A Roadmap for Planning Process Improvement

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Agenda

• Introduction and Welcome
• CMMI® based Process Improvement
• Overview of “Getting Started Roadmap”
What is CMMI-Based Process Improvement?

CMMI-Based Process Improvement is an approach to organizational change that

• Emphasizes that the quality of a product or service is largely determined by the quality of the processes used to develop, deliver and maintain it

• Focuses on process as a way to train and empower the people doing the work

• Is based on actual best practices in industry and government — it reflects the best of the state of the practice

• Enables organization of improvement into an evolutionary path that provides a foundation on which to build improvements undertaken at the next stage
Applying CMMI Effectively

Applying CMMI effectively entails a reflection on the realities of your business environment and applying the model in a thoughtful and appropriate manner.

• Identify problems that inhibit reaching your business objectives
• Tailor (interpret) CMMI to fit your context and needs
• Use professional judgment
• Don't force inappropriate solutions
• Tie process improvement to your business goals
• Use CMMI as a GUIDE
Process Improvement Planning

- Process improvement requires culture change, and culture change requires process improvement.
- Process improvement enables culture change and culture change enables process improvement.

Our approach involves a series of workshops primarily emphasizing the initiating phase of the IDEAL model and focusing on building a process improvement infrastructure.
Why an Infrastructure Product?

Experience has shown that, with an improper (or lack of an) infrastructure:

- It takes too long for a process improvement program to get process improvement started
- It is too expensive to sustain
- Wrong resources are applied
The IDEAL℠ Model

Initiating

Set Context
Build Sponsorship
Charter Infrastructure

Diagnosing

Characterize Current & Desired States
Develop Recommendations

Establishing

Set Priorities
Develop Approach
Plan Actions

Learning

Propose Future Actions
Analyze and Validate
Implement Solution
Refine Solution
Pilot/Test Solution
Create Solution

Acting

Analyze and Validate
Propose Future Actions
Implement Solution

SM IDEAL is a service mark of Carnegie Mellon University.
A Process Improvement Lifecycle – The Ideal Model

The steps to a successful process improvement are:

Initiating: laying the groundwork for the improvement effort.

Diagnosing: finding out where we are relative to where we want to be.

Establishing: laying the foundation and the specifics for how to get there.

Acting: doing the work according to our plan.

Learning: using the experience obtained and adjusting our course of action.
“Getting Started Roadmap” Supports IDEAL

The focus of the “Getting Started Roadmap” is primarily on the Initiating Phase, with some Diagnosing and Establishing Phase activities included.
Why the Emphasis on the Initiating Phase?

Initiating Phase of IDEAL is difficult to implement but critical to effectively lay the groundwork for process improvement. It entails:

- Articulating the business reasons for undertaking the effort
- Identifying the relationships with the organization's other work
- Securing the support of critical managers
- Allocating resources
- Planning for and establishing the infrastructure for managing implementation details.
CMMI Getting Started Roadmap

Workshop Overview
Getting Started Roadmap’s Purpose

To enable an organization to develop its CMMI-based process improvement program plan through a series of workshops that are tailored to fit the business unit’s needs
Why Workshops? -1

- Workshops help to contain organizations’ costs related to starting process improvement.
- Easier to implement.
- Workshops enable smaller chunks of improvements at variable times in-between to allow the organization to “absorb”, “get buy-in”, and move at the pace that they are able to.
- Go/no go decision to go further with process improvement infrastructure building after each workshop.
Why Workshops? -2

- Focus on getting "just enough" infrastructure built to get the organization productively started
- Explicitly deal with adoption risk issues
- Explicitly communicate expectations and clear pre-requisite criteria for senior management involvement
Preparing for Getting Started

Professional training

Introduction to CMMI training course

Getting Started: implementation
Overview

Plan to Launch

Planning for Adoption

Tailoring CMMI

Preparing for CMMI Adoption

Initiating CMMI Adoption

Planning Session
Workshop Overview

What are you trying to do?

Are you ready and able to do this?

What are your current strengths (reinforce) and weaknesses (improve)?

Who, What, When, How

Realistic, achievable improvement: Staff, Tasks, Milestones, ....

General planning/scheduling of workshops

Go/No Go decision
Defining the Big Picture

Where do we want to be?
What do we want to improve to get there?
Where are we?
Who will do it?
What will we do?
How will we do it?
What do we need?
How will we know we are getting there?
Planning Session

Purpose

• To plan, schedule, and begin to identify the participants for activities that will be necessary to complete the Process Improvement Implementation Plans for the business unit
Initiating CMMI Adoption -1

Purpose

- Develop a shared understanding of
  - the strategic business needs driving the adoption of CMMI
  - the potential benefits and costs of adopting CMMI
  - the types of changes that will be required
Initiating CMMI Adoption -2

Outputs

• An initial mapping of the business unit’s strategic business plan to Process Improvement business unit goals
• Draft process-improvement objectives that correspond to key business outcomes
• List of candidate process group members
Critical for this phase is the sponsor(s). Why? Because the sponsors provide:

**Vision:** clear understanding of what is to be done and how the change will support it.

**Skills:** ability to do the required work.

**Incentives:** impetus for “changing”.

**Resources:** people, time, and tools to do the work.

**Plans:** systematic approach for achieving the vision
Preparing for CMMI Adoption -1

Purpose
• To gain an understanding of the current state of your organization and identify lessons learned from your organization’s past
Preparing for CMMI Adoption -2

Outputs

• A list of organizational strengths plus potential barriers and areas of resistance related to initiating a process improvement project.
• A prioritized list of business risks with rationale for why each should be proactively addressed.
• A starter set of risk mitigation actions to feed forward into action planning
Tailoring CMMI -1

Purpose

• To narrow the focus of the improvement effort to a few critical activities that are likely to have the highest return on investment and the greatest probability of success
Tailoring CMMI -2

Outputs

• A detailed technical study of each relevant CMMI process area
• A detailed list of technical (i.e., CMMI-based) adoption issues to be resolved before the benefits of the developed solution can be realized
Planning for Adoption -1

Purpose
• To pull together the data gathered from the previous events and use them to design the improvement strategy for the organization
Planning for Adoption -2

Outputs
• A draft of a strategic plan for process improvement
• A draft of a tactical improvement plan
• A draft of a management team charter
• A draft of a process group charter
• A draft of an adoption measurement plan
Launching the Adoption -1

Purpose
• To understand how to enable people to appreciate their new roles and responsibilities and how to honor them
Launching the Adoption -2

Outputs

• Detailed plans for educating, training, developing skills, and ensuring key people are successful in performing their new roles and honoring their new responsibilities

• Detailed plans for how improvements link with the execution of current operational plans so that workers are not caught between honoring incompatible customer and improvement commitments.

• Charters for initial process-improvement deployment teams that will address the selected improvement areas

• Process improvement kickoff events
CMMI Getting Started Roadmap process flow w/outputs

Preparatory Planning
- Workshop Schedule
- Initial Participant list for Workshops

Initiating CMMI Adoption
- Mapping business strategic goals to Process Improvement goals
- Draft of measurable Process Improvement objectives
- List of candidate Process Group members

Preparing for CMMI Adoption
- Organizational SWOT for Process Improvement
- List of process improvement risks
- Starter set of risk mitigation actions

Tailoring CMMI
- Detailed technical study of relevant CMMI Process Areas
- Detailed list of adoption risks

Planning for CMMI Adoption
- Drafts for:
  - Strategic Process Improvement plan
  - Tactical Process Improvement plan
  - Management team charter
  - Process group charter
  - Adoption measurement plan

Launching the CMMI Adoption
- Detailed plans for:
  - Educating, training, developing skills
  - Charters for initial process action teams for the selected improvement areas
  - Process improvement kickoff events
**Goals of Getting Started Roadmap**

*CMMI* aims at improving process capabilities *and* institutionalizing them to allow for tangible and sustainable benefits.

*CMMI Getting Started Roadmap* provides you with all components that are needed for

- determining your readiness/risk areas associated with adopting CMMI
- establishing the infrastructure for a successful process improvement program

The Readiness Analysis phases focus on achieving:
- Shared understanding & alignment of business needs and improvement goals
- Agreed & measurable success criteria for your improvement journey
- Gap-analysis with regard to CMMI
- Organizational readiness analysis for the improvement journey

The Improvement Infrastructure phases focus on achieving:
- Tailored improvement strategy and improvement plans
- Tailored improvement infrastructure to support sustained improvement effects
If you’re not ready for Infrastructure…

If, after the Readiness Analysis phases, you determine your organization is *not* ready for infrastructure building,
• You can do the “1\textsuperscript{st} wave” improvements with minimal infrastructure to get more information about what will be needed for long term sustainment of your improvement effort
  - Called Option 1
Overview Part 1: Multi-Dimensional Readiness Analysis

Multidimensional Readiness Analysis

Align with Business Strategy
Align with Organizational Characteristics
Analyze Process Gaps

Are you ready for infrastructure?

YES

NO
Overview Part 2: Infrastructure Planning/Pilot Implementation

Multidimensional Readiness Analysis
- Align with Business Strategy
- Align with Organizational Characteristics
- Analyze Process Gaps

Implement Improvement Infrastructure
- Plan Infrastructure
- Launch Adoption

Trial Use
- Plan Pilot Details
- Implement Pilot Improvements
- Evaluate Improvements

READY!

GO!
What if You’re Not Ready?

We’ve encountered organizations who, after readiness analysis, determine that they’re not ready for infrastructure building, for any of a number of reasons.

“Option 1” allows you to continue making progress with process improvement for a short time while you improve your readiness to build and implement sustainable process improvement infrastructure

Are you ready for infrastructure?

NO!
RGS Overview Option 1: Trial Use before Improvement Infrastructure

Multidimensional Readiness Analysis
- Align with Business Strategy
- Align with Organizational Characteristics
- Analyze Process Gaps

Abbreviated Readiness Analysis
- Readiness Analysis 2

Trial Use
- Plan Feasibility Pilots
- Implement Pilot Improvements
- Evaluate Improvements

NOT READY!

RE-EVALUATE READINESS!
Example Group Activities

• Derivation of improvement goals from business goals

• Successful improvement and unsuccessful improvements
Next Steps

Have used these concepts and workshops in different business and operational settings

Research continues in how these concepts and workshops can be adapted in different organizational settings.
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