INEIGHT

5 SIGNS IT'S TIME TO UPDATE YOUR SOFTWARE SOLUTION

A Handbook for Capital Construction

PROVEN PROJECT CERTAINTY.

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INTRODUCTION:
CONSTRUCTION IS SPEEDING UP

Owners and contractors have embraced technology's potential to help them manage scope, control costs, and maintain schedules. We are an industry that understands the power of innovation—otherwise, we would still dig foundations by hand, and still manage every construction process with a spreadsheet and a whiteboard. Today, behind every capital construction project is a collection of software helping power the planning, collaboration, and staggeringly complex execution processes. But look more closely, and you'll see aging applications nearing their end of life.

Software comes with a lifecycle. Organizations grow. Customers evolve and their software does too. As we explore this new digital-first future, organizations must assess their toolkits

to determine whether those processes and solutions fit their aspirations.

And the timing couldn't be better. In 2016, McKinsey identified construction as the second-least digitized industry, behind only agriculture and hunting. Despite its long-standing reputation as a digital laggard, our industry is doing its best to change that narrative. From 2020 to 2022, construction technology investments increased to $50 billion—an 85% increase over the previous three years. IT budgets continue to grow, and industry leaders are showing greater interest in emerging technologies like AI and machine learning.

This handbook can help construction leaders determine just that. The following pages highlight five of the leading indicators that it's time for your organization to retire your legacy software solutions and make the leap to a digital-first tool kit.
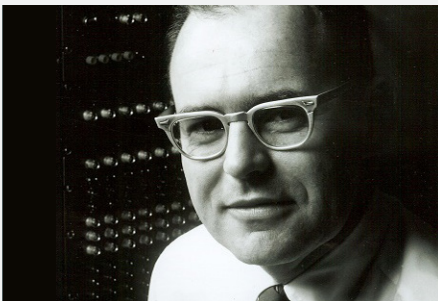

Photo: Gordon and Betty Moore Foundation

Moore's Law refers to the speed and exponential growth of innovation. Technology is changing— and fast.

MOORE'S LAW AND WHAT IT MEANS FOR CONSTRUCTION

Coined by Intel founder Gordon E. Moore, Moore's Law is an observation of how technology continues to evolve exponentially. Moore's Law states that the number of transistors on a single computer chip doubles every two years—a trend that has held every two years since 1965. In summary, this means that technology has an exponential cycle of getting more powerful and more efficient faster than most of us would assume. This trend empowers growth markets like artificial intelligence and machine learning just as quickly as it does the latest smartphone.

Generally speaking, Moore's Law refers to the speed and exponential growth of innovation. Technology is changing—and fast. For construction organizations, Moore's Law emphasizes the need to maintain relevant technologies and explains the rapid evolution of toolsets in recent years.

1 YOUR SOLUTIONS NO LONGER MEET YOUR NEEDS

Change is the natural outcome of growth. We learn and adapt until one day, we realize the spaces, equipment, and processes that got us here just can't keep up. Growth demands we replace the tools that don't quite fit us anymore. Software is no different.

Early in their tech journey, most construction firms adopt software based on an immediate need. We need an estimating tool, so we build it in Excel. We need a project management tool, so we onboard Primavera. We need a document management solution, so we sign up with Box. We have a problem, so we solve that problem with the most reputable name on the market (within our budget). Over time, those ad hoc solutions start to pile up, leaving network admins to improvise integrations and hope the system holds as the organizational need evolves.

But just because a solution solves a problem doesn't mean it can solve that problem at scale.

Millions of companies use QuickBooks to manage their accounting needs—but QuickBooks isn't designed to service the needs of a Fortune 500 company. Developers create general software to solve general problems. As businesses grow, so do their requirements for more specific and sophisticated technologies.

Your business isn't the same organization it was five years ago; it isn't the same organization it was six months ago. Our cultures, capabilities, and requirements constantly evolve, and our toolkits should grow to meet those needs.

COMPARING APPLES TO APPLES—ASSESSING SOFTWARE SOLUTIONS

There are multiple software solutions for any task. Frequently, the challenge is deciphering the technobabble to understand what separates one solution from the next. A few points to consider include:

1.

Is the solution designed to service your industry?
Not all services are created equal. The business processes and needs of a construction company differ greatly when compared to a healthcare or education organization, for example, and the software that supports it should reflect the unique needs of the industry. In addition to dedicated features, niche industries come with niche regulations and compliance demands that software must meet.

2.

How does the organization handle your data?
We create an vast amount of data every day. Software vendors decide how they want to leverage user data to the benefit (or bane) of their users. Some organizations claim ownership of that information and sell it to outside organizations. Others will fold user data into the product to help improve the user experience. Others still let the customer decide what happens with that information. Find a solution with a data policy that aligns with your organizational values, and be sure you'll always have access to your own data and the value it delivers.

3.

Can the solution scale to meet your future needs?
The last thing any of us want is to repeat this process in three years. Instead of adopting tools that meet your immediate concerns, look to solutions that meet those needs while also providing clear room for future growth. Ask your potential software partner about their product roadmap, so you can better understand both their ambition, and the fit for your evolving needs. Don't anchor yourself to a solution that has clearly reached the peak of its capabilities. Carefully consider additional solutions available from the software company, and look at integrations and intraoperability with critical tools.

2 SOLUTIONS ARE SILOED ACROSS DEPARTMENTS OR FUNCTIONS

In 2022, 43% of construction organizations reported having a siloed digital strategy. In these organizations, various departments create or acquire their own software solutions. As a result, different teams often adopt competing solutions to accomplish similar tasks; Scheduling may prefer Solution A for document management while Estimating likes Solution B, and so on. These environments are often vestigial policies from a pre-digitized era. Organizations lack a clear digital strategy, so each team is free to define their own.

Siloed strategies can work well for their dedicated team but can create a mountain of unnecessary chaos across the organization. By siloing their software solutions, organizations create pockets of competing policies and processes that struggle to communicate across departments. Teams generate piles of data but hoard those riches internally. Competing tools rarely integrate, slowing any organization's ability to apply learnings and create more profound insights into potential trends and opportunities. It's almost impossible to develop an analytics program without those deeper data pools, which impacts estimating, visibility, schedule, and cost. Not to mention, siloed solutions often set up organizations to pay for similar functionalities across multiple providers.

Siloed software can also create unnecessary resentment across departments. Teams nationalize their operating processes and expect other groups to bend to their rhythms rather than each division working from the same handbook.
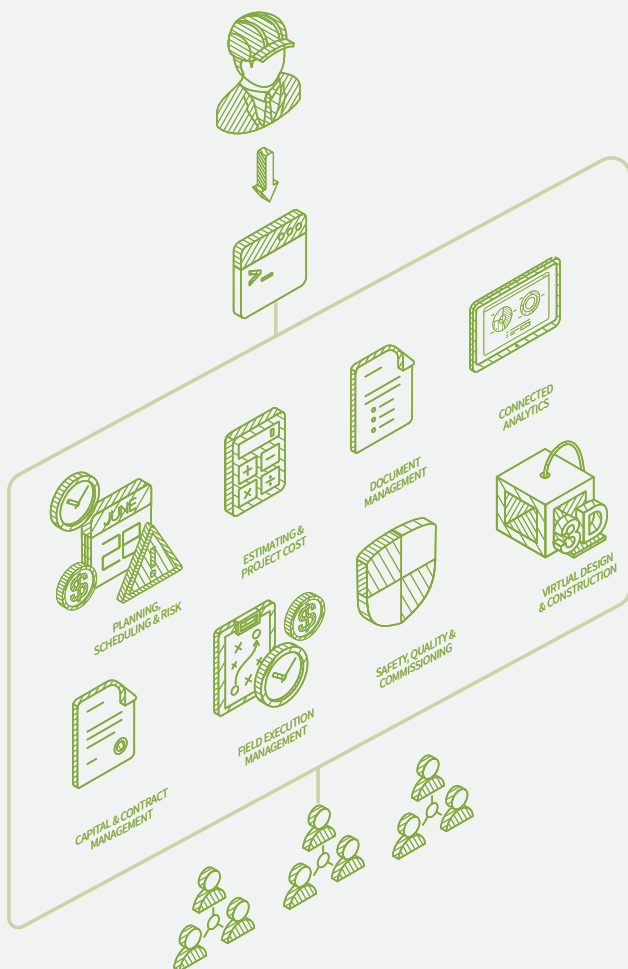
CREATING AN INTEGRATED SOFTWARE STRATEGY

An integrated software strategy is critical for the digital growth of any organization. We wouldn't ask line builders, excavators, and ironworkers to independently draft their designs and deliver their services based on those separate illustrations. Nor should we expect an aligned digital strategy to arise from siloed departments.

An integrated software strategy consolidates every department and every solution under a single banner. Whether it's estimates, contract management, or accounting, an integrated software strategy connects each solution so that every tool and team works from a greater network of data and analytics. Tools work better by informing each other rather than sitting stagnant in their own perimeters.

Integrated software strategies demand foresight and planning but can completely revolutionize how organizations approach work in the future.

You wouldn't drive a car with crank windows and a tape deck in 2024.

3 THE TOOLS YOU USE ARE OUTDATED

Software gets decommissioned every day. Whether the company closes its doors, shifts resources to another product, slows its development roadmap, or gets acquired by a competitor, eventually, software stops being supported. Many unsupported or under-resourced solutions are still perfectly functional but expose their users to unnecessary risk the further we go past its end-support date. These outdated solutions frequently have known vulnerabilities that cybercriminals can expose to steal company data,

install ransomware, and compromise your network. The longer tools go unsupported, the wider those access vulnerabilities become.
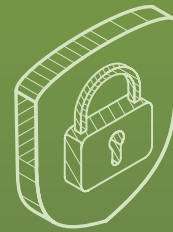
Security aside, unsupported software also lacks the features and capabilities of its modern comparisons. You wouldn't drive a car with crank windows and a tape deck in 2024. By sticking with outdated solutions, organizations choose to limit their comfort and capabilities based on the performance of a single tool. Industries evolve,

WHY CYBERSECURITY MATTERS

Without distinct digital assets, it's easy for construction organizations to assume they may not be a target for cybercriminals. The reality is every organization has value. Cybercriminals target personal information and financial data and can encrypt and ransom project files. The Federal Bureau of Investigation reported that, in 2022, it received over 800,000 cybercrime-related complaints, amounting to over $10 billion in losses, for an average of $12,500 per incident.

98% of organizations work with at least one vendor that's experienced a breach in the last two years. Third-party vendors often exhibit weaker security protocols, making it easier for bad actors to access their network and then use that access point to reach a larger target. The vendor then risks a substantial financial loss, ruining a partner relationship, potential litigation, and a blow to their reputation because their cybersecurity measures failed to protect both parties. By ensuring software is supported and up to date, we limit company exposure and liability and protect our colleagues and partners.

and the tools we use to compete in those spaces evolve with them.

That industry change brings with it a legal expectation as well. As governing bodies continue to dictate how businesses manage privacy and sustainability, the regulations for how organizations are legally required to handle data have drastically shifted. Unsupported software rarely accounts for modern policy—particularly in regions like EMEA.

Grinding through slow software and the same repetitive tasks makes the workday harder than it ought to be.

4 YOUR FRONT-LINE WORKERS ARE BURNT OUT

While executive stakeholders set the course for navigating an organization's future, the front-line workers are the ones responsible for maintaining its present. Few people better understand the strengths and challenges of an organization, the intracacies and limitations of a site, and the realistic capabilities of a project better than front-line contributors. And yet, due to the construction industry's long hours, irregular work environments,

and often inconsistent working rhythms, construction professionals are at high risk for employee burnout.

It certainly doesn't help when the software that should make things easier adds unnecessary complexity to an already stressful work environment. Grinding through slow software and the same repetitive tasks makes the workday

harder than it ought to be. If different contributors consistently comment on similar issues, it may be time to make a change.

Many tasks like document control and even estimating can be expedited through automation or improved with AI. By removing those redundant responsibilities, employees can reclaim their time and focus instead on higher-value, more fulfilling projects. This shift to software-assisted performance can not only improve productivity but also reduce stress and improve overall company morale.

GETTING YOUR TEAM ON BOARD

Onboarding new tools can be an intimidating process for any organization. The key to a successful software adoption is ensuring your colleagues understand what's happening and why you're making the change.

Start with establishing a clear, repeatable vision for your organization's future—"We want to make it easier to find critical project documents," or "We want to help reduce the time it takes to deliver a project estimate."

Then, remind teams that this shift aims to enhance their daily operations, not complicate them (or worse, replace them). Once those points are clear, let your front-line teams own the onboarding experience. Let them tell you what is and isn't working and empower them to identify a solution.
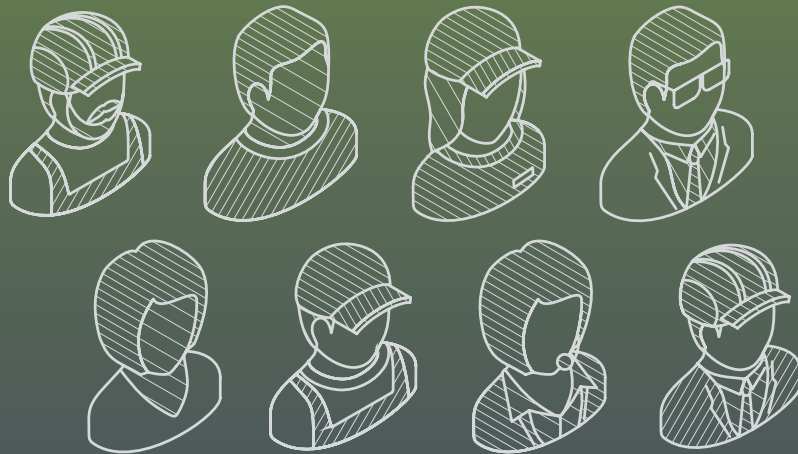
The unified team can better identify potential obstacles and work together to find creative solutions.

5 THE COMPETITION IS EVOLVING

From material concerns to labor shortages, construction organizations all share similar concerns. The problems you're facing resonate with the hundreds of other stakeholders in similar roles worldwide. You aren't the only one asking these questions, which means other organizations are already taking action.

Right now, your industry peers are either elevating their processes and capabilities to match or exceed what you've already built. It's certainly one thing to be the alpha test of a new capability, but as more and more organizations adopt a digital-first strategy, there comes a time when companies must either join in the transformation or risk falling behind.

SUPPORTING GREATER COLLABORATION

Today's stakeholders are smarter than ever. The Internet makes it easier for them to assess vendors, vet potential partners, and understand why specific change orders may or may not be necessary. This shift has led to an increase in collaboration across the project lifecycle. Together, owners, contractors, and engineers are working to make decisions that produce an optimal outcome.

But every party needs access to the same level of information if they're to communicate effectively. Transitioning to more integrated software solutions increases the democratization of data and improves project transparency. This unilateral increase in visibility helps share risk across all stakeholders, not just the contractor, so the unified team can better identify potential obstacles and work together to find creative solutions.

Fortunately, with the swell in competitor transition comes an opportunity to observe, discuss, and adapt accordingly. There are thousands of stories of both successful and short-lived transformations. Leverage those resources as you consider your own changes. Talk to industry peers, join webinars, and then use that information to chart your course and identify opportunities for you to exceed that industry standard.

RAPID FIRE:
HOW TO TELL IT'S TIME TO UPGRADE MY...

DOCUMENT MANAGEMENT

- Your business can't scale to meet increasing complexity.

- You hesitate to bid on projects out of concern that your document control practices will fall short.

- Expensive delays and rework result from delays and miscommunications on documents, approvals, and versions.

SCHEDULING
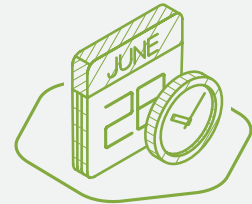
- There's a disconnect between planning and in-field communication.

- You're dependent on overburdened schedulers for guidance.

- Your risk process is too complex to apply effectively.

ESTIMATING

- Your growth is limited by how many jobs you can bid.

- You're reliant on estimators who've bid similar jobs in the past.

- You lack confidence that submitted bids will be profitable.

PROJECT CONTROLS

- You need better project visibility.

- You struggle to transform estimates into control budgets.

- You need to calculate earned value as work is completed.

CONCLUSION

A software transition is no easy task. Change can shake organizations to their core and adds unwanted complications to an already stressful environment. But the benefits of that transition often overshadow those hardships. Like any transformation, those initial growing pains produce a stronger outcome. From less stress and improved performance to reduced cost and elevated capabilities, the right software shift can define your organization's future in ways we would have never fathomed even a year ago.

At InEight, we specialize in helping construction leaders navigate the uncertainty of digital change. Whether you're updating unsupported software or need tools that can scale to meet your bold ambitions, there's a solution ready to rise to the occasion. Let InEight help you find it.

BOOK A DEMO

About InEight

InEight provides field-tested project management software for the owners, contractors, engineers and designers who are building the world around us. Over 575,000 users and more than 850 customers worldwide rely on InEight for real-time insights that help manage risk and keep projects on schedule and under budget across the entire life cycle. From pre-planning to design, from estimating to scheduling, and from field execution to turnover, InEight has powered more than $1 trillion in projects globally across infrastructure, public sector, energy and power, oil, gas and chemical, mining, and commercial. For more information, follow InEight on LinkedIn or visit InEight.com.