Agile Resiliency

How CMMI will help Agile thrive and survive

TODAY
Has your customer (or manager) ever said:

• Let’s be more Agile. But how about we only have a “weekly” standup?

• Let’s transition all of our projects “over to Agile.” By November. 2013.

• Sure, go ahead and be agile . . . Just don’t bother the customer.


WHAT THE *#$%&!! Does That Mean?
Welcome back my friends … to the show that never ends!

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Certified Lead Appraiser
Certified CMMI Instructor
Certifiable Blogger, Twitterer, and social media fanatic
Airplane Builder (and test pilot)
Scrum Master
Author of AgileCMMI

http://www.askTheCMMIAppraiser.com
http://www.broadswordsolutions.com

“You cut through the noise and get us to the solution”
- Client who named our company “Broadsword.”
Appraisals – Training – Consulting – Accelerators

http://www.broadswordsolutions.com/resources
This event will be more interesting if you . . .

Participate! Ask questions! Make comments!

If you’re shy you can also ask questions on my blog http://asktheCMMIAppraiser.com and I’ll answer within 24 hours.
CMMI or Agile: Why not embrace both!

SEI Technical Report

Hillel Glazer, Jeff Dalton, David Anderson, Mike Konrad, Sandy Shrum
SEI Technical Publication CMU/SEI-2008-TN-003

http://www.sei.cmu.edu/publications/documents/08.reports/08tn003.html

www.broadswordsolutions.com/resources.php
CMMI vs. Scrum? No!

CMMI + Scrum
The CMMI is not a death-march that saps your powers and transforms you in zombies . . . .
Successful Agile is not free-for-all where self organizing teams do whatever they want!
Both CMMI and Agile are about solving problems

- Requirements change too often
- Projects are late and over budget
- Frequent staff turnover
- Can’t understand risk
- In the dark about project status
- Too many meetings
- Customers unhappy
- Customers discovering defects
- Projects are unpredictable
Think of both as “levers” that change behavior

Want to change an outcome?

Change the right upstream process and you’ll see something different come out the other end.

But tread carefully – unintended results are likely to occur
Agile success has attracted a few small, new adopters . . .

The DOD is actively pursing agile adoption, and working with the SEI on research.

The VA is already having organic success with Agile.

General Motors alone has announced it is going to insource IT by hiring thousands of IT professionals, and “Agile” will be front-and-center.

The Federal Government and General Motors will be the world’s largest purchasers of Agile IT Services.
These large-scale adopters will drive the standard

“Danger! Danger! Agile will change!” **

HINT #1: “Waterfall” was not created to be heavy, burdensome, and document focused with mind-numbing, soul-killing processes.

It evolved to meet the information needs of the large scale adopters who were ALREADY running their businesses this way!

HINT #2: They are still like this!

** or as we say in Detroit: “Suppliers don’t change GM. GM changes suppliers.”
“What we need is a useless, rigid and audit-driven death-march that turns us into zombies and forces us into slave-like adherence to THE PROCESS”

Said No One. Ever.
These large adopters will make under-educated demands

You’ll be Agile by Tuesday – and you’ll like it!

I want my MS Project Work Breakdown Structure!
The challenge with Agile is that while we’re all off iteratin’ the biz is all off waterfallin’

@CMMIAppraiser
Agile teams don’t use process, right?

Planning Poker
PP SP1.1, SP1.2

Refactoring
REQM SP1.5

Value Velocity
PMC SP1.1

Sprint Demos
VAL SP2.1, RD SP3.1

Pair Programming
VER SP2.2

Test-Driven Development
RD SP3.4, SP3.5

Many Agile teams embrace TECHNIQUES, but do not have a Resilient Agile Architecture
What is Agile Resilience?

re·sil·ience  [ri-zil-yuhns, -zil-ee-uhns]

noun
1.  
the power or ability to return to the original form, position, etc., after being bent, compressed, or stretched; elasticity.

2.  
ability to recover readily from illness, depression, adversity, or the like; buoyancy.
Agile Resilience 3-Tiered Architecture

**Values** include “Fail fast, iterative and incremental, collaboration, focus on people, continuously improve.”

**Methods** include Scrum, XP, Kanban, Spiral, Crystal, RUP, etc…

**Techniques** including “Planning Poker,” “Daily Standup,” “Retrospectives,” “Sprint Demo,” “Story-time”
Agile Resilience 3-Tiered Architecture – Risk / Issues

**Incrementally deal with issues and risk**

Values include “Fail fast, iterative and incremental, collaboration, focus on people, continuously improve.

**Scrum**

Methods include Scrum, XP, Kanban, Spiral, Crystal, RUP, etc…

**Daily Standup**

Techniques including “Planning Poker,” “Daily Standup,” “Retrospectives,” “Sprint Demo,” “Story-time”
Agile Resilience 3-Tiered Architecture - Estimating

**Values** include “Fail fast, iterative and incremental, collaboration, focus on people, continuously improve.”

**Methods** include Scrum, XP, Kanban, Spiral, Crystal, RUP, etc…

**Techniques including** “Planning Poker,” “Daily Standup,” “Retrospectives,” “Sprint Demo,” “Story-time”
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<tr>
<th>Level</th>
<th>Focus</th>
<th>Process Area</th>
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<td>5 Optimizing</td>
<td>Continuous Process Improvement</td>
<td>•Organizational Performance Management •Casual Analysis &amp; Resolution</td>
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<tr>
<td>4 Quantitatively Managed</td>
<td>Quantitative Management</td>
<td>•Organizational Process Performance •Quantitative Project Management</td>
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<td>3 Defined</td>
<td>Process Standardization</td>
<td>•Requirements Development •Technical Solutions •Product Integration •Verification •Validation •Organizational Process Focus •Organizational Process Definition •Organizational Training •Integrated Project Management •Risk Management •Decision Analysis &amp; Resolution</td>
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<td>2 Managed</td>
<td>Basic Project Management</td>
<td>•Requirements Management •Project Planning •Project Monitoring &amp; Control •Supplier Agreement Management •Measurement &amp; Analysis •Process &amp; Product Quality Assurance •Configuration Management</td>
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Let’s turn CMMI on its head….
• Don’t FOLLOW the CMMI

• Don’t be COMPLIANT with CMMI

• DO ask “the CMMI Questions” *
  - How are we doing?
  - How does it work?
  - How do we know?
  - How much is enough?
  - Do we know how to do it?
  - Do we know when to do it?
  - What’s the plan?
  ....

* See my Cutter IT article “Scrum + CMMI!”
Strengthening Agile Values

• You can use the CMMI to help establish Agile Values across the enterprise by answering the questions and using the guidance from these Process Areas:

  - “Is everyone clear what we want them to do?” (GP2.1)

  - “Are we training our people enough? How are we training?” (OT)

  - “Are the values clear to everyone? Do they understand?” (OPD, GP2.1)

  - “What’s the plan for ensuring people understand them?” (OPF, OT)

  - “What is expected of me?” (GP2.1, OT)
Strengthening Agile Methods and Frameworks

You can use the guidance in the CMMI to help establish a set of *Agile methods and frameworks* by answering the questions and using the guidance from the following Process Areas:

- “What’s the plan for rolling this out across the enterprise?” (OPF)
- “Which methods are we supporting and why?” (OPD)
- “What’s the plan for getting everyone up to speed?” (OT)
- “Which projects use which methods, and why?” (IPM)
- “How long are our sprints?” “How many sprints are in a release?” (PP)
- “How do we measure velocity?” (MA)
Strengthening Agile Techniques

- You can use the guidance in the CMMI to help establish a set of Agile techniques by asking the questions and asking the questions from the following Process Areas:

  - “What’s the plan for rolling all of these techniques out and using them?” (OPF, IPM)

  - “Which techniques will we be able to support with tools and other resources?” (OPF)

  - “How are we going to teach everyone how to use them?” (OT)

  - “Which projects use which techniques and why?” (IPM)

  - “What design and coding techniques are we going to use?” (TS)

  - “Where are planning poker decks?” (PP, GP2.3)
Strengthening Agile Resilience across the Enterprise

The CMMI give us tools

To make **IMMEDIATE** improvements

Here’s NINE of the them for you to take back to your office today!

The key to strengthening the *Resilient Agile Architecture*, and being a good “*Agile Citizen,*” is in these “Practices”
**Agile version:** Are we setting clear expectations across the enterprise which Agile values, methods, and techniques will be deployed and adopted?

Processes are the behaviors of real people and events – not documents! People need to know what is expected for them to be successful.

You can help them by clearly setting those expectations.
Agile version: How should we carefully plan the roll-out and deployment of Agile values, methods, and techniques? Should we use Agile to deploy Agile?

Processes are made up of roles, events, and work products. All of these things require planning to be successful.

For instance, code reviews can improve code quality. They include people, events, and work products. Plan them out to get maximum value.
Agile version: What are the right tools and facilities to successfully deploy Agile values, methods, and tools?

Processes represent real work that needs to get done, and it takes tools, equipment, money, and other resources.

For instance, if you were performing as an administrative assistant, you might need some of the resources pictured above. If you are a member of a Scrum team, you need a team room, board, sticky notes, or software.
**Agile version:** Does everyone know the Agile values, methods, and techniques well enough to teach them?

The productivity difference between a new trained team member, and one who is dropped into the fire? Really High.

If that’s not enough to convince you, there’s nothing I can do!
CMMI Version: ID and Involve Relevant Stakeholders

**Agile version:** Who do we need to collaborate with (and when), and who needs to participate at each event? How do you we know if they do? (Hint: TeamScore – it represents project risk!)

Remember GP2.2 “Plan the Process?” Now here’s your chance? Who are the people, and did they participate (curious minds are dying to know!)?

Stakeholders who do not participate as planned are injecting risk into the project, and, well, I just don’t like that.
Agile version: How well is our team performing? How do we communicate that to non-agile leaders from accounting, marketing, and management?

Remember GP2.2 “Plan the Process” (again?). That pesky practice keeps coming back. How are we doing? Are Agile values, methods, and techniques WORKING?

Because if they’re not working, we should change it!
CMMI Version: Objectively evaluate adherence

**Agile version:** Are people living up to the values? Are they using the techniques? Are they adhering to the methods?

How are Agile values, methods, and techniques working? Are people using it? If not, why not?

This is less an “audit” and more mentoring. Don’t turn into the process police.
Agile version: Does management care about how we work? Tell them! This is about operations AND Politics!

Are we getting the results we hoped for? Why? Why not? What are the issues?

Management does a great job of reviewing PROJECT information, but when it comes to PROCESS information . . . Uh, not so much.
Agile version: How will the project down the hall benefit from the lessons we have learned?

Many companies collect lessons learned... into a black hole on a network drive.

Don’t make that same mistake. Build a SYSTEM to ensure OTHER projects learn from your mistakes.
Anti-Pattern Insanity! (Bob Hartman, aka “Agile Bob”)

Never meeting Iteration commitments

- Look to Practices in Project Planning, Project Monitoring, Requirements Management, Requirements Development for ideas on a additional strengthening

Testing Late

- Look to Practices in Verification, Validation, Project Planning, Technical Solutions, and Product Integration for ideas on additional strengthening

Poor Estimating

- Look to Practices in Project Planning and Integrated Project Management for ideas on additional strengthening

Not Trying to Improve

- Look to Practices in Integrated Project Management, Organizational Process Development, and Generic Goal Three for ideas on strengthening

Not Assigning Action Items

- Look to Practices in Project Planning and Project Monitoring and Control for ideas on additional strengthening

http://www.agileforall.com/2009/06/03/agile-antipattern-insanity-5-insanity-antipatterns/
“Disciplined Agilists produce consumable solutions, not just potentially shippable software”

Scott Ambler
The Agile Process Manifesto

- Innovation
- Useful Processes
- Collaboration
- Flexibility & Agility

Outweighs

Outweighs

Outweighs

Outweighs

- Process Mandates
- Certifications & Audits
- Coercion & Punishment
- Rigid Compliance
Both Agile and CMMI are intended to make you GREAT. Why not embrace both?

Make Agile Resilient and Scalable by adopting CMMI – and make your organization great!
Other sightings….

April 3, 2013  Washington, DC SPIN
April 26, 2013  PMI Symposium 2013 - Keynote Speaker!
May 8, 2013  Agile CMMI Learning Day - Fairfax, VA

Visit Jeff’s Amazon Author’s Page at to download these eBooks
For answers to your CMMI questions head over to:
http://www.asktheCMMIAppraiser
Twitter: CMMIAppraiser