CMMI® Institute

AN ISACA ENTERPRISE

AGILE WITH SCRUM AND CMMI®

Working Together to Create True Organizational Agility

MEET OUR PANEL

Michael King

Chief Technology Officer

HALFAKER

CONTINUING TO SERVE

- Experienced technology leader within the Federal contracting industry
- Focuses on providing excellent technology solutions to customers and internal employees with the tools they need to serve their customers
- Previous role: Chief Operating Officer at Halfaker
- Bachelor's in Computer Engineering from UVA, Master's in Information Systems from Johns Hopskins
- Certification: PMP, PMI-ACP, and SAFe SA

MEET OUR PANEL

Jeff Dalton

President & CEO

BROADSWORD
Process Innovation at the speed of life

- Veteran technologist and leadership coach with over 30 years of experience
- Certified CMMI Lead Appraiser
- Principle author of CMMI Institute's "Guide to Scrum and CMMI: Improving Agile Performance with CMMI"
- Author of new book "Great Big Agile: an OS for Agile Leaders"
- Past titles include: Chief Technology Officer, Chief Technology Executive, VP of Product Development, CEO, and Agile Evangelist
- Past Organizations: Hewlett Packard, Ernst and Young, Polk, AgileCxO

MEET OUR PANEL

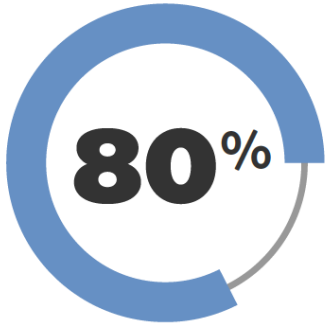
Ron Lear

Chief Architect & Director of IP Development

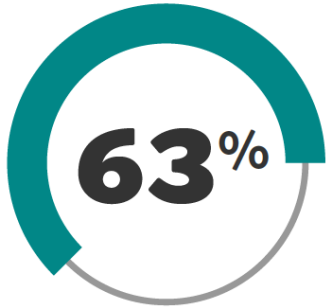
- Over 34 years of experience leading performance improvement, quality, and process management efforts
- Certified High Maturity Lead Appraiser (CHMLA) & CMMI Instructor
- Experienced Capability Maturity Model Integration (CMMI) consultant with over 300 appraisals completed to date
- Experience includes executive and management roles for product and solution development, service delivery, supplier management, Agile, DevOps, and CMMI High Maturity-based development and services efforts
- Chief Architect and core member of the CMMI V2.0 Development effort

AGILE IS…

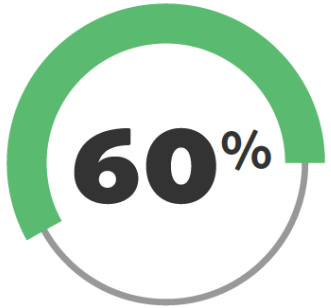
- A high-trust way of collaborating
- A commitment to a core set of agile values
- A focus on business value
- An assumption of good intention
- An agreement to share information openly and transparently
- Agreeing that no job is beneath you
- Self-organizing



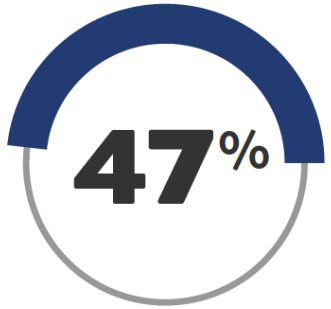
OF TEAMS ARE AT OR BELOW "STILL MATURING" WITH AGILE



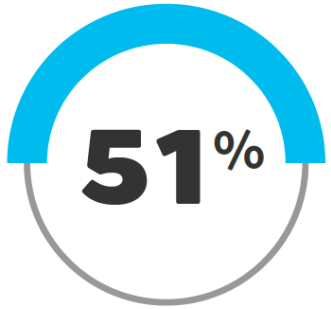
OF CORPORATE LEADERS HAVE A PHILOSOPHY THAT CONFLICTS WITH CORE AGILE VALUES



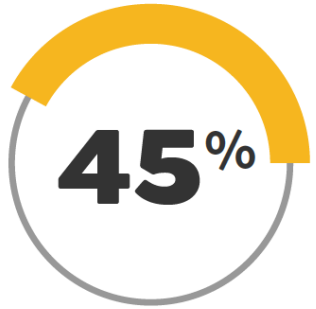
OF IT ORGANIZATIONS HAVE LESS THAN HALF OF THEIR TEAMS PRACTICING AGILE



OF TEAMS LACK EXPERIENCE WITH AGILE METHODS AND TECHNIQUES



OF TECH LEADERSDO NOT HAVE LEADERSHIP SKILLS NEEDED FOR LARGE-SCALE AGILITY



OF TEAMS LACK MANAGEMENT SUPPORT

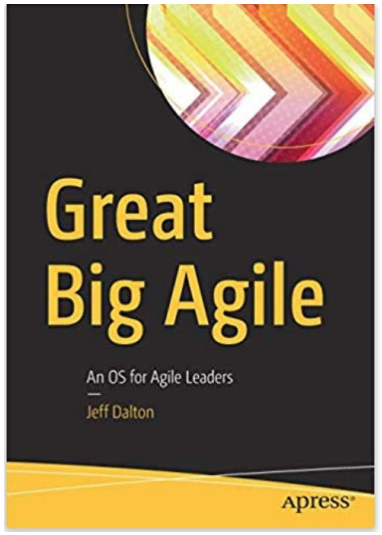
WWW.AGILECXO.ORG

Source: 2017 State of Agile Survey, & Agile CxO Partners Assessment of over 200 Organizations

CMMI® Institute
AN ISACA ENTERPRISE

THE AGILE PERFORMANCE HOLARCHY®

Define, deploy, project, and sustain agile values so that your team understands the expectations for organizational agility



LEADING: ENGAGING

As an agile "servant leader", I want to mentor and engage with Agile teams to ensure agile values are being embraced and remove impediments to their adoption.

VALUE: Teams/customers value regular personal interactions with leaders

QUESTION: Has the leader interacted with each team/customer once per week on Agile values?

INDICATOR: Number of exceptions reported by teams/customers*

Adopting Level Outcomes	Transforming Level Outcomes	Mastering Level Outcomes
* Agile values are traced to frameworks, ceremonies, and techniques. * Constraints and impediments are identified and eliminated.	* Agile teams use defined frameworks, ceremonies, and techniques. * Backlog that defines future state of performance is maintained.	* Leaders at all levels of the business use defined agile frameworks, ceremonies, and techniques in their everyday work.

LEADING: ENABLING

As an agile servant leader, I want to design and deploy our set of Agile Keys so that my teams understand what is required to advance our performance level.

VALUE: Teams/customers believe leadership's role is to serve teams and help make them successful

QUESTION: Is the leader removing active impediments

INDICATOR: Impediments backlog burndown

Adopting Level Outcomes	Transforming Level Outcomes	Mastering Level Outcomes
* Agile performance levels are identified for each holon. * Agile Keys for each level are used as-is, or customized for local context.	* Agile teams are trained on Agile Keys. * Agile teams use Agile Keys to transform the way work is done.	* Heartbeat Retrospectives are held. * Improvements from Retrospectives are implemented.

LEADING: VALUING

As an agile leader, I want to define, deploy, project, and sustain agile values so that my team understands the expectations for organizational agility.

VALUE: Teams/customers believe leadership / the owner of organizational culture

QUESTION: Has the leader clearly defined the culture and values of the organization?

INDICATOR: Percentage of ceremonies and techniques that are aligned with values

Adopting Level Outcomes	Transforming Level Outcomes	Mastering Level Outcomes
* Agile values are selected and defined. * Agile roles and accountabilities are defined. * Agile ceremonies and techniques are defined. * Agile teams are trained. * Agile teams self-subscribe to established values.	* Essential stakeholders are engaged and demonstrate agile values. * Agile leaders are trained to live and project agile values. * Agile values are prominently displayed throughout each facility.	* Agile leaders at all levels are engaged in support of agile values. * Visual Information Management techniques are used to display project agile values. * Agile values are reevaluated, adjusted, and improved over time

LEADING: VISIONING

As an agile leader, I want to set and communicate a vision compatible with agile values so that we can develop a healthy Agile organization.

VALUE: Teams/customers believe leadership is projecting an Agile vision for the future

QUESTION: Do all team members understand the vision?

INDICATOR: Number of team members who can identify the cultural vision in a survey

Adopting Level Outcomes	Transforming Level Outcomes	Mastering Level Outcomes
* Current state of organizational performance is defined. * Future state is identified and displayed.	* SWOT is complete and published. * Backlog for future state exists in visual format. * Culture transformation release plan exists.	* Organizational performance sprints are executed. * Progress is visually displayed using VIM. * Impediments to organizational performance are regularly identified and removed.


“CMMI is an excellent choice for strengthening agile so that it can scale and succeed for projects of any size or complexity”
CMMI® Institute
AN ISACA ENTERPRISE

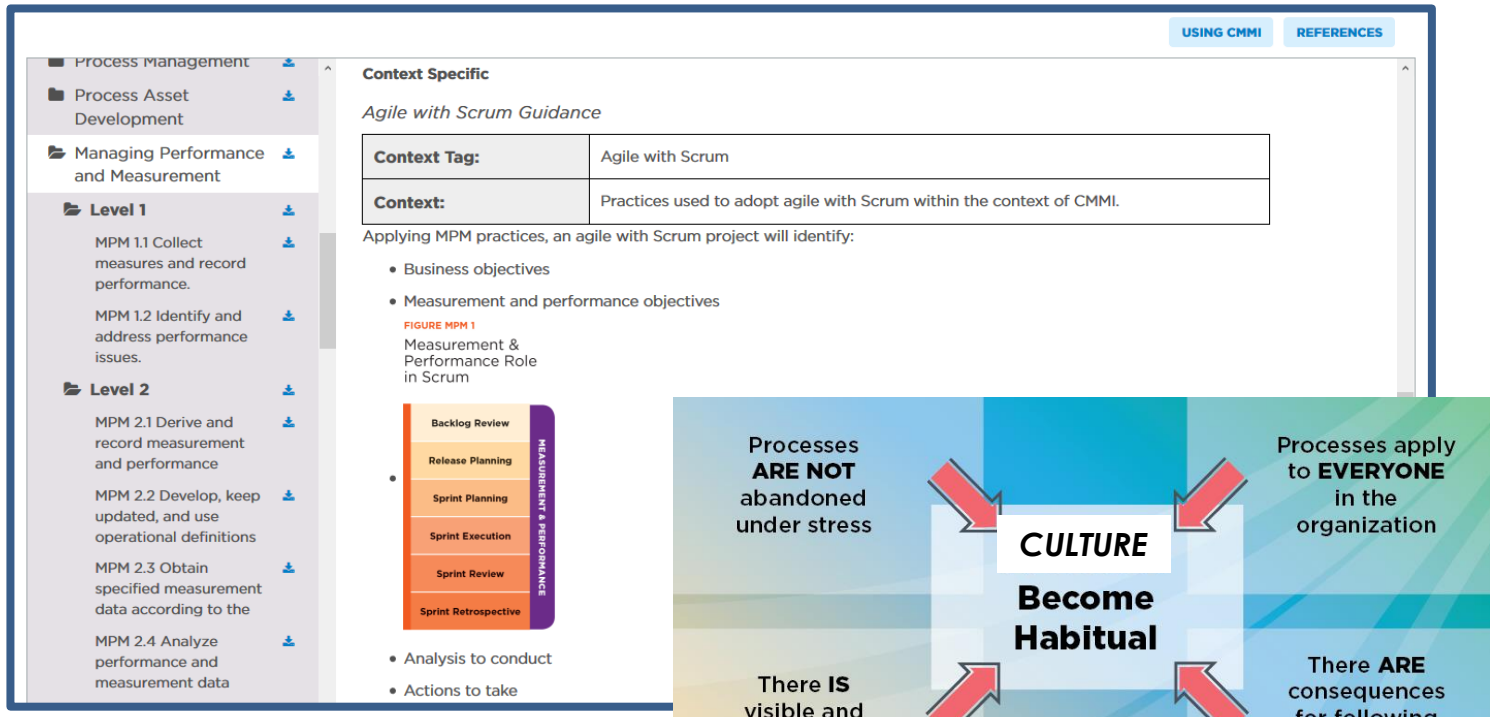
CMMI HELPS AGILE DELIVER ON ITS PROMISES

- In 2018, 80% of CMMI appraisals conducted around the world were by organizations using Agile development processes. They have found that CMMI:
  - Scales and strengthens Agile implementations
  - Brings disparate agile projects to an organizational level
  - Addresses business problems outside the scope of Agile approaches such as managing and delivering services and suppliers, configuration management, etc.
  - Ensures that improvements are continual and always performance-focused

PRACTICAL INSIGHTS TO ADOPTING CMMI

- New to the V2.0 Product Suite, we have a simple and straightforward 6-step approach to adopting the CMMI (or transitioning from V1.3)
- Multiple types of context specific information for Development, Agile w/Scrum, Services and Supplier Management with more to come, scalable and sustainable over time
- Open architecture that lets you fit the product suite to YOUR business needs – completely customizable to address key pain points and performance areas

USING CMMI V2.0 TO FACILITATE AGILE ADOPTION



Vision	Skills	Incentives	Resources	Action Plan	
●	●	●	●	●	Success!
	●	●	●	●	Confusion
●		●	●	●	Anxiety
●	●		●	●	Gradual Change
●	●	●		●	Frustration
●	●	●	●		False Starts

*Adapted from Delorise Ambrose, 1987. Personal Communication.

Processes, methods, and values, like Agile, are part of an organization's culture. CMMI V2.0 provides a proven and measurable means to improve both culture and performance simultaneously

FOR REFERENCE: CMMI V2.0 DIRECTLY ADDRESSES AND IMPROVES AGILE ENGINEERING EXCELLENCE PRINCIPLES* - 1

EE Principles 1-4	CMMI V2.0 Solutions
Our highest priority is to satisfy the customer through early and continuous delivery of valuable software	Methodology-agnostic best practices on customer satisfaction and value statements for each practice
Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage	Requirements Development and Management and Configuration Management Practice Areas for rapidly and consistently addressing customer changes
Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale	Inclusion and best practices for rapid development and agile with Scrum example activities and work products throughout the core V2.0 Practice Areas
Business people and developers must work together daily throughout the project	Holistic view of organizational Governance roles, responsibilities and practices that guide continual review with affected stakeholders throughout the development process

**12 engineering excellence principles from the Agile Manifesto*

CMMI V2.0 DIRECTLY ADDRESSES AND IMPROVES AGILE ENGINEERING EXCELLENCE PRINCIPLES* - 2

EE Principles 5-8	CMMI V2.0 Solutions
Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done	Extensive list of best practices, activities and work products for Organization Training, Planning, and Implementation Infrastructure and Governance to to ensure the support environment is sustaining habit and persistence
The most efficient and effective method of conveying information to and within a development team is face-to-face conversation	Techniques and proven practices emphasizing team interaction, Empowered Work Groups, F2F communication and Decision Analysis and Resolution
Working software is the primary measure of progress	Agile with Scrum and other development techniques Technical Solution, Product Integration best practices, continual Verification and Validation to get working software in front of users
Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely	Agile methods and techniques and an entire Capability Area around Sustaining Habit and Persistence (SHP) best practices for managing and maintaining progress

**12 engineering excellence principles from the Agile Manifesto*

CMMI V2.0 DIRECTLY ADDRESSES AND IMPROVES AGILE ENGINEERING EXCELLENCE PRINCIPLES* - 3

Principles 9-12	CMMI V2.0 Solutions
Continuous attention to technical excellence and good design enhances agility	Entire Capability Area of Engineering and Developing Products and multiple Practice Areas on technical excellence, design and agility
Simplicity–the art of maximizing the amount of work not done–is essential	Bidirectional alignment of requirements to end-user and customer needs to design and provide Minimum Viable Product and customer solutions
The best architectures, requirements, and designs emerge from self-organizing teams	Team-based, criteria-based, decision-making that drives Requirements Development and Management architecture, Technical Solution for design and Product Integration for integration and interface management
At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly	Planning, Monitor and Control, Managing Performance and Measurement, and Process Change Management all driving continual team improvement and learning

**12 engineering excellence principles from the Agile Manifesto*

HALFAKER: SCALING WITH CMMI AND AGILE

PROCESS FOUNDATION

- Headquartered in Arlington, Halfaker and Associates (halfaker.com) is a midsized company that modernizes, integrates, and secures mission critical systems for Federal Government organizations
- Halfaker began to quickly grow in 2013, scaling over 20 projects with 100+ employees – it was challenging to maintain consistent quality during fast growth
- Over the last several years, Halfaker made several process investments to mature and scale:
  - 2014: CMMI-DEV Maturity Level 2 and ISO 9001, to establish enterprise process foundation with a focus on service delivery (project management, customer satisfaction)
  - 2015: Deployed enterprise collaboration tools (SharePoint, Jira)
  - 2015: CMMI-DEV Maturity Level 3 to engineering process foundation
  - 2016: Deployed enterprise Confluence environment (Wiki, KM)

HALFAKER: SCALING WITH CMMI AND AGILE

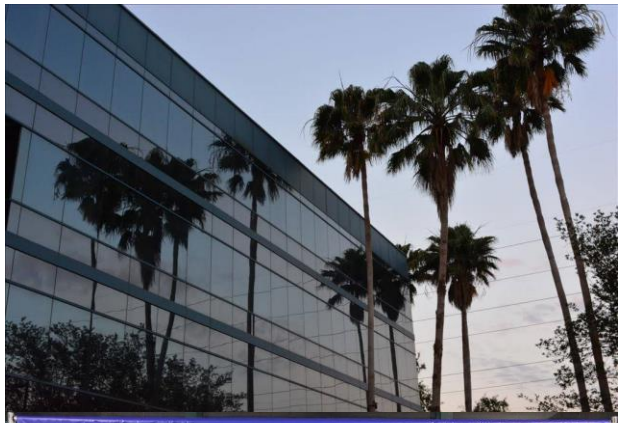
ENGINEERING FOUNDATION

- In 2018, Halfaker created the Enterprise Engineering Management Framework (EEMF), composed of 38 questions assessing various domains of engineering maturity to identify strengths and weaknesses
- Halfaker conducted monthly engineering maturity reviews for projects so teams could self-assess against EEMF and collaborate with enterprise engineering leaders to identify ways to continuously improve. See the Halfaker Helios system below.
- In Spring 2018, Halfaker opened an Agile Delivery Center (ADC) to create a physical 'software factory' to leverage

DIVISION OVERVIEW DASHBOARD

New Assessment *Filter*

PORTFOLIO NAME	# PROJECTS	ANALYZE	DESIGN	DEVELOP	TEST	DEPLOY	SUSTAIN
! Defense Division *Jane Smith*	14	G	R ↓	G	Y	G	G
Health Division *Marvin Jones*	23	G ↑	G	G	G	G	G
! Civil Division *Alan Glisson*	12	Y	G ↑	Y	Y	G	Y



Q & A

Michael King

Chief Technology Officer

HALFAKER
CONTINUING TO SERVE

Jeff Dalton

President & CEO

Broadsword
Process Innovation at the speed of life

Ron Lear

Chief Architect & Director of IP Development

CMMI® Institute
AN ISACA ENTERPRISE

CMMI® Institute

AN ISACA ENTERPRISE

THANK YOU!

- Webinar recording will be sent via email
- Additional questions? Submit to info@cmmiinstitute.com