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

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

CMMI Appraisal Program
Thanks for Reporting 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

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

The SW-CMM appraisals sunset is Dec. 2005. There will be no more update available in the future.
Outline

Introduction

Current Status

Community Trends

Organizational Trends

Summary

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 SEI models or appraisal methods nor can it be used for certification or verification purposes.

The SEI does not certify organizations. The SEI only licenses SEI partners and SEI authorized lead assessors to conduct appraisals. Neither the SEI nor any other organization is a “certifying authority” of the results from an 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 use of its 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/appraisal-program/
Introduction - 1: Purpose and Source

Characterize the process maturity of the software community

This briefing uses information from appraisals using the SW-CMM in:

- **CMM®-Based Appraisals for Internal Process Improvement (CBA IPIs) and**

- **Software Process Assessments (SPAs) and**

- **Standard CMMI® Appraisal Method for Process Improvement (SCAMPI\(^\text{SM}\)), v1.1**

Please visit:

http://www.sei.cmu.edu/appraisal-program/profile/about.html

for additional information or to answer questions you may have about this briefing
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 2001, 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 Key Process Area (KPA) satisfaction
   - Time to move up in maturity based on change in maturity level and time between appraisals
Section 1: Current Status

Appraisals conducted from 2001 through December 2005 and reported to the SEI

- 1,804 organizations
- 996 participating companies
- 8,897 projects
- 66.6% Non-USA organizations

Please refer to: Terms Used in this Report on page 30
Based on most recent appraisal, since 2001, of 1,804 organizations reporting a maturity level rating.
Reporting Organization Categories

- Commercial/In-house: 80.9%
- DoD/Fed Contractor: 16.1%
- Military/Federal: 3.0%

Based on 1,804 organizations reporting organization categories
Based on most recent appraisal, since 2001, of 1,804 organizations reporting categories and a maturity level rating.
**Organization Type**
Based on Primary Standard Industrial Classification (SIC) Code

Based on 617 organizations reporting SIC code. For more information visit: [http://www.osha.gov/oshstats/sicser.html](http://www.osha.gov/oshstats/sicser.html)
Organization Size
Based on the total number of employees within the area of the organization that was appraised

Based on 1,775 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 1,775 organizations reporting size data and a maturity level rating

The number of organizations for the 2000+ category is small which inflates the maturity level bars. Please see page 9 and take this into account. The purpose of this chart is to indicate that all size categories contain most, if not all, maturity levels.
USA and Non-USA Reporting Organization Categories

Based on 602 U.S. organizations and 1202 Non-USA organizations reporting organization categories
Based on 602 U.S. organizations and 1202 Non-USA organizations reporting categories and a maturity level rating
Section 2: Community Trends

CBA IPIs, SPAs and SCAMPI v1.1 using the SW-CMM conducted since 1987 through December 2005 and reported to the SEI

- 3,952 appraisals
  - 3,330 CBA IPIs
  - 484 SPAs
  - 138 SCAMPIs
- 3,049 organizations
- 1,241 participating companies
- 704 reappraised organizations
- 16,540 projects

Please refer to: Terms Used in this Report on page 30
Countries Where Appraisals have been Performed and Reported to the SEI

Argentina  Australia  Austria  Barbados  Belgium  Brazil  Canada
Chile      China      Colombia Costa Rica Cyprus  Czech Republic Denmark
Egypt      Finland    France  Germany  Greece  Hong Kong Hungary
India      Indonesia  Ireland Israel  Italy  Japan  Korea, Republic of
Latvia     Lithuania  Malaysia Mauritius Mexico Mexico
New Zealand Norway  Pakistan Peru  Philippines Poland  Portugal
Puerto Rico Russia  Saudi Arabia Singapore South Africa Spain
Sweden     Switzerland Taiwan  Thailand  Turkey  Spain  Sri Lanka
United Kingdom United States Urugua Venezuela  Vietnam United Arab Emirates
### Number of Appraisals and Maturity Levels Reported to the SEI by Country

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</table>

The organization maturity profile, page 6, can be created for certain countries using the Interactive Maturity Profile available in the Software Engineering Information Repository Web site. Please visit: [http://seir.sei.cmu.edu](http://seir.sei.cmu.edu). If you are not already a member of the SEIR web site, please register to join. Registration and use of the site are free.
Number of SW-CMM Appraisals Reported to the SEI by Year

Based on 3,952 appraisals conducted through Dec 2005 and reported to the SEI
Number of SW-CMM Appraisals Reported to the SEI by Organization Categories and Year

Based on 3,950 appraisals reporting organization categories
Trends in the Community Maturity Profile

Based on a cumulative view of the most recent appraisals of organizations up through the year indicated. This accounts for the difference from the figures on page 5.
Section 3: Organizational Trends

Appraisals conducted through December 2005 and reported to the SEI

- 1,956 Key Process Area (KPA) profiles
  - satisfaction of KPAs by maturity level for organizations appraised at levels 1 and 2

- 704 reappraised organizations
  - accounting for 1,617 appraisals
  - although some organizations conducted multiple reappraisals, only the first and latest appraisals were used in creating the charts on pages 23 & 24

Please refer to: Terms Used in this Report on page 30
Key Process Area Profiles - 1
Organizations Appraised at Level 1

Software Subcontract Management (SSM) is not applicable/not rated in many assessments. Please take that into account when interpreting its Fully Satisfied rating.

Based on 582 CBA IPI and SCAMPI with SW-CMM appraisals reporting a maturity level rating
Key Process Area Profiles - 2
Organizations Appraised at Level 2

Based on 1374 CBA IPI and SCAMPI With SW-CMM appraisals reporting a maturity level rating
Maturity Level of First and Latest Appraisal

Based on 704 reappraised organizations using their first and latest appraisal
Reappraisals
Change in Maturity Level

Based on 704 reappraised organizations using their first and latest appraisal
Time to Move Up

Number of months to move to next maturity level

Largest observed value that is not an outlier
75th Percentile
Median
25th Percentile
Smallest observed value that is not an outlier

Recommended time between appraisals

Time Period of Initial Appraisal

Level Orgs 1 to 2 2 to 3 4 to 5
Pre-1992 25 12
1992 to Present 175 262 63 64
All (1987 to Present) 200 274 65 64

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Summary of Current Status

Commercial and in-house organizations reported most appraisals

Of U.S. organizations, the services and manufacturing industries reported most appraisals

Over half of the organizations reporting size have 100 or fewer software personnel

More Non-USA appraisals reported than U.S. in this 5 year snapshot
Summary of Organizational Trends - 1

The number of SW-CMM appraisals steadily declined during the two years sunset period (2004-2005) while CMMI SCAMPI appraisals have been rapidly increased (See Process Maturity Profile for CMMI V1.1)

NO SW-CMM appraisals have been reported since Dec. 2005

Software Subcontract Management is the least frequently satisfied level 2 KPA among organizations appraised at level 1

Integrated Software Management is the least frequently satisfied level 3 KPA among organizations appraised at level 2

Higher maturity has been reached among those organizations reporting reappraisals
Summary of Organizational Trends (continued) - 2

For organizations that began their CMM-based SPI effort in 1992 or later, the median time to move from:

- maturity level 1 to 2 is 19 months
- maturity level 2 to 3 is 19 months
- maturity level 3 to 4 is 24 months
- maturity level 4 to 5 is 13 months

Note:

Since the September 2005 report, the median time to move from maturity level 2 to 3 dropped from 20 month to 19 month and the median time to move from maturity level 3 to 4 dropped from 25 month to 24 month.
Terms Used in this Report

**Appraisal** - The appraisal methods used in this report are the Software Process Assessment (SPA), CMM-Based Appraisal for both Internal Process Improvement (CBA IPI) and Standard CMMI® Appraisal Method for Process Improvement (SCAMPI). We do request and receive other Software CMM-based appraisals such as Software Capability Evaluations (SCE) and Interim Profiles. As our sampling size of these other methods increase, they will be reported here.

**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.
Contact Information

Please visit:

http://www.sei.cmu.edu/appraisal-program/profile/about.html

and review the information provided before contacting:

SEI Customer Relations       (412) 268-5800
SEI FAX number               (412) 268-5758

Internet Address
  customer-relations@sei.cmu.edu

Mailing Address
  Customer Relations
  Software Engineering Institute
  Carnegie Mellon University
  Pittsburgh, PA  15213-3890