

## Built Industry Must Innovate to Thrive in the Digital Age

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The construction industry faces several challenges hindering its productivity and growth. Foremost, the industry has to contend with over-regulation and zoning resistance. As recent report covered, evolving compliance requirements, coupled with an aging workforce, have caused an overall productivity decline of 1.3% since the 1960s. In the industry, technology and innovation are buzzwords that everyone hears multiple times each day but without much meaning behind them. This is because the business model behind technology adoption isn't always transparent, and how to properly adopt the right technologies is even more opaque.

Those in the construction industry must first understand these and other critical challenges to successfully adopt important new technologies. Fortunately, many companies and startups are now focused on addressing such issues to enable the built industry to catch up to other, more digitized industries.

### CHALLENGES

#### CHALLENGE 1: BUILDING THE BUSINESS CASE

New technologies' ROI is difficult for many contractors and stakeholders to quantify. Historical data is inconsistent or, in most cases, nonexistent, making it difficult to estimate cost savings and direct investment returns. It's even harder to quantify intangible benefits such as improving the employee



experience and the mitigation of pain points. Building the business case takes the buy in of employees and leadership to get complete feedback from all and reduce pushback.

#### CHALLENGE 2: TIMING NEVER MAKES SENSE

The alignment of timing with development cycles and projects rarely supports implementing new technologies. Team members who are onsite don't want to try new equipment they are unfamiliar with - such as project managers not wanting to start using a new project management tool, for example. Further, many large projects begin planning activities years before any ground is broken, which means deploying new technologies at the right time can be difficult. Naturally, many construction firms are hesitant to invest in new technologies

because they are unsure of the potential benefits and risks without the proper time to review new tools and technologies thoroughly.

### CHALLENGE 3: SWITCHING COSTS ARE PROHIBITIVE

Many construction firms have invested heavily in their existing systems and tools, and switching to new technologies can be costly and time-consuming. Unknown costs and learning curves make it difficult for firms to adopt new technologies, even when they are aware of their potential benefits.

However, implementing new technologies is vital to correcting declining productivity and overcoming an aging workforce, even as costs continue to rise. For this reason, such aforementioned challenges should not prohibit decision-makers from new technology implementations if they wish to accelerate their businesses. Instead, leaders should use the following approaches to implement technology properly in their organizations. Those that don't will be left behind as we move into Construction 2.0 or industry digitization.

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## SOLUTIONS

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### SOLUTION 1: TECHNOLOGY-LIGHT SOLUTIONS

There is a growing trend toward the adoption of "technology-light" solutions that are focused primarily on integration and better facilitation of existing systems and processes. These solutions are comparatively quicker and easier to adopt and allow firms to enhance their existing capabilities without investing heavily in new solutions. Singular technology-light offerings are geared mostly toward project management, procurement, and preconstruction sectors.

### SOLUTION 2: PILOT PROGRAMS

Pilot programs enable contractors to compare technologies in a semi-controlled environment. Such programs roll out to only a subset of a larger organization, providing a lower-risk way for firms to try out new technologies and assess their potential benefits before making a more considerable investment of resources.

A properly executed pilot program allows decision-makers to make more informed decisions about which technologies to adopt and how to deploy them effectively. However, a well-executed pilot program takes planning, forethought, and oversight to ensure success. It should always consist of the following components.

- » **Clear goals:** What is the purpose of the pilot? Employee safety? Reduction in costs? Be clear about the intent.
- » **Commitment to execution:** Establish someone responsible for overseeing the program and ensuring the company is executing and tracking the right things.
- » **Controlled testing:** Run and track the pilot alongside existing solutions. Capturing apples-to-apples data as input is crucial.
- » **Feedback:** Get feedback from all potentially impacted users, early and at regular intervals.
- » **Identify the shortcomings:** While it's essential to understand the benefits of any technology being piloted, it's just as critical to know where it falls short. Build a mitigation plan for shortcomings.
- » **Capture data:** The use of data is becoming increasingly important in the construction industry. By collecting and analyzing data from different sources, construction firms can make more informed decisions about deploying technology and improving efficiencies.
- » **Make a decision:** A significant reason that pilot programs fail is that a decision is never made. It's essential to either move forward or abandon the piloted solution and analyze another one.

Technology is vital to solving the industry's current shortcomings and addressing the projected future challenges that contractors, developers, and owners face. It's important to stay on top of the latest trends by engaging with the industry, using analyst tools, and reading reports and industry news. Don't be afraid of technology and innovative solutions; instead, embrace them by engaging with smaller solutions at first and by putting the proper programs in place to be successful. 



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### About the Author

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Maanav Mahindru is an operational product leader at [Shadow Ventures](#) who works closely with leading construction organizations to help them keep a pulse on the latest innovations and the most promising and emerging companies. Previously, Maanav served as Executive Vice President of Portfolio at SightPlan after it acquired InfoTycoon, where he was Chief Operating Officer. At InfoTycoon, he focused on implementing operational efficiencies and a strong product focus that allowed the company to continue operating through the pandemic and led to a successful exit.

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### About the Article

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