



# Accelerating CMMI Adoption with PSP/TSP

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# Agenda

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1. Introductions
2. Background
3. CMMI Adoption
4. TSP/PSP Adoption
5. Why Combine TSP with CMMI
6. TC-AIM
7. Short Questions (Interactive session)

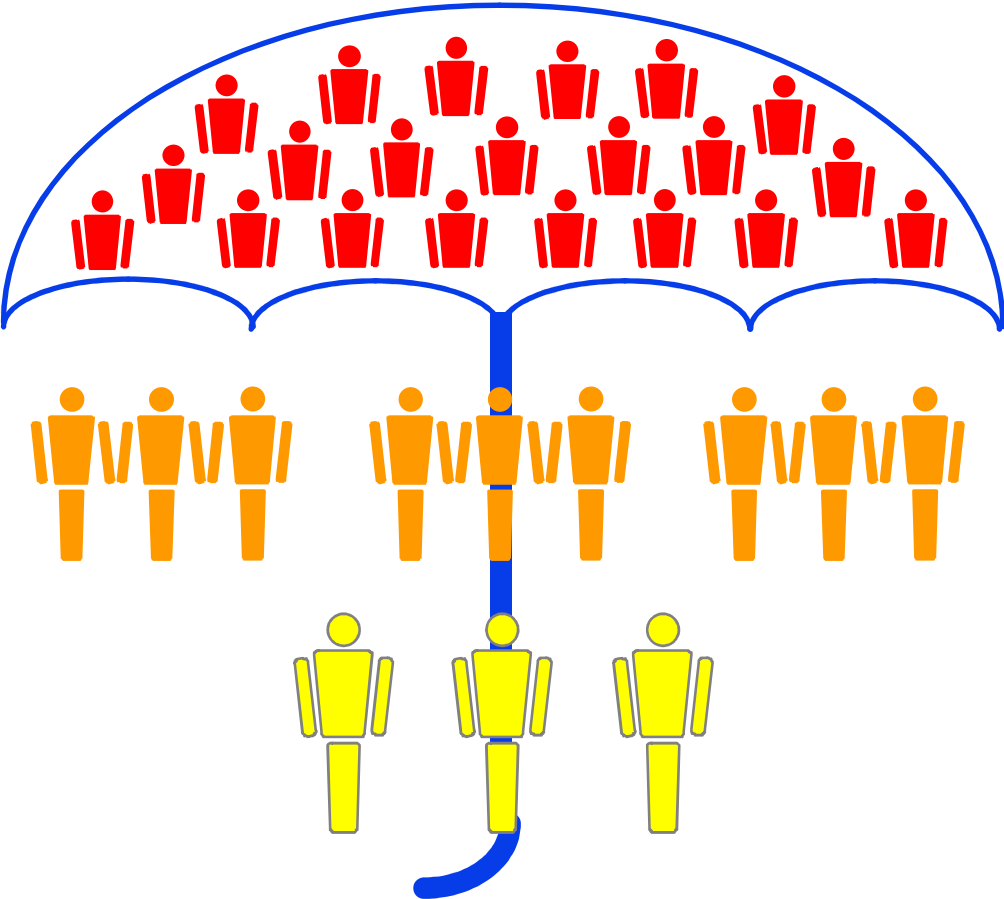


# Three Operational Levels

**CMMI - for organizational capability**

**TSP - for quality products on cost and schedule**

**PSP - for individual skill and discipline**



# Background

## 1. CMMI

- History
- Non-operational descriptive model

CMMI	TSP/PSP
<p>SG 1 Establish Estimates</p> <p>SP 1.1 Estimate the Scope of the Project</p> <p>SP 1.2 Establish Estimates of Work Product and Task Attributes</p> <p>SP 1.3 Define Project Lifecycle</p> <p>SP 1.4 Determine Estimates of Effort and Cost</p> <p>SG 2 Develop a Project Plan</p> <p>SP 2.1 Establish the Budget and Schedule</p> <p>SP 2.2 Identify Project Risks</p> <p>SP 2.3 Plan for Data Management</p> <p>SP 2.4 Plan for Project Resources</p> <p>SP 2.5 Plan for Needed Knowledge and Skills</p> <p>SP 2.6 Plan Stakeholder Involvement</p> <p>SP 2.7 Establish the Project Plan</p> <p>SG 3 Obtain Commitment to the Plan</p> <p>SP 3.1 Review Plans That Affect the Project</p> <p>SP 3.2 Reconcile Work and Resource Levels</p> <p>SP 3.3 Obtain Plan Commitment</p>	<ul style="list-style-type: none"> <li>• Training- Fundamentals Advanced</li> <li>• Documentation -Books</li> <li>•Methods : PROBE</li> <li>• Launch Process- Schedule-Scripts</li> <li>• Coach</li> <li>• Defined Roles</li> <li>• Tools</li> </ul>



# CMMI Adoption (IDEAL)

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1. Learn about CMMI (training)
2. Goals, Objectives, Business value
3. Establish process change infrastructure
  - a) EPG
  - b) MSG
4. Assess current practice/process and Map to CMMI (appraisal)
5. Gaps
6. Develop operational processes to fill gaps
  - a) Processes
  - b) Methods
  - c) Tools
  - d) Training
6. Pilot
7. Institutionalize



# TSP/PSP Adoption

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Train

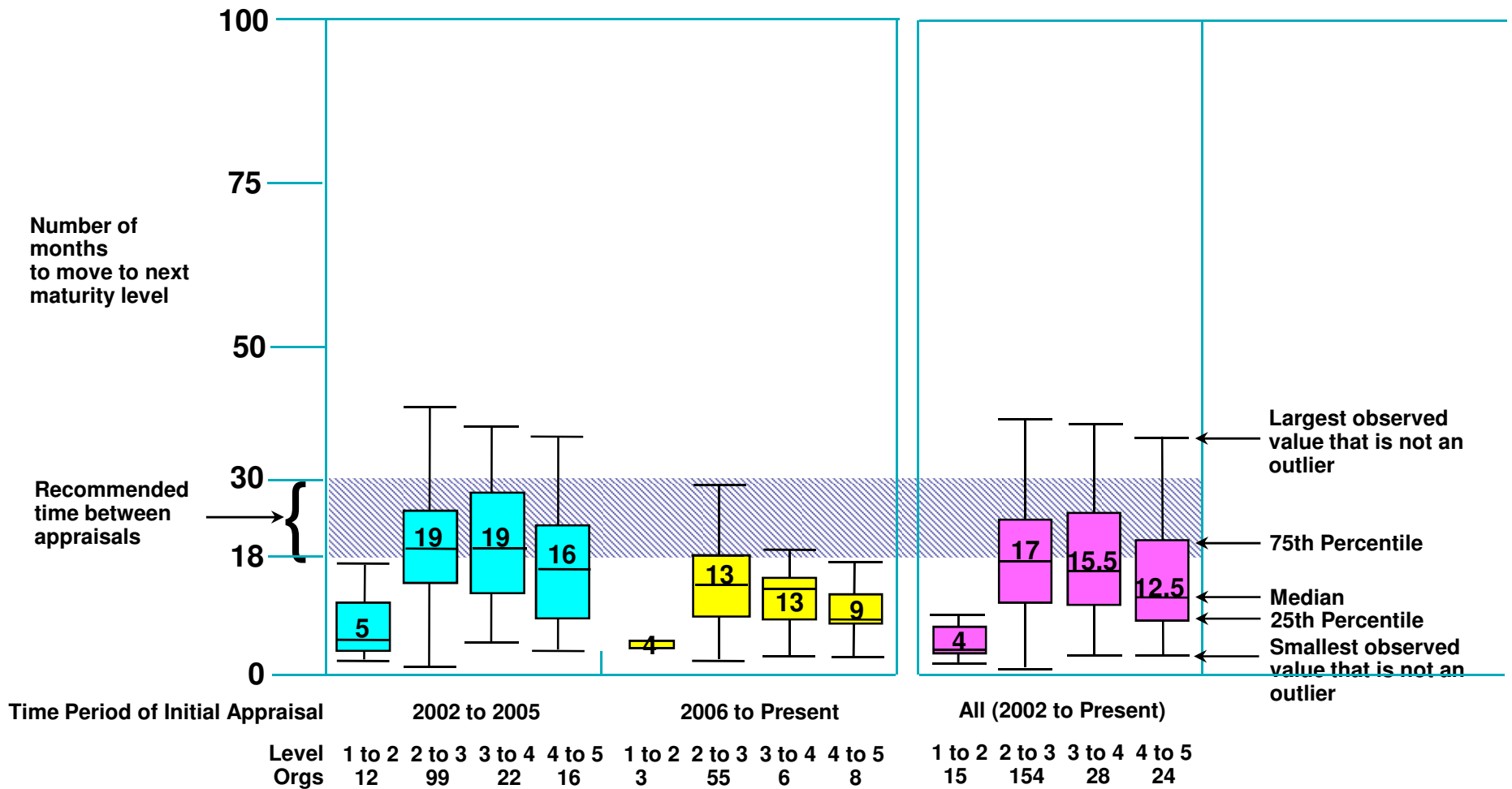
Launch

Learn

Repeat as necessary



# Time to Move Up



# Time to Move Up Summary

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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 17 months
- maturity level 3 to 4 is 15.5 months
- maturity level 4 to 5 is 12.5 months





# Why combine TSP and CMMI

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1. TSP/PSP is CMMI
2. CMMI is a systems development standard recognized world-wide
  1. Customers contract with the organization not a project or team (TSP focuses on the project and the team CMMI focuses on the organization)
3. CMMI can open new markets (esp. for SMEs)
  1. CMMI as a barrier to entry
    1. DoD supply chain
    2. Commercial supply channels (automotive etc)
    3. IT outsourcing
4. Best of both worlds-
  1. TSP provides: proven performance, efficiency of implementation (operational processes and supporting infrastructure)
  2. CMMI provides: organizational institutionalization, scalability (SME-BME), market recognition



# SCAMPI C Level 2 Level 3

## Engineering

	Req M	PP	PMC	M&A	PPQA	CM
Specific Goal 1						
SP 1.1	M	H	H	M		
SP 1.2	H	H	H	H		
SP 1.3	H	H	H	H		
SP 1.4	L	H	M	H		
SP 1.5	H		M			
SP 1.6			H			
SP 1.7			H			
Specific Goal 2						
SP 2.1		H	H	H		
SP 2.2		H	H	H		
SP 2.3		M	H	H		
SP 2.4		H		H		
SP 2.5		L				
SP 2.6		M				
SP 2.7		H				
SP 2.8						
Specific Goal 3						
SP 3.1		H				
SP 3.2		H				
SP 3.3		H				
SP 3.4						
SP 3.5						
Generic Goal 2						
GP 2.1						
GP 2.2	H	H	H	M		
GP 2.3	H	H	H	H		
GP 2.4	H	H	H	H		
GP 2.5						
GP 2.6						
GP 2.7	H	H	H	H		
GP 2.8	H	H	H	H		
GP 2.9						
GP 2.10	M	H	H	H		
Generic Goal 3						
GP 3.1						
GP 3.2						



# TSP based CMMI Accelerated Improvement Method (TC-AIM)

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TC-AIM is sponsored by the Mexican Government's Prosoft initiative in collaboration with SEI and Mexico's leading private university, Instituto Tecnológico de Estudios Superiores de Monterrey (Tec de Monterrey).

The goal of this project is to provide organizations with a path to CMMI compatibility utilizing the strengths of the TSP

This project is designed to provide organizations with the necessary products and support to achieve the performance benefits of TSP and CMMI compatibility, utilizing a comprehensive, efficient, integrated approach. TCAIM will be designed and piloted for Small to Medium Enterprises. (SME)



# TC-AIM CONOPS

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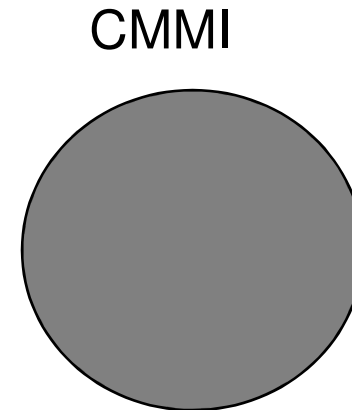
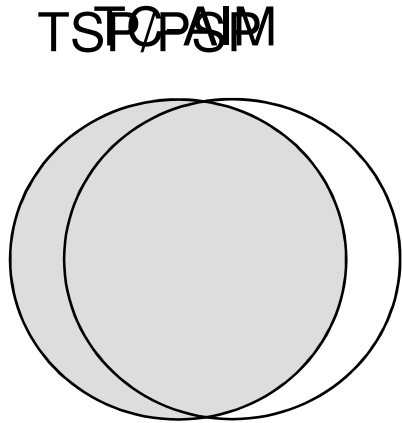
Two sub teams: A) Map, Gap and PIP team and B) TC-AIM implementation Team

1. Map TSP/PSP to CMMI (SCAMPI C) AT
  - Produce artifact mapping
  - Appraisal interpretation
  - Gaps
  - Process Improvement Proposals (PIPs)
2. Develop operational implementations for the PIPs BT
3. Review (Reverse Gap)
4. Pilot
5. Refine and package



## Summary:

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# Questions?

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