



Evaluating IT Projects (they're really not that different)

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Presentation for PNIAF March 7, 2013

Roadmap

Who We Are

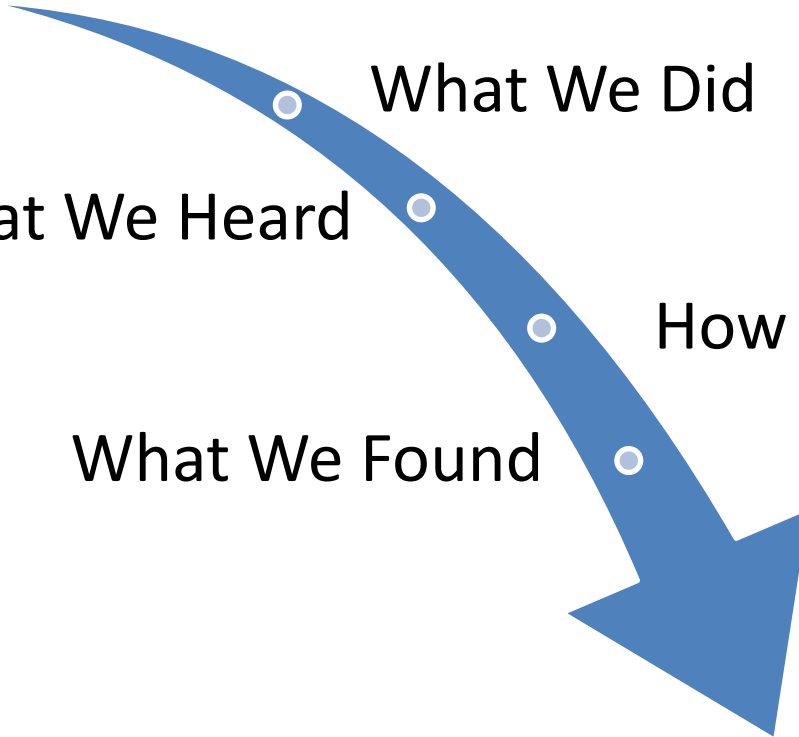
What We Did

What We Heard

How We Did It

What We Found

Take-Aways



Take-Aways

By sharing our recent experiences with IT audit and oversight we hope to help you:

- Focus on what your audience cares about
- Learn how to work around common IT excuses
- Identify objectives and criteria that do not require IT expertise
- Understand importance and common pitfalls of:
 - benefits measurement
 - schedule monitoring
- Find lessons learned relevant to future work

Who We Are – King County Auditor's Office

- Independent Office within Legislative branch
- Established in 1969
- Appointed Auditor
- Mission is to promote and improve:
 - Performance
 - Accountability
 - Transparency
- 16 staff members
- Capital Projects Oversight (CPO) program since 2007
 - Non-Audit service
 - 2 dedicated staff

What We Did

- Two Recent IT Endeavors
 - Performance audit of IT projects across King County
 - Oversight of specific high-visibility project, Accountable Business Transformation (ABT)

What We Did: Performance Audit of IT Projects

- Performance audit of the county's IT projects
- Focused on how county identified, implemented, and evaluated IT projects
- Perception from Council that:
 - IT projects were over-promising and under-delivering
 - IT had not taken the same budgetary reductions as rest of county spending
- Specifically excluded ABT

What We Heard



Specialized Skills

- You need highly specialized experience to audit IT
- You won't be able to follow our plans

IT is Special

- We cannot have baselines or project milestones as we must be agile
- Earned value analysis cannot work for IT projects

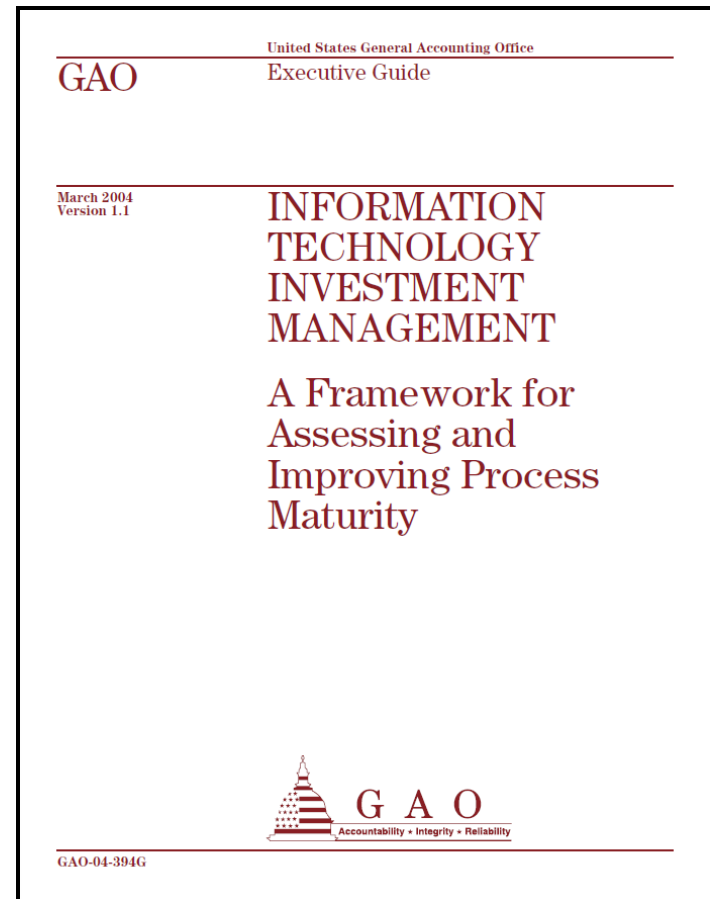
What We Did (IT Projects)

- Sample of 12 projects
 - Focused on large high-profile projects
- Focused on 3 basic questions:
 1. How do we know we have selected right projects?
 2. Are projects being managed effectively?
 3. Are projects achieving benefits?

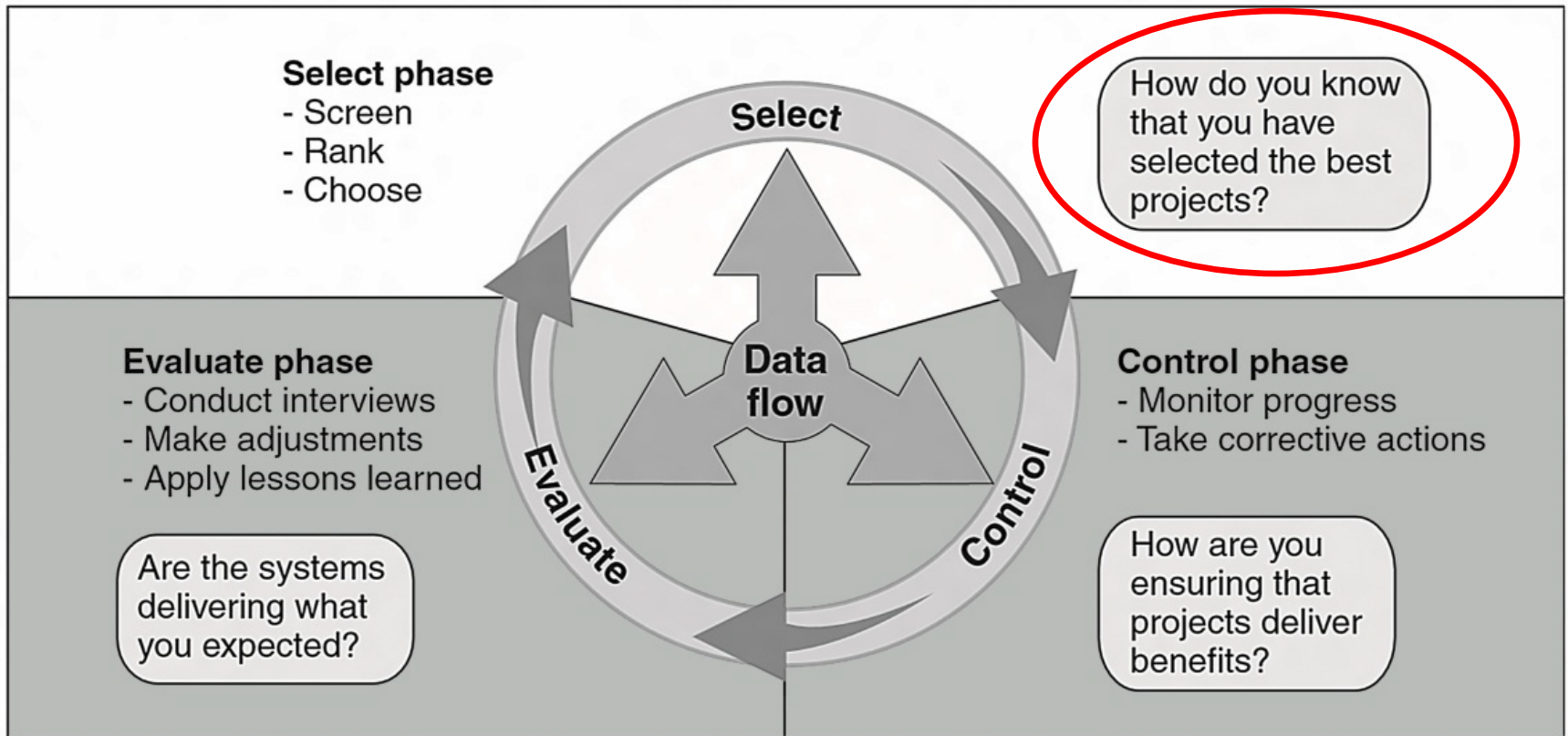
Non-compliance with process not enough

Criteria

- Used both industry specific and government specific criteria



Did We Select the Right Projects?

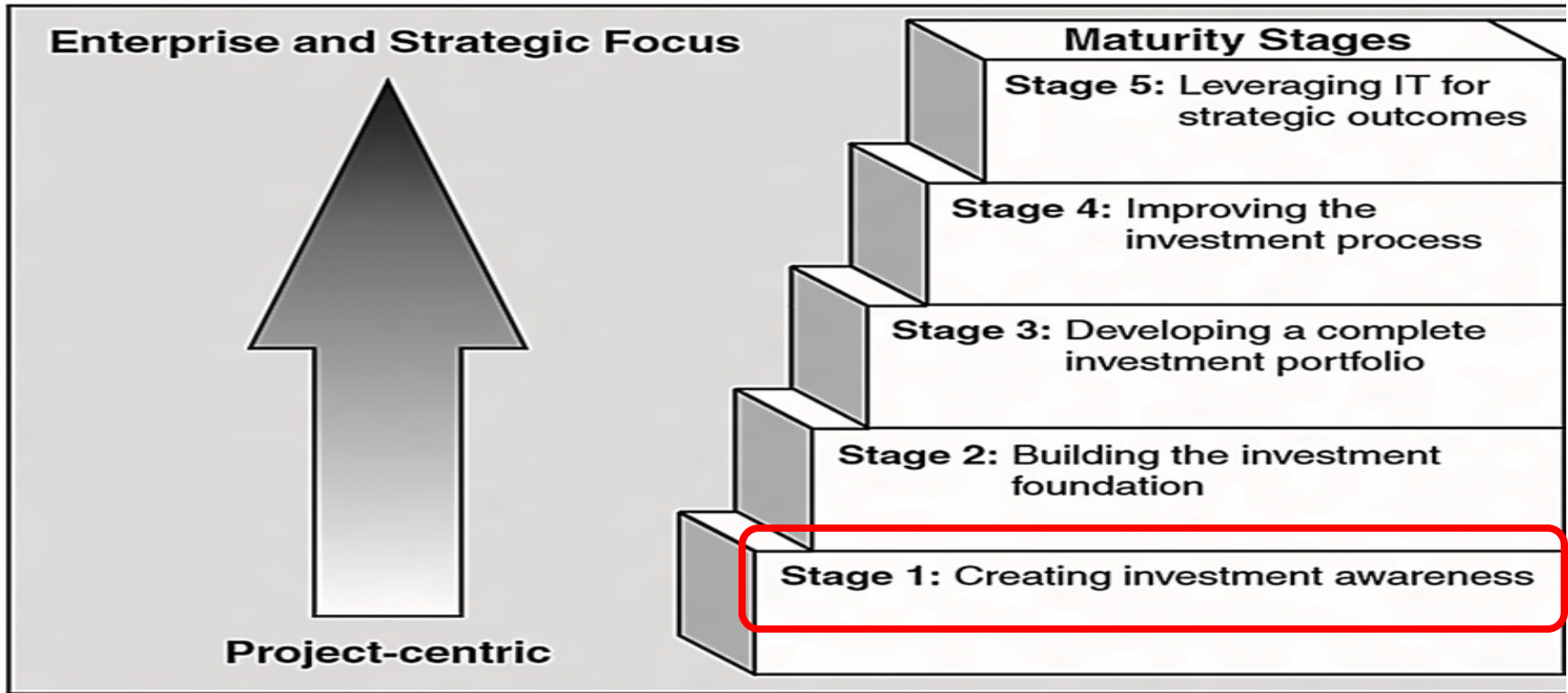


Business Case Analysis Uneven

How do we know we selected the best IT projects?

Business Case Element	Business Cases with this element
Project Benefits Estimate	70%
Alternatives Analysis	60%
Risk Analysis	40%
Project Metrics	20%
Benefit Realization Plan	0%

Low IT Investment Maturity



Source: Modified from GAO

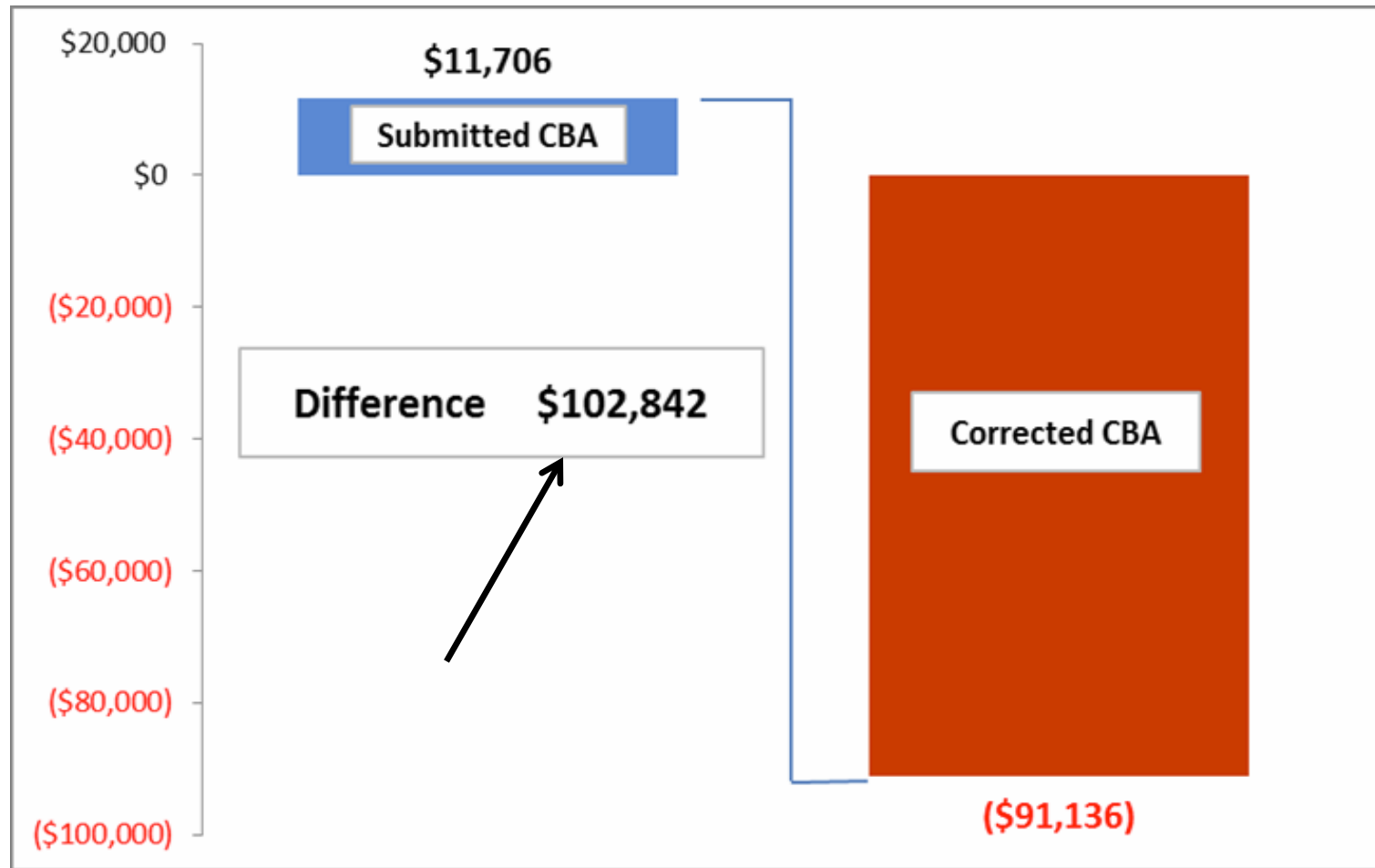
Focus on effect of low level of maturity not stage itself

Cost/Benefit Analysis Flawed

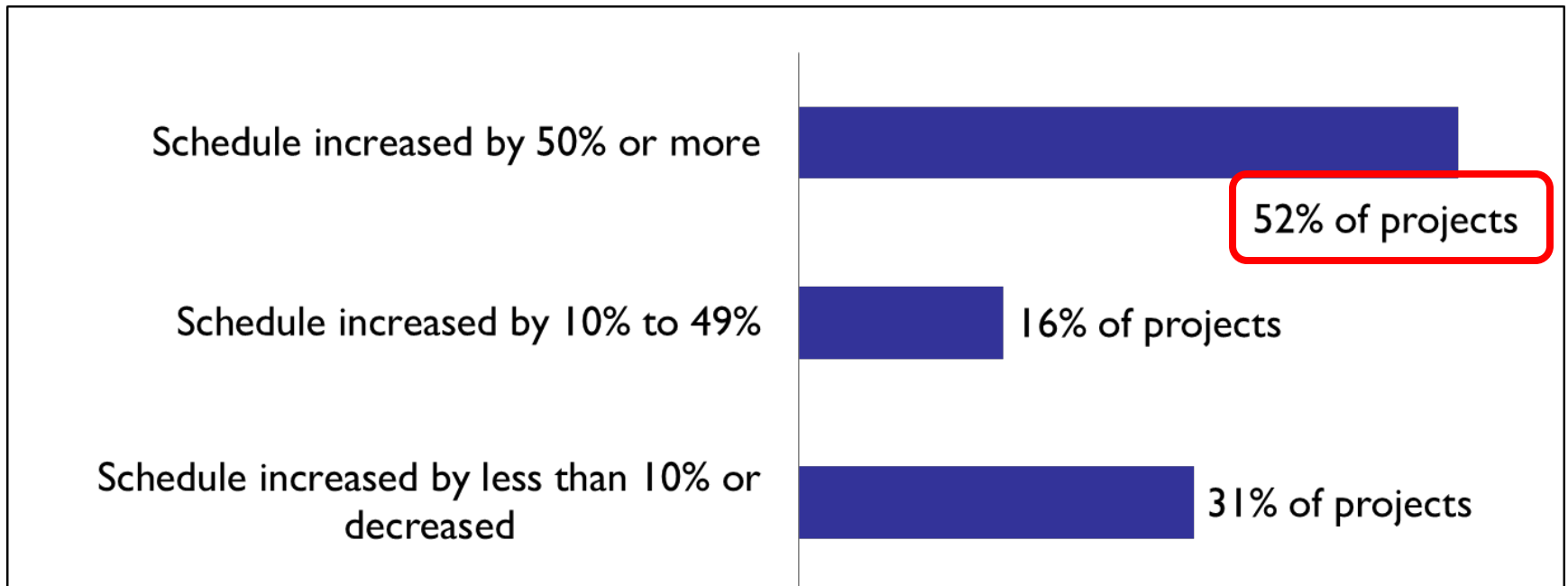
Issue	Impact
Miscalculates net present value	Full costs and benefits not considered
Missing formulas and references	Inaccurate results of analysis
Truncated analysis	Full costs and benefits not considered
Future costs and benefits were inconsistently adjusted for inflation	Future costs and benefits underestimated

Source: KCAO analysis of PSB cost/benefit template

Effect of Flawed Analysis



Are projects being managed effectively?



Lack of historical information hinders county's ability to evaluate project management

Are Projects Achieving Benefits?

- Benefits realization process has not been followed
- 90% of completed projects from 2006 to 2011 did not complete benefits realization reports
- Uncertainty as to the extent to which benefits have been realized

What We Found

- Maturity level of IT project management was low
- Benefits not being measured or achieved because lack of ownership over completed projects
- Existing tools insufficient

Focus on lessons learned and implications of failures

Capital Projects Oversight

- Non- audit service
- 2 staff- engineering & architecture backgrounds
- Auditors assist with planning, QA, etc.
- Promote accountability
- Improve performance on major capital projects



Goals of Capital Project Oversight

Monitor, make recommendations and report on:

- Scope, Schedule, Budget
- Risks – effective planning & mitigation
- Outcomes – customer satisfaction & benefit achievement

Improve outcomes on select capital projects:

- The big
- The risky
- The high profile

Types of Capital Projects



BIG



RISKY



HIGH PROFILE

IT by comparison- Boring!



What We Did: Oversight of Accountable Business Transformation

- ABT was all three:
 - Big – \$87 million to create 4 new enterprise information systems
 - Risky – ERP's are inherently risky, and King County had failed once before- \$44 million sunk cost
 - High Profile – everyone was going to have to change business practices with great potential benefits
- ABT – not just an information system replacement

How We Did It (ABT oversight)

Ongoing oversight for 5 years:

- Standard protocols on all types of capital projects
- Scope, schedule, budget and risks
- Benefits realization
- Lessons learned
- Coordinated oversight

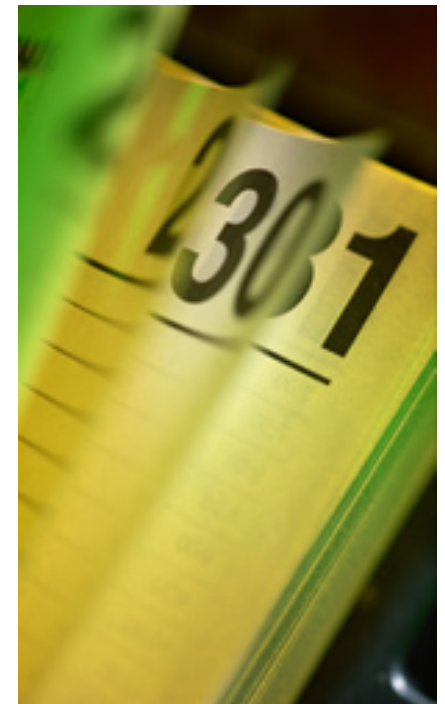
ABT was late, flawed, & within budget

Biggest miss was schedule.



Methodology: Schedule Monitoring

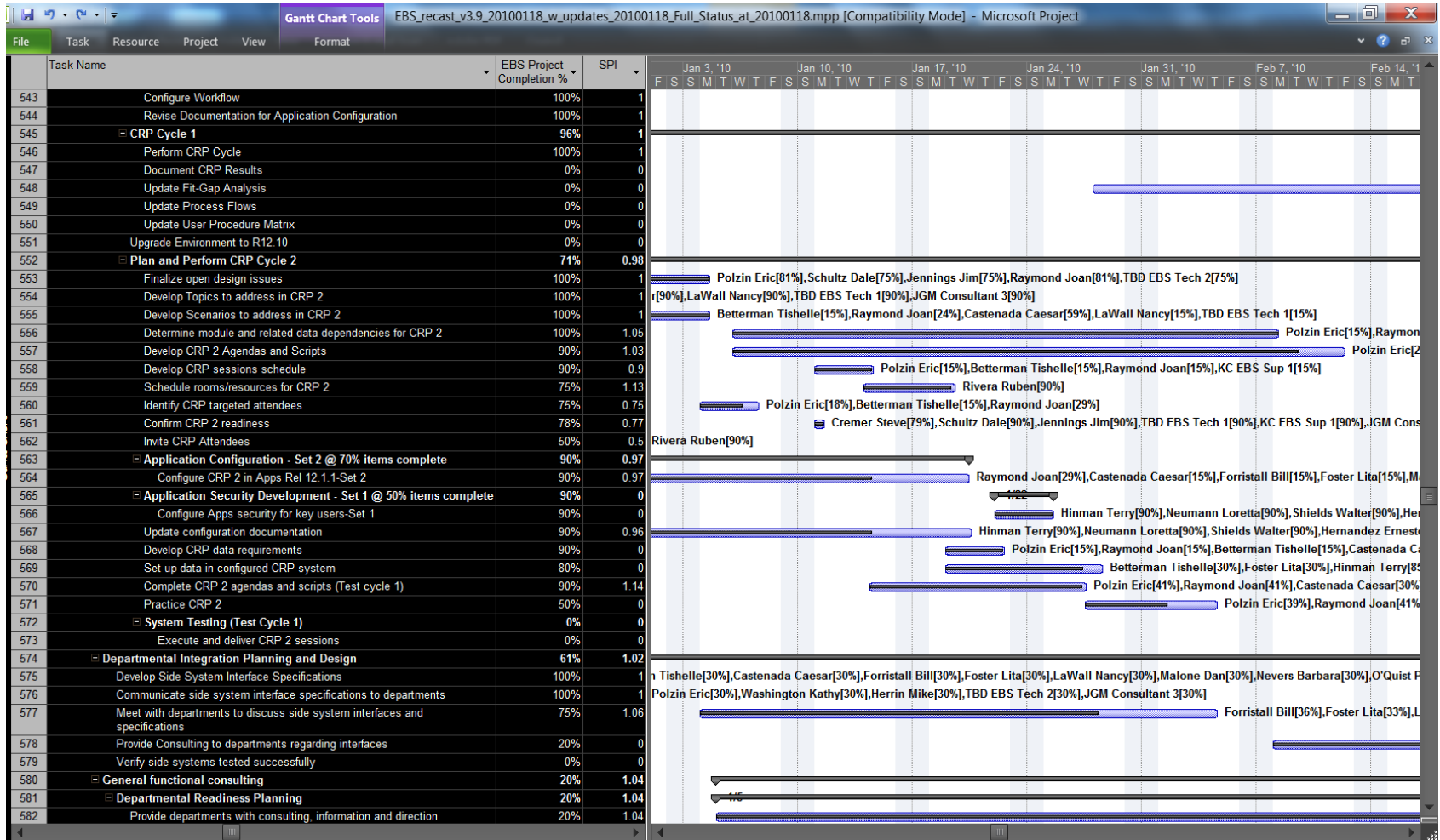
- Universal truth- project managers are optimistic
- Need objective way to monitor progress
- Used earned value analysis for approximately one year



Earned Value Analysis

- A project management tool for cost and schedule control
- Ongoing assessment of project progress compared to plan
- Can help forecast delivery dates and final costs
- Look to PMBOK for guidance
- Relies on a good plan and sound judgment

Earned value- starts with plan



Earned Value – % Completion

Task ID	Task Name	EBS Project Completion %	SPI
543	Configure Workflow	100%	1
544	Revise Documentation for Application Configuration	100%	1
545	CRP Cycle 1	96%	1
546	Perform CRP Cycle	100%	1
547	Document CRP Results	0%	0
548	Update Fit-Gap Analysis	0%	0
549	Update Process Flows	0%	0
550	Update User Procedure Matrix	0%	0

Earned value - reporting

Earned Value Performance Measures					
	Q3 2009	Q4 2009	Q1 2010	Trend	Comments
Schedule Variance	\$(1,626,517)	\$(660,944)	\$(1,684,868)	↓	Dollar value of how far (behind) or ahead of schedule. Positive values are desired.

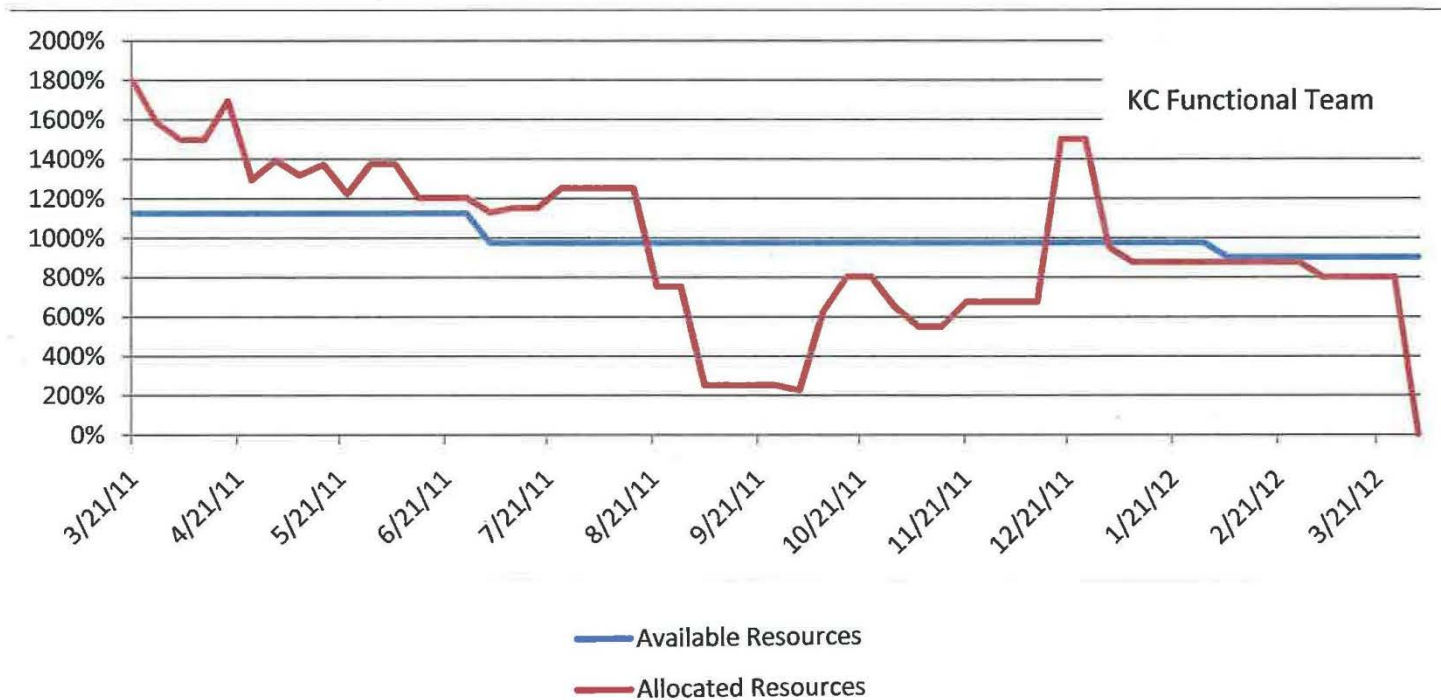
Methodology- schedule monitoring Plan B

- Earned Value Analysis was abandoned
- Go live moved one year later- schedule reset
- Project became “schedule driven”
- Shift to agile project management
- Enhanced budget monitoring- know what capacity they had to add resources

Alternative schedule monitoring

- Well documented
- Schedule updated weekly
- Transparent to executive committee
- Accountability- project managers, support areas, agency readiness
- Available and allocated resources

Available and allocated resources




So What?


Impact of one year delay-

- Consumed \$5 m of \$12 m contingency
- Forced big bang- significantly increased risk
- Created end user “bandwidth” issues
- Lowered potential benefits by about 10%

Our Reports



KING COUNTY AUDITOR'S OFFICE
Capital Projects Oversight



King County
ACCOUNTABLE BUSINESS TRANSFORMATION (ABT) PROGRAM
FINAL OVERSIGHT REPORT

The County largely achieved the ABT Program vision of countywide, integrated systems for human resources, payroll, finance, and budget, which was a major accomplishment. However, the County has considerable work remaining to make the systems efficient and effective in order to enhance essential services as envisioned. The ABT team delivered nearly all of the planned scope within budget, although there were delays of up to one year and some system defects remain. This report documents lessons learned and makes recommendations about the work left to do to fully achieve the anticipated benefits and business transformation.

● = Met target ▼ = Did not meet target/Attention needed ● = Did not meet target/Corrective action needed

RESULTS

▼ **Scope:** Attention is needed to stabilize finance and budget systems and finish deferred payroll system scope.

▼ **Schedule:** Human resources system was 6 ½ months late; payroll system went live in one phase instead of three, with delays of up to one year; finance system was one year late; budget system was one month early; and the implementation plan for performance management is due by the end of 2012.

● **Budget:** ABT forecasts delivery of the program within the approved budget of \$86,637,147 including using all of the 20 percent contingency. County Council recently approved supplemental appropriations of \$762,649 to the operating budgets of the Business Resource Center and the Finance and Business Operations Division to address continuing post go-live activities.

● **Lessons Learned: Effective strategies contributing to positive results:**

- Establish clear vision and goals
- Establish and engage a comprehensive governance structure
- Include independent quality management project oversight
- Implement comprehensive communications strategies to reach all stakeholders
- Dedicate resources to monitor budget and accurately forecast final costs
- Monitor performance and when critical deadlines are in jeopardy, act promptly to mitigate risk

▼ **Lessons Learned: What the County could have done to improve results:**

- Conduct pre-procurement outreach for consultants to generate interest
- Structure contracts with more reasonable risk sharing and ensure adequate resources for contract management
- Develop more effective tools for schedule and resource monitoring at the outset and take prompt action when performance lags
- Establish stronger partnership with labor relations to achieve negotiations when needed
- Reduce reliance on temporary and contract labor and ensure adequate support for recruitment and other personnel management functions
- Plan for level of effort to explore and address complexity and diversity of County business needs
- Standardize and streamline business practices to the extent feasible before implementing technology solutions

▼ **Recommendation for Lessons Learned:**


- The County Executive should develop protocols so that project managers review and consider lessons learned for value to future major IT projects and countywide endeavors.

▼ **Recommendations for Remaining Work:**

- Establish comprehensive governance
- Stabilize systems as soon as possible
- Move remaining employees to biweekly pay
- Further standardize pay rules
- Prepare for year-end closing of financial records and for future audits
- Plan to integrate future performance management system with ABT systems

September 25, 2012

King County Auditor's Office
Cheryle A. Broom, King County Auditor



Performance Audit of King County's Investment in Information Technology

Brian Estes
Ben Thompson
Kymer Waltmunson

September 11, 2012
Report No. 2012-02

Executive Summary

Our review identified opportunities for the King County to build on recent progress toward a strategic, countywide focus for information technology (IT) project investment. Though some processes are in place to ensure that the County selects IT projects strategically, developing a more rigorous approach and increasing fidelity to established processes will leverage the strategic alignment of the County's IT project spending and provide decision-makers with the information necessary to make informed funding choices.

Take-Aways- Lessons Learned from ABT

- Clear vision and goals
- Use governance effectively
- Independent quality management
- Comprehensive communication with stakeholders

Take-Aways- Lessons Learned from ABT

- ◆ Standardize and streamline practices in advance
- ◆ Strong partnership with labor relations
- ◆ Get and keep the right staff
- ◆ Pre-procurement outreach
- ◆ Reasonable risk sharing in contracts
- ◆ Tools for schedule monitoring and prompt action

Take-Aways

- IT projects are like other projects
- The regular rules of project management apply – good project framework is good project framework regardless of project
- You do not have to be an IT expert to conduct an evaluation of many aspects of IT projects
- Use the same critical thinking skills as you would with any other audit
- Need reliable systems to monitor progress

Take-Aways

- Need to understand the rationale for the audit to determine the scope and methodology
- Focus on what your audience cares about
- Focus on lessons learned and findings relevant to future work and projects
- Be circumspect of anticipated benefits
- Benefits realization and measurement is a big and important issue

Questions?



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