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The top 5 EPC trends in 2025

Digitalization, transparency and beyond

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Digitalization, transparency and beyond

There's that word again – digitalization. You see it everywhere, right? But for a reason. In 2026, the urgent need for engineering, procurement and construction (EPC) companies to embrace digital tools and innovations to remain competitive and resilient continues, as in recent years.

As EPCs face rising challenges such as fragmented systems, mounting cost pressures and other risks, what is driving these issues?

Many obstacles are hitting EPCs all at once. An aging and shrinking workforce, rising project complexity, volatile supply chains and outdated technologies create deeper risks across project execution, collaboration and performance.

In this article, we'll explore these challenges further and discover why digital transformation is no longer optional for companies that want to remain competitive.

Trends: Looking ahead

In our eBook, "Overcoming Construction Challenges Through Digitalization," we recapped the most pressing construction challenges. Many of the same trends highlighted still apply such as the overall rising importance of digitalization, but also challenges such as labor shortages, supply chain disruptions and siloed data systems and siloed data systems.

Although, there has been a key shift in other areas.

The main point of discussion focused on why digitalization mattered. Whereas now, it's about how efficiently and effectively EPCs can execute digital transformation strategies.

There is also an increased push for end-to-end visibility, productivity and compliance with sustainability regulations. This means that EPCs are no longer just experimenting or weighing up the benefits of digitalization. Instead, they are adopting and scaling it across organizations to stay competitive.

Let's explore some of EPC technology trends in more detail.

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1. The talent crunch is getting real

As with other industrial sectors, EPC players also feel the strain of workforce shortages. With increasing volumes of seasoned and experienced professionals leaving the sector, mostly to retire, companies struggle to replace this workforce with new talent. Firms grapple with delivering increasingly complex projects with limited labor capacity.

Building an agile workforce and scaling knowledge sharing are essential to overcome workforce shortages. Digital tools play a key role. New technologies empower teams with the knowledge and equipment they need to do their jobs better and with more ease.

66% of EPC firms plan to increase investment in digital capabilities this year.

Deloitte, for example, reports a rising trend in workforce-focused investment, including automation and field enablement tools to counteract labor shortages. They note that 66% of E&C firms planned to increase investment in digital capabilities in 2025.

Without this investment into digitalization, EPCs risk inefficiencies such as slower project or operation execution and a rising need for rework. Performance is now tied to how well firms enable their shrinking workforce with digital capabilities.
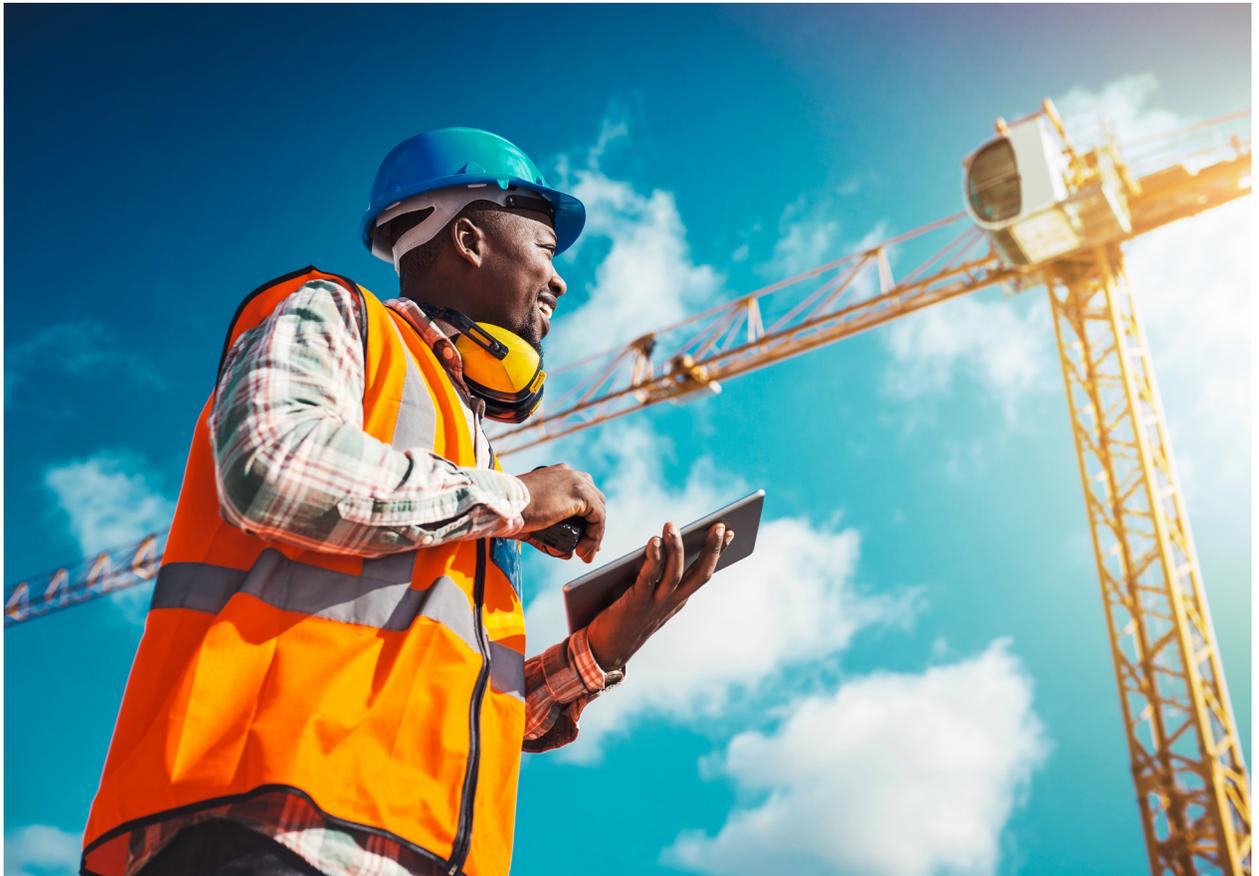
2. Gaps in visibility are undermining execution

Another key consideration for EPCs is data visibility or lack thereof. Siloed data or manual updates provided from the field limit risk detection. The longer it takes to identify risks, the longer it also takes to act. Slow responses cost time and money. Without access to real-time insights, EPCs act reactively, as opposed to proactively.

47% of firms cite a lack of visibility as a primary supply chain challenge in the post-pandemic era.

This is a common flaw. According to these studies, 47% of firms identified a lack of visibility as a primary supply chain challenge in the post-pandemic era.

Success will be defined by execution clarity, including how well organizations are able to harness real-time insights to help with planning, precision and risk avoidance. Staying ahead of expected (or unexpected) events will help EPCs to act with agility and foresight.

3. Tech maturity is accelerating while adoption lags

EPCs overcome challenges by embracing digital tools and technologies, but .adoption of these technologies is still lacking among EPCs.

Sectors such as the construction industry face key challenges when it comes to welcoming new technologies, which is largely due to legacy systems and decentralized data. Teams and projectsoften work in silos, where information is difficult to share and act on amongst one another.

Other concerns include a cultural resistance within an organization to change, alongside an unclear vision about the return on investment, which can cause hesitancy.

Firms that don't adopt the latest technologies such as digital twins, 4D scheduling and cloud-based collaboration, among others, risk falling behind. That's why, despite an earlier lack of adoption, in their Deloitte 2025 E&C Outlook noted that 66% of E&C firms planned to increase investment in digital capabilities.

Disconnected teams and outdated workflows cannot keep pace with today's increasingly complex project demands. Those that delay tech adoption risk losing efficiency, insight and a competitive edge.

> **Firms that don't adopt technology risk falling behind.**

4. Cost pressures are increasing

Material tariffs, volatile logistics and shrinking margins all redefine cost strategies for EPCs. Cost pressures are closing in from all directions. Procurement teams face complex territory to navigate. How can they cope with challenges such as unpredictable pricing changes and supply chain disruptions, without the help of connected tools that can provide instant insights?

In terms of project execution, McKinsey & Company reports that large projects, for example, typically take 20% longer to finish than scheduled and are up to 80% over budget. That's an enormous overshoot.

Without the digital tools or know-how to smartly control costs and supplier visibility, firms are left in the dark. Even minor issues snowball with significant consequences such as project overruns in terms of time and costs. Accurate forecasting and adaptable procurement systems are key to protecting margins.

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5. Demands are rising for end-to-end accountability

Traceability and visibility are more important than ever before in the EPC landscape. Fragmented approaches to project execution are creating gaps in accountability and misalignment between teams. To work more effectively and reliably, EPCs need to build and implement connected workflows between teams, projects and technologies.

As we look ahead, phase-based updates or partial visibility are no longer accepted by owners, regulators and partners. Digital transparency across the full asset lifecycle is the new normal and is essential for staying trusted and competitive in the current EPC marketplace.

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A wider lens

Is the support of digital tools and software enough?

Culture and organization are essential to improving overall company performance.

Software positively transforms how EPC projects are planned and executed, but experience shows that its impact is multiplied when project leadership champions a shared vision and fosters a "one-team" culture on the jobsite. When everyone from craft labor, engineering and management pulls in the same direction, embracing transparency, proactive communication and continuous improvement, digital tools deliver far greater returns.

Sustainable performance gains depend on aligning people, processes and platforms in equal measure. Software won't make the expected difference if you don't set your organization up for success and empower your greatest asset.

The future for EPC projects

Given the key trends, what lies ahead? Digitalization is an immediate priority for EPCs. Fail to jump aboard the digital transformation train, and risk getting left behind on all fronts, from project execution to team collaboration and overall performance. Digitalization along with other important factors outside of software, such as successful change management and company culture changes, will provide the biggest competitive advantage.

Discover how Octave supports digital transformation for EPCs →

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