



CMMI[®]
Institute

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Expecting the Unexpected – *Managing Change while Advancing to High Maturity*

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Booz | Allen | Hamilton

Agenda

- Background
- Challenges and Approaches
 - People
 - Process
 - Training/Tools
 - Culture
- Critical Success Factors/Lessons Learned
- Results

Background

Booz Allen Hamilton

- Founded in 1914
- Headquarters: McLean, Virginia
- 22,000+ employees
- Leading provider of management and technology consulting services to the US government
- Internal process improvement program & Corporate Quality Office (integrated teams)
 - CMMI-DEV Maturity Level 3 (ML3), originally achieved in September 2005 (CMM appraisals began in 1998), Quality Office achieved CMMI-SVC Capability Level 2 in February 2015
 - ISO 9001-2008 and related standards registration since 1997 for multiple sites/business units
- Website: www.boozallen.com

Challenges and Approaches

- Embarked upon our High Maturity journey with two key change management principles:
 - Sense of Urgency (i.e. burning platform)
 - Guiding Coalition
- Developed an initial plan to arrive at High Maturity in 17 months
- Began developing High Maturity processes and realized traction was too slow:
 - ML3-related issues surfaced
 - Tasks were taking longer than planned (e.g., defining organizational baselines associated with the organizational QPPOs)
- Obstacles were a mix of:
 - People
 - Process
 - Training/Tools
 - Culture



Challenge

- Staffing a High Maturity Initiative (HMI) when there is a limited number of resources with High Maturity experience across the industry

Landscape

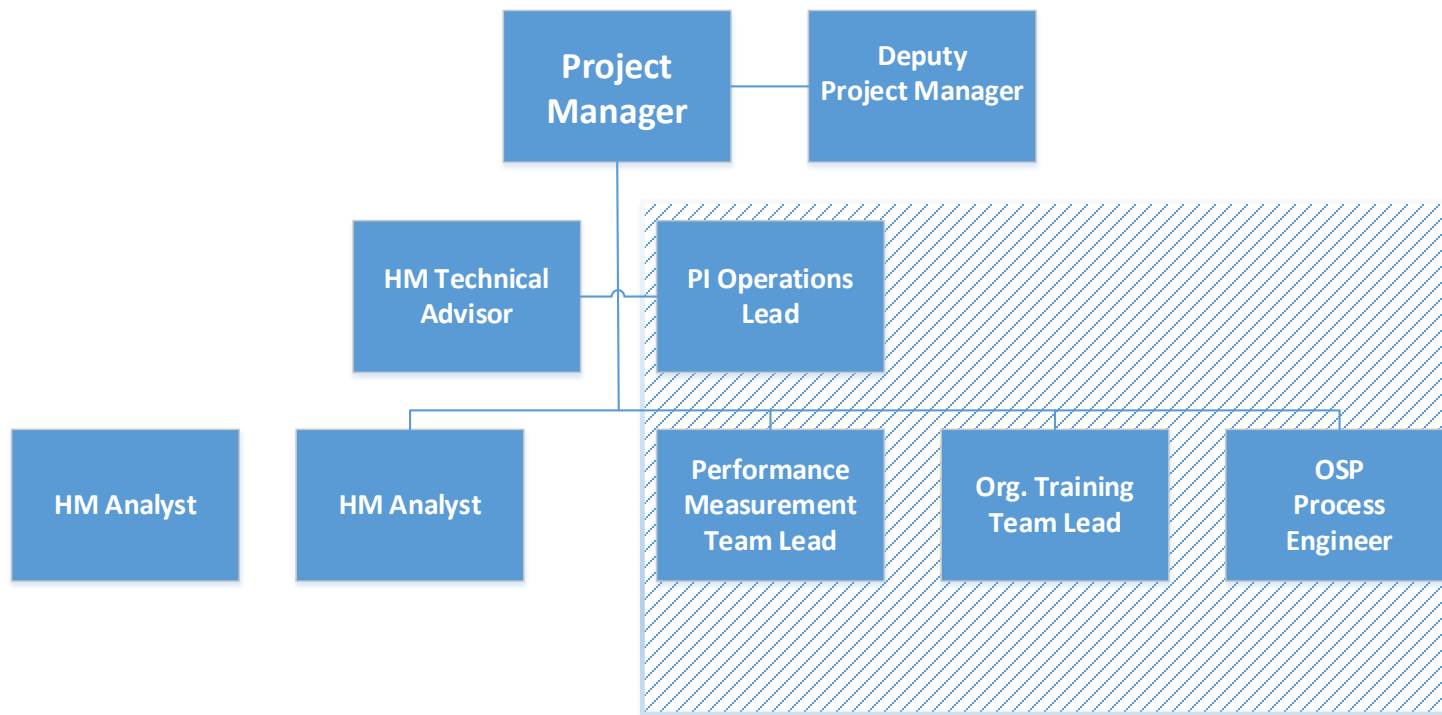
- Two certified and experienced High Maturity Lead Appraisers (primary experience base)
- One practitioner with High Maturity experience (also one of the HM Lead Appraisers)
- Very tight timeline to accomplish this goal

Approach

Established an HMI Project Team:

- Core HMI Team included balance of individuals with data/statistical experience and individuals with SDLC experience
- One of the HM Lead Appraisers functioned as the Project Manager
- Second HM Lead Appraiser functioned in the role of Technical Advisor
- Two dedicated HMI Analysts (experienced with data/statistics) were primarily responsible for supporting Measurement Analysts on the project teams
- Remainder of team comprised of part-time individuals straddling roles within existing process improvement organization (e.g., Performance Measurement Lead)

People— HMI Project Org. Chart



- Project Manager – Certified High Maturity Lead Appraiser
- HM Technical Advisor – Certified High Maturity Lead Appraiser from firm’s Corporate Quality Office
- HM Analysts – Full-time support with experience in data/statistics
- Process Improvement Organization provided part-time team members in functional areas and enabled surge support for critical activities.



Challenge

- Realization that the new processes for High Maturity have to actually integrate with the processes in our current OSP, which were based on lower maturity compliance

Landscape

- Existing OSP in place for more than 10 years
- Significant challenges with current tool housing OSP
- Projects operating at varying levels of maturity

Approach

Distinguished High Maturity processes as “advanced” project and process management:

- Conducted a “process party” for initial process definition; paired process experts with SMEs
- Had multiple releases of the OSP based on changes needed for High Maturity
- Reworked some ML3-based processes (e.g., causal analysis, measurement analysis)
- Created new format for “advanced processes”

Process— Integration: Measurement and Analysis



New Items Created to Support Existing Measurement and Analysis Process

- Procedures
 - Establish and Maintain QPPOs
 - Perform Advanced Process Performance Analysis
 - Establish and Maintain Process Performance Baselines
 - Establish and Maintain Process Performance Models
- Templates
 - QPPO Subprocess Traceability Matrix
 - Addresses common pitfall with not linking the HM analysis back to critical business objectives

Process— Integration: Measurement and Analysis



Revised Items to Support Existing Measurement and Analysis Process

- Procedures
 - Conduct Measurement and Analysis
 - Create Measurement Plan
 - Establish Measurable Objective
 - Analyze Measures and Indicators
 - Perform Measurement
- Templates
 - Measurement and Analysis Plan
 - Measurement Construct Definition Document
 - Integrated Analysis Results Template
- Referenced items required by High Maturity projects as “advanced process” or “advanced project” management



Challenge

- Developing right-sized training for the organization when individuals within the organization are at dramatically different levels of understanding

Landscape

- Individuals with varying comfort levels of using data
- Some people not familiar with Process Improvement principles
- Some Measurement Analysts already established in the role, while others were “voluntold”
- All comfortable with life at ML3

Approach

Multitiered approach to training and tools:

- Developed a Technical Reference Guide
- Created a 4-hour training course
- Developed an internal tool, the Analytical Techniques Workbook
- Established monthly (and then bimonthly) Measurement Information Meetings
- Provided heavy one-on-one mentoring with Measurement Analysts
- Conducted High Maturity Workshops
- Generated self-assessments and learning plans for individuals
- Collected feedback and implemented changes quickly from process users



TRAINING:

4-hour training course
for targeted audiences

Interactive, multiple instructors
Virtual: Skype meeting
PowerPoint with reference materials



REFERENCES FOR MEASUREMENT ANALYSTS:

Technical Reference Guide

- Used in conjunction with the LSS Pocket Toolbook

Analytical Techniques Workbook

- Plug and chug with project-specific data

- Preferred graphs for quantitative analysis documentation

- Upgrades based on user feedback



APPLICATION:

Quarterly Measurement Workshops with specific agenda
items; Bimonthly Measurement Information Meetings
targeted to the most pressing issues/concepts



CONTINUOUS FEEDBACK LOOPS:

Lessons learned collected on new tools,
OSP, and the PIP process

Mentoring sessions with HMI Analyst and Project Team



Challenge

- “Are we there yet?”
- “What do you mean you need more time, more resources, and more budget?”
- “Are we right?”

Landscape

- Difficult for key stakeholders to fully grasp the depth and complexity of High Maturity
- Difficult to explain High Maturity concepts in the beginning
- Checkbox mentality in some situations

Approach

Considered all levels of stakeholders, supporters, and “doers” of the work:

- Embraced the critical role of communications and the various stakeholder groups’ tailored messages
- Accepted that some messages would require repetition (e.g., multiple EPG briefs, webinars, weekly check-in points)
- Continually collected and reevaluated lessons learned
- Conducted workshops to pull key roles together in person and allow learning from peers
- Created safe environments for asking questions (Measurement Information Meeting)



Communications

- Partnered with Corporate Quality Office
- Targeted Communications part of the overall schedule
- Marketing with webinars and presence at various conferences
- Pinpointed emails with very clear direction on next steps

Walk the Walk

- Organizational Advanced Causal Analysis
- Leveraged the OSP and reference materials
- Process Improvement Proposal (PIP) submissions

SCAMPI

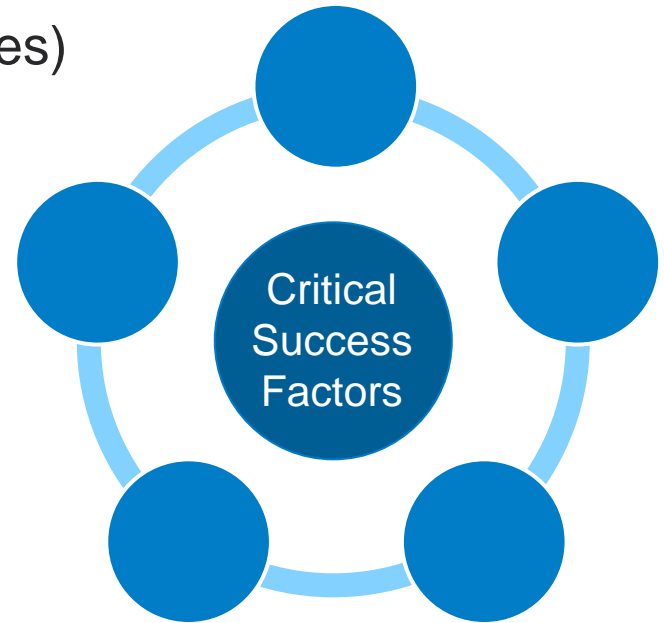
- Mini-Team alignment
- Multiple SCAMPIs to prepare for A
- Brought in external people to be a part of the team

Safe Environment

- Practice walkthrough of quantitative management activities (PPB, PPM, and QPPO)
- EPG – repetitive training, EPG Chair engagement (inclusion in HMI Workshop – previously not included)
- Quality Management Working Group – determining how best to present information
- Meeting minutes available to all

Critical Success Factors/Lessons Learned

- Ability to flex the HMI Project Team during periods of surge activities (e.g., OSP releases)
- Diversity of HMI Core Team Members' experience and backgrounds
- Continual emphasis on improvement by collecting feedback and lessons learned
- Project teams' candidness in challenges so support could be provided
- Successful failures



Results

- We have successfully completed two SCAMPI Bs.
- SCAMPI A scheduled for June!
- Projects are proactive in asking for help.
- The organization has become more proactive in thinking through the timeline and next steps.
- We revisited the OSP to address user-friendliness of process.
- Additional teams embraced leveraging CARs for improvements.
- Process allowed for integration with firm quality initiatives.
- Process provided for professional growth for many people, as they were stretched to meet High Maturity challenges.
- Process provided many tangible success stories from our projects and the organization.

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