

With 57 trillion in spend expected by 2030, the capitol projects industry remains challenged to deliver projects on time and within budget.

But a number of leading project-driven companies have proven to be highly specialized, complex and full of innovation.

What have these companies realized that others have not? The scale and complexity of today's infrastructure, building, oil & gas, mining, and utilities projects call for **real-time field management** with **active portfolio-wide analysis**.

It all comes down to getting faster access to field data to manage resource consumption and better inform decision making.

So what's the secret? Smart companies are adopting modern, digital, and connected project controls solutions which enable project transparency.

The result? Increased project collaboration, productivity, and performance, ultimately reducing risk.

These integrated solutions empower engineers, project managers and stakeholders to communicate project status swiftly and accurately within functional departments. And with the ability to have visibility into the status of all projects in the portfolio, senior management can now *act* instead of *react*.

The Bottom Line

Investment in innovative technology solutions can translate into:

- ☑ Process efficiencies
- ☑ Timely and accurate intraday feedback about activities and progress
- ☑ A collaborative and transparent work process

To consistently achieve these results, leading companies understand that they need:

- ☑ A common method to measure across all projects
- ☑ More efficient and accurate estimates
- ☑ Efficiency from time/motion improvements
- ☑ Jobsite safety
- ☑ Continuously operational equipment
- ☑ Project loss elimination
- ☑ Metric-based decisions
- ☑ Cross-enterprise comparisons, including task productivity across projects

IN OTHER WORDS, THEY RELY UPON A "NO-SURPRISES" APPROACH TO EXECUTING SUCCESSFUL PROJECTS.

8 PLAYS FOR PROJECT SUCCESS

A best practice approach to optimizing capital project outcomes.

- Win jobs at the right price
- Execute projects at the lowest cost and highest quality
- Take care of resources by optimizing work practices
- 4 Create a data-driven organization

- 5 Use quantities as the common denominator
 - 6 Standardize account codes for consistent reporting
 - Leverage a consistent visual model
- Create a learning organization

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Win jobs at the right price

Play like a champion.

Innovative capital project professionals like you realize that success starts with standard processes and core estimating methodologies. But without the right software backing you up, closing the gap between lofty statements and hard reality can be difficult. With the industry only becoming more competitive, you must be able to rely on a streamlined project costing process that provides accurate estimates. It's the only way to win good work from which you can squeeze a profit.

Your checklist for success:

- ☑ Do our tools help standardize our workflows?
- ☑ Do we have an active view of common company KPIs?
- ☑ Do our estimators bid with consistent rates?
- ☑ Can we fact check numbers on work we don't self-perform?
- Are we able to benchmark against historical bids?
- ☑ Can we risk-rank estimates against historical as-built project data?

Streamline Estimating Processes to Win More Profitable Work

InEight's project cost management solutions help companies establish standard processes and core project cost methodologies. An innovative benchmarking capability proactively risk-ranks estimates based on previous estimates and as-built data from similar historical projects.

Along with common views, industry-specific cost libraries and central resource rates, these capabilities lead to more efficient estimating processes, which means winning (more) profitable work.





The Aiken group has tripled the amount of work they can bid using InEight solutions.

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Execute projects at the lowest cost and highest quality

Play like a champion.

Leading companies leverage field-ready software to bring jobsite data to the project managers responsible for tracking progress against plans. Plan KPI's then get fed to the front office who measure performance across the portfolio, providing clear visibility to all stakeholders. Interoperable software platforms provide this visibility in real-time, establishing a single source of the truth.

Your checklist for success:

- ☑ Can we tie together scope, schedules and actuals to obtain a single source of project truth?
- ☑ Do we have an active view of jobsite performance, shift-over-shift?

- ☑ Are we confident in our earned value measurement?
- ☑ Do we have an early warning system to forecast and adjust against project loss?

Integrate with Project to Optimize Project Performance

During project execution, InEight solutions can be used to integrate accounting, scheduling and estimating systems with actual jobsite data. This provides owners, EPCMs and contractors with the performance visibility needed to take early corrective actions to keep projects on time and within budget.

With flexible percent complete calculations and automatic earned value measurement, InEight project control solutions provide the ability to control and forecast costs, revenues, hours worked and productivity, helping ensure successful project completion at the lowest cost and highest quality.

According to KPMG (2015)

71%



of energy and natural resources projects are deemed to be underperforming.

3

Take care of resources by optimizing work practices

Play like a champion.

Having accurate project information in real-time is essential for making critical decisions and remaining ahead of your competition. Without these capabilities, the lack of detailed records of daily work activity make root cause analysis virtually impossible, while unexpected equipment issues uncovered during daily inspections can lead to significant project delays.

Your checklist for success:

- ☑ How connected are our office and jobsite teams?
- Do our financial systems have an active view of project performance data?
- Are we creating daily work plans for foreman and their crew?
- Are our work plans optimized based on work completed the previous day?

- ☑ Do our foreman have real-time visibility on their crews performance (plan vs. budget)?
- ✓ Are we using technology to optimize project performance in the field?
- ☑ Do we have active dashboards to make decisions across the office and the jobsite?

Utilize Field Mobility Solutions to Improve Resource Consumption

In Eight field mobility solutions are a critical part of the In Eight application portfolio and can be connected with ERP and financial systems for optimal control, visibility and process efficiency. Daily data flow also allows optimization and course correction, which can save significant time and money.

At customer sites, engineers, mechanics, foremen, superintendents and project managers leverage the InEight platform to process thousands of plans each day on hundreds of projects worth billions of dollars.

The Construction Industry Institute (2015) reports only:

of projects are completed within 10% of planned cost and schedule.

4

Create a data-driven organization

Play like a champion.

Companies of all sizes struggle with knowing and often not knowing that field activity doesn't match the plan. probably as often as you do. Like perpetual bearers of bad news, crews aren't always doing the most critical tasks and problems are only reported to managers long after they actually happen.

What's worse, slow and often inaccurate paper processes only get in the way and cause project delays, cost overruns, inefficiencies and surprises for the management team. What are innovators doing instead? Deploying digitized processes to collect jobsite project data on both labor hours and quantity progress.

Your checklist for success:

- ☑ Are we leveraging digital processes to collect jobsite data?
- Are we able to capture best practices to optimize work in the field?
- ✓ Are we using technology to capture daily work plans, time-sheets and material quantity claims?
- ☑ Can we easily view and analyze work that took place?

Deploy Digitized Processess to Provide Visibility for Critical Decisions

Innovative companies must move away from paper-based systems. Processes that rely on manual, hand-written steps introduce lethargic and error-prone results plagued with delays and accuracy issues.

With all-digital data flows, managers can quickly make better, more informed decisions that lead projects to success. In Eight field and project control solutions deliver efficiency and collaboration using simple processes to collect information offering visibility to drive key decisions.



5

Use quantities as the common denominator

Play like a champion.

Project-driven companies need a common approach to measure activities, progress and tasks across all projects and their related functions. This includes things such as cost modelling, scheduling, financial and project controls. Many companies recognize this and default to using cost as their common unit of measure.

But using cost for operational comparisons and decisions has some significant limitations, such as regional variation, material price fluctuations and inflation over time. In Eight has found that leading companies with a heavy focus on managing capital projects have instead adopted quantities as their basic unit of measure when it comes to operational control and performance.

Your checklist for success:

- ☑ Have we adopted quantities as our basic unit of measure?
- $\ensuremath{\square}$ Are we able to track standard quantity consumptions across regions and time-frames?
- $\ensuremath{\square}$ Are we able to continuously improve our previous project outcomes?

Employ Standard Units of Measure to Create Clear Benchmarks

Using quantities instead of cost helps managers quickly focus on areas that can be improved for maximum impact. In addition, by identifying high-performing teams, the company can institutionalize best practices that can lead to significant productivity enhancements that move the company forward.

This approach is only possible with a unified and connected interoperable system for project control, with common views and dashboards unique to InEight.

Westney (2014) reports that there has been a

24%



of growth in construction indirect costs since 1995. (net of inflation and escalation)

6

Standardize account codes for consistent reporting

Play like a champion.

Comparing task productivity across similar and dissimilar projects isn't always the easiest undertaking. But for innovative companies, the ability to cross-compare is essential to knowing where management needs to focus their attention.

By using standardized cost codes, cross comparing projects becomes relatively simple. This enables managers to identify, accurately compare and learn from similar project performance details across both an active and historical portfolio.

Your checklist for success:

- Are our account code structures detailed down to three levels?
- Are we leveraging cost codes to compare projects?

☑ Does our management have access to consistent dashboards and reports reflecting active project performance across our portfolio?

Standardize Coding Structures for Consistent Reporting

The InEight platform allows companies to standardize their coding structures to provide a common "thread" across projects, even those with substantially different work breakdown structures. Bottom line, common account code structures enable consistent reporting and improved decision making regardless of project type. If your company is performing hundreds of projects a year, applying best practices learned through similar projects can quickly translate into saving millions.

15-20% reduction



Hunter Contracting has reduced labor overruns by improving accuracy on estimate-to-actuals.

Leverage a consistent visual model

Play like a champion.

A splintering of project disciplines and the lack of standard file formats for applications perpetuate significant problem areas for most companies. It's like a quarterback calling football plays in different languages and expecting everyone to be on the same page.

To ensure all stakeholders are working in the same formation, successful companies are consolidating data from key systems to create a unified project information model (PIM) that can be leveraged across the project lifecycle from takeoff to turnover.

Your checklist for success:

- ☑ Can we efficiently process multiple proprietary design models?
- ☑ Are we centrally aggregating all design, quantity, and project data?
- ☑ Are we empowering stakeholders with a unified project information model to prevent loss, like that caused by design changes?

Project Information Modeling for a Single Source of Project Truth

In Eight creates a single source of truth by aggregating all design, quantity, and project data across the project lifecycle. With this functionality, the focus is on linking business data into a project information model that includes details about every object that needs to be manufactured, procured, constructed, installed or maintained.

With all project details around schedule, cost, budget, progress, status, procurement and performance aggregated and readily available to all stakeholders and related-processes, delivering successful capital projects has never been more efficient.



eliminating manual entry and aggregating data models.

8

Create a learning organization

98% of megaprojects

Play like a champion.

In football, the best players don't have an off season. They are constantly training, drilling and practicing in an effort to get better and better. The same is true in business. If you stand still, you'll lose your competitive edge. In the world of capital projects improvements must constantly be made to simply keep pace.

If your organization isn't adaptable and able to take the best processes from the most productive teams and feed them back into the rest of the organization, get ready for another grueling season.

Your checklist for success:

- Are we able to identify top performing individuals, teams, projects and processes objectively and determine why?
- ☑ Do we formally capture top performance and efficient processes into best practices?
- ☑ Do we promote and instill documented best practices across all projects and throughout the organization?

Establish Centers of Excellence for Continuous Learning

In addition to using innovative technologies to improve performance, companies that are ahead of the curve establish continuous improvement resources – "Centers of Excellence" – for specific disciplines to gather best practices.

For the processes related to construction estimating, the centralization of performance benchmark data against historical results within a project control software system enables the quick and efficient creation of more accurate estimates.



Taking it to the Turf

The McKinsey Global Institute estimates that the world will need to spend

\$57 trillion on infrastructure by 2030¹

to keep up with global GDP growth.

To succeed in tomorrow's global capital project marketplace, you must prepare for a collaborative, digital and industrialized reboot of what you may have done in the past. Even if your defense has been the best in the league for years, another team will eventually defeat it.

But if you organize your team around InEight's eight plays and proven solutions, you'll tackle projects with even greater levels of teamwork, efficiency and confidence.

¹(Source: http://www.mckinsey.com/industries/infrastructure/our-insights/imagining-constructions-digital-future)





THE LAST YARD

Investment in innovative technology solutions can translate into:

Process efficiencies

Timely and accurate intraday feedback about activities and progress

Collaborative and transparent work process

Learn More at InEight.com

GIVE US A CALL 800.637.7496

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