



**CMMI** Institute

# "LEANING" APPRAISALS

**NAME:** Michael S. Evanoo, CQE, HMLA, SSBB, Scrum Master

**TITLE:** Quality Strategist

**ORGANIZATION:** DXC Technology / US Public Sector

# AGENDA

- Critical Lean Concepts
- Improving Appraisals Through Lean Concepts
- High Value Artifact Evidence Maps (PIIDs)
- Facilitated Appraisal Approach – Plan Appraisal Phase
- Facilitated Appraisal Approach – Conduct Appraisal Phase
- Resulting Benefits So Far...
- Questions and Discussion

# CRITICAL LEAN CONCEPTS

## 1. Value

- Always defined by/for the customer
- CMMI Appraisals should be focused at the Value Creation Activities

## 2. Value Stream

- Identify or understand “Value Added” vs “Non-Value Added” activities
  - Maximize “Value Added” and Minimize or Eliminate “Non-Value Added”

## 3. Flow

- Eliminate waste, wait time, bottlenecks, etc.

## 4. Pull

- Strive for a pull system to eliminate inventory (waste)

## 5. Perfection

- Continually Improve the system to increase VALUE

# IMPROVING APPRAISALS THROUGH LEAN CONCEPTS

## Value / Value Stream:

### Consider where Appraisals fall in the appraised organization's Value Stream

- Appraisals are **NOT** “Value Added” activities.
  - i.e. – In most cases, they are not required activities to provide the core value to the organization's customers.
  - Therefore the efforts related should be minimized or utilize value chain efforts where possible.
- **Nothing should EVER be done only for an appraisal!**
  - Except specific appraisal planning, appraisal sessions and appraisal submission activities.
  - All artifacts and all preparation should be a function of the organization's or project's “Value Added” activities.
  - “High Value Artifact” Approach should always be used in appraisals to minimize preparation.

# HIGH VALUE ARTIFACT EVIDENCE MAPS (PIIDS)

**Evidence Maps (i.e. - Practice Implementation Indicator Documents - PIIDs) are created focused at High Value Artifacts only.**

- Evidence Maps are expected to be a requirements traceability mechanism for the organization's capability/process requirements.
- Evidence Maps are a living cross reference for the organization as a reference of how they are meeting CMMI best practices, NOT for appraisals only.
- Evidence Maps are primarily used by organizational personnel NOT appraisal team.
- Appraisal Team Members may also use Evidence Maps for reference, but they are NOT the primary audience.

# HIGH VALUE ARTIFACT MAP EXAMPLE I

Requirements Management			Project A		Project B	
Owner	PA	Process Owner usage	Artifact Link. Link to High Value artifact and only to anything else that is needed	Comments about artifact:	Artifact Link. Link to High Value artifact and only to anything else that is needed	Comments about artifact:
PM	REQM	<b>Common High Value Artifacts:</b>				
PM	REQM	• Requirements Change Request				
PM	REQM	• Approval of requirements				
PM	REQM	• Traceability of requirements				
PM	REQM	• Verification and validation activities to ensure requirements are being addressed				
PM	REQM	<b>SG 1 - Manage Requirements</b>				
PM	REQM	• SP 1.1 - Understand Requirements				
PM	REQM	• SP 1.2 - Obtain Commitment to Requirements				
PM	REQM	• SP 1.3 - Manage Requirements Changes				
PM	REQM	• SP 1.4 - Maintain Bidirectional Traceability of Requirements				
PM	REQM	• SP 1.5 - Ensure Alignment Between Project Work and Requirements				
PM	REQM	<b>Generic Goal 2</b>				
PM	REQM	• GP 2.1 - Establish an Organizational Policy				
PM	REQM	• GP 2.2 - Plan the Process				
PM	REQM	• GP 2.3 - Provide Resources				
PM	REQM	• GP 2.4 - Assign Responsibility				
PM	REQM	• GP 2.5 - Train People				
PM	REQM	• GP 2.6 - Control Work Products				
PM	REQM	• GP 2.7 - Identify and Involve Relevant Stakeholders				
PM	REQM	• GP 2.8 - Monitor and Control the Process				
PM	REQM	• GP 2.9 - Objectively Evaluate Adherence				
PM	REQM	• GP 2.10 - Review Status with Higher Level Management				
PM	REQM	<b>Generic Goal 3</b>				
PM	REQM	• GP 3.1 - Establish a Defined Process				
PM	REQM	• GP 3.2 - Collect Process Related Experiences				

# HIGH VALUE ARTIFACT MAP EXAMPLE 2

Project name:					SG 1 - Manage Requirements				
Requirements Management					SP 1.1	SP 1.2	SP 1.3	SP 1.4	SP 1.5
Owner	PA	Process Owner usage	Artifact Link. Link to High Value artifact and only to anything else that is needed	Comments about artifact:	Develop an understanding with the requirements providers on the meaning of the requirements	Obtain commitment to requirements from project participants.	Manage changes to requirements as they evolve during the project.	Maintain bidirectional traceability among requirements and work products.	Ensure that project plans and work products remain aligned with the requirements
<b>Common High Value Artifacts:</b>									
PM	REQM	Requirements Change Request			X		X		
PM	REQM	Approval of requirements				X			
PM	REQM	Traceability of requirements						X	
PM	REQM	Verification and validation activities to ensure requirements are being addressed			X				X
<b>Other artifacts</b>									
PM									

# IMPROVING APPRAISALS THROUGH LEAN CONCEPTS - CONTINUED

## Flow / Pull:

### Eliminate Wait Time, decrease WIP, and increase Throughput in Appraisals

- Consider the SCAMPI MDD requirements – NOT “How we’ve always done it!”
- Combined sessions for document review, interviews and documenting findings and characterizations helps eliminate Wait Time, decrease WIP and increase Throughput.
- Use “Live Data” in all sessions and “Show and Tell” approach.
- Allow the experts in the organization to be the guides (eliminates extensive appraisal team training time).
- Appropriate participant involvement may eliminate need to perform a separate preliminary findings session.




# FACILITATED APPRAISAL APPROACH: PLAN APPRAISAL PHASE

## Plan and Prepare Appraisal Phase:

- Plan is created in excel and is a living document used to both plan and track the appraisal.
  - Ease of use / Embedded Formulas (Poka-Yoke)
- Readiness Review performed to ensure Evidence Map references appear appropriate and review a sampling of referenced documentation.
- Organization and project overviews occur at the beginning of the Readiness Review to ensure the Appraisal Team Members understand the business and context for the organization and projects.

# TYPICAL ML3 SCAMPI A RR SCHEDULE



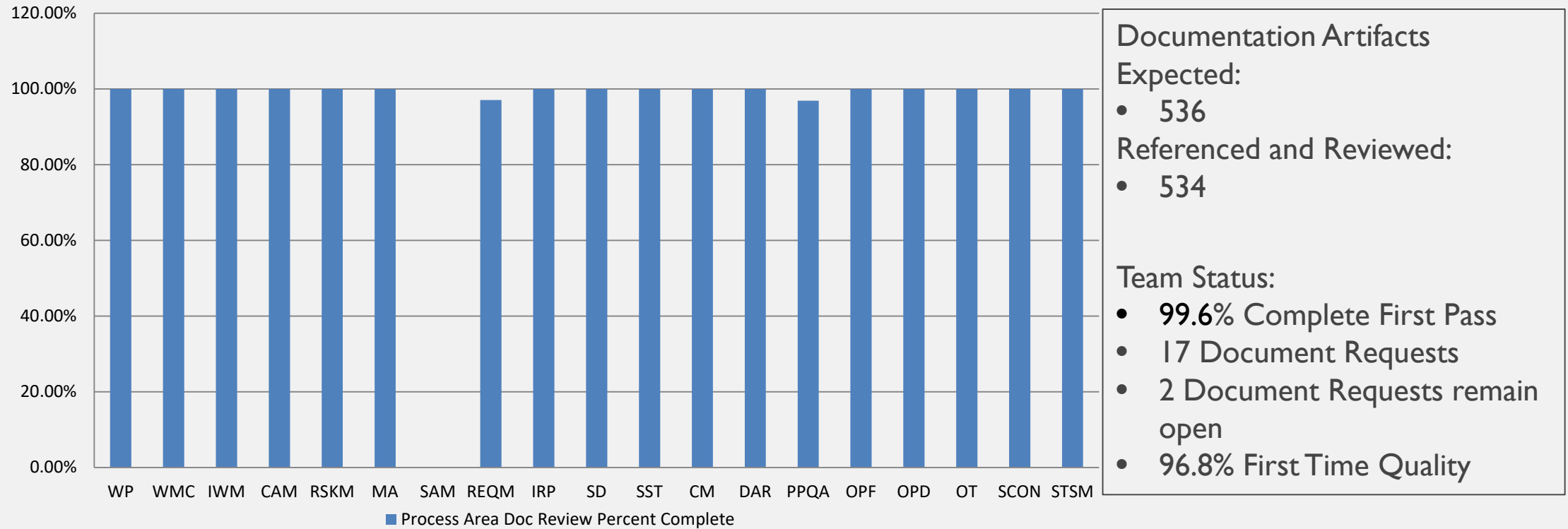
Eastern Time	Tuesday	Wednesday	Thursday	Friday
9am				
9:30	Check-in	Check-in	Check-in	Check-in
10am	ATM Training	ATM Training and PIID Discussion	ATM Training and PIID Discussion	Full Team ATM PIID and Document High Level Review
10:30		ATM PIID and Document High Level Review	ATM PIID and Document High Level Review	
11am				
11:30				
12noon				
12:30		Working Lunch	Working Lunch	Working Lunch
1pm	Working Lunch			
1:30	ATM Training	ATM PIID and Document High Level Review	ATM PIID and Document High Level Review	Full Team ATM PIID and Document High Level Review
2pm				
2:30				
3pm	<i>Initial Participant's Org and Services / Projects High Level Overviews</i>			
3:30				
4pm				<i>Readiness Review Outbrief</i>
4:30				
5pm	Wrap-up	Wrap-up	Wrap-up	Wrap-up

## RR OUT-BRIEF MEETING PURPOSE

- Decide whether to continue as planned with the “On-Site” phase of the SCAMPI A or modify any plans for the appraisal “On-Site” phase based on the data gathered and reviewed during the Readiness Review.
- Recommended Decision Criteria:
  - > 90% of each process area artifacts identified and appear to be appropriate
  - > 90% first time quality measure of Evidence Map (PIID) preparation
  - Any concerns identified in the Evidence Map (PIIDs) and referenced evidence are not considered high risk factors.

# TYPICAL RR OUT-BRIEF INFORMATION

## Quantitative: Evidence Map (PIID) Readiness / Readiness Review Results




## Qualitative: Potential concerns and risks / Recommendations for on-site

# FACILITATED APPRAISAL APPROACH: CONDUCT APPRAISAL PHASE

## Conduct Appraisal Phase

- Uses combined sessions to concurrently review artifacts, obtain affirmations, document findings, come to consensus on findings and characterizations, and validate findings and characterizations with participants.
- Session participants (i.e. – Interviewees) create the Evidence Maps (PIIDs) and may use them throughout sessions to reference appropriate artifacts.
- Evidence Maps (PIIDs) are created focused at High Value Artifacts ONLY and are a requirements traceability mechanism for the organization NOT an appraisal mechanism.

# TYPICAL ML3 SCAMPI A “ON-SITE” SCHEDULE



Eastern Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:00	Check-in				Check-in / Prep
8:30	ATM Team Building	Check-in / Prep	Check-in / Prep	Check-in / Prep	Review and Finalize Final Findings
9am		Service Delivery and Work Mgt 1	Process and Service Mgt. and Support 2	Team Consolidation	
9:30	<b>Opening Briefing</b>				
10am	Strategic Mgt. and Oversight 1				
10:30					
11am					
11:30	Working Lunch / Doc Rev	Working Lunch / Doc Rev	Working Lunch / Doc Rev	Team Consolidation	
12noon					
12:30	Working Lunch / Doc Rev	Service Delivery and Work Mgt 2	Strategic Mgt. and Oversight 2	PFP1 - Preliminary Findings 1	Final Presentation Review
1pm					
1:30	Process and Service Mgt. and Support 1	Service Delivery and Work Mgt 2	Doc. Rev / Transition	Review/Update findings	<b>SM - Sponsor Meeting</b>
2pm				Follow-ups as needed.	
2:30			Perform Ratings		<b>FFP - Final Findings Presentation</b>
3pm					
3:30	Doc Rev / Wrap-up	Doc Rev / Wrap-up	Doc Rev / Wrap-up	Perform Ratings	
4pm					
4:30	Doc Rev / Wrap-up	Doc Rev / Wrap-up	Doc Rev / Wrap-up	Perform Ratings	
5pm					
5:30	Doc Rev / Wrap-up	Doc Rev / Wrap-up	Doc Rev / Wrap-up	Perform Ratings	
6pm					
6pm				Wrap-up	

# WHAT TO EXPECT IN SESSIONS



- Lead Appraiser or Appraisal Team Members asks questions as needed.
- Participants walk us through the key artifacts by discussing how they perform their work for each area of discussion and showing us the results (document, tool, etc.) that proves each practice is performed.
- Participants should be prepared to show information in the actual tools used rather than reports or screen shots wherever possible.
- Lead Appraiser has a spreadsheet up and captures results live, with full visibility to everyone involved and validates everything captured with participants as we progress.
- No appraisal participants except anyone that is directly referencing artifacts for the appraisal may be on their laptops during the appraisal sessions and the laptop referencing the artifacts will be shared via a data show.

# WHAT TO EXPECT IN SESSIONS

## CONTINUED



- Participants may attend the Initial Participants Briefing, Opening Briefing or Final Findings remotely if they have access to Skype to prevent lost time due to travel. Participants should be present in data gathering sessions.
- For data gathering sessions, we establish a Skype session for each session and share in the room via Skype to prevent lost time to disconnecting and reconnecting PCs when participants are sharing artifacts. Participants are expected to attend in person; we do NOT expect that people will attend data gathering sessions remotely via Skype (unless pre-approved).
- People should bring their PCs and power cables, or share power cables, to ensure they can use their PCs to share artifacts throughout the session.

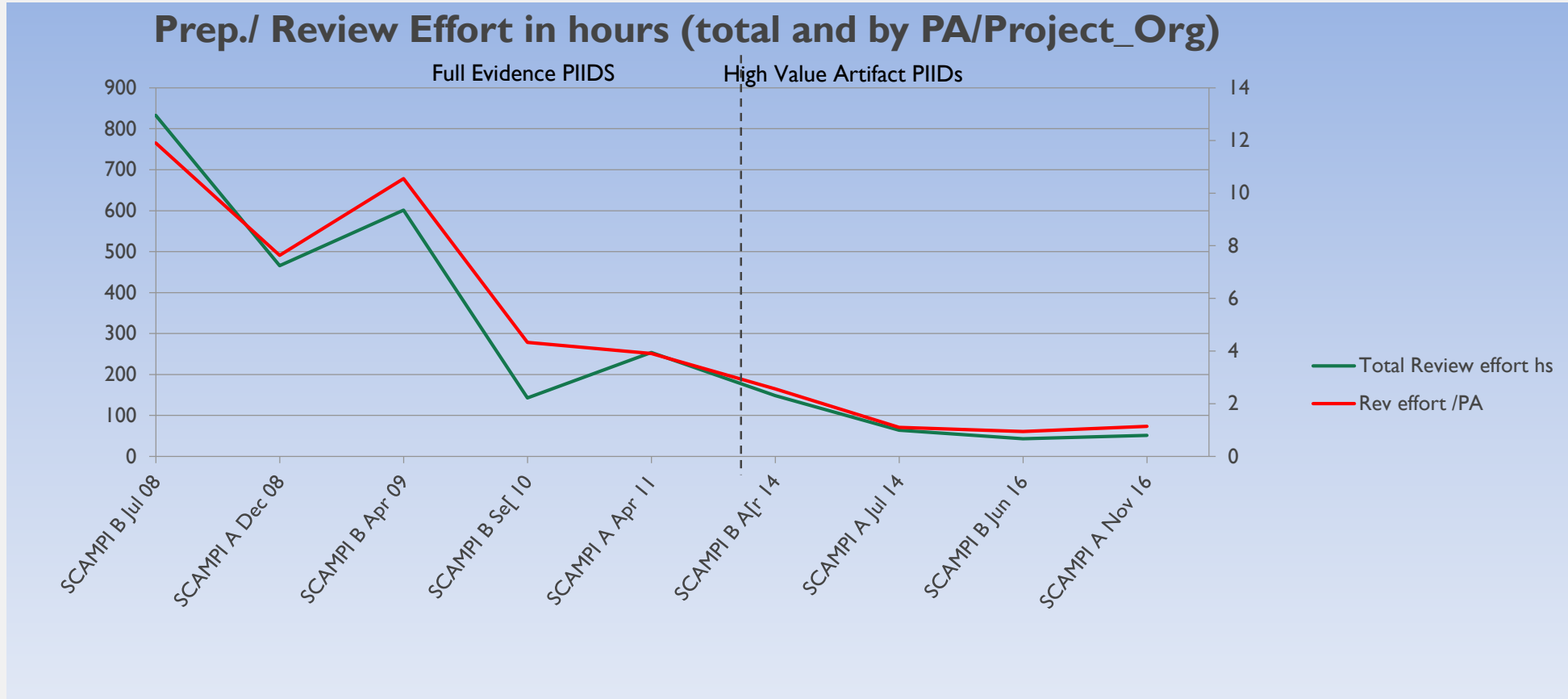


# RESULTING BENEFITS (SO FAR...)

- 51% decrease in effort expended on appraisal preparation
- 63% decrease in personnel costs for appraisal preparation
- 28% reduction in number of average linked assets per project/support function
- Over 45% decrease in appraisal performance costs
- Significantly increased organizational buy-in and involvement

# RESULTING BENEFITS (SO FAR...)

Results from selected organization in one region in DXC



# AGENDA

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# WHERE DO WE GO NEXT?

- What improvements have you seen/made in Appraisals?
- What other improvements are next?

# THANK YOU

Michael Evanoo

[Michael.S.Evanoo@dxc.com](mailto:Michael.S.Evanoo@dxc.com)