Topic area: Multi-Model Approach to Process Improvement
Track name: Multi-Model
Track chairs: Agapi Svolou and Jeff Dalton

The volatility of today’s economy has organizations increasingly focused on maximizing the benefits (getting the biggest bang for their buck) from their improvement dollars. This has led to a rise in the number of organizations adopting a multi-model approach to process improvement. Presentations in this topic area may include insights on how the multi-model approach combines components of improvement models, technologies, and standards to create a customized solution to a business problem or goal. Presentations will illustrate—through case-studies and real-world examples—that to successfully apply a multi-model approach, organizations need to be able to articulate their business problems and goals, understand the benefits of the various improvement models, technologies, and standards, and know how to capitalize on the combination.

Topics include
- Uncovering synergies between models, frameworks, and standards-based approaches (e.g., combining CMMI-DEV and Lean)
- Determining how to design and implement a multi-model, standards-based improvement program that meets the organization’s needs and business strategy (i.e., CMMI and Agile, CMMI and ISO, CMMI and Malcolm Baldrige, CMMI and People CMM)
- Exploring the benefits and lessons learned from combining maturity models, frameworks, and standards-based approaches

Topic area: Implementing High Maturity Processes: Documentation, Application, and Innovation
Track name: High Maturity
Track chair: Jim Nash

For many organizations, achieving and maintaining CMMI high maturity practices is a hard-earned goal with rewarding benefits. High maturity practices enable organizations to reduce costs, improve quality, achieve excellence, efficiently and effectively meet their business objectives, and create and sustain momentum for improvement. These benefits extend beyond the organization to its customers. This topic area invites presentations that document real-world implementations of high maturity processes. Presentations will illustrate the characteristics of high maturity processes and organizations, provide examples of how statistical methods and tools can be applied to assist the proper implementation of high maturity practices, and quantitatively show the results. Presentations may also explore process performance baselines, process performance models, control charts, and other techniques supporting maturity levels 4 and 5, or provide examples of the use of the Team Software Process (TSP) or Six Sigma with CMMI levels 4 and 5.

Topics include
- Applying quantitative techniques for high maturity improvement planning and management
- Measuring and analyzing the benefits and challenges of high maturity
- Benchmarking and using performance benchmarks
- Sustaining high maturity improvement
- Managing high maturity suppliers
- Managing beyond maturity level 5

**Track name:** Appraisals  
**Track chair:** Henry Schneider

Appraisal is an integral portion of the improvement life cycle. Knowing where the organization is with respect to the conduct of its processes is fundamental to developing improvement plans and measuring the impact of improvement initiatives. This topic area invites presentations addressing all aspects of the appraisal lifecycle (planning, training, gathering, managing, and appraising). Presentations may explore lessons learned from conducting CMMI V1.3 appraisals, approaches, and challenges with managing appraisals, determining the appraisal scope, sampling and determining the data collection strategy, and managing appraisal data.

**Topics include:**

- Leveraging SCAMPI v1.3 experiences to improve appraisal efficiency
- Examining approaches and support for process appraisals
- Looking at process appraisal issues: communicating process capability effectively and objectively; sampling factors; conflicts of interest; appraisal risks; etc.
- Exploring performance benchmarking as a supplement to process capability assessment
- Uncovering differences among appraisal classes and techniques
- Sharing approaches for making process appraisals easier on team members and the organization being appraised
- Discussing when to use internal versus external appraisers, as well as selecting qualified team members
- Sharing tips for gathering and providing useful process appraisal documentation
- Planning and implementing follow-on work to address appraisal results

**Topic area: Process Improvement Efforts in the Real World**

**Track name:** The Real World  
**Track chairs:** Beth Layman and Shane Atkinson

To remain competitive in today’s economy, organizations and individuals must continuously improve. Process improvement efforts help organizations identify process strengths and weaknesses, motivate individuals and teams, keep tasking on track, communicate progress effectively, and ultimately deliver quality on time and within budget to meet their business objectives. This topic area includes lessons learned and case studies—both positive and negative—from process improvement efforts. The purpose of this topic area is to provide real-life examples and ideas that attendees can take back to their organizations and (re)use. Presentations in this topic area must include the real path taken and results along with sufficient context for the audience to learn from your experience. While positive results are always beneficial, it is also important to learn from our mistakes. This topic area welcomes presentations on the not-so-successful attempts at process improvement, accompanied by lessons learned. For example, presentations that include the signs or indicators of an improvement effort getting off-track and what was done to correct or get back on track would be beneficial.

**Topics include:**

- Sharing stories that describe the challenges to successfully implementing process improvement
- Explaining how to identify and prepare stakeholders for the process improvement journey
- Discussing how to build your business case, establish a performance baseline, and measure results related to your process improvement initiative
- Recognizing how to monitor the implementation of your process improvement effort and the signals of trouble ahead
- Comparing implementation stories across differing organizational cultures and business domains
Topic area: Getting Started: Techniques and Tools for New Process Improvement Professionals
Track name: Getting Started
Track chairs: Jorge Boria and Jennifer Turgeon

When it comes to process improvement, we all have to start somewhere, and taking that first step can often be difficult and confusing. Activities such as garnering and sustaining sponsorship, planning and overseeing all aspects of a project, managing data, selecting a team, initiating a measurement program, and project management concepts (e.g., how to manage a process improvement effort) are commonly identified as important during the start up of a process improvement initiative. This topic area invites presentations that offer advice and guidance on how to begin a process improvement initiative. Presentations in this topic area should provide practical advice and strategic insights to attendees who are getting started with process improvement.

Topics include

- Understanding the value of the CMMI improvements for the organization.
- Getting started with process improvement: techniques and tools for new process improvement professionals
- Getting process improvement buy-in from executives, managers, and the workforce
- Discussing strategies and tactics for initiating, planning, implementing, and sustaining improvement
- Learning how to deal with adoption and deployment challenges and setbacks
- Measuring the impact and return on investment of process improvement programs
- Sharing lessons learned and tips on the secret of success in process improvement
- Exploring how to move fast, save money, and deliver quality

Topic area: The Impact of Emerging Trends and Technologies
Track name: Emerging Trends and Technologies
Track chair: Pat O’Toole

As technology rapidly continues to evolve, organizations must develop their abilities to identify and analyze emerging trends and individual technologies that might be beneficial for their end products and services, as well as for their process improvement efforts. This topic area welcomes presentations that discuss technologies on the engineering horizon, and how these may benefit and be incorporated into engineering and process improvement endeavors.

Topics include

- Reviewing emerging trends and technologies that impact software and systems engineering
- Reviewing emerging trends and technologies that impact the process improvement community
- Exploring ways to assess the impact of future trends and technologies
- Sharing experiences incorporating new technologies into process improvement initiatives
**Topic area: Process Improvement in Industry**

Track name: Industry  
Track chair: Dave Quinn

Process improvement is a discipline and philosophy with universal applicability. Nonetheless, there are specific and unique factors associated with particular industrial sectors and regulatory environments that drive their process improvement efforts, including the selection of which CMMI constellation to use. This topic area focuses on those factors and many of the challenges these sectors face. Sectors include banking, healthcare, services, entertainment, education, energy/utilities, and manufacturing.

**Topics include**

- Understanding why organizations are using CMMI, if they are not required to do so
- Examining why organizations care about maturity levels and perform appraisals
- Looking more closely at which model constellation(s) are preferred in differing circumstances
- Comparing the results between organizations required to adhere to CMMI with those that have no such requirement
- Describing the value of CMMI and process improvement in marketing and the marketplace
- Determining if the industry sectors have seen other impacts besides cost, schedule, and quality

**Topic area: The Role of Organizational Culture, People, and Teams in Process Improvement Success**

Track name: Culture, People, and Teams  
Track chair: Michael Robillard

It has long been recognized that the culture of an organization and the people and teams inside the organization play an important role in the success or failure of any improvement effort. It is us, the people, the individuals who make up our organizations, who empower organizational performance at the highest levels. Presentations in this topic area should provide insight into the necessity and benefits of considering these elements in a process improvement initiative and their impact on the selection of strategy and tactics. Presentations in this topic area should engage, challenge, and inspire attendees to recognize, support, and honor the individuals with their skills, talents, and foibles.

**Topics include**

- Measuring team and workforce capability and capacity
- Determining the role of people, process, technology, and culture in process improvement
- Enhancing process capability through workforce capability
- Uncovering the benefits of developing high-performing and effective teams
- Discussing process improvement teams in small- and medium-sized settings
- Determining how to select, train, and manage a process improvement team
- Sharing insight into how to identify organizational culture and implement an organizational culture change project
- Determining cultural attributes which empower and/or hinder process improvement
Topic area: 21st Century Issues: Resilience and Cyber Security
Track name: Resilience and Cyber Security
Track chair: Randy Trzeciak

To address the information security issues of the 21st century organization, process improvement concepts and practices are being applied to the areas of organizational security, business continuity, and aspects of IT operations managements. The Resilience Management Model (RMM) and the OCTAVE® Method and their associated tools, techniques, technologies, methods, and training help organizations to manage operational risk and improve operations resiliency. This topic area invites presentations that provide case studies, examples, or insights related to security and resilience.

Topics include

- Looking more closely at security process management and dependability
- Exploring security in the context of systems engineering and architecture
- Examining operational risk
- Sharing insight on resilience measurement and analysis
- Describing examples of simulation and predictive modeling

Topic area: Professional Development
Track name: Professional Development
Track chair: Jeff Welch

Perhaps now more than ever, it is vital for process improvement professionals to differentiate themselves and seek out tools that help them advance their career and fulfill their potential. The professional development topic area invites presentations on career roadmapping; interviewing, negotiating, and consulting abilities; maintaining certification; and honing change-agent skills.

Topics include

- Examining what a process improvement career roadmap looks like
- Reviewing winning interview techniques for a process improvement position
- Discussing negotiation skills for SEPG Team Leads and Lead Appraisers
- Navigating the appraisal landscape-lessons learned
- Learning more about consulting skills for a CMMI professional
- Exploring how to build a process improvement culture in an organization
- Looking more closely at certifications and certificate programs in process improvement