

In the name of whom, Inspired, Mankind With though

4<sup>th</sup> Int Conference on Excellence  
Management and Quality Management  
System

TEHRAN, 16-17 JUNE 2007

# Subjects

Interaction Between People Capability  
Maturity Model and European Foundation  
for Quality management Oriented  
Towards Recognition and Elimination  
Of HR,s Suceptible Facets so as to attain  
Excellence in the Third Millennium



## ■ Morteza Mousakhani:

President Islamic Azad University of Qazvine the IR of IRAN



## ■ Saeed Panahi:

Professor of the University of higher Research and Education of  
Industrial Engineering IRAN

# Capability Maturity Model (CMM)

A Capability Maturity Model (CMM) is:

An evolutionary roadmap for implementing the vital practices from one or more domains of organizational process.

# Maturity Level

A maturity level represents a new level of organizational capability created by the transformation of one or more domains of an organization's processes.



The five maturity levels of the People CMM



**Core competencies**

**Workforce competencies**

**Knowledge, skills, and  
process abilities**

**People Capability Maturity Model – Version 2**

# Process Area

- A cluster of related practices that, when performed collectively, satisfy a set of goals that contribute to the capability gained by achieving a maturity level.

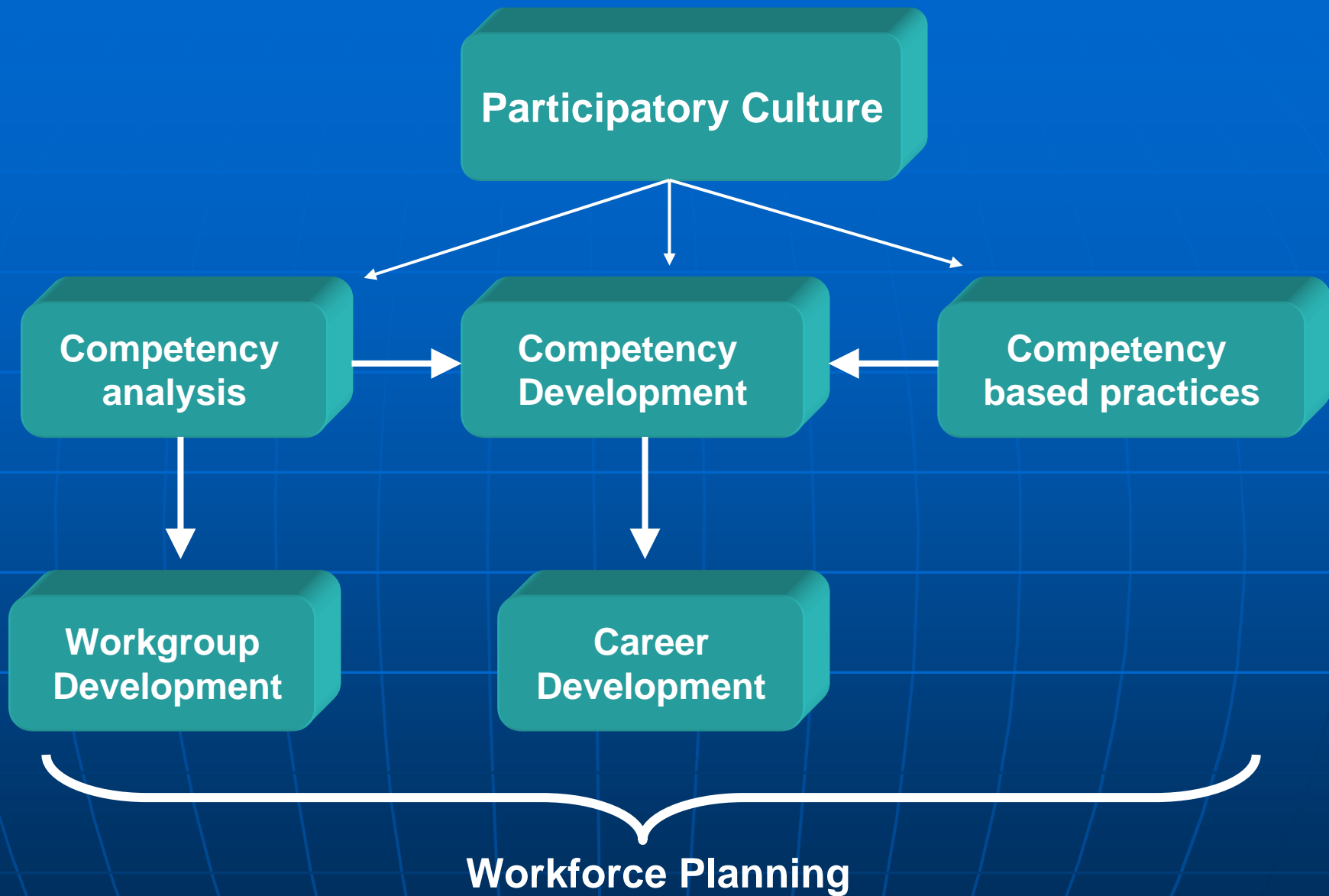




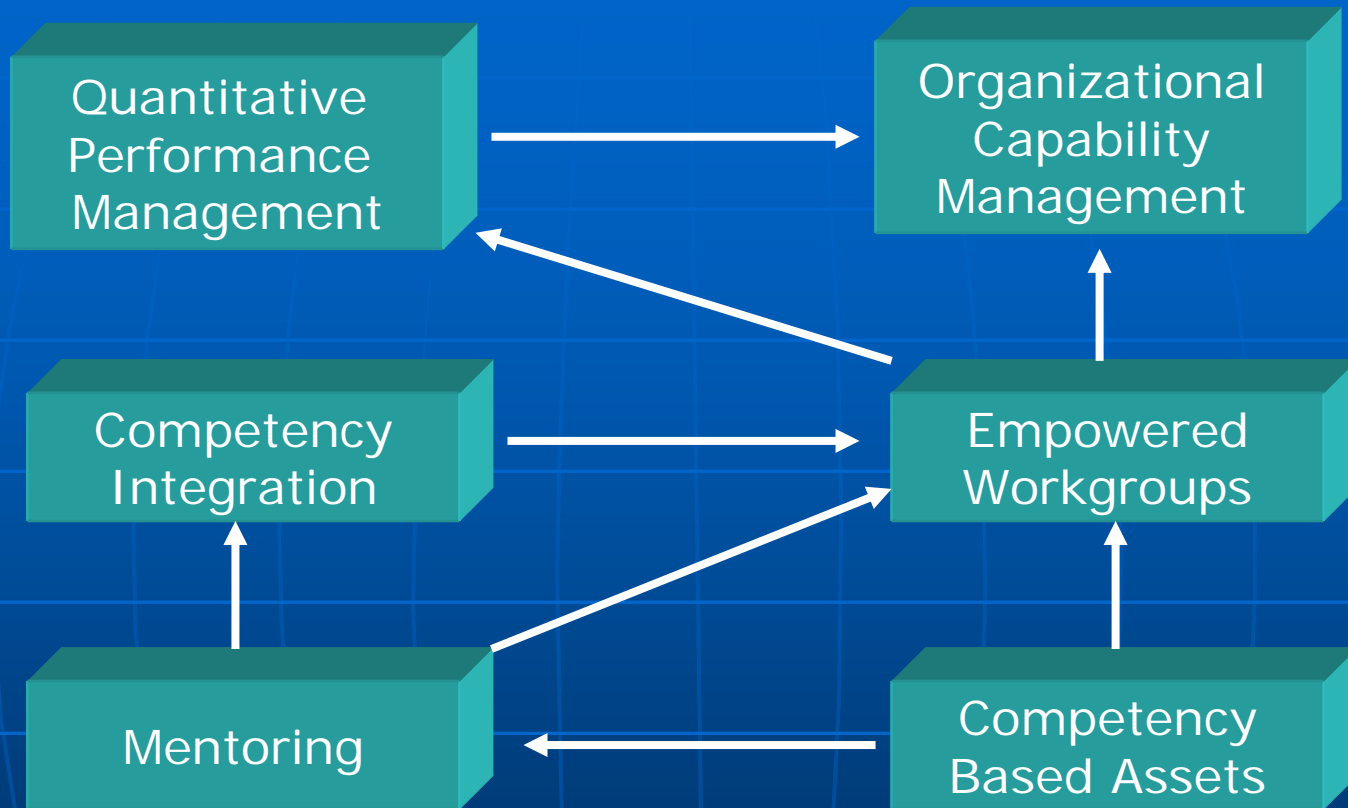
**Process areas of the People CMM**



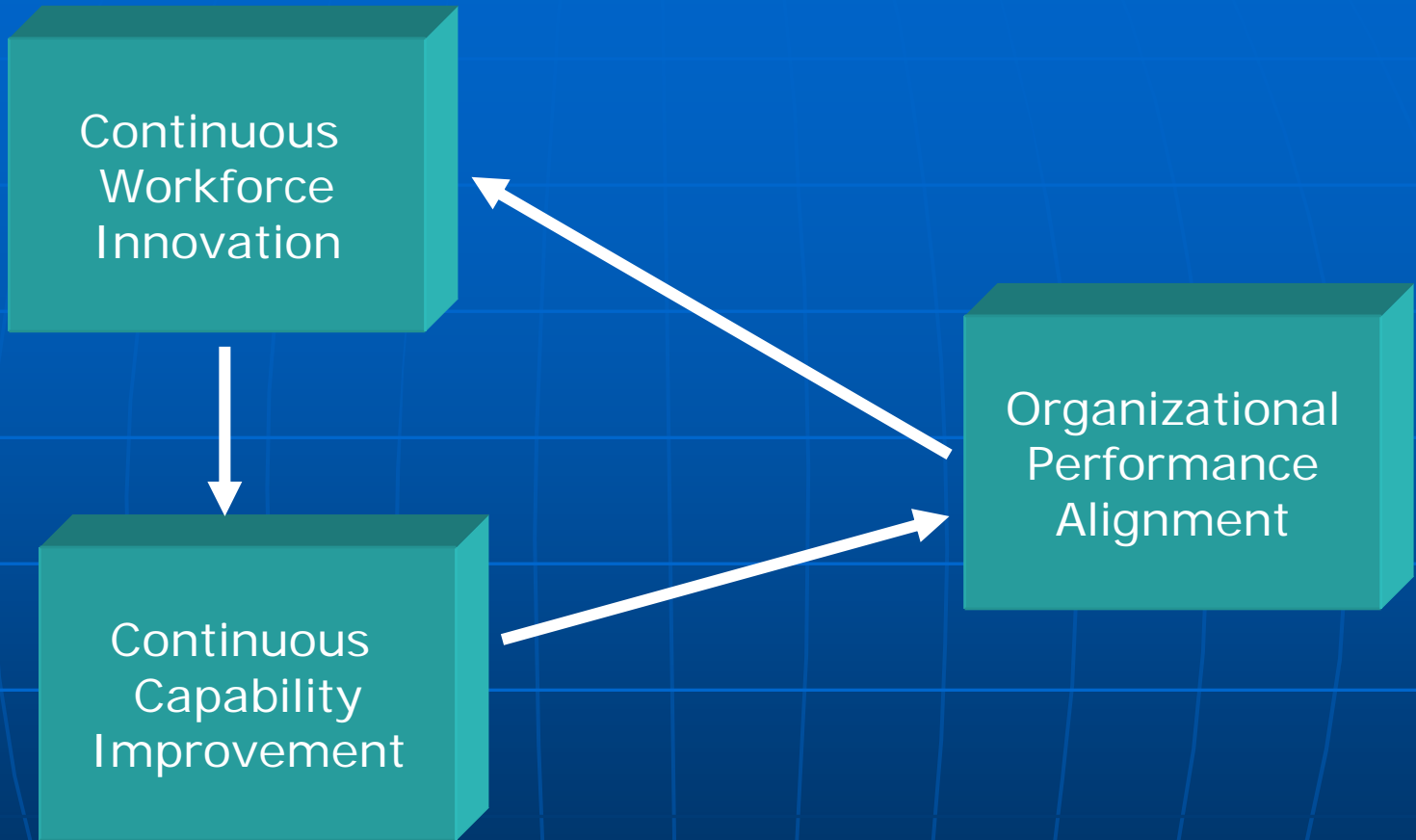
**Relationships among Maturity Level 2 process areas**



**Relationships among Maturity Level 3 process areas**



**Relationships among Maturity Level 4 process areas**



**Relations among Maturity Level 5 process areas**

maturity levels	Process Area Threads			
	Developing individual capability	Building workgroups and culture	Motivating and managing performance	Shaping the workforce
5 Optimizing	Continuous Capability Improvement		Organizational Performance Alignment	Continuous Workforce Innovation
4 Predictable	Competency Based Assets Mentoring	Competency Integration Empowered Workgroups	Quantitative Performance Management	Organizational Capability Management
3 Defined	Competency Development Competency Analysis	Workgroup Development Participatory Culture	Competency Based Practices Career Development	Workforce Planning
2 Managed	Training and Development	Communication & Coordination	Compensation Performance Management Work Environment	Staffing

## Process Threads in the People CMM



**Structure of the People CMM**

# Process Area (PA)

A cluster of related practices that, when performed collectively, satisfy a set of goals that contribute to the capability gained by achieving a maturity level.



<b>Maturity Level</b>	<b>Focus</b>	<b>Process areas</b>
<b>5 Optimizing</b>	Continuously improve and align personal, workgroup, and organizational capability	Continuous Workforce Innovation Organizational Performance Alignment Continuous Capability Improvement
<b>4 Predictable</b>	Empower and integrate workforce competencies and manage performance quantitatively	Mentoring Organizational Capability Management Quantitative Performance Management Competency-Based Assets Empowered Workgroups Competency Integration
<b>3 Defined</b>	Develop workforce competencies and workgroups, and align with business strategy and objectives	Participatory Culture Workgroup Development Competency-Based Practices Career Development Competency Development Workforce Planning Competency Analysis
<b>2 Managed</b>	Managers take responsibility for managing and developing their people	Compensation Training and Development Performance Management Work Environment Communication and Coordination Staffing
<b>1 Initial</b>	Workforce practices applied inconsistently	-----

## Process Areas of the People CMM

# Process Area Goal

An organizational state to be achieved by implementing the practices of a process area.

# Practice

A sub process within a process area that contributes to achieving a process area goal.

**Maturity level**

**Process area**

**Process area goals**

**Goal**

**Goal**

**Goal**

**Goal**

**Implementation Practices**

Practices Performed

**Institutionalization Practices**

Commitment to Perform  
Ability to Perform  
Measurement and Analysis  
Verifying Implementation

**Implementation and Institutionalization Practices Mapped to Process Area Goals**

# Ability 3

Individuals conducting Performance Management activities receive the preparation needed to perform their responsibilities.

Practice

1. Individuals responsible for documenting or discussing performance receive the preparation needed to perform their responsibilities.

Sub practice

2. Those responsible for recognition and reward activities receive the preparation needed to perform their responsibilities.

Supplementary information

Examples of preparation to perform recognition and reward activities include the following:

- Awareness of, and orientation to, the organization's recognition and reward system
- Training in the organization's recognition and reward practices
- Understanding guidelines for fairly applying recognition and reward criteria

Practice category

Practices Performed

Practice 1

Practice

Measurable performance objectives based on committed work are established for each unit.

Examples of Practice Statements



**Employee**



**Learning  
and  
Growth**



**Internal  
Business  
Process**



**Customer**



**Financial**

**Alignment of Strategic Objectives using the Balanced Scorecard**

Strategic Objectives	Strategic Measurements Core Outcomes	Strategic Measurements Performance Drivers
<p><b>Financial</b></p> <p>Consistently meet or exceed shareholder expectations for</p> <ul style="list-style-type: none"> <li>- revenue growth</li> <li>- profitability</li> <li>- return on investment</li> </ul>	<p>Employee target ratio of gross revenue to base salary</p> <p>Projects' profitability target</p> <p>Increase in shareholder equity</p>	<p>Designated expenses' target reduction in expense to revenue ratio</p>
<p><b>Customer</b></p> <p>Consistently meet or exceed customer expectations for</p> <ul style="list-style-type: none"> <li>- defect free and on-time delivery</li> <li>- value for products and services</li> <li>- achieving time-to-market goals</li> </ul>	<p>Customer responses indicating value "achieved"</p> <p>Statements of Work lost due to not meeting customer time to market goals</p>	<p>Defect-free deliveries</p> <p>On-time or ahead of schedule deliveries</p>



**AIS Balanced Scorecard**



Strategic Objectives	Strategic Measurements Core Outcomes	Strategic Measurements Performance Drivers
<p><b>Employee</b>  <i>Consistently meet or exceed employee expectations for</i></p> <ul style="list-style-type: none"> <li>- training</li> <li>- compensation</li> <li>- communication</li> <li>- work environment</li> <li>- performance management</li> <li>- career development</li> </ul>	<p><b>Employee responses and assessment indicating P-CMM Repeatable Level Key Process Areas fully satisfied</b></p>	<p><i>Disciplined, repeatable, and stable work force practices documented</i></p>

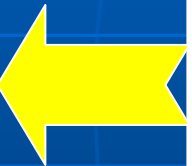


Table 3 of 3

Strategic Objectives	Strategic Measurements Core Outcomes	Strategic Measurements Performance Drivers
<p>Internal Business Process Projects achieve predictable results for effort, schedule, and defects within known range of AIS organization defined process capability Engineers achieve the highest possible quality in the design, code phases of a component, module or program AIS organization defined process is continuously improved</p>	<p>Projects with actual effort and schedule less than committed effort and schedule Components, modules, programs with zero integration test defects New products or product enhancements with documented quality better than its predecessor</p>	<p>Projects planned and managed according to their defined process which is an approved tailoring of the AIS organization defined process Components with target percent of defects removed before compile and test Process Improvement Proposals submitted and implemented</p>
<p>Learning and Growth Investment in people, process and technology enables achievement of customer, employee, and shareholder satisfaction goals</p>	<p>Engineers achieving training goals Engineers align their career goals with company goals Engineers improve productivity continuously</p>	<p>Engineers acquire new skills Engineers achieving career plans Engineers use the Personal Software Process</p>

<b>Characteristic</b>				
<b>Assessment Type</b>	<b>People CMMBased Assessment Method</b>	<b>Joint Assessment</b>	<b>Questionnaire-Based Assessment</b>	<b>Gap Analysis</b>
<b>Assessment Class</b>	Class A	Class A	Class B	Class C
<b>Usage Mode</b>	<ol style="list-style-type: none"> <li>1. Rigorous and in depth investigation of workforce practices</li> <li>2. Basis for improvement activities</li> </ol>	<ol style="list-style-type: none"> <li>1. Rigorous and in depth investigation of practices, both for workforce practices and the process in the joint domain</li> <li>2. Basis for improvement activities</li> </ol>	<ol style="list-style-type: none"> <li>1. Initial (first-time)</li> <li>2. Incremental (partial)</li> <li>3. Self-assessment</li> </ol>	<ol style="list-style-type: none"> <li>1. Initial (first-time)</li> <li>2. Self-assessment</li> </ol>

## Characteristics of People CMM Assessment Classes

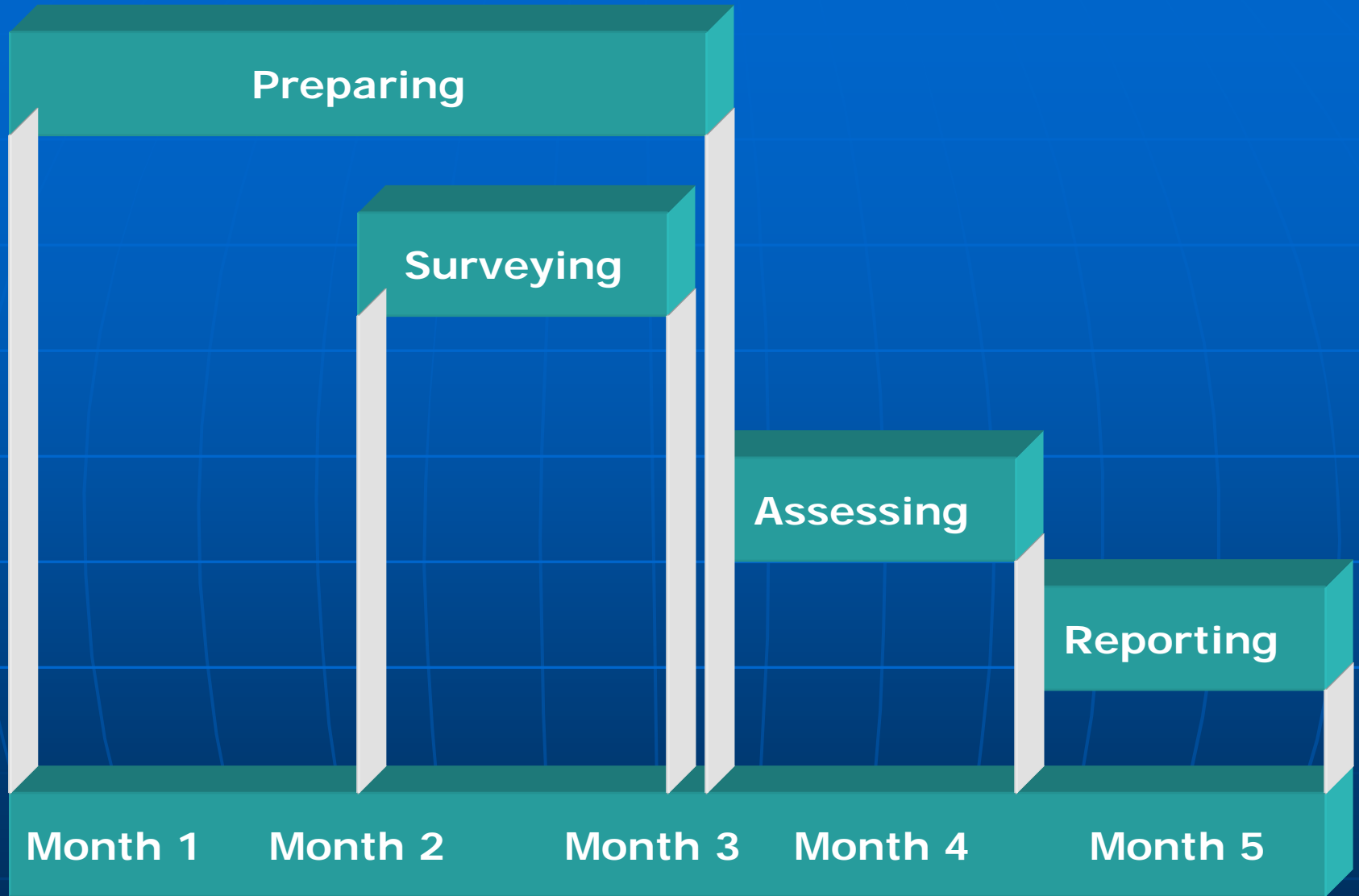
## Characteristic

Assessment Type	People CMMBased Assessment Method	Joint Assessment	Questionnaire-Based Assessment	Gap Analysis
<b>Advantages</b>	Thorough coverage; strengths and weaknesses for each PA investigated; robustness of method with consistent, repeatable results; provides objective view	Thorough coverage; strengths and weaknesses for each PA investigated across multiple domains; robustness of method with consistent, repeatable results; provides objective view	Organization gains insight into own capability; focuses on areas that need most attention; promotes awareness and buy-in	Organization gains insight into own capability; provides a starting point to focus on areas that need most attention; promotes buy-in and ownership of results through participation in analysis and planning; typically inexpensive; short duration; rapid feedback

<b>Characteristic</b>				
<b>Assessment Type</b>	<b>People CMMBased Assessment Method</b>	<b>Joint Assessment</b>	<b>Questionnaire-Based Assessment</b>	<b>Gap Analysis</b>
<b>Disadvantages</b>	Demands significant resources	Demands significant resources	Does not emphasize depth of coverage and rigor and cannot be used for maturity level rating	Risk of participant biases influencing results; not enough depth to ensure completeness; does not emphasize rigor and cannot be used for maturity level rating
<b>Sponsor</b>	Executive management of the organization	Executive management of the organization	Any internal manager	Any internal manager sponsoring an improvement effort

<b>Characteristic</b>				
<b>Assessment Type</b>	<b>People CMM Based Assessment Method</b>	<b>Joint Assessment</b>	<b>Questionnaire-Based Assessment</b>	<b>Gap Analysis</b>
<b>Team Size</b>	4-10 persons + assessment team leader	4-10 persons per domain + assessment team leader (s)	1-6 persons + assessment team leader	3-12 (recommended) + facilitator
<b>Team Qualifications</b>	Experienced	Experienced	Moderately experienced	Limited experience, except for the facilitator
<b>Assessment Team Leader Requirements</b>	Lead assessor	Lead Assessors	Lead assessor	Person trained in People CMM and method

## **Characteristics of People CMM Assessment Classes (continued)**



**People CMM Assessment Phases**

STAFFING		Current State	Proposed Improvements
P1	Responsible individuals plan and coordinate the staffing activities of their units in accordance with documented policies		
P2	Each unit analyzes its proposed work to determine the effort and skills required.		
P3	Individuals and workgroups participate in making commitments for work they will be accountable for performing.		
P4	Each unit documents work commitments that balance its workload with available staff and other required resources.		
P6	Position openings within a unit are analyzed, documented, and approved.		
P7	Position openings within the organization are widely communicated.		
P8	Units with open positions recruit for qualified individuals.		
P9	External recruiting activities by the organization are planned and coordinated with unit requirements.		

**Example of a People CMM Gap Analysis Worksheet**



CMMI Process Area	People CMM Process Area
<b>Integrated Project Management</b>	<b>Workgroup Development Competency Analysis</b>
<b>Integrated Teaming</b>	<b>Communication and Coordination Workgroup Development</b>
<b>Organizational Environment for Integration</b>	<b>Work Environment Communication and Coordination Compensation Workgroup Development Participatory Culture Workforce Planning Competency Development Competency-Based Practices</b>

**People CMM Process Areas that Support the CMMI IPPD Extensions**