

High Velocity Performance Improvement

CMMI® Technology Conference and User Group

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Administrivia

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- Who I am:
 - Chief Engineer, Jacobs Technology, Inc./ITSS
 - SCAMPI Lead Appraiser
 - (Lean) Six Sigma Black Belt
 - Certified Scrum Master
 - Member, NDIA Systems Engr Steering Committee
 - Member, NDIA CMMI Working Group
 - Member, CMMI-SVC Advisory Group
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What does “High Velocity” Mean?

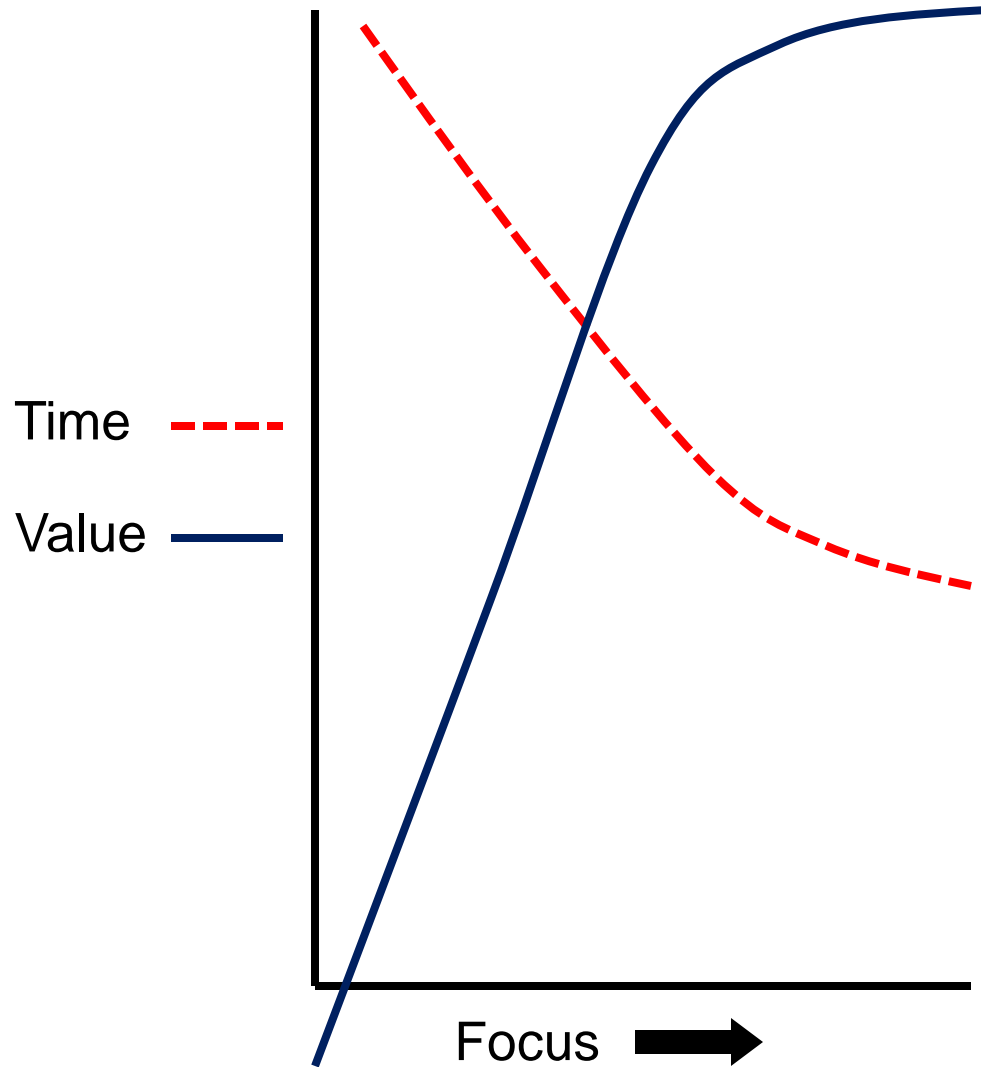
- Velocity = Speed and direction
 - Speed: improvement speed
 - Direction: Performance and quality objectives
- How high : What makes sense for the business
- Example:
 - Performance Objectives:
 - Negotiated schedules are estimated and met with no more than a 10% variance
 - Financial costs within a 10% variance
 - Customer survey scores of 90+% satisfaction
 - Delivered product and development iterations meet or exceed committed requirements 100% of instances
 - Customer sign off occurring within 1 week after project completion
 - 11 Months to achieve goals and ML3

Impediments to High Velocity

- Lack of focus (objectives, issues, scope, etc.)
- Lack of leadership
- Processes not owned by “doers”
- Immature process culture
- Misunderstanding of CMMI and other approaches

Lack of Focus

- Focus on a Maturity Level
 - Incredible inefficiencies at the Specific Practice level
 - Little or not business context for practice interpretation
 - Little or no idea of “what you want to be when you grow up”
- No or vague objectives for the performance improvement effort
- Insufficient Leadership commitment to achievement of objectives



Lack of Leadership

- This is NOT “Allowing” the organization to improve
 - Resources, personnel, money
 - Some level of process/work product review
 - Support for organizational change
 - Approval and support of process changes
- Direct, active involvement is key
 - Tie effort to real business objectives and issues
 - Be demanding of results in a meaningful time frame
 - Set high level performance and quality goals
 - Get “heroes” and key personnel directly and personally involved

LEADERSHIP is key....

Process Owners not Process Doers

- Levels of removal from process ownership
 - Hire a professional to come in and write your processes (increasingly rare)
 - Form an SEPG of “process people”
 - Buy-in strategies
 - Dealing with “heroes”
 - Mandates for use of processes (!)
- Ownership by process “doers”
 - Charge the “heroes” with leading performance improvement
 - Exactly as intended by Lean Thinking
 - Make performance improvement everyone’s job

Immature Process Culture (indicators)

- Little/no examples of following recorded processes
- QA audit results are buried (or worse)
- Metrics are not collected, or are not accurate
- Project and organizational decision are made “close to the chest”
- Poor communications among team members and across the organization

Misunderstanding of the CMMI

- Required Components = Generic and Specific Goals
- Expected Components = Generic and Specific Practices
 - Write Alternative Practices if the Business Context warrants it
- Information Components: Everything else
 - Select, interpret, and apply in the BUSINESS CONTEXT of the organization or project

What Enables High Velocity?

- Remove impediments:
 - Fanatical focus on objectives
 - Strong, involved leadership
 - Processes owned by “doers”
 - Mature process culture
 - Appreciate the CMMI and other approaches
- Add Lean Thinking/ Agile
 - Lean/agile processes/services
 - Lean/agile performance improvement framework

Lean/Agile process and improvement framework

WORK TOGETHER

Lean/Agile Processes/Services

- Constant focus on customer value
- Waste elimination from processes
- Service or development Iterations
- Potential for synchronization of activities
- Agile Project or Service Management
- Rapid learning (organizational learning)
- Skilled development or service teams
- Lean process/services support rapid improvement
- Process ownership by the process “doer”
- Visualization of process architectures and service outcomes
- Kanban decision making wherever possible

Lean/Agile Performance Improvement Framework

- Benchmark Kaizens
- Value Stream Mapping for initial or improve workflows
 - And basis for technology implementation
- Concurrent/parallel improvement projects
 - Parallel cohesive activities
 - Information flow
- One week to one month process iterations
 - ?What about process stability?
- Agile Improvement Project Management
- Rapid organizational learning (also helps deployment)

QUESTIONS?