Pilot Projects: “Do They Work for CMMI Implementation?”

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Why Pilot?

Organizations use Pilots for several reasons the following:

- To get the data to make an informed decision about next steps in the improvement efforts
- To build buy-in for the change
- To control the learning curve

Lessons Learned

- Define business benefits upfront
- Specify business metrics
- Use the metrics to measure business performance
- Establish accountability for achieving business benefits and ROI from Pilot Solutions
Can Pilots Work for Initial CMMI Roll Out?

Pilots are specifically mentioned in the following CMMI Process Areas:

- Organizational Process Focus (Level 3)
- Decision Analysis and Resolution (Level 3)
- Organizational Innovation Deployment (Level 5)

Organizations general transitions from CMM to CMMI, include:

- CMM Levels 2-3 to CMMI Levels 2-3
- CMM Levels 3-5 to CMMI Levels 3-5
- No previous CMM experience to CMMI
  - This requires great efforts
  - Little stability in process to determine what works and what doesn’t work - Any process analysis discussion becomes personal and defensive
Pilot Roll Out Selection Criteria

Striking a Balance To Achieve Custom Solutions

Full Life Cycle Development

Pros (+)
- Best-fit Business Processes
- Best-fit Technical Infrastructure
- Tight Control Over Quality
- Good Documentation
- Capitalize on Latest Technology

Cons (-)
- More Costly
- Slower to Deliver
- Requirements Management Difficult to Enforce

Transfer Solution

Pros (+)
- Faster to Implement
- Less Costly Up-front
- Proven Solution

Cons (-)
- Back-end Cost (Customization)
- May Not Fit Current Technology Infrastructure
- Based Upon Aging Technology
- Users Need to be Trained in New Processes / Workflow

Striking a Balance To Achieve Custom Solutions

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Why Accelerate Process Implementation?

Organizations cannot afford to wait while bureaucracy plays itself out, especially over long trail/pilot cycles.

The consequences can be overwhelming:
- Projects over cost and over schedule
- Extensive overtime
- Confusion
- Loss of staff
- Misdirection
- Distrust
- Frustration

By accelerating the process improvement effort and getting processes in place quickly, an organization can concentrate on improving their processes over time and still remain competitive in a business environment.
Prerequisites to Any Improvement

- A real understanding of your organization
  - Business drivers
    - Why does the business want or need to improve?
- Senior management support
  - Visible demonstration of commitment
  - No hidden agendas
- Make it clear you are NOT improving people
- Realistic expectations
  - What have other similar organizations achieved?
- Readiness and capability to improve
  - Are you ready to make improvements?
  - What are you capable of taking on?
A Word for a Phased Roll Out

Prioritization
- Not practicable to roll out all processes at a time
- CMMI Continuous Representation allows progress to be acknowledged at the Process Area level via a Capability Level

'Big Bang' approaches accentuate risks
- Impractical and can render unviable

Phasing enables testing and fine-tuning
- Start and improve versus start, stop, analyze, and convert
  - Accept 80% stability and fine tune the last 20%

Provides an opportunity to experience benefits
- Enables early organizational gains

Allows phasing of investment and resources to project

Without a compelling value statement, cost becomes the ultimate determinant of value
Holistic Approach for Phasing Roll Out

Provide a solution that satisfies ongoing Company Level and Project Level business needs

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Criteria Aligned with Business Objectives

- Potential vs Risk
- Cost vs Efficiency
- Effort vs Impact
- Throughput vs Complexity

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A Pragmatic Pilot Approach

Five Common Elements exist in a Pilot, regardless of the organization’s process maturity:

- Process – It’s what you do; formal or informal. Improvement is always possible.
- Infrastructure – Some structure exits or the organization would not exist
- Leverage – Every organization has some “pockets of excellence”
- Organization Change Management – People’s response to change occurs at all maturity levels in varying degrees of acceptance
- Training – Learning organizations focus on business needs and provide abilities to maintain an established process asset
Why should you focus on process?

- **Improved Predictability**
  - More accurate projections of revenue

- **Increased Control**
  - More precise understanding of business development costs

- **Enhanced Efficiency and Effectiveness**

- **Improved management visibility into business development**
  - Decide where value is being lost in the current process steps
  - Involve ultimate users of the new process in all phases from design to acceptance to ensure ownership of completed process

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*Only way to get widespread early use is to remove the redundant processes – fast!*
Infrastructure

Infrastructure is the underlying framework which supports the organization’s process:

- Policies
- Standards
- Training
- Facilities
- Tools

Establish/Identify the support structure for involvement and ownership/commitment to change

Establish communication

- Open and honest

Make it clear what is valued

- Feedback
- Leadership by example
  - People will do what their manager values
Leverage

Capture current practice (whenever possible)

- Identify best practices and build upon them
  - Every organization has some process that works really well – why?
- Don’t design “Yet another process”

Identify weakest link in any process

- Strengthening any link other than the weakest is a waste of time and effort

Leverage existing standards and infrastructure wherever possible and only create new standards and infrastructure where required
Organizational Change Management

- When implementing a new process or program, ask, “What behaviors need to change?”
  - Big difference between “Initiation vs. Implementation”
- Understand nature and range of resistances
- Drive change from your business objectives
  - Keep focused – Clear targets
  - Don’t get seduced into compliance with any model
  - Plan with those affected
    - You need systematic approaches
    - Ensure frequent reviews
  - Often difficult for a Level 1 organization
- Keep it simple - at first
  - Ensure some quick wins
  - Make it relevant to people (projects)

Balance long term strategy with short term needs
Culture is the Biggest Barrier

- Collective behavior rules
- Culture bleeds through new structures and processes
- Need critical mass to change
- Leadership models the real values and norms
Resistance to Change

Cognitive/ amenable to some control
- Lack of information
- Lack of skills
- Lack of resources
- Lack of support

Emotional/ beyond direct control
- Anxiety
- Perceived threats to status
- Perceived threats to power
- Fear of failure
- Lack of trust
- Unwillingness to take risks
- Underlying culture and norms

Build culture change into the business strategy

> “The way we do things here”
Sustainable performance requires continuous training

Any new process change should be coupled with the appropriate training (GP2.5)

✓ Plan for institutionalization from the beginning
Critical Success Factors

- Effective Project Management
- Timely Decisions and Resolution of Issues
- Availability of Resources When Needed
- Executive Support (Both Real and Perceived)

The #1 Most Documented Critical Success Factors are ...

- Change Management
- Communications
- End-User Training
How do I Prioritize, Focus and Align?

“The main thing is to make sure that the main thing stays the main thing.”

James Barksdale
The Markel Foundation
(Task Force on National Security)
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