



# **DoD and CMMI**

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# CMMI Vision

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**The initial vision for CMMI was to integrate the competing maturity models and provide a framework for more consistent process improvement**

- Cause integration of the functional disciplines within organizations and across programs
- Increase systems engineering process maturity as organizations migrate from the sun-setting CMMs to CMMI

***Build on and improve the significant work done on CMM-like models***



# Have We Lost Sight of the Goal?

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- The end goal of CMMI is to provide a model for continuous process improvement to achieve:
  - Reduced cycle times
  - Meet cost and schedule targets
  - Improved quality
  - Combining Systems Engineering and Software into a common model

***When achieving a level replaces the focus on continuous improvement, we've lost sight of the goal***



# How We Got Where We Are

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- CMMI Sponsors opted to pursue staged and continuous models to preserve legacy
  - SW-CMM, staged
  - SECM, continuous
- Acquiring organizations do not have full understanding of how CMMI is intended to be used
  - What a specific level at the enterprise level actually means to an acquisition program
  - That the process and people evaluated to obtain a level are not necessarily applied to their program
  - Achievement of a specific level may or may not have meaning to any given acquisition program



## Negative Effects of “Levels”

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- Organizations often focus on maturity levels vice continuous improvement
- Organizations are tempted to view CMMI Level “X” as an “end” rather than a “means to the end”
- Some organizations may stop at Level “X” because that is all that is required or expected
- Level “X” companies often do not perform at that level on all programs—not all programs are appraised
- Once an organization achieves a desired level, the tendency is to let the baseline erode—can result in reduced ROI

***DoD expects that if you have achieved high maturity, the next program will perform at that maturity***



# CMMI Workshop, Sept 7&8, 2005

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- The workshop addressed several significant aspects of utilizing CMMI in the DoD and federal acquisition process that have been troublesome, and developed recommendations that the CMMI Steering Group, and DoD or federal acquisition agencies can address. Some issues that were discussed include:
  - Background on how organizations approach CMMI appraisals and why
  - Use of Appraisal Disclosure Statement by acquiring organizations
  - Formal guide to CMMI Usage for DoD
  - Training for DoD Acquisition Organizations in the use of CMMI for DoD
  - Government lack of understanding of need for mature SE content and practice
  - Specifying or requiring CMMI in RFPs
  - CMMI Appraisal expiration date



# Workshop Findings

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- Programs execute at lower maturity levels than their organizations have achieved and advertised
- Appraisals use small samples—don't cover all projects
- You can't judge a program without appraising it
- How can an organization's level be for "Life" when people and processes change?
- High-maturity practices are not consistently applied at the project level after contract award
- Is the completeness of appraisal disclosure statements adequate?
- Low-maturity acquirers and high-maturity suppliers

***Sound Familiar?***



# Potential Root Causes

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- Lack of sufficient CMMI guidance for acquisition professional—what it can do, what it cannot do, applicability to source selections?
- Lack of tailored education and training for acquisition professionals—program managers and contract officers
- Vagueness with respect to what an CMMI level actually means





# Way Ahead

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- Develop relevant guidance focused on multiple user needs
- Educate the Acquisition Community
- Eliminate “Level for Life”

***Continue to improve the “application” of CMMI***