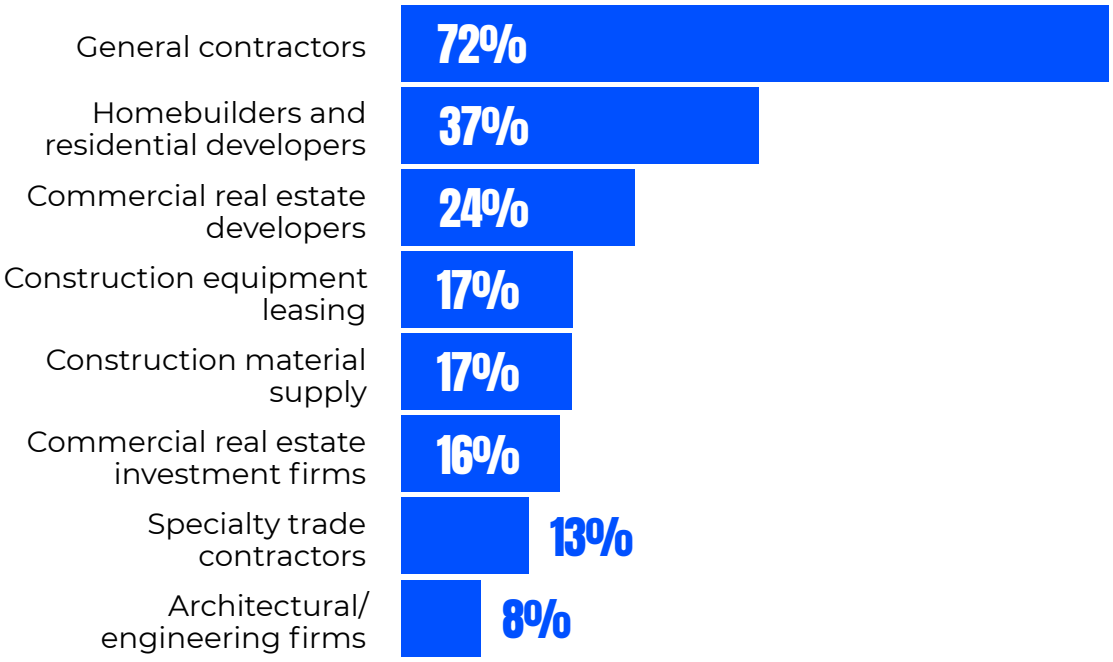
Appendix: The raw data

Wipfli received survey responses from 308 construction and real estate firm leaders.

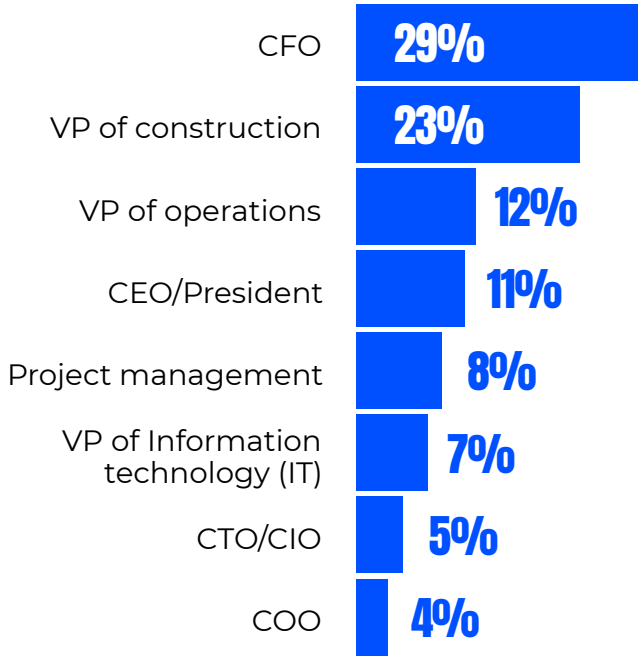
The survey was conducted online between April 24, 2025, and May 2, 2025. All responses were confidential and anonymous.

Percentages may not equal 100% due to rounding or multiple response options.

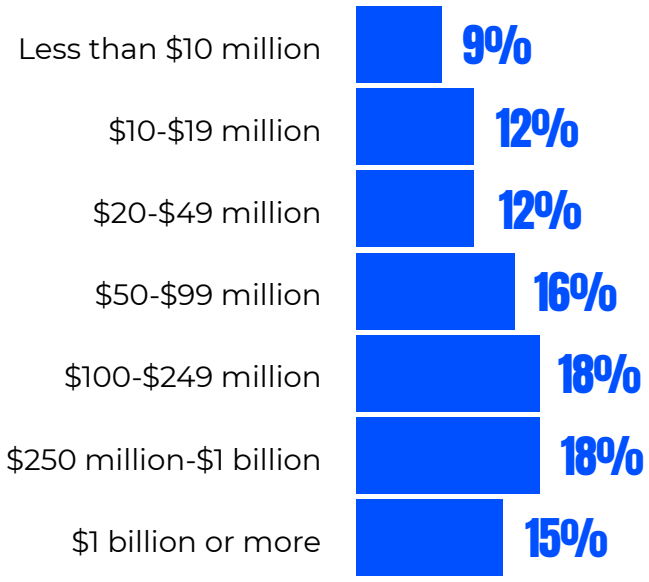
Which of the following best describes the type of construction firm you work for? Please check all that apply.



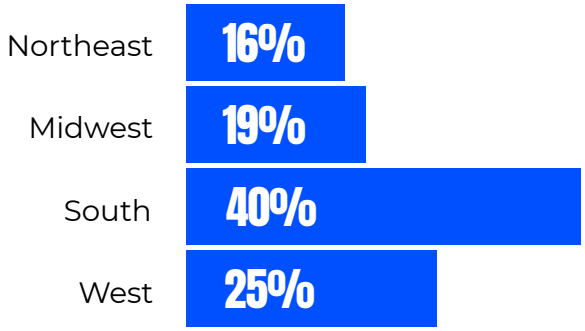
Which best describes your primary role?



Please indicate your firm's approximate annual revenue



In which region is the firm you work for located or headquartered?



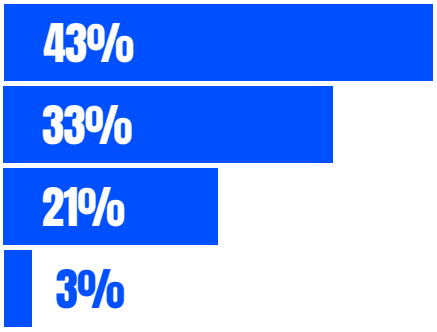
How would you rate the integration of technology into your firm's daily operations?

Full: All operations are seamlessly integrated with advanced technologies

Extensive: Most operations are technology-driven, with few manual processes

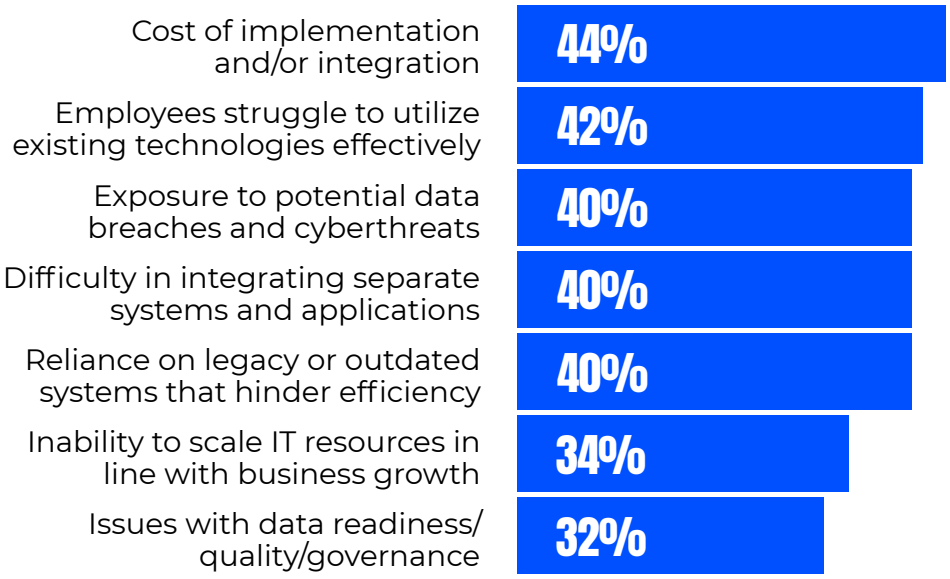
Moderate: Key operations utilize technology, but several processes are still manual

Minimal: Technology is used for basic tasks and many processes remain manual

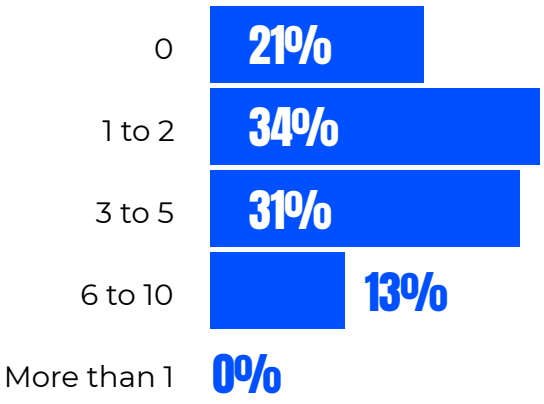


Which areas of your firm have seen the most significant technology integration? Please check all that apply.

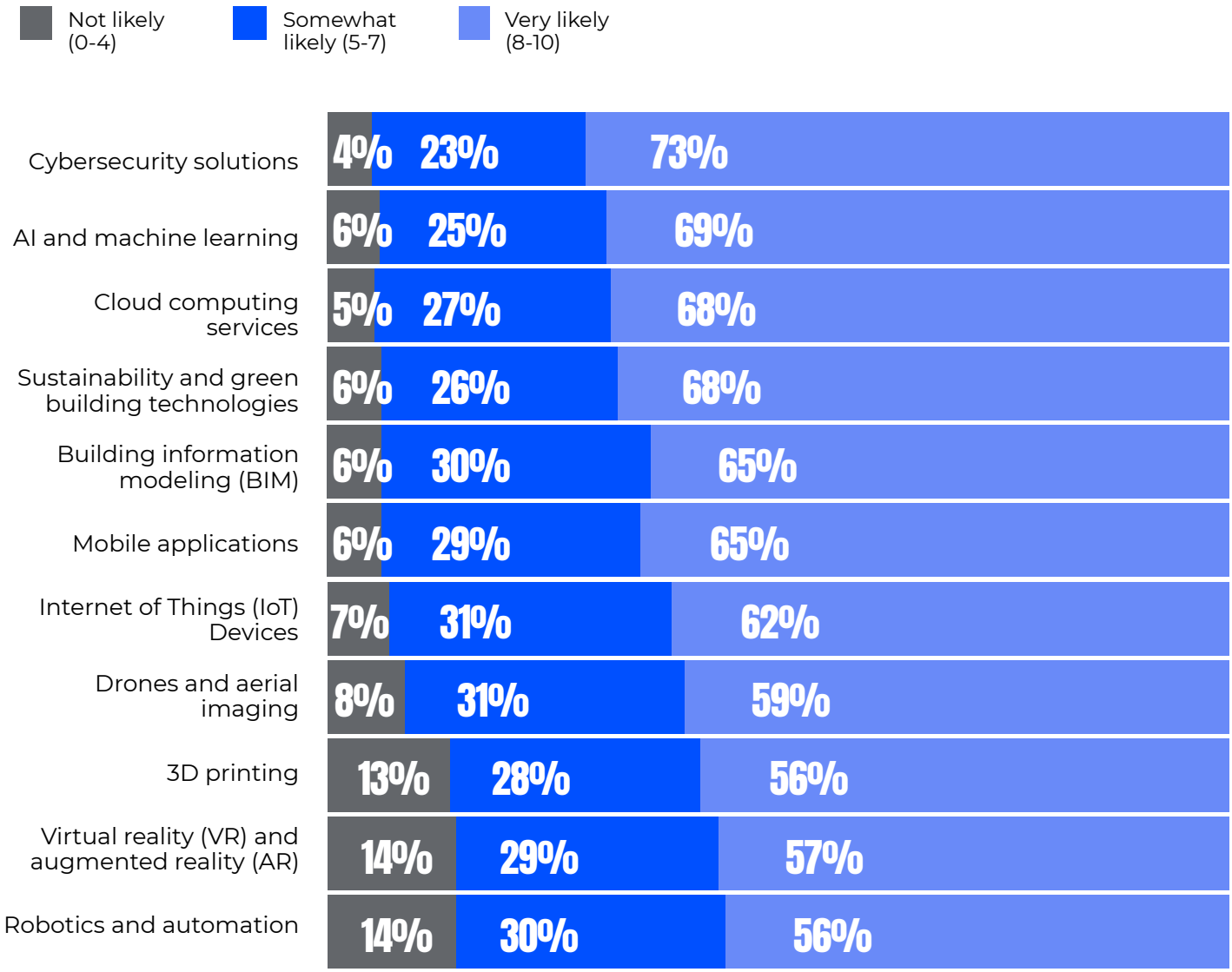
What challenges does your firm face with its current technology infrastructure? Please check all that apply.



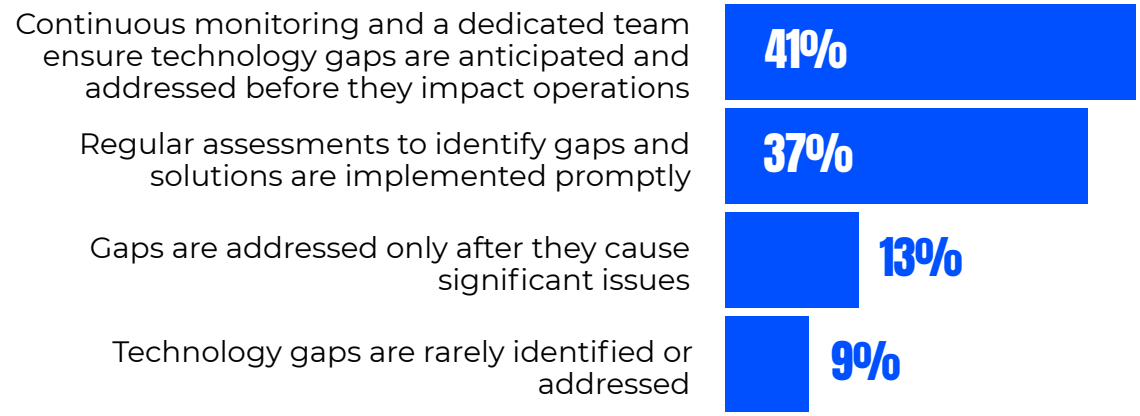
How many (#) times in the past 12 months has your firm identified unauthorized access to corporate networks and data? Please check all that apply.



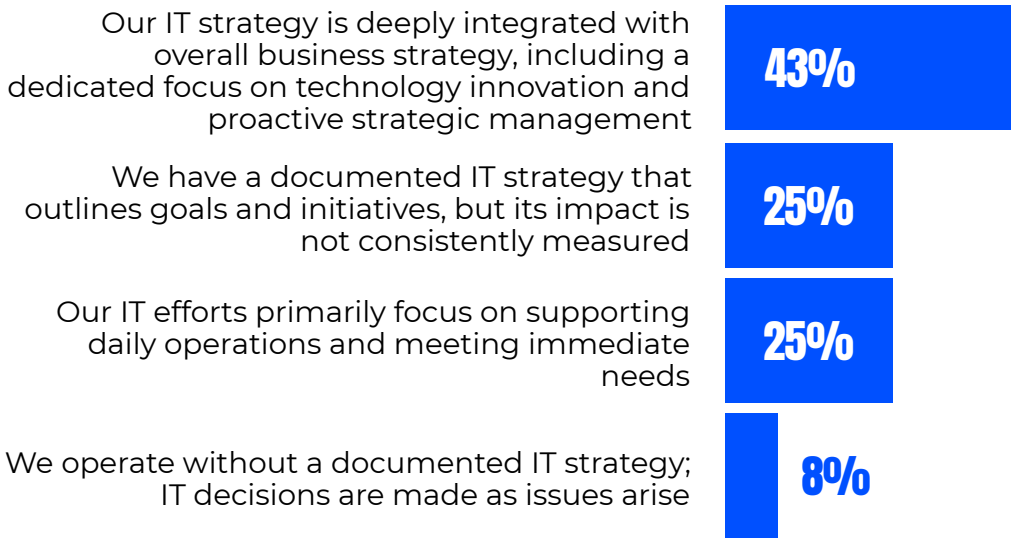
How likely is your firm to invest in these areas of technology in the next 12 months?



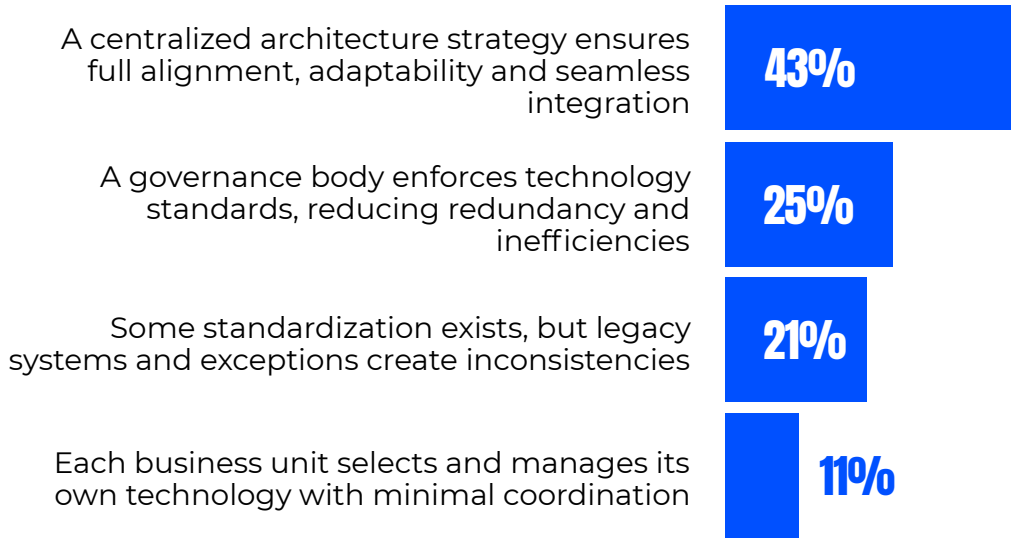
How effectively does your firm identify and address technology gaps?



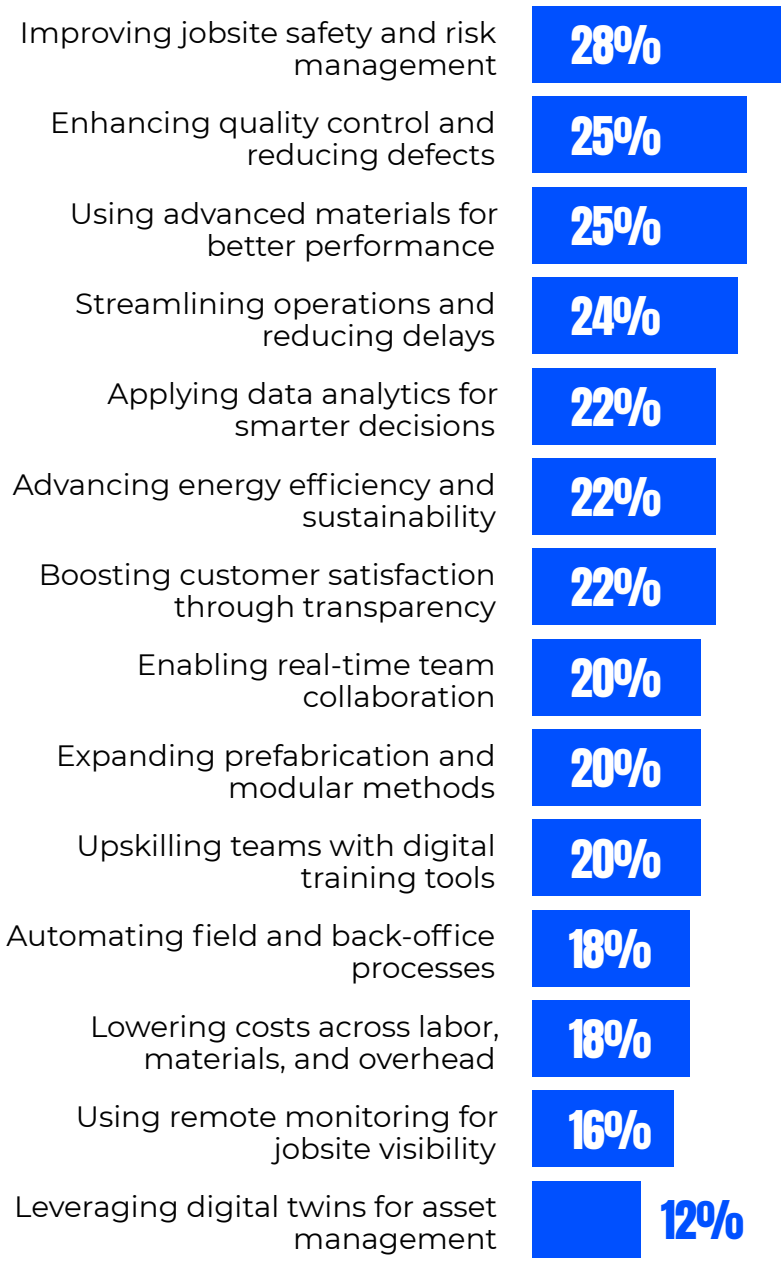
Which best describes your firm's IT/technology strategy?



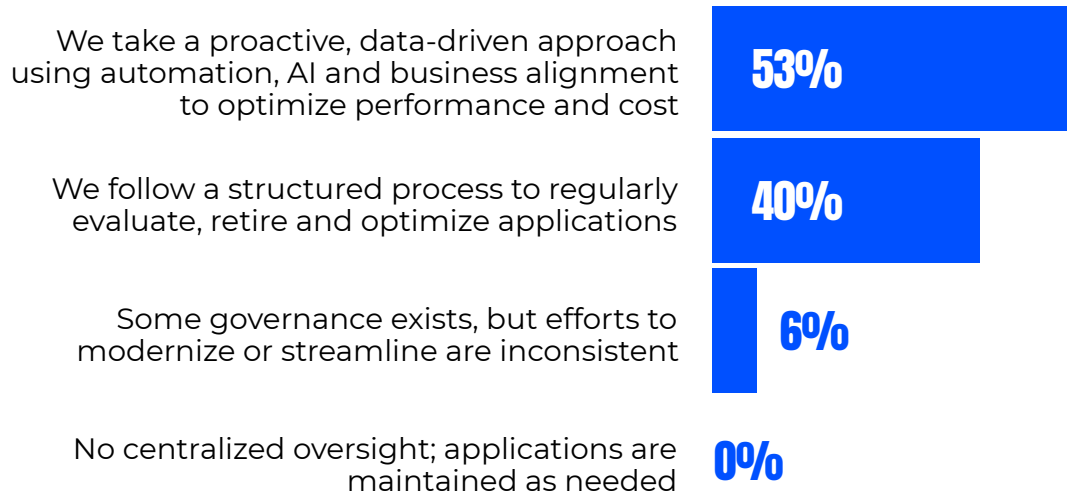
Which best describes your firm's approach to technology standardization?



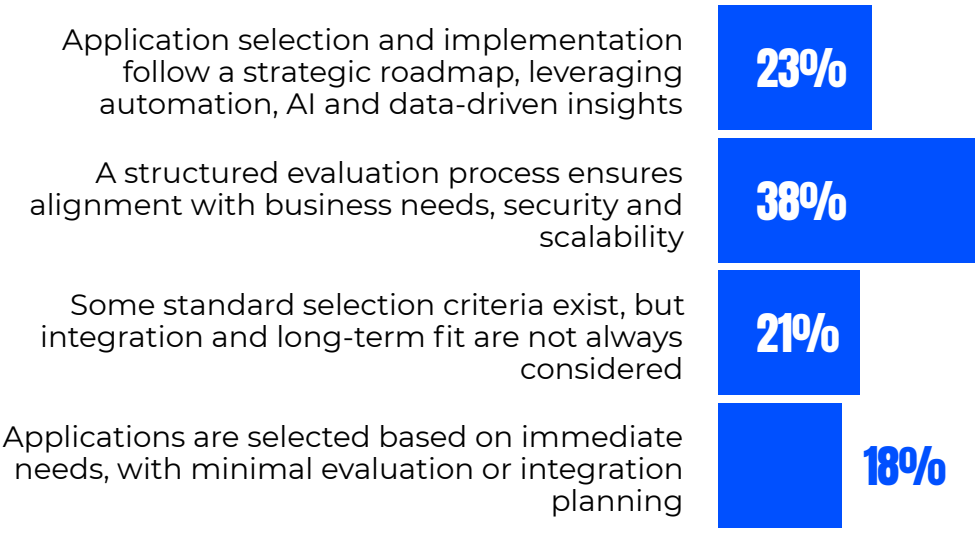
Which of the following represents the most valuable opportunities for technology to improve construction business performance? Please select up to three most valuable opportunities.



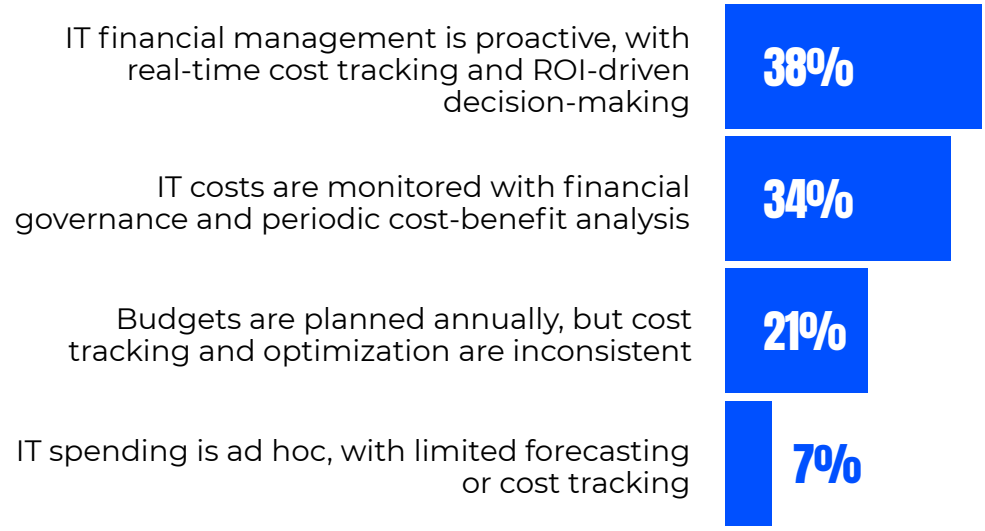
How does your firm currently manage its application portfolio?



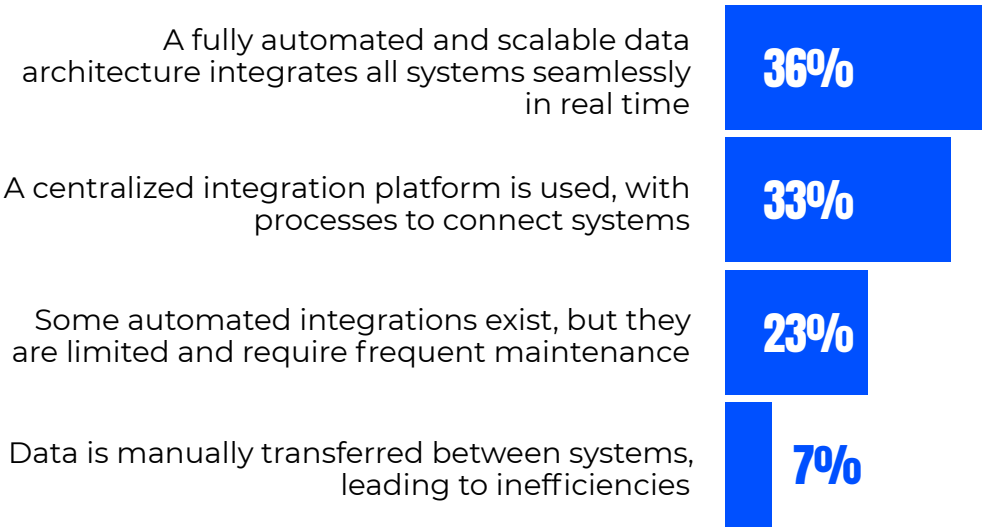
Which best describes your firm's approach to application selection and implementation?



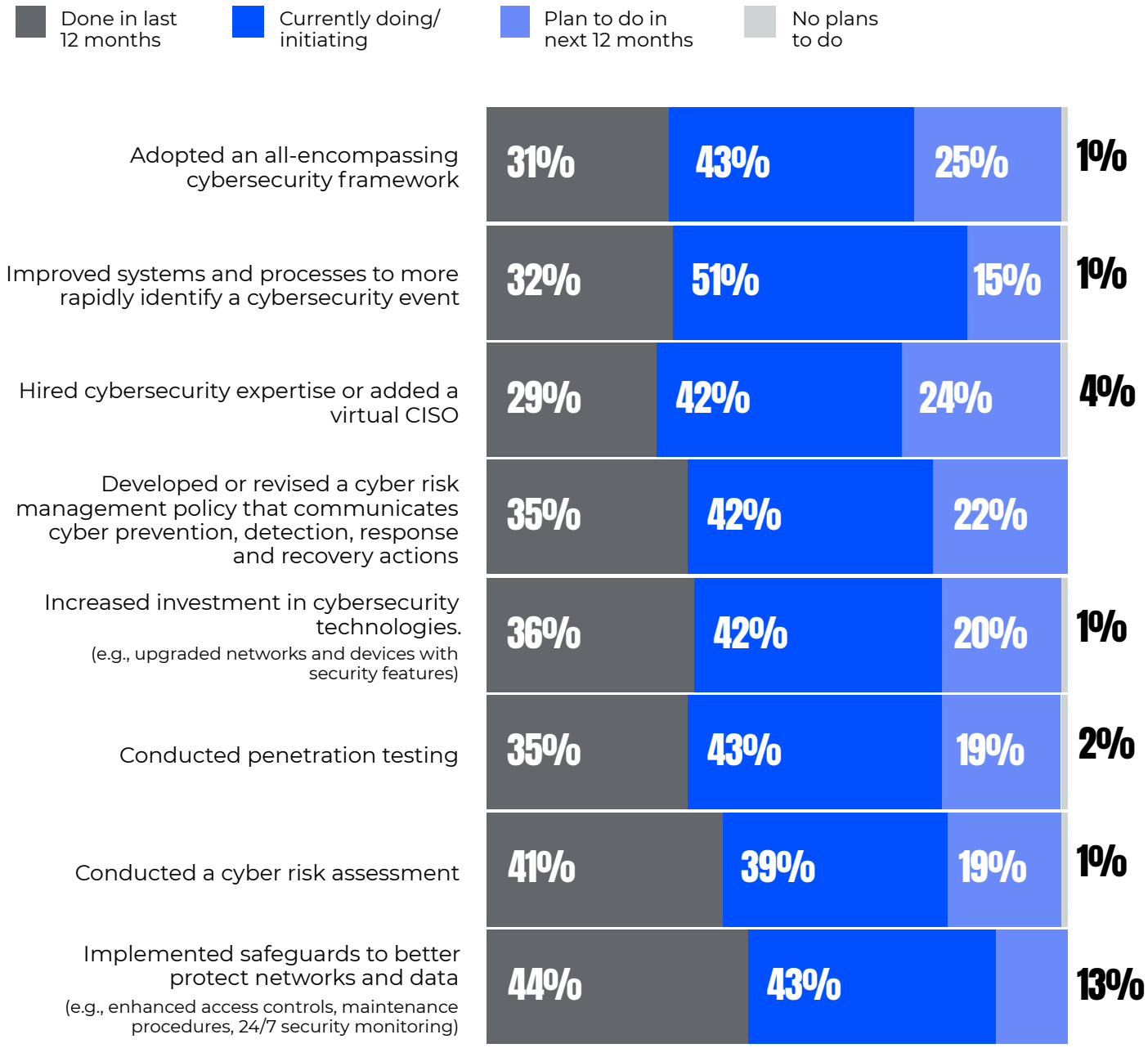
Which best describes your firm's approach to IT budgeting and financial management?



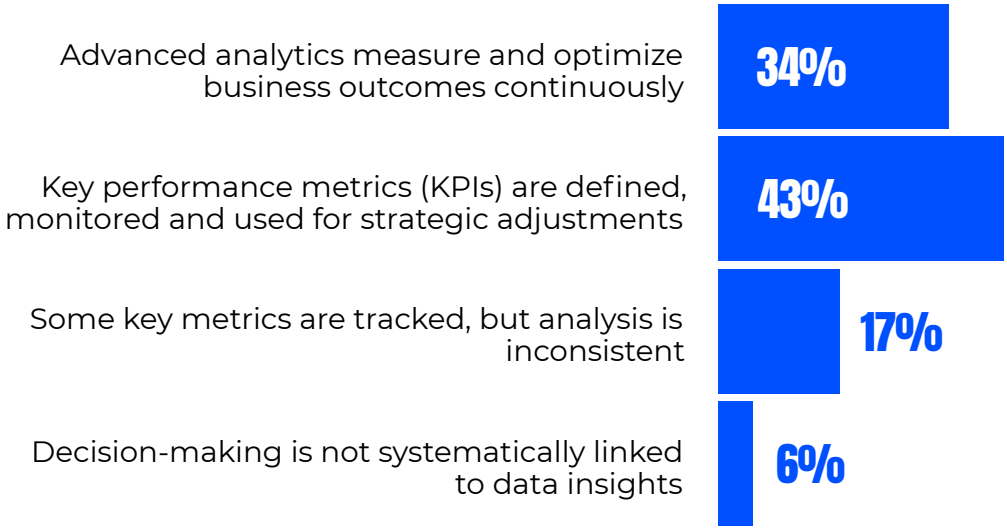
Which best describes your firm's data integration across systems?



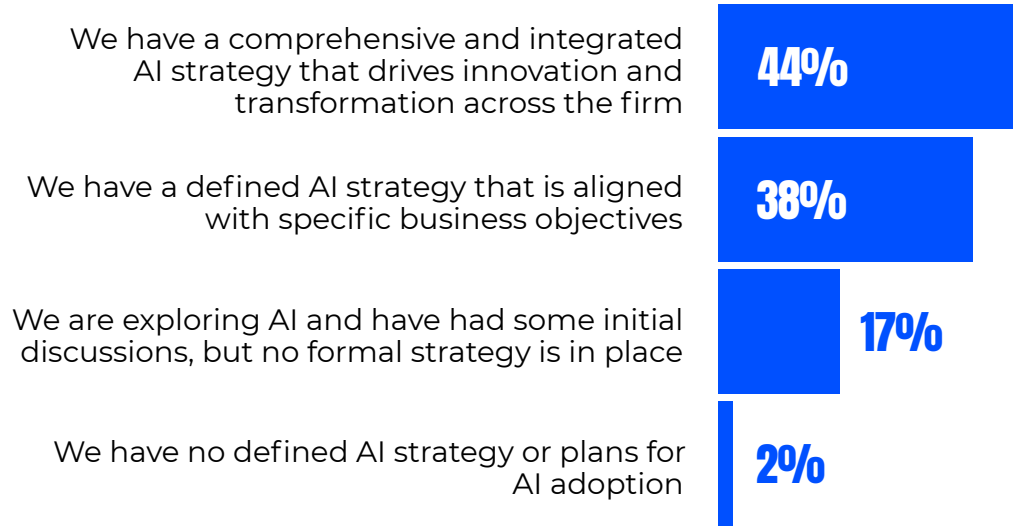
Please indicate when, if at all, your firm has taken or plans to take each of the following steps to ensure the security of its network and data.



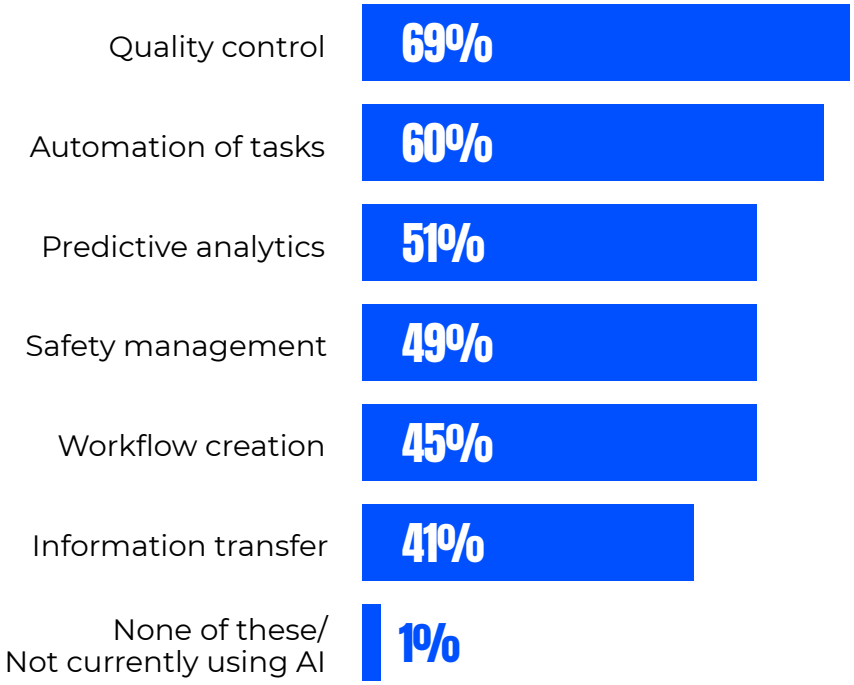
How does your firm measure the impact of data-driven decisions?



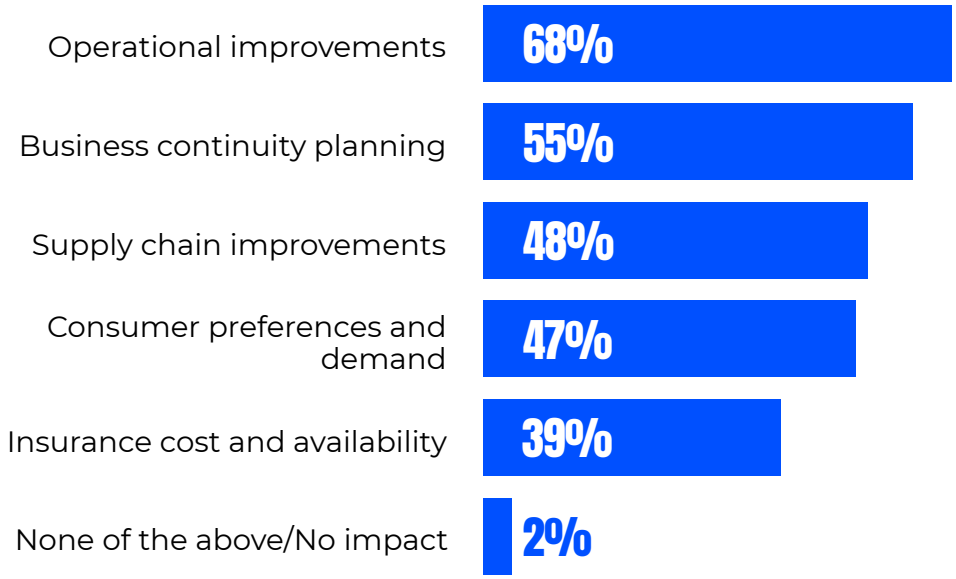
Which best describes your firm's approach to artificial intelligence (AI) strategy?



In what ways is your firm currently using AI?



How have your company's operations/performance been impacted by AI?



Finally, is there anything else you would like to share about the role of technology in your construction firm or the construction industry as a whole?

TAKE THE NEXT STEP

Our research highlighted how construction industry executives are integrating technology into their businesses in 2025. We identified several industrywide gaps between intention and full execution. If our report also pointed you to specific gaps between your firm and your competitors, it's time to act.

Wipfli's advisors can help you choose solutions that maximize efficiency and integration, leveraging the full value of tech investments both now and down the road. After helping you compare options and choose the smartest technology solutions, our consultants can also help your team get the most value out of them.

Visit **wipfli.com/construction** to learn more.

WIPFLI