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AEC Technology Outlook 2026: How AEC Firms Are Building Smarter

2026 Construction Technology Report

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A global survey of digital adoption, workflow bottlenecks and what it really takes to deliver projects smarter, faster and more profitably, featuring insights from roughly 1,000 construction professionals across North America, Europe and Australia.

EXECUTIVE SUMMARY

Across the global architecture, engineering and construction (AEC) industry, one thing is clear: digital tools are no longer a future aspiration but a present-day imperative.

According to Bluebeam's 2026 Construction Technology Survey, 84% of firms plan to increase their investment in technology this year, and 67% say digital tools are already improving productivity. Early adopters are seeing serious results – especially in cost savings, time efficiency and collaboration. But while momentum is building, transformation remains uneven.

Just 11% of respondents say their firm is fully digital. Paper is still used for critical workflows in half of projects. And while AI is helping some firms save thousands of hours and tens of thousands of dollars, most of the industry remains cautious.

The biggest barriers in 2026 aren't cost; they're complexity, culture and capability. Integration remains a top pain point. Most firms allocate just 1%–10% of their tech budget to training. And nearly one-third say a lack of digital skills is slowing down progress.

But tech is no longer just about tools. It's a talent strategy. Nearly half of respondents say that having advanced digital tools helps them attract and retain top talent, alongside culture and compensation.

This report pinpoints exactly where firms are gaining traction – and where friction still exists. With new regional data, fresh insights into AI adoption and sharp comparisons between digital leaders and laggards, this year's findings tell a deeper story: digital transformation is accelerating, but only for those willing to do the hard work of making tech usable, integrated and real.

'Digital transformation isn't about piling on new tools – it's about removing the friction that keeps people from using the ones they already have. The real test of AI in construction won't be hype; it will be the hours it gives back to project teams and the dollars it saves owners. But none of that matters without trust. The future of AI must be human-centric – transparent, safe and reliable. The firms that will lead aren't the ones chasing every new trend, but the ones making technology usable, valuable and real for their people every day.'

– Usman Shuja, CEO, Bluebeam

Survey Methodology

This report is based on a global survey of 1,005 professionals across the AEC industry. Fielded between May and June 2025, the study captures how firms around the world are using technology across the building lifecycle – and what's still holding them back.

Who we surveyed:
Respondents spanned design, construction and operations functions, with a focus on roles actively driving digital decisions and workflows:

- **Project managers**
- **Architects and engineers**
- **BIM/VDC leaders**
- **IT and digital transformation leads**

Where they work:
We focused on five countries where AEC innovation is accelerating:

- **United States**
- **United Kingdom**
- **Germany**
- **France**
- **Australia**

Firm size:

38%
small firms
(2–50 employees)

42%
midsize firms
(51–500 employees)

9%
large firms
(501–1,000 employees)

12%
corporate enterprises
(1,000+ employees)

Why it matters:
This report is a global snapshot of what's working, what isn't and where the real opportunities lie. Whether you're deep into digital transformation or just getting started, this data maps the friction points and the momentum building toward smarter, more connected construction.

Section 1:
Where AEC Tech Adoption Stands in 2026

For all the talk of digital transformation, the reality heading into 2026 is more complicated: construction firms are investing heavily in tech, but they're not all moving at the same speed or in the same direction.

About 84% of AEC firms plan to increase their technology investments in the coming year. That's a strong signal. But zoom in and the picture gets more fragmented.

Only 11% of respondents say they're fully digital across all project phases – from design and preconstruction through operations and handoff. The rest are still relying on paper, spreadsheets and legacy tools for key workflows, especially in the field and during closeout.

Large firms are generally further along. Among companies with 1,000 or more employees, 56% say they're fully digital in at least two project phases, compared to 35% of small and midsize firms. But 'fully digital' is a high bar; it means using only digital tools, with no paper or manual processes, for the entire phase. Many more firms use some digital tools in later stages. For example, 64% of respondents report using digital solutions during closeout and handoff, yet most still rely on paper or manual processes alongside them. Usage is highest in design (nearly 90%) and tends to drop the closer you get to the jobsite.

'The heavy lift is in design and pre-construction. By the time you get to operations, digital tools are less visible – but no less important. The trick is making sure the data carries all the way through.'

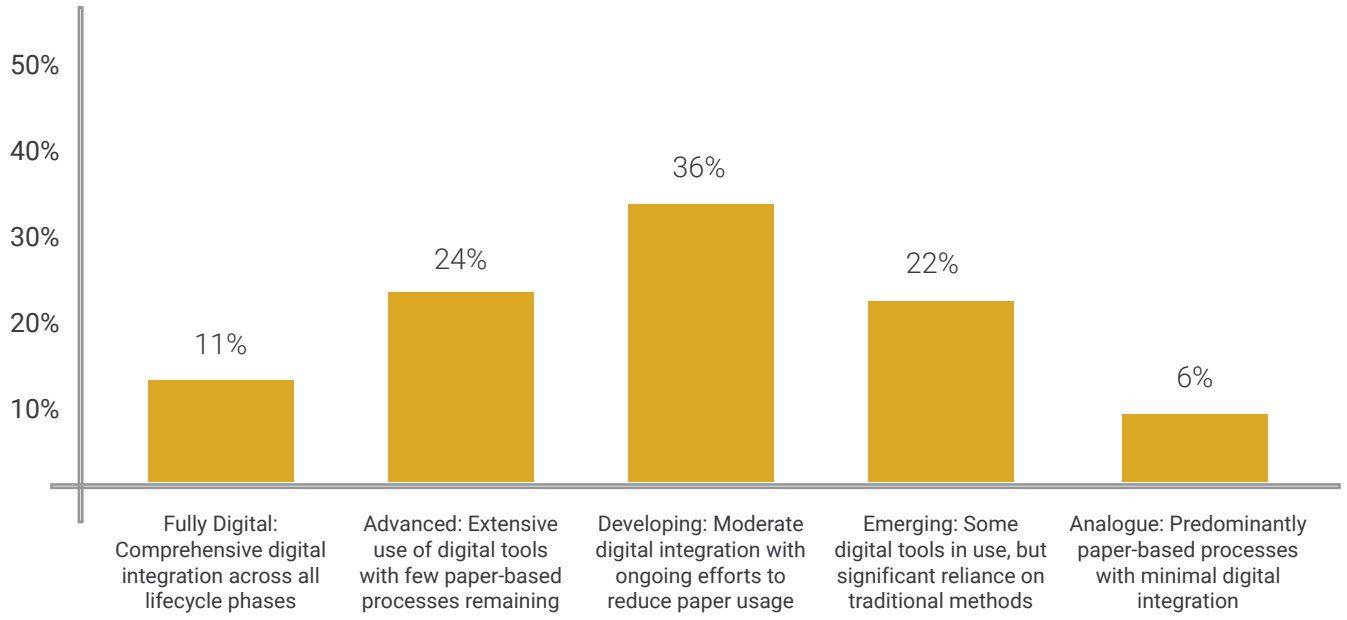
– James Chambers, Director, Global Industry Development, Nemetschek Group

So, what's driving all this investment?

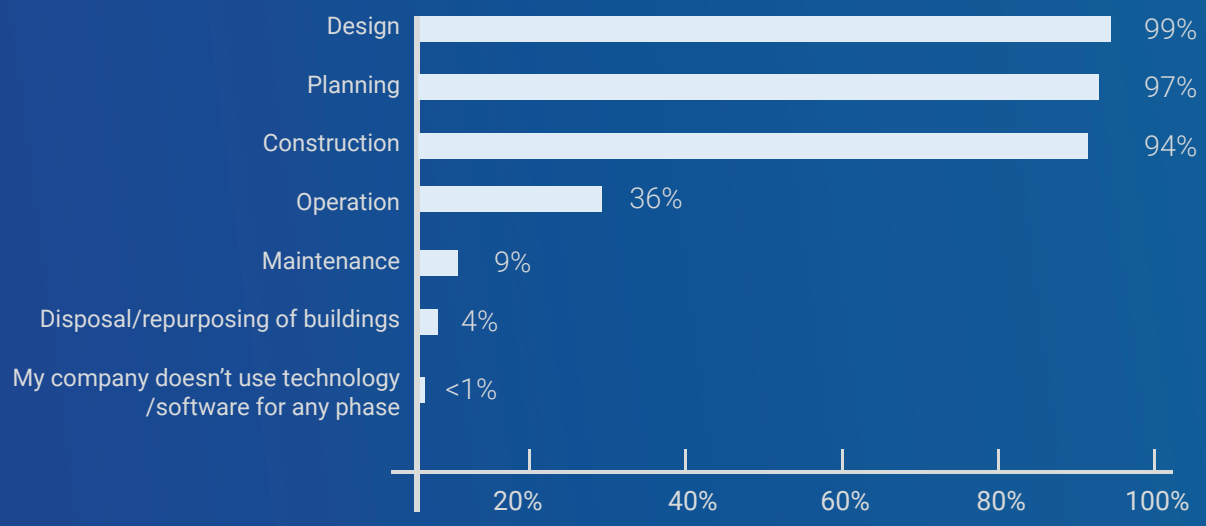
The top three reasons firms adopt digital tools haven't changed: they want to improve productivity, enhance collaboration and reduce errors. But there's a new priority climbing the list in 2026: attracting and retaining top talent. As younger professionals enter the industry, tech maturity is starting to shape workforce strategy.

The bottom line: digital momentum is real. But for most firms, 'digital' still means a mix of PDFs, emails, manual uploads and one or two cloud tools. The next frontier isn't just adopting more tech. It's connecting the tools they already have.

FIRMS' DIGITAL MATURITY RATING



TECHNOLOGY/SOFTWARE USAGE ACROSS BUILDING LIFECYCLE PHASES



Section 2:
From Friction to Flow – The Gaps Firms Must Close

Despite the rise in digital tool adoption, construction professionals are still wrestling with friction that slows project delivery, collaboration and profitability.

Nearly half of AEC professionals still rely on paper during design or handover. This isn't usually a full return to the filing cabinet, but is often part of a hybrid workflow that blends printed documents with digital tools.

That reliance on paper, however partial, points to workflows that haven't fully caught up with the pace of digitisation. Many firms have adopted point solutions, but true lifecycle integration – from design to construction to operations – remains elusive.

'Too many firms think integration means adding another tool. Real integration is about simplifying workflows – not creating new silos.'

– Jeff Sample, Senior Industry Development Manager, Trades, Bluebeam

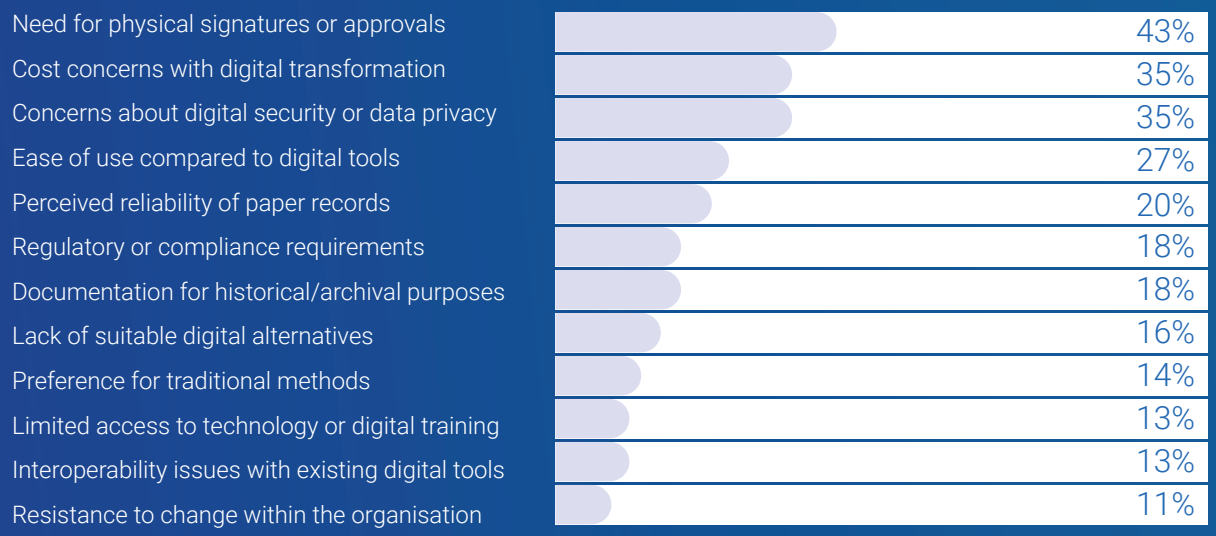
Integration is now a bigger blocker than cost. In fact, 23% of respondents cite integration complexity as their top barrier to digital adoption. That's higher than cost, time or even lack of leadership buy-in.

The result: disconnected teams, duplicated effort and missed insights. When systems don't talk to each other, project teams lose time hunting for the right files, manually re-entering data or trying to validate outdated information. This not only slows delivery, but it erodes trust.

Meanwhile, workflow visibility remains a major blind spot. Nearly 40% of firms report challenges managing collaboration across the full project lifecycle, especially when teams are siloed between design, construction and operations.

This is where tools like Bluebeam shine: document-based collaboration that spans disciplines, formats and project phases. Instead of trying to replace existing systems, tools built for interoperability can help teams move from friction to flow, without overhauling their entire tech stack.

REASONS FOR CONTINUED USE OF PAPER PROCESS DURING THE BUILDING LIFECYCLE



Section 3:
Talent, Tech and Training Are Now Inseparable

AEC firms aren't just investing in digital tools to get the job done; they're betting on tech to help build and retain their teams.

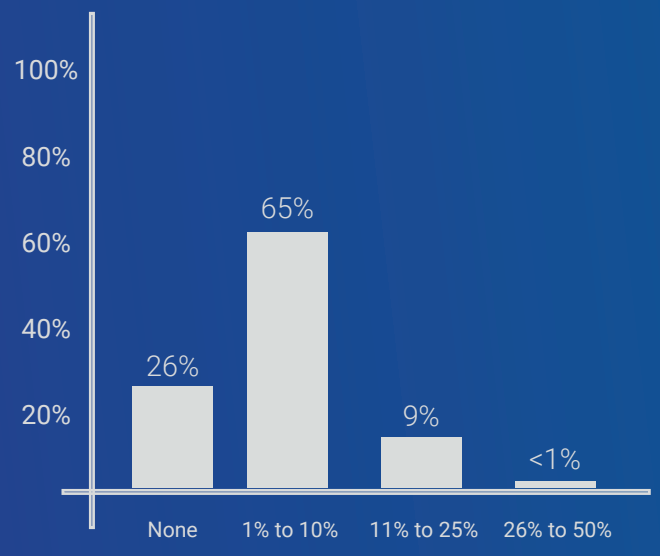
Forty-four percent of firms say advanced technology plays a key role in attracting and retaining talent, in addition to culture and compensation. In an industry squeezed by persistent labour shortages, that's no small thing. Workers – especially younger ones – are increasingly drawn to firms that equip them with modern tools, not ageing systems and siloed processes.

And yet, 19% of respondents cite a lack of skilled talent as a challenge to technology adoption. Even when firms manage to buy the right tools, they don't always have the people to make those tools work.

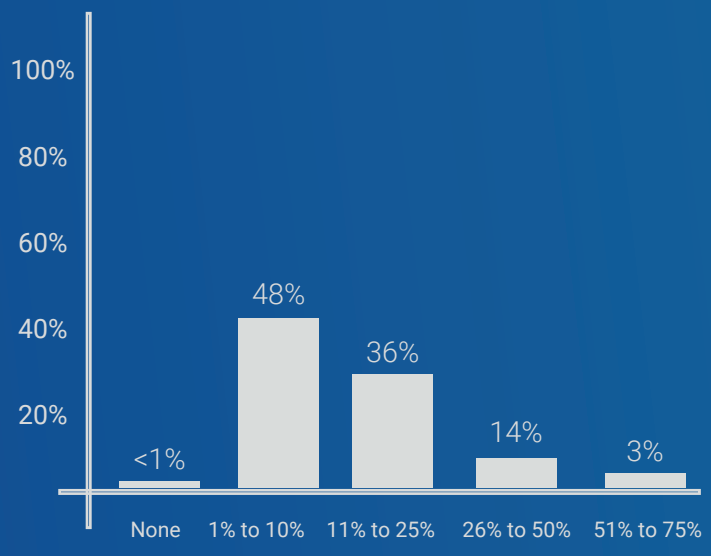
That gap becomes even clearer when you follow the money: 65% of firms spend less than 10% of their technology budgets on training. That includes onboarding, upskilling and long-term adoption support.

The takeaway: the tools that win in 2026 won't just be powerful but will be easy to learn, use and scale across teams. In a talent-constrained market, usability is becoming as important as functionality.

PERCENTAGE OF TECHNOLOGY BUDGET DEDICATED TO TRAINING



PERCENTAGE OF TECHNOLOGY BUDGET DEDICATED TO TECHNOLOGY ADOPTION



Section 4:
AI Is Helping Where It Counts – But Use Remains Limited

The industry has moved past AI speculation. The question now isn't whether AI works, but where it works best.

Just 27% of firms in our survey are currently using AI tools in their workflows. But among those early adopters, the payoff is real. More than two-thirds (68%) report saving at least US$50,000 on recent projects, and nearly half (46%) have saved 500–1,000 hours by using AI for tasks like scheduling, planning and document analysis.

'$50,000 in savings may sound impressive, but it misses the bigger point – when you prevent errors in construction, the value can be 10 times higher.'

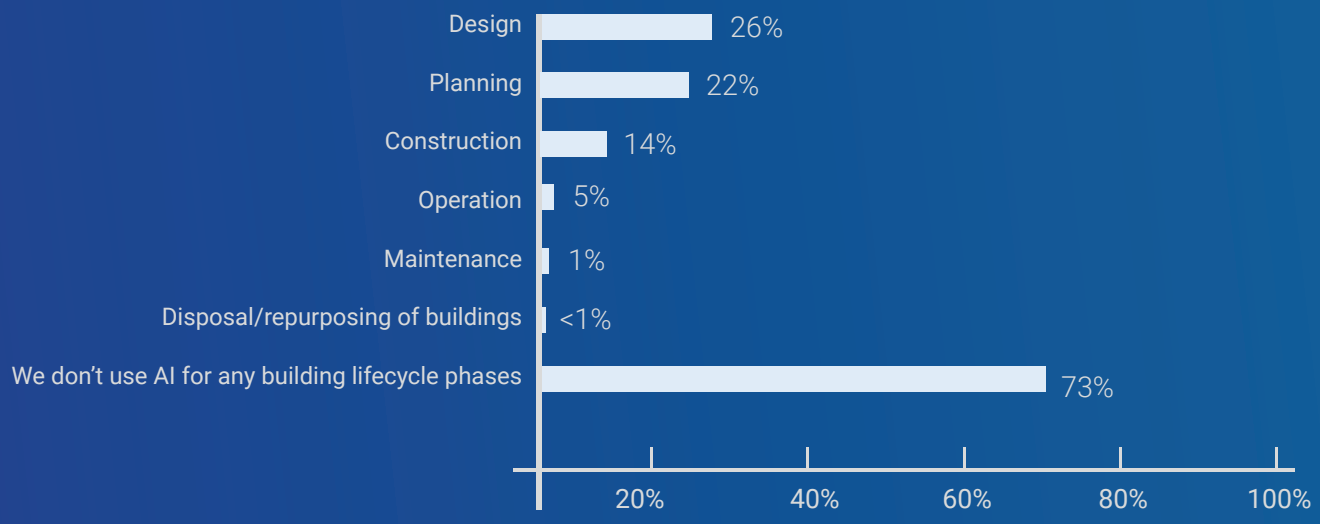
– Parth Tikiwala
Head of Government Affairs, Bluebeam

Design and preconstruction are the most common entry points. Firms are using AI to optimise planning decisions, detect errors in documents and automate workflows that previously drained team time. Scheduling is also gaining traction as a fast-impact use case, especially among larger firms that manage complex timelines across teams and trades.

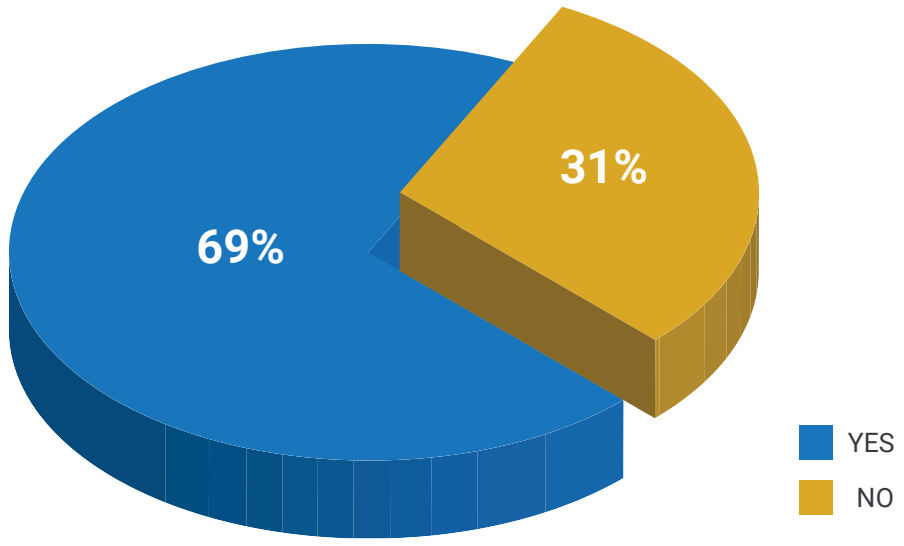
Still, most firms remain cautious. The top concerns are less about capability and more about control: who owns the data? How do we stay compliant as regulations evolve? How do we ensure AI isn't used irresponsibly?

In short: this industry isn't looking for gimmicks. It's looking for ethical, outcome-driven AI tools that integrate easily into daily workflows – and earn their keep.

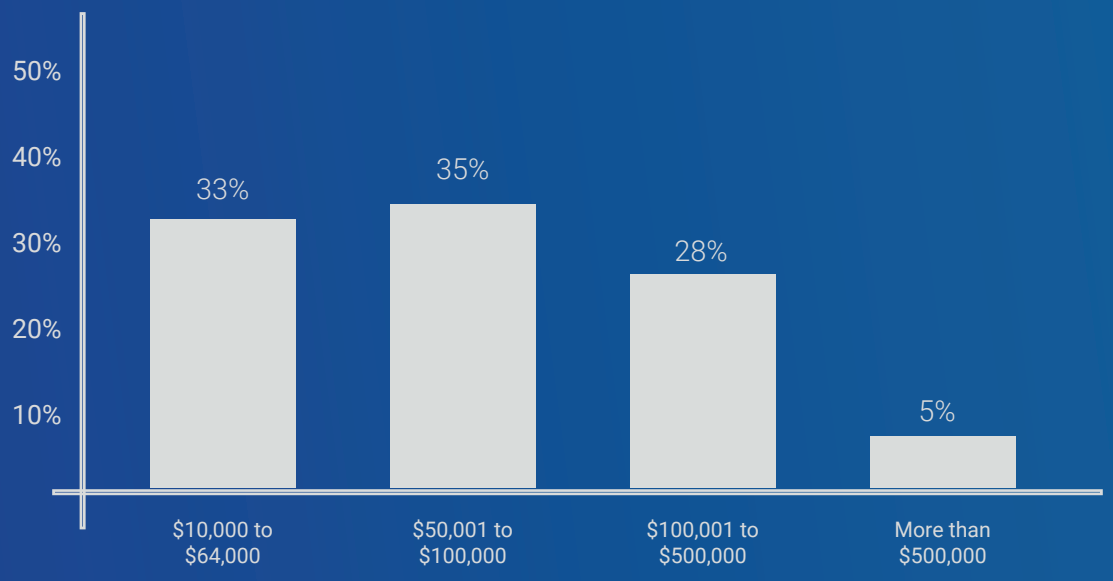
BUILDING LIFECYCLE PHASES UTILISING ARTIFICIAL INTELLIGENCE (AI)



CONCERNS ABOUT AI REGULATION IMPACTING IMPLEMENTATION



ESTIMATED SAVINGS FROM AI IMPLEMENTATION (US$)



Section 5:
Regional Spotlight – What's Driving Change Around the World

While many AEC trends transcend borders, regional differences reveal where progress is accelerating – and which barriers matter most as firms digitise their processes.

Germany stands out for its advanced digital maturity and strong integration of technology across the building lifecycle. German firms are more likely than those in other regions to use AI during the planning phase and frequently report streamlined tech integration, driven by top-down leadership and reviews of current technology infrastructure. Resistance to digital change is less pronounced in Germany, and firms generally express confidence about implementation, reporting fewer concerns about regulatory barriers or AI regulation relative to peers. Integration complexity can still prevent desired digital initiatives, but issues of clear ROI or user adoption are less common compared to other markets.

Australia faces persistent challenges in building digital maturity. Australian organisations are significantly more likely to rate themselves as 'analogue' or 'emerging' in digital capability and are less likely than their peers to allocate substantial budget to technology adoption or AI. Heavy paper use persists, especially in the design phase, and firms often cite the high cost and complexity of integration as key obstacles. These organisations adopt technology primarily when incentivised by government policy or available funding, rather than through competitive pressure. Cultural resistance and inconsistent data standards further slow the transition to fully digital workflows, although Australian respondents are also more likely to say that enhanced collaboration tools or training programs could help drive future change.

France lags in full-firm digital maturity but demonstrates above-average engagement in AI – especially in construction and operational phases of projects. French firms dedicate a higher share of IT budgets to AI (more likely to allocate 11%–25%) and are more likely than peers to report that AI helps address construction skills shortages. Technical expertise and leadership support are recurring challenges, and French organisations are more likely to encounter issues with software bugs or a lack of training among staff. While not uniquely driven by talent retention relative to other countries, French firms do emphasise onboarding and support from leadership as critical to expanding digital adoption overall.

The **United Kingdom** is compliance-focused, with high adoption of quality management and financial software to support project delivery. UK organisations frequently cite integration complexity, skills gaps and ongoing governance as key barriers to digital transformation, but do not lead the survey in productivity gains or digital efficiency benefits. While cautious, AI adoption is starting to gain traction in the UK, particularly in design and planning. UK firms typically favour targeted investment in training and integration solutions to close remaining digital gaps, aiming for more seamless workflows across platforms and teams rather than focusing solely on new tool acquisition.

Tailoring digital transformation strategies by region – not just by industry – is essential. Each country's unique regulatory environment, cultural dynamics, digital maturity and integration landscape deeply shape the trajectory and benefits of technology adoption.

COUNTRY SNAPSHOTS

UNITED STATES:

Less likely to use BIM software (80%); more likely to use data analytics/reporting tools (41%) or scheduling/time tracking tools (27%*)

More likely to cite reduced errors/rework as a benefit of using technology (56%), and less likely to cite greater transparency/accountability (35%)

AUSTRALIA:

Less likely to use tech in operations (22%), maintenance (5%) or disposal/repurposing (0%) phases

More likely to cite increased client satisfaction (59%) and improved safety/risk management (41%) as a benefit of tech usage

GERMANY:

More likely to be advanced digital maturity or fully digital (43%)

More likely to use project management (89%*) or accounting/financial management (35%) software

FRANCE:

Less likely to invest in data analytics/reporting software (48%) over next 12 months; more likely to invest in ERP (48%) or virtual/augmented reality tools (43%)

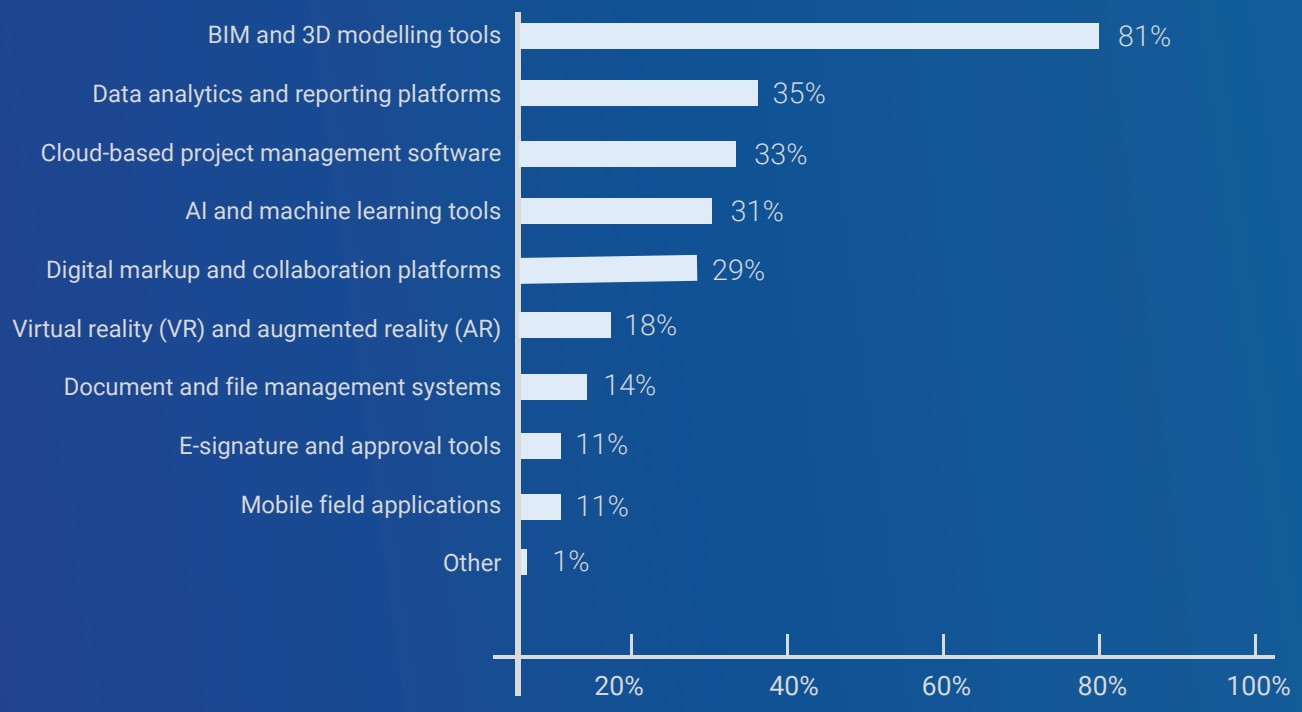
More likely to use CAD (95%), BIM (93%), CRM (62%) or ERP (39%) software

UNITED KINGDOM:

Less likely to cite better transitions between project steps as a benefit of technology usage (22%*)

More likely to adopt/invest in quality/management/compliance software (63%) and accounting/financial management software (59%) in next 12 months

CRITICAL TECHNOLOGY FOR AEC UNITED WORKFLOW IN FUTURE



What Winning Firms Are Doing Differently

The firms making the biggest tech strides in 2026 have a few things in common – and it's not just budget.

They've moved past pilot programs and point solutions. Instead of chasing shiny objects, they're solving real problems across teams and project phases. They're connecting the dots between tools, workflows and outcomes.

They're laser-focused on usability. In an industry where new tools are only as good as the people who use them, intuitive interfaces and fast ramp-up matter more than theoretical ROI.

They're investing in training, not just tools. And they're not afraid of AI, as long as it works. These firms are seeing real gains in speed, accuracy and bottom-line impact because they're putting AI to work where it can make a measurable difference – not just where it looks innovative.

What separates the digital leaders from the rest isn't just what they're using, but how they're using it. And that's a trend no firm can afford to ignore.

To learn more or get started with Bluebeam, reach out to quotes@aquion.com.au and our team will guide you to the next step.