



Lessons Learned  
on  
Cooperative  
Government/Industry Appraisals  
*aka Registered Appraisals*

Melanie G. Benhoff  
Integrity Applications, Inc



Carnegie Mellon  
Software Engineering Institute



# Cooperative Appraisals

- A definition:
  - Government members or representatives participate on a corporate assessment
  - Establishes additional confidence in impartiality and objectivity of assessment results
  - Results signed by government members to assert that objective appraisal process was used in conformance with the instrument's method description
  - Results (including findings) “registered” into SEI repository where they will be available for review by potential customer (government) organizations
    - In lieu of customer conducting their own evaluation of the appraised organization



# Policies Driving Interest in Cooperative Appraisals

- OSD Policy, Jan 2001, requiring Level 3 Evaluation in order to compete for DoD Acquisitions
  - Not corporate assessment, but government (or representative) evaluation
  - ACAT1 programs, but some services applying policy to other programs
- Resources and schedule implications on government evaluations during source selections
- Interpretation of policy can accommodate more collaboration in corporate assessments for process improvement
  - Collaborative or “registered” appraisals:
    - Appraisers representing government offices participate on corporate assessments
    - Results to be managed by SEI and made available to government offices in lieu of SCE-like evaluation for acquisition





# OSD's CMM Level 3 Policy Study

- Is policy being implemented on applicable programs?
  - Largely, but questions exist
- What clarifications are needed?
  - Emphasis on independent evaluations vice corporate assessments
  - How to address additional program office costs of conducting evaluations and impacts to the source selection schedule
- Additional OSD guidance being drafted
  - Specify candidate appraisal methods for use by government
    - SCE, SCAMPI Class A appraisals, SDCE
  - SCAMPI Class B appraisal methods for evaluations to be developed
  - Encourage reuse of government/corporate appraisals across acquisitions
    - Cooperative Government /Industry Appraisals
    - Registration of Results in SEI Repository





# Who can be a “Government” Member of Cooperative Appraisal Team?

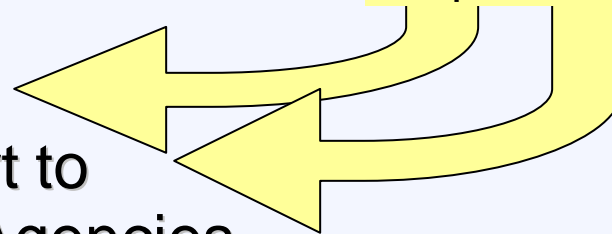
- Government employee

- Program office member
- DCAA rep
- DCMA rep
- Other

- FFRDC

- CAAS/SETA Support to Program Offices or Agencies

As long as no consulting relationship to appraised organization for process improvement implementation



## Key Criteria

- Proper training and experience
- Participation Sponsored By (Paid for By) Government Agency



# Role of Government Representatives on Appraisal Team

- Understand corporate objectives for appraisal
- Bring experience / appraisal knowledge/ model knowledge as full-fledged member of appraisal team
- Fulfill responsibilities as full-fledged appraisal team member
  - Not merely an observer of the appraisal team
  - Ensure their vote/voice counts as much as every other appraisal team member
- After appraisal:
  - Sign registered appraisal forms
    - Attesting to completeness/validity of process used for appraisal
  - Respond to questions from prospective “consumers” of appraisal information during next 2 years
    - Government program offices seeking maturity level information in support of acquisition



# 1<sup>st</sup> Registered Appraisal -- Context

- First cooperative appraisal conducted Summer 02
  - Appraisal Method: SCAMPI V 1.1
  - Reference Model: CMMI SE/SW, Staged, Level 5
- Scope of appraisal, Lockheed Martin, M&DS
- Size of team: 6
  - 3 of the 6 were SEI-certified lead appraisers
  - 2 of the 6 were SCAMPI lead assessors
- “On Site” Window:
  - 3 days team training/readiness review
  - 10 days of on-site appraisal activities





# Factors Affecting Effectiveness of Cooperative Appraisal

- Early identification and involvement of Government appraisal team members
- Planning
- Qualifications of team members
- Composition/Responsibilities of mini teams
- Interpersonal dynamics of appraisal team members
- Readiness of the appraised organization







# Lessons Learned <sup>1</sup>

- Early Identification/Acceptance of Government Appraisal Team Members (6 months or longer before appraisal)
  - Ensure entire appraisal team is balanced/optimized
  - Will drive appraisal team approach
    - Match mini teams to complement experience/expertise of all appraisal team members
    - Organizational overviews and documentation needs
  - Allows for optimized PA assignments
  - Preserves appraisal schedule with early lock-in
  - Allows time to identify and resolve any training needs
  - Allows time to look for alternatives if nominee lacking critical training/experience





# Lessons Learned <sup>2</sup>

- **Effective Planning**
  - Involve government-sponsored appraisal team members **AS EARLY AS POSSIBLE** in corporate planning activities
    - Helps build shared understanding of corporate objectives and expectations
      - Senior management's focus on process improvement and maturity level rating
      - Historical background of organization in their process journey (what has worked, what hasn't)
    - Address team building, training, appraisal focus issues early without disruption to corporate assessment plans



# Lessons Learned <sup>3</sup>

- Qualifications of Government Team Members
  - Must have strong experience with formal appraisals
    - Must be a lead appraiser or candidate lead appraiser
  - Must have strong foundation with reference model
    - Experience using same model in appraisals
  - Must have ample experience with relevant development & engineering activities
    - 10-15 years system development
    - Similar business/technical domain a plus

- **Government Members represents credibility of appraisal to other Government Agencies**
  - ❖ *the credibility of their affirmation is limited by their credibility as an appraiser*





# Lessons Learned <sup>4</sup>

- **Composition/Responsibilities of Mini Teams**
  - SCAMPI concept of mini-teams does not directly support concept that government members of cooperative assessments can attest to process and be comfortable with results
    - Mini-team activities can be much more diffused than in CBA-IPI or SCE
      - Allows for more “in-parallel” data gathering and consolidation
    - Make sure Appraisal Plan allows for sufficient “in serial” data gathering and processing to accommodate Registered Appraisal objectives
    - Make sure team data consolidation and consensus activities allow for sufficient time to share information across mini-team
      - Mini Teams responsible for justifying characterizations at project level to rest of the team during consensus...
        - **Not just counting types/pieces of objective evidence**
      - “Red-teaming” project characterizations across mini-teams in preparation for team consensus...





# Lessons Learned <sup>4</sup> (continued)

- **Composition/Responsibilities of Mini Teams**
  - Put considerable thought into how to organize mini teams given participation of government representatives
    - Most controversial PA's will be those at higher maturity levels
    - Government members will have less familiarity with organizational aspects of processes
  - Don't put government members on same mini team
  - Don't put government members only on less controversial or less stringent PA's
  - Don't organize mini teams by maturity level
    - Doesn't balance work across mini teams
  - Consider organizing mini teams by process category or some other method to balance appraisal work by a conscious theme
    - Project Mgmt (6)                                      Engineering (6)
    - Process Mgmt (5)                                      Support (5)



# Lessons Learned <sup>5</sup>

- Interpersonal Dynamics of Appraisal Team Members
  - High probability government members have not been on an appraisal with rest of team members before
  - High probability government members not as familiar with organization's policies, standards, processes, terminology, etc as rest of team (*which more than likely will have experience appraising this organization*)
    - Team building and team communication is crucial to successful appraisal
    - Make time for these tasks during planning and training activities
  - Model interpretations need to be normalized across team
    - Even with team of well-qualified, experienced evaluators
  - Objective evidence interpretations and definitions of sufficiency need to be consistent and reasonable
    - What's a Direct Artifact versus Indirect Artifact versus Direct Affirmation?
    - What kind of objective evidence is sufficient to demonstrate "fully implemented"?
      - One direct artifact (i.e. minutes from one meeting)? There are many types of direct artifacts... so what will be sufficient





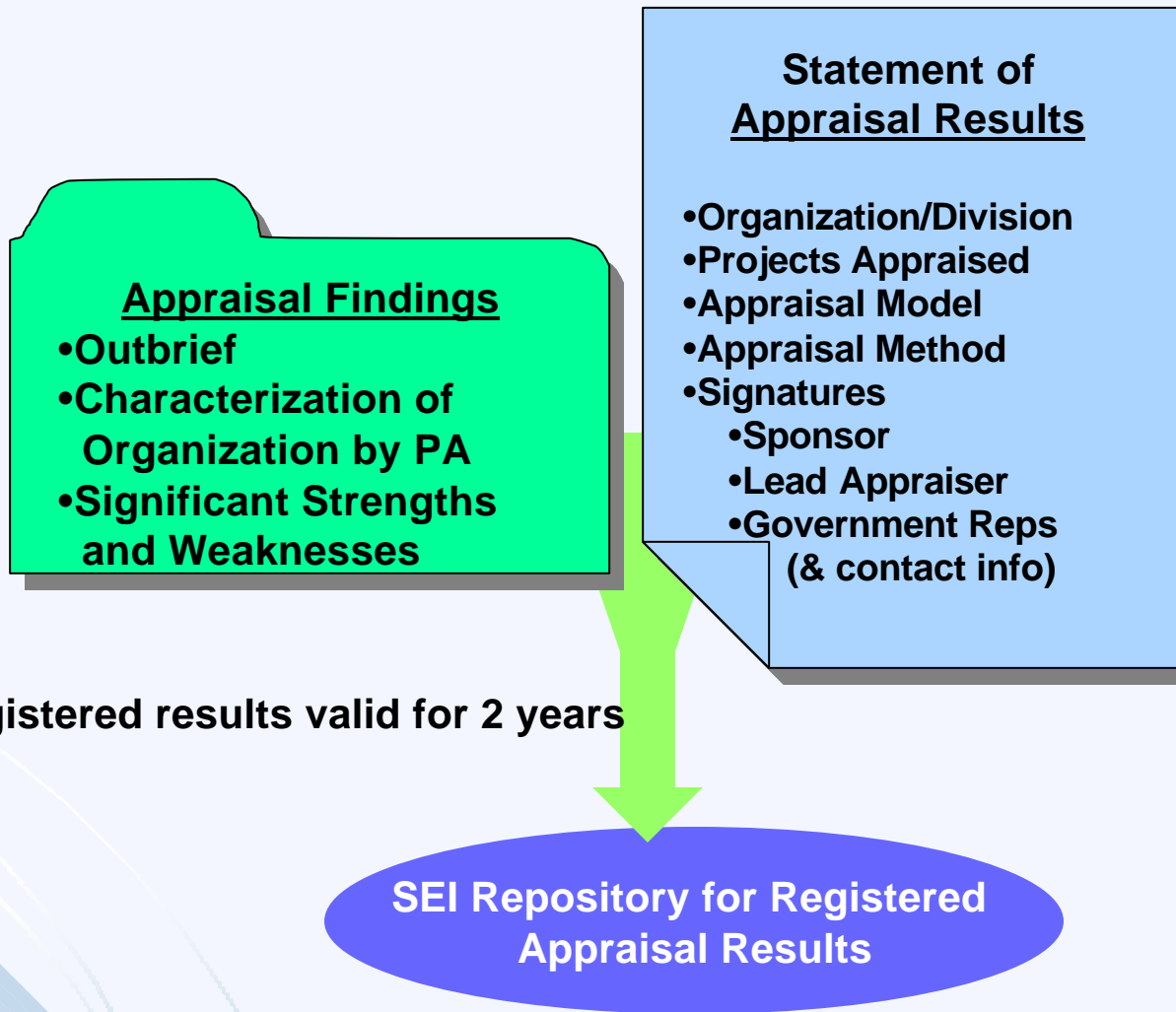
# Lessons Learned <sup>6</sup>

- Readiness/Maturity of the Appraised Organization
  - Meeting the intent of the model as well as the “letter of the law”
    - Conservative Mapping of Organization/Project Processes and Artifacts to Model
    - Organization doesn’t try to stretch processes to apply to higher level process areas
  - Availability of additional objective evidence and people to respond to appraisers’ questions
    - May be more questions/info requests than in typical corporate assessment
  - Organization welcomes an objective appraisal





# Output of Registered Appraisal\*







# Remaining Policy Issues

- Degree to which registered appraisals used in source selections
  - Education/awareness/motivation
- FAR implications for competitions
  - If not all offerors in acquisition have cooperative appraisal results available/registered
- Near term staffing drain on government agencies to get initial cooperative appraisals registered
  - Rely on FFRDCs and CAAS/SETA





# Summary

- Age-old question: Does sponsorship and appraisal team composition affect outcome/results of appraisal?
- Age-old constraints:
  - Staffing/resource constraints for implementing OSD policy
  - Impact of Government Class A appraisals on acquisition schedules
- Solution sets:
  - Other than SCAMPI Class A Appraisals
    - SCAMPI Class B Appraisal Evaluation Method (*to be defined early 03*)
    - System / Software Risk Evaluations
    - Process Benchmarking Evaluations
    - .....
  - Cooperative Government/Industry Appraisals with Registered Results