

Building a Business Case for a Work and Asset Management System

John F. Rich
Rich Consulting, LLC

Presented by:



Energy. Knowledge. Results.

Lessons from Best Practice Companies

The Business Case Should be Constructed to Serve Two Purposes:

Optimize Capital Allocation

- All major projects – Infrastructure, IT, Customer Service, etc. compete for capital. Making choices in the use of capital are fateful decisions.
 - *The two most important things I do are optimize the allocation of capital and pick good people.” - Jack Welch*

Manage Project Performance

- An effective business case provides a ongoing results management tool throughout the project implementation and ongoing operational phases.
 - *Performance management starts with project authorization and does not finish until operational objectives are met!*

Lessons from Best Practice Companies

Are These Precepts Relevant to the Utility Industry?

“Life in the utility business is a march down the benchmark curve”.

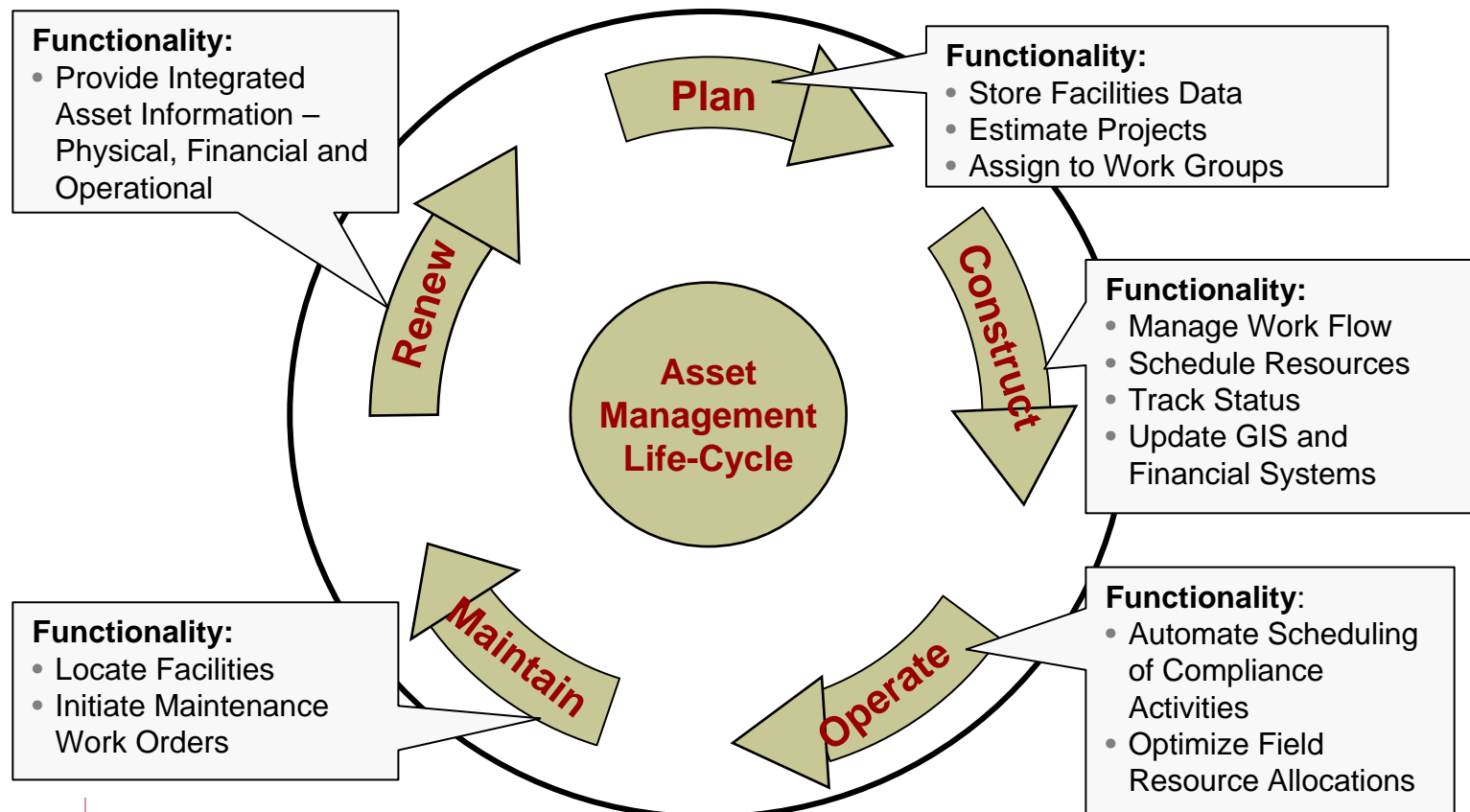
- A Leading Utility CEO



One Potential Technology Solution

Work and Asset Management Systems:

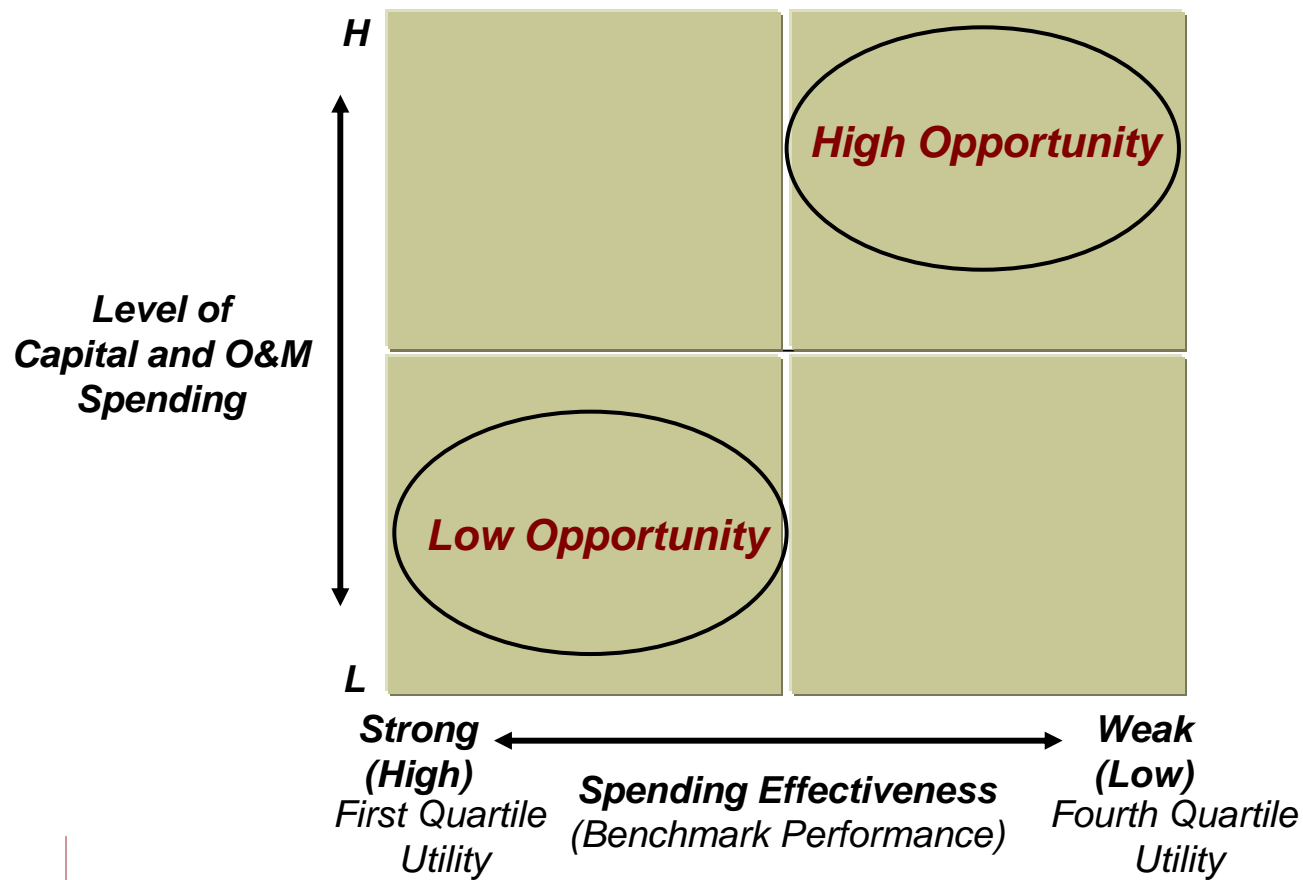
Functionality to optimize performance over the entire asset life-cycle



Is Your Utility a Candidate?

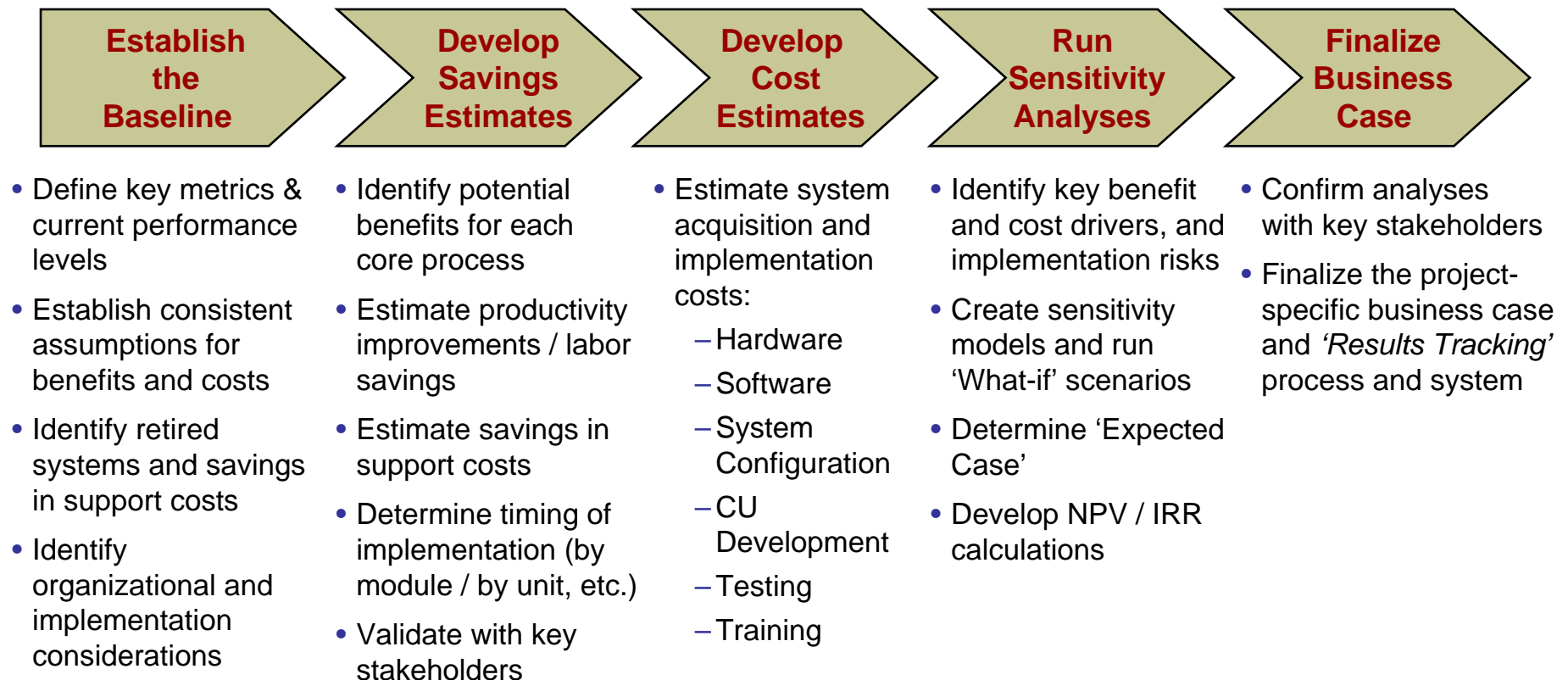
A Quick Gauge of the Potential Opportunity:

What is your level of spending? Where do you stand relative to your peers?



Building the Business Case

Key Steps in Developing a Business Case Analysis



Establishing Assumptions

Initial Assumptions and Business Case Rules

Credited Savings

- Credited savings should be within the control of the key organizations affected by the solution implementation.
- Such savings should also be directly related to or enabled by the solution, and realized only after implementation of the appropriate release.

Costs

- Solution costs should include one-time investments to license and implement the system, as well as on-going support and technology refresh costs.
- Other legacy system retirements or associated termination costs should also be included in the analysis.

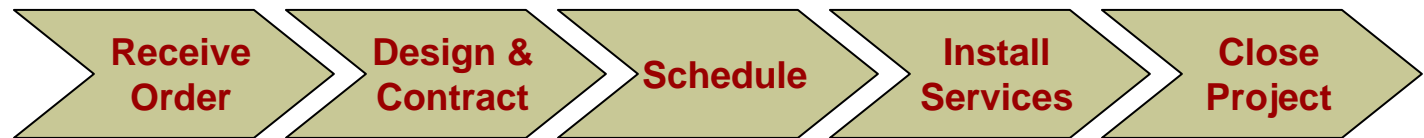
Other Considerations

- Will unfilled vacancies be credited as savings?
- How will critical skills be identified and retained?
- How will change management and training activities be planned and implemented?

Identifying Potential Benefits

Align Functionality with Process Steps to Determine Potential Benefits

New Construction Processes (Illustrative)



WAM Functionality

- | | | | | |
|---|--|---|--|---|
| <ul style="list-style-type: none"> • Receive order information • Initiate project • Write contract • Route to Design organization | <ul style="list-style-type: none"> • Design main/service • Calculate CIAC • Assign work to work group • Track status | <ul style="list-style-type: none"> • Schedule work and resources • Track project status | <ul style="list-style-type: none"> • Manage contractors • Schedule resources • Track status | <ul style="list-style-type: none"> • Close project (automatically or manually) • Update financial records |
|---|--|---|--|---|

Potential Benefits

- | | | | | |
|--|--|--|--|---|
| <ul style="list-style-type: none"> • Reduced time for initiation • Consistent entry and tracking of work orders • Links to GIS / Location information | <ul style="list-style-type: none"> • Designer productivity • Accurate cost estimation • Efficient permitting • Levelized workloads | <ul style="list-style-type: none"> • Realistic forecasts based on real resource and component availability / constraints • Levelized construction workload | <ul style="list-style-type: none"> • Consistent / standardized work practices • Efficient use of contractors • Direct links to accounting • Optimal inventory • Accurate tracking of progress | <ul style="list-style-type: none"> • Auto-close – no late job charges • Auto-update of project cost accounting and financial records • Auto-update GIS with location information |
|--|--|--|--|---|

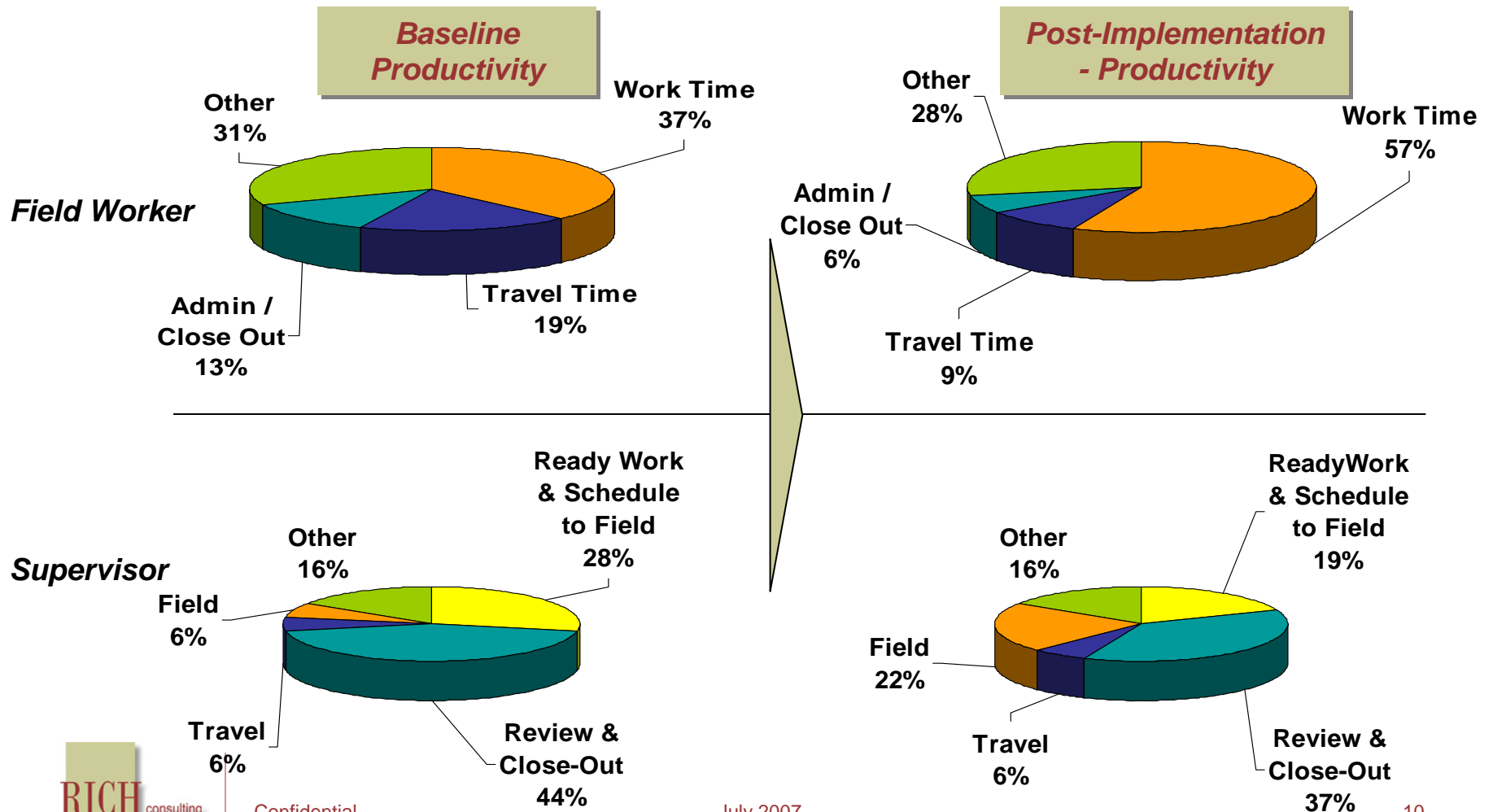
Developing Savings Estimates

Benefits Should be Calculated in Terms of Improvements in Key Metrics

Solution Functionality	Project Objectives			
	Increase Field-Force Productivity	Reduce Admin Costs	Reduce Errors and Re-work	Reduce Hand-offs & Cycle-Time
Auto-Generation of Work Orders	X	X		X
Standardized Processes	X			X
Auto-Assignment / Auto-Routing	X	X		
Efficient User Interface	X		X	
Field Info. Access / Data Entry	X	X	X	
Automated Workflow		X		X
<i>Sample Metric</i>	<i>Ave. No. of Work-Orders / Day</i>	<i>Total Monthly Admin Exp</i>	<i>First-Call Resolution %</i>	<i>Ave. Work-Order Cycle Time</i>

Developing Savings Estimates

Typical Changes in Operational Metrics



Itemizing Benefits ... and Costs!

Summary Output Sheet -- Benefits and Costs				
O&M			Savings	
Labor	Field		\$ 432,000	
	Supervision (Foreman, Supervisors, Managers)		\$ 4,500	
	Administrative		\$ 7,000	
	Coordination / Analysis (Analysis, Dispatch)		\$ 13,000	
	Indirect (Back-office -- F&A, HR, IT)		\$ 97,596	
	Non-Labor	Supply Chain (materials, inventory)		\$ 2,600
	Supply Chain -- Contractor		\$ -	
	Fleet		\$ -	
	Facilities		\$ -	
	Systems		\$ -	
	Total		\$ 556,696	
	Savings as a Percent of Budget		2.7%	
Capital				
Labor	Field (includes Sales, Engineering, and Field)		\$ 2,261,400	
	Supervision (Managers and Directors)		\$ 436,400	
	Administrative		\$ 87,500	
	Coordination / Analysis (Analysis, Dispatch)		\$ 247,000	
	Indirect (Back-office -- F&A, HR, IT)		\$ -	
Non-Labor	Supply Chain (materials, inventory, handling)		\$ -	
	Supply Chain Working Capital (one-time charge)		\$0	
	Supply Chain - Contractor		\$ -	
	Fleet		\$ -	
	Facilities		\$ -	
	Systems - Contractor		\$ -	
	Total		\$ 3,032,300	
	Savings as a Percent of Budget		2.4%	
	Total		\$ 3,588,996	
Implementation Costs -- Initial and On-going		Year 1	Year 2	Year 3
	O&M -- Implementation	\$ -	\$ -	\$ -
	Capital -- Implementation	\$ 3,952,000	\$ 7,943,520	\$ -
	O&M -- On-going	\$ 420,000		
	Cap -- On-going	\$ -		
	O&M -- Upgrade (Year 5)	\$ -		
	Cap -- Upgrade (year 5)	\$ 1,340,000		
	Cost Avoidance	\$ 3,589,050		
	Total	\$ 13,235,520		

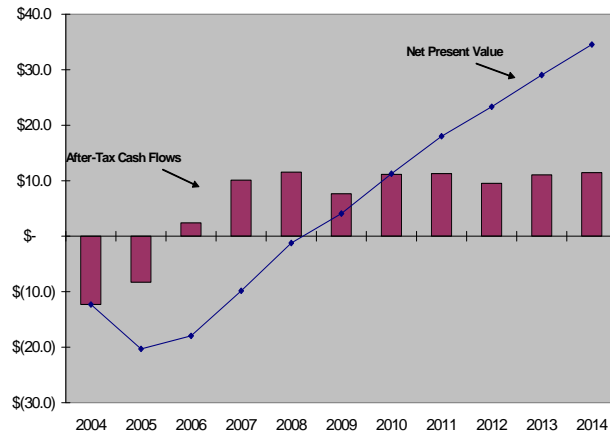
Analyzing Results

Communicate Results in the Terms the Management will Understand!

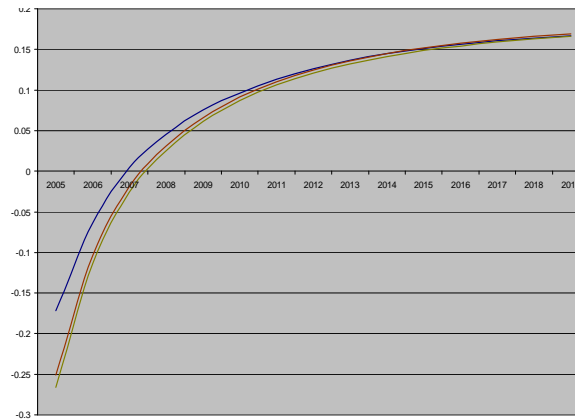
NPV, IRR and EPS results can be developed for each scenario

Project NPV

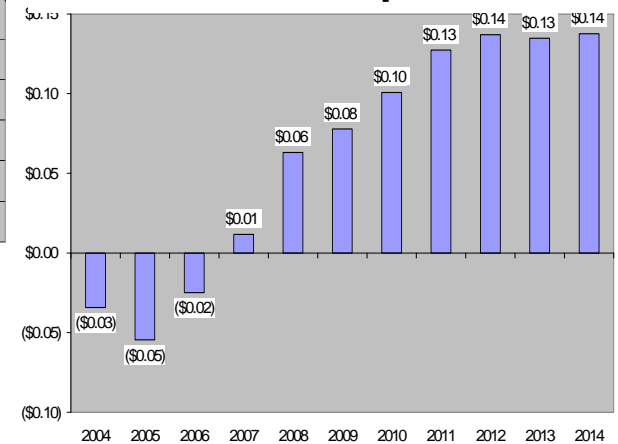
WVMS Project - Summary Financials



Project IRR



EPS Impact



Evaluating Sensitivities & Risks

Sensitivity Analyses can be Developed to Quantify Potential Risks

+/- 10% change in:

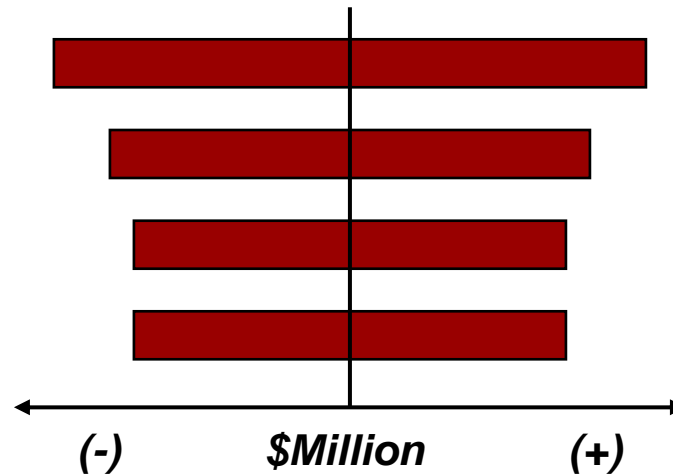
Change in Expected Project NPV

Compliance & Maintenance Productivity

Annual Contractor Savings

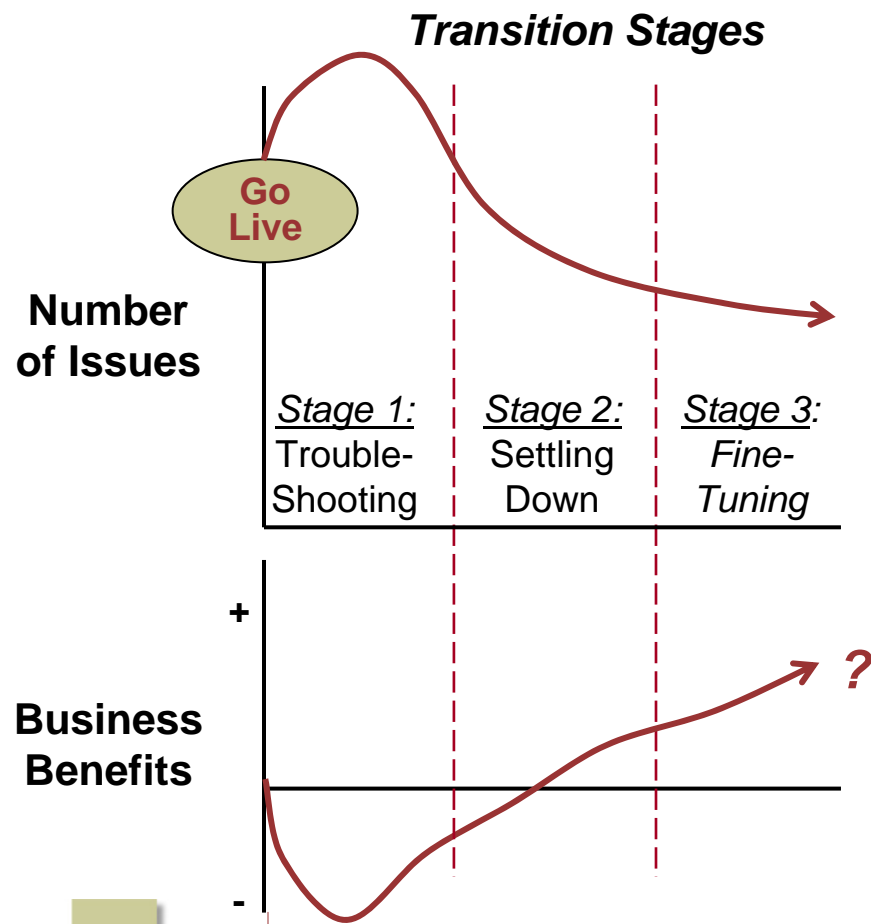
Project Implementation Costs

System Support Costs



One Year Later ...

Best Practice Companies Evaluate the Results Achieved ... Post-Implementation!



Key Questions

- Were the business objectives met?
- Is the new functionality working and are the users using it?
- Are project costs on-budget?
- Are the targeted benefits being delivered?
- What are the lessons learned for future implementations?
- Can the new solution be improved?

Required Actions

- What is the plan to optimize project value?
- What are the key steps and commitments?

Conclusion

The Business Case is a Key Management Tool for:

Making the Capital Allocation Decision

- An effective business case analysis enables you to optimize the scope and investment in a potential system upgrade or replacement and ... justify the funding!

Managing Project Performance

- The business case establishes a disciplined approach to evaluating options, defining assumptions and expected results, analyzing risks and developing mitigation strategies.
- It is best to start at the beginning of the project life cycle, but the business case can be developed anywhere along the way to provide an ongoing performance management tool and sharpen the focus on results.



10 Forbes Road
Braintree, MA 02184
tel: 781.535.6460
fax: 781.535.6464
www.richconsulting.com