



Q/P MANAGEMENT
GROUP, INC.

When the Economy Gets Tough, the Tough Get Measuring!

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Tough Economic Times Present a Golden Opportunity for Measurement

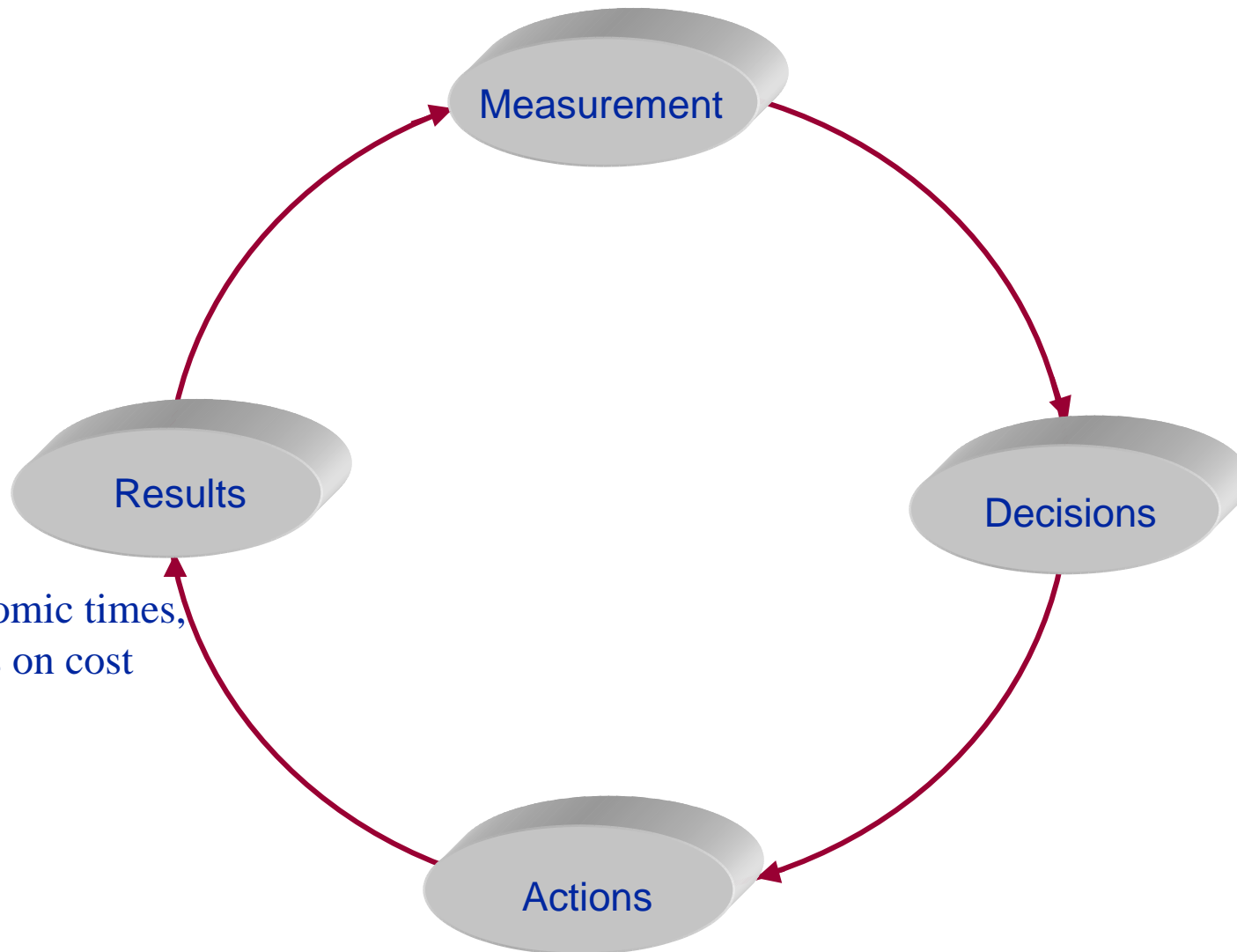
- “We need to be fiscally responsible”
- “We need to reduce spending by X %”
- “We need to do more with less”
- “We need to balance the budget”
- “We can’t afford not too....!”

Take advantage of the poor economic climate to set your measurement agenda

Measurement Should Answer Management Questions and Support Decision Making

- How do we make sure resources are being utilized efficiently?
- What are appropriate funding levels for application maintenance and support?
- Is offshore development cost effective?
- What are reasonable improvement goals?
- How do we control vendor costs and performance?
- How do we best select and utilize package software?
- How do we manage changes in scope?
- Are we productive and how do we improve?

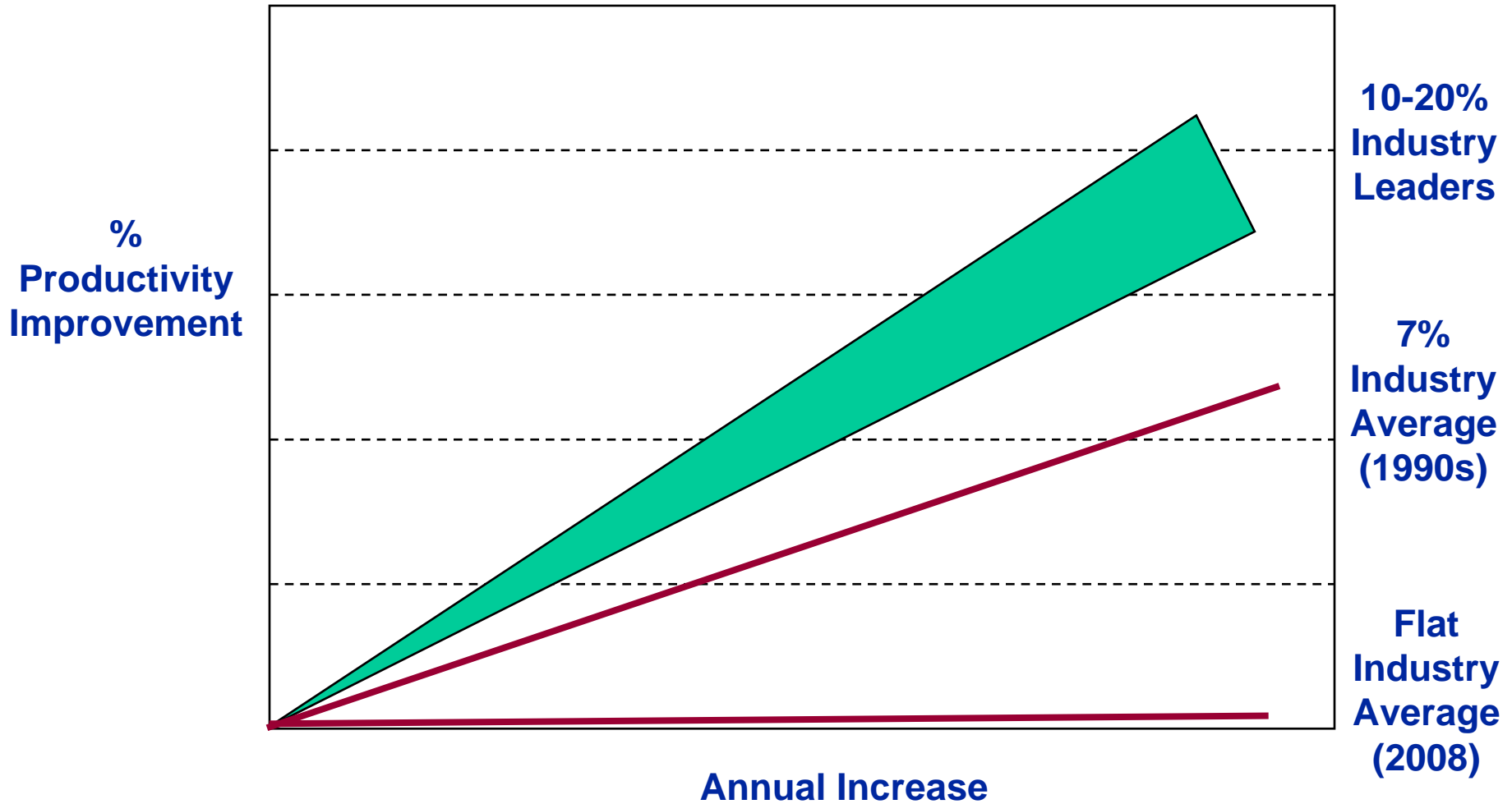
Measurement Leads to Results



In poor economic times,
focus Results on cost
reduction

Why Measure?

Improve Productivity and Reduce Cost

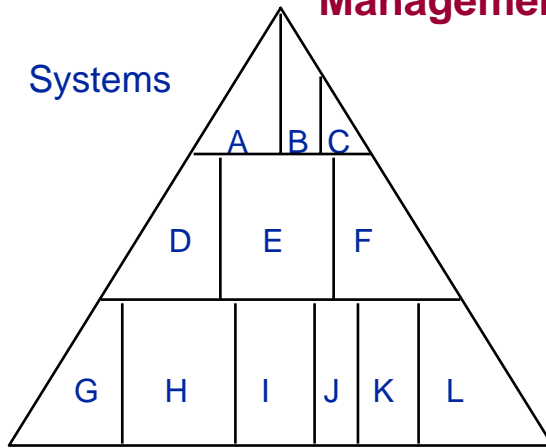


Why Measure? (Continued)

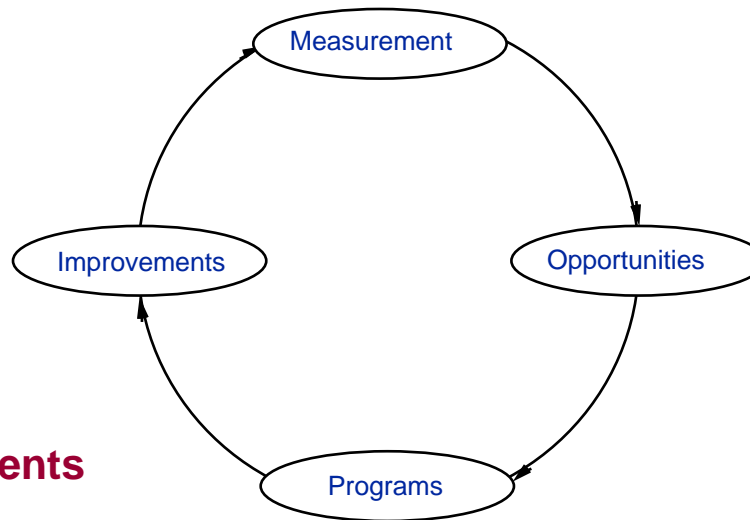
- Improve Quality
- Reduce rework and maintenance costs
- Increase customer satisfaction
- Manage Vendors and Outsourcing Agreements
- Improve Estimating
- Manage Change of Scope
- Evaluate COTS

The Benefits of Measurement

Asset Management



Continuous Process Improvement



Estimating

| Tasks | Hours | Schedule |
|-------|-------|----------|
| A | 30 | █ |
| B | 60 | █ |
| C | 60 | █ |
| D | 95 | █ |
| E | 45 | █ |

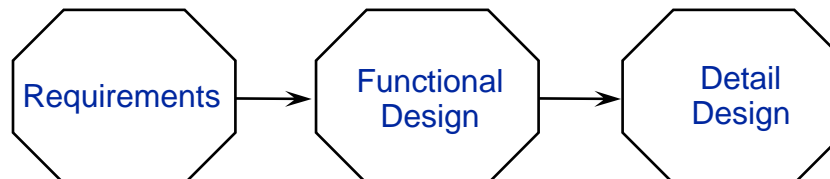
Manage Outsourcing Agreements



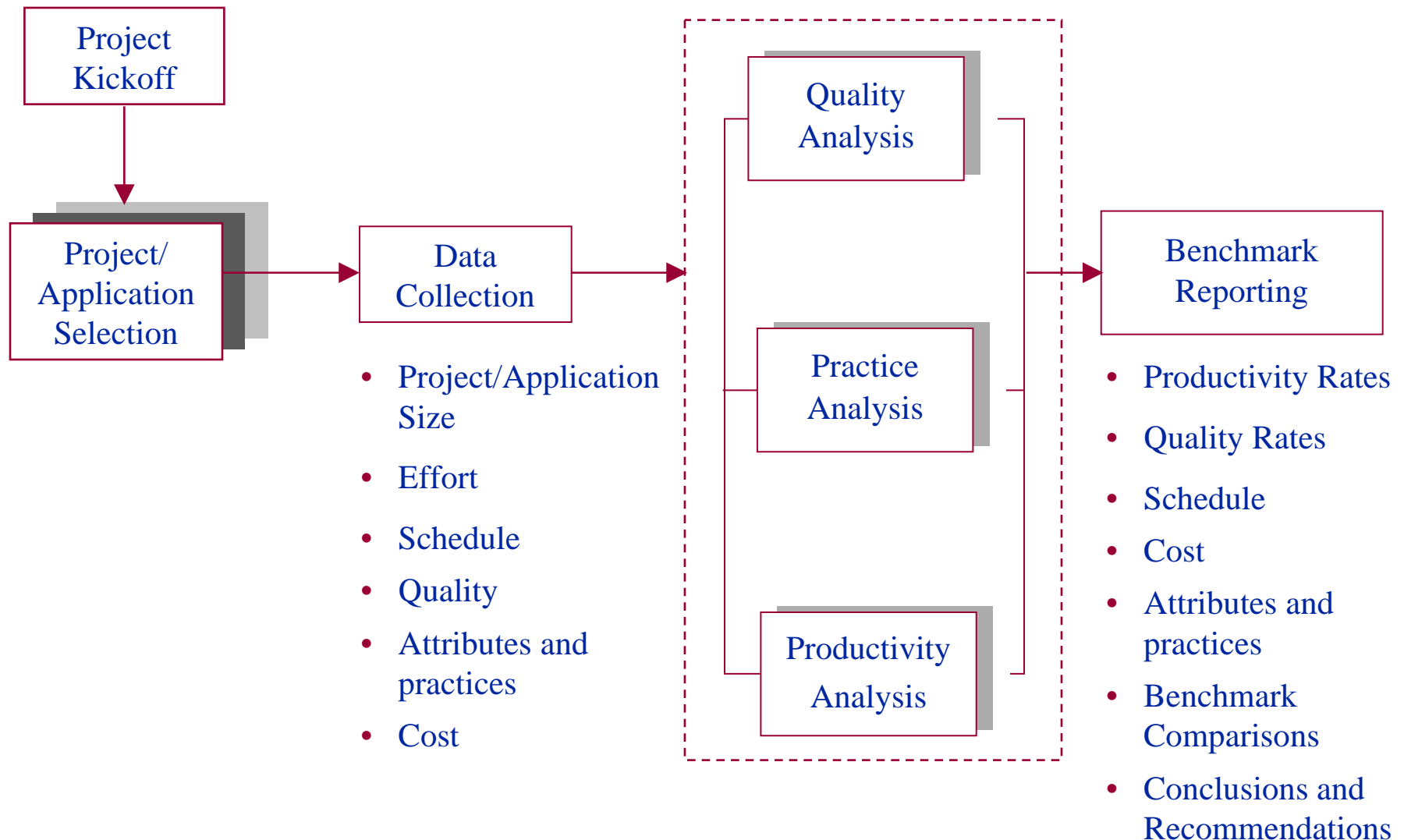
Customer Requirements



Change of Scope Management



Benefits of Measurement – Benchmarking



Case 1: Telecommunications Company

Goal: Implement process improvements opportunities that will improve productivity and quality

Actions Taken – Baselined current environment followed by comprehensive process improvement program

- Redefined SDLC
- Developed test bed facilities
- Established project management function
- Established measurement process and revamped estimating process
- Improved physical office environment
- Improved requirements definition process (JAD, Prototyping)
- Implemented reviews and inspections

Results

- 62% increase in productivity over a 2 year period
- 20% less defects per development hour

Case 2: Financial Services Company

Goal: Significantly cut development costs through personnel cost cutting and improving processes

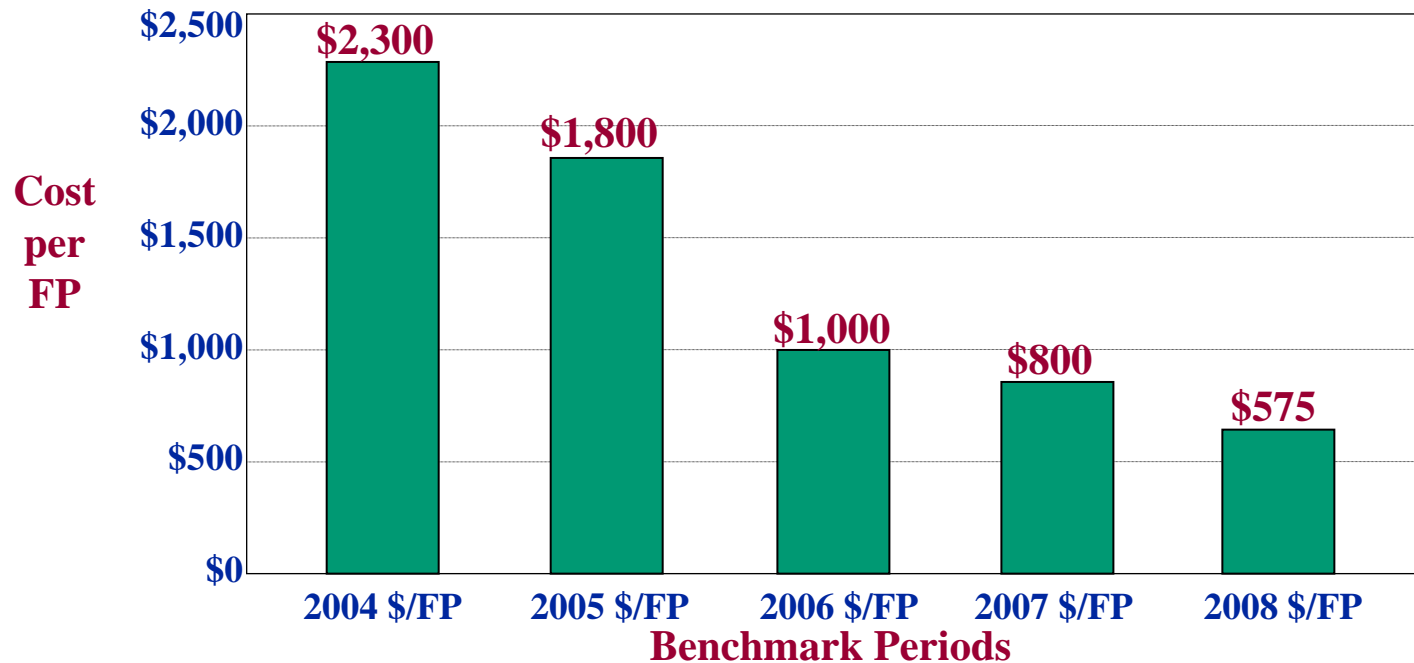
Actions Taken – Benchmark annually to identify process improvement opportunities and measure progress

- Established ongoing measurement process to manage service levels and collect data for annual benchmark
- Performed annual benchmarks and identified annual improvement initiatives:
 - Adjusted project schedules to optimize productivity
 - Bundled small unproductive projects
 - Re-architected critical poor performing applications
 - Implemented software engineering tools
 - Transitioned resources offshore
 - Increased user involvement in requirements definition
 - Improved lifecycle methods

Case 2: Financial Services Company

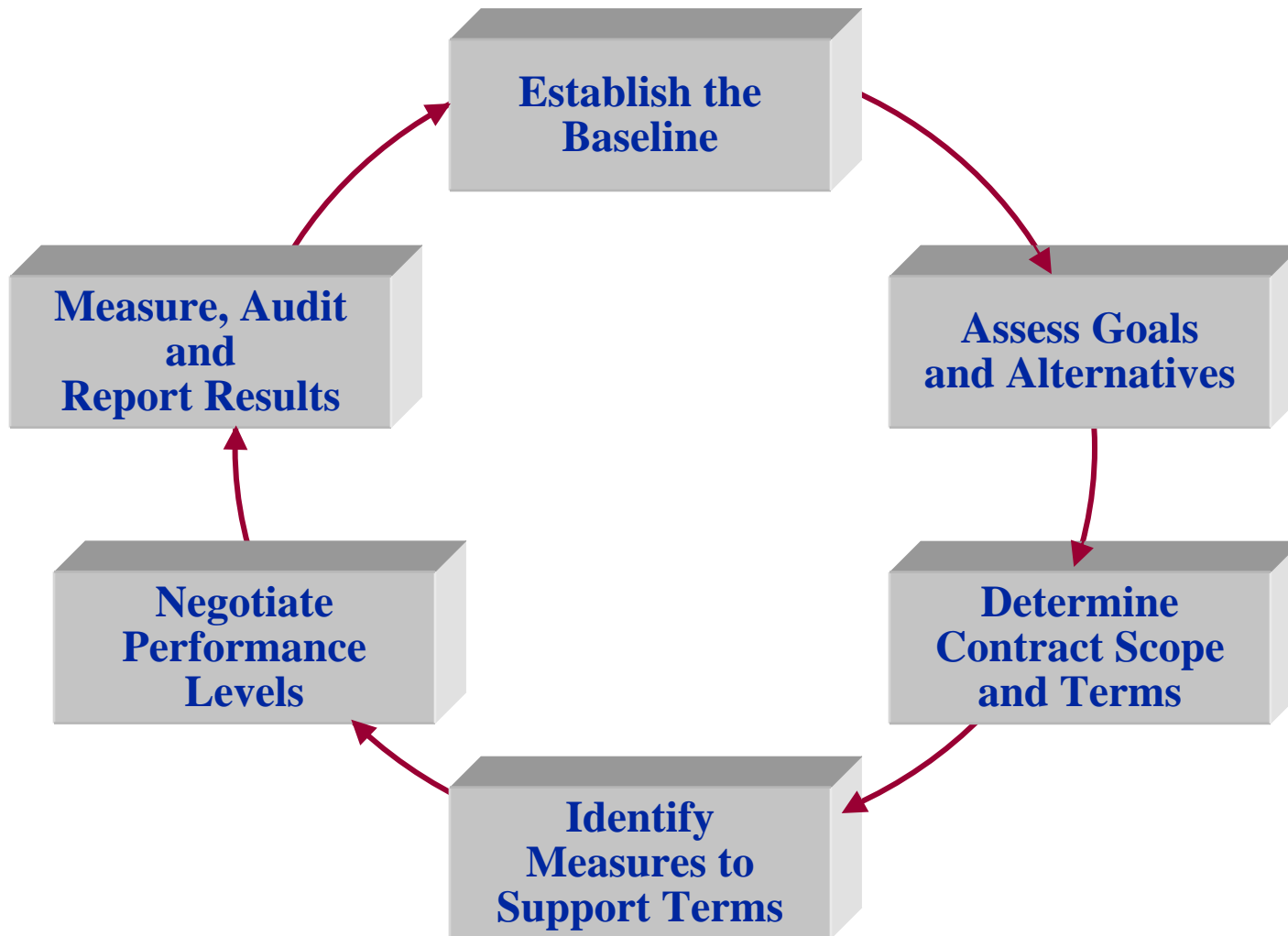
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Results



- Consistent year after year cost reduction
- Greatly improved customer satisfaction
- 75% development cost reduction in 5 years

Benefits of Metrics – Managing Outsourcing Agreements and Vendor Performance



Use of Metrics in Outsourcing and Vendor Management

Metrics are often used to establish payment and performance terms based on current productivity, cost or industry benchmarks

Pay by the Metric

- Payment is based on Function Points delivered or supported
- Cost per Function Point developed, enhanced or maintained

Tool to Manage Performance

- Provide incentives for achieving goals
- Assessing penalties for poor performance
- Evaluate vendor bids against industry benchmarks
- Development productivity based on FP/hour
- Maintenance productivity based on FPs/Full-time-person (FTP)

Case 3: Major Insurance Company

Goal: Outsource the software development function and guarantee major cost reductions

Actions Taken – Baselined current productivity/cost and structure an agreement that will reduce annual IT expenses

- Determined current development/enhancement project costs segmented by platform and size categories

2008 Baseline – Cost per FP

| Platform | Project Size | | |
|----------|--------------|---------|---------|
| | Small | Medium | Large |
| C/S | \$2,200 | \$1,750 | \$1,900 |
| Web | \$1,750 | \$1,400 | \$1,600 |
| MF | \$1,950 | \$1,600 | \$1,850 |

- Over 100 projects were sampled to establish the current baseline

Case 3: Major Insurance Company (Continued)

Results

| Contract Future Pricing – Cost per FP Small Projects – Annual Schedule | | | | | |
|---|--------------------------|-------------|-------------|-------------|-------------|
| Platform | 2009 Baseline | 2010 | 2011 | 2012 | 2013 |
| C/S | \$2,200 | \$1,980 | \$1,782 | \$1,604 | \$1,443 |
| Web | \$1,750 | \$1,575 | \$1,418 | \$1,276 | \$1,148 |
| MF | \$1,950 | \$1,755 | \$1,580 | \$1,422 | \$1,279 |

- A major outsourcing agreement was signed satisfying company goals
- 35% decrease in cost over contract period (10% per year)
 - Considers productivity improvements
 - Considers offshore transition
- Guaranteed annual budget reductions
- Total projected savings of over \$100,000,000

Case 4: Major World Wide Bank

Goal: Re-establish maintenance headcount (FTPs) as dictated by contract terms

Actions Taken – Benchmark study performed followed by contract negotiation

- Application portfolio size and current FTPs compared against industry benchmarks (by platform and application age)

| Total Actual FTPs | Average Benchmark FTPs | Top Quartile Benchmark FTPs |
|--------------------------|-------------------------------|------------------------------------|
| 855 | 550 | 350 |

Results

- Current labor rates also compared to industry benchmark rates

- Maintenance staff reduced by 150 FTPs resulting in \$15,000,000 annual saving

Case 5: Government Agency

Goal: Evaluate vendor bid to develop travel management system

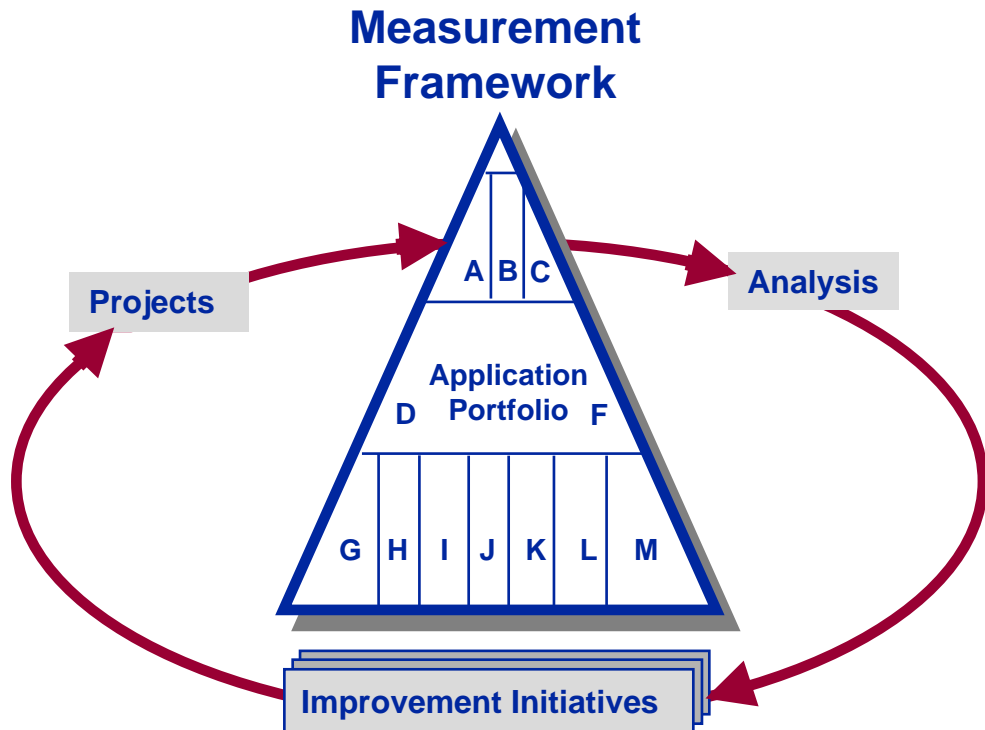
Actions Taken – Evaluated vendor bid compared to in-house development option

- Travel system size estimated from requirements
- Industry average productivity rate used to estimate in-house development cost at \$2,000,000
- In-house estimate compared against vendor bid of \$12,000,000

Results

- Vendor bid rejected
- Vendor removed from preferred vendor list
- Travel system developed in-house at a cost of \$3,000,000
- \$9,000,000 savings

Benefits of Measurement – Ongoing Measurement Program



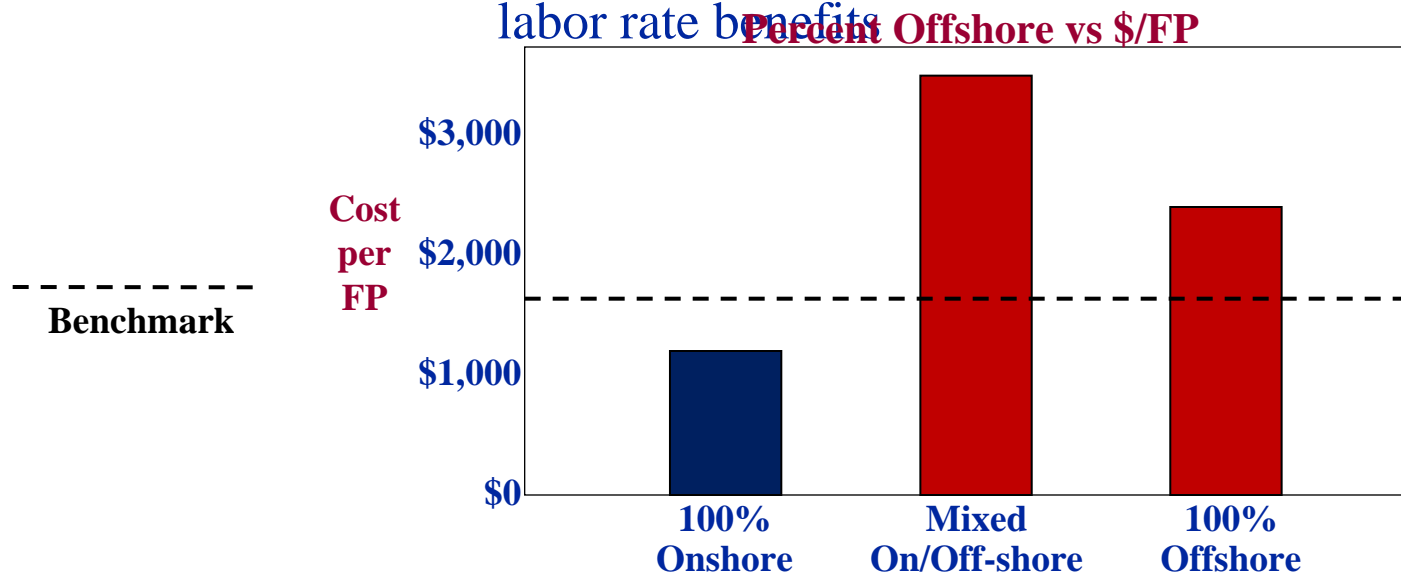
- Provides continuous input to projects
- Management reporting on a monthly or quarterly basis
- Measurement data utilized for estimating
- Annual reporting of results with benchmark comparisons a plus

Case 6: Large Manufacturing Company

Goal: Utilize software measurement to improve project management, resource utilization and productivity

Actions Taken – Established an ongoing measurement program and performed a deep dive analysis of staffing practices

- Measurement analysis identified a major problem in staffing practices and use of offshore resources
- Offshore projects had staffing 3 to 10 times the headcount of similar size onshore projects negating low labor rate benefits

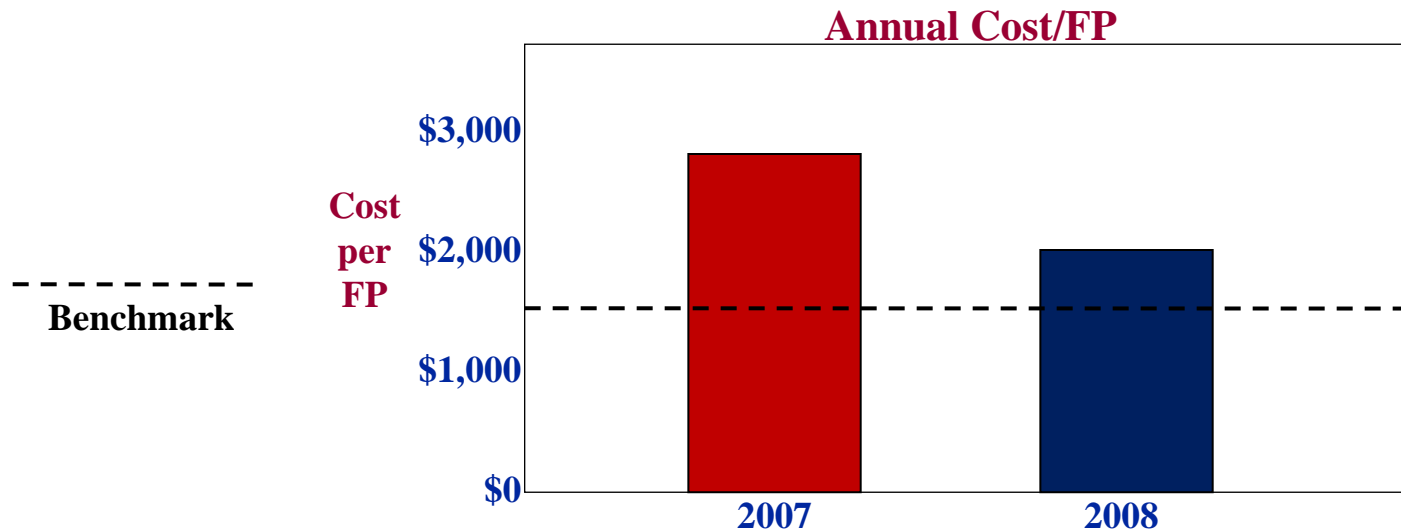


Case 6: Large Manufacturing Company

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Results

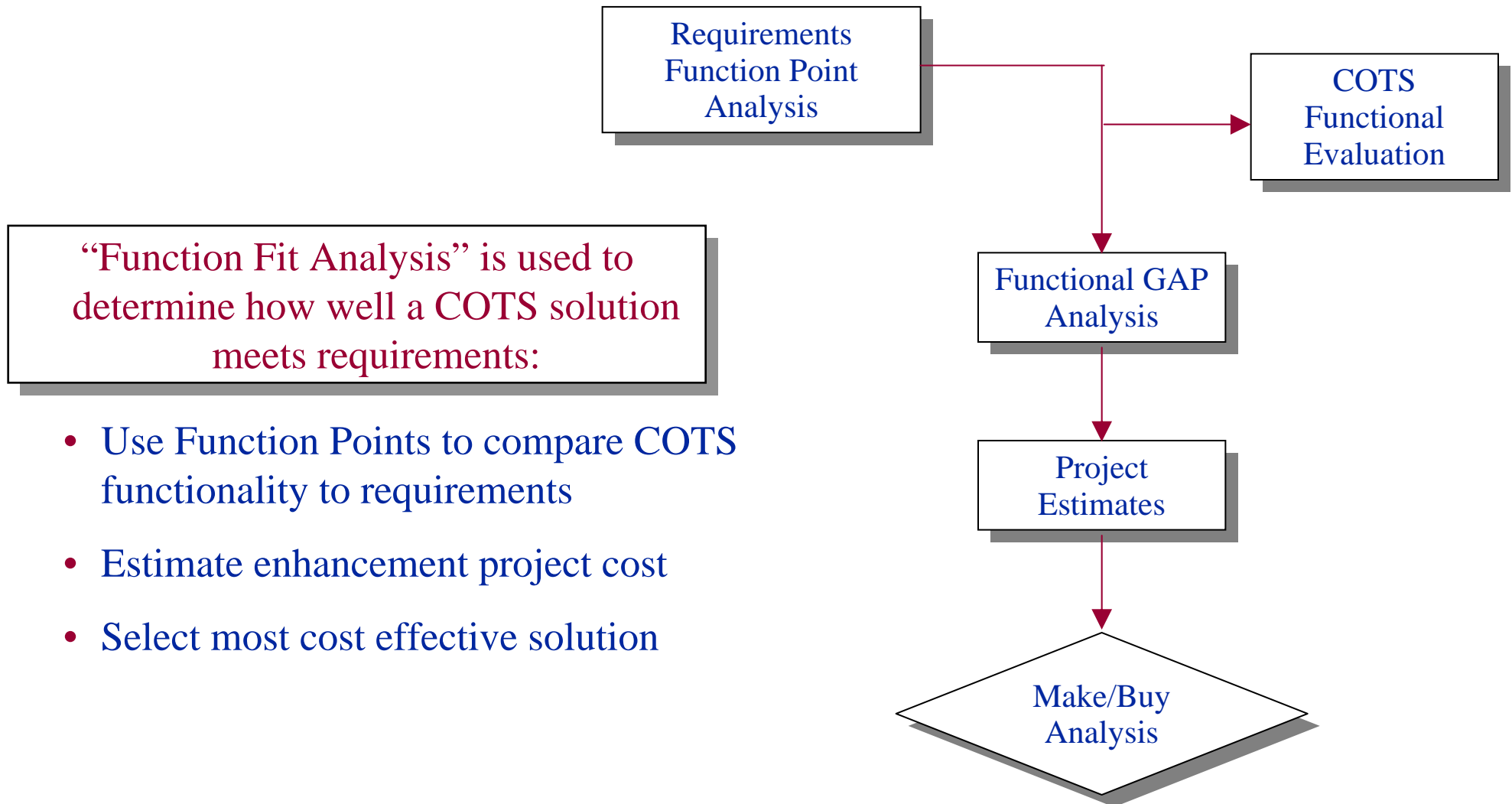
- Major changes in resource utilization and project management implemented
 - Staffing guidelines were defined based on project size
 - Use of offshore development resources changed to on-demand from reserved and dedicated
 - Time accounting practices modified



- Changes resulted in a 35% cost reduction from previous period

Benefits of Measurement – COTS Evaluation

Function Fit Analysis



Case 7: DoD HRM Applications

Goal: Evaluate various package solutions to determine best solution and funding requirements

Actions Taken – Performed Function Fit Analysis

- 3 major projects analyzed
- All COTS demonstrated limited satisfaction of requirements
- One COTS solution had only a 2% “out of the box” fit

| | Function Points | | | |
|--------------------------|-----------------|---------|-----------|-----------|
| | Added | Changed | Unchanged | Total AFP |
| Total FPs | 20,375 | 636 | 434 | 21,445 |
| Percent of Total Project | 95% | 3% | 2% | 100% |

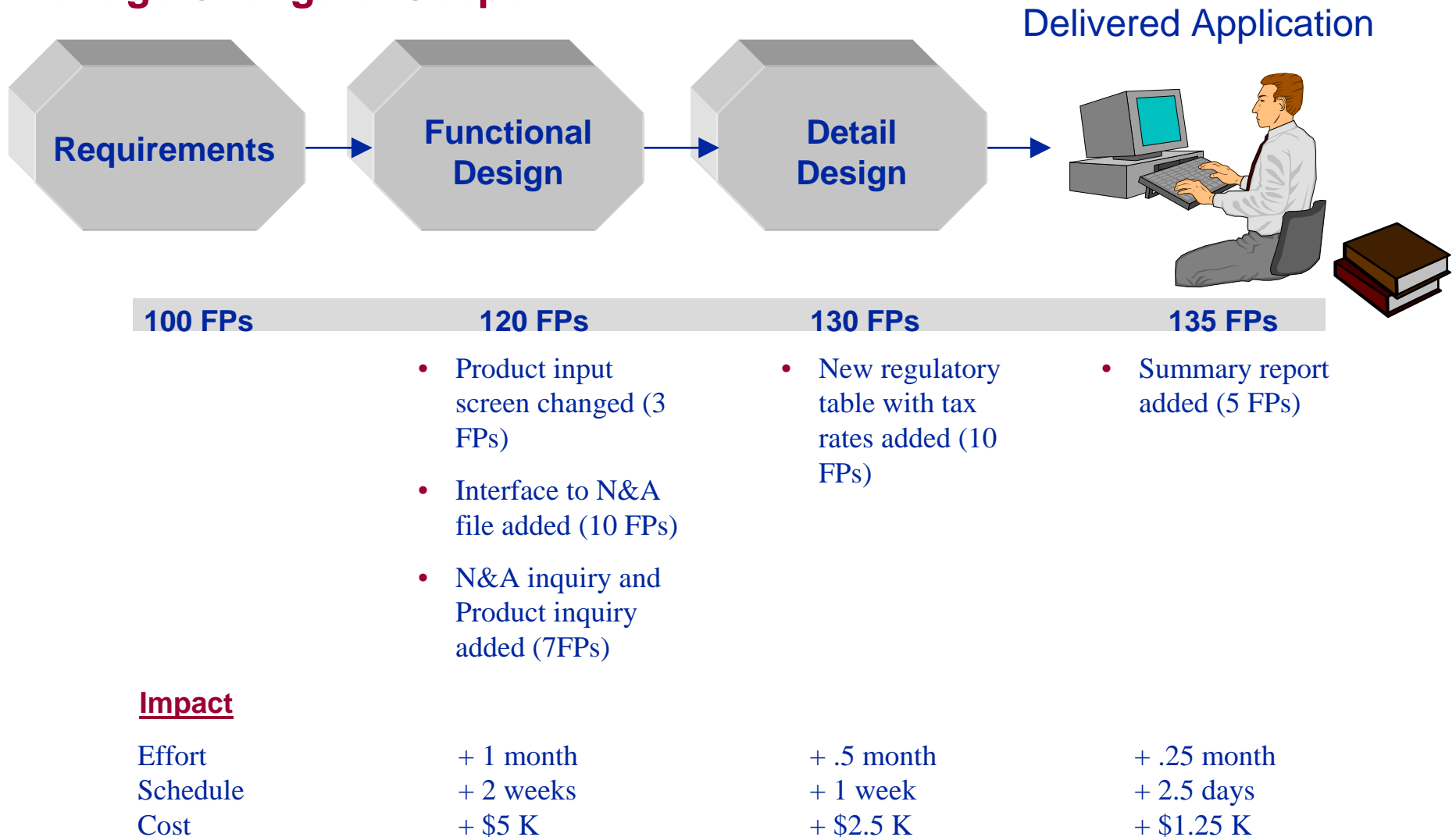
Case 7: DoD HRM Applications (Continued)

Results

- Solutions selected and funded based on real data
 - One COTS solution rejected
 - One COTS selected with customization
 - One organization's business processes modified to fit COTS

Benefits of Measurement – Managing Change of Scope

Manage Change of Scope

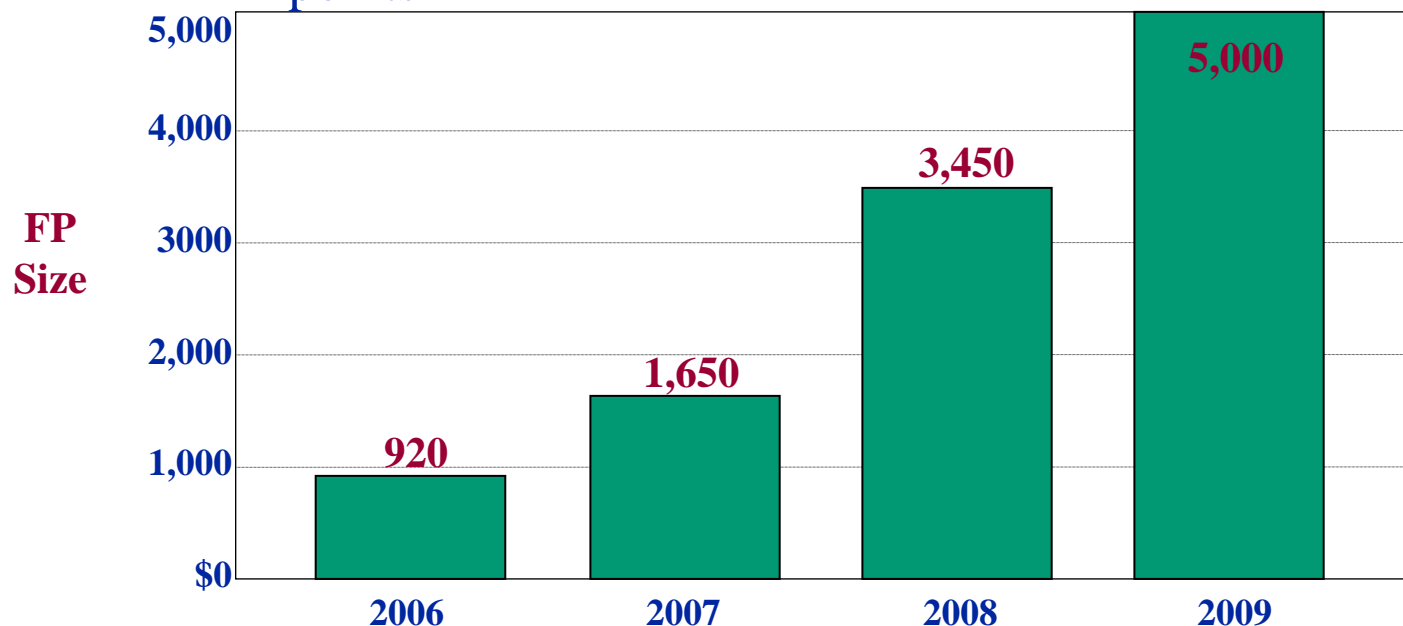


Case 8: Major IT Outsourcer

Goal: Deliver a major equipment registration system to a major customer with fixed funding requirements

Actions Taken – Measured change of scope in order to quantify scope creep and negotiate additional funding

- Project size and growth was determined using function points

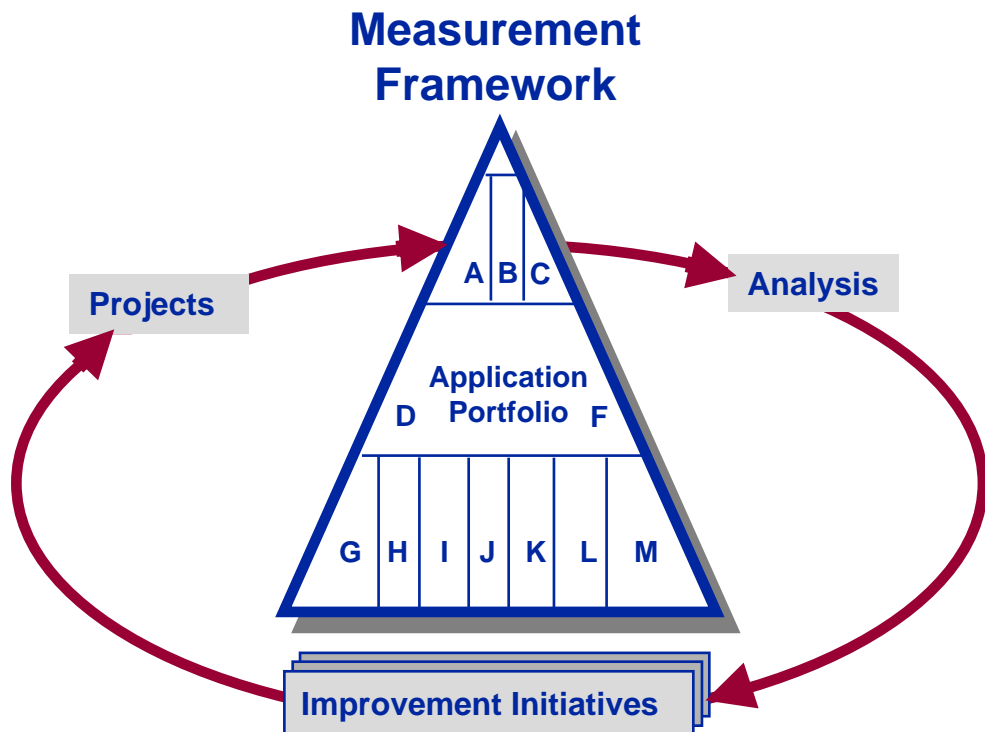


Case 8: Major IT Outsourcer (Continued)

Results

- Change of Scope documented, quantified and managed
- Significant improvement in customer satisfaction
- Additional funding secured
- Contractor avoided a \$4,000,000 loss

Getting Started – Establish an Ongoing Measurement Program



Options

- Pilot on Specific Project(s)
- Measure in Selected Business Unit
- Broad Based Across Organization with Limited Measures
- Conduct a Quality and Productivity Baseline (Benchmark) Study
- Measure and Manage Supplier Performance

Getting Started – Find the Right Opportunity

Measurement can provide significant **cost cutting** benefits:

- Cut project cost by optimizing size and schedule
- Evaluate vendor bids and COTS and determine the most cost effective make/buy solution
- Determine appropriate project staffing levels and avoid poor utilization of resources
- Measure and manage change of scope and fund appropriately
- Establish outsourcing agreements resulting in significant cost reductions
- Identify process improvement opportunities that will substantially increase productivity and quality
- Establish appropriate application maintenance support levels and reduce maintenance headcount