

Business Success through Excellence in
Project Management
(Better, Cheaper, Faster and Safer Projects)

*Process and Tools that Enable Project Teams to Achieve
World-Class Performance and thereby Improve
Profitability of the Company*

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Nick has over 30 years of Global Project Engineering, Management, Consulting and Training experience in the Chemical, Petroleum and Air Pollution Control industry. As a Project Management Consultant at Chevron, he provides Consultation and Training to Project Professionals worldwide.

Nick has a B.S. and M.S. in Chemical & Petroleum-Refining Engineering and a Ph.D. in Engineering Economics & Management from the Colorado School of Mines. He is a registered Professional Chemical Engineer in the State of California. Nick has published and presented many papers at technical organizations and is a recipient of industry award from Pathfinder for outstanding Contribution to the advancement of Project Management Technology and Chevron Chairman's award for implementing Value Engineering throughout the corporation.

Agenda

I. Project Management's Impact on the Bottom Line

Improve ROCE and TSR

II. Project Development & Execution Process

*Effective Communication Between Decision Makers,
Multifunctional Project Team and Stakeholders*

III. Value Improving and Best Practices

*Optimize Cost, Schedule, Performance and Safety aspects of any
project*

IV. Total Cost Management

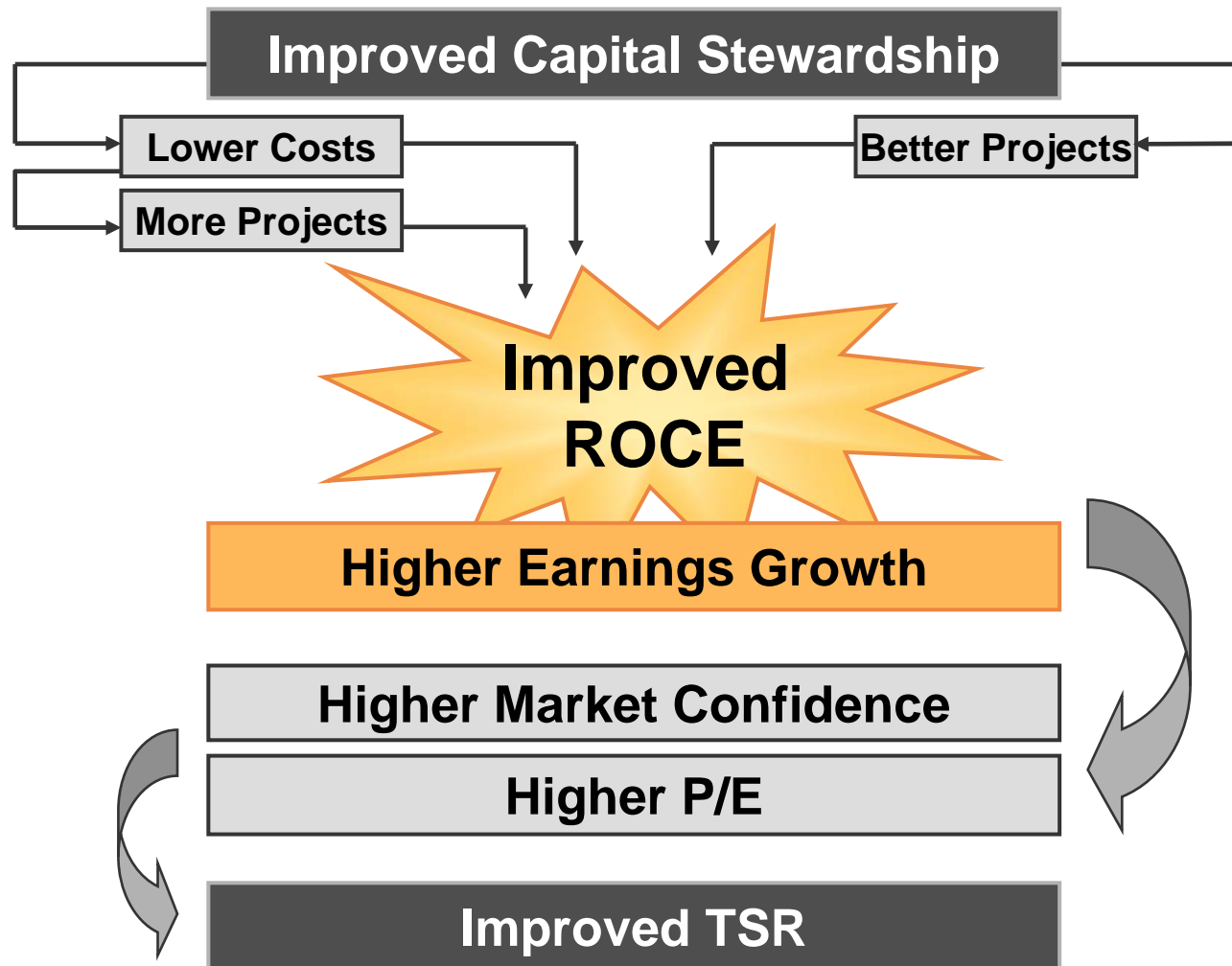
Plan, Schedule, Estimate, Monitor and Report







Business Case for Improvement

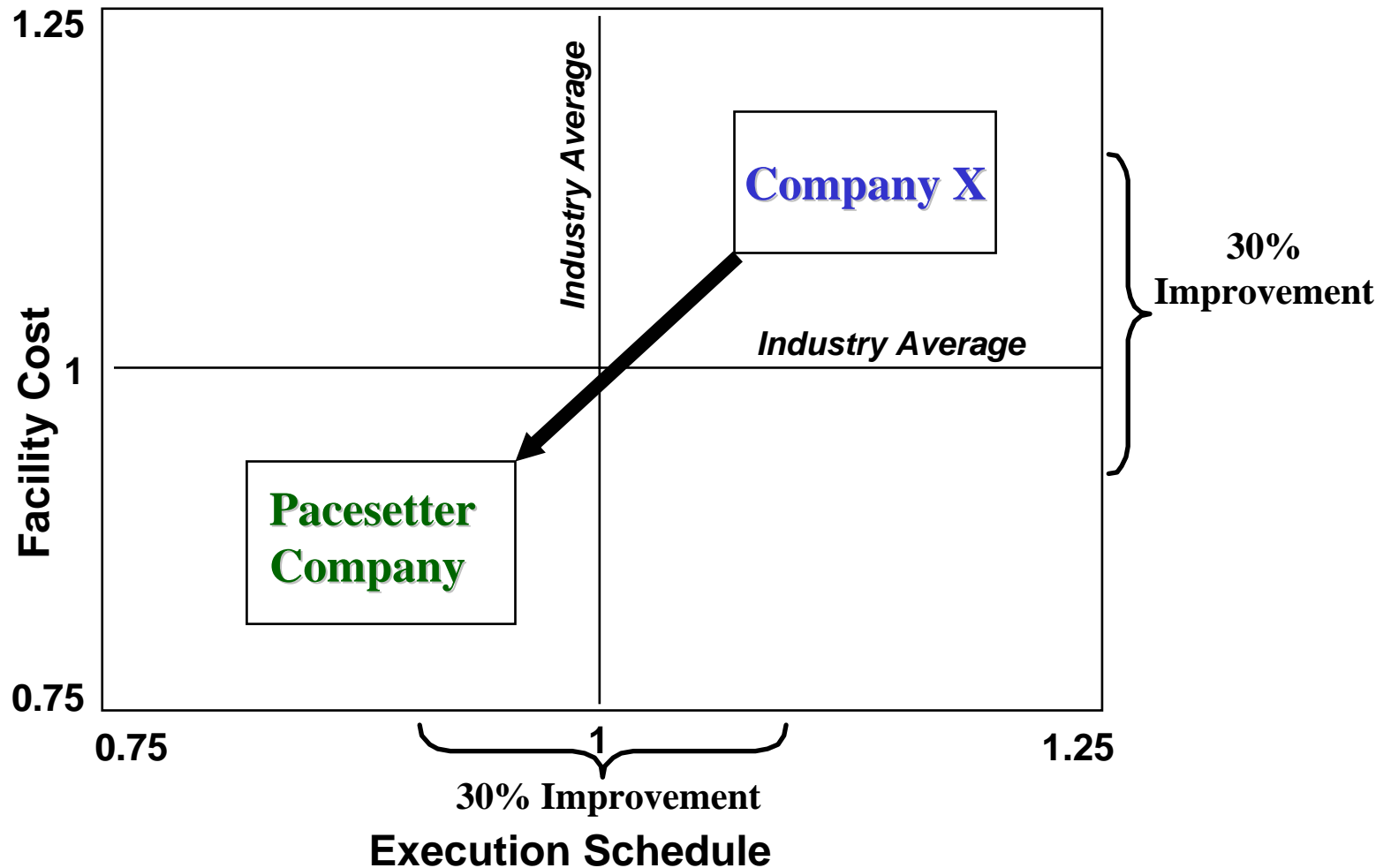


Project Management's Impact on the Bottom Line

**Project Management Improves ROCE by
Increasing Revenues, Decreasing Expenses,
and Reducing Capital Employed**

$$\frac{\text{REVENUE MINUS EXPENSES}}{\text{CAPITAL EMPLOYED}} = \text{ROCE}$$

Project Management Leads to Pacesetter Performance (Cheaper, Faster, and More Predictable)



Project Development & Execution Process

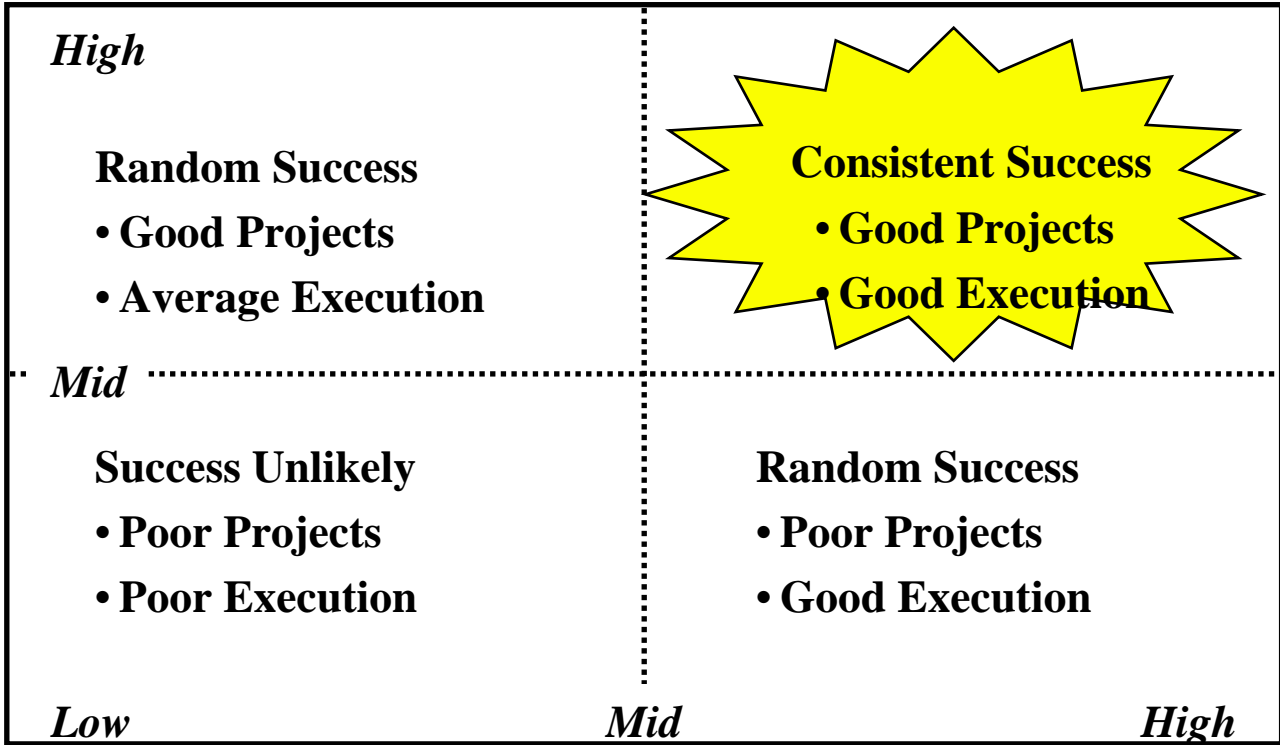
A Process that Facilitates the Optimal Use of Resources (Dollars, People and Technology) Over the Life of an Asset / Project to Maximize Value.

Desired Outcome

- **Select the Right Projects by Improving Decision Making**
- **Improve Project Outcomes through Excellence in Execution of Decisions**

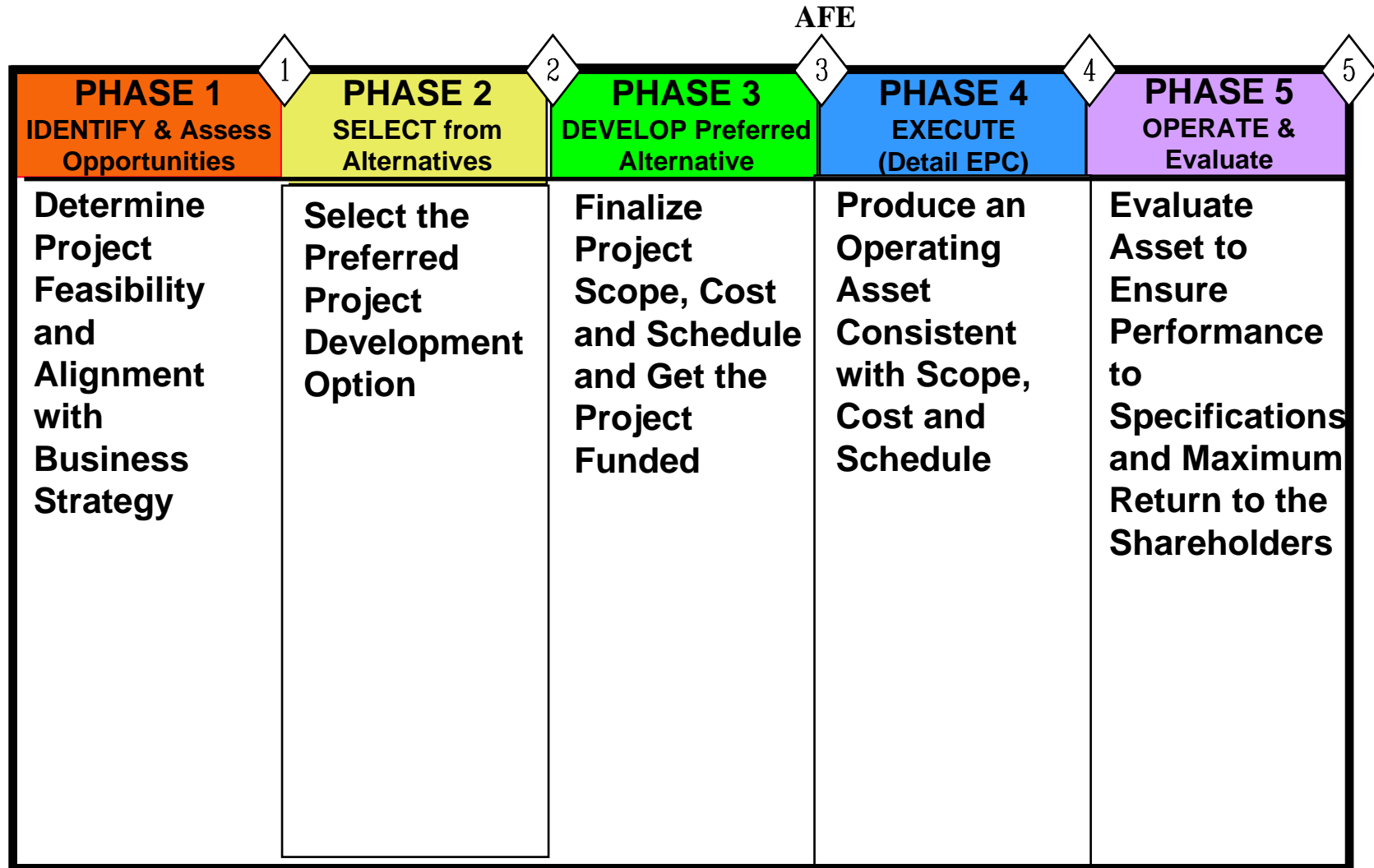
Project Management Vision

**Decision
Quality**



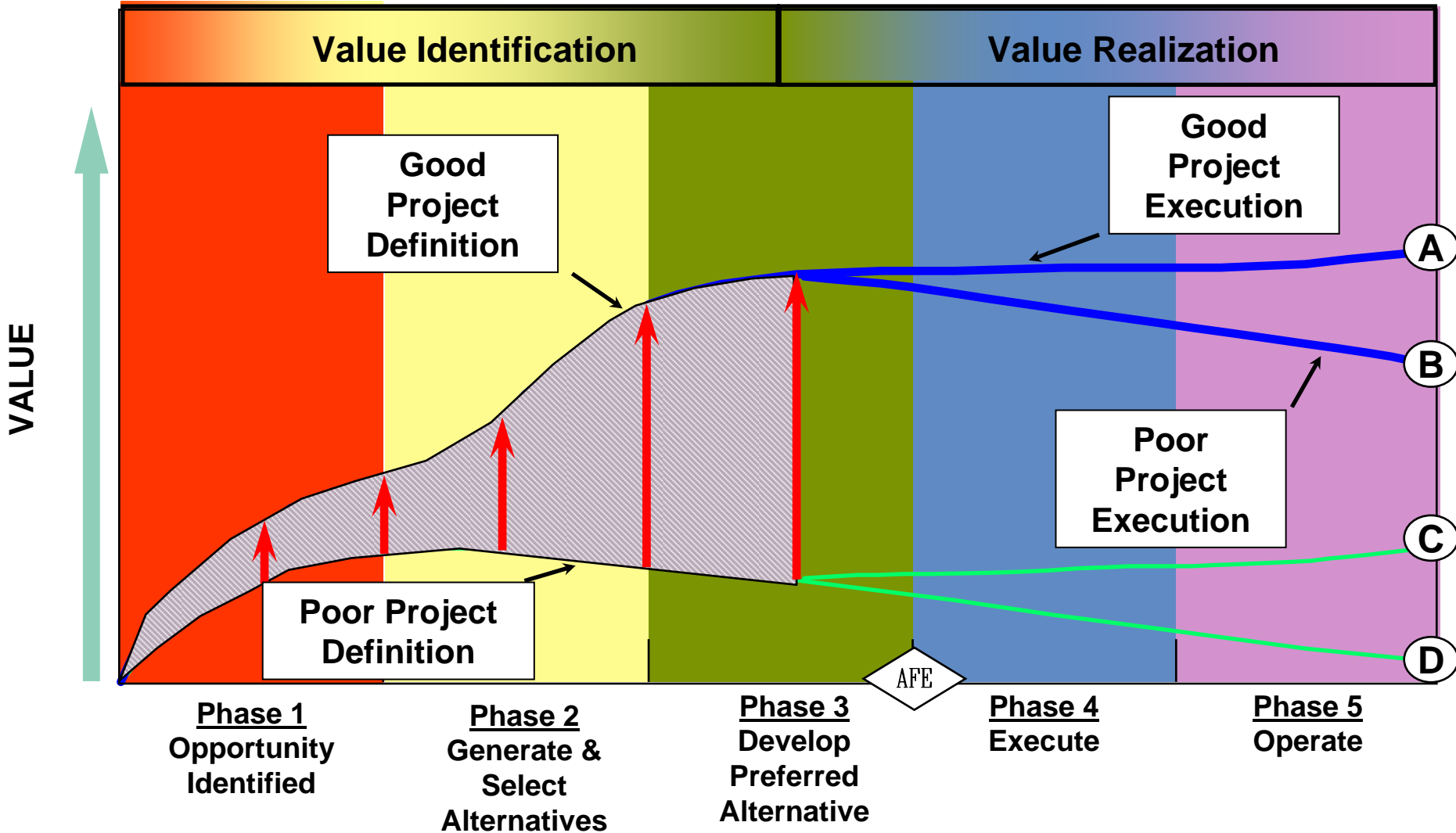
Execution Quality

Project Development & Execution Process

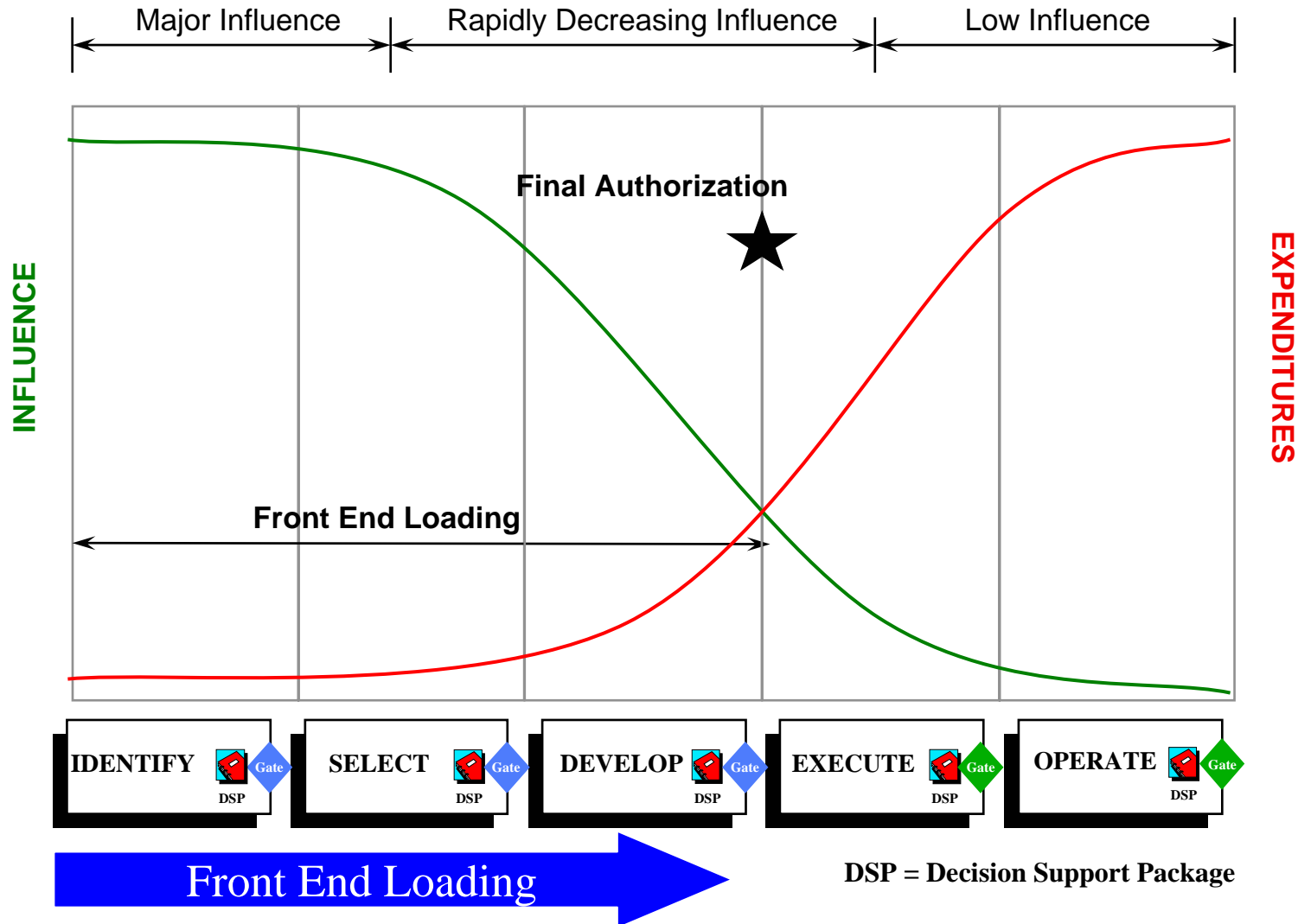


AFE = Appropriation For Expenditure

Project Management's Impact on Creating Value



Influence vs. Expenditures



Project Development & Execution Process

AFE				
1	2	3	4	5
PHASE 1 IDENTIFY & Assess Opportunities	PHASE 2 SELECT from Alternatives	PHASE 3 DEVELOP Preferred Alternative	PHASE 4 EXECUTE (Detail EPC)	PHASE 5 OPERATE & Evaluate
Clearly Frame Goal	Generate Alternatives	Fully Define Scope	Implement Execution Plan	Operate Asset
Test for Strategic Fit	Preliminary Development of Alternatives	Develop Detailed Execution Plans	Min. Changes	Monitor & Evaluate Performance
Preliminary Overall Plan	Develop Expected Value	Refine Estimate	Finalize Operating Plan	Identify New Opportunities
Preliminary Assessment	Identify Preferred Alternative	Submit Funding for Approval	Business Plan for Phase 5	
~1 % Engng.		~25 % Engng.		
Phase 1 Estimate	Phase 2 Est.	Phase 3 Est. (+/- 10 % Accuracy)	Project Review	

AFE = Appropriation For Expenditure

Project Performance Drivers per IPA

- 1. Use of Multifunctional Integrated Teams**
- 2. Best Practical Front End Loading (Phases 1, 2 and 3)**
- 3. Use of Applicable Value Improving / Best Practices**
- 4. Scope Management and Control**

Management's Role (1)

Accountability—Business evaluation should be conducted 1 to 2 years after project completion and Project Sponsor should be held accountable for the financial outcome.

Accessibility—Management should actively participate in gate keeping meetings at the end of each phase of the Process and communicate frequently with the project team.

Management's Role (2)

Leadership—Management should establish clear expectations and objectives for the project team.

Resources—Provide resources of right people and funding to support the project team.

Behaviors—Demonstrate visible support and provide positive consequences for following Process, Best Practices and sharing Lessons Learned.

Key Players

- **Decision Makers**
- **Multifunctional Project Team**
 - Business, Technical, Operations and Maintenance**
- **Stakeholders**
- **Contractors**
- **Vendors / Suppliers**

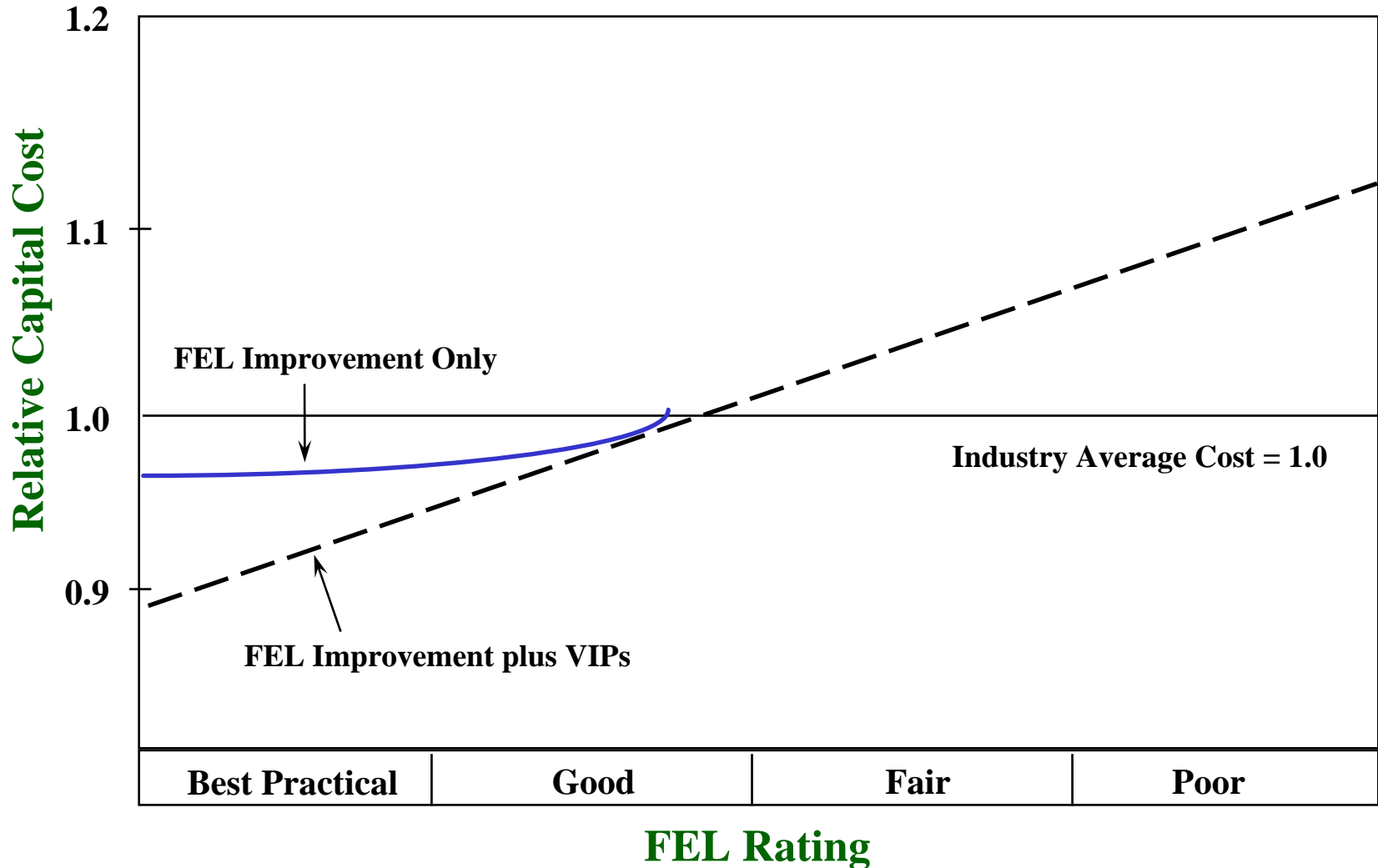
Value Improving / Best Practices

Value Improving / Best Practices are tools to improve project planning and execution. In conjunction with a structured Process they can optimize:

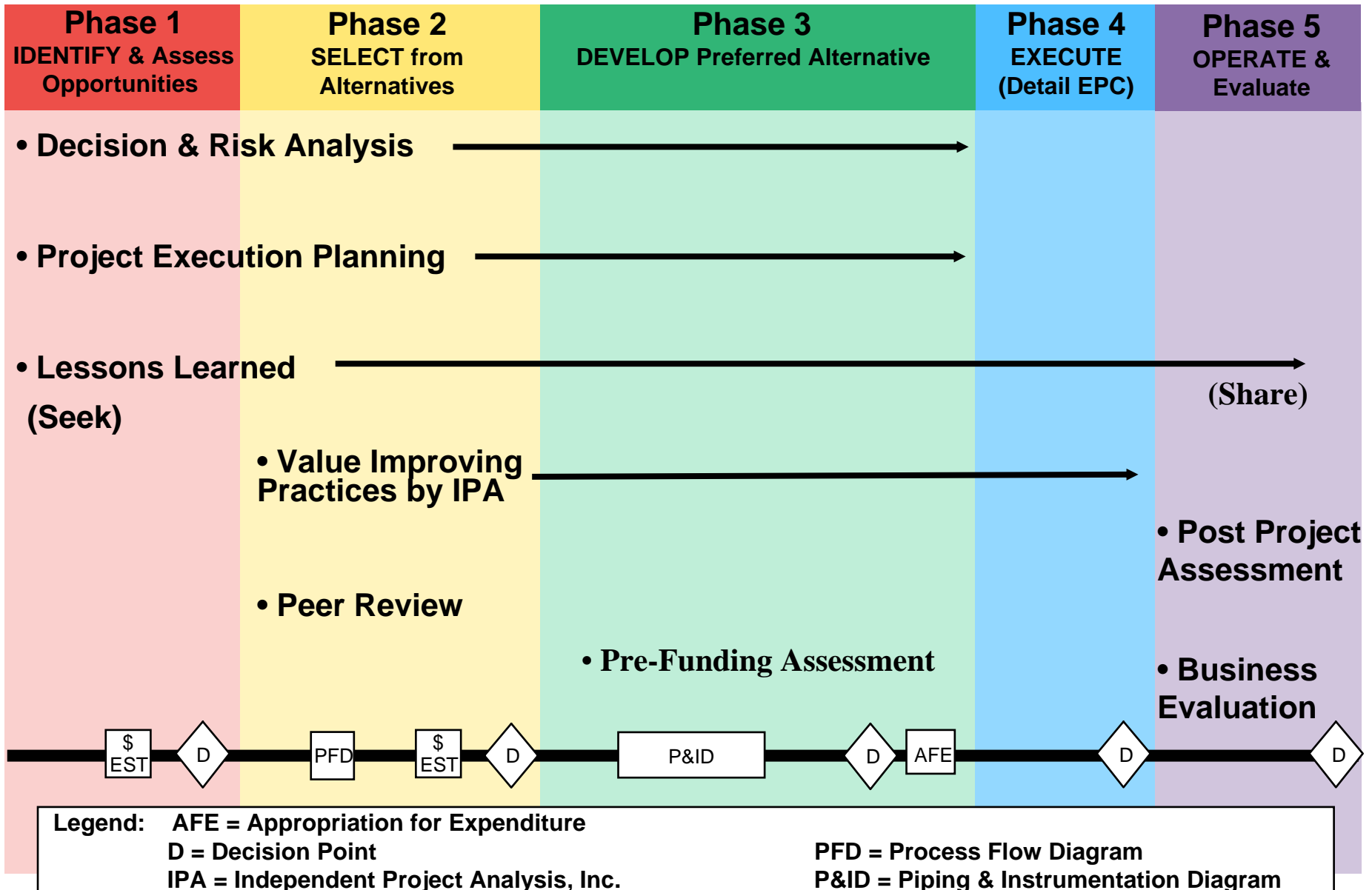
- **Cost**
- **Schedule**
- **Performance**
- **Safety**

Impact of FEL & VIPs (from IPA)

RELATIVE CAPITAL COST AS A FUNCTION OF FEL

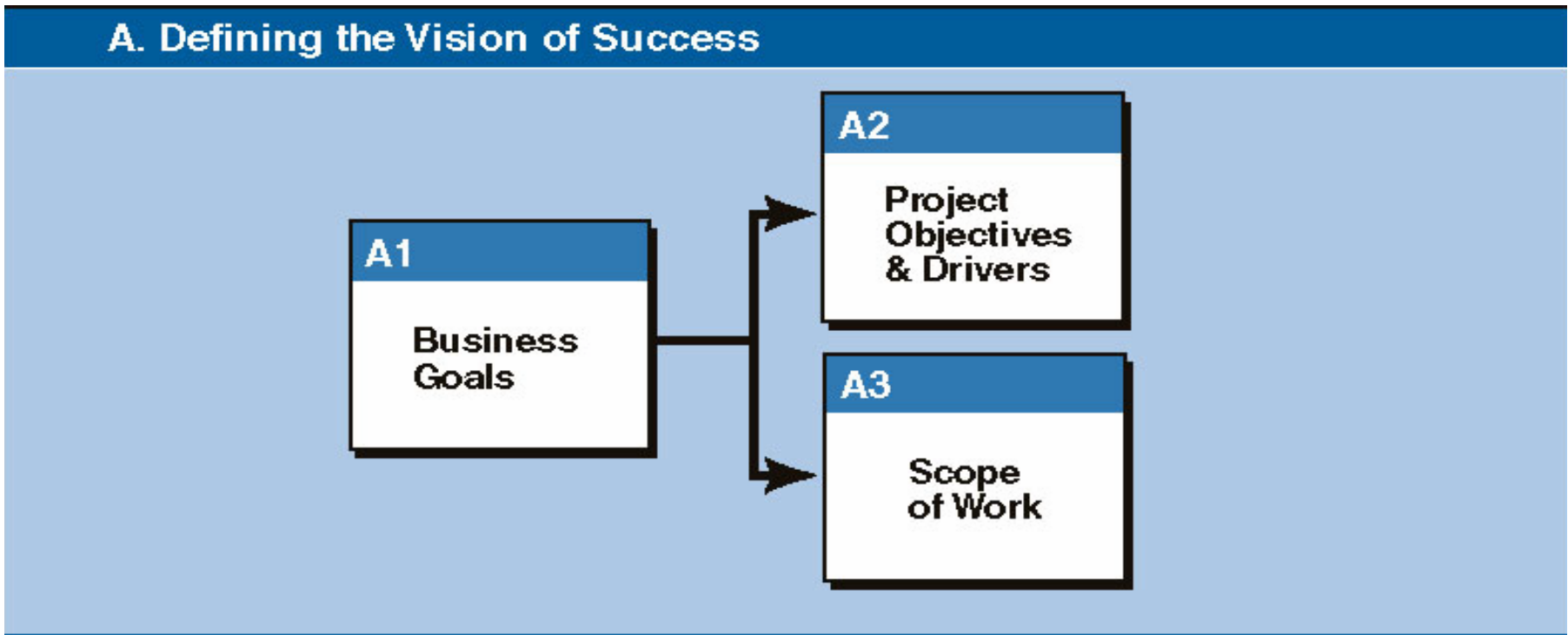


Value Improving / Best Practices



Project Execution Planning--Part A (The Strategic Project Planner by Richard Westney)

Defining the business goals that will determine project success

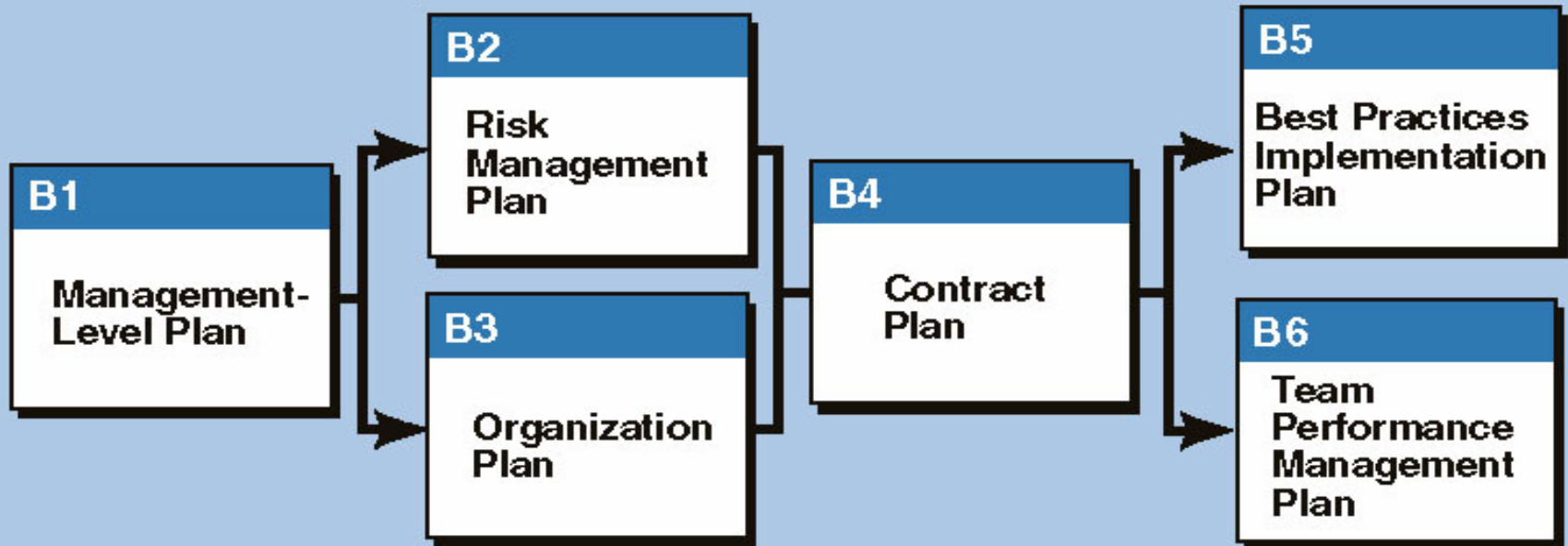


Project Execution Planning--Part B

(The Strategic Project Planner by Richard Westney)

Defining major phases, milestones, risks, organization, staffing and best practices to be used

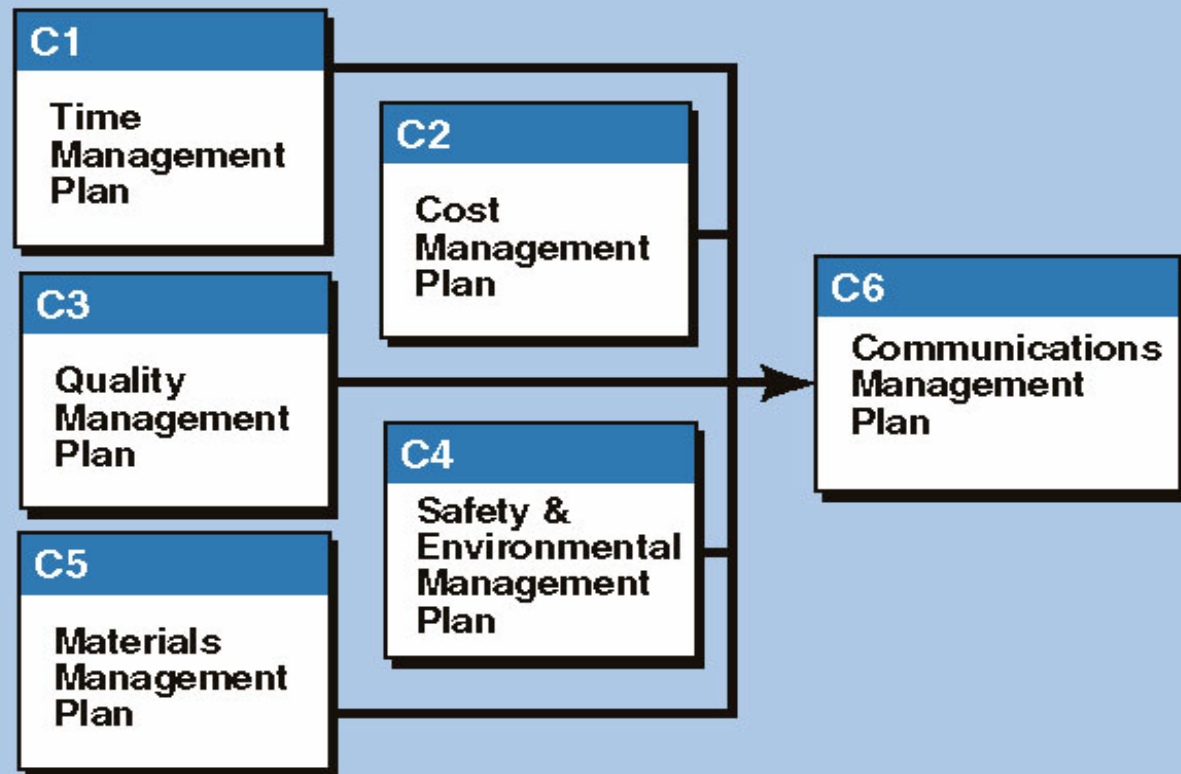
B. Defining the Strategy for Success



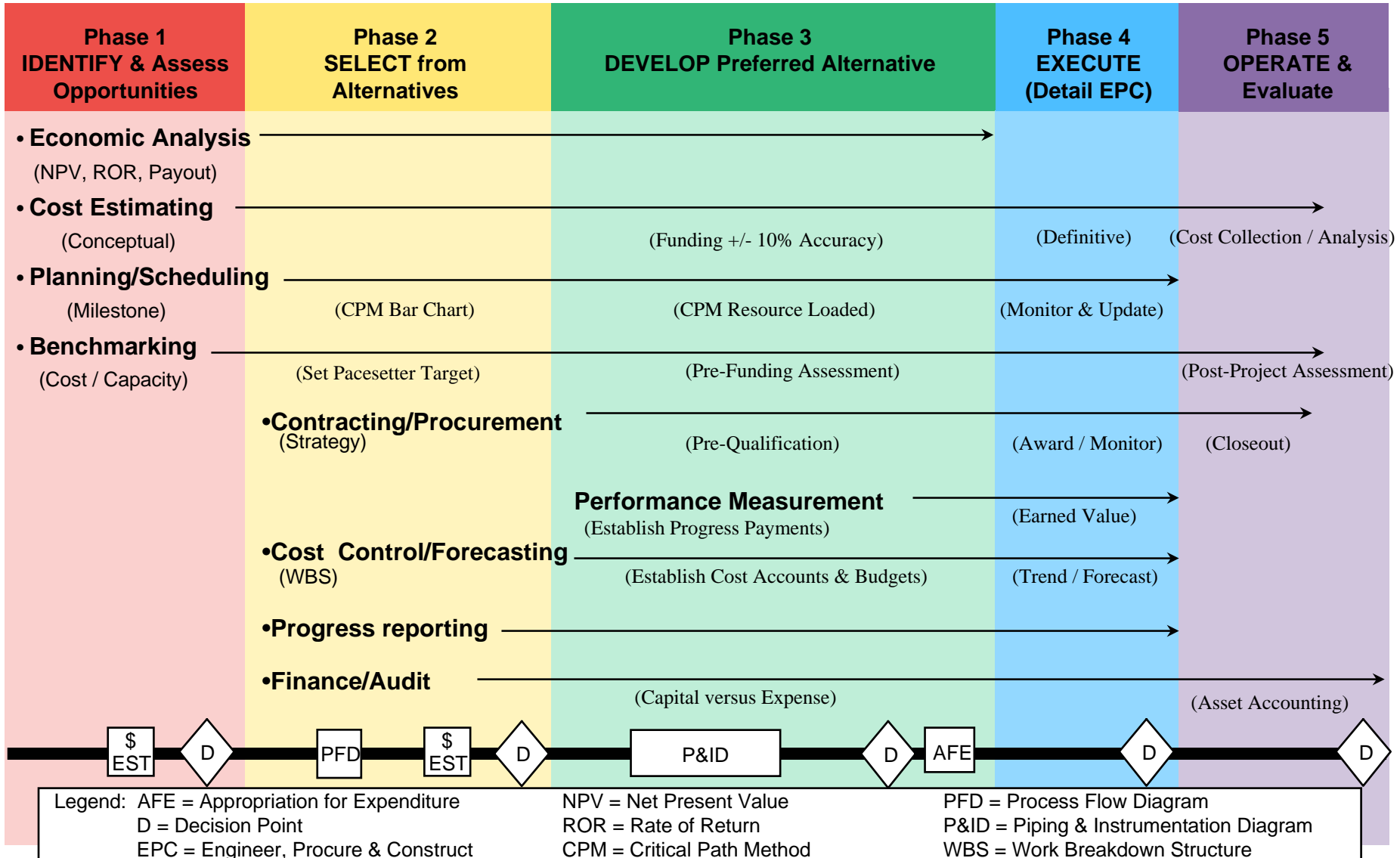
Project Execution Planning--Part C (The Strategic Project Planner by Richard Westney)

How time, cost, quality and resources will be managed

C. Defining the Tools for Success



Total Cost Management



Summary

Structured Process, Management's active role, application of Value Improving / Best Practices and Total Cost Management can help achieve World-Class Project Performance:

- **Better**
- **Cheaper**
- **Faster**
- **Safer**

PROJECTS