Capability Maturity Model Integration®

CMMI® Implementation Plan

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Outline

- Principles for Success
- Recipes for Disaster
- Identify Immediate Risks
- Identify Long Term Risks
- Define Scope
- Develop Project Plan
- Enforce Project Plan
- Implement Processes
- Prepare Evidence of Use
- Prepare for Appraisal
Principles for Success

Outline
Principles for Success

• Devise a Concise Strategy
• Develop a Concise Project Plan
• Manage Like Well Run Project
• Use Small Implementation Team
• Aim for High Compliance
• Use a Top Project Manager
• Use More Doers Than Managers
• Use Itinerant Process Architects
• Use Established Process Formats
Principles for Success

Elaboration
Devise a Concise Strategy

• Concisely scope requirements, design, and implementation
• Select a finite, closed end implementation
• Superimpose work breakdown structure, costs, and schedule on implementation
• Treat implementation like a project, not a journey
• Respect CMMI’s complexity while constraining its scope and implementation
Develop a Concise Project Plan

• Concisely define project scope
• Concisely define project requirements
• Identify deliverables
• Identify implementation tasks and activities
• Create work breakdown structure
• Use bottom up cost estimation
• Develop a feasible and concise schedule
• Create a literal project plan
Manage Like Well Run Project

- Allocate full time personnel resources
- Use earned value management (EVM)
- Adhere to project scope and requirements
- Identify, analyze, and mitigate risks
- Complete project deliverables and schedule
- Protect project resources from sabotage
- Use experienced personnel
Use Small Implementation Team

• Use one or two experts for process design
• Use two to four technical writers for preparing evidence of use
• Use more implementers than managers
• Focus on creating policies, procedures, and evidence of use
• Protect implementation team from organizationally debilitating politics
Aim for High Compliance

- Adhere to process areas and specific practices
- Develop processes for compliance with process areas and specific practices
- Don’t go beyond process areas and specific practices
- Use process areas and specific practices for planning, implementation, and verification
Use a Top Project Manager

• Identify a professionally trained project manager
• Have project manager create project plan
• Have project manager use earned value management (EVM)
• Project manager must use scientific project management principles
• Project manager should not architect, design, or implement processes
Use More Doers Than Managers

• Don’t form a committee of managers to micromanage one implementer
• Use a small team of CMMI implementation experts
• Don’t mistake appraisers for implementation experts
• CMMI implementation experts should also be experts in professional policy and procedure design and implementation
Use Itinerant Process Architects

• Identify itinerant process architects
• Process architects should use professional policy and procedure principles
• Appraisers aren’t process architects
• Evaluate portfolios of process architects before selecting them
• Select process architects with proven portfolios in implementing CMMI policies and procedures
Use Established Process Formats

- Use professional policy and procedure principles
- Use professional policy and procedure formats
- Design policies and procedures to be more than one page
- Design more than one policy and procedure for each process area or system activity
Recipes for Disaster

Outline
Recipes for Disaster

- Form a Committee of Managers
- Don’t Form Strategy or Plan
- Meander Along Without a Schedule
- Implement Favorite Methodology
- Overscope Process Areas
- Use Amateur Process Formats
- Don’t Form Process Architecture
- Underestimate Large Teams
- Use Big Bang Institutionalization
Recipes for Disaster

Elaboration
Form a Committee of Managers

- Create a bureaucracy of managers to micromanage one implementer
- Solicit occasional advice from management committee but don’t make them work
- Redirect implementers every one or two weeks just to keep them guessing
- Have implementers create occasional deliverables for managers to shoot down
Don’t Form Strategy or Plan

• Don’t identify your scope or requirements
• Don’t identify any deliverables
• Don’t identify any policies, procedures, or work products
• Don’t create a schedule
• Don’t create a project plan
• Take the attitude that you’ll know it when you see it, but not before then
Meander Along Without a Schedule

• Don’t create a schedule for CMMI implementation
• Meander along from week to week
• Charter occasional research or reporting
• Don’t commit to any real work or deliverables
• Don’t burden developers with documented policies and procedures
Implement Favorite Methodology

- Use CMMI to justify a fancy object oriented analysis and design method
- Use CMMI to justify purchasing millions of dollars in new computers, middleware, applications, and productivity tools
- Use CMMI to justify building a state of the art manufacturing facility
- Use CMMI resources to adopt six sigma and ISO 9000
Overscope Process Areas

• Create a fancy requirements engineering methodology and buy expensive tools
• Use CMMI to justify full time quality assurance and configuration management personnel, groups, and resources
• Create a 21 part project management plan consisting of separate plans for every major project function
• Use CMMI to justify 100s of training hours
Use Amateur Process Formats

• Use flow charts as final process implementation
• Use ETVX charts or input/output diagrams
• Use single page formats to describe entire life cycle, process areas, or life cycle stages
• Use document formats to create long and ambiguous essays
• Use automated tools to hide process ambiguity or lack of process definition
Don’t Form Process Architecture

• Don’t form a centralized architecture for policies and procedures
• Let implementers use whatever process architecture suits them at the moment
• Assume policy and procedure architecture isn’t very important
• Assume policy and procedure architecture isn’t central to successful CMMI implementation
Underestimate Large Teams

- Underestimate difficulty of forming and managing large CMMI teams
- Assume big teams are better than small ones
- Assume you’ll be able to find more than one or two highly qualified experts
- Equate bodies to experience and utility
- Overestimate contribution of large teams
- Underestimate debilitating politics
Use Big Bang Institutionalization

- Assume every single project manager and engineer has to breathe CMMI every day
- Assume every project has to religiously implement CMMI policies and procedures
- Assume every manager and engineer must think exactly the same way about CMMI
- Assume you have decades to institutionalize CMMI policies and procedures
Identify Immediate Risks

Outline
Identify Immediate Risks

- Process Area Scope
- Project Management Skills
- Policy and Procedure Skills
- Technical Writing Skills
- Life Cycle Architecture Skills
- Project Management Experience
- Quality Management Experience
- Manager and Staff Competition
- Technical Staff Competition
- Cross Functional Competition
- Contractor Team Competition
- Government-Contractor Competition
Identify Immediate Risks

Elaboration
Process Area Scope

• Tendency to overscope process areas
• Tendency to ignore specific practices
• Tendency to implement non-compliant practices
• Tendency to omit compliance with specific practices
• Tendency to misinterpret and overscope intent of process areas
Project Management Skills

• Tendency to meander along from week to week
• Tendency to treat CMMI implementation like a journey rather than a project
• Tendency to not apply scientific management principles
• Tendency to resist creating a project plan for CMMI implementation
Policy and Procedure Skills

- Tendency to lack any semblance of professional policy and procedure skills
- Tendency to use ad hoc, amateur methods
- Tendency use non holistic policy and procedure methods
- Tendency to write ineffective policies and procedures
- Tendency to write one page, ineffectual policies and procedures
Technical Writing Skills

- Tendency to lack technical writing skills
- Tendency to believe all documents should be written by technical writers
- Tendency to believe managers and engineers exist to direct technical writers
- Tendency to lack familiarity with professional policy and procedure development
Life Cycle Architecture Skills

• Tendency to be unfamiliar with standard system life cycle architectures
• Tendency to refuse to implement standard system life cycle architectures
• Tendency to embrace conceptual and academic system life cycle architectures
• Tendency to superficially or partially implement system life cycle architectures
• Tendency to be unfamiliar with system life cycle cost and quality performance
Project Management Experience

• Tendency to be unfamiliar with scientific management principles
• Tendency to be unfamiliar with hard tools in project planning and management
• Tendency to resist creating project plans
• Tendency to turn project plans into descriptions of system life cycle
• Tendency to resist earned value management (EVM)
Quality Management Experience

- Tendency to be unfamiliar with scientific quality models
- Tendency to be unfamiliar with quantitative quality management systems
- Tendency to regard quantitative quality management systems with incredulity
- Tendency to ignore quality, reliability, and availability modeling and management principles
Manager and Staff Competition

- Tendency for managers to compete with staff for power and status
- Tendency for managers to undermine success of staff
- Tendency for managers to constantly redirect staff
- Tendency for managers to hold staff responsible for their own management failures
Technical Staff Competition

• Tendency for technical staff to compete with one another
• Tendency for technical staff to compete for promotions
• Tendency for technical staff to stonewall one another
• Tendency for technical staff to undermine each other’s credibility
Cross Functional Competition

- Tendency for functional area managers to compete with one another
- Tendency for functional area managers to compete for senior management positions
- Tendency for functional area managers to stonewall one another
- Tendency for functional area managers to create rivalries and cliques between groups
Contractor Team Competition

• Tendency for contractor team to compete with one another for power and status
• Tendency for contractor team to compete for task orders and technical leadership
• Tendency for prime contractor to bully subcontractors
• Tendency for subcontractors to stonewall prime contractor initiatives and credibility
Government-Contractor Competition

- Tendency for government to compete with contractors
- Tendency for government to undermine outsourcing initiatives
- Tendency for government to stonewall contractor initiatives
- Tendency for government to reject deliveries, violate statement of work, and force contractors into cost overruns
Identify Long Term Risks

Outline
Identify Long Term Risks

- Proprietary
- Cost
- Politics
- Training
- Certification
- Education
- Difficulty
- Time To Implement
- Effort
- Manual
- Practicality
- Completeness
- Technology
- Ease of Use
Identify Long Term Risks

Elaboration
• CMMI is a strictly proprietary U.S. military supplier selection model
• CMU mandates training and certification
• CMU requires expensive licensing to consult in CMMI
• CMMI to generate guaranteed revenue stream for CMU
• CMU prefers to be sole CMMI consultancy
Cost

• CMMI may be cost prohibitive to large and small businesses
• CMMI may cost $12M to $24M+ per business unit
• CMMI designed by large U.S. military contractors for themselves
• CMMI not designed for small business
Politics

• CMMI vulnerable to debilitating politics
• CMMI creates debilitating politics between systems, software, and hardware engineering disciplines
• CMMI is a catalyst for endless guerilla political warfare over multiple organizational management regimes
Training

• CMMI requires thousands of hours worth of training and certification
• CMMI requires years and decades of trial and error
• CMMI requires training and expertise in 24 systems, hardware, and software disciplines
• CMMI training requirements cost prohibitive for small business
Certification

- CMMI requires cost prohibitive training and certification
- CMMI requires $10K to $25K per appraiser
- CMMI introductory training costs $10K to $15K per person
- CMU mandates certification for CMMI consultants
- CMU intolerant of non-certified consultants
Education

- CMMI requires graduate degrees in engineering and engineering management to comprehend, apply, and qualify for.
- CMMI not education friendly for majority of engineering population.
- CMMI not education friendly to international community.
- CMMI requires specialists in process versus market, product, and product domain.
• CMMI consists of 489 detailed requirements (e.g., generic and specific practices)
• CMMI’s 489 requirements are to be replicated for systems, hardware, and software engineering
• CMMI is like having 1,467 detailed requirements for product development
• CMMI is too complex for most businesses
Time To Implement

• CMMI Level 2 thru 5 requires 19.8 years
  – CMMI Level 2 requires 5.7 years
  – CMMI Level 3 requires 12.0 years
  – CMMI Level 4/5 requires 3.0 years

• CMMI vulnerability to politics could quadruple calendar time required

• Small business can’t afford CMMI calendar requirements
• CMMI Level 2 to 5 requires 113 staff years
  – CMMI Level 2 requires 31.2 staff years
  – CMMI Level 3 requires 65.2 staff years
  – CMMI Level 4/5 requires 16.4 staff years
• CMMI immense complexity and ambiguity could quadruple time required
• Small business can’t afford CMMI effort requirements
Manual

• CMMI promotes manual processes
• CMMI is an industrial age model
• CMMI focuses on organizational dynamics, intergroup politics, and manual methods
• CMMI exacerbates debilitating politics rather than eliminating them
• CMMI aspires to turn engineer’s attention away from principle task of engineering
Practicality

• CMMI is too broad and diluted
• CMMI is not focused on critical tasks
• CMMI doesn’t go into any depth
• CMMI is vague and ambiguous
• CMMI is wide open to individual interpretation and implementation
• CMMI isn’t a practical tool for everyday product engineering needs
Completeness

- CMMI omits some critical scientific management principles
- CMMI elevates trivial areas to central role
- CMMI doesn’t go into any depth on critical areas
- CMMI focuses on trivial subdisciplines versus project management, quality management, and life cycle architecture
Technology

- CMMI focuses on process versus product
- CMMI distracts business from focusing on meeting market needs
- CMMI distracts engineers from focusing on mastering product technologies
- CMMI aspires to turn everyone into experts on U.S. military supplier selection models
- CMMI may compromise competitiveness
Ease of Use

- CMMI takes years and decades to master
- CMMI takes years and decades to implement
- CMMI is not designed for meeting immediate project management needs
- CMMI is not designed to be used on critical projects in the near term
- CMMI is a manual method that distracts managers and engineers without helping
Define Scope

Outline
Define Scope

- Use SE, SW, IPPD, or SS Model
- Use Staged or Continuous Representation
- Identify Process Areas
- Identify Specific Practices
- Identify Policies
- Identify Procedures
- Identify Work Products
Use SE, SW, IPPD, or SS Model

- Select from SE, SW, IPPD, or SS CMMI Model
  - SE model for systems engineering
  - SW model for software engineering
  - IPPD model for integrated product teams
  - SS model for supplier selection

- Mix and match CMMI Models
  - Use SE, SW, SE/SW, SE/SW/IPPD, or SE/SW/IPPD/SS

- SE/SW/IPPD/SS is a conservative choice
Use Staged or Continuous Representation

• Select CMMI staged or continuous representation
• Use staged CMMI representation
  – Attain to CMMI Levels 2, 3, 4, and 5
• Use continuous CMMI representation
  – Choose a small group of process areas
  – Choose process area maturity levels
• Continuous is faster and easier approach
Identify Process Areas

- Identify process areas
- Identify and analyze specific goals
- Identify and analyze process area scope
- Use process areas to constrain scope
- Don't expand scope of process areas
- Don't expand scope of terminology
- Map process areas to SE, SW, IPPD, and SS
Identify Specific Practices

- Identify specific practices
- Identify and analyze specific goals
- Identify and analyze specific practice scope
- Use specific practices constrain scope
- Don't expand scope of specific practices
- Don't expand scope of terminology
- Map specific practices to SE, SW, IPPD, and SS
Identify Policies

- Map policies to process areas
  - 7 policies for CMMI Level 2
  - 14 policies for CMMI Level 3
  - 4 policies for CMMI Levels 4 and 5
- Create policy for each process area
- Use integrated policies and procedures
- Policies standardized above Level 3
Identify Procedures

- Map procedures to specific practices
  - 139 procedures for CMMI Level 2
  - 277 procedures for CMMI Level 3
  - 73 procedures for CMMI Level 4 and 5
- Create procedure for each process area
- Single process area procedure too short/long
- Don't create more procedures than necessary
- Use separate procedures for SE and SW
Identify Work Products

• Identify work products for specific practices
  – 138 work products for CMMI Level 2
  – 291 work products for CMMI Level 3
  – 49 work products for CMMI Levels 4 and 5
• Use one work product per specific practice
• Identify form or template for work products
• Map work products to SE and SW
• Use separate work products for SE and SW
Develop Project Plan

- Make Work Breakdown Structure
- Identify Work Activities
- Estimate Task Durations
- Do a Bottom Up Cost Analysis
- Create Schedule
- Organize Implementation Team
- Use Full Time Personnel
Develop Project Plan

Elaboration
Make Work Breakdown Structure

- Identify CMMI policies and procedures
- Identify specific practice work products
- Use product based work breakdown structure
  - 277 policies, procedures, and work products for CMMI Level 2
  - 568 policies, procedures, and work products for CMMI Level 3
  - 122 policies, procedures, and work products for CMMI Levels 4 and 5
Identify Work Activities

• Identify implementation activities
  – Create physical, conceptual, logical designs

• Identify evidence of use activities
  – Create, gather, inventory, and audit evidence of use

• Identify appraisal preparation activities
  – Participant training and mock appraisals

• Identify miscellaneous activities
  – Identifying approaches, forming teams, gathering data, and management tasks
Estimate Task Durations

• Estimate task durations for work activities
  – 10.4 staff years for CMMI Level 2
  – 21.7 staff years for CMMI Level 3
  – 5.5 staff years for CMMI Levels 4 and 5
• Productivity increases and decreases with experience
• Politics and overscoping negatively impact productivity
• Only one third of time is spent productively
Do a Bottom Up Cost Analysis

• Factor in policy and procedure design time
• Factor in evidence of use design time
• Factor in appraisal preparation time
• Factor in appraisal time
  – Majority of appraisal effort is internal
• Factor in training and certification
• Factor in travel and lodging expenses
Create Schedule

• Adjust staff years for productive time
  – 31.2 staff years for CMMI Level 2
  – 65.2 staff years for CMMI Level 3
  – 16.4 staff years for CMMI Levels 4 and 5

• Adjust staff years for 4 to 7 person team
  – 7.8 to 4.5 calendar years for CMMI Level 2
  – 16.3 to 9.3 calendar years for CMMI Level 3
  – 4.1 to 2.3 calendar years for CMMI Levels 4 and 5
Organize Implementation Team

- Select implementers with proven portfolio
- Choose expert policy and procedure designers
- Choose expert life cycle architects
- Choose project management domain experts
- Choose quality management domain experts
- Keep team as small as possible
- Use implementers versus managers and supervisors
Use Full Time Personnel

• Best to use full time implementers
• Full time schedule already unrealistic
• Part time schedule greatly unrealistic
• One to three full time personnel are best
• Full time experts finish up to 10x faster
• Telecommuting may be best arrangement
• Don't over allocate full time implementers
Enforce Project Plan

Outline
Enforce Project Plan

- Track Progress on Daily Basis
- Don’t Stop Until You’re Done
- Maintain Full Time Resources
- Resist Political Sabotage
- Complete Policies and Procedures
- Complete Evidence of Use
- Complete Appraisal Preparation
Enforce Project Plan

Elaboration
Track Progress on Daily Basis

• Policies and procedures complete rapidly
• Track policy and procedure implementation
• Work products also complete rapidly
• Track work product implementation
• Use earned value management (EVM)
• Late schedules from politics and inexperience
• Accelerated schedules sign of experience
Don’t Stop Until Your Done

- Rapidly implement policies and procedures
- Rapidly implement evidence of use
- Pace implementers and don't work too fast
- Maintain focus and complete deliverables
- Don't get involved in politics and projects
- Don't let antagonists disrupt implementation
- Use telecommuting arrangement if possible
Maintain Full Time Resources

- Full time resources key to rapid finish
- Don't over allocate full time resources
- Don't allow resources to be undermined
- Get solid commitment on resource allocation
- Use full time experts, not part time novices
- Identify contingency or back up resources
- Update schedule with resource adjustments
Resist Political Sabotage

- Resist sabotage by systems engineering
- Resist sabotage by software engineering
- Resist sabotage by product assurance
- Resist sabotage by quality assurance
- Resist sabotage by configuration management
- Resist sabotage by testing
- Protect resources, schedule, and implementation
Complete Policies and Procedures

• Rapidly complete policies and procedures
  – 139 procedures for CMMI Level 2 in 11.5 months
  – 277 procedures for CMMI Level 3 in 23.0 months
  – 73 procedures for CMMI Level 4 and 5 in 6.0 months
• Use medium sized experienced team finish fast
• Small sized very experienced team finishes faster
• Policies and procedures are valuable assets
Complete Evidence of Use

- Rapidly complete evidence of use
  - 138 work products for CMMI Level 2 in 4.7 years
  - 291 work products for CMMI Level 3 in 10.0 years
  - 49 work products for CMMI Levels 4 and 5 in 1.7 years
- Double size of implementation team to finish faster
- Use special implementation team, not projects
- Develop all CMMI compliant evidence of use
Complete Appraisal Preparation

• Rapidly complete appraisal preparation
  – Train 60 people in CMMI in 1,440 hours
  – Train 60 people in terms in 240 hours
  – Train 60 people in appraisals in 240 hours
  – Train 60 people in processes in 240 hours
  – Train 60 people in evidence in 240 hours
  – Conduct two mock appraisals in 2,400 hours
Implement Processes

Outline
Implement Processes

• Use Professional Process Format
• Identify Process Design Experts
• Identify CMMI Design Experts
• Gather Existing Process Samples
• Create Conceptual Design
• Create Logical Design
• Create Physical Design
Implement Processes

Elaboration
Use Professional Process Format

• Identify policy and procedure format
  – Professional
  – Repeatable
  – Executable

• Map process areas to policies
• Map process areas to procedures
• Map specific practices to procedures
Identify Process Design Experts

• Identify designers with expertise in
  – Life cycle architecture and design
  – CMMI policy and procedure design
  – Scientific project management principles
  – Scientific quality management principles
  – Professional policy and procedure principles

• Schedules decrease with greater experience

• Schedules increase with lesser experience
Identify CMMI Design Experts

- Identify designers with experience in
  - Creating CMMI implementation plans
  - Planning and costing CMMI implementation
  - Completing CMMI initiatives on a schedule
  - Design of CMMI policies and procedures
  - Controlling scope and completing schedules

- Schedules decrease by 10x with more experience

- Appraisers are not CMMI process design experts
Gather Existing Process Samples

- Gather existing process samples on
  - Project management for CMMI Level 2
  - Process assets for CMMI Level 3
  - Measurement for CMMI Levels 4 and 5
- Use existing process assets to
  - Create conceptual and logical designs
  - Verify conceptual and logical designs
  - Speed CMMI policy and procedure design
Create Conceptual Design

• Identify policy and procedure requirements
  – 139 procedures for CMMI Level 2
  – 277 procedures for CMMI Level 3
  – 73 procedures for CMMI Level 4 and 5
• Enumerate policies and procedures
• Describe policies and procedures
• Use subpractices for conceptual steps
• Don't overscope conceptual designs
Create Logical Design

• Analyze conceptual designs
• Analyze existing process samples
• Analyze existing process assets
• Identify steps for policies and procedures
• Describe steps for policies and procedures
• Maintain limit of seven to nine steps
• Create short description of roles and actions
Create Physical Design

• Insert steps in policy and procedure format
• Complete policy statements
• Complete role descriptions
• Complete definitions and terms
• Complete inputs
• Complete outputs
• Complete policy and procedure description
Prepare Evidence of Use

Outline
Prepare Evidence of Use

- Identify Four to Six Projects
- Form Small Implementation Team
- Manufacture Evidence of Use
- Create Evidence of Use Repository
- Gather Evidence of Use
- Inventory Evidence of Use
- Audit Evidence of Use
Prepare Evidence of Use

Elaboration
Identify Four to Six Projects

- Identify four to six large projects
- Crossing divisions and product lines okay
- It's not necessary to appraise all projects
- Select a sample of best in class projects
- Projects can be at any point in life cycle
- Most CMMI documents produced early
- Measurement, statistical analysis, and defect prevention can also occur early
Form Small Implementation Team

• Use process designers for evidence of use
• Double or triple size of team
• CMMI has a large number of work products
• Don't depend or plan upon project support
• Use more full time personnel resources
• Resistance from project is overwhelming
• Shield implementation team from politics
Manufacture Evidence of Use

- Develop work products for sample projects
  - 966 work products for CMMI Level 2
  - 2,037 work products for CMMI Level 3
  - 343 work products for CMMI Levels 4 and 5
- Investigate automated tools for work products
- Project simulation may be necessary
- Implementation team produces work products
Create Evidence of Use Repository

- Create traditional or automated repository
- Use file cabinet as a traditional repository
- Use intranet for an automated repository
- Automated tools may support multiple views
  - CMMI orientation for appraisers
  - Project orientation for developers
- Use manual methods to reduce initial risks
- Investigate tools after you pass appraisal
Gather Evidence of Use

• Gather evidence of use for sample projects
  – 966 items for CMMI Level 2
  – 2,037 items for CMMI Level 3
  – 343 items for CMMI Levels 4 and 5
• Have implementation team gather evidence
• Populate repository with evidence of use
• Use configuration identifiers for evidence
Inventory Evidence of Use

- Take an inventory of evidence of use
- Determine percent of inventory complete
- Determine percent of inventory incomplete
- Continue to produce evidence until complete
- Don't do audits until inventory is complete
- Configuration management may want to do this
- Produce inventory report for appraisers
Audit Evidence of Use

• Develop a checklist from specific practices
• Evaluate inventory for checklist compliance
• Also evaluate quality of evidence
  – Evaluate policy and procedure quality
  – Evaluate work product quality
• Rate and score inventory and asset quality
• Begin appraisal preparation after audits
Prepare for Appraisal

Outline
Prepare for Appraisal

- Identify Appraisal Participants
- Train Participants in CMMI
- Train Participants in Terminology
- Train Participants in Appraisals
- Train Participants in Processes
- Train Participants in Evidence
- Conduct Mock Appraisals
Prepare for Appraisal

Elaboration
Identify Appraisal Participants

- Select participants from sample projects
- Use willing participants that will help
- Use implementers and project members
- Use functional area and project managers
- Schedule CMMI training and mock appraisals
- Administer orientation to participants
- Don't force unwilling participants
Train Participants in CMMI

- Describe purpose of CMMI
  - Level 1 - Initial
  - Level 2 - Managed
  - Level 3 - Defined
  - Level 4 - Quantitatively Managed
  - Level 5 - Optimizing
- Describe SE, SW, IPPD, SS, and combinations
- Describe staged versus continuous models
Train Participants in Terminology

- Describe SE, SW, IPPD, and SS terminology
- Describe staged and continuous terminology
- Describe maturity level terminology
- Describe process area terminology
- Describe goal and practice terminology
- Describe policy and procedure terminology
- Describe work product terminology
Train Participants in Appraisals

- Describe appraisal purpose and goals
- Describe appraisal classes and types
- Describe appraisal processes and stages
- Describe appraisal roles and responsibilities
- Describe appraisal inputs and outputs
- Describe strategy and success criteria
- Coach participants to pass appraisals
Train Participants in Processes

• Map processes to maturity levels
• Map processes to process areas
• Map processes to specific goals
• Map processes to specific practices
• Map processes to CMMI terminology
• Describe policy and procedure architecture
• Describe process inputs and outputs
Train Participants in Evidence

• Map evidence of use to maturity levels
• Map evidence of use to process areas
• Map evidence of use to specific goals
• Map evidence of use to specific practices
• Map evidence of use to CMMI terminology
• Describe evidence of use repository
• Describe evidence of use for projects
Conduct Mock Appraisals

• Conduct mock appraisals and coach people to
  – Respond to information requests
  – Understand process stages
  – Prepare business area briefings
  – Respond to questions and answers
  – Be familiar with CMMI terminology
  – Conduct one on one interviews
  – Deliver evidence of use to appraisers