Process Maturity Profile

CMMI® For Development
SCAMPISM Class A Appraisal Results
2009 Mid-Year Update

September 2009

We could not produce this report without the support of the organizations and lead appraisers who reported their appraisal results to the SEISM.

Our many thanks for their continuing cooperation with our data collection and analysis efforts.

CMMI Appraisal Program
Outline

Introduction

Current Status

Community Trends

Organizational Trends

Summary And Terms used in this Briefing

How to Report your Appraisal Results to the SEI

This briefing is based solely on the appraisals reported to the SEI. It cannot be used as a source for an exact indicator of all organizations in the world using CMMI models or appraisal methods nor can it be used for certification or verification purposes.

The SEI does not certify appraisal results or organizations. The SEI licenses SEI Partners, authorizes/certifies lead appraisers, team leaders and high maturity lead appraisers to conduct appraisals. Neither the SEI nor any other organization is a “certifying authority” of the results from a SCAMPI appraisal. Therefore requests to the SEI to provide information to be used for this purpose cannot be fulfilled. Information provided by the SEI, such as this briefing, is to demonstrate reported results of the use of CMMI products and services only.

Organizations performing source selection or verification should consider performing an evaluation appraisal. For more information on appraisal methods and for a directory of authorized lead appraisers who can perform them, visit: http://www.sei.cmu.edu/cmmi/casestudies/profiles/cmmi.cfm
Introduction: Purpose

Characterize the adoption of CMMI® - DEV

Describe results from Standard CMMI Appraisal Method for Process Improvement (SCAMPI®) v1.1/v1.2 Class A appraisals using Capability Maturity Model® Integration (CMMI-SE/SW/IPPD/SS v1.1 or CMMI - DEV v1.2) *

Encourage continued reporting of results

* Organizations previously appraised against CMMI v1.0 and which have not reappraised against v1.1 or v1.2 are not included in this report

Please visit: http://www.sei.cmu.edu/cmmi/casestudies/profiles/cmmi.cfm for additional information or questions you may have about this briefing before contacting the SEI directly
Introduction - 2: Briefing Contents

This briefing includes three primary sections:

1. **Current Status**
   - Snapshot of the software community based on the most recent appraisal, since 2002, of reporting organizations

2. **Community Trends**
   - Global distribution of appraisals
   - Growth in the number of appraisals performed
   - Shifts in the maturity profile over time

3. **Organizational Trends**
   - Analysis of Process Area (PA) satisfaction
   - Time to move up in maturity based on change in maturity level and time between appraisals
Current Status

SCAMPI v1.1/v1.2 Class A appraisals conducted from the SCAMPI V1.1 April 2002 release through June 2009 and reported to the SEI by July 2009

- 4,726 appraisals
- 3906 organizations
- 2,963 participating companies
- 662 reappraised organizations
- 25,013 projects
- 72.9% Non-USA organizations

Please refer to: Terms Used in this Report on page 27

Additional charts providing different views and break down of this information will be added to this briefing as more appraisal data is reported to the SEI over time.
Process Maturity Profile by All Reporting Organizations

Number of Organizations:

- Not Given: 3906 (7.1%)
- Initial: 100 (1.0%)
- Managed: 1000 (29.3%)
- Defined: 100 (51.2%)
- Quantitatively Managed: 20 (2.7%)
- Optimizing: 100 (8.7%)

Based on most recent appraisal of 3906 organizations

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Process Maturity Profile (V1.2 Only) by All Reporting Organizations

Based on most recent appraisal of 2053 organizations
Reporting Organization Categories

- Commercial/In-house: 75.5%
- Contractor for Military/Government: 19.9%
- Military/Government Agency: 4.6%

Based on 3906 organizations reporting an organization category.
Process Maturity Profile by Reporting Organization Categories

Based on most recent appraisal of 3665 organizations reporting an organization category
Organization Type
Based on Primary Standard Industrial Classification (SIC) Code

- Services: 70.1%
- Manufacturing: 16.8%
- Business Services: 34.6%
- Engineering & Management Services: 24.2%
- Health Services: 1.5%
- Other Services: 9.8%
- Transportation Equipment: 2.9%
- Transportation, Communication, Electric, Gas and Sanitary Services: 3.4%
- Instruments And Related Products: 1.0%
- Electronic & Other Electric Equipment: 10.3%
- Industrial Machinery And Equipment: 0.8%
- Other Manufacturing Industries: 1.3%
- Public Administration (Including Defense): 3.6%
- Finance, Insurance and Real Estate: 5.6%
- Fabricated Metal Products: 0.2%
- Primary Metal Industries: 0.3%
- Other Services: 9.8%
- Wholesale Trade: 0.1%
- Retail Trade: 0.3%
- Wholesale Trade: 0.1%
- Finance, Insurance and Real Estate: 5.6%

Based on 3152 organizations reporting SIC code. For more information visit: http://www.osha.gov/oshstats/sicser.html

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Process Maturity Profile - Page 10
Organization Size
Based on the total number of employees within the area of the organization that was appraised

- 1 to 100: 55.9%
- 101 to 200: 18.9%
- 201 to 300: 8.0%
- 301 to 500: 6.7%
- 501 to 1000: 5.6%
- 1001 to 2000: 3.0%
- 2000+: 1.9%
- 25 or fewer: 15.0%
- 26 to 50: 19.9%
- 51 to 75: 12.8%
- 76 to 100: 8.3%
- 201 to 200+: 25.2%

Based on 3863 organizations reporting size data
Maturity Profile by Organization Size

Based on the total number of employees within the area of the organization that was appraised.

Based on 3863 organizations reporting size data.
USA and Non-USA Reporting Organization Categories

- **Commercial/In-house**
  - USA: 100% = 354
  - Non-USA: 100% = 2566

- **Contractor for Military/Government**
  - USA: 100% = 586
  - Non-USA: 100% = 183

- **Military/Government Agency**
  - USA: 100% = 113
  - Non-USA: 100% = 63

Based on **1053** USA organizations and **2812** Non-USA organizations reporting an organization category.
Maturity Profile by All Reporting USA Organizations

Based on 1058 USA organizations
Based on 2848 Non-USA organizations
Section 2: Community Trends

Appraisals conducted through June 2009 and reported to the SEI by July 2009

• 67 Countries reported appraisals
  - most of the appraisals are from Asia and North America

• 3603 Appraisals available on PARS
  - expired appraisals are removed from PARS and replaced with the newest reappraisal result

Please refer to: Terms Used in this Report on page 27
Countries where Appraisals have been Performed and Reported to the SEI

Argentina
Bulgaria
Dominican Republic
India
Lithuania
New Zealand
Romania
Sweden
United States

Australia
Canada
Egypt
Indonesia
Luxembourg
Norway
Russia
Switzerland
Uruguay

Austria
Chile
Finland
Ireland
Malaysia
Pakistan
Saudi Arabia
Taiwan
Vietnam

Bahrain
Bangladesh
Belarus
Belgium
Bulgaria
Brazil

China
Colombia
Costa Rica
Czech Republic

China
Colombia
Costa Rica
Czech Republic

France
Germany
Greece

France
Germany
Greece

France
Germany
Greece

France
Germany
Greece

Fr

China
Colombia
Costa Rica
Czech Republic

France
Germany
Greece

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France
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Number of Appraisals Reported to the SEI by Continent

- Asia: 2218
- Africa: 53
- Australia: 37
- Europe: 629
- North America: 1528
- South America: 261

Based on 4726 appraisals

* North America includes Canada, the USA, and Mexico; South America includes Central America and the Caribbean; Australia includes New Zealand

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## Number of Appraisals and Maturity Levels Reported to the SEI by Country

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<th>Country</th>
<th>Number of Appraisals</th>
<th>Maturity Level 1 Reported</th>
<th>Maturity Level 2 Reported</th>
<th>Maturity Level 3 Reported</th>
<th>Maturity Level 4 Reported</th>
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</table>
Number of SCAMPI A Appraisals Reported to SEI by Year

Based on 4726 appraisals

Number of SCAMPI A Appraisals Reported to SEI by Year

Based on 4726 appraisals
Trends in the Community Maturity Profile

Based on a cumulative view of the most recent appraisals of organizations up through the year indicated.

<table>
<thead>
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<th>Year</th>
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Section 3: Organizational Trends

Appraisals conducted through June 2009 and reported to the SEI by July 2009

- 1437 Process Area (PA) profiles
  - satisfaction of PAs by maturity level for organizations appraised at levels 1 and 2

- 662 reappraised organizations
  - accounting for 1,482 appraisals
  - although some organizations conducted multiple reapraisals, only the first and latest appraisals were used in creating the charts on pages 25

Please refer to: Terms Used in this Report on page 27
Maturity Level of First and Latest Appraisal

Based on 663 reappraised organizations using their first and latest appraisal
Time to Move Up

Number of months to move to next maturity level

Time Period of Initial Appraisal

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<th>Level</th>
<th>Orgs</th>
<th>Time Period of Initial Appraisal</th>
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<th>2006 to Present</th>
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</table>

Largest observed value that is not an outlier

75th Percentile

Median

25th Percentile

Smallest observed value that is not an outlier
Summary

4726 appraisals have been reported to the SEI in 88 months

Outside the USA: China, Spain, Japan, India, Mexico and Brazil reported appraisals are increasing at a rapid rate

For organizations that began their CMMI-based SCAMPI effort in 2002 or later, the median time to move from:

- maturity level 1 to 2 is 4 months
- maturity level 2 to 3 is 18.5 months
- maturity level 3 to 4 is 19 months
- maturity level 4 to 5 is 13 months

Note:
Since the March 2009 report, the median time to move from maturity level 2 to 3 increased from 18 months to 18.5 months. The median time to move from maturity level 3 to 4, the median time to move from maturity level 4 to 5 have no change.
Terms Used in this Report

**Company** - Parent of the appraised entity
A company can be a commercial or non-commercial firm, for-profit or not for-profit business, a research and development unit, a higher education unit, a government agency, or branch of service, etc.

**Organization** - a.k.a. Appraised entity
The organization unit to which the appraisal results apply. An appraised entity can be the entire company, a selected business unit, units supporting a particular product line or service, etc.

**Non-USA** - Appraised entity whose geographic location is not within the United States. The parent of the appraised entity may or may not be based within the United States.

**PARS** - Published Appraisal Results webpage contains CMMI® appraisals published at the request of the appraisal sponsor. The link is: [http://sas.sei.cmu.edu/pars/](http://sas.sei.cmu.edu/pars/)
Report your Appraisal Results to the SEI

The briefing is only possible due to the cooperation of organizations and individuals sending in their appraisal results to the SEI.

In order to provide this information and service in the future, it will depend on this continued cooperation.

Please visit:

http://www.sei.cmu.edu/cmmi/casestudies/profiles/cmmi.cfm

for forms, information, and instructions on how to report appraisals to the SEI.
Contact Information

Please visit:

http://www.sei.cmu.edu/cmmi/casestudies/profiles/cmmi.cfm

and review the information provided before contacting:

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