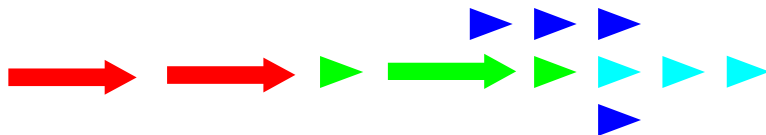


# 7 Core Principles for Minimizing Process Implementation Cost, Effort, and Schedule

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# 7 Core Principles for Minimizing Process Implementation Cost, Effort, and Schedule

## ■ Session Objectives:

- Understand several rapid process implementation strategies
- Learn techniques for reducing process implementation cost, effort, and schedule
- Reduce risk related to organizational change
- Substantially increase the likelihood of successful organizational change and process streamlining

## 7 Core Principles for Minimizing Process Implementation Cost, Effort and Schedule

1. Fit Your Process Implementation Effort into the Next 3 to 6 Months
2. Outline Your Business/Mission Model First
3. (Bonus #1) Establish One or More Business Goals for Each Process Area Being Implemented
4. Initially Focus on Smaller, Shorter Duration Projects
5. (Bonus #2) Leverage Open Source Solutions
6. Strive for Minimalist Policies, Procedures, and Plans
7. Use In-house Resources for Cross Training
8. Look Internally for Interested Resources
9. (Bonus #3) Consider Shared Resources with Local Companies/Organizations
10. Ensure Everyone Understands that Appraisals are Waypoints, Not End States

# 1. Fit Your Process Implementation Effort into the Next 3 to 6 Months

- *Problem:* Typical implementation schedule to achieve Maturity Level 2:
  - 3 months learning the model and implementation techniques
  - 2 months discovering you didn't learn enough
  - 1 month revisiting CMMI implementation/compliance strategy
  - **2 months making actual progress**
  - 4 months of no progress because improvement team resources were redirected to do proposal work
  - **2 months making actual progress**
  - 4 months of no progress because improvement team resources were redirected to support projects in grave trouble
  - **2 months making actual progress**
- Total implementation schedule: 20 months

## 1. Fit Your Process Implementation Effort into the Next 3 to 6 Months

- *Solution:* Develop a process improvement plan and schedule that allows for as many improvements as possible during the next six months—or less!—given:
  - Resource availability
  - Improvement history and experience
  - Other organizational priorities
  - Budget constraints

## 1. Fit Your Process Implementation Effort into the Next 3 to 6 Months

- Select process areas precisely because you think they will be the easiest, fastest areas to implement
- As processes are deployed, track/measure effects
- Then, plan the next 3-6 month phase
- Stay focused on sheer velocity

## 2. Outline Your Business/Mission Model First

- *Problem:* Organizations deciding to leverage the CMMI often start by defining processes to meet the requirements of the model
- This easily results in processes that conflict with, or at least fail to support, one or more business/mission objectives

## 2. Outline Your Business/Mission Model First

- *Solution:* Start by outlining (maybe with simple flowcharts) the methods, techniques, and processes you currently use to achieve business/mission success
- Next, use the CMMI to help you upgrade and enhance the outlines by adding or appropriately extending key process elements
- And *then* define your processes



### 3. (Bonus #1) Establish One or More Business Goals for Each Process Area Being Implemented

- *Problem:* CMMI “Goals” are actually requirements
  - For example, one goal from the CMMI states, “A project plan is established and maintained as the basis for managing the project.”
  - The question remains, Why?
- *Solution:* Determine and document, for each relevant goal, \*why\* (from a business/mission perspective) you want/need to do this

## 4. Initially Focus on Smaller, Shorter Duration Projects

- *Problem:* When implementing process improvements, there is a strong tendency to initially target large, long-duration programs and projects
- This can be a major mistake, due to the increased process complexities and entrenched habits often accompanying such efforts
- As a result, subsequent improvement-related schedules and costs may be far greater than originally planned

## 4. Initially Focus on Smaller, Shorter Duration Projects

- *Solution:* Until you have a track-record of success, focus on small, short-duration efforts
- Typically, such efforts can be readily supported by light-weight, simple, and easily developed procedures, techniques, etc.
- Once proven successful, variants can be developed and scaled-up to support larger and longer-duration projects

## 5. (Bonus #2)

# Leverage Open Source Solutions

- *Problem:* Manual techniques tend to be expensive and time-consuming, yet automated tools are often also expensive
- *Solution:* Research, consider, evaluate, and pilot Open Source solutions—at least for “Round-1” of your process improvement effort
- Consider higher-priced automation tools when you are confident of return-on-investment

## 6. Strive for Minimalist Policies, Procedures, and Plans

- *Problem:* The three primary challenges when defining any process area are:
  - Figuring out the scope of the process
    - Where does this process start?
    - Where does it end?
    - What does it cover?
  - Determining the level of detail necessary
  - Knowing when you're done

## 6. Strive for Minimalist Policies, Procedures, and Plans

- *Solution:* Keep everything as minimalist as possible
  - Focus on the Goals of the CMMI
- Strive to keep anything you're developing
  - Succinct
  - Clear
  - Accurate
- Focus on ease-of-use
- Improved usability directly translates into quicker deployment and adoption rates

## 6. Strive for Minimalist Policies, Procedures, and Plans

- If any project or functional area finds your material to be too abstract, they'll let you know
- Wait for requests before adding details or extending scope—and even then, classify such new material as “supplemental” or “examples”
- Someday you'll likely be appraised against your policies, procedures and plans
- However, a “major non-compliance” being issued because a project didn't use “supplemental material” is highly unlikely

# 7. Use In-house Resources for Cross-Training

- *Problem 1:* Training is typically expensive
- *Problem 2:* Tight-budget organizations can not afford extra/reserve/backup resources
- *Problem 3:* When deploying new or changed processes, it is usually necessary to also provide orientations and training related to the new/updated material



# 7. Use In-house Resources for Cross-Training

- *Solution:* Establish a strategy to motivate internal cross-training of critical skills (management, technical, support, etc.) via classes and/or training material developed by in-house resources
- Train designated personnel during the day
- Then allow any employee to take any “high demand” courses during after hours training

# 7. Use In-house Resources for Cross-Training

- Consider requiring (at least some category of) employees to develop/deliver at least two orientation/training courses per year
- You will likely be surprised at
  - The ability and willingness of some people to create/deliver material
  - The range of areas in which your employees have skills and insights—regardless of their job title or current responsibilities

## 8. Look Internally for Interested Resources

- *Problem:* Planning and performing successful process improvements actually involves real work
- For example, someone needs to
  - Perform quality assurance
  - Conduct baseline audits of deliverables, etc.
  - Manage changes to requirements
  - Evaluate organizational strengths/weaknesses and improve processes & process support artifacts

## 8. Look Internally for Interested Resources

- *Solution:* When looking for a new resource, first release an organization-wide “Call for Skill Extension & Upgrade”
- Ensure that any interested person—from anywhere—knows that she/he is not only allowed to, but encouraged to, contact you
- Example: Can the front-desk receptionist conduct effective quality assurance audits?
  - Definitely (but some training might be required)

## 9. (Bonus #3) Consider Shared Resources with Local Companies/Organizations

- *Problem:* Occasionally you have a process requirement/responsibility, you cannot find an appropriate in-house resource, and bids from external providers are really too expensive
- *Solution:* Look to local (non-competing) companies and establish some type of "mutual aid" agreement

## 10. Ensure Everyone Understands that Appraisals are Waypoints, Not End-States

- *Problem 1*: People (especially Executives) tend to think, “We’ll achieve Maturity Level X; then we’ll be done”
- While it is true that, over time, you will vary the level of resources allocated to process improvement, it is also true that (*Problem 2*) the world continues to move on, regardless of your Level number or resource allocation level

## 10. Ensure Everyone Understands that Appraisals are Waypoints, Not End-States

- *Solution:* Potentially the most important theme throughout the CMMI is that to achieve and sustain success, you *must* become successful at *implementing change*
- Adopting the CMMI is adopting a lifestyle; it is *\*not\** achieving a static end-state
- To vary (and periodically minimize) your efforts at self-improvement is normal; *but to cease changing—while the world around you changes daily—is never the correct response*



# Contact Information

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# Biographical Highlights

Dr. Bechtold is a senior consultant for Abridge Technology, a Virginia-based company he founded in 1996. **Abridge Technology is an SEI Partner** and is authorized to provide SEI licensed training and SCAMPI appraisal services. Dr. Bechtold, an SEI-authorized Lead Appraiser, provides consulting, training, and support services in the areas of project management, process improvement, process definition, measurement, and risk management. Dr. Bechtold has assisted government and industry with implementing the Software CMM since 1992, the Acquisition CMM since 1996, and the CMMI since 2000. Dr. Bechtold's expertise spans organizations of all types and sizes, from multi-billion dollar companies and agencies to organizations with less than 20 personnel.