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People Capability Maturity Model[®] (P-CMM[®])

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Continuous Capability Improvement

A process area at Maturity Level 5: Optimizing

Purpose	The purpose of Continuous Capability Improvement is to provide a foundation for individuals and workgroups to continuously improve their capability for performing competency-based processes.
Description	<p>Continuous Capability Improvement involves enterprise-wide support for individuals and workgroups as they focus on improving their capability in the performance of competency-based processes. The organization establishes a voluntary framework for continuously improving personal work processes and workgroup operating processes. Within each competency community, actions are taken to continually improve the capability and performance of competency-based processes.</p> <p>Individuals focus on the capability of their personal methods for performing competency-based processes. Individuals analyze the capability of their personal work processes, identify opportunities for improvement, and establish measurable improvement objectives. Individuals engage in learning activities to continuously improve the capability and performance of their personal work processes.</p> <p>Workgroups focus on improving the capability and performance of their operating processes by continuously improving the integration of the personal work processes performed by workgroup members. Workgroups analyze the capability of their operating processes to identify opportunities for improvement. Workgroups set measurable objectives for improvement and continuously improve their capability and performance. The organization adjusts the application of workforce practices to support continuous competency improvement.</p>

Within competency communities, recommendations from improvements in personal work processes or workgroup operating processes are reviewed to determine if they should be incorporated into defined competency-based processes. Capability objectives are established for competency-based processes based on the organization's business objectives. Improvement objectives are established for competency-based processes whose capability is insufficient to achieve these capability objectives. Within some competency communities, responsible individuals identify opportunities for improving competency-based processes and evaluate potential improvements. Improvements that demonstrate their value are incorporated into competency-based processes and made available for use. The organization's workforce practices are adjusted to support continual improvement at all levels of the organization.

Goals

- Goal 1** **The organization establishes and maintains mechanisms for supporting continuous improvement of its competency-based processes.**
- Goal 2** **Individuals continuously improve the capability of their personal work processes.**
- Goal 3** **Workgroups continuously improve the capability of their workgroup's operating processes.**
- Goal 4** **The capabilities of competency-based processes are continuously improved.**
- Goal 5** **Continuous Capability Improvement practices are institutionalized to ensure they are performed as defined organizational processes.**

Commitment to Perform

Commitment 1 **The organization establishes and maintains a documented policy for continuously improving individual and workgroup capability.**

Issues typically addressed in the policy include:

1. Continuous Capability Improvement activities serve the business objectives and stated values of the organization.
2. Individuals and workgroups are encouraged to continuously improve their capability.
3. Individuals and workgroups set measurable objectives for improving their capability.
4. Support is provided for assisting individuals and workgroups in continuously improving their capability.
5. All individuals and workgroups are able to voluntarily participate in continuously improving their capability.
6. The organization proactively investigates improvements to competency-based processes and deploys those that prove most promising.
7. Continuous Capability Improvement practices and activities comply with relevant laws, regulations, and organizational policies.

Commitment 2 **An organizational role(s) is assigned responsibility for coordinating Continuous Capability Improvement activities across the organization.**

Examples of individuals who might coordinate Continuous Capability Improvement activities across the organization include the following:

- Operational managers and executives
- Knowledge officers or managers
- Quality, efficiency, or performance experts
- Human resources or other appropriate professionals
- Training or development groups
- Competency ownership groups
- Measurement or process improvement groups

Ability to Perform

Ability 1 **Within each unit, an individual(s) is assigned responsibility and authority for ensuring that members of the unit participate in Continuous Capability Improvement activities, as appropriate.**

Ability 2

Within selected workforce competencies, responsible individual(s) coordinate activities to improve its competency-based processes.

Refer to Ability 1 in the Competency Analysis process area and Ability 2 in the Competency-Based Assets process area for information regarding those who are involved in maintaining and improving competency-based processes and competency-based assets.

Examples of individuals who might coordinate Continuous Capability Improvement activities within a workforce competency include the following:

- Competency ownership group, or an organizational competency definition or competency management group, for the workforce competency
- Knowledge officers or managers
- Human resources or other appropriate professionals
- Training or development groups
- Committee of representatives from ownership teams for each workforce competency
- Measurement or process improvement groups

Ability 3

Adequate resources are provided for continuously improving individual and workgroup capabilities.

1. Experienced individuals who have expertise in capability improvement are available for coaching individuals and workgroups.

Examples of individuals with appropriate expertise include the following:

- Subject matter experts
- Process improvement professionals
- Measurement experts
- Mentors
- Coaches

2. Resources for supporting Continuous Capability Improvement activities are made available.

Examples of resources to support Continuous Capability Improvement activities include the following:

- Data collection tools
- Statistical analysis packages
- Tools to support representation and analyses of workflow and processes
- Databases and other repositories
- Intranet and other means of electronic access
- Knowledge management tools
- Reporting and communication tools

3. The organization's strategic workforce plan allocates a recommended amount of time for individuals to participate in continuous capability improvement activities.
4. Each unit's workforce planning allocates a portion of each individual's time for participation in continuous capability improvement activities.

Ability 4**Mentoring support is offered to improve the capability and performance of individuals and workgroups.**

In the context of Continuous Capability Improvement, mentoring is providing primarily in the form of detailed coaching in the knowledge, skills, and process abilities involved in the personal and workgroup processes undergoing improvement. Although some authors distinguish between mentoring and coaching, the People CMM treats coaching as a special form of mentoring that focuses on detailed expertise in the knowledge, skills, or process abilities of one or more workforce competencies. The use of mentors in Continuous Capability Improvement implies using an experienced individual(s) with expert capability in the competency-based processes on which these personal and workgroup processes are based. Refer to the Mentoring process area for information regarding selecting and preparing mentors and for information regarding establishing and maintaining a mentoring relationship.

1. Improvement opportunities are evaluated to determine whether they justify the investment in mentoring.

Mentors providing detailed coaching are made available in situations where performance improvements are expected to contribute most strongly to achieving unit or organizational performance objectives. Examples of factors to be considered in evaluating the benefits of providing a mentor include the following:

- The impact of the processes being coached on meeting unit or organizational performance objectives
- The marginal improvement in work performance to be achieved through coaching
- The number of individuals and workgroups affected
- The rate at which capability can be increased
- The opportunity to transfer unique knowledge, skill, or process abilities
- The ability to increase unit and organizational capability or performance

2. Opportunities to provide detailed coaching are prioritized based on factors such as the following:
 - value to unit or organizational performance objectives,
 - the number of people available qualified to provide detailed coaching,
 - the balance between performing work and coaching, and
 - the value of raising staff capability in targeted areas.
3. Mentoring relationships are established in those situations where the enhancement in performance will justify the investment in coaching support.

Refer to Practices 4, 5, 6, and 7 of the Mentoring process area for information regarding selecting and assigning mentors and establishing and maintaining a mentoring relationship.

Ability 5

Individuals and workgroups develop the knowledge, skills, and process abilities needed to perform their responsibilities in applying techniques for continuously improving their capabilities.

Examples of learning opportunities to support Continuous Capability Improvement include the following:

- Measurement and analysis of personal work processes and performance
- Measurement and analysis of workgroup processes and performance
- Process engineering techniques
- Advanced knowledge, skills, or process abilities underlying relevant competencies
- Statistical analysis
- Change management

Ability 6

The practices and procedures for performing Continuous Competency Improvement are defined and documented.

1. Practices and procedures are defined and documented at the organizational or unit levels, as appropriate.
2. Guidelines for tailoring the practices and procedures for use in different circumstances are documented and made available, as necessary.
3. The individual(s) assigned responsibility for coordinating Continuous Competency Improvement activities across the organization ensures that defined practices and procedures are:
 - maintained under version control,
 - disseminated through appropriate media,
 - interpreted appropriately for different situations, and
 - updated through orderly methods.
4. Experiences, lessons learned, measurement results, and improvement information derived from planning and performing Continuous Capability Improvement practices are captured to support the future use and improvement of the organization's practices.

Practices Performed

Practice 1

Individuals and workgroups are empowered to continuously improve their capability for performing competency-based processes.

1. Support for continuous capability improvement is communicated throughout the organization.
2. Practices and activities for supporting continuous capability improvement are included in the organization's strategic workforce plan.
3. Units include support for continuous capability improvement in planning their workforce activities.
4. Participation in continuous capability improvement is voluntary.
5. Where appropriate, activities for continuous capability improvement are supported in the personal development plans of those participating in improvement activities.

Practice 2

Individuals characterize the capability and performance of their personal work processes.

1. Competency-based processes provide a framework for describing personal work processes.

Competency-based processes are typically defined at a level of abstraction higher than the elementary tasks performed by individuals when participating in these processes. In many cases, competency-based processes are defined only to the level of the interactions among people required to accomplish a business activity. Individuals may differ substantially in how they perform the elementary tasks that constitute a component of a competency-based process. For instance, salespeople may use different techniques in closing a sale or designers may perform their activities in different orders based on their preferred design philosophy, experience, or area of greatest knowledge.

Personal work processes refer to how single individuals perform the elementary tasks constituting the competency-based processes involved in their work.

The purpose of this practice is for individuals to characterize these personal work processes at a more detailed level than provided in the definitions of the competency-based processes included in the organization's set of standard processes. Refer to the Competency Analysis, Workgroup Development, and Competency Integration process areas for information regarding defining competency-based and workgroup processes.

2. Individuals analyze their work activities and describe how they uniquely perform the competency-based processes involved.

Examples of process descriptions include the following:

- Textual listings of work activities
- Flowcharts or other graphical depictions of work activities
- Procedural descriptions of work activities
- Highlighted points of contribution in processes at the workgroup, unit, or organizational levels

3. Measures defined during Quantitative Performance Management activities provide a framework for measuring the capability and performance of personal work processes.

Refer to the Quantitative Performance Management process area for information regarding defining measures of performance at the unit and workgroup level. If the measures used in quantitatively managing performance have been defined at the workgroup level, then measures characterizing the capability of personal work processes will have to be defined. However, if performance is being quantitatively managed at the individual level, these measures may be sufficient if they provide the insight required to continuously improve the capability of personal work processes.

4. Individuals define measures that can be used in analyzing their personal work processes.

To the extent that individuals can tailor standard measures of competency-based processes, they can benefit from the comparison of existing capability baselines and results. However, the primary purpose of the measures established in this practice is to gain insight into personal performance and guide personal improvement actions. The most important attribute of these measures is their accuracy in characterizing individual capability in performing competency-based processes. Examples of issues to consider in defining measures of personal work processes may include the following:

- Relationship to individual, workgroup, or unit performance objectives
- Relationship to measures of competency-based, integrated competency-based, or workgroup processes
- Ability to characterize individual contribution to the workgroup or unit
- Accuracy of characterizing unique aspects of assigned responsibilities
- Relationship to personal development or improvement objectives
- Likelihood of providing insight into personal styles, habits, or sources of mistakes
- Difficulty of collection or interpretation

Practice 3

Individuals evaluate the capability of their personal work processes to identify opportunities for improvement.

1. The strategies and methods employed in Quantitative Performance Management activities provide a framework for evaluating the capability of personal work processes.

If the unit of analysis for Quantitative Performance Management activities is the workgroup, then additional quantitative analysis methods will have to be defined for analyzing the capability of personal work processes. However, if quantitative performance management has been implemented at the individual level, then these measures and analyses may be sufficient if they provide the insight needed to support continuous capability improvement.

2. Individuals collect and retain measures characterizing the capability and performance of their personal work processes.

The capability of a personal work process is the range of outcomes that occur when an individual performs it repeatedly. Examples of capability measures may include the following:

- Time to perform the process
- Mistakes made in performing the process
- Effectiveness of coordination with processes performed by others
- Number of work products produced per unit of time
- Quality of work products produced by the process

3. Individuals continuously refine measures of their personal work processes to improve their analyses and insight.
4. Individuals determine the capability of their personal work processes.

Typically, capability is described quantitatively, most often using statistics. Example statistical representations for the capability of a work process include the following:

- Descriptive statistics of central tendency and dispersion
- Frequency distributions or probability density functions
- Statistical process control charts
- Curve-fitting techniques

5. Individuals identify the root causes of inefficiency or defects in their personal work processes.
6. The capabilities of personal work processes are analyzed to determine their potential for improvement.
7. Individuals maintain records of their capability and performance.

Practice 4**Individuals establish measurable improvement objectives and plans for improving the capability of their personal work processes.**

1. Personal work processes are prioritized according to the potential they present for improving work performance.

2. Individuals set measurable improvement objectives for the personal work processes most likely to improve the performance of their committed work.
3. Individuals identify the knowledge, skills, or process abilities that need to be improved to accomplish their improvement objectives.
4. Individuals plan the improvement actions that will be taken to improve the capability and performance of their personal work processes.

Examples of issues to be resolved in planning to achieve measurable improvement objectives include the following:

- What knowledge needs to be acquired
- Which skills need to be improved
- What process abilities need to be developed
- Which competency-based assets can be used to improve capability
- How these knowledge, skills, process abilities, or competency-based assets relate to the performance of their personal work processes
- The order in which different skills or process abilities will be addressed
- How improvement will be measured
- How much capability needs to be developed and at what rate

Planned improvement activities would normally be recorded in the individual's personal development plan. Refer to the Career Development process area for information regarding the development and use of personal development plans.

5. Individuals review their improvement objectives and plans with their workgroup, mentor, career counselor, manager, or other appropriate individuals.

Practice 5

Individuals continuously improve the capability and performance of their personal work processes.

1. Individuals engage in timely learning activities to improve the capability and performance of their personal work processes.

The learning activities employed to continuously improve individual capability extend beyond the typical competency development activities referred to in the Competency Development process area at the Defined Level. The learning activities that are appropriate for capability development are focused much more closely on understanding and improving an individual's personal work processes. Examples of learning activities that would support continuous capability improvement for individuals include the following:

- Six Sigma-type activities performed on personal work processes
- Personal Software Process® [Humphrey 95, Humphrey 97]
- Working with a personal mentor or coach on improved methods for performing personal work processes

2. When appropriate, individuals use mentors to guide improvements in their capability and performance. Mentors or coaches assist individuals in:
- defining their work processes and performance measures,
 - evaluating the capability of their personal work processes,
 - identifying sources of inefficiency or defects in their personal work processes,
 - providing detailed guidance and advice for improving their personal work processes,
 - evaluating the effectiveness of their improvement activities,
 - making continued improvements, and
 - taking corrective actions when improvement activities do not have their intended effect.

Refer to the Mentoring process area for information regarding preparing for, and establishing, a mentoring or coaching relationship.

3. Individuals eliminate the sources of inefficiency or defects from their personal work processes.
4. When appropriate, individuals use competency-based assets to improve the capability of their personal work processes.

Refer to the Competency-Based Assets process area for information regarding using the organization's competency-based assets.

5. When appropriate, individuals practice the skills and process abilities that will improve the capability and performance of their personal work processes.
6. Individuals apply their improved personal work processes to their committed work and measure the results.
7. Individuals continuously evaluate the performance of their personal work processes to assess improvements in capability and progress against improvement goals and plans.
8. When improvement progress deviates significantly from goals and plans, individuals take corrective actions as appropriate.

Examples of actions to address deviations from expected improvement progress include the following:

- Evaluating the effectiveness of the improvement activities
- Evaluating whether sufficient time has been committed to improvement activities
- Identifying and engaging in alternate improvement activities that may be more appropriate
- Pursuing expert advice or coaching
- Revising improvement goals or plans

9. When individuals achieve their improvement goals, they:
 - capture lessons learned from the improvement activities,
 - propose improvements to competency-based processes or their integration across workforce competencies, if appropriate,
 - contribute material for inclusion in competency-based assets, if appropriate, and
 - establish new improvement goals and plans.

The repeated performance of Practices 4 and 5 form a continuous improvement cycle.

10. Individuals use the capability of their personal work processes as the basis for estimating and planning their committed work.
11. Individuals continuously improve their ability to estimate and plan their personal work processes by evaluating their estimates against improved capability and performance results.

Practice 6**Workgroups evaluate the capability and performance of their operating processes to identify opportunities for improvement.**

1. The personal work processes through which individuals perform competency-based processes provide a framework for improving the workgroup's capability for performing competency-based processes.

Workgroups typically tailor competency-based processes for use in their work settings. A *workgroup's operating process* refers to all the tailored versions of competency-based processes, integrated competency-based processes, and common workgroup methods and procedures. Since individuals have their own personal work processes by which they perform these competency-based processes, each workgroup will find differences in how these personal work processes are most effectively integrated. Workgroup performance will be enhanced to the extent the workgroup can capitalize on individual strengths, compensate for individual weaknesses, and blend individual styles and characteristics into a smooth workgroup process. For workgroups that are relatively long-lived, continuous improvement of its capability for performing these processes may substantially benefit unit and organizational performance objectives. The workgroup-related practices in this process area build on the practices established in the Quantitative Performance Management process area.

2. Workgroups analyze how their members perform and integrate their personal work processes.

This practice builds on the analysis of personal work processes accomplished in Practice 2 of this process area. The workgroup analyzes how integrate the personal work processes of its members to form a workgroup process.

3. Measures defined during Quantitative Performance Management activities provide a framework for measuring the capability and performance of a workgroup's operating process.

Refer to the Quantitative Performance Management process area for practices involved in defining measures of performance at the unit and workgroup level.

4. Workgroups define additional measures needed to analyze and improve how they integrate personal work processes into an overall workgroup operating process.

The primary purpose of the measures established in this practice is to gain insight into how workgroup performance emerges from the integration of personal work processes, and into how to use this insight to guide improvements at the workgroup level. The most important attribute of these measures is the insight they provide into the factors that determine the workgroup's capability in performing competency-based processes. Examples of issues to consider in defining measures of workgroup measures may include the following:

- Relationship to individual, workgroup, or unit performance objectives
- Relationship to measures of competency-based, integrated competency-based, or workgroup processes
- Ability to characterize the integration of individual work processes into a workgroup operating process
- Likelihood of providing insight into workgroup characteristics, inefficiencies, or sources of mistakes
- Difficulty of collection or interpretation

5. Workgroups identify the root causes of inefficiency or defects in their operating processes.
6. The workgroup evaluates its capability in performing competency-based processes to determine opportunities for improvement.

Refer to the Quantitative Performance Management process area for practices involved in determining the capability of the competency-based processes performed by a workgroup.

Practice 7

Workgroups establish measurable objectives and plans for improving the capability of their operating processes.

1. The competency-based processes performed by the workgroup are prioritized according to the potential they present for improving workgroup performance.
2. The workgroup sets measurable objectives for improving their capability and performance in high priority processes.

3. Workgroups identify the knowledge, skills, or process abilities of their members that need to be improved to accomplish their improvement objectives.

This practice extends the training and development needs analysis activities initiated in the Training and Development, Competency Development, and Workgroup Development process areas.

4. Workgroups identify improvements that need to be made to how personal work processes are organized and integrated into an overall workgroup process.

Workgroups may be capable of accurately analyzing their own performance. However, this analysis is often best performed by an outside party, such as a coach, who can provide impartial analysis of how effectively personal work processes are being integrated into a workgroup process, and what adjustments need to be made to personal work processes to improve workgroup coordination and performance.

5. Workgroups analyze the root causes of inefficiency or defects in their work.
6. When appropriate, workgroups use competency-based assets to improve the capability of their operating processes.
7. Workgroups plan the improvement actions that will be taken to meet their improvement objectives and incorporate these actions into their workgroup and personal development plans.

Workgroups need to add an element into their planning for completing the tasks required to improve their capability and performance. Individuals, who need to undertake specific improvement activities to either improve their performance or adjust their personal work processes to improve workgroup coordination, should incorporate these actions into their personal development plans.

8. Workgroups review their improvement objectives and plans with:
 - other workgroups with whom they share dependencies,
 - mentors or coaches, as appropriate, and
 - those responsible for their performance.

Practice 8

Workgroups continuously improve their capability and performance.

1. Workgroups engage in timely improvement activities that satisfy their improvement objectives and plans.
2. When appropriate, workgroups use mentors to guide improvements in their capability and performance. Mentors assist workgroups in:
 - defining their work processes and performance measures,
 - analyzing the coordination of their work processes,
 - evaluating the capability of their operating processes,
 - identifying sources of inefficiency or defects in their operating processes,
 - providing detailed guidance and advice for improving their operating processes,
 - evaluating the effectiveness of their improvement activities,
 - making continued improvements, and
 - taking corrective actions when improvement activities do not have their intended effect.

Although the coaching provided to a workgroup may be provided by the individual(s) who is responsible for its performance, coaching will more often be provided by an expert in the competency-based processes performed by the workgroup. A workgroup may have several mentors, especially if its members are involved in performing or integrating competency-based based processes from several different workforce competencies. Refer to the Mentoring process area for information regarding preparing for and establishing a mentoring or coaching relationship.

3. Workgroups eliminate the sources of inefficiency or defects in their work.
4. When appropriate, workgroups use competency-based assets to improve their capability and performance.
5. When appropriate, workgroups practice performing the competency-based processes that will improve their capability and performance.
6. Workgroups apply their improvements to their committed work and measure the results.
7. Workgroups continuously evaluate their capability and performance to assess progress against improvement goals and plans.

8. When improvement progress deviates significantly from goals and plans, workgroups take corrective actions as appropriate.

Examples of actions to address deviations from expected improvement progress include the following:

- Evaluating the effectiveness of the improvement activities
- Evaluating whether sufficient time has been committed to improvement activities
- Identifying and engaging in alternate improvement activities that may be more appropriate
- Pursuing expert advice or coaching
- Revising improvement goals or plans

9. When workgroups achieve their improvement goals, they:
- capture lessons learned from the improvement activities,
 - propose improvements to competency-based processes or their integration across workforce competencies, if appropriate,
 - contribute material for inclusion in competency-based assets, if appropriate,
 - adjust capability baselines and other quantitative models that characterize their capability or predict their performance, and
 - establish new improvement goals and plans.

The repeated performance of Practices 7 and 8 form a continuous improvement cycle.

10. Workgroups continuously improve their ability to estimate and plan their operating processes by evaluating their estimates against improved capability and performance results.

Practice 9

Recommendations resulting from improvements in personal work processes or workgroup operating processes are reviewed to determine if they should be incorporated into competency-based processes.

1. Individuals and workgroups are encouraged to recommend improvements to competency-based processes that result from their efforts to improve capability.

Refer to Practice 5 of this process area for information regarding capturing lessons learned and proposing improvements to competency-based processes by individuals participating in Continuous Capability Improvement activities. Refer to Practice 8 of this process area for information regarding capturing lessons learned and proposing improvements to competency-based processes by workgroups participating in Continuous Capability Improvement activities.

2. Individuals with responsibility for making improvements to competency-based processes evaluate improvement recommendations from individuals and workgroups.

Refer to Practices 13 and 14 of this process area for information regarding evaluating and implementing improvements to the organization's critical competency-based processes.

3. Individuals and workgroups are informed of the disposition of their improvement recommendations.

Practice 10

Within each critical workforce competency, capability objectives are defined for critical competency-based processes.

Refer to the Practice 7 of the Organizational Capability Management process area for information regarding identifying the critical competency-based processes in each critical workforce competency.

1. The organization's performance objectives are analyzed to determine:
 - ❑ the business activities that must be performed to achieve them,

- the quantitative results required of these business activities if they are to achieve the organization's performance objectives,
 - which competency-based processes are most critical to achieving these quantitative results and how they interact, and
 - the performance capability required for each of these critical competency-based processes to satisfy the organization's performance objectives.
2. The capability required of each critical competency-based process is:
- defined to an extent sufficient to be incorporated into the organization's Quantitative Performance Management activities,
 - communicated to those responsible for managing or developing the affected workforce competencies,
 - established as a target performance objective and communicated to those in the affected competency communities, and
 - used in setting performance objectives for individuals, workgroups, and units performing the competency-based process, as appropriate.

Refer to the Quantitative Performance Management process area for information regarding using process capability objectives in setting performance objectives for performing competency-based processes.

3. The capability objectives for competency-based processes are refined and adjusted, as necessary, based on:
- changes in business strategy, conditions, or objectives,
 - the results of capability analyses, or
 - improvements in the performance of competency-based processes.

Capability objectives for competency-based processes should be based on analysis of capability and performance data. Examples of factors to be considered in developing quantitative objectives include the following:

- Capability compared to industry benchmarks
- Customer specified capability levels
- Cost-benefit tradeoffs for levels of improvement
- Required capability for improving integration or coordination with other competency-based processes
- Capability required to support business objectives

Practice 11

Within each critical workforce competency, capability objectives for competency-based processes are compared to process performance baselines to identify improvement objectives.

Refer to Practice 7 of the Organizational Capability Management process area for information regarding establishing process performance baselines.

1. Capability objectives for critical competency-based processes are compared to their process performance baselines to identify gaps between current capability and the capability required to satisfy business objectives.

Examples of factors to be considered in developing quantitative objectives include the following:

- Capability compared to industry benchmarks
- Customer specified capability levels
- Cost-benefit tradeoffs for levels of improvement
- Required capability for improving integration or coordination with other competency-based processes
- Capability required to support business objectives

2. Significant gaps between current and required capability levels for critical competency-based processes are used to establish improvement objectives for competency-based processes.

Refer to Practices 7 and 8 of the Organizational Capability Management process area for information regarding quantifying organizational capability in each of the organization's critical competency-based processes and the quantitative management of capability in each of the organization's critical competency-based processes.

3. Improvement objectives for critical competency-based processes are prioritized and submitted to involved in improving relevant competency-based processes.

Practice 12

Within each critical workforce competency, responsible individuals identify opportunities for improving the capability and performance of competency-based processes.

1. The organization identifies the workforce competencies where committing responsible individuals to proactive continuous improvement of competency-based processes are determined to have sufficient business benefit.

Committing proactive resources for improving competency-based processes for some workforce competencies may not be judged to have sufficient business benefit to justify the commitment of effort and funds. Thus, proactive activities for continuous improvement may be targeted to selected workforce competencies where continual improvement activities are determined to have sufficient business benefit. In each of these affected workforce competencies, responsible individuals coordinate continual improvement activities.

Continual improvement activities for competency-based processes are generally specific to each workforce competency, but may also involve improvement of multidisciplinary, integrated competency-based processes among several workforce competencies.

2. Data on the capability and performance of competency-based processes are analyzed to determine which competency-based processes are most in need of improvement.

Refer to Practices 7 and 8 of the Organizational Capability Management process area for information regarding quantifying organizational capability in each of the organization's critical competency-based processes and the quantitative management of capability in each of the organization's critical competency-based processes.

3. Root cause and similar analytic techniques are applied to identify systems of causes that affect the capabilities of critical competency-based processes with the highest priorities for improvement.
4. The causal systems underlying these critical competency-based processes are analyzed to identify the types of improvements from which these processes would most benefit, including candidate improvements to:

- the method by which the competency-based process is performed,
 - the structure or sequencing of tasks within the competency-based process,
 - the integration of the competency-based process with other competency-based or business processes,
 - the workforce practices and activities impacting on the performance of the competency-based process,
 - technologies that would support or automate the process, or,
 - the preparation of individuals or workgroups to perform the process.
5. The results of these analyses are used to guide investigations of potential improvements to critical competency-based processes.
6. When these analyses indicate that the actual impact of workforce practices and activities on the capability and performance of critical competency-based processes deviates significantly from expectations or capability objectives, corrective actions are taken.

Refer to Practices 10 and 11 of the Organizational Capability Management process area for information regarding the measurement and analysis activities on which analyses of the impact of workforce practices on performance alignment can be built.

These actions may include:

- correcting problems in the performance of workforce activities,
- adjusting capability objectives for competency-based processes,
- adjusting expectations regarding the impact of workforce practices and activities on the capability and performance of competency-based processes,
- redesigning or adjusting workforce practices to improve their impact, and
- altering the performance of workforce practices and activities under different conditions to improve their impact.

Practice 13

Within selected workforce competencies, responsible individuals identify, evaluate, and select improvements to competency-based processes.

In addition to improvements that emerge from continuous improvement of individual or workgroup capability and performance, an individual(s) within each workforce competency should proactively investigate improvements in methods or technologies that can be adopted from sources outside the organization.

1. Responsible individuals investigate methods or technologies that have the potential to approach or achieve quantitative improvement objectives.

Examples of sources of improved methods or technologies include the following:

- Best practices from industry-leading companies
- New offerings from technology or method vendors
- Recent developments at universities
- Demonstrations at trade and industry conferences
- Results from research laboratories
- Prototypes from advanced development groups
- Lessons learned from continuously improving individual or workgroup capability

2. Candidate improvements to competency-based processes are evaluated to determine their anticipated benefits.

Examples of techniques for evaluating improvements to competency-based processes include the following:

- Analytic studies of the method or technology's anticipated change in a competency-based process's performance or results
- Data from uses external to the organization
- Simulations

3. When appropriate, trial implementations are conducted to determine the suitability of improvements to competency-based processes.

Examples of reasons for conducting trial implementations include the following:

- Validate anticipated improvements in the capability or performance of competency-based processes
- Evaluate conditions under which capability results differ from those expected
- Identify the learning and support necessary to successfully deploy the improvement

4. Improvements to competency-based processes are selected for deployment based on appropriate criteria.

Criteria for evaluating and selecting improvements to competency-based processes may differ among workforce competencies. Examples of criteria that may be used in evaluating improvement recommendations include the following:

- Results from an analytic study, simulation, or implementation trial
- Anticipated impact on the capability of competency-based processes
- Breadth of individuals or workgroups that would benefit from the improvement
- Extent to which the improvement can be applied to situations other than the one in which it was first applied
- Cost or difficulty of implementing the improvement
- Extent to which the improvement provides a reasonable alternative to standard competency-based processes
- Extent to which the improvement contains elements that are specific to the individual or workgroup making the recommendation.

Practice 14**Selected improvement recommendations are incorporated into competency-based processes and made available for use.**

1. Improvements selected for inclusion are incorporated into the descriptions of competency-based processes.

Refer to Practice 5 in the Competency Analysis process area for practices involved in defining and updating competency-based processes.

2. Improvements selected for inclusion are incorporated into the relevant competency-based assets.

Refer to Practices 5 and 6 in the Competency-Based Assets process area for practices involved in updating competency-based processes and their integration into competency-based processes and related technologies.

3. Individuals and workgroups are informed of improvements to competency-based processes.
4. Improved competency-based processes are deployed for use by individuals and workgroups.

Examples of issues to be handled in deploying improvements to competency-based processes include the following:

- Updating descriptions of competency-based processes
- Incorporating changes into competency development activities
- Adjusting or redefining measures of competency-based processes, as required
- Ensuring other workforce competencies engaged in integrated competency-based processes are made aware of potential changes or impacts, if they are anticipated
- Adjusting individual or workgroup performance objectives, if appropriate
- Adjusting workforce practices or activities if appropriate

5. Information is gathered and evaluated on the use and benefits of improved competency-based processes.
6. Lessons learned in improving competency-based processes are incorporated into the criteria for evaluating and selecting improvement recommendations.

Practice 15

The organization’s workforce practices are adjusted, as needed, to accommodate continuous improvement activities by individuals and workgroups.

Examples of areas where workforce practices may need to be adjusted, based on continuous improvement activities, include the following:

- Performance management
- Training and development
- Recognition and rewards
- Compensation
- Competency analysis and development
- Career development
- Work environment
- Workgroup development and role definitions
- Quantitative management of performance
- Quantitative management of capability

1. Individual improvement objectives and data on personal work processes are confidential and should not be revealed without the agreement of the individual.
2. Objectives and data for improving personal or workgroup performance are not used in performing any workforce activities without the agreement of the individuals affected.
3. Improvements in workgroup capability are incorporated into the organization’s capability baselines.

Measurement and Analysis

Measurement 1

Measurements are made and used to determine the status and performance of activities for Continuous Capability Improvement.

Examples of measurements include the following:

- Trends in participation in Continuous Capability Improvement activities
- Number of individuals trained in techniques for continuously improving personal work processes
- Number of individuals and workgroups actively engaged in Continuous Capability Improvement activities
- The number of coaching relationships established
- The rate at which coaches have helped the individuals and workgroups they coach achieve performance goals
- Number and types of adjustments made to workforce practices
- Rate at which goals for individual or workgroup improvements are being accomplished
- Number of methods and technologies selected for evaluation
- Number, level of effort, and results for trial implementations of new methods and technologies
- Number of improvements made to competency-based processes
- Schedule adherence and level of effort for deploying improvements to competency-based processes

Measurement 2 Measurements are made and used to determine the effectiveness of activities for Continuous Capability Improvement.

Examples of measurements for determining the effectiveness of Continuous Capability Improvement activities include the following:

- Improvements in individual performance
- Growth in workforce competencies of individuals
- Improvements in workgroup or unit performance
- Improvements in workgroup capability
- Quality improvements in the products or services to which individuals and workgroups contribute
- Improvement in the coordination within workgroups
- Improvements to the capability of competency-based processes
- Improvements reported by customers
- Enhanced accomplishment of the performance objectives for individuals, workgroups, units, or the organization

Verifying Implementation

Verification 1 A responsible individual(s) verifies that the activities for Continuous Capability Improvement are conducted according to the organization’s documented policies, practices, procedures, and, where appropriate, plans; and addresses noncompliance.

These reviews verify that:

1. The activities for Continuous Capability Improvement comply with the organization’s policies and stated values.
2. The activities for Continuous Capability Improvement comply with the relevant laws and regulations.
3. Continuous Capability Improvement activities are performed according to the organization’s documented practices and procedures.

4. Noncompliance issues are handled appropriately.

Verification 2

Executive management periodically reviews the Continuous Capability Improvement activities, status, and results; and resolves issues.

These reviews verify:

1. The appropriateness of the activities for continuous capability improvement.
2. Progress in performing the activities for continuous capability improvement.
3. Results from reviews of Continuous Capability Improvement practices and activities.

Refer to Verification 1 for information regarding reviews of Continuous Capability Improvement activities to ensure adherence to the following:

- Relevant laws and regulations
- Organizational policies, practices, and procedures

4. Status of resolution of noncompliance issues.
5. Trends related to Continuous Capability Improvement.
6. Effectiveness of Continuous Capability Improvement activities in achieving improvements in capability of individual or workgroup processes.