

## Future Focus

# The 2025 Outlook for AEC Companies

Architecture, engineering and construction companies face a slew of market challenges, from labor shortages and economic uncertainty to an increased expectation to use emerging technologies like AI to accomplish more with less on complex projects. This report examines the current state of play and what marketers need to know heading into 2025.







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# Executive Summary

For this report, SmartBrief, a division of Future B2B, surveyed more than 200 contractors, engineers and architects to understand the biggest challenges facing the industry. We spoke with Ken Simonson (p. 5), chief economist at the Associated General Contractors of America, and Kris Lengieza (p. 7), global technology evangelist at Procore Technologies, to offer some added insight based on outside market reports and the responses we received.

The role of technology in the industry is evolving, with high adoption of drones and BIM signaling a shift toward digitalization and efficiency improvements. However, there remains considerable hesitancy towards AI and autonomous machinery, with more than half of respondents citing concerns, mainly due to perceived risks and a lack of successful case studies.

Beyond technology, the three biggest concerns identified in the survey were labor shortages, inflation and material prices, and supply chain volatility. These concerns underscore longstanding difficulties companies

have securing skilled labor, managing project budgets and mitigating risk. Looking ahead, demand for skilled labor, particularly in sectors like renewable energy, data centers, and manufacturing, will likely exacerbate existing workforce challenges.

Meanwhile, regulatory hurdles and interest rate fluctuations will further shape the construction landscape in 2025, as contractors navigate opportunities for growth amid potential market slowdowns.

Despite these challenges, the outlook for the construction economy remains cautiously positive. Most respondents expect their firm's target markets will be healthy and will generate demand in 2025, particularly in infrastructure-related sectors such as highways, transportation and water/wastewater systems. Conversely, nearly one-third of respondents expressed uncertainty or pessimism over the prospects of their firms' target markets, reflecting a broader hesitance due to economic pressures and rising interest rates.



# Survey Results

The most promising markets appear to be:



36.2%

Highways and Roads



30%

Transportation



29%

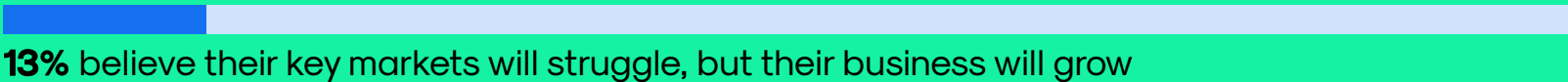
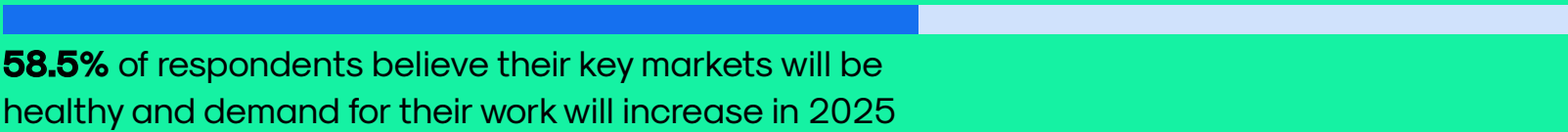
Water/  
Wastewater



25.6%

Mixed-Use  
Development

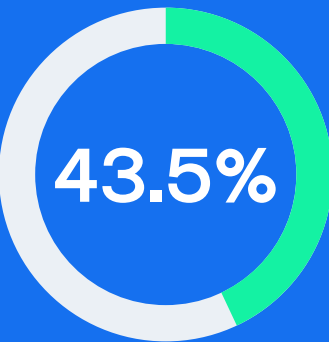
## In terms of market expectations:



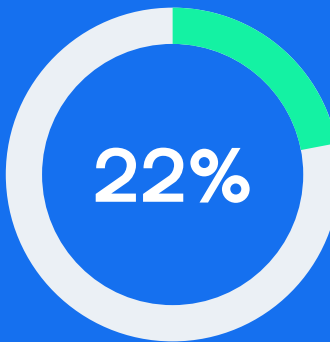
Three concerns emerged as the most pressing for the AEC industry:



Labor shortages



Inflation/Price of materials



Supply chain volatility

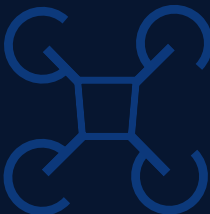
## Technology fears and intrigue:

51.2%

AI is the technology AEC companies have the most hesitancy toward.

27.9%

Autonomous machinery and on-site robotics tied for second highest hesitancy



Drones (42.6%) and BIM (39.7%) are the most actively used or explored technologies.

Project and/or bid management software (53.9%) is leading in usage among major technologies

## To overcome concerns, AEC companies want:

51.5%

More successful case studies

40%

Fewer liability concerns

38%

More available qualified personnel



# Economic Overview

One of the less talked about metrics of AEC industry health is how many sites become abandoned and how many projects are stalled or put on hold. A report from ConstructConnect revealed a 49.8% drop in construction project abandonments in September 2024. Despite this, ConstructConnect's Project Stress Index rose by 16.7% in September due to a 9.8% increase in projects put on hold. Economist Michael Guckes noted that private and public sectors are seeing reduced stress levels, with optimism around lower interest rates driving improvements.

While some areas like multifamily housing and office construction will see declines, the overall economic outlook for the industry remains cautiously optimistic, AGC Chief Economist Ken Simonson told SmartBrief. In 2025, he expects the construction industry will experience a surge in demand across several key sectors:

1. **Data Centers:** The continued expansion of digital infrastructure is likely to fuel demand for data centers.
2. **Manufacturing Plants:** The reshoring of manufacturing, coupled with the need for advanced facilities, will keep this sector strong.

3. **Renewable Energy:** Projects related to solar energy generation, utility-scale battery storage, and transmission lines are expected to see strong growth.
4. **Infrastructure:** A variety of infrastructure types—highways, rail, water and wastewater systems, broadband networks, and harbor improvements—will also be in high demand.

These projects will require a range of skilled labor, with electrical workers, equipment operators, pipefitters and project managers being in particularly high demand.

## Labor Market Challenges

Despite the growth in certain sectors, the labor market for construction remains tight. Simonson is particularly concerned about skill mismatches and working conditions. Workers currently involved in declining areas such as multifamily housing, warehouses, and office construction may not have the necessary skills for the booming sectors, nor may they be willing to relocate for jobs. The industry's outdoor, often remote, and inflexible nature makes attracting workers difficult in a world where other sectors increasingly offer remote or hybrid work options.



“For the most part, I expect the supply chain to have far fewer problems than in 2020–2022.”

—KEN SIMONSON,  
ASSOCIATED GENERAL  
CONTRACTORS OF AMERICA



### Wage Trends

Wage growth in the construction sector has outpaced the broader private sector. From April 2023 to April 2024, hourly earnings for production and nonsupervisory employees in nonresidential building and heavy civil engineering rose over 6%, compared to just 4% for the overall private sector. This trend is expected to continue into 2025, as contractors compete for workers in high-demand sectors.

### Regulatory and Supply Chain Factors

Simonson says that contractors are grappling with regulatory uncertainty. Issues around domestic procurement requirements, apprenticeship programs, project labor agreements (PLAs) and tax credits under the Inflation Reduction Act are creating confusion and potentially slowing projects. In fact, two-thirds of respondents to a poll in the Aug. 12 edition of AGC SmartBrief indicated that their company is avoiding high-profile, federally funded projects due to PLA uncertainty.

On the supply chain side, Simonson expects fewer disruptions compared to the challenges seen between 2020 and 2022. However, certain items, such as large generators and electrical equipment, may still face shortages due to increasing demand from data centers. While most materials like cement and concrete are available, regional supply risks—especially tied to barge



traffic on the Mississippi River or plant shutdowns—could lead to short-term disruptions.

### Construction Sectors Facing Declines

Simonson is less optimistic about multifamily housing, warehouse, and office construction. He mentions the phenomenon of “extend and pretend,” where developers delay projects indefinitely, essentially signaling no real intention to proceed.

The declining office occupancy rates could lead to many associated projects being canceled, including nearby apartment and retail developments. Developers will increasingly focus on where people choose to live and work, rather than the cost of financing, when making decisions about new projects.

### Much Ado About Interest Rates

Around June, Simonson was skeptical that the Federal Open Market Committee would reduce interest rates before

late 2024 or early 2025, citing the difficulty in achieving stable 2% inflation. However, in September, the industry received some welcome news as the Federal Reserve reduced its benchmark interest rate by 0.5%, marking the first and largest cut since March 2020, when the COVID-19 pandemic was severely impacting the economy. As the Associated Press reported, this reduction signals a triumph over inflation, which has dropped from a high of 9.1% in June 2022 to 2.5% last month. The Fed also indicated plans for another 0.5% rate cut later this year, with four additional cuts expected in 2025 and two more in 2026.

However, Simonson noted that even when the Fed does cut rates, long-term rates like the 30-year mortgage could remain elevated due to Treasury financing needs, likely staying between 6% and 7%. This will continue to put pressure on single-family housing construction. Nevertheless, Simonson expects the overall economy to grow in real terms throughout 2025, with positive job growth continuing despite challenges in certain construction sectors.



# Challenges and Opportunities with Technology

## Four Trends to Watch in 2025

**1. Field-Level Case Studies** – Building Confidence in Sustainability: Our survey indicated that about one-quarter of respondents prioritize case studies when considering sustainability in construction. According to Procore technologist Kris Lengieza, case studies help validate three core points:

- **Feasibility:** Contractors need to see that sustainability measures are being successfully implemented on real projects.
- **Methodology:** They seek to understand how these measures are being executed—whether specific technology, processes, or materials are being used.
- **Results:** Contractors want to know if the desired outcomes, such as reduced carbon emissions or cost savings, were achieved.

Case studies serve as proof that sustainability initiatives can deliver real benefits, inspiring confidence in an otherwise volatile market.

2. The Importance of Clear ROI: A major theme emerging

from our survey is the need for clear return on investment from construction technology vendors. Lengieza told SmartBrief that while ROI is crucial for all investments, many digital transformation initiatives in construction fail to meet expectations. He noted that, according to a report from HBR, approximately 70% of such efforts fall short of their ROI goals. The primary reason is not the technology itself but rather challenges with change management and people. Contractors often underestimate the investment required in staff training and process adaptation, which are essential for successful tech adoption.

Lengieza suggested that a holistic view of ROI, including technology costs, time investments, and the necessary human resources, is key to recognizing value from digital tools.

### 3. Liability and Trust in Construction Technology:

Contractors expressed significant concerns around liability when adopting new technologies. Lengieza explained that trust levels vary widely across the industry, particularly given the vast range of solutions—from small startups to established tech giants like Procore. Contractors are understandably hesitant to rely on immature solutions



“People are either all in on AI or they don’t trust it at all”

—KRIS LENGIEZA, PROCORE



for core functions such as construction management. To mitigate this risk, companies should focus on mature, well-supported platforms that can demonstrate a track record of cybersecurity, uptime, and support. Lengieza cited the recent CrowdStrike incident, highlighting the risks of relying on smaller, less-established companies in mission-critical areas.

**4. Consolidation of Solutions:** In the past, contractors feared consolidation in the technology space. However, our survey revealed that this concern has diminished, reflecting a shift in industry sentiment. Lengieza attributes this change to the rapid proliferation of construction technologies. Contractors now favor a more unified platform or connected solutions over managing multiple point solutions. They are increasingly focused on data connectivity, security, and seamless integration, making consolidation less of a threat and more of a strategic advantage.

**Challenges to Watch**

**1. Labor Shortages and Material Prices:** Labor shortages remain the top challenge, with three-fifths of contractors citing this as their main concern. Rising material costs are another ongoing issue. Lengieza noted that these problems are not likely to go away and will continue to put pressure on the industry in 2025.

**2. Hesitancy Around AI and Autonomous Technologies:** Our survey revealed a significant reluctance among contractors to embrace AI, with over 50% citing it as the technology they are most hesitant to use. Onsite robotics and autonomous machinery also raised concerns to a lesser extent. Lengieza believes this distrust stems from a lack of understanding and fear of losing control over valuable data. “People are either all in on AI or they don’t trust it at all,” Lengieza says, noting the polarized attitudes toward this technology. He suggests that successful

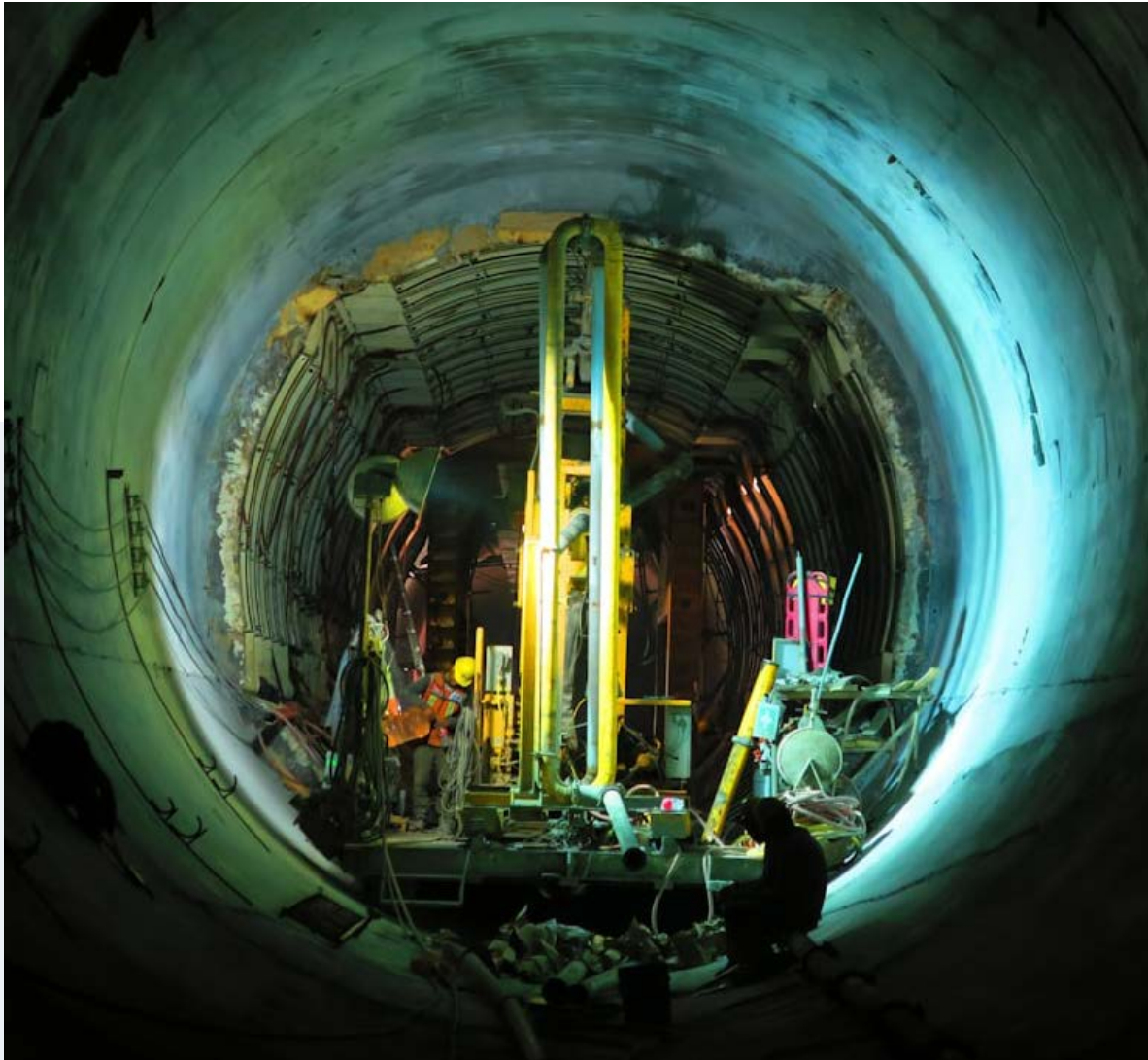
case studies demonstrating the benefits of AI could help overcome this hesitancy.

**3. Carbon Tracking: Slower Progress Than Expected:** In a past interview with SmartBrief, Lengieza predicted that carbon tracking would be a major focus in 2024. While there has been some progress, it has been slower than anticipated. He remains optimistic that momentum will build in the latter half of 2025 as more contractors and vendors begin to adopt solutions focused on sustainability metrics.



**Emerging Focus: Preconstruction and Data Integration**

Lengieza highlighted the growing importance of preconstruction tools and their role in improving operational efficiency. He pointed to increased adoption of tools like Join, which facilitates design-build collaboration. The integration of preconstruction data into broader project management workflows is a key trend, helping contractors maintain a clear and complete project story from inception to execution.





# Build Relationships with Content Marketing

Content marketing gives you multiple ways to position your message, spotlight your successes and build relationships with stakeholders. Here are the ones you should have in your marketing arsenal.

**Webinars** can replicate on-site construction training and project discussions, resonating with contractors' and builders' desire for practical, hands-on knowledge. Construction professionals strongly prefer webinars featuring presentations by industry peers sharing how a product or technique is applied in the field. Vendor presentations and panel discussions between vendors and construction experts are also valuable, but it's essential to keep webinars focused and concise. Webinars can serve as effective tools for lead generation and to support buyers with identifying project challenges and providing post-purchase service and technical support.



**Pro tip:** Boost the impact of webinars by publishing an executive summary with links to product pages, other content marketing assets and a recording of the session.

**White papers** are detailed reports written for a specific audience that detail solutions to problems or share new ideas from recognized experts. They are a valuable touchpoint in the purchase process. They can help build credibility and relationships. Use them for thought leadership, brand awareness, and lead generation.



**Pro tip:** White papers are most successful when they are written by or include insights from experts who use the product/solution and researchers whose work establishes the effectiveness of your solution.

**Infographics** and other visual content are effective ways to catch buyers' eyes. They let readers quickly digest and retain information. Use them to drive engagement on social media, and develop leads at the start of the buying cycle.



**Pro tip:** Demonstrate your market prowess. Share tips, trends, research findings and other important data that you know is important to your customer base.

**Case studies** draw your audience in. Buyers trust them. They want to see how their peers use and address issues with your solution and services.



**Pro tip:** Your customers are your best advocates; let them tell their own unvarnished stories. Don't gloss over challenges and messiness. Show how you can tackle issues and truly partner with your customers. Also, include links to additional content and a direct contact so readers can continue with self-service research or talk to a rep about their specific questions.





# Reaching the AEC Industry in 2025 and Beyond

## The Bottom Line: What Builders and Engineers are Facing

Leaders in architecture, engineering and construction understand that they need to be more open to disrupting business as usual by partnering with vendors who can help address their biggest obstacles, but not every company has the budget to splurge on research and development. This frustration resonated among many who participated in our survey.

“The AEC industry is suffering from an expectation to do more with less,” one respondent said. “This applies for owners, consultants, and contractors. The idea that we can all get more done faster, with less schedule, and less budget, while maintaining quality is untenable.”

It’s particularly untenable as many professionals are set to retire before properly passing the torch to a new generation of builders and designers.

“We are at a critical juncture where the lack of civil engineering graduates over the years is showing ... as many of the engineers from the baby boomer generation are retiring and taking with them a lot of institutional knowledge that hasn’t been properly passed down because there weren’t enough staff to pass that knowledge to,” another respondent said. “The labor shortage isn’t something new but its effects are amplified by the number of retirements over the last few years. Virtual work / telework is also contributing to slow technical growth of the next generation of engineers as they are not working as much under the direct supervision of a licensed engineer.”

## About Future B2B

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