

Using SCAMPI[®] to Measure Organizational Capability

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OUTLINE

- Organizational context
- Choosing a model
- Getting the right portion of SCAMPI[©]
- Lessons learned
- From entree to full meal – integrating other IT disciplines into the process
- Conclusions/Recommendations

Organizational Context

- Established IT Directorate Aug 2000
 - Took operational control 4 Sep 2000
- The new IT Directorate
 - Collected IT “bits” into one organization
 - Provided an “Enterprise” focus for IT needs
 - Completed the IT value chain
 - Envisioned as a “process-centric” organization

Organizational Context

Transformation Journey – Where We’ve Been

95 th CS		AFFTC/IT		
FY98	FY99	FY00	FY01	FY02
<p>REDUCED MANPOWER 47% FROM FY98 LEVELS (\$2.5M) REMOVED THE MILITARY PERSONNEL (TOOK MANPOWER UP FRONT, DID LITTLE TO IMPROVE PROCESSES OR SERVICE</p>	<p>INFORMATION INFRASTRUCTURE TEAM PRODUCES “CIO HANDBOOK” DESIGNED 6 PROCESSES FOR IT.</p> <ul style="list-style-type: none"> • STAFF FUNCTIONS • DEVELOPMENT • PLANNING & STANDARDIZATION • BUSINESS MANAGEMENT • OPERATIONS & MAINTENANCE • CUSTOMER SUPPORT 	<p>IT RE TEAM CHARTERED. VALIDATED THAT CIO HB. PROCESSES WERE SUFFICIENT TO FORM A NEW ORGANIZATION AROUND. DECISION TO CREATE AFFTC/IT MADE. PROVISIONAL IT STANDUP. IOC OF AFFTC/IT</p>	<p>PROCESS REENGINEERING BEGINS. 14 PROCESSES IDENTIFIED:</p> <ul style="list-style-type: none"> • MANAGE PROCESS • MANAGE PLANNING • MANAGE STANDARDS • MANAGE SECURITY • MANAGE CUSTOMNER RELATIONS • MANAGE CUSTOMER REQUESTS • MANAGE CHANGE • MANAGE PROJECTS • MANAGE DEVELOPMENT • MANAGE DEPLOYMENT • MANAGE OPERATIONS • MANAGE FIELD SERVICES • MANAGE RESOURCES • MANAGE KNOWLEDGE <p>5 PROCESSES BEGIN IMPLEMENTATION. MEATBALL SANDWICH CONCEPT.</p>	<p>TRANSITIONED TO ORGANIC RE SUPPORT TEAM. MADE LEADERSHIP THE PROCESS OWNERS. RE TEAM ACTS AS CONSULTANTS & FACILITATORS FOR ORG CHANGE. BEGAN “VALUE CHAIN” BRIEFINGS TO ALL IT CUSTOMERS.</p>

Organizational Context

- OCR Approved 19 Mar 01
 - AF/CV requested “Test” to determine IT applicability
- Example Test Plan Approved Jun 01
 - Balanced Scorecard measures cover product and service delivery capability
 - Needed a way to measure process maturity

Choosing a Model

- Goal: Match our business
 - Developing & deploying T&E mission supporting applications
 - Operating & maintaining IT systems
 - Supporting customers with:
 - Network, Phones, Wireless Comm, ILS, Weather
 - Managing resources
 - Planning for all the above
- Our developing and deploying processes were most mature and most CMMI-like

Choosing a Model

- Our choice – CMMI SW/SE v 1.1
 - Engineering PAs
 - RM, RD, TS, PI, VER, VAL
 - Support PAs
 - CM, MA
 - Project Management PAs
 - PP, PMC

CMMI Overview - Continuous

Category	Process Areas <i>Including IPPD</i>
Process Management	Organizational Process Focus Organizational Process Definition Organizational Training Organizational Process Performance Organizational Innovation and Deployment
Project Management	Project Planning Project Monitoring and Control Supplier Agreement Management Integrated Project Management (<i>2 New Goals</i>) <i>Integrated Teaming</i> Risk Management Quantitative Project Management
Engineering	Requirements Management Requirements Development Technical Solution Product Integration Verification Validation
Support	Configuration Management Process and Product Quality Assurance Measurement and Analysis Causal Analysis and Resolution Decision Analysis and Resolution <i>Organizational Environment for Integration</i>

Getting the Right Portion of SCAMPI[©]

- Tradeoff between PAs, time, and staff
 - We chose 10 PAs, Levels 1 & 2
 - 25 SGs
 - 89 SPs
 - 2 GGs
 - 11 GPs
 - Time = 10 days
 - 1.5 days training
 - 8.5 days interviewing, assessing, consensus building, briefing, reporting

Getting the Right Portion of SCAMPI[©]

- Tradeoff factors – Things to consider
 - Staff
 - Number of staff members
 - Experience of staff members
 - Process areas
 - Number of PAs
 - Number of SPs, GPs
 - Documents
 - Number of documents to be reviewed
 - Interviews
 - Number of projects studied
 - Number of project staff interviewed

Lessons Learned

- Train just-in-time, but before the assessment
- Make PA to Mini-team assignments early
 - Especially with inexperienced staff
- Review documents before interviewing
 - Pinpoint practices needing clarification
 - Form specific questions
- Do interviews in blocks w/o interruption
- Build in large blocks of mini-team work time
- Simpler briefing format

Lessons Learned

- Things we did right
 - Teamwork
 - Hill team, David Bruce
 - Edwards team
 - Good choices for mini-teams
 - Trained on actual data
 - Built credibility with interviewees
 - Livelink repository

From Entrée to Full Meal

- CMMI not a perfect portion
 - Left us “hungry”
 - Wanted to include operations work processes
 - Detecting outages
 - Analyzing operations flow
 - Information protection operations
 - Wanted to include field service work processes for
 - Diagnosing & fixing network outage
 - Install, move, change phone service
 - Other “Field Service” processes

From Entrée to Full Meal

- Experience with other models
 - PriceWaterhouseCoopers
 - 5 Areas, 22 Processes
 - CMMI for Operational Organizations
 - Translates CMMI SE/SW into operations well

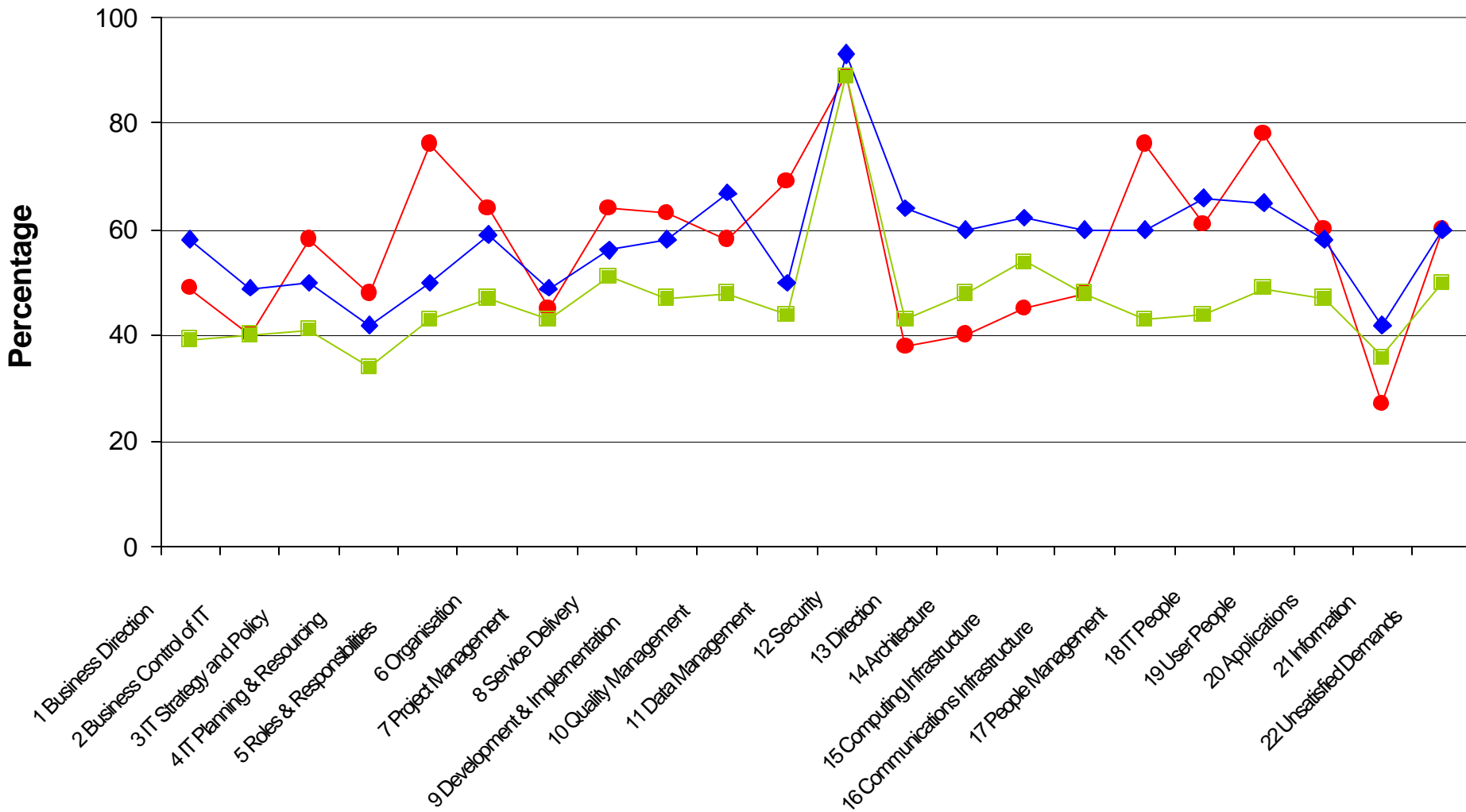


Edwards



IS Level 1 Effectiveness Ratings ITM-PI Edwards AFB/IT

—●— Enterprise —■— Peer Average: AFMC —◆— Peer Best In Class



Other Models (PWC)

- Building AFFTC/IT (Results from AFMC Study)
 - IT Process Maturity
 - Edwards 10 topics > Peer Best
 8 topics > 60% maturity level
 - Next best ALC had 3 >Peer Best, 8 > 60%
- **Customers more satisfied in Process-Based org**
 - **Edwards combined raw score in**
User People + Applications = 139;
Next best 123,
then drops off to 82.

Operationalizing CMMI

- Operational organizations contain mission elements or teams that do the following:
 - Plan their work
 - Carry out mission-essential and support tasks
 - Measure the effectiveness of their mission
 - Define operational procedures and processes
 - Control the configuration of these procedures and other work products
 - Identify and manage operational issues and risks
 - Make structured decisions
 - Continuously look for ways to improve mission effectiveness
- **Source: Interpreting Capability Maturity Model® Integration (CMMISM) for Operational Organizations, Brian P. Gallagher, Apr 2002**

Conclusions/Recommendations

- Choose a model that will give you a full meal
 - What's your business? Business need?
- Choose PAs that you've worked on implementing
 - Levels less important than business needs
- Size the assessment
 - Consider tradeoffs

Conclusions/Recommendations

- Train just-in-time, but not too late
- Study documents early – beforehand
- Form mini-teams and finalize assignments early
- Do assessment activities in big blocks
 - They take lots of time, don't multi-task
- Share knowledge – have a tool

Questions???

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