

A BUYER'S GUIDE TO EVALUATING AND SELECTING CONSTRUCTION PROJECT MANAGEMENT SOFTWARE



InEight eBook

PREFACE



THE VALUE OF CONSTRUCTION PROJECT MANAGEMENT SOFTWARE

The capital projects industry remains challenged to deliver projects on time and within budget. But, innovative contractors, owners and engineers are overcoming this challenge. They have realized that spreadsheets and in-house tools no longer handle the sophistication and data demands of modern construction businesses. The scale and complexity of today's projects call for integrated construction project management solutions with mobile functionality.

A NEW WAY TO WORK

Using construction project management software, field and office personnel can streamline the development of work packages and daily execution plans. This is further enhanced with mobile applications that boost operational efficiency by enabling field engineers and foremen to create and receive daily work plans, share information with crews and capture results throughout the day.

PREDICTABLE OUTCOMES

Digitalized field collection processes can track labor and equipment hours, quantity progress, issues and potential change orders to help construction companies optimize work in the field. This real-time field data flow allows project managers to track progress against plans and then connect that data with the front office to manage performance and risks.

ACTIONABLE INSIGHTS

As you collect more data, one of the most important functions of your construction project management software is to provide actionable insights. Data needs to help you make a decision before the opportunity has passed. And when data reveals a trend, you can take action to reverse it and return to predictable outcomes.

CLEAR VISIBILITY

During project execution, construction project management software can integrate with accounting, scheduling and other systems to minimize data entry and create a single version of the truth. By connecting these systems, everyone involved in the project has the performance visibility needed to take real-time corrective actions and keep projects on track.

Project success comes down to better communication and collaboration between the people planning the work and the teams in the field executing it. With better visibility into project status, crew performance and potential issues — contractors, owners and engineers can act swiftly on new insights to achieve predictable project outcomes.

Use this eBook to help you evaluate various approaches and technical functionality among construction project management software solutions. In this eBook, you will find information to help you:

- Identify your business needs
- Gather information about your company's current and desired technology environment
- Select features and functions to evaluate
- Set additional vendor selection criteria
- Set the stage for successfully managing change in your organization
- Apply best practices in implementing new software and workflows

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SECTION ONE

TECHNOLOGY OPPORTUNITIES



INEIGHT 

The key to selecting the right construction project management software for your business is identifying the pain points that are causing inefficiencies. If these result in problems like rework on the jobsite, cost overruns or inaccurate schedules, then they can be very costly.

COMMON CAUSES OF BUSINESS INEFFICIENCIES

Inefficiencies arise from duplicated work, lack of automation, errors, gaps in communication and siloed information, among other issues. Problems compound when one or more groups is dependent upon information or deliverables from another team that are missing, delayed or incorrect. The benefits you receive, as measured by revenue growth, profitability, cost savings, capacity, or turnaround time, will be even higher when new technology solutions address multiple gaps and facilitate workflows across more than one team.

MAP WORKFLOWS

A proven approach to identifying inefficiencies and pinpointing gaps that technology can solve is to map business process workflows. Workflow mapping involves breaking down your major process areas to identify known or hidden inefficiencies, pain points and business opportunities. This can be a labor-intensive undertaking for the subject matter experts in your organization whose input would be necessary. However, the insights about inefficient handoffs of physical items or information can be very useful at several stages of software consideration.

Mapped workflows can assist you with establishing your evaluation criteria and functionality needs for construction project management software. They will be very useful again at the time of software configuration and deployment, as you set up the new tools to match your business flows and address the problems your subject matter experts have identified. The workflow gaps will also be valuable for defining and measuring return on investment to your organization.

As you implement software solutions, your mapped processes will provide the framework for managing and tracking adoption within your organization by measuring process compliance and resulting process improvements quantified by time and cost savings, and increased visibility into project progress, and more.

If you decide to map workflows in preparation for purchasing construction project management software, explore with software providers any professional services they might offer to assist you.

PRIORITIZE YOUR BUSINESS NEEDS

Create a list of pain points to which you can assign rank or score with your management team; these top-ranking pain points will guide you in your evaluation of construction project management software.

One useful way to categorize business needs is to have your team agree upon “must-have” and “nice-to-have” software features. As you explore your options, stay focused on the “must-have” features to be sure that your organization’s fundamental needs are met.

If you issue a request for information or a request for proposal, you can list all your “must-have” and “nice-to-have” features together and ask your potential suppliers to answer the availability of each.

Consider a method like this for collecting feature availability information from potential suppliers.

	Available today out of box	Available today with configuration by the customer	Available today but requires paid configuration	Requires customization	Available in the next year	Available beyond a year	Not planned	Comments
Feature #1	✓							
Feature #2								
Feature #3								
Feature #4								
Feature #5								

SELECT THE MOST VALUABLE FUNCTIONALITY

Construction project management software covers a range of functionality, all designed to automate and simplify processes that can make your organization more efficient.

Evaluate where your organization can gain the most benefit from process automation, digitization, data capture and analysis. Understand whether the suppliers you are considering have the range of modules that support your short- and long-term needs as you progress in automating multiple business functions. Then, focus on evaluating the more specific features of each tool that meets current business needs.

Use the following list of organizational processes to guide your internal discussions about which areas of the business have the greatest need for automation and potential efficiency gains:

- Engineering, Design and Building Information Modeling (BIM) Management
- Takeoff
- Estimating
- Document Management
- Customer Relationship Management
- Human Resources
- Bid Management
- Team Management
- Project Controls
- Historical Project Benchmarking
- Accounting
- WorkFace Planning
- Scheduling
- Work Packaging
- Daily Planning
- Materials Management
- Daily Progressing
- Change Management
- Forms
- Inspections
- Reporting
- Commissioning
- Handover

SECTION TWO

TECHNOLOGY CONSIDERATIONS



INEIGHT 

Understand important aspects of your company's existing and desired computing environment to help you confidently evaluate different construction project management systems. Technology environment considerations are important to your decision because they may impact time to deployment and return on investment.

Consider these questions that define important elements of your company's current computing environment:

- What systems are in place already that are not changing? These systems may require integrations.
- How are current systems hosted, i.e., on-premise or Software-as-a-Service (SaaS)?
- What upcoming hardware changes are planned?
- What mobile device platforms (i.e., Windows, iOS, Android) does the company support today?
- What is the current user authentication/security infrastructure (i.e., single sign-on)?
- What competencies exist today within the company's IT team?

In light of the answers above, you can further evaluate software and providers when you take the following technology considerations into account.

SOFTWARE SCALABILITY

If you expect your business to grow, you will need software that scales to match that growth. Scalability can take several forms, including number of users, integrations with other database systems, software customizations to meet the unique needs of your business, multi-geographic or -divisional capabilities and the flexibility of the system to handle increased capacity and loads.

Another aspect of scalability is the construction project management software's overall system architecture. Perhaps you are planning a phased software deployment to gradually add capabilities or expand from one division to multiple. These will be important considerations to discuss with potential providers.

SOFTWARE FLEXIBILITY

Businesses operate differently. Reflect back on the workflows you mapped for your organization to understand whether the suppliers you are considering offer enough flexibility to adapt their software to fit your business processes. Conversely, your organization might need to redesign certain processes to fit software-driven workflows. Software suppliers develop products to industry best practices, and you are likely to get the most benefit from adopting best-practice workflows at the expense of your prior processes.

Consider as well that software flexibility may come at a price. It may involve custom configurations, custom integrations or custom development. Thoroughly discuss these considerations with your suppliers.

SOFTWARE INTEROPERABILITY

The more flexible the software, the better. Look for software that offers an open standards-based application programming interface (API) that allows it to automatically share data and processes with other business systems. Key systems to consider linking for optimal automation include accounting, budgeting, scheduling and document management.

Also look for software that offers a software developer's kit (SDK) to allow your IT professionals to write custom interfaces to the provider's application. This is an important consideration for construction companies that have in-house-developed or custom-developed software that will need to be connected into the project management tools.

ERP INTEGRATION

Most construction companies use an enterprise resource planning (ERP) or accounting system. The purpose of an ERP system is to serve as the central repository for the planning and management of organizational resources between various departments. And for that very reason, integration with that ERP is a critical factor in data sharing with a construction project management system. Shared systems data can include cost, revenue, accounting, materials procurement, human resources, risk management and much more. The ease of integration with any ERP is largely dependent upon how your organization conducts business and the level of effort required to map data between the ERP and the project management platform.

DOCUMENT MANAGEMENT SYSTEM INTEGRATION

Make part of your evaluation and selection criteria how the construction project management software integrates and interacts with your current document management system. Integration is a critical need between the two systems to efficiently capture, control, process and distribute project communications and documents through appropriate workflows. Consider how the software handles capture, storage, retrieval, sharing, synchronizing, version control, and archiving of drawings, specs, RFIs, contracts, change orders, transmittals, and other documents generated for the types of projects your business pursues.

HOSTING

Knowing your internal costs and capabilities for hosting software will assist in deciding to purchase on-premise or cloud-based software. On-premise software refers to applications that you install and maintain at your physical location. Your organization is responsible for the daily operation and maintenance of the software and the network and database infrastructure and talent needed to support it.

Cloud-based software gives your organization access to the software via the internet or cellular data service. The host is responsible for the operation, maintenance and labor costs of operating the infrastructure of the host environment. You can arrange for your software to be hosted in a third-party cloud environment where your organization manages updates and upgrades, or you can license for Software as a Service (SaaS), whereby the software provider maintains the software versions.

Knowing the respective responsibilities of the players involved in software hosting can help you to assess first whether you want on-premise software or SaaS, and second, how to evaluate the quality and reputation of a third-party provider's services. Listed below are some typical responsibilities that you should consider.

Responsibilities of the data center infrastructure host:

- Storage hardware
- Network hardware and bandwidth
- Electrical capacity
- Application, data and server configuration
- System availability (i.e., uptime):
 - service-level agreements (SLAs)
 - scheduled outages
- System performance
- Server and data security
- Business continuity environment and process
- Backup and recovery

Responsibilities of the software application provider:

- Release schedule
- Delivery of software fixes, maintenance updates and upgrades
- Technical support

SECTION THREE

FEATURES AND WORKFLOW CAPABILITIES



For buyers who have outgrown the spreadsheet-and-email method of project management, there are construction project management systems that are purpose-built to leverage historical data. Construction project management software helps a business evolve to more effectively manage projects with various scopes, various approaches to the work, multiple projects, or even complex megaprojects involving many layers of international stakeholders.

For your convenience, below is a list of common features in construction project management software. Although this list is not exhaustive, it is meant to assist you with evaluating not only the needs for your business, but also what is available in the market today.

Focus first on your “must-have” features in the most pressing business functions for change, still with an eye to adding modules or capabilities in the future.

Cloud Platform
Software as a Service (SaaS)
Limited or unlimited storage
Limited or unlimited projects
99% uptime
Role-based security and authorization management
Single sign-on
Maintenance of master data
Third-party integrations
Centralized data sharing
100% data extraction upon termination

Mobile Applications
Ease of use
iOS and Android native applications
Offline accessibility
Synchronization of stored data
Fully editable photos and notes

Estimating & Bidding

Takeoff quantity integration
Top-down conceptual estimating (parametric assemblies)
Bottom-up cost estimating
Benchmarking
Quote management
Alternate scenarios
Schedule integration
Bid reviews
Cash-flow forecasting
Bid forms and bid day closing
Control budget
Handoff

WorkFace Planning & Scheduling

Knowledge capture for benchmarking
Artificial intelligence for predictive planning
Project templating
Detailed rate-based planning
Top-down planning
Parametric estimating
Collaborative team member markup
Risk register
Integration with third-party scheduling tools

Budgeting & Forecasting

Cost, revenue and work hour budgets
Budget change management
Budget version control
Earned value management
Earned revenue management
Cost, revenue and work hour forecasting
Collaborative forecasting
Forecast comparisons/version control
Period-end closing

Daily Work Planning

Construction Work Area management
Quantity breakdown line management
Work package scoping
Quantity claiming rules
Office/jobsite collaboration
Assignment of work to crews and resources
Material and component requirement
Daily work productivity measurement vs. target
Toolbox talks/risk mitigation
Mobile and offline capabilities

Daily Work Progressing

Employee and equipment hours
Premiums and per diems
Employee digital sign-out
Employee digital verification and sign-off
Pre-payroll timesheet review
Quantity claiming by WBS
Quantity claiming by component/QBI
% complete by rules of credit
Mobile and offline capabilities

Change Management

Issue management
Multiple source active pricing
Personal and project views
Issue to change orders conversion
Change order management
Impact on budget and project analysis
Action items

Inspection

Field notes and narratives
Jobsite photos
Issue identification
Quality, safety and environmental inspections
User-defined forms and questionnaires
Inspection form submittal via web
Inspection form submittal via mobile devices
Exception management
Incident investigation
Claims management
Audits
Tasks
Mobile and offline capabilities

Contract Management

Bid packages/buyout
Contract creation
Contract milestones
Back charges
Payment forms
Payment progress
Contract closeout

Document Management (Review, Approval & Distribution)

- Controlled document library
- Bulk document upload
- Document review and approval workflow
- Document view and markup
- Document versioning and revision history
- Transmittals/packages
- Invitation to bid (ITB)/tender management
- Vendor data management
- Comprehensive item searching, linking and organization
- Integrations with third-party tools
- Full audit trails
- Mobile and offline capabilities

Commissioning

- Sequencing
- Task forms
- Punch lists
- Startup checklists
- Functional performance tests
- Issue management
- Document management

Construction & Quality Management

- RFIs, submittals and other workflow forms
- Defect management
- Checklists
- Photo gallery
- Lots/section management
- Sustainability management
- Mobile and offline capabilities

Project Correspondence

- Correspondence/email management
- Outlook integration
- Project team management (contracts and companies)
- Tasks
- Meeting agendas
- Meeting minutes

Handover

Standard and custom archives with operations and maintenance (O&M) manuals

Archives — standard and custom

Integration with records management system

Reports & Analytics

Configurable visibility settings across the organization

Pre-written, standard reports

Fully customized reports

Virtual Design & Construction/ BIM Management

Import Issued for Construction (IFC)/NWD models and custom data

Data normalization

Model federation

Document/drawing integration

Version control

5D cost/budget and schedule integration

Geolocation capture

Model access on mobile devices

Field capture of progress and status

Visual reporting

As-designed and as-build documentation connected to model

Single 3D digital turnover package

Mobile and offline capabilities

Key Performance Indicators (KPIs) & Goal-Based Metrics

Hyperlinked data for drill-down analytics

Benchmarking reports

User-defined dashboards

Report subscriptions with automated distribution

Multiple file output options

Fully exportable reports to any business intelligence (BI) tool or external database

SECTION FOUR

USABILITY CONSIDERATIONS



EASE OF USE

These days, it seems obvious to swap paper forms and spreadsheets for more robust and automated technology solutions. But what the home office wants is not necessarily what the field will accept. From simple menus and big buttons to non-English language options, be sure that the construction project management solutions you are considering have the best chance of being embraced by users. Ease of use is a key factor in user acceptance.

MOBILE APPLICATIONS

Your company's work takes place largely on the jobsite. To achieve the promise of eliminating inefficiencies, technology tools for construction project management need to perform in the field. With heavy input and feedback from field leaders, evaluate construction project management solutions from the field user's point of view.

Consider not only usability, but also ease and accuracy of communication between the home office and the jobsite for work packages, revised drawings, materials received, time cards, change orders, equipment geocoordinates, inspection reports, photos of daily progress and more. The software you evaluate and then select needs to simplify workflows, save time, eliminate cost and make field communication more efficient. These savings measures can be the basis for the return on investment calculation for your new software.

Be sure to also understand what kind of mobile application vendors offer for each tool. Vendors might talk about native mobile apps, which are written specifically for a device such as an Apple iPad, iPhone or Android phone. Native apps are generally installed directly on the device, take the best advantage of that device's size and functionality, and work without internet connectivity.

There are also mobile apps that can be "responsive" versions of the vendor's web application, resized and reformatted for mobile devices. These web apps generally run on an internet browser and require an internet connection or cell signal.

Lastly, there are non-responsive websites, often called "full" sites. Although they usually offer more functionality than mobile apps, they are optimized for traditional desktop viewing and can therefore be small and difficult to see on a mobile device. They always require an internet browser and internet connection or cell signal to view.

OFFLINE ACCESSIBILITY

Internet connectivity is often not available at the jobsite. Construction project management solutions must account for periods of offline activity and then seamlessly synchronize all the stored project data once the mobile device reconnects to the internet. This is a key capability for this type of software across device types and operating systems.

MULTI-LANGUAGE USER INTERFACE

Non-native English speakers will appreciate the clarity and convenience of interacting with software tools in their native language. Whether you do business across borders or your contractors and subs hire international work crews, consider offering your users multiple language options within the software's user interfaces, on desktop and mobile alike.

CUSTOMIZATIONS

Many of your business's current processes have evolved over time, whether by design or by necessity. As you evaluate options for construction project management technologies, consider both the adaptability of your business practices and users for potential changes to workflows, as well as the adaptability of the software to accommodate custom workflows. In some cases, it may be a combination of both approaches that may provide your business with best-in-class efficiencies.

Enterprise-level solution providers will offer professional services to provide additional software customizations and development. Refer to Section Six of this guide for information about evaluating solutions based on available professional services.

USER HELP

Particularly important for new users, but also helpful for learning new features in later releases, online and in-app help menus are important to user success and overall adoption of new software. Embedded help options placed in intuitive locations on both desktop and mobile can help guide the user and improve their experience or even provide a real-time, in-app tutorial by leading the user step-by-step through that function.

SECTION FIVE

LICENSING

The cost involved in buying and using construction project management software varies based on the type of licensing model. Depending on how your software is deployed and the internal skill set required for supporting the software, there can be vast differences in the cost to acquire various capabilities. There are also many nuances in license definitions that you will want to clarify with each supplier you are considering.

These are some basic licensing concepts to get you started:

PROJECT-BASED LICENSE MODELS

Some construction project management software products or functionalities are licensed per project. This offers price flexibility to contractors and subs in particular to pay for only the duration of the project.

VOLUME-BASED LICENSE MODELS

Other software products or functionalities can be licensed by revenue, number of users, data storage requirements, data usage or another measure of volume. Depending on your company's needs, this can be a cost-effective way to scale your software costs as your business grows.

STAND-ALONE LICENSE MODELS

For on-premise software, traditional licensing options may include stand-alone licenses. A stand-alone license authorizes a single user to install and use the specified product(s) on a single computer. This can be a cost-effective means of purchasing highly specialized software for a limited number of users who generally would not share data or workflows.

SERVER LICENSE MODELS

A server license, which may also be called a multi-seat or network license, allows you to install software on a network for a specified number of devices or users. Your system administrator centrally controls configuration, user access and permissions, and data can be shared among users. Be sure to inquire how the provider defines concurrency, which can apply to users or devices. Exceeding your limits will come with additional costs.

USER-BASED MODELS

User-based licensing models can vary broadly in definition from supplier to supplier. Understand clearly how each potential supplier licenses each product or functionality by defining users, counting users, counting concurrent users, and counting the number of devices per user. Also ask about how users are named and how licenses can be reassigned.

UNLIMITED LICENSES

For the ultimate in flexibility and convenience, providers may offer unlimited licensing. Often called enterprise licensing, you get software access for an unlimited number of users, typically for concurrent use. It can provide the best value because you will not have to continually add users as your organization grows and scales, especially if you plan to expand user adoption throughout multiple subsidiaries or geographies. Your system administrator will still be required to manage security and data permission levels for each user.

SECTION SIX

IMPLEMENTATION AND SUPPORT



INEIGHT 

For the period you are installing, configuring, customizing and deploying your new construction project management software, you are likely to require additional services to help make implementation faster and smoother. In your evaluation of vendors, be sure to understand their portfolio of service offerings, including implementation, training, support and ongoing professional services.

IMPLEMENTATION SERVICES

Billed as fixed-fee or hourly, implementation services may include assistance from the software provider's expert consultants with project kickoff, application installation, business process review, process mapping, system design and configuration, validation, user acceptance testing, education and go-live support.

If your company is small and you require few customizations, look for fast-start implementation services packages for defined scope and deliverables for software installation and setup.

Getting your users trained on new software is critical to implementation and your return on investment. Although it will be challenging to take anyone away from their daily tasks to take time to get trained, it will increase your user adoption and begin providing value to your organization faster. You will want to evaluate construction project management software providers based on the variety of training media and options available. Some users may learn best in a dedicated classroom environment, and others will learn best using an online course they can take after hours.

Common training options include:

- Classroom training — at the software provider's location or in select cities at certain intervals
- Onsite training — conducted at your site, usually for a per diem fee, plus the trainer's travel expenses; often customizable course contents are available for an additional fee
- Online training — a curriculum of one or more live or self-paced training courses
- Train-the-Trainer — teaching the client's own trainers, generally to enable broad internal coverage across large organizations with complex business processes

PROFESSIONAL SERVICES

The larger your organization, the more data you wish to share between systems and the more you wish to customize the software solution to fit your specific business processes.

Typical services offerings might include:

- Implementation services
- Custom integration solution services
- Technical installation and configuration services
- Custom planning and system design workshops
- Upgrade services
- Organizational change management services

Professional services may be available directly from the software provider, from freelance consultants and from third-party systems integrators. No matter which provider you choose, be sure to gather as much information you can about their fee structure(s), their standard service agreement and any fixed-price packages they may offer. Ask for CVs of the consultant(s) assigned to your account, and for case studies or references from customer accounts to which they have delivered the same or similar services in the past.

SUPPORT SERVICES

You need to be able to have your technical issues resolved in a timely and efficient manner so that your business can continue uninterrupted. Look into the support staff — are the service representatives US-based, global, or do they use a third party? You want software experts who know the software better than anyone else and can communicate quickly and clearly with you to resolve problems.

Evaluation criteria might include:

- Easy case submittal process via online portal, chat, telephone or email
- Definitions of problem severity
- Operating hours of support center
- Timeframe for commencement of action of support requests (i.e., service-level objectives)
- Availability of support after-hours or on weekends
- Frequency and delivery method for defect or bug fixes and upgrades
- Multi-language telephone support representatives
- Searchable knowledge base or user forum

SECTION SEVEN

VENDOR EVALUATION



Prior sections of this buyer's guide coach you on how to assess and prioritize the needs of your business based on inefficiencies in functional areas of your business processes. They also provide a comprehensive overview of the features and capabilities of various construction project management solutions. In this section, we cover several pre-purchase considerations for evaluating the vendor's overall business.

FREQUENCY OF NEW VERSIONS AND ENHANCEMENTS, AND PRODUCT ROADMAP

Each software provider approaches their product release cycles differently. What you should understand up front is how and how often a vendor typically releases updates. Frequency of software updates can affect how often your users may need to learn something new or how often your IT team may need to make configuration changes specific to your computing environment.

Some vendors may also provide you with high-level product roadmap information, explaining major functionality they plan to add to a specific software tool or to their product portfolio overall. You may want to ask what the process is for making enhancement requests, in the case you would have such requests.

If you make contact with the company's reference customers, you might also learn what feature requests or capability enhancements the reference customers have requested and the responsiveness of the provider.

COMPANY BACKGROUND

The more specialized the software, the more you will need your vendor to have direct experience in your field. When your vendor has done the work that you do, you benefit from their first-hand knowledge of your business functions and the alignment of their products with your real-world business needs.

The most common approach is to look at customer lists to see which companies have implemented their solutions and assess whether your company's needs are similar. Another approach is to look at the past work experience of the executives at the companies you are considering. Also, consider evaluating vendors' industry associations and levels of engagement to gauge how up to date they are with market trends and technology advancements in construction.

CASE STUDIES AND REFERENCES

It is likely that the vendors you are considering have several current case studies published on their website or available from sales. Use the case studies to learn more about what business problems other customers needed to solve, their approach to implementing construction project management software and their measures of success.

Prior to a final purchase decision, you can gain first-hand, experiential information about a vendor’s products and services by requesting a couple of references from the potential supplier. Use the opportunity to reach out to several of the vendor’s current customers with probing questions to get a feel for the supplier’s strengths and weaknesses.

BUILD A VENDOR COMPARISON TABLE

Fill in your organization’s required features (recommended in rank order, from top to bottom).

REQUIRED SOFTWARE FEATURES	InEight	Vendor Name	Vendor Name
Most important feature	✓		
Feature 2	✓		
Feature 3	✓		

SECTION EIGHT

ORGANIZATIONAL CHANGE MANAGEMENT



INEIGHT 

Implementing construction project management software constitutes a transformative organizational change. Whether you are implementing one software product or many, people will be affected through changes in jobs and shifts in influence and control. Inevitably, people will be asked to develop new skills and forced to interact with one another in new ways. An organization that prepares for changes to its human capital has the best chances for success.

People issues arise because an institutional change is also a personal journey. People involved naturally react with uncertainty and resistance. But success in a shifting environment requires continuous, active leadership because your people are the ones ultimately responsible for designing, executing and living the change.

Where the executive team may be aligned and committed to the change, it is even more important that the next-lower level of managers understands the organizational culture and behaviors well enough to model the new behavior and are motivated to make change happen. These middle managers will have to lead staff and line while coping with their own change at the same time. Nonetheless, middle managers who are successful in modeling the new norms will set the tone, and ultimately, the success for employees.

Employees need to hear and experience, clearly and often, what they are expected to do, how they will be measured and what organizational success (or failure) looks like. Gaining employee buy-in and creating ownership of the planned changes happens best by involving them in identifying issues and crafting solutions. Be sure to also reward employees for accomplishments toward your goals for change. Rewarding accomplishments will generate additional momentum.

SECTION NINE

CRITICAL SUCCESS FACTORS



Deploying new software is not only an investment, it is a major organizational transition. Here are some action steps you can take to ensure a smooth and successful journey within your company:

LEVERAGE AN EXECUTIVE SPONSOR

Having the unwavering support of a top leader can make all the difference in managing expectations and handling organizational resistance. That leader should be fully versed in the business case for new software and should have the organizational power to arbitrate disagreements and make final decisions. Ideally, the executive sponsor is a self-proclaimed evangelist for the change and can help to smooth the path for others at every level of the business.

FOCUS ON A FEW KEY FEATURES

Every piece of functionality in a new software purchase may seem critical, but it is more likely that there are only a handful of key features that will have the biggest impact on your business results. Whether you stay small or go big with construction project management software, focus on functionality that will drive profits and create a competitive advantage.

TRACK YOUR RETURN ON INVESTMENT TARGETS

Measure the success of your software deployment using actual business data. As you mapped your business processes and formulated your evaluation and purchase criteria, there were likely numbers that clearly influenced your decision to pursue a technology solution. Those numbers should be part of the return on investment (ROI) calculation that you perform on a regular basis to ensure that your organization is enjoying the expected benefits of your technology investment.

Your ROI may change and grow as your use of the software matures, as your users become proficient with it and as any phased implementations of functionality are completed. Over time, analyze any discrepancies in your ROI results, make adjustments if goals aren't being met and openly discuss misses with your software provider.

A thorough return on investment calculation would include, at minimum, measures from each of these categories:

- Reduced inefficiencies — delays, risk assessment, decision making, changes, etc.
- Lower technology environment costs — hardware and software maintenance if shifting to SaaS, etc.
- Increased home office productivity — reporting, payments, data sharing, procurement, contracting, cash management, etc.
- Increased field productivity — time-based cost reductions, process improvements, data sharing, materials management, Supplier Quality Engineer (SQE) compliance, etc.
- Decreased risk — audit trails, inspections, legal costs, contract changes, financial performance, etc.

COMMUNICATE BROADLY AND OFTEN

It's critical to clearly communicate to employees the reasons for change. Keep them constantly informed, and don't be afraid to repeat the message. In fact, use multiple channels multiple times to most effectively reinforce it. Create a sense of community around shared change. Lack of information breeds misinformation and mistrust. Conversely, when employees are aware of, and understand the need for, the changes, you create trust and inspire their support for change.

FINAL THOUGHTS

Software is an investment, not only in money, but also in time and human capital. The effort to select the right fix for your organization's unique challenges can be daunting, particularly because there is no one-size-fits-all solution. To that end, we hope that this eBook has provided useful insights into how to go about evaluating your options specific to construction project management software.

ABOUT INEIGHT



Put our more than 30 years of engineering and construction technology experience to work for you. Our solutions span projects from design to estimate and from field execution to handover. They give you the real-time information and insights you need to minimize risks, improve operational efficiency, control project costs, make educated decisions and collaborate easily with all project stakeholders.

To request a demo or for more information about InEight's project management solutions, go to [InEight.com](https://www.ineight.com).