Strengthening the Credibility of Maturity Level 4&5 Appraisals: Improvements for SCAMPI Version 1.2

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Contents / Agenda

SCAMPI Method Changes

- New Affirmations on the Appraisal Disclosure Statement (ADS)

- Sampling Requirements

SEI Quality Assurance Program

- Auditing of Every SCAMPI Appraisal

- Site Visits and Corrective Actions

Policy Changes

- Three Year Period of Validity

- Required Upgrade Training and Certification

Certification Program

- Application/Qualification Process

- Oral Examinations

- Phase II: Body of Knowledge (BOK) – based Certification

SEI Appraisal Program

Program Responsibilities:

- Develop and maintain appraisal requirements and method descriptions

- Develop, maintain and teach appraisal courses

- Evaluate and maintain Lead Appraiser/Team Leader authorization, renewal and appraisal records

- Assure reliability and quality of appraisals for stakeholders of the CMMI Product Suite

SCAMPI Method Changes:
New Features for Version 1.2

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Value-Added Changes

Strengthened Method Definition

- Appraisal Planning

- Appraisal Conduct

- Appraisal Reporting

Changes Based on:

- V1.1 Appraisal Experience

- User Change Requests

- Sponsor Direction

- Steering Group Prioritization

Important Changes in Planning SCAMPI

Refined definition of "Organizational Unit"

Clarification of Sponsor and Lead Appraiser responsibilities

Specification of "Focus Projects" and "Non-Focus Projects"

Procedures for collecting data from other projects – if needed

Identification of critical factors in sampling

Definition of "Incremental Appraisal"

Prohibition against "Delta Appraisal"

Important Changes in Conduct of SCAMPI

Detailed specification of start and end criteria – with 90 day limit

"*One Appraisal, one Organizational Unit, One Rating*"

- No project or discipline-specific rating (unless project=OU)

Documents used in appraisal must pre-date the start of the appraisal

Critical sub-processes under statistical management, and the process areas to which they relate must be documented in the finial findings.

Important Changes in Reporting SCAMPI Results

Appraisal Disclosure Statement (ADS) Greatly Expanded

- Documentation of OU and Sampling – in quantified terms

- Listing of critical sub-processes under statistical management

- Mapping the critical sub-processes to the organization's objectives

- Expiration date for the appraisal results

- Affirmations from the Lead Appraiser and Sponsor

Quality Assurance Program:
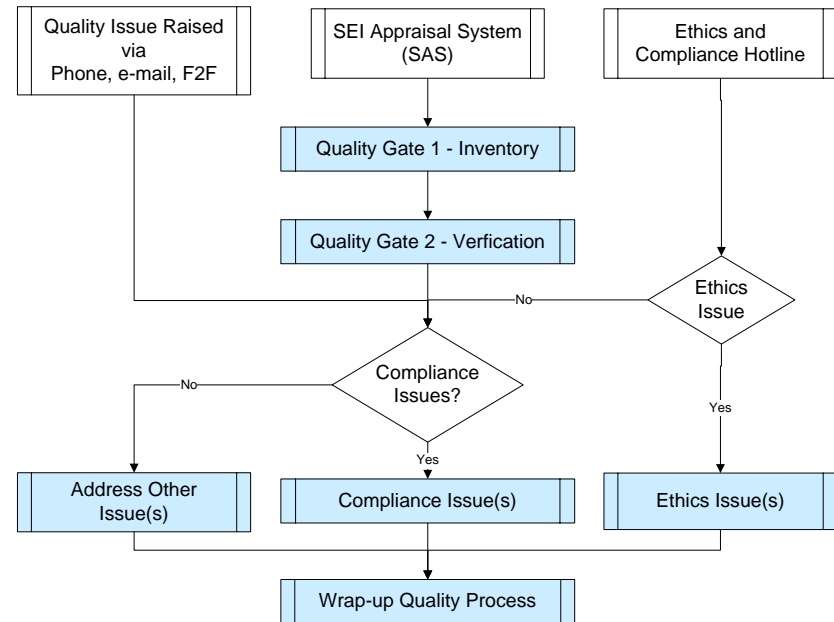## *CMMI Steward Responsibilities*

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Using Defined Processes

Focus on Capturing "As-Is" Process

- Forging a shared understanding

- Clarifying roles and responsibilities

- Looking for efficiencies

With a Common Understanding

- Evolution of the Process

- Avoid "Process Replacement"

- Work for Measurable Process Improvement

Paper Audits and Communications

Active Audit Program Underway

- Unusual trends reviewed

- Follow-up with Lead Appraisers and with Organizations

- Corrective actions taken

We Have Prioritized Our Efforts

- Focus on areas of potential high risk to our stakeholders

- Using historical data

- Working in partnership with SEI-Authorized professionals
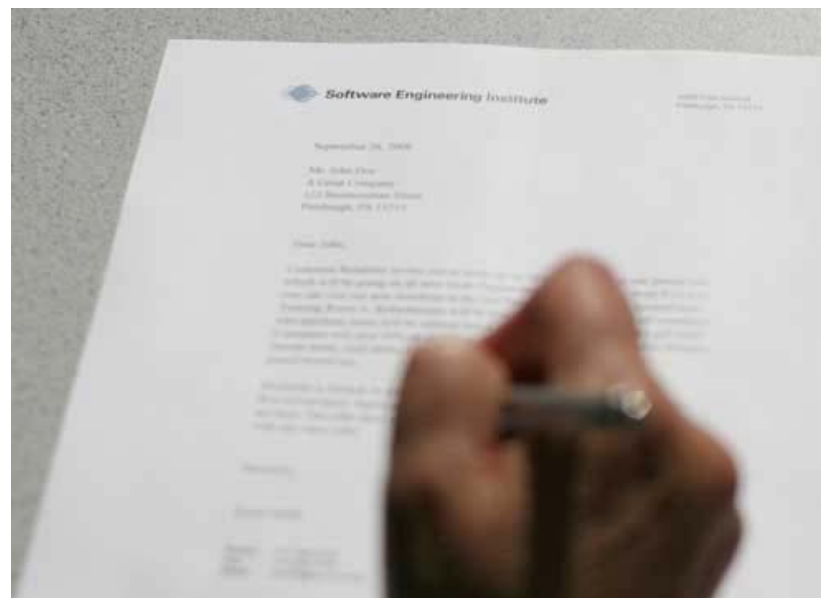
Good News From Quality Assurance!

SEI-Authorized Lead Appraisers Want Strong Quality

- Professionalism in our work is a shared value

- Lead Appraisers say "Thank You" when we audit them!

- Every participant in the process learns from these activities

- Good news from a QA audit is very nice to hear

- Bad news is being received very professionally and objectively

Important Work is Usually Not Easy Work

- Management commitment at all levels (SEI & CMMI Steering Group)

- A shared value for assuring a common ethical standard exists

- Clarifying boundaries, and preventing problems will be the challenge

Policy Changes:
Setting Appropriate Expectations

Policy Changes

Immediate Adoption of V1.2 ADS

No More Level for Life!

HMLA Certification

Sun-setting Policy

- 31 August, 2007

# Certification:

Moving Toward a Mature Profession

Maturing the Profession of Process Improvement

Though it is a Young Profession

- Many noteworthy accomplishments

- Substantial investment – globally

- Strong community of practice

- Many well-regarded people

- Standards of acceptable practice are moving to a greater level of specificity

Phased Approach

- Phase I: "High Maturity Lead Appraiser Certification"

- Phase II: Formalized Body of Knowledge & Certification Exam
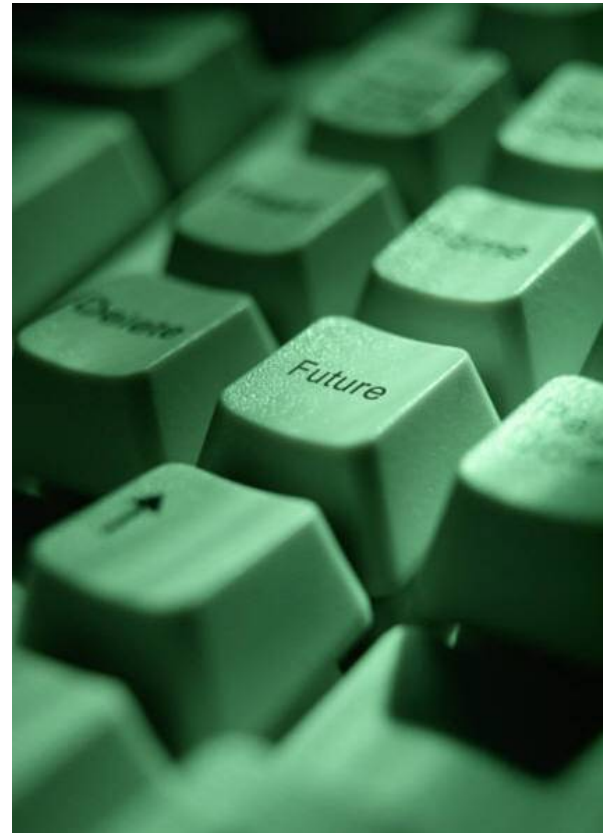
Status of Phase I Activities

Application Design

Very Effective Community Survey Identified Important Pre-Requisites

The Application Comprised of the Following Major Sections:

- High Maturity Appraisal Experience

- Education and Training

- Experience Designing and/or Implementing High Maturity Practices

- Experience Designing and/or Delivering High Maturity Training

- Near-Term Plans for Conducting High Maturity Appraisals

Application Scoring

Initial Application Scoring Rules

- Established, reviewed and revised by certification team
- Piloted on selected sample of 10 applications scored by 4 independent people
- Refined based on statistical analysis of inter-rater differences

Refined Application Scoring Rules

- Designed to minimize variability of interpretation
- Applied by at least two people scoring each application

Cut-Score Established Using Pareto Analysis – A Clear 'Dividing-line' Emerged

Every "Rejected" Applicant was then Invited to Re-Apply:

- More detailed set of questions tied to the scoring criteria sent in email
- A number of applicants were accepted based on re-application submission

Application Processing Data
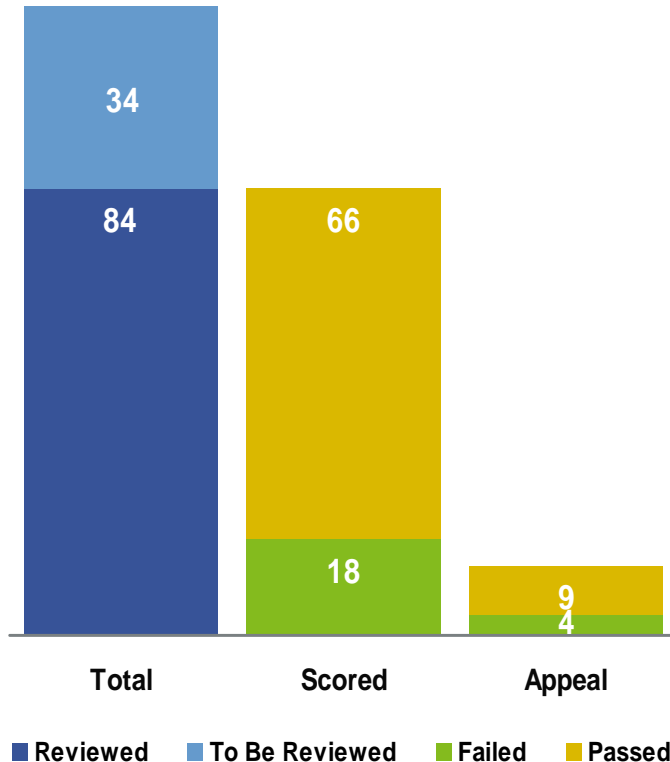
Application Scoring Data

- 121 Applicants
  - 84 reviewed thus far
  - 34 to be reviewed
- 84 Reviewed thus far
  - 66 passed
  - 18 failed
- 18 Failed
  - 13 appealed
    - 9 passed upon appeal

Chart:
- Total: 34 (To Be Reviewed), 84 (Reviewed)
- Scored: 66 (Passed), 18 (Failed)
- Appeal: 9 (Passed), 4 (Failed)

Legend: ■ Reviewed ■ To Be Reviewed ■ Failed ■ Passed

Developing the Oral Examination

Oral exam questions, and the "listen for" phrases

- Developed based on input from Expert Group

- Reviewed among the Certification Team

- Pilot tested with SEI internal and external staff

  — Expert as well as novice examinees included in beta testing

  — Involved large proportion of examiners in each session

  — Detailed discussion of scoring criteria conducted

Conducted multiple "level-setting" sessions with examiners

- Strong sense of convergence on scoring criteria

- Every examiner gained experience before starting real exams

Questions
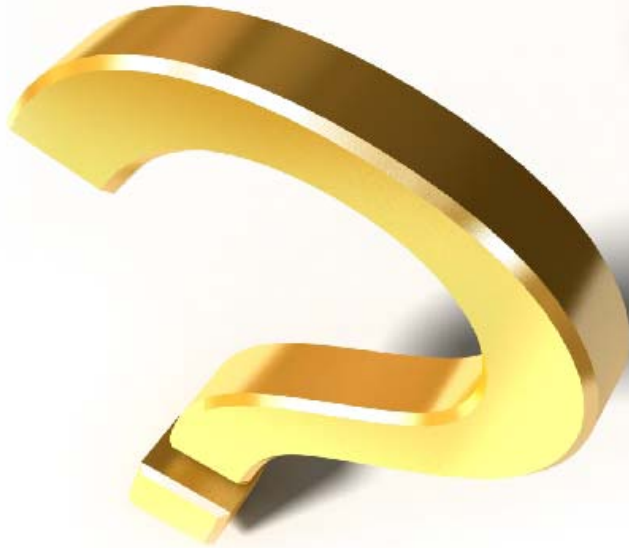
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