

Five Trends Expected to Drive E&C Industry Growth in 2024

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Despite market-cooling uncertainties like volatile material prices, labor shortages, and high interest rates, the engineering and construction (E&C) industry is poised for growth in 2024. Sustainable practices and technological advancements combined with recent government legislation are likely to boost construction activity, according to Deloitte's 2024 engineering and construction industry outlook.

The confident outlook follows sustained industry growth in 2023, where construction spending maintained a steady upward path. Looking ahead, the signs point to new construction associated with manufacturing, transportation infrastructure, and clean energy infrastructure, as investments fueled by three key pieces of legislation – the Infrastructure Investment and Jobs Act (IIJA), the Inflation Reduction Act (IRA), and the Creating Helpful Incentives to Produce Semiconductors (CHIPS) Act – are expected to flow into the industry. All these forces are expected to help increase profit margins and staffing levels in 2024.

As E&C companies prepare for 2024, they should look to stay ahead of the key trends that are shaping the industry's trajectory. The following lays out five trends that can help them reformulate strategies to capitalize on the growth opportunities and head off unforeseen challenges.

1. HEIGHTENED FOCUS ON SUSTAINABILITY AND EFFICIENCY



The E&C industry is expected to see a significant surge in sustainable practices. In fact, it's a top priority for most E&C firms surveyed for the latest U.S. Green Building Council's 2023 report. But there could be a challenge in meeting customer demands (as well as environmental regulations) for greener buildings while also preventing construction costs from accelerating too rapidly.

Growing adoption of efficient building materials and sustainable construction practices helping to better position the industry to align with the International Energy Agency's Net Zero Emissions by 2050 Scenario, which requires all new buildings and 20% of existing structures to be zero-carbon-ready by 2030.

A key will be in balancing sustainability with efficiency. The upfront costs associated with sustainable construction could be offset by reduced long-term life cycle costs. For example, cost reductions can be achieved from using high-performance facades and energy-efficient systems. Utilizing technologies such as optioneering powered by generative design, simulations, and building information modeling (BIM) can also help firms model a building's performance and carbon footprint, and estimate both cost and schedule prior to construction, enabling seamless project delivery.

2. UNLOCKING NEW VALUE IN DIGITALIZATION AND GENERATIVE AI

E&C firms are expected to improve processes with other technological advancements in 2024 as well. The rise of generative artificial intelligence (AI) and other disruptive digital technologies will likely yield improvements in project design, schedule optimization, cost controls, site inspection, safety, compliance, and quality assurance, among other benefits. The industry can also expect to see efficiency improvements in mitigating workforce, cost, and supply challenges with new technologies.

As companies experiment with generative AI, they may look to integrate the technology in other emerging areas such as drones, autonomous guided vehicles, robotics, BIM, Internet of Things (IoT) sensors, and others to derive more value. These emerging technologies could help improve profit margins, foster stronger partnerships, help relationships between different stakeholders and functional departments, and improve integrated project delivery through transparent and trusted data-sharing.

3. DIFFERENTIATED IMPACT OF MARKET UNCERTAINTY ACROSS RESIDENTIAL AND NONRESIDENTIAL SEGMENTS

Rising interest rates and high inflation fueled further market segmentation in 2023, and the construction industry is expected to face the lingering effects of economic uncertainty for another year.

Total construction spending reached \$1.98 trillion in August, a 7.4% increase since the previous year. This spending was primarily driven by nonresidential construction, which grew at 17.6%. By contrast, residential construction spending decreased

by 3% for the same period, underscoring the overall weakness in the housing market.

The residential segment's sensitivity to economic cycles, continued high interest and mortgage rates will likely affect housing affordability, reduce demand, and restrain the segment's activity. The nonresidential segment, on the other hand, is likely to grow steadily as federal funds flow into the construction of chip fabrication plants, biotechnology facilities, electric vehicle (EV) battery factories, and other clean energy projects in 2024, and as several high-value projects break ground.

4. E&C FIRMS LIKELY TO BE MORE STRATEGIC TO NAVIGATE PERSISTENT COST VOLATILITY

U.S. construction firms have faced cost pressures driven by fluctuating labor costs and material prices in the last few years. Because cost fluctuations can complicate project planning and even pause or terminate projects, managing cost volatility is expected to be a top priority for firms.

Construction wages are expected to rise in 2024 as labor demand continues to outpace supply. Material price volatility will likely also affect project profitability. While prices of raw materials such as iron and steel, lumber and wood products, softwood lumber, and steel mill products have declined, they still remain well over pre-pandemic prices. Construction machinery and equipment costs increased by 6%, and concrete products prices increased by over 8% as well. To help recover these cost increases, E&C companies should consider:

- » Establishing fixed payment terms with customers.
- » Implementing supply chain strategies such as category management, strategic supplier contract negotiations, and strategic procurement.
- » Engaging with customers early in the project life cycle to help with better decision-making.
- » Leveraging prefab and modular construction methods to help keep material and labor costs down, among other proactive steps.

5. NEW WORKFORCE NORMS TO HELP BRIDGE THE LINGERING TALENT AND SKILLS GAP

The industry will likely see a shift in workforce strategies from talent retention to talent attraction. To meet the incoming

demand for work, 69% of firms expect to increase head count in the next year, according to an Associated General Contractors of America (AGC) survey.

To adapt to the labor shortage, E&C firms could consider a multipronged approach to shifting their focus from retaining talent to tapping into and developing leading talent in the coming year, including:

- » Embracing the “gig economy” to attract younger workers, where they can work as contract employees for multiple employers rather than committing to a single employer.
- » Investing in upskilling and cross-skilling programs. Construction firms have increased spending on training and professional development and also increased use of online training programs in the last 12 months to attract talent.
- » Prioritize worker safety to help make construction more appealing to potential recruits.
- » Offer competitive compensation and benefits to attract a wider talent pool.
- » Take advantage of broader incentives, such as IRA tax credits available for companies that hire registered apprentices.
- » Leverage robotics, automation, and other cutting-edge tools to reduce or remove workers from high-risk and exposed areas.
- » Boost diversity, equity, and inclusion in hiring to attract new sources of talent, including veterans, persons with disabilities, and returning workers, in addition to women and underrepresented ethnic groups.

FINAL THOUGHTS

As the E&C industry prepares up for 2024, navigating uncertainties and capitalizing on growth opportunities will be important. With sustainability, technological advancements, and legislative support paving the way, construction firms staying ahead of key trends and adapting workforce norms could be pivotal to ensure a resilient and prosperous future for the U.S. construction industry. 



About the Author

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