



# Controlling CMMI Deployment via Successive SCAMPI Appraisals

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# Topic

- **CMMI transition framework**
- **SCAMPI C, B and A Appraisal Family**
- **Effectiveness of SCAMPIs**
- **Recommendations**
- **Business Value**

# CMMI Transition Flow

Processes  
CMMI Suite  
Gap Analysis  
Target Profile



- Gap Matrix
- Transition Plan

## Planning & Execution



- Modified Processes



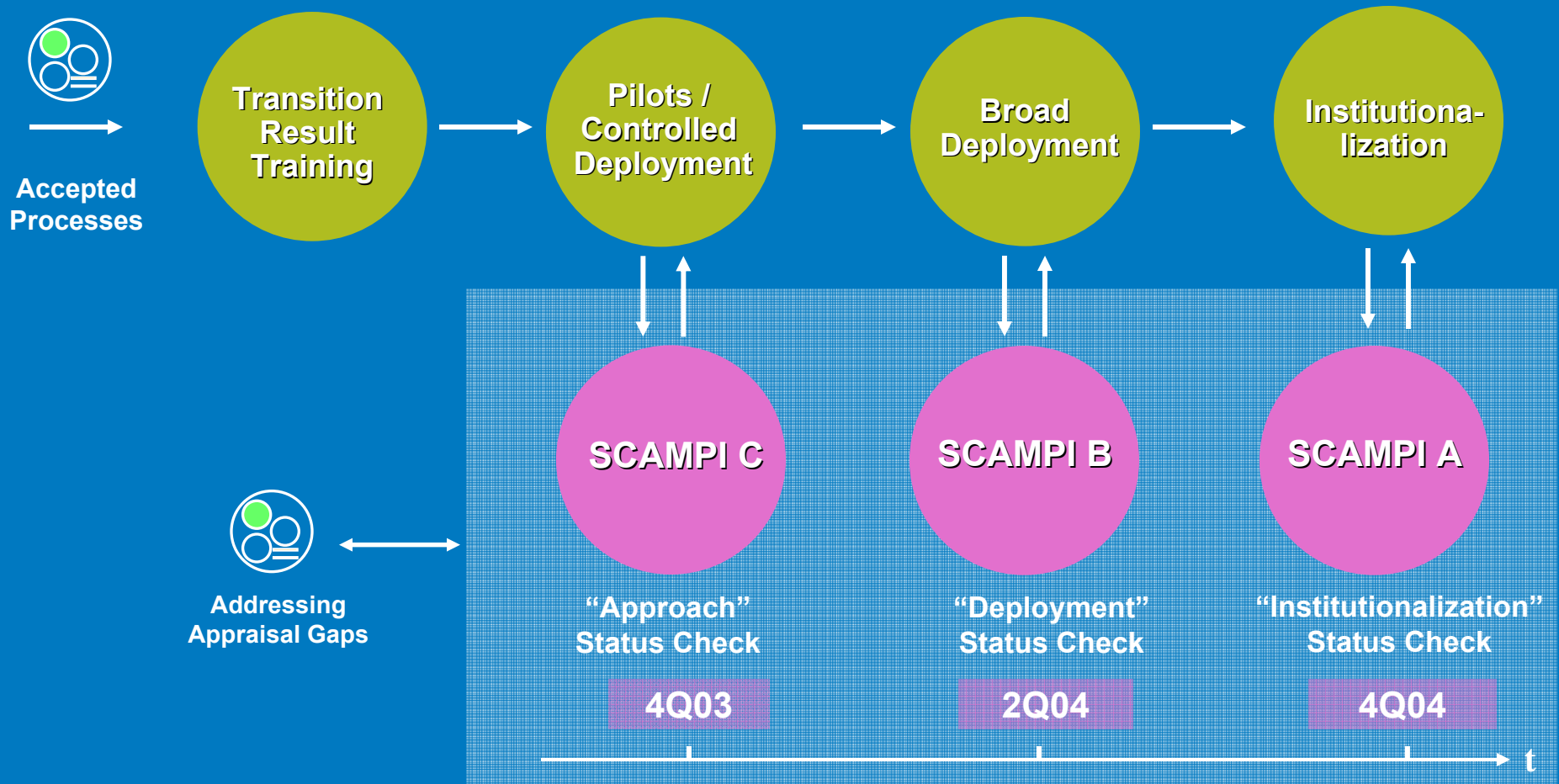
- Accepted Processes



DEPLOYMENT



# Deployment Flow and Timeline



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# Non-linear differences in tailorability

*breadth & depth of tailoring*



**SCAMPI C**, with a primary focus on approach, can take on a very wide range of forms – including some examination of deployment.

No Rating  
**C**

**SCAMPI B**, with a primary focus on deployment, is somewhat more constrained by corroboration requirements from the ARC.

No Rating  
**B**

**SCAMPI A**, the most rigorous method, is intended to be implemented within a narrowly defined set of standards.

Rating  
**A**

# Non-linear differences in tailorability

*breadth & depth of tailoring*



**SCAMPI C**, with a primary focus on approach, can take on a very wide range of forms. For example,

Piloting of SCAMPI C&B Methods defined by SEI

deployment of SCAMPI C is not constrained by any problem or requirements from the ANO.

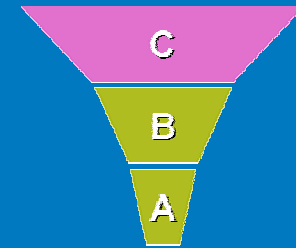
**SCAMPI A** method is defined by the use of formal SCAMPI A Method Definition Document

No Rating  
**C**

No Rating  
**B**

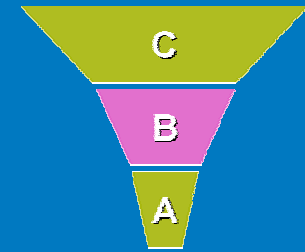
Rating  
**A**

# SCAMPI C



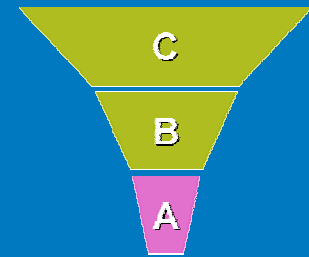
- **Interviews with Subject Matter Experts (mini-teams)**
  - per each of selected Process Area
    - All “new” process areas (as compared to SW-CMM)
    - All “high maturity” PAs (L4&5)
  - 3 interview session run in parallel
    - 3-4 hours each
- **On-line PII creation**
  - Recording “organization story” and referring supporting evidences (per each PA)
  - Verification of findings by mini-teams

# SCAMPI B



- **Pre-On-Site**
  - Updating PIs to include references to the projects evidences
- **Interviews with projects’ representatives**
  - per each of selected Process Area
    - **With findings from SCAMPI C**
    - **Not included in the scope of SCAMPI C**
    - **Again, All “high maturity” Pas (L4&5)**
  - 3 interview session run in parallel
    - **3-4 hours each**
- **On-line project and organization evidence review**
  - Updating PIs
  - Verification of findings

# SCAMPI A



- **Pre-On-Site**

- Detailed planning

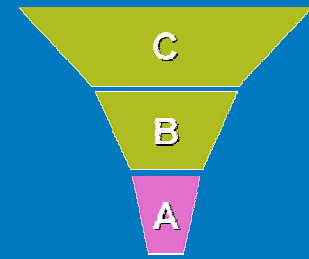
- **Appraisal objectives, scope, appraisal team membership, sampled projects, schedule etc.**
- **Approved by Appraisal Sponsor**

- Updating PIs to include references to the *Direct* and *Indirect* evidences from selected projects

- PIs review by appraisal team (the 1<sup>st</sup> pass review)

- **Creation of Data Collection Plan**
- **PIs updated with additional info as per the Data Collection Plan**

# SCAMPI A



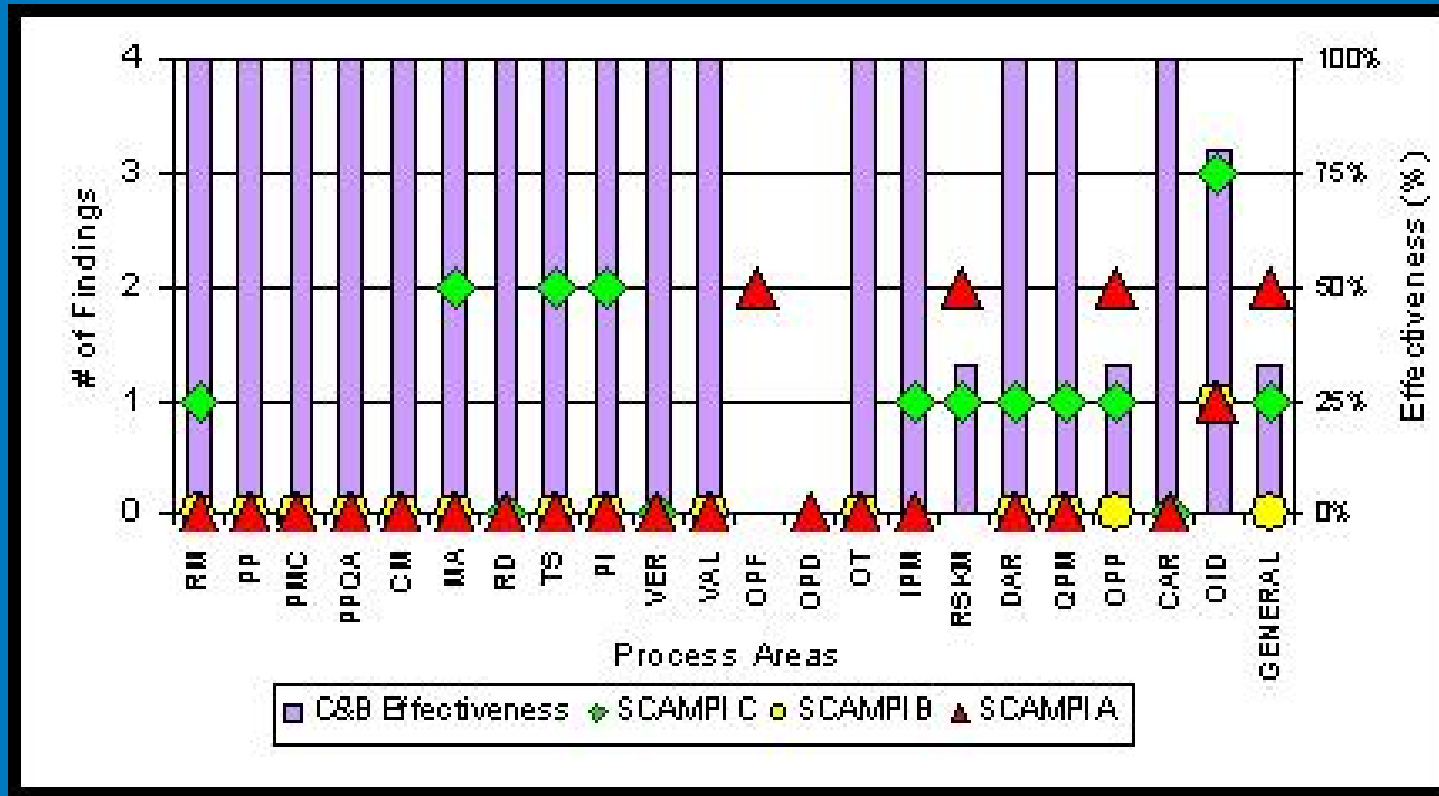
- **On-site**

- The 2<sup>nd</sup> pass review of updated PII's
- Interviews with project teams
  - **Affirmations of practices being performed**
  - **Up to 4 hour long each**
- Call-in interviews
- Preliminary Characterizations
- Preliminary Finding presentation and feedback sessions
- Characterization, Rating and Recommendation
- Final Out-briefing

# Appraisal Statistics

Appraisal Class Characteristics	SCAMPI C	SCAMPI B	SCAMPI A
PII Development Effort (SM)	0	~0.5	~2
Overall Appraisal Effort (SM)	~3	~3	~8
Appraisal Team Size	4	4	6
Duration (weeks)	1	1	2
Process Areas in the Scope	15	15	21

# Effectiveness Indicators

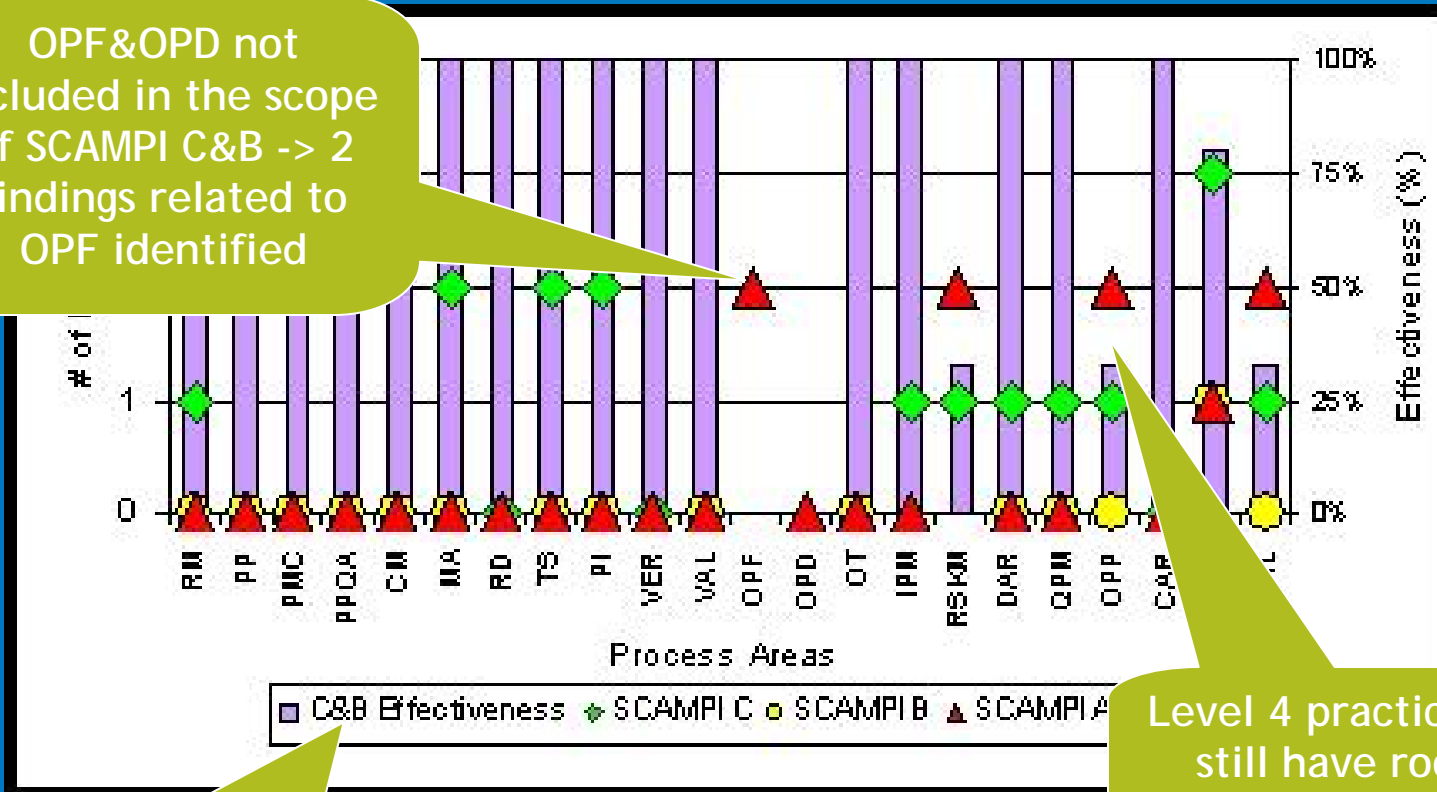


## Finding Removal Effectiveness:

*a ratio between the number of findings identified during Class C and B and the overall number of findings identified during Class A, B, and C appraisals*

# Effectiveness Indicators

OPF&OPD not included in the scope of SCAMPI C&B -> 2 findings related to OPF identified



Level 4 practices (OPP) still have room for "interpretation"

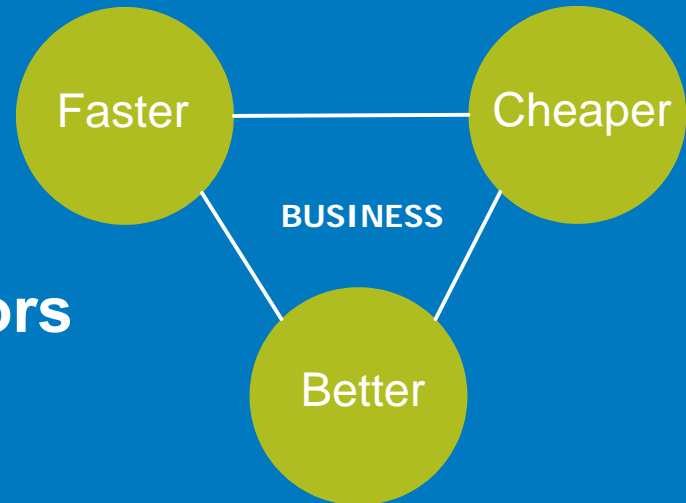
Overall Effectiveness is 67%  
 Note: Findings are not equally severe in terms of their impact on CMMI goal satisfaction

# Conclusion



- All significant weaknesses in process definitions and deployment were identified and removed during SCAMPI C and SCAMPI B.
- SCAMPI C & B provided solid benchmarks of the current status of process deployment in the organizations, and identified clear improvement directions.
- Initial versions of PIIs were developed during SCAMPI C in parallel with mini-team interview sessions.
  - 1.5 times reduction for SCAMPI A preparation
- SCAMPI Class A appraisal conducted in November 2004 confirmed the highest maturity of the organization's process acknowledged with the CMMI Level 5 rating
- The C->B->A framework can be recommended for other companies starting their CMMI journey, or transitioning from CMM to CMMI

# Business Value



- **YY04/05 Key Performance Indicators**

- Cycle Time reduced by 1.7 times
- 100% On-time delivery
- Cost of Quality reduced by 40%
- 6 sigma product quality sustained

*...appraised at CMMI Level 5 in 2004*  
*...operating at Maturity Level 5 over 5 years*

# THANK YOU!

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