



Leading Operational Excellence

March 2022

fmicorp.com



AGENDA

Leading Operational Excellence – January 2022

- Section One ● An Overview of Operational Excellence
- Section Two ● The Economics of Operational Efficiency
- Section Three ● The Critical Processes of Operational Excellence
- Section Four ● The Power of Metrics
- Section Five ● Leading Operational Excellence in Your Firm

The logo for FMI (Financial Markets Infrastructure) is displayed in white on a dark blue background. It consists of the letters 'FMI' in a bold, sans-serif font, followed by a vertical bar that ends in a small orange square. The entire logo is enclosed within a white rectangular border that has a slight offset on the right side.

FMI

An Overview of Operational Excellence

Section One

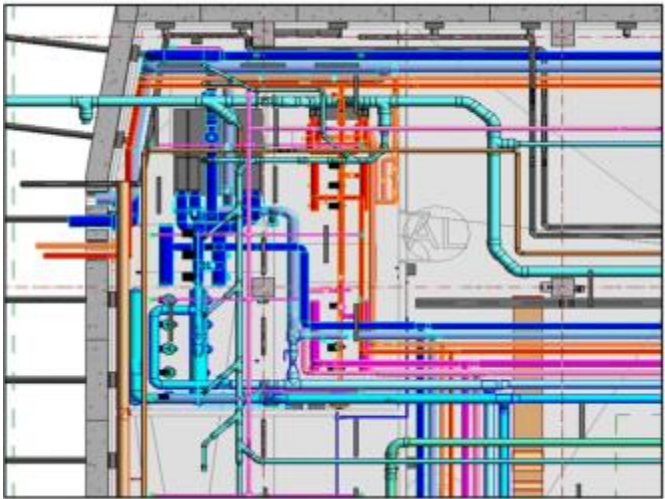
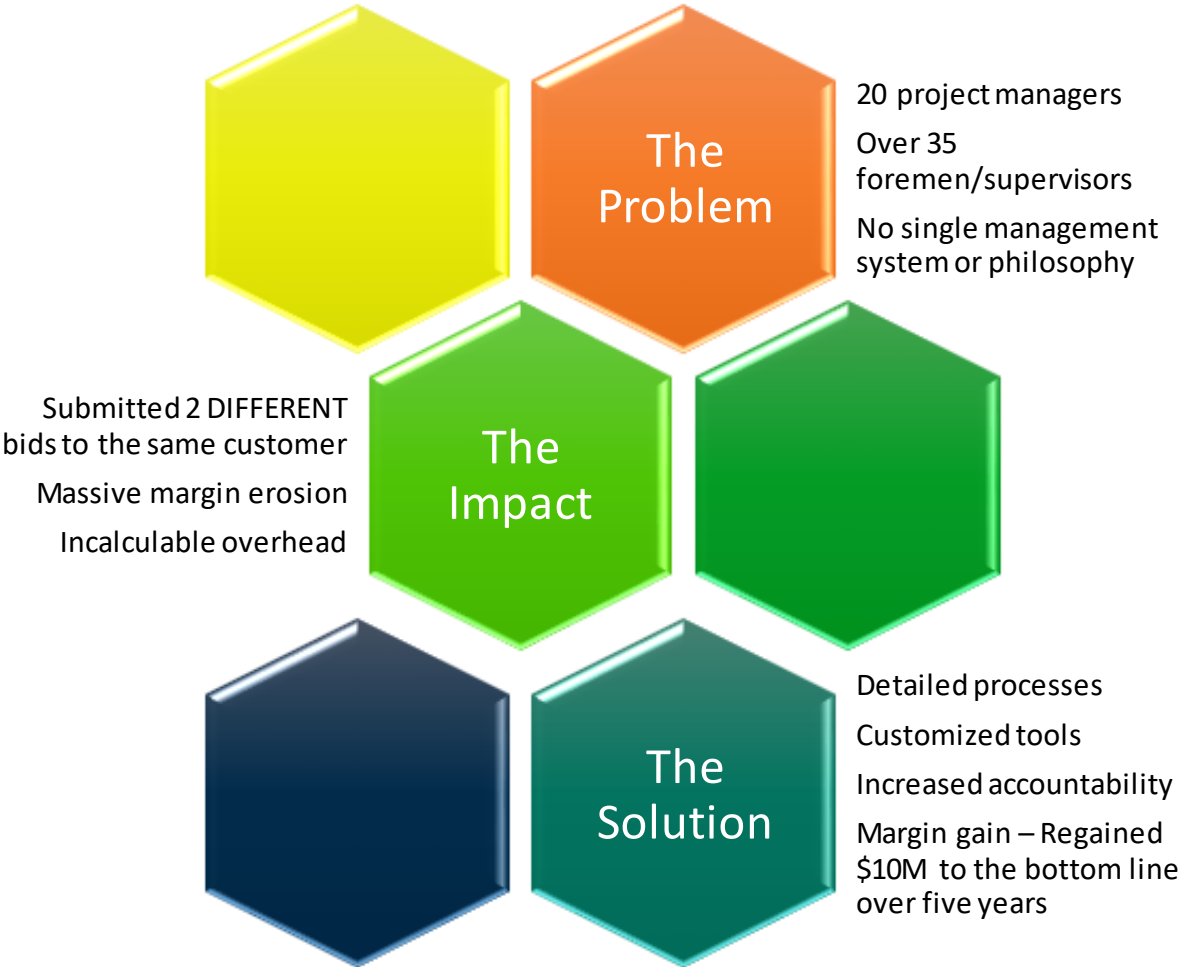
6 Signs of a World Class Contractor

1. More profitable than an average contractor
2. Know their cost before getting started
3. Picky about the work they pick up
4. They are the “destination” contractor
5. Learn from their mistakes and successes
6. Over time, they can regenerate their talent and experience

The definition of Operational Excellence



Case Study | Mechanical Contractor, \$75-100MM



“You might be reactive if...” (1 of 2)



- Comments heard in reactive companies:
 - “We don’t have time to plan”
 - “Things change too much to plan”
 - “We’ll figure it out in the field”
 - “We’ll order 80 percent of the materials, and the foreman can handle the rest”
 - “Our jobs are different”
 - “We have always done it this way”
 - “Our software won’t let us do that”
 - “My customer won’t let me plan”

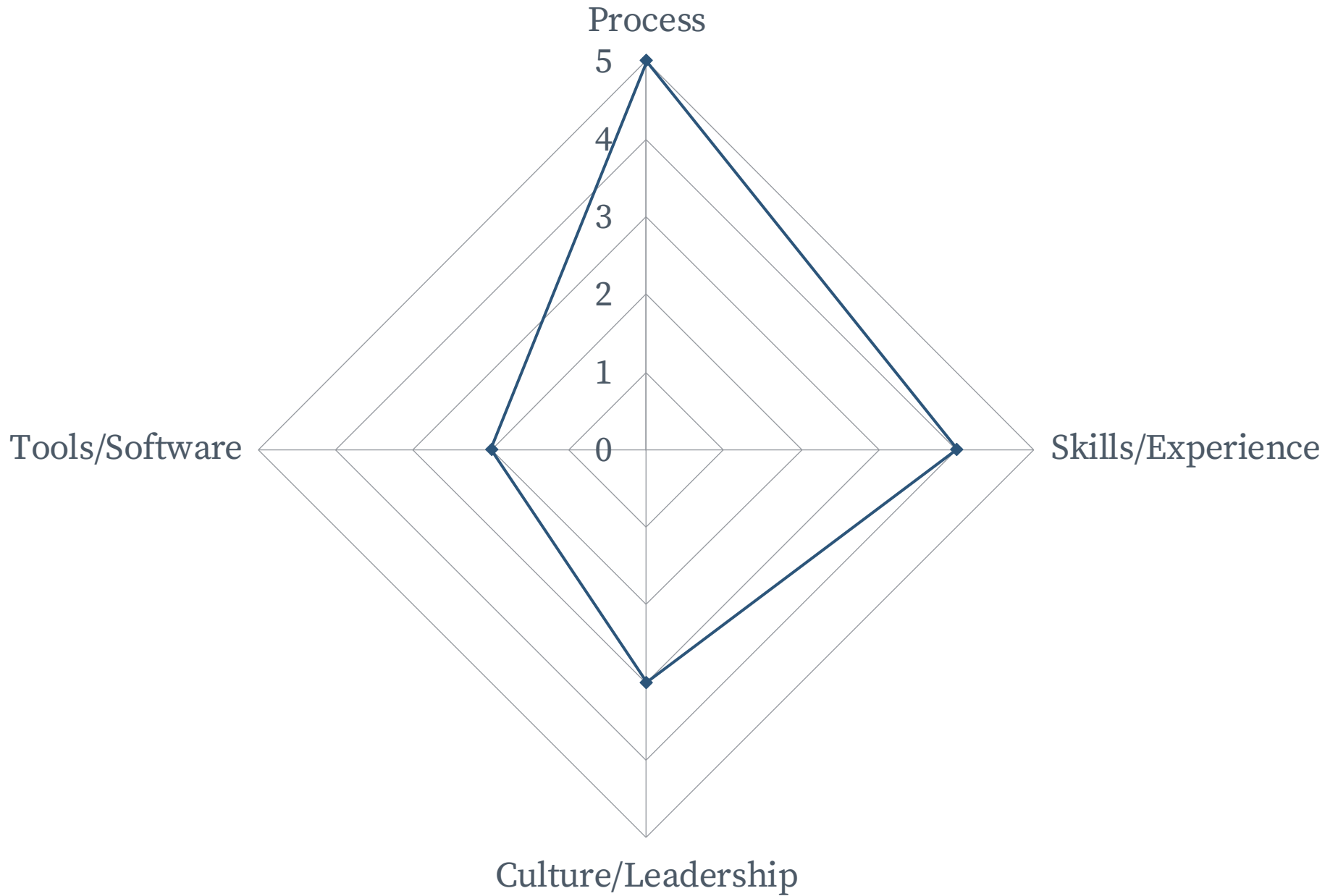
“You might be reactive if...” (2 of 2)

- Move field managers and crews constantly
- Constant phone and radio noise
- Too many emergencies or last-minute needs from your shop or vendors
- Large number of small purchases made in the field
- Lack of structure
- High percentage of new associates from various backgrounds (free agency)
- Belief that software or hardware will solve operational challenges

A black Peloton stationary bike is positioned in a bright, modern living room with light-colored wood flooring. The bike is the central focus, with its handlebars, seat, and pedals visible. In the background, there is a white kitchen island with a gold range hood, a staircase with a white railing, and a large window with a view of the outdoors. The text "Having the tools to lose weight DOES NOT MEAN you will lose weight!" is overlaid in the center of the image in a bold, yellow font with a blue outline.

**Having the tools to
lose weight DOES NOT
MEAN you will lose
weight!**

Process Radar Chart



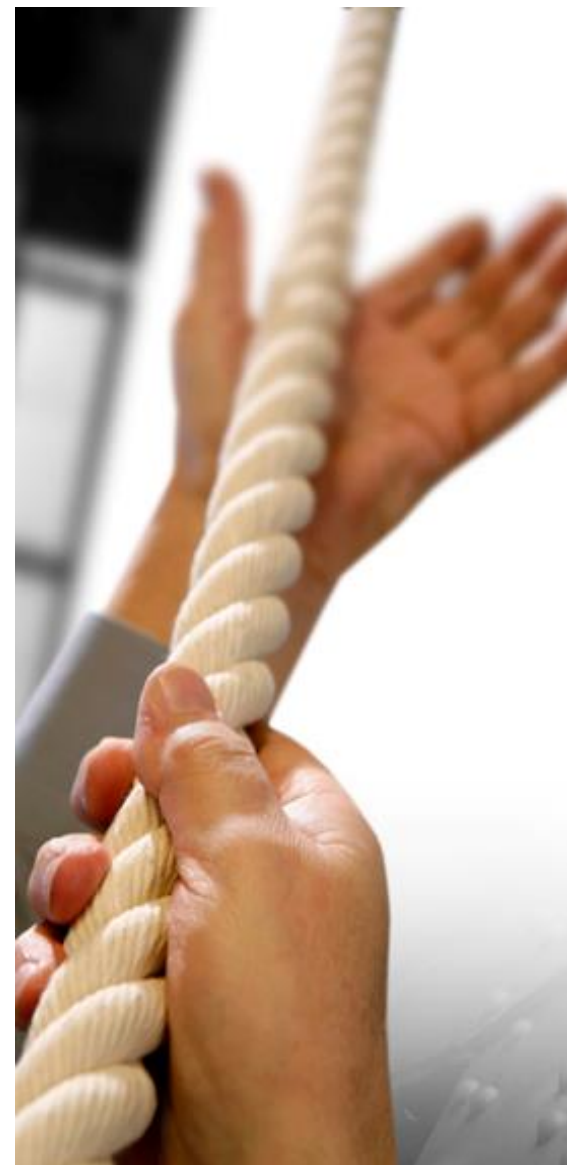
Challenges and changes (1 of 2)



- Competition
- Project speed, complexity and change
- Massive competition for skilled labor
- Strong competition for management talent
- Tectonic technological shifts
- Poor-quality documents
- Material acquisition and availability

Challenges and changes (2 of 2)

- Workforce demographics and attitudes
- Customer demands
- “Internet” smarts
- Shifting delivery methodologies
- Labor overruns and margin fade
- Abundance of data but lack of knowledge



Focus on the things you can control and influence!

- YOU control the communication
- YOU control the planning at all levels
- YOU influence the pace of work
- YOU control the attitude of the workforce
- YOUR firm has the “bandwidth” to control the tools, processes and accountability



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FMI

The Economics of Operational Efficiency

Section Two

The difference between “best of class” and “average” contractors



Example construction company P&L

	Amount	% of Sales
REVENUE	\$50,000,000	100.00%
DIRECT COSTS		
Labor	\$20,000,000	40.00%
Materials	\$20,000,000	40.00%
Equipment	\$1,750,000	3.50%
Subcontractors	\$1,250,000	2.50%
TOTAL Direct Costs	\$43,000,000	86.00%
Gross Profit	\$7,000,000	14.00%
Overhead	\$5,000,000	10.00%
NET PROFIT (before taxes)	\$2,000,000	4.00%

“What-if” comparison



SCENARIO ONE

- Improve productivity by 10%
- Maintain revenue at \$50,000,000
- Maintain overhead at \$5,000,000



SCENARIO TWO

- Productivity slips by 10%
- Maintain revenue at \$50,000,000
- Maintain overhead at \$5,000,000



Scenario 1

Improving productivity by 10 percent can double your net profit



	Original		10% Improvement in Productivity	
	Amount	% of Sales	Amount	% of Sales
REVENUE	\$50,000,000	100.00%	\$50,000,000	100.00%
DIRECT COSTS				
Labor	\$20,000,000	40.00%	\$18,000,000	36.00%
Materials	\$20,000,000	40.00%	\$20,000,000	40.00%
Equipment	\$1,750,000	3.50%	\$1,750,000	3.50%
Subcontractors	\$1,250,000	2.50%	\$1,250,000	2.50%
TOTAL Direct Costs	\$43,000,000	86.00%	\$41,000,000	82.00%
Gross Profit	\$7,000,000	14.00%	\$9,000,000	18.00%
Overhead	\$5,000,000	10.00%	\$5,000,000	10.00%
NET PROFIT (before taxes)	\$2,000,000	4.00%	\$4,000,000	8.00%

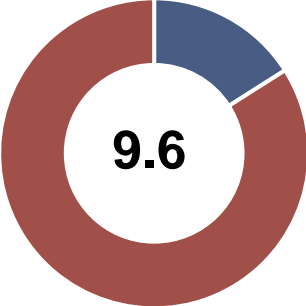
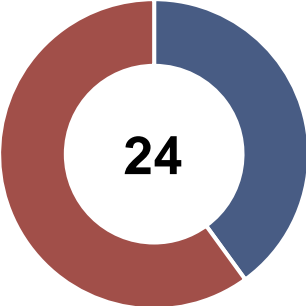
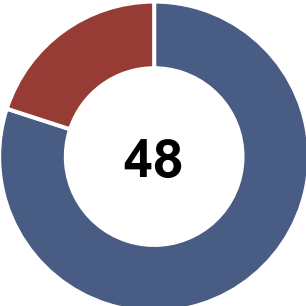
Scenario 2

A 10 percent slip in productivity can eliminate your net profit



	Original		10% Improvement in Productivity	
	Amount	% of Sales	Amount	% of Sales
REVENUE	\$50,000,000	100.00%	\$50,000,000	100.00%
DIRECT COSTS				
Labor	\$20,000,000	40.00%	\$22,000,000	44.00%
Materials	\$20,000,000	40.00%	\$20,000,000	40.00%
Equipment	\$1,750,000	3.50%	\$1,750,000	3.50%
Subcontractors	\$1,250,000	2.50%	\$1,250,000	2.50%
TOTAL Direct Costs	\$43,000,000	86.00%	\$45,000,000	90.00%
Gross Profit	\$7,000,000	14.00%	\$5,000,000	10.00%
Overhead	\$5,000,000	10.00%	\$5,000,000	10.00%
NET PROFIT (before taxes)	\$2,000,000	4.00%	\$-0-	0.00%

The opportunity

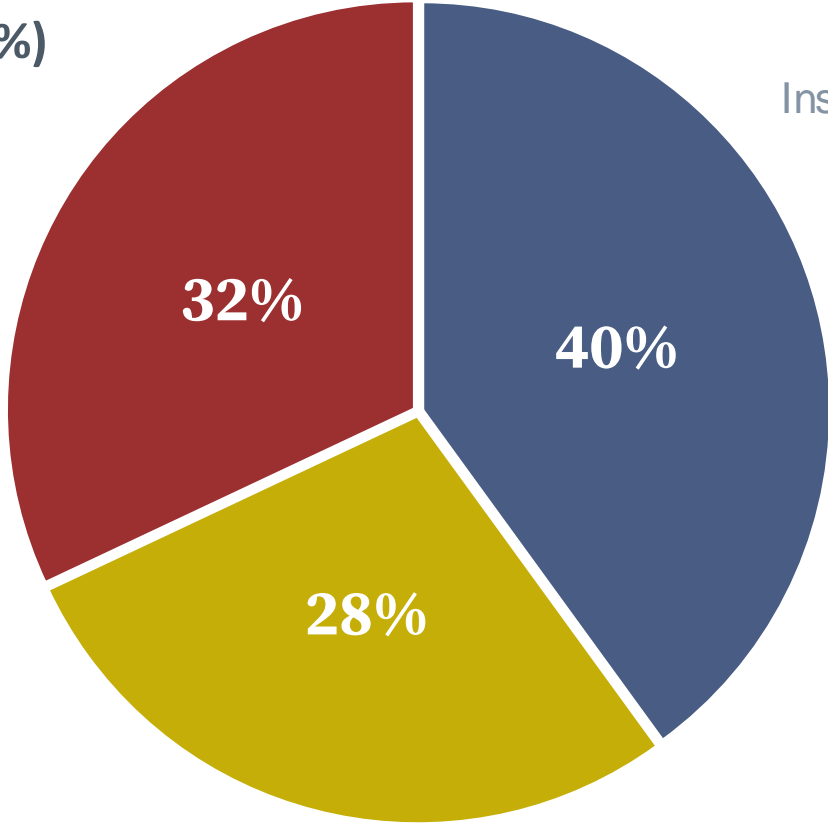
Percent Improvement in Labor Productivity	Minutes Saved in an 8-Hour Day	Percent Increase in Net Profitability
2%	 <p>9.6</p>	20%
5%	 <p>24</p>	50%
10%	 <p>48</p>	100%

How field employees spend their time in the construction industry

The Work Sampling Study

Recoverable Lost Time (32%)

Waiting for information, materials, equipment, tools, manpower or other trades.
Rework on items already installed



Primary Time (40%)

Installing units of work for the first time

Secondary Time (28%)

Planning, scheduling, material handling, layout, setup, mobilization, etc.

So what?

- What if you improved labor expenditures by just 5 percent?
- In a great market, how does this help the firm?
- In a recessionary market, how does this help the firm?



The Critical Processes of Operational Excellence

Section Three

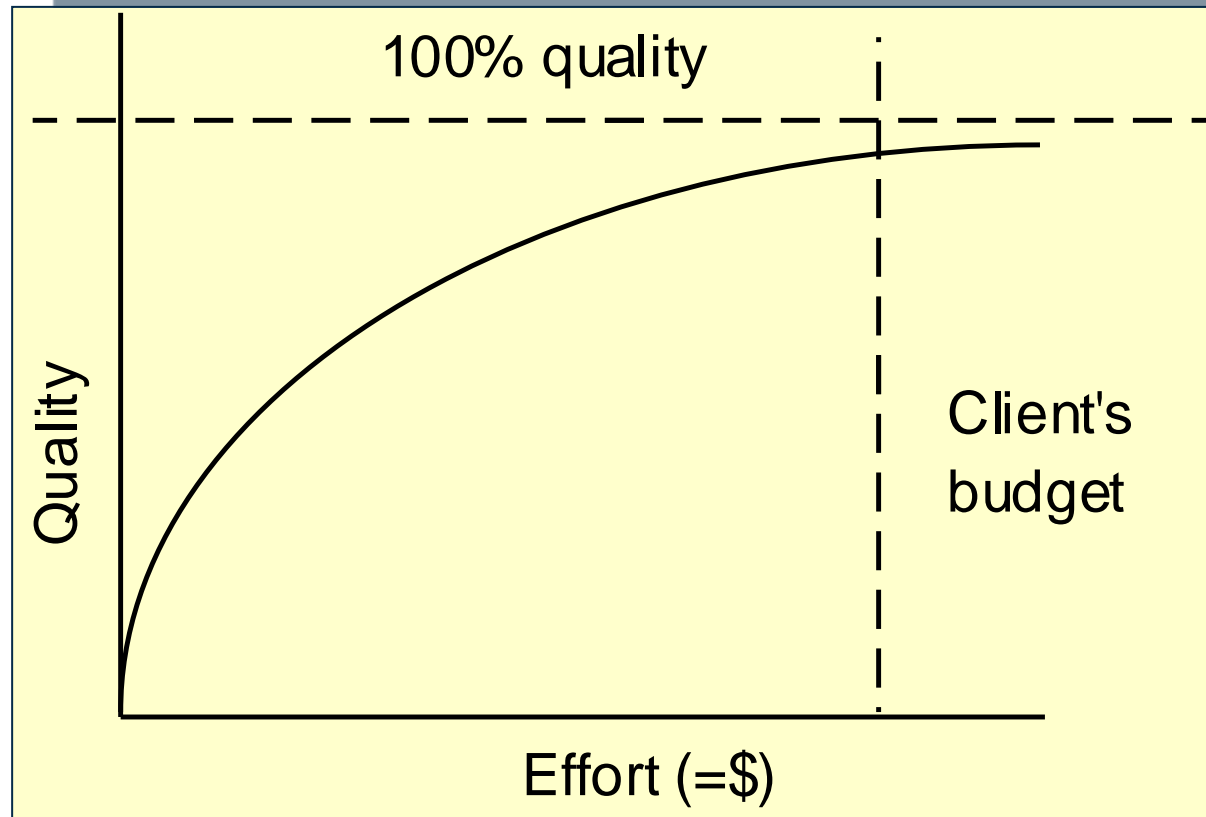
Recall: The definition of Operational Excellence



Critical tools for YOUR toolbox

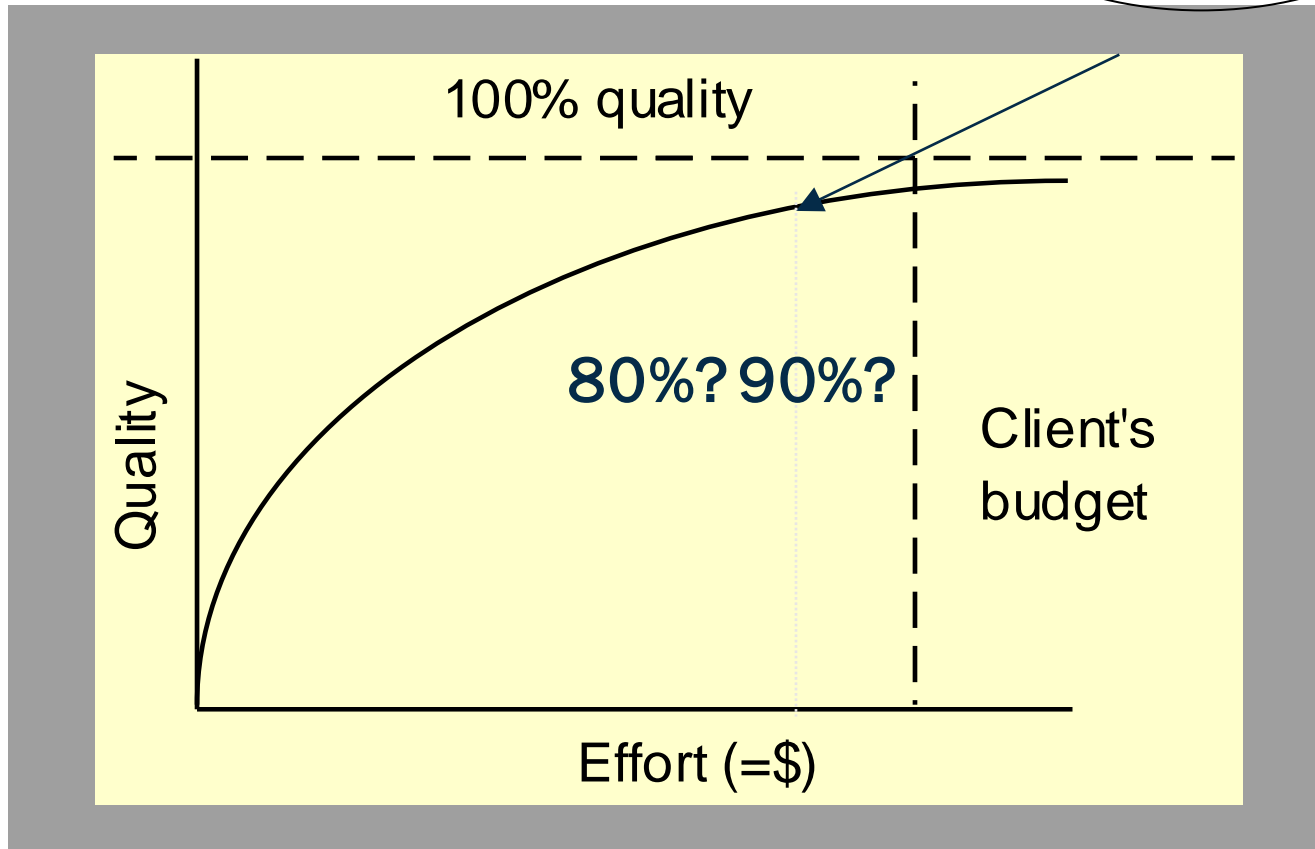


Exit strategy – an alternative (1 of 3)

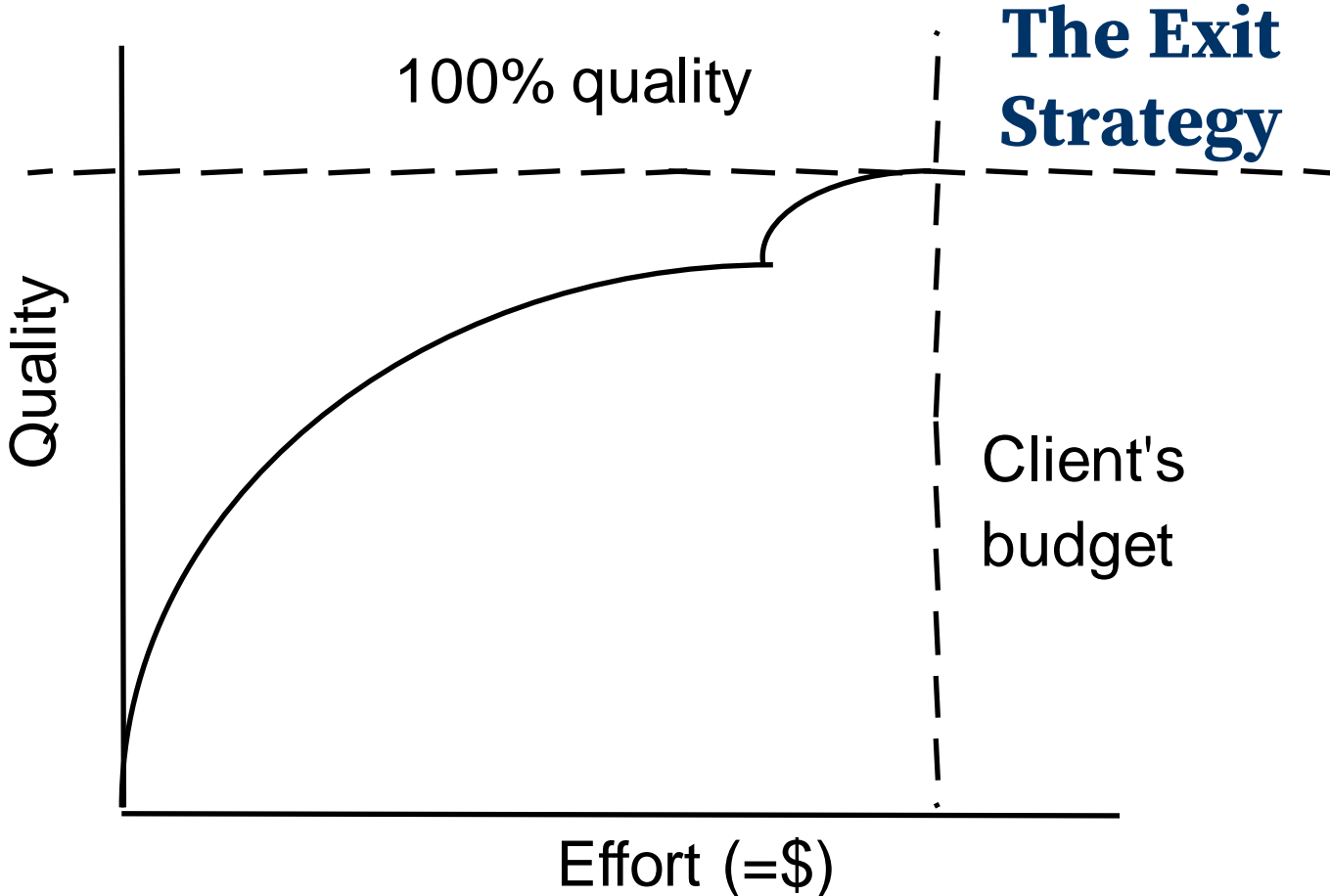


Exit strategy – an alternative (2 of 3)

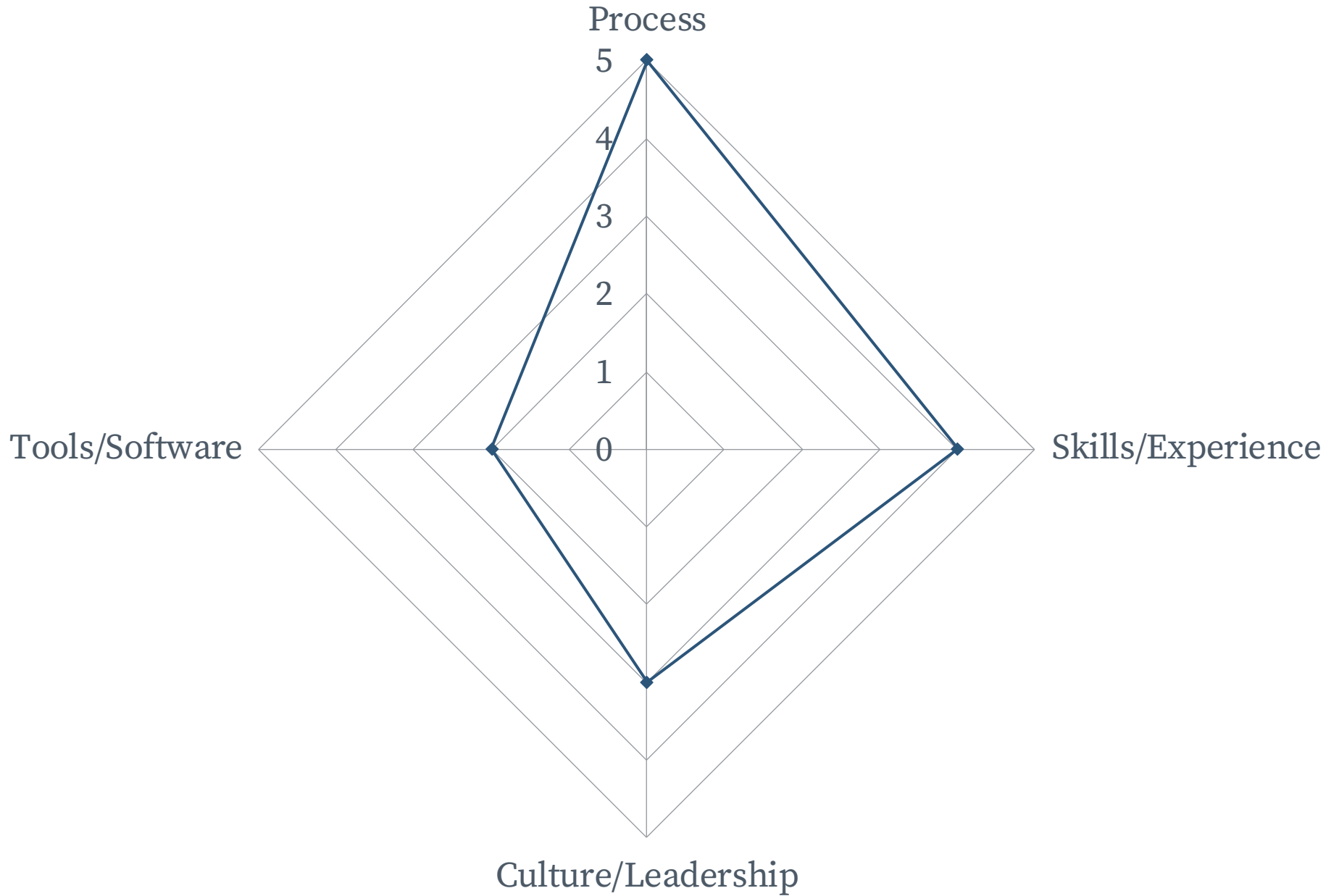
**Shout “Stop”
right here**



Exit strategy – an alternative (3 of 3)



Process Radar Chart





The Power of Metrics

Section Four

Do you have project managers or project witnesses?

PROJECT LEADERS...

- Know where the job stands today
- Know where the job will stand at completion

PROJECT WITNESSES...

- Watch the job roll by
- Play the victim card

What **MUST** we measure

■ **Micro-Level**

- Job cost and production tracking and feedback
- Project dashboard of KPIs

■ **Macro-Level**

- Upstream = process compliance and behaviors
 - Are we doing the right things consistently?
- Downstream = result measure

Earned Value Example

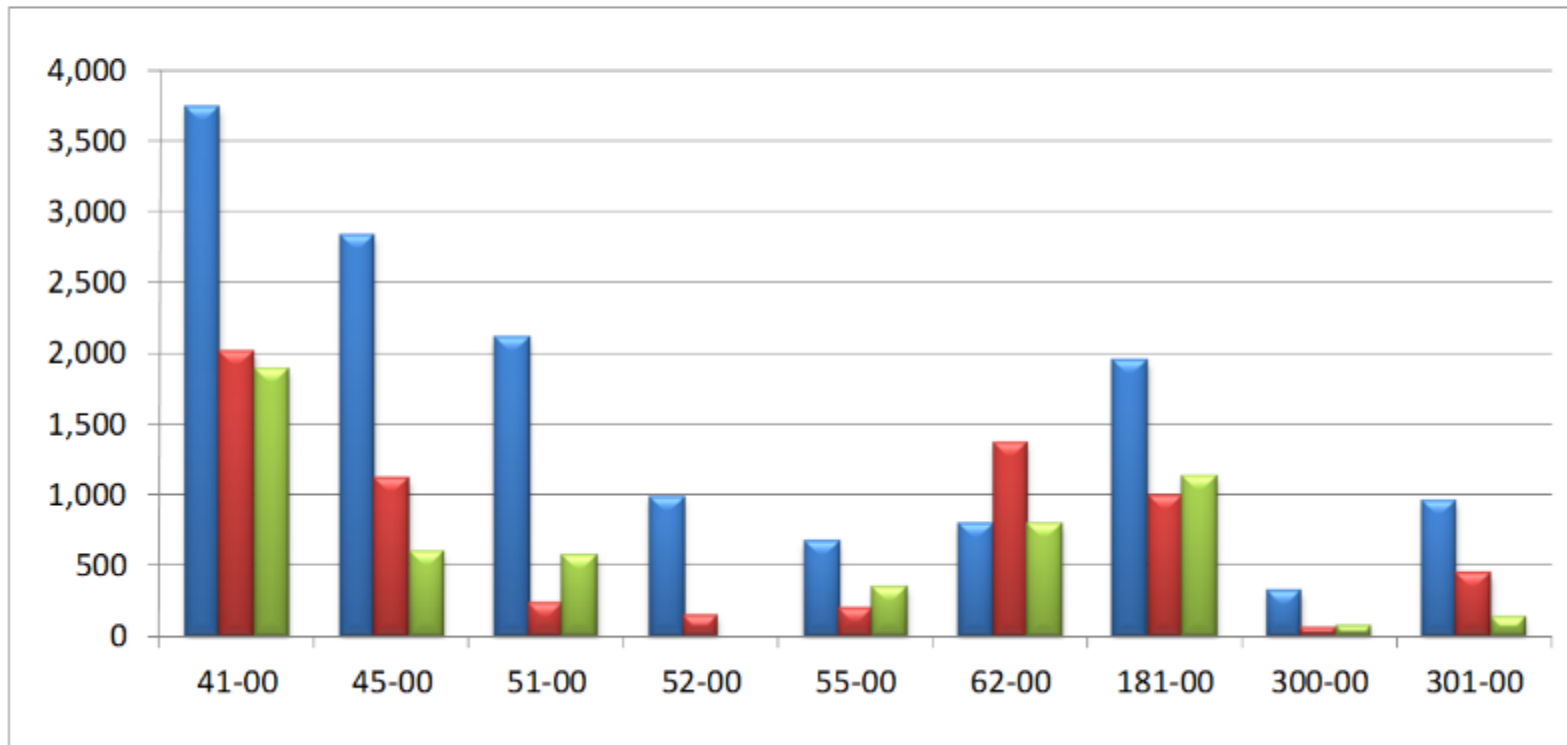
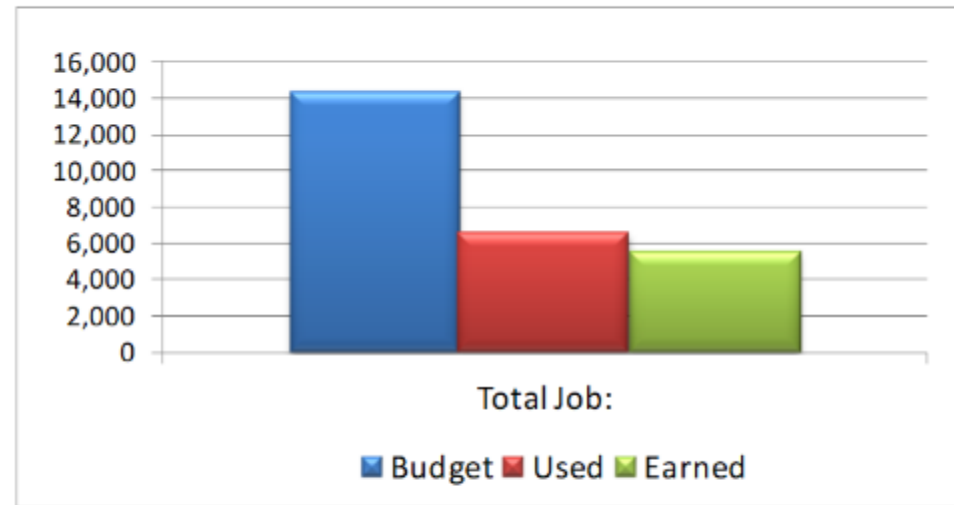
A	B	C	D	E	F	G	H	I	J	K	L	
BUDGETED				ACTUAL							PRODUCTIVITY	PROJECTED
Activity	Units	UOM	Hours		Units	UOM	% Comp.	Earned Hrs.	Act. Hours	Earned/Actual	Hours	
A	1000	LF	800		300	LF	30.00%	240	275	87.27%	917.00	
B	5000	SQ FT	1500		2500	SQ FT	50.00%	750	675	111.11%	1350.00	
C	500	EA	550		100	EA	20.00%	110	80	137.50%	400.00	
D	1	LS	150		80.00%	LS	80.00%	120	120	100.00%	150.00	
TOTAL			3000					1220	1150	106.09%	2817.00	

< 1 = Worse than budgeted production
 > 1 = Better than budgeted production

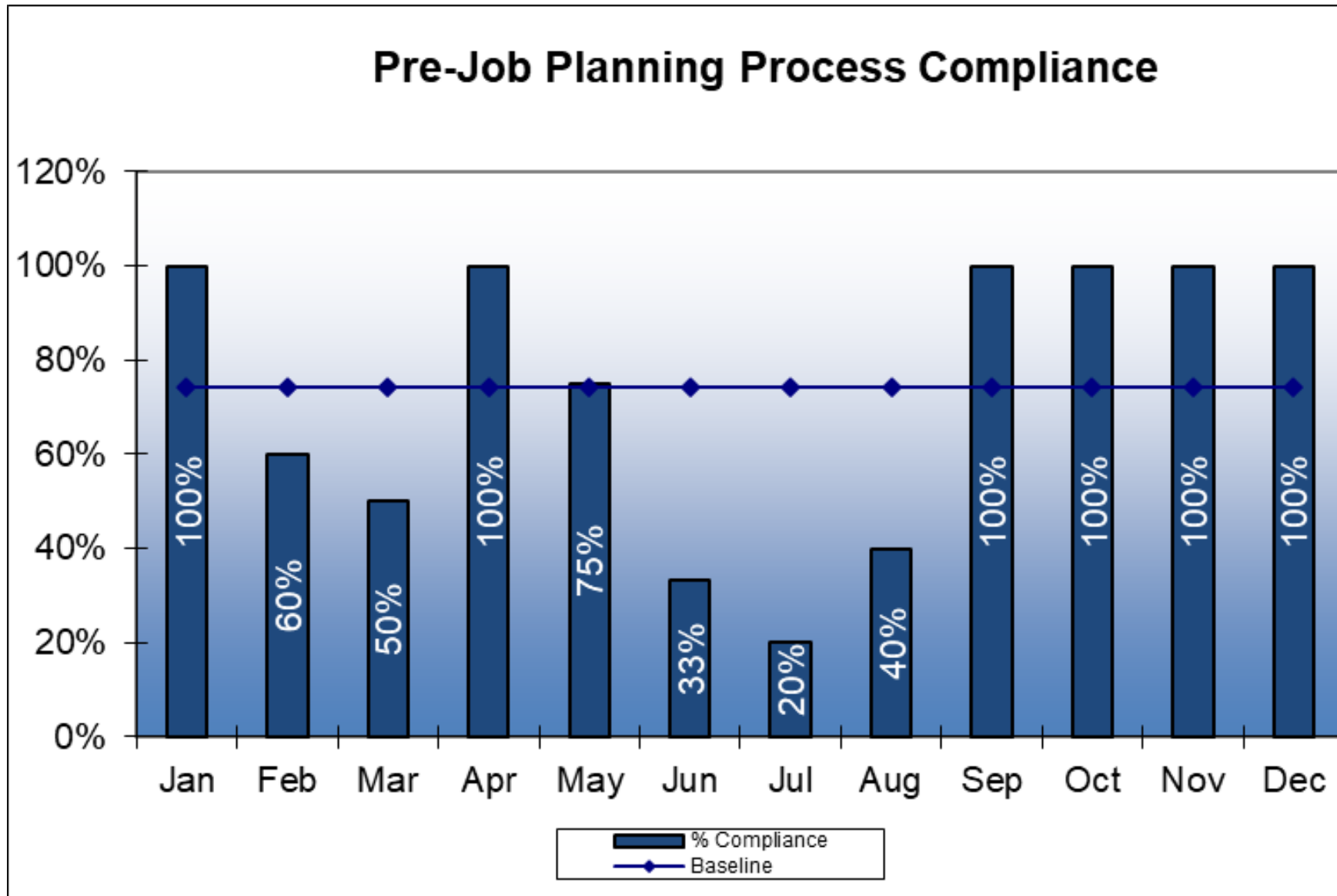
The Bird Report

Cost Code	Budget	Used	Earned
41-00	3,741	2,013	1,890
45-00	2,828	1,112	601
51-00	2,110	232	567
52-00	976	143	0
55-00	667	201	343
62-00	801	1,361	801
181-00	1,950	988	1,132
300-00	320	56	70
301-00	960	453	131
Total Job:	14,353	6,559	5,535

Job Name: Beantown Marketplace
 Week Ending: 12/9/2011



Example “upstream” metrics



The logo features the letters 'FMI' in a bold, white, sans-serif font. The letters are contained within a white square frame that has a thick border. A small orange square is positioned above the dot of the letter 'i'.

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Leading Operational Excellence in Your Firm

Section Five

The leader's role in achieving operational excellence

- It all starts at the TOP!
- Investment is required
- Beat the drum at every opportunity
- Share updates on a regular basis
- Hold employees accountable
- Embrace new industry trends and technology
- Sell the process!

FMI's Productivity Builder® process



Luke Matelan



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Consultant

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As a consultant at FMI, Luke is passionate about helping construction companies reach their full potential. Luke specializes in helping clients beat their expected project margins through implementation and rigorous adherence to best-in-class operational processes, which leads to increased profitability and firm value.

Luke is a facilitator at the FMI Project Manager Academy. He enjoys speaking to industry associations about a host of construction related topics and presenting customized training programs to FMI clients.

Prior to joining FMI, Luke worked for a site developer and was a project manager in the rail industry. Luke played Division I football at Youngstown State University while earning his civil engineering degree.

Expertise / Capabilities:

- Business Consulting
- Operational Performance
- Strategic Planning
- Heavy Equipment Fleet Optimization

Industries:
Construction

Education:
Graduate: Master of Business Administration, International Business, Point Park University

Undergraduate: Bachelor of Engineering, Civil and Environmental Engineering, Youngstown State University

WHO we are




**Industry
Insiders**

Consulting

Capital Advisors



FMI is a leading consulting and investment banking firm dedicated exclusively to the built environment. We serve as the industry's trusted advisor, providing current market insights, deep industry research and key relationships that deliver tangible results for our clients.



We are **industry insiders** who understand your operating environment and your challenges. Our deep knowledge of the built environment helps clients discover what drives value, no matter the project or engagement.

Proven results:

- Create value and sustainable results with solutions that help the whole firm.
- Leverage our industry knowledge and market research to create profitable growth.
- Prepare your workforce through talent development, executive training and succession planning.
- Capitalize on our relationships and experience solely dedicated to serving clients in the built environment.



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