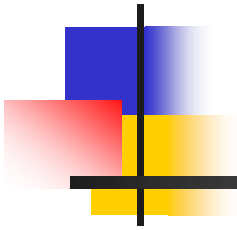


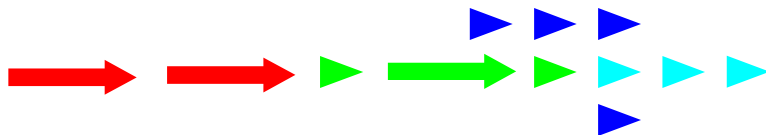
# 12 Proven Principles for Process Improvement & Organizational Success



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# 12 Proven Principles for Process Improvement and Organizational Success

1. Prioritize by Highest Likelihood of Success
2. Ease of Creation is Never the Issue; Ease of Maintenance Always Is
3. Never Ask Your Experts to Define Your Process
4. Target Senior, Experienced Professionals
5. Start Simply and Wait for People to Ask
6. Add Missing Process Areas
7. Aggressively Avoid Perfection
8. Ensure that the Quality Assurance Team Does Nothing
9. Leverage Resistance as a Source of Next Steps
10. Discard Cautiously
11. Ensure Compliance is Never Your 1<sup>st</sup> Priority
12. Prove Success is Real

# Introduction

- This presentation outlines 12 updated, revised, and enhanced proven principles that process improvement personnel should carefully consider while implementing CMMI-compliant business and mission processes
- These principles are widely applicable to virtually all types and sizes of organizations
- It does not matter if your organization is industry, government, non-profit, etc.
- Most—if not all—of these principles are likely applicable in your environment

# Introduction

- Many of the principles are counter-intuitive until explained
- Derived from organizations implementing CMMI-compliant business and mission processes, these principles can be leveraged by personnel just beginning their process improvement efforts
- These principles are also relevant to personnel striving to accelerate their organizational-level and project-level process improvement progress

# 1. Prioritize by Highest Likelihood of Success

- Many organizations, when planning their next series of process improvements, look for areas where they can receive the biggest impact
- Although this seems reasonable, it can be a very serious mistake
- In particular, if you do not have an established history of successful organizational change, then you are setting yourself up not only for failure, but for a highly visible, high impact failure

# 1. Prioritize by Highest Likelihood of Success

- Instead, prioritize your process improvement initiatives by highest likelihood of success
- That is, first do something you are positive will be successful
- After that, do something else that will likewise be successful
- Once you have a solid track record of success, then consider the high impact, high risk opportunities

## 2. Ease of Creation is Never the Issue; Ease of Maintenance Always Is

- When building process models, there are a variety of tools available that can provide automated support
- However, when evaluating such tools do not be deceived by a tool's ability to easily create diagrams

## 2. Ease of Creation is Never the Issue; Ease of Maintenance Always Is

- Instead, carefully evaluate the tool's ability to *maintain* diagrams
- You only "create" a diagram once
- However, you might be maintaining that diagram for years
- Likewise, be wary of tools that allow you to easily create massively complex diagrams



## 3. Never Ask Your Experts to Define Your Process

- When you need a process defined, it is very common to enquire, “Who in our organization is an expert on this?”
- Then, you ask that person to define that particular process
- This can be a mistake for the simple reason that your expert may write a 100 page description when all you really needed was 10 or 15 pages

## 3. Never Ask Your Experts to Define Your Process

- Instead of having the expert define the process, have a process engineer or technical writer interview the expert and create (or update) any applicable process description and related models
- Be sure to continue to involve your expert, but primarily as a reviewer

## 4. Target Senior, Experienced Professionals

- Once you assign someone to develop a process description, one of the first questions they'll ask is, "How much detail do you want?"
- It is impossible to answer that question without considering the intended audience for your process descriptions

## 4. Target Senior, Experienced Professionals

- Initially, make your target audience senior, experienced professionals and develop process descriptions that they would likely find highly usable
- In other words, start with very high-level, sparse process descriptions

## 5. Start Simply and Wait for People to Ask

- Once you start to pilot and deploy processes, you really want to hear from practitioners regarding anything whatsoever that they might not like about the processes
- In particular, you are looking to conduct “demand-driven” process improvement

## 5. Start Simply and Wait for People to Ask

- For example, if you deployed the sparse process documentation recommended above, some projects may tell you it is just too abstract for them to use, and they really need more details in certain areas
- Very well, if people are asking for supplemental guidance or examples, then provide such material
- But wait until they ask

## 6. Add Missing Process Areas

- The CMMI does not cover everything that is vital to your organizational success
- However, you can use the style of the CMMI (e.g., areas, goals, practices, and sub-practices) to create one or more additional process areas that you deem critical for organizational success

## 6. Add Missing Process Areas

- These might include, for example:
  - Opportunity Identification Management
  - Opportunity Capture Management
  - Engagement Success Management
  - Mission Impact Management
  - Customer Impact Management
  - Disaster Containment, Management, and Recovery



## 7. Aggressively Avoid Perfection

- In the world of process improvement, striving for perfection is a disaster
- The basic truth is you'll never get it perfect, regardless of how much money, time, and effort you pour into it
- For example, when developing plans sometimes you just know the plan is probably wrong
  - This is often because there is certain information you don't yet have, and so you've had to make assumptions

## 7. Aggressively Avoid Perfection

- One option is to wait until you know everything—but that typically doesn't happen until the project is completed
- The other option is simply to ask yourself, is this initial version of the plan barely adequate?
- If the answer is yes, then go ahead and release it as version 1.0
- By definition, if it's adequate, it's usable
- So use the barely adequate version to get started and, as with everything else, improve it over time

## 8. Ensure that the Quality Assurance Team Does Nothing

- An excellent strategy for implementing your quality assurance function is to ensure that the quality assurance team does not actually do anything
- Instead, they should focus 100% on double-checking what other people are doing
- For example, they double check that
  - Testing is done according to plan
  - Progress is being made with regard to CMMI compliance
  - Peer reviews are conducted on schedule and that the required records are being kept
  - Plans are being updated and maintained appropriately
  - Action items are tracked to closure

## 8. Ensure that the Quality Assurance Team Does Nothing

- Always use quality assurance as a safety net
- Let the engineering, support, and management performers do whatever spectacular performances are required, and have quality assurance as the safety net for whenever anyone accidentally falls

## 9. Leverage Resistance as a Source of Next Steps

- As a rule, people usually resist your attempted process improvements for a reason
- Sometimes, it's just reluctance to change
- However, as the expression goes, "sometimes resistance is just process improvement in disguise"

## 9. Leverage Resistance as a Source of Next Steps

- When you encounter resistance, always carefully investigate whether or not those resisting are doing so for a very good reason
- As a general rule, people won't resist something that truly improves their lives
- People certainly resist something they don't understand—so use education to offset resistance

## 10. Discard Cautiously

- Process improvement efforts don't always work
- Sometimes on the failed efforts—and especially on the major failures—there is a strong tendency to throw everything away and just try and start all over again
- This is almost never a good idea

## 10. Discard Cautiously

- Implicitly, throwing everything away means that there was absolutely nothing of value worth saving
- In fact, there's almost always material worth retaining and updating—maybe more material, or maybe less, but it invariably exists
- Always build on the work that was done before your arrival



# 11. Ensure Compliance is Never Your 1<sup>st</sup> Priority

- CMMI compliance should never be your first priority
- Invariably, something else has to be more important (mission success, staying in business, responsiveness to your customers, etc.)
- CMMI compliance is not an 'end state'; it is instead a catalyst for an efficient and effective 'dynamic sequence', where change is normal, effective, and expected

## 11. Ensure Compliance is Never Your 1<sup>st</sup> Priority

- Nevertheless, if you want to make any progress with regard to organizational change and improvement then occasionally CMMI compliance might make it into your top-10 list of priorities
- But keep CMMI compliance out of 1<sup>st</sup> place—that's simply a flawed prioritization (and a flawed interpretation of the model, actually) and is highly conducive to massive compliance-related overspending and excessive effort

## 12. Prove Success is Real

- An absolutely key question when starting any process improvement effort is, “How are we going to prove our efforts were successful?”
- For convincing and compelling evidence, think about measurements and data
- What are your process improvement objectives, and how are you going to evaluate proximity to, and achievement of, those objectives

## 12. Prove Success is Real

- If you can't figure out how to associate measurements with objectives, consider rephrasing the objectives
- At a minimum, associate one or more measurable criteria with each objective
- Don't expect anyone to be convinced by your assertions of benefit or success if you can't support your claims with actual facts

## 13. (Bonus #1) Do Not Believe Anyone Who States, "Money is Not a Factor"

- Occasionally, process improvement is viewed as so important that money is not a concern
- Even if temporarily true, eventually money always becomes an issue
- If someone thinks money is not a factor, it simply indicates that they are not talking to the right people

## 13. (Bonus #1) Do Not Believe Anyone Who States, "Money is Not a Factor"

- Eventually, someone always shows up—usually at the worst possible time—and asks you to prove your Return on Investment (ROI)
- Don't be surprised if you are only given a few days (or a week at the outside) to develop the proof
- See Principle #12

## 14. (Bonus #2) Put Value-Added Concepts into Supplemental Material

- Keep your policies as minimalist as possible
- Keep your processes as sparse as possible
- Put everything else into supplemental material such as
  - Templates
  - Guidance
  - Examples
  - Training material

## 14. (Bonus #2) Put Value-Added Concepts into Supplemental Material

- Generally speaking, your policies will be audited
- Likewise, your processes will be audited
- But virtually no one is going to issue a “major non-compliance” because a project wasn’t following “Supplemental Guidance”
- Also, do not *\*ever\** rely on a single policy that states, “Do everything described in the procedures.”



## 15. (Bonus #3) Do *\*Not\** Plan for a 24 Month CMMI Implementation

- Historically, it has taken organizations an average of approximately 24 months to transition from Maturity Level 1 to Maturity Level 2
- If you develop a plan for a 24 month transition, your effort is probably doomed
- Instead, plan for a 6 month implementation schedule

## 15. (Bonus #3) Do *\*Not\** Plan for a 24 Month CMMI Implementation

- At the end of 6 months, you'll likely find some things are not working as well as hoped, so take another 3 months to fix those
- Then, let the process execute for 6 months or so before your SCAMPI-A
- If you encounter all the usual interruptions, redirections (e.g., proposal writing), and other delays, it might end up taking close to 24 months
- But don't ever *\*plan\** for your transition to take that long



# 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.