



MANAGEMENT CONSULTING • INVESTMENT BANKING  
for the ENGINEERING and CONSTRUCTION INDUSTRY



# Key Performance Indicators that Drive Results

May 17, 2011

## What are KPI's?

KPI's are meaningful yardsticks that contractors can see and use to effectively communicate the day-to-day operations of business

### Types of Indicators

- Liquidity
- Schedule Variance
- Scorecard
- Cash Flow
- WIP Indicators



- AIA billing index
- Housing starts
- Construction Backlog Indicator

## What do KPI's do?

- Drive positive behaviors
- Build value for organizations
- Provide long-term solutions
- Define key risk areas
- Focus on operational excellence
- Integrate people, process, and technology

## Lifecycle Phase Example KPI Types

### Work Acquisition (Get Work)

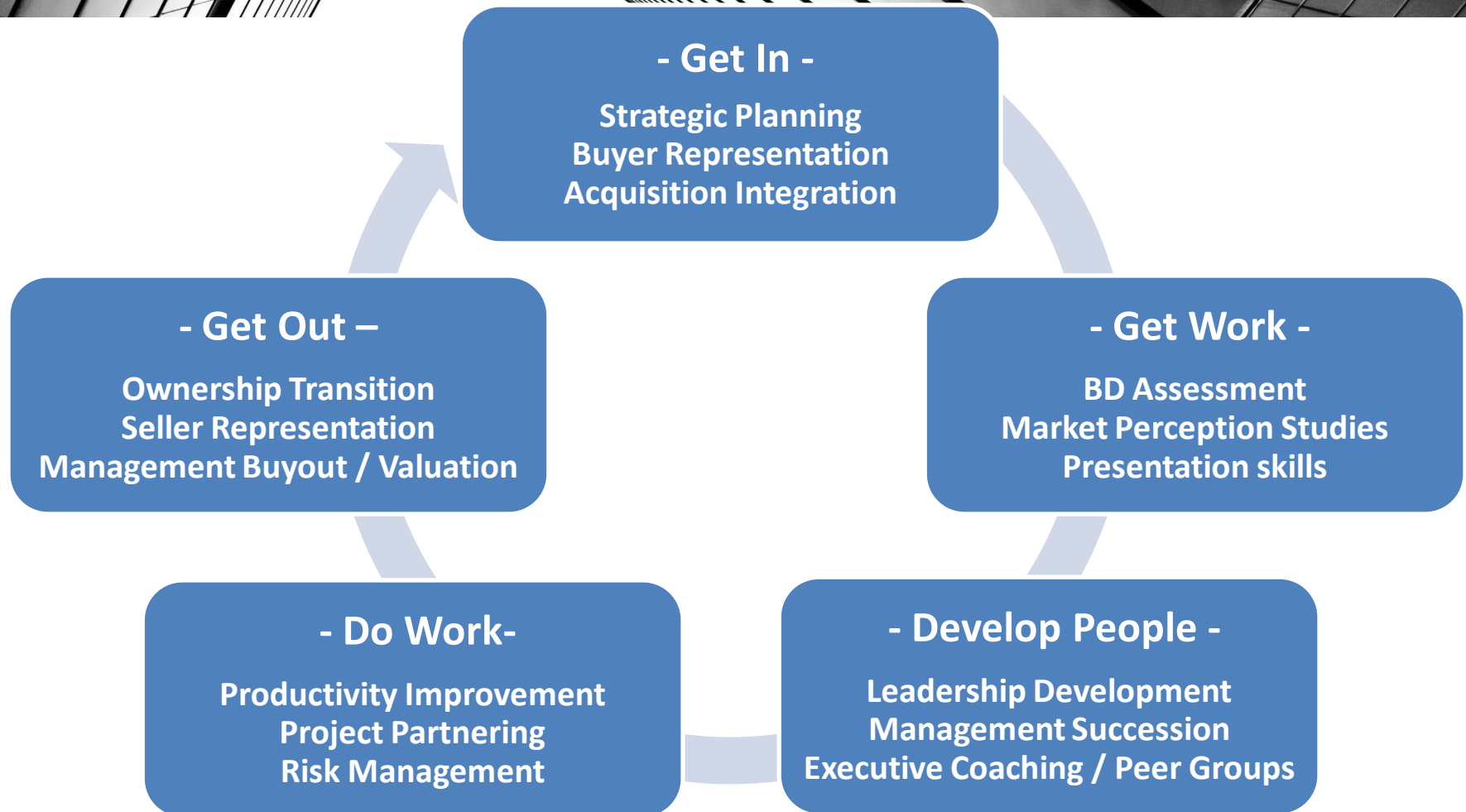
- Backlog indicator
- Marketing
- Business development

### Operations (Do Work)

- Change orders
- Productivity
- Margin variance

### Corporate Services (Keep Score)

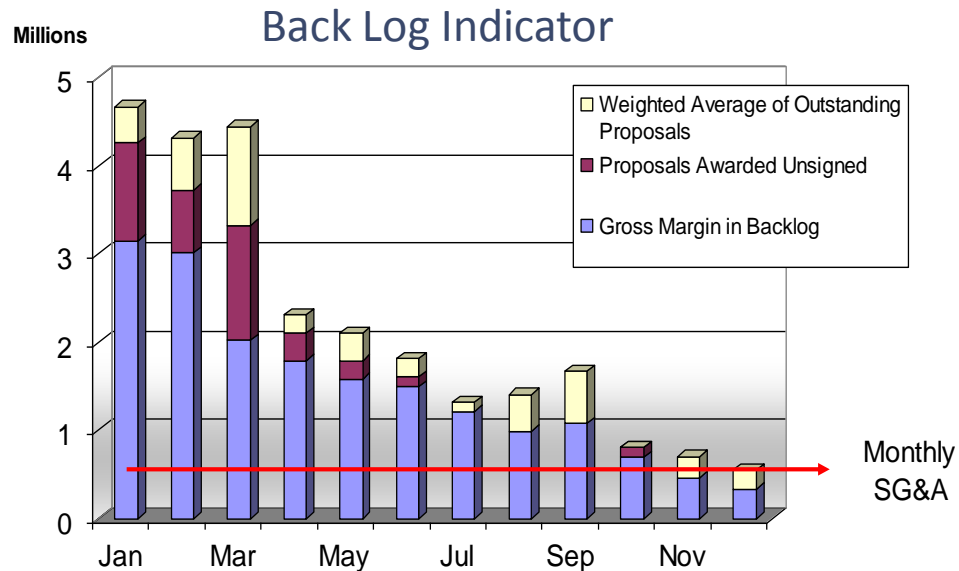
- Liquidity
- Cash flow indicator
- Safety measures



**We build value for the worldwide construction industry**

## Work Acquisition indicators:

- ▣ Identify gross margins on future projects
- ▣ Identify effectiveness of business development
- ▣ Impact project pricing and project targeting
- ▣ Enable effective resource utilization



### Work Acquisition

- Backlog indicator
- Marketing
- Business development

### Operations

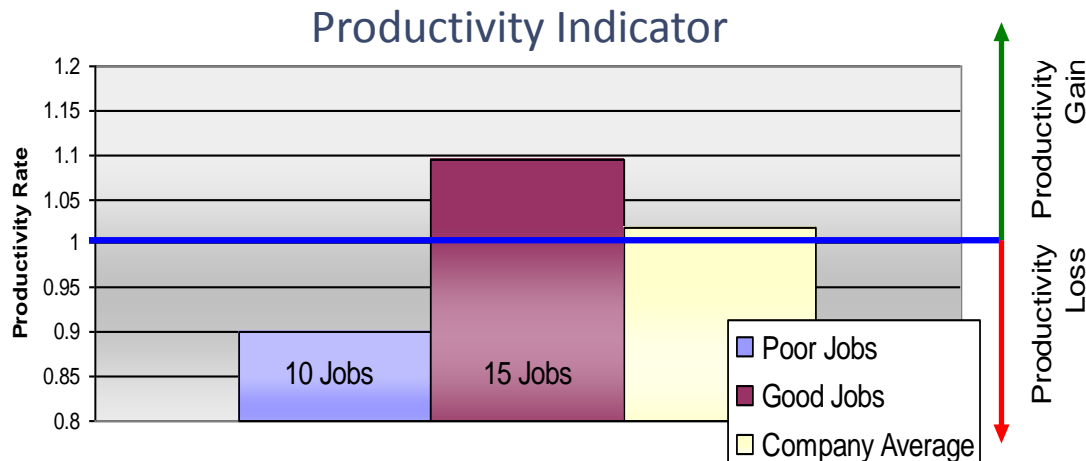
- Change orders
- Productivity
- Margin variance

### Corporate Services

- Liquidity
- Cash flow indicator
- Accounts receivable

## Operation indicators:

- ▣ Improve cash flow
- ▣ Capitalize change order opportunities
- ▣ Improve project communication
- ▣ Mitigate risk
- ▣ Increase accuracy of percentage of completion
- ▣ Assess productivity company wide



Work  
Acquisition

- Backlog indicator
- Marketing
- Business development

Operations

- Change orders
- Productivity
- Margin variance

Corporate  
Services

- Liquidity
- Cash flow indicator
- Accounts receivable



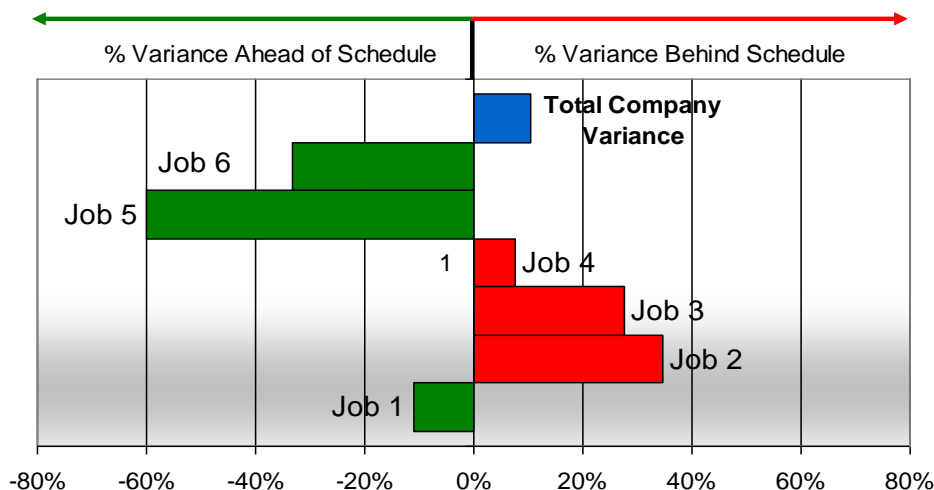
## Corporate service indicators:

- ▣ Increase access to credit and bonding capacity
- ▣ Identify risks and corporate claims
- ▣ Improve owner communication
- ▣ Enhance ability to meet project deadlines
- ▣ Promote owner-financed projects

### Areas Include:

- ▣ Finance / Admin
- ▣ IT
- ▣ HR
- ▣ Risk Management / Safety
- ▣ Legal

Schedule Variance Indicator



### Work Acquisition

- Backlog indicator
- Marketing
- Business development

### Operations

- Change orders
- Productivity
- Margin variance

### Corporate Services

- Liquidity
- Cash flow indicator
- Accounts receivable



## Group Question: What KPI's do most profitable contractors measure?

- To measure both company and project performance
- To track both leading and lagging indicators



## What KPI's do most profitable contractors measure?

### Company:

- Liquidity
- Cash Flow
- Backlog
- Customer Perception and Satisfaction
- Over and Under Billings
- Debt and Equity
- Corporate Service Performance

### Project:

- Gross Margin Gain/Fade
- Labor Productivity per Work Activity
- Schedule and Percent Complete
- Earned Revenue
- Cost to Complete
- Under/Over Billed
- Change Orders
- Safety





## Example question set to begin integrating people, process and technology

	People	Technology	Process
<b>Work Acquisition (Get Work)</b>	<ul style="list-style-type: none"> <li>Who is involved with Business Development?</li> <li>Who gets BD information on a weekly or monthly basis?</li> <li>Who aligns resources to future and potential projects?</li> </ul>	<ul style="list-style-type: none"> <li>What reporting tools do we use to track BD efforts and where is the information stored?</li> <li>What are the leading tools in the market that are used to track BD and customer relationship data?</li> </ul>	<ul style="list-style-type: none"> <li>What inefficiencies and redundancies exist in the current process?</li> <li>Are we looking more at leading indicators as opposed to lagging indicators?</li> </ul>
<b>Operations (Do Work)</b>	<ul style="list-style-type: none"> <li>Who is responsible for managing field crew?</li> <li>Who monitors productivity information on field crew?</li> <li>Who will directly report to the owner and design team?</li> </ul>	<ul style="list-style-type: none"> <li>What type of field technology is available</li> <li>Is mobile technology going to increase productivity?</li> <li>What tools will be used to communicate with project team?</li> </ul>	<ul style="list-style-type: none"> <li>When to establish and review change order process with project team?</li> <li>How often is information relayed to field crews?</li> <li>How often are meetings with project team conducted?</li> </ul>
<b>Corporate Services (Keep Records)</b>	<ul style="list-style-type: none"> <li>Who communicates lessons learned and to who?</li> <li>Who documents budget and schedule over/under runs?</li> <li>Who records positive or negative subcontractor performance?</li> </ul>	<ul style="list-style-type: none"> <li>What tools are we using to record project information?</li> <li>Will any analog information need to be transferred to digital?</li> <li>How will project scorecard be determined and distributed?</li> </ul>	<ul style="list-style-type: none"> <li>What type of project information needs to be stored and where?</li> <li>How can this information be used for future project success?</li> <li>What are the major takeaways from the project and how can they be used to influence behavior?</li> </ul>

Identifies and  
measures project  
qualitative  
success factors

- Generated in project management based on identification and weighting of success factors

Why is this  
important to  
you?

- Foundation for continuous improvement of soft skills
- Quantification of qualitative performance and identifying skill gaps
- Identify compliance with processes and procedures

## Project Delivery Scorecard Indicator

