

# ***Agile Resiliency***

**How CMMI will make Agile Thrive and Survive**



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**BROADSWORD**  
Process Innovation / at the *speed* of life



**CMMI Institute Partner**  
Powered by Carnegie Mellon



*Jolt Cola, skateboards, nothing written down .... Just code man!*

# 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 Novemb
- Sure, go ahead and be agile . . . Just don't bother the custome
- Be Agile. Be CMMI Level 3. Be ISO Certified. *By Tuesday.*



WHAT THE \*#\$\*%&!! Does That Mean?

**Welcome back my friends ... to the show that never ends!**

# Jeff Dalton

President of Broadword

CSM/CSPO

Certified Lead Appraiser

Certified CMMI Instructor

Certifiable Blogger, Twitterer, and social media fanatic

Airplane Builder

Author of AgileCMMI



<http://www.askTheCMMIAppraiser.com>

<http://www.broadwordsolutions.com>

**This event will be more interesting if you . . .**

**Participate! Ask questions! Make comments!**

You can also ask questions on my blog  
<http://asktheCMMIAppraiser.com>



## Download our Technical Report



# 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.broadsword solutions.com/resources.php](http://www.broadsword solutions.com/resources.php)

# Cutter IT Journal Article



## CMMI vs. Scrum? No!

## CMMI + Scrum

Cutter IT Journal

Download at [www.broadwordsolutions.com/resources](http://www.broadwordsolutions.com/resources)

...scrum









# 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



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## Agile success has attracted a few small, new adopters . . .



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



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 VA is already having organic success with Agile

**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.”*

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

## Sprint Demos

VAL SP2.1, RD SP3.1

## Refactoring

REQM SP1.5

## Pair Programming

VER SP2.2

## Value Velocity

PMC SP1.1

## 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

Nothing against FAST or DAD, but . . .



## ***“Guiding the work”***

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

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## ***“Managing the work”***

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

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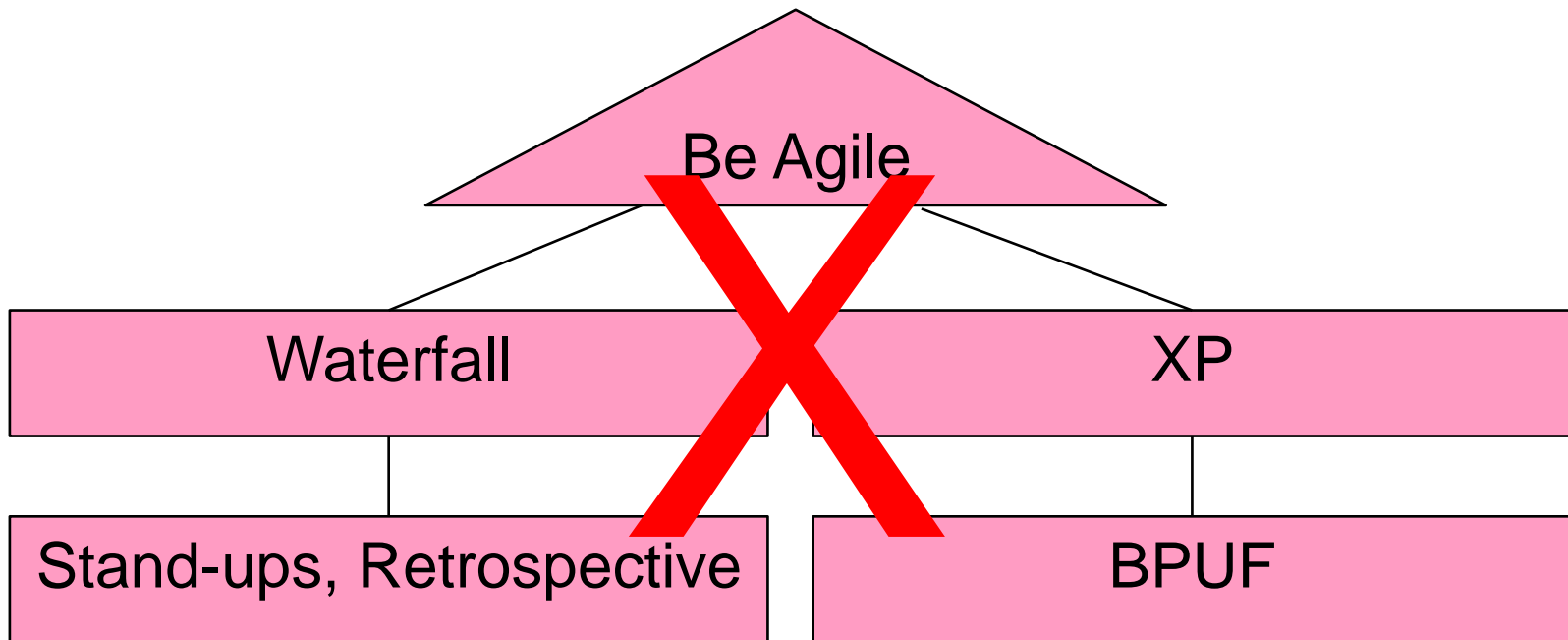
**Techniques**



## ***“Doing the work”***

**Techniques including** “Planning Poker,” “Daily Standup,” “Retrospectives,” Sprint Demo,” “Story-time”

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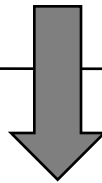


# Agile Resilience 3-Tiered Architecture – Risk / Issues



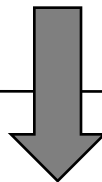
***Incrementally deal  
with issues and risk***

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



**Scrum**

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



**Techniques**



**Daily Standup**

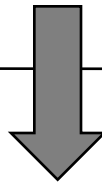
**Techniques** including “Planning Poker,” “**Daily Standup**,” “Retrospectives,” Sprint Demo,” “Story-time”

# Agile Resilience 3-Tiered Architecture - Estimating



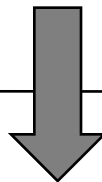
***Collaboratively  
estimate projects***

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



***XP / Scrum***

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



***Techniques***

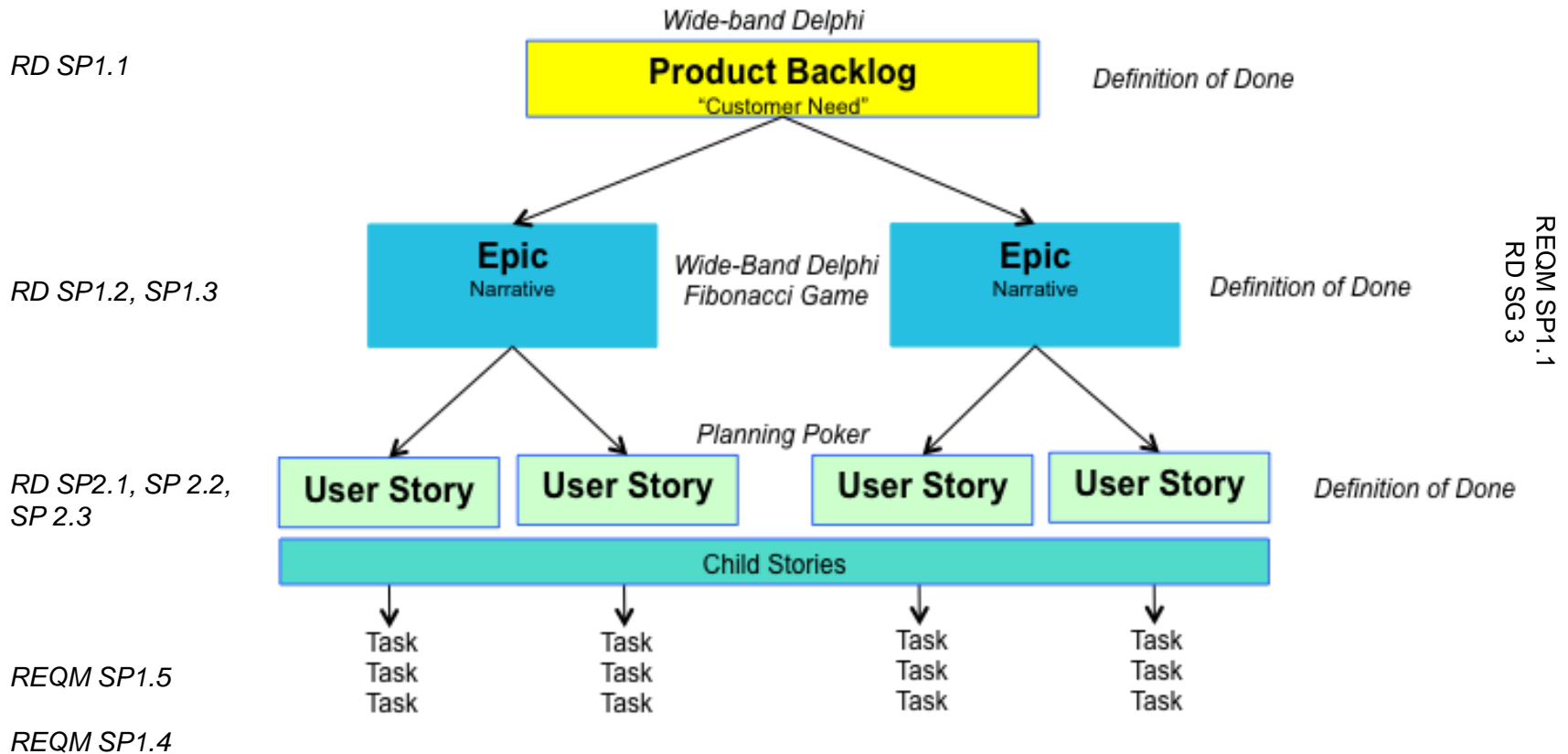


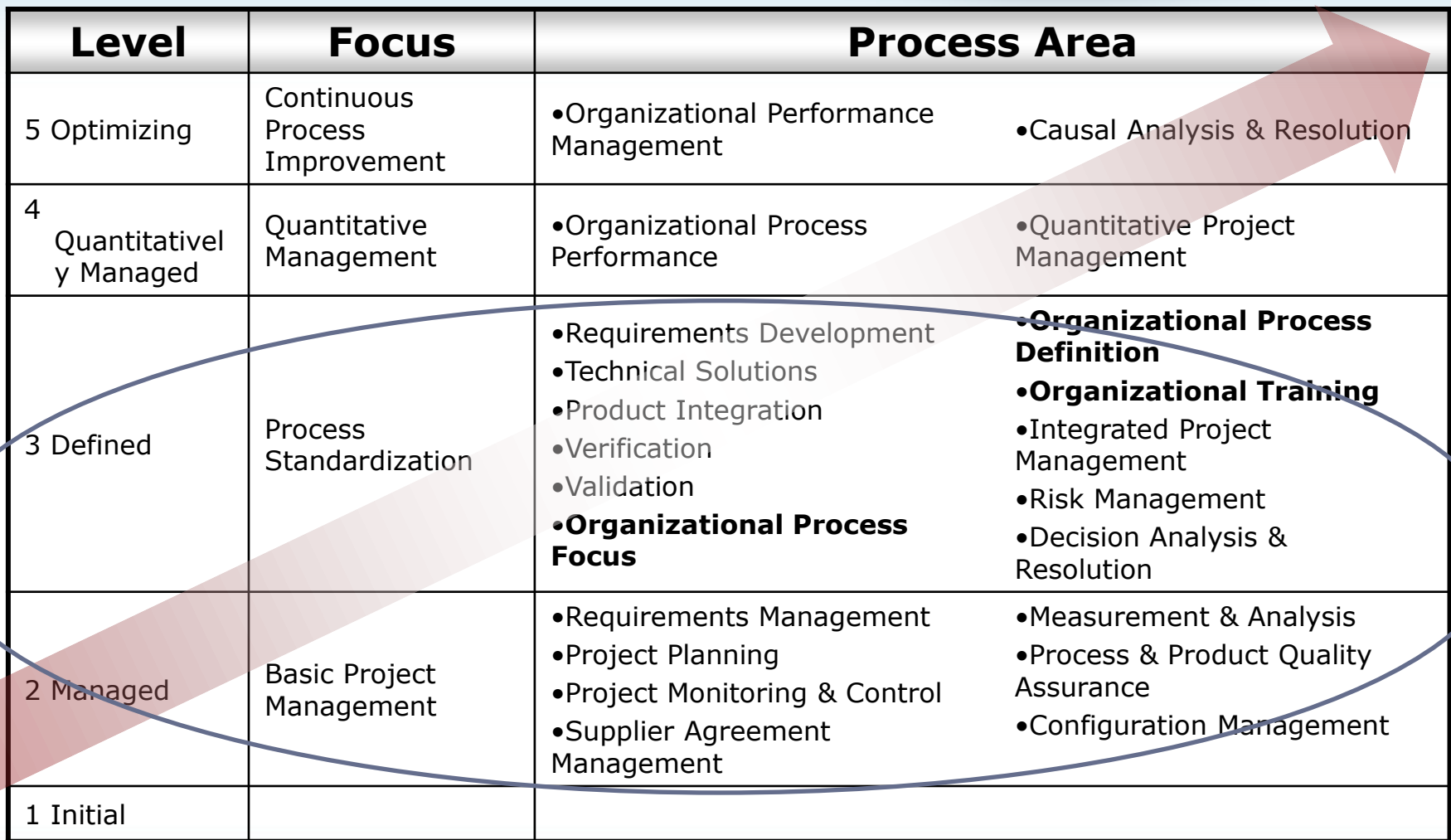
***Planning Poker***

**Techniques including** “Planning Poker,” “Daily Standup,” “Retrospectives,” Sprint Demo,” “Story-time”



# Yet another angle....





Level	Focus	Process Area	
5 Optimizing	Continuous Process Improvement	•Organizational Performance Management	•Causal Analysis & Resolution
4 Quantitatively Managed	Quantitative Management	•Organizational Process Performance	•Quantitative Project Management
3 Defined	Process Standardization	<ul style="list-style-type: none"> <li>•Requirements Development</li> <li>•Technical Solutions</li> <li>•Product Integration</li> <li>•Verification</li> <li>•Validation</li> <li>•<b>Organizational Process Focus</b></li> </ul>	<ul style="list-style-type: none"> <li>•<b>Organizational Process Definition</b></li> <li>•<b>Organizational Training</b></li> <li>•Integrated Project Management</li> <li>•Risk Management</li> <li>•Decision Analysis &amp; Resolution</li> </ul>
2 Managed	Basic Project Management	<ul style="list-style-type: none"> <li>•Requirements Management</li> <li>•Project Planning</li> <li>•Project Monitoring &amp; Control</li> <li>•Supplier Agreement Management</li> </ul>	<ul style="list-style-type: none"> <li>•Measurement &amp; Analysis</li> <li>•Process &amp; Product Quality Assurance</li> <li>•Configuration Management</li> </ul>
1 Initial			



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?

...

**TOP  
SECRET**

\* See my Nov '12 Cutter IT article “Scrum + CMMI!”

# Strengthening Agile Values

Use the guidance in the CMMI to help establish *Agile Values*:

📖 “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

Use the guidance in the CMMI to help establish *Agile methods and frameworks*:

📖 “Which methods are we supporting and why?” (OPD)

📖 “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

Use the guidance in the CMMI to help establish *Agile techniques*:

- 📖 “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)
- 📖 “Which projects use which techniques and why?” (IPM)
- 📖 “What design and coding techniques are we going to use?” (TS)
- 📖 “Where are the planning poker decks?” (PP, GP2.3)

# Agile Resilience 3-Tiered Architecture - REDUX



## ***“Guiding the work”***

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## ***“Managing the work”***

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**Techniques**



## ***“Doing the work”***

**Techniques including** “Planning Poker,” “Daily Standup,” “Retrospectives,” Sprint Demo,” “Story-time”

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**The CMMI give us tools**

**To make IMMEDIATE improvements**

**Here's  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*”

## CMMI Version: Establish an Organizational Policy

***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.

## CMMI Version: Provide Resources

***Agile version:*** What are the right tools and facilities to successfully deploy Agile values, methods, and tools?



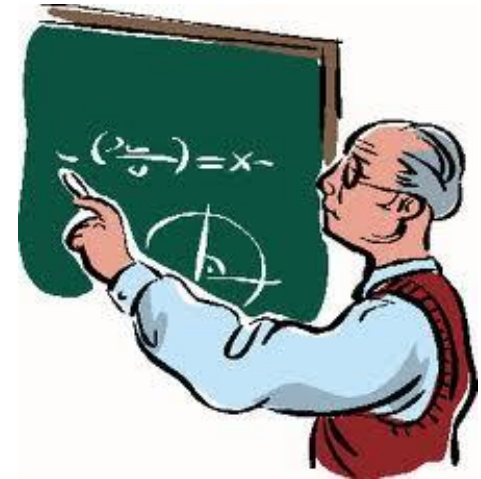
Processes represent real work that needs to get done, and it takes tools, equipment, money, and other resources.

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.



## CMMI Version: Train People

***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: Monitor and Control the Process

***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.

## CMMI Version: Review Status with Higher Level Management

***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.

# CMMI Version: Collect Process Related Experiences

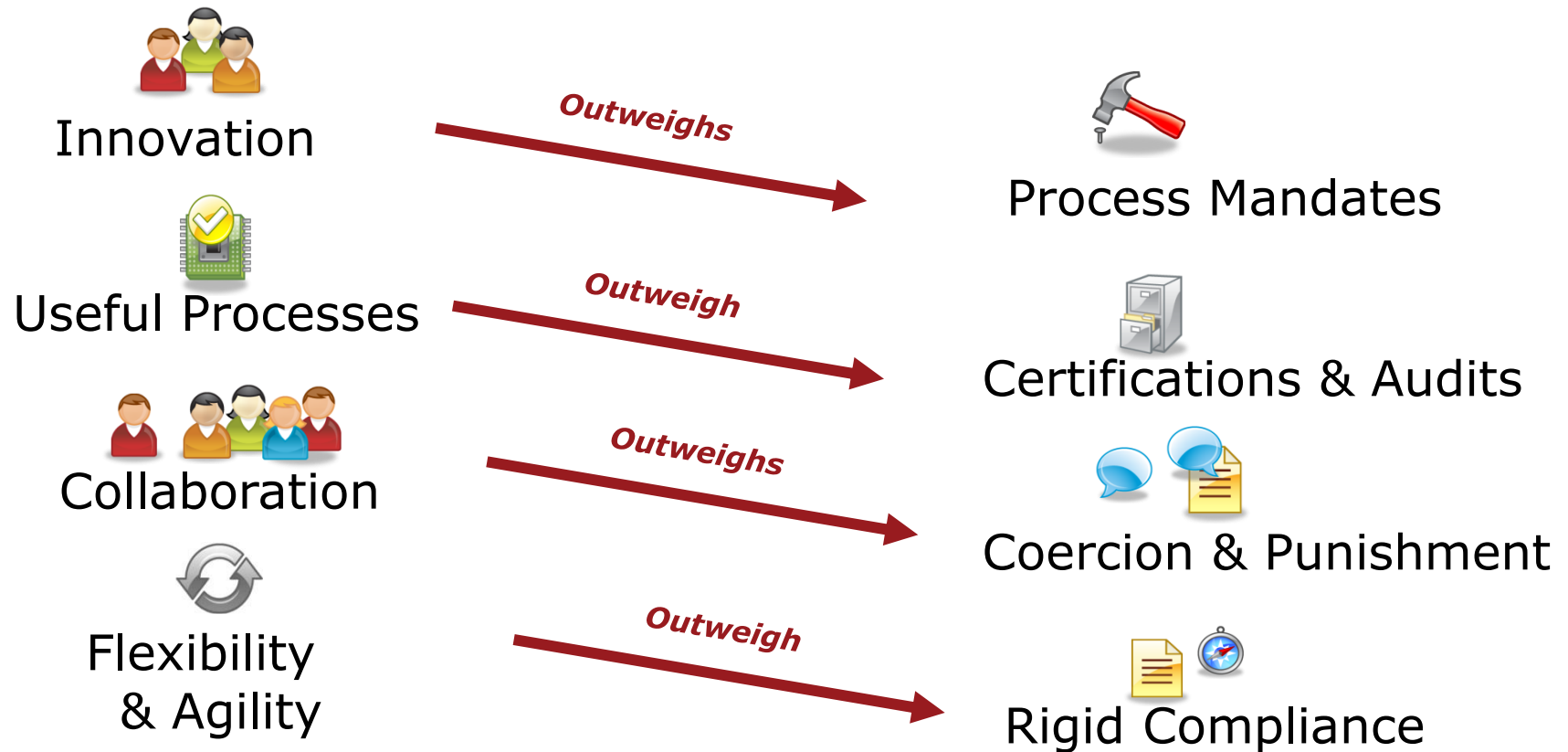
***Agile version:*** How will the project down the hall benefit from the lessons we have learned?



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.

# The Agile Process Manifesto© . . .







A story about a Rock Star, one very groovy M&M, and “Just Enough Process.”



“Disciplined Agilists produce consumable solutions, not just potentially shippable software”

*Scott Ambler*





Make Agile Resilient and Scalable by adopting CMMI  
and make your organization great!



<http://www.broadswordsolutions.com/resources>

For answers to your CMMI questions head over to:

<http://www.asktheCMMIAppraiser>

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