

NDIA Workshop & Summit on CMMI® Use in DoD Programs:

How to strengthen CMMI Reporting
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Break-out Session Co-Chairs:

Susan Mancinelli, Lockheed Martin
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CMMI Reporting Break-Out Session Participants

- ***Roger Bate, Carnegie Mellon, SEI***
- ***Leia Bowers, The Aerospace Corporation***
- ***Neil Crowder, Lockheed Martin***
- ***Lt. Col. Carlos Galvan, CSM***
- ***Cornelius Hollestelle, Rockwell Collins***
- ***Paul Jean, MITRE***
- ***John Kennedy, US Navy / MITRE (Government Co-Chair)***
- ***Susan Mancinelli, Lockheed Martin (Industry Co-Chair)***
- ***Mary Lynn Penn, Lockheed Martin***
- ***William Peterson, Carnegie Mellon, SEI***
- ***Charles Ryan, Carnegie Mellon, SEI***
- ***Albert Soule, Integrated System Diagnostics***
- ***Dr. John Weaver, Lockheed Martin***
- ***Donald White, Lockheed Martin***
- ***Ruth Wuenschel, Concurrent Technologies***
- ***Brenda Zettervall, RDA Chief Engineer Staff (Government Co-Chair)***

Goals

- ***Determine how to strengthen CMMI reporting on...***
 - ***Previous capability: CMMI Appraisal (SCAMPI) results***
 - ***Capability status / change since the SCAMPI:***
 - ***Current indicators***
 - ***Future predictors***
- ***Questions explored by the team:***
 - ***How can we characterize the implementation of our process improvement efforts?***
 - ***What additional data does the acquisition team need / want?***
 - ***What additional data do contractors already have available?***
- ***What vehicle(s) could be used to report these results?***
 - ***Improved Appraisal Disclosure Statement (ADS)***
 - ***Other sources of data / reports / plans already available***
 - ***Revisions to / combinations of the above***
 - ***Invent something new***

Characterizing the implementation of our process improvement efforts

■ *Processes used by the business unit / organization:*

- *The (organizational) standard process*
- *The (project) tailored process*
- *Proposed vs. used on the program*
- *Perceived process execution costs*

■ *Which processes are used for:*

- *Teaming arrangements*
- *Single, large programs (multi-company)*
- *Satellite operations (smaller, remote sites)*

■ *Defining & establishing relationship between risks*

- *Acquisition phase*
- *Program execution*
- *Supplier*
- *Appraisal*

Current Appraisal Disclosure Statement contents

- *Appraisal sponsor & sponsor's organizational affiliation*
- *Appraisal team leader, team members, their organizational affiliations*
- *Organizational unit being appraised (unit to which ratings apply, domains examined, as defined in appraisal plan)*
- *CMMI model used (version, representation, domains)*
- *Appraisal method (name, version)*
- *Itemized process areas rated and not rated*
- *Maturity level / capability level ratings assigned*
- *Dates of on-site activities*
- *Date of ADS issuance*
- *Statement affirming all SCAMPI requirements were met*
- *Signature of appraisal team lead (other members and sponsor signatures are optional)*

Additional data the acquisition team needs/wants

- ***Clearly identify appraisal participants and attributes***
 - ***Identify any potential conflict of interest***
- ***Clearly describe the business unit***
 - ***What work the business unit does***
 - ***What products it produces / lines of business / domains***
 - ***Name, Location(s) involved***
 - ***Needed to better understand where / how the results apply***
- ***Appraised Organization Scope & Coverage Information***
 - ***Percent of bottom line***
 - ***Percent of personnel coverage (include base measures)***
 - ***LOB / product coverage***
 - ***Percent of programs (number of programs / total programs)***
 - ***A subset of Scope & Coverage Review materials***
 - ***Needed to characterize / snapshot the organization at the time***
 - ***Capture significant org. changes since CMMI appraisal***

Additional data the acquisition team needs/wants

■ *Program identification / profile*

- *Name of projects / programs*
- *Types of programs (often used for pre-defined tailoring)*
 - *Size, development, production, R&D, etc.*
- *Domains / products / LOB*
- *Project selection (inclusion / exclusion) rationale*
 - *A subset of the appraisal plan contents*

■ *Findings presentation (out-brief)*

■ *Detailed process area profile*

- *Characterization at the organizational unit for each process area*

■ *Teaming arrangements*

- *Provide associated process credentials*

■ *Process Implementation Indicator Descriptions (PIID)*

- *Not necessary or practical to provide*

Current indicators

- ***What information can an organization provide to demonstrate how capable the organization is today?***
 - ***Process improvement plans***
 - ***Correlation to appraisal results, business goals***
 - ***Internal appraisal plans & results***
 - ***Quality assurance reports***
 - ***Quality audit plans***
 - ***ISO, AS9100 Audit Results***
 - ***Use of Lean / Six-Sigma program***
 - ***DCMA Participation / Evaluations***
 - ***Limited during RFP; if local DCMA availability for all offerers***
 - ***Primarily post contract award***
 - ***Desired participation in CMMI appraisals***
 - ***Government Participation / Evaluations***

Future predictors

- *What information can an organization provide to demonstrate how capable the organization would be in the future?*
 - *Process improvement plan*
 - *Historical data / measurements*
 - *Must be well defined in order to supply data*
 - *Predictive capability at higher maturity levels*

Enablers to strengthening CMMI reporting

- ***Education***
- ***Guidebook***
- ***Request for Proposals (RFPs)***
- ***Contracts***
- ***Statements of Work (SOWs)***
 - ***Must cite use of CMMI to enable DCMA to participate***
- ***Metrics / Measures***
- ***Award Fee / Incentives***

CMMI Reporting Recommendations

■ *Provide more complete, existing appraisal reporting information*

- *Supply data / reports / plans already available*
 - *Augment Appraisal Disclosure Statement (ADS)*
 - *Updated appraisal plan (planned vs. actual)*
 - *Appraisal findings*
- *Include / address:*
 - *Clearly identify appraisal participants and attributes*
 - *Clearly describe the business unit*
 - *Appraised Organization Scope & Coverage Information*
 - *Program identification / profile*
 - *Detailed process area profile*
 - *Teaming arrangement*

CMMI Reporting Recommendations

- *Educate the acquisition community on use of CMMI reporting*

- *Targeted to and tailored for:*

- *Procurement / contracting*
- *Program management personnel*
- *Source selection teams*

- *Just-in-time focus on CMMI appraisal reporting information:*

- *What to ask for*
- *How to read what you get*
- *How to use what you get*
- *How to interpret results*
- *What it doesn't tell you*
 - What additional questions should you ask

CMMI Reporting Recommendations

- *Consider joint project specific process improvement plan (Government & contractor)*
 - *Post award team*
 - *Categorize items by responsible party (mine, yours, ours)*
 - *Examples of large, long term contracts attaching award fee to degree of process improvement achieved*

Other Discussions

Acquisition Agency requested appraisals

- ***What information can an organization provide to demonstrate how capable the organization is today?***
 - ***SCAMPI: C, B, or A***
 - ***Assumes that SCAMPI-Cs (data only) are done at the request of the acquisition agency; SCAMPI-B/A (interviews) are conducted by the acquisition agency***
 - ***RFP sections L & M must specify the “comparability”***
 - ***Need consistency of results***
 - ***Customer desire to use results as a tool to assess contractor risks for source selection process***
 - ***Correlation of appraisal results & program risks difficult at best***

Goal of conducting a SCAMPI-A

- *Setting expectations*
- *Marketing tool (rating)*
- *Ability to determine appraisal risk*
- *Prelude to process monitoring activity*

SCAMPI Discussion

- *CMMI embraced; SCAMPI method can be difficult/expensive*
- *SCAMPI-A with a rating vs. SCAMPI-B/C w/o rating*
- *Industry*
 - *SCAMPI-A, usually done for rating*
 - *SCAMPI-B/C for internal process evals.*
- *Source Selection Process*
 - *During RFP – Usually a SCAMPI B/C; sometimes an A*
- *Try not to focus on the letter*
- *The toolset has lots of tailor-ability*
 - *Potential variability*
- *Government /DCMA participation on appraisal desired*