Knowledge Enables Change

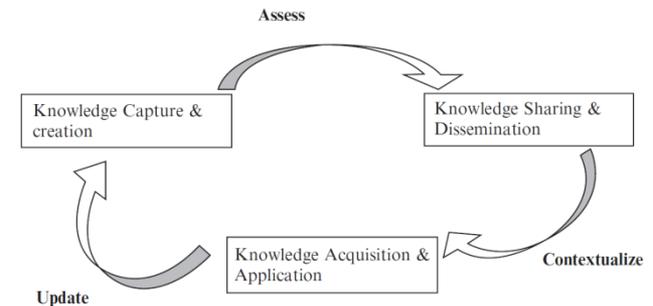Jeremiah Genest– Sanofi

ASQ BOSCON 2019

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The views and opinions expressed in the following PowerPoint slides are those of the individual presenter and should not be attributed to any company with which the presenter is now or has been employed or affiliated.

Learning Objectives

- In this session you will:
  - Identify the nine wastes of knowledge and describe how each waste impacts change management.
  - Evaluate the four major classifications of knowledge and utilize each to evaluate a specific change.
  - Utilize the four key areas of knowledge management (people, process, content, and technology) to drive a change management system.
  - Define the processes of knowledge management and determine some best methods for leveraging each process during the change management life cycle.
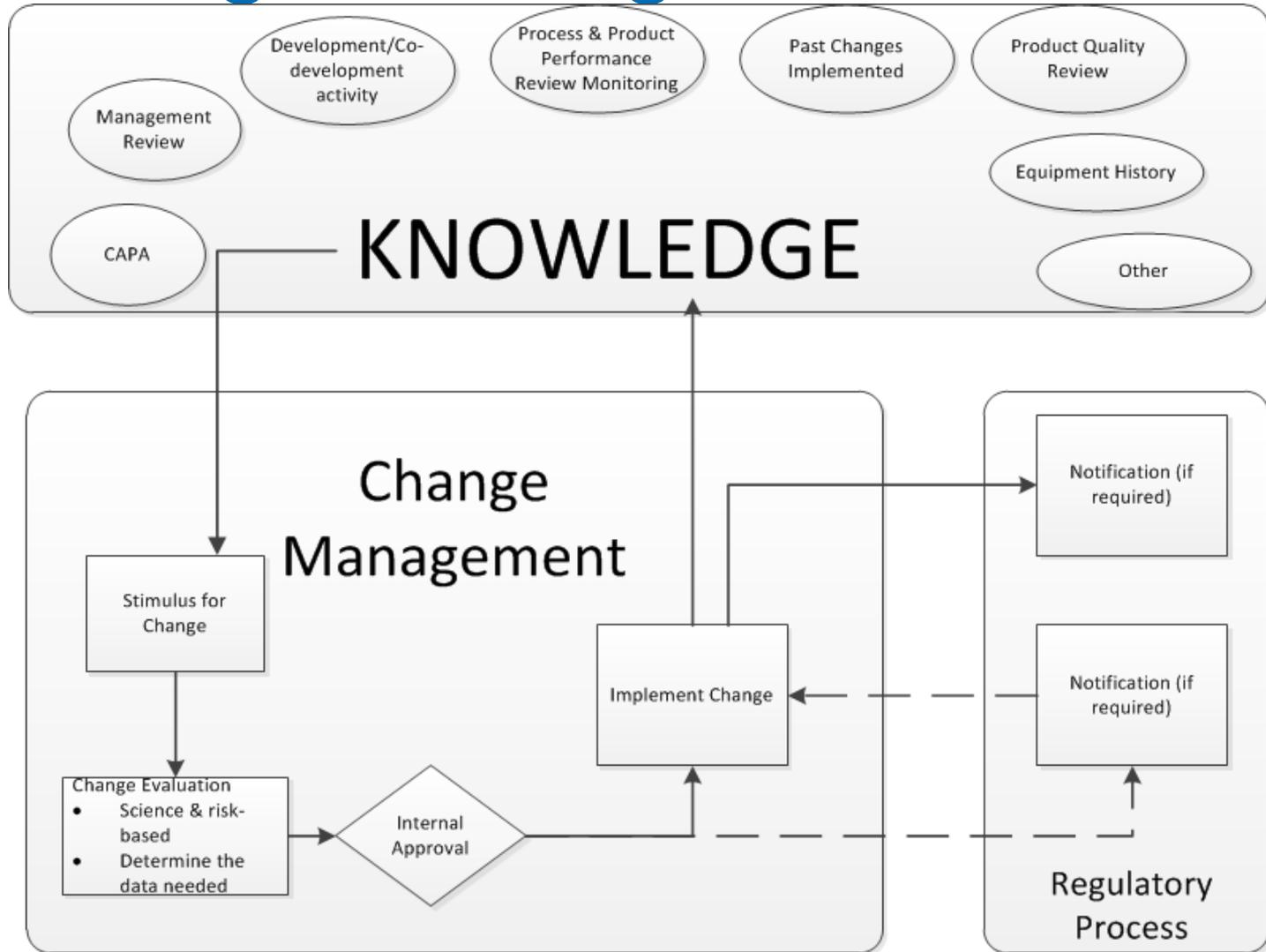
Knowledge Classifications

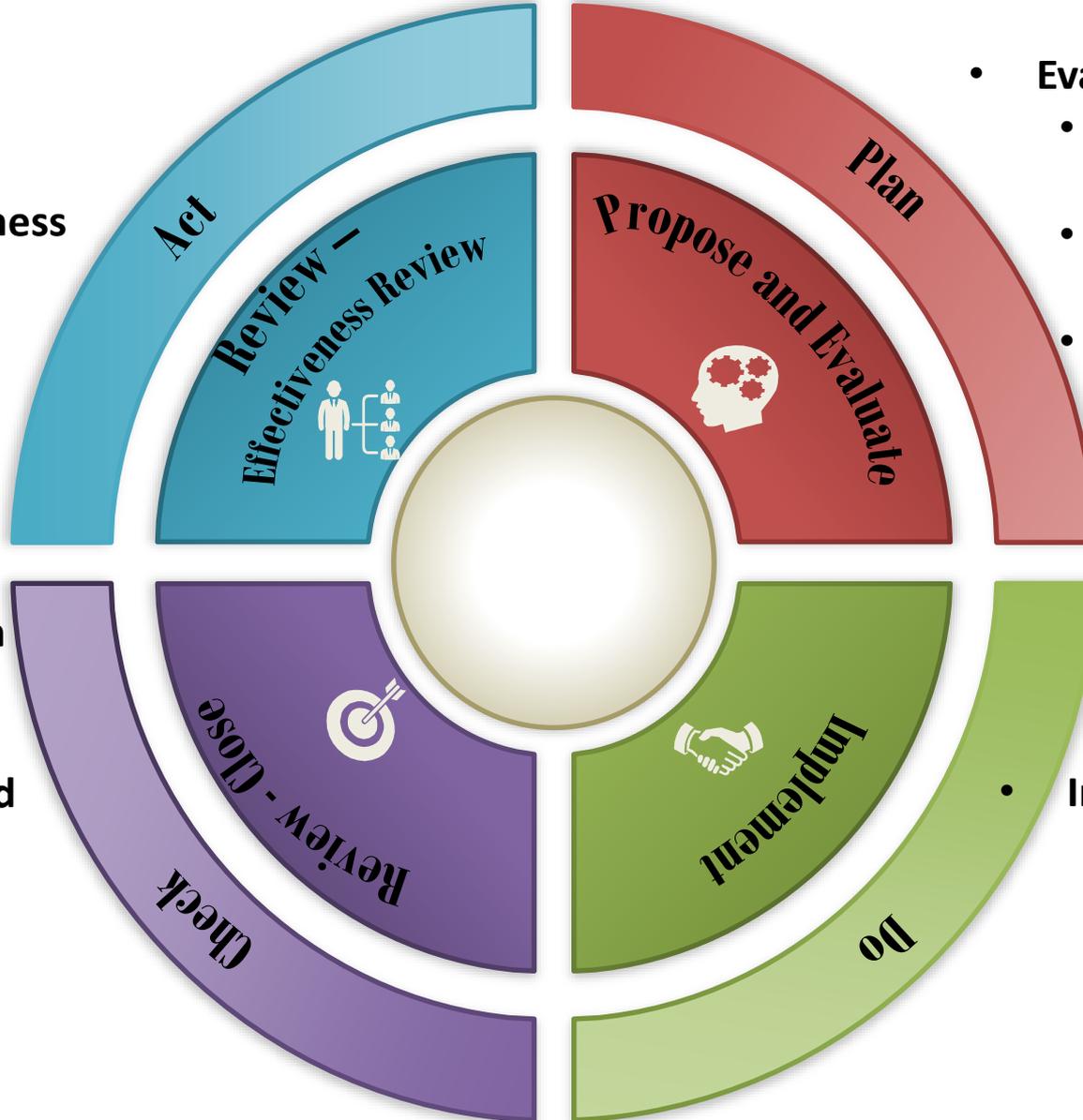|		General	Contextually Specific	Technically Specific
Declarative	Explicit	A book describing factors important to being a manager of people	A company document identifying the circumstances under which a team's manager should consider replacing a team member who is having problems with the project	A manual describing the factors to consider to utilize emotional intelligence when managing an employee.
	Tacit	Knowledge of what makes a good manager	A manager's knowledge of factors for motivating an employee in a particular company	A managers use of emotional intelligence as a principal for managing an employee.
Procedural	Explicit	A book describing steps to take in managing an employee.	A company procedure identifying the sequence of actions a team manager should take when requesting senior management to replace a team member having problems with a project	A checklist for applying emotional intelligence in a specific situation.
	Tacit	Knowledge of the steps involved in managing an employee.	A manager's knowledge of steps to take to motivate an employee in a particular company.	A manager's knowledge of the sequence of steps to perform for a difficult conversation.

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Knowledge Waste

Knowledge Waste	Examples during a change
Handoff	• lack of clear learning as part of the change
Useless information	• Excessive written instructions, procedures, and policies
Discarded knowledge	• Unused explicit knowledge
Wishful thinking	• Hoping everyone will understand the change
Waiting	• Lack of empowerment • Downtime • Delays or rework in executing the change
Misalignment	• Resistance to change • Goals of change not supporting company vision/goals
Communication barriers	• Personnel availability Cultural, language or technology failures
Inadequate checking	• Improper quality at the source • Inadequate time to perform checks such as pre-job briefings
Wrong tool	• Improper documentation • Improper training method Inadequate tool available - causing improvisation

Dennis, Pascal. 2007. Lean Production Simplified: A Plain-Language Guide to the World's Most Powerful Production System. 2nd ed. New York: Productivity Press

Knowledge Management

Change is…

Effectiveness Review
- **Evaluate Effectiveness**

Close
- **Ensure Change Plan executed**
- **Escalate unaddressed risks**

Propose
- **Current and Future State**

Evaluate
- **Assemble the Team**
- **Develop Change Plan**
- **Obtain Approvals**

Implement
- **Execute Change Plan**
- **Escalate risks and delays**

Act — Review – Effectiveness Review

Plan — Propose and Evaluate

Check — Review - Close

Do — Implement

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4 Key Areas

Process
Identify the current processes
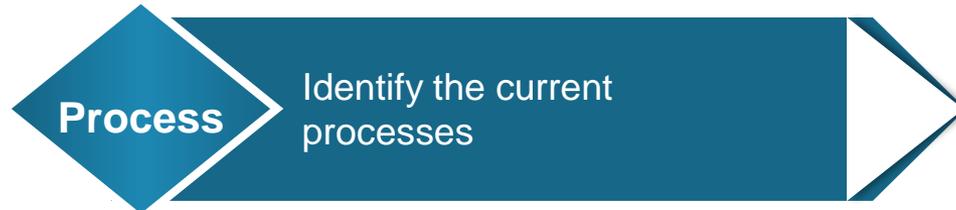
Process
How are your processes changing?

Technology
Identify the current technology.
The means.
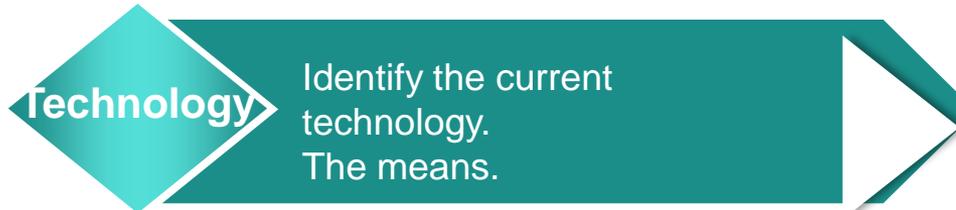
Technology
How is the technology changing?

People
Identify what do people do now
Identify what is important to people now
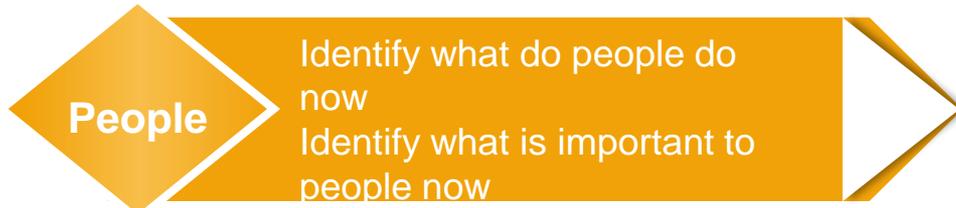
People
What will people do differently?

Organization
Identify the current organizaiton
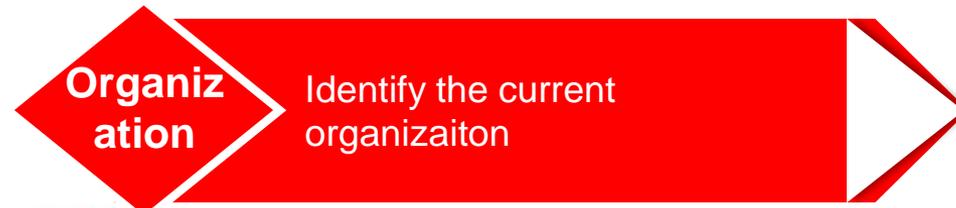
Organization
How is your organization changing?

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Knowledge Waste

Waste	Context
	Knowledge unused
	Knowledge isn't applied
	Knowledge not used for some reason
Knowledge Not Used	Valuable information and experience not utilized in the right way
	Individual does not participate in idea exchange
	Knowledge without understanding and deep application
	Knowledge which is in the organization but nobody uses it
	Knowledge not used in business
	Loss of knowledge
Knowledge lost	Misuse of knowledge
	lost insights and knowing
	knowledge is wasted because not shared before experts leave the organization
	"Knowledge waste" related to waste, not only of tacit but explicit knowledge
Knowledge Wasted	A kind of knowledge you don't need
	Waste of time and other resources "Muda"
Missing Knowledge Management	Wishful thinking
	Handover
	No system/process for knowledge management
Missing Share	Failure to use the shared knowledge and capabilities of an organization
	Knowledge isn't brough explicit and experts leave
Overload	Information overload
	Poor data management

Sources of Knowledge Waste in Change

Wishful Thinking	Scatter	Handover

• Discarded Knowledge
• Testing to specification
	• Physical, social and skill barriers
	    • Distance, time differences, data formats
	    • Culture, language and organization culture
	    • Busing oneself
	    • High power differences
	    • Continuous organizational change
	    • Overspecialization
	• Poor Tools and processes
	    • Narrow informaiton channels
	    • Duplication
	    • Poor communication tools
		• Useless information
		    • Extraneous documentation and communicaiton
		    • Lost knowledge
		    • False information
		    • Relearning
		• Waiting
		    • Decision making

Knowledge Management – 6 States

The Cycle

- Iterative through the Change lifecycle
  - Propose
  - Evaluate
  - Implement
  - Close
  - Effectiveness Review
- Leads to change AND is driven by change
- Build into systems and processes

1- Generate — Create/Capture

2 - Assess — Suitability / Generalization

3 - Share — Make knowledge available

4 - Contextualize — Standardize (job aids) Checklists)

5 - Apply — Ensure your system uses it

6 - Update — Knowledge Is sustained

Knowledge Management
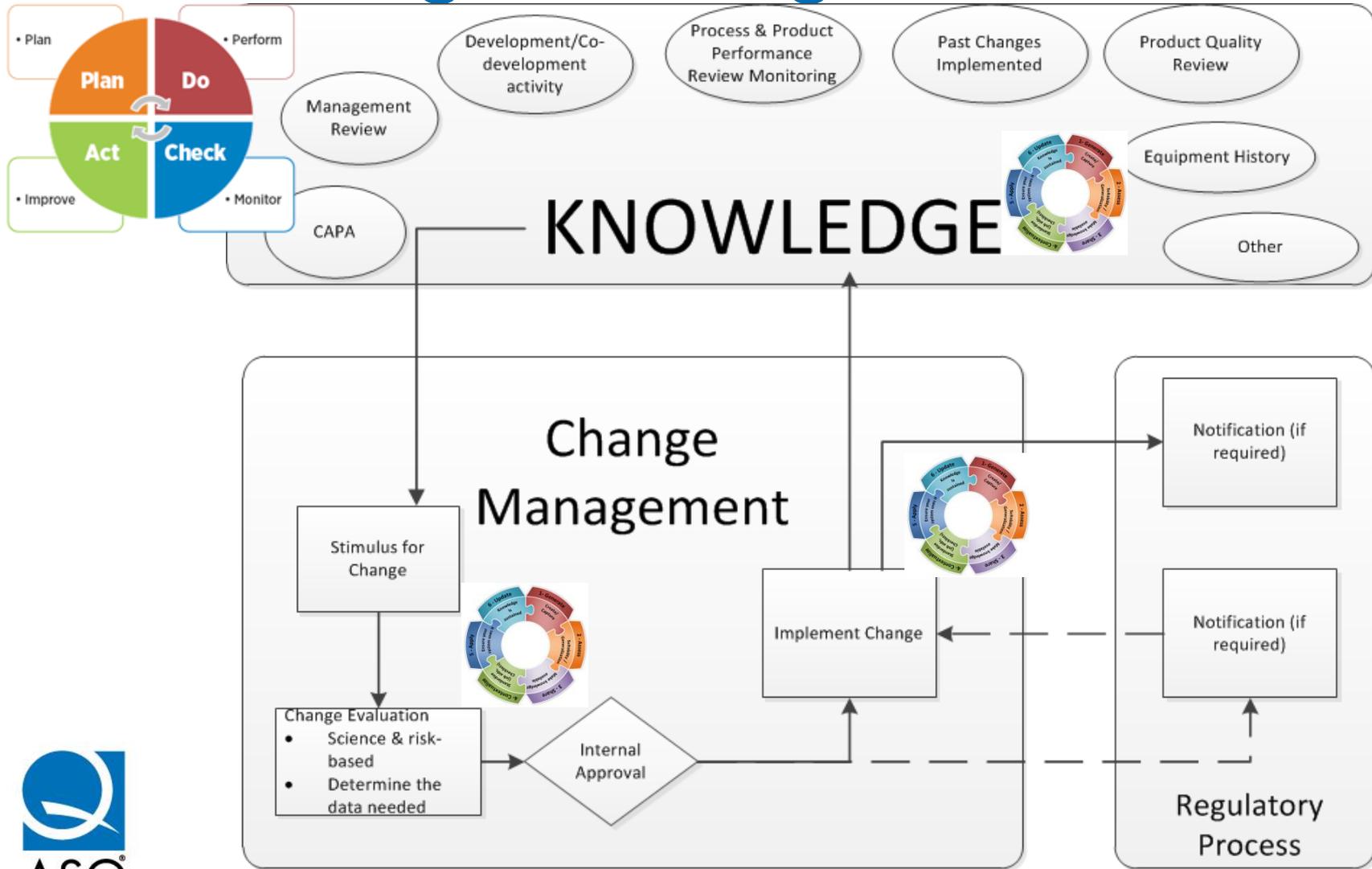
Generating knowledge through change

Cycle diagram:
- 1- Generate — Create/Capture
- 2- Assess — Suitability/Generalization
- 3- Share — Make Knowledge available
- 4- Contextualize — Standardize (Job aids, Checklists)
- 5 - Apply — Ensure your system uses it
- 6 - Update — Knowledge Is sustained
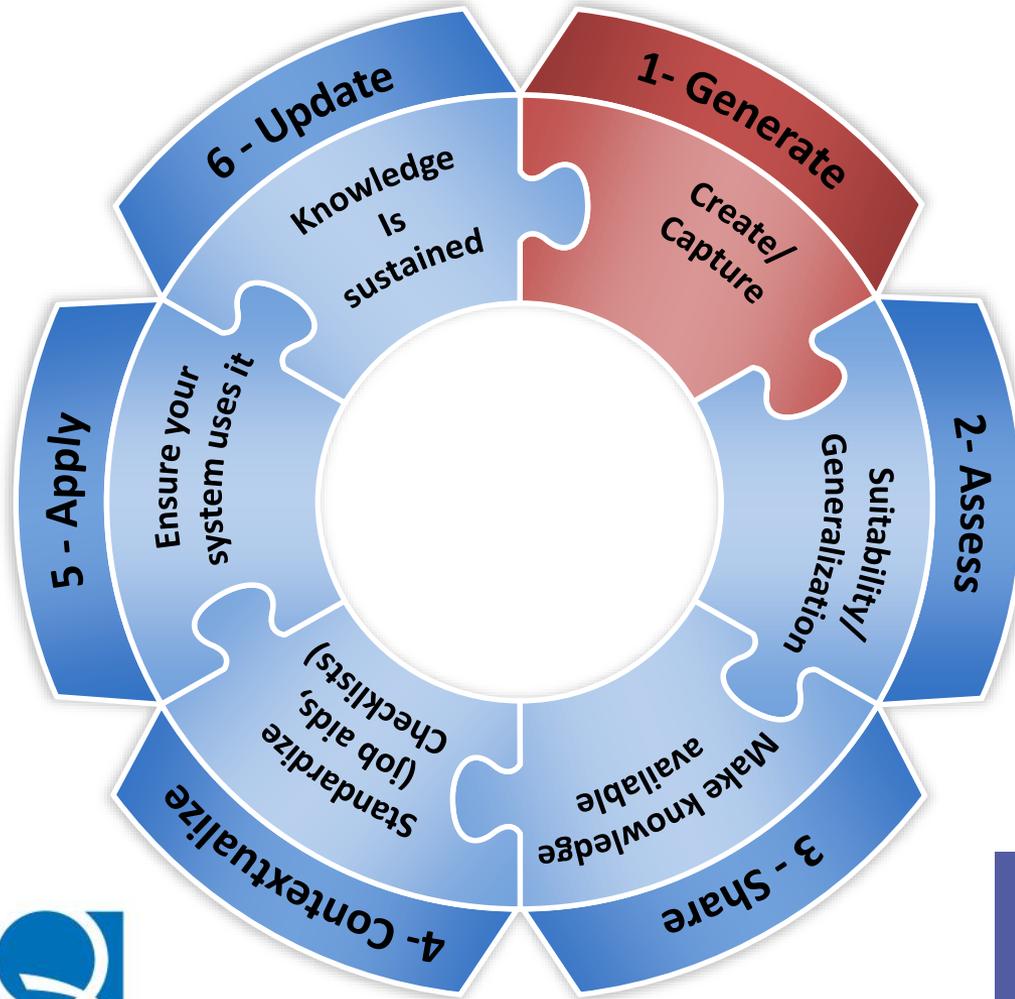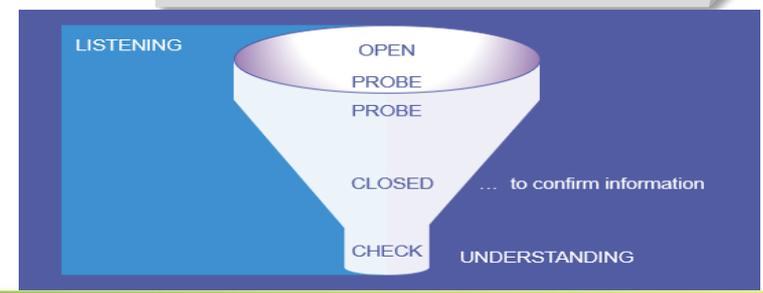
Generate

- Capture the knowledge
When?
- Propose and Evaluate
    - Interview the SMEs
    - Determine what the change will do
- Effectiveness Review
    - What did we learn from the change
How?
- Cognitive interviewing
- Beware knowledge waste

Funnel diagram:
LISTENING
OPEN
PROBE
PROBE
CLOSED ... to confirm information
CHECK UNDERSTANDING

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Cognitive Interviewing

Recreate	Outline the process then walk it through.
Tell	the SME to actively generate information and not wait passively for the interviewer to ask questions.
Adopt	the SME's perspective; ask eyewitness-compatible questions such as "what does a user need to know?" or "how could the process be better?"
Listen	actively, do not interrupt, and pause after the SME's response before asking follow-up questions.
Ask	open-ended questions. Don't ask questions that can be answered with a single word or short phrase.
Encourage	the SME to use imagery. Explicitly request detailed descriptions.

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Cognitive Interview

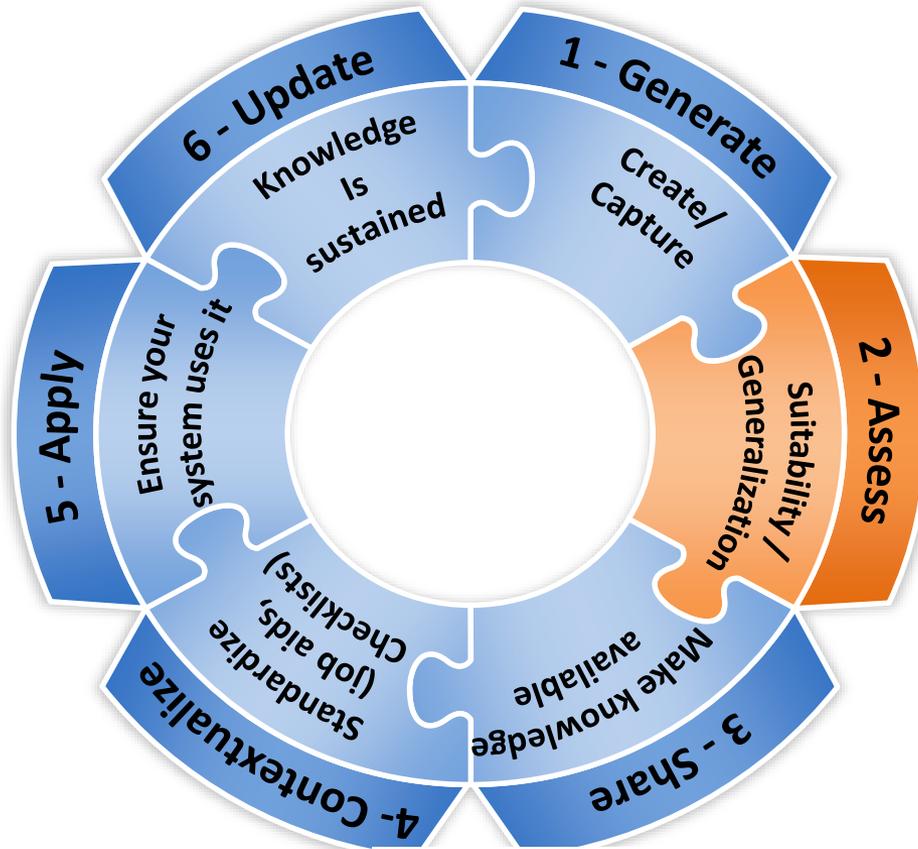|	
Perform	the interview at the Gemba where change will happen.
Follow	sequence of the cognitive interview major components.
Bring	support materials such as attachments, SOPs, and copies.
Establish	a connection with the witness; demeanor has a big impact.
Do Not	Assume what is truly important.

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Assess the knowledge gathered

Assess

- Organize
  - Many of same tools as root cause analysis)
- Move from less defined to most (Tacit to Explicit, Declarative to Procedural)
- Assess what is valuable, what needs to be transferred
- Codify
- Change Evaluation
- Assess what is valuable, what needs to be transferred

Wheel diagram labels:
- 1 - Generate: Create/Capture
- 2 - Assess: Suitability / Generalization
- 3 - Share: Make knowledge available
- 4 - Contextualize: Standardize (job aids, Checklists)
- 5 - Apply: Ensure your system uses it
- 6 - Update: Knowledge Is sustained

Critical Parameter	Current	Future	Audience	What do they need to know
Aspect of a system or process that is critical to the proper functioning of the system.	Now	The change	Who does this matter to	

Change is about sharing
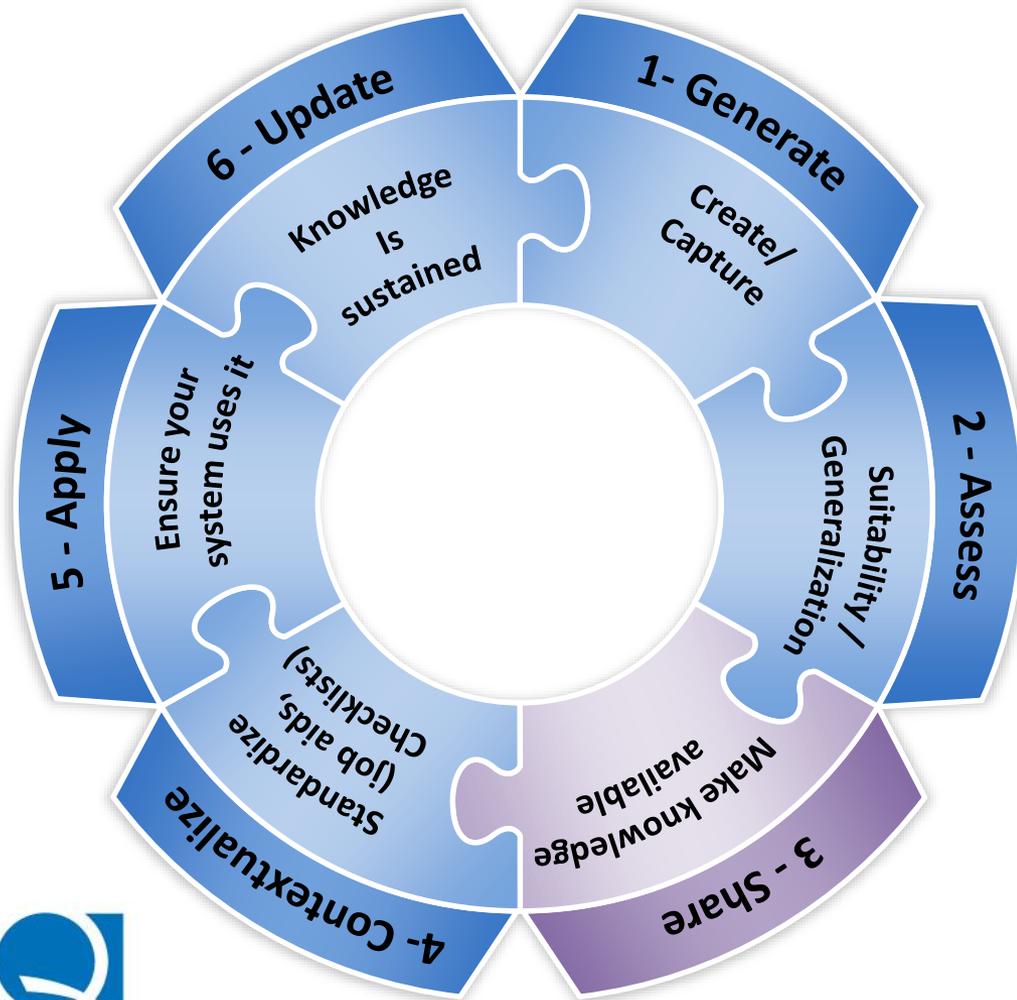
Share

- Share this knowledge, make sure others can understand it
- Change Control Approval
- Organization Change Management
- Make it visible
- Share this knowledge, make sure others can understand it
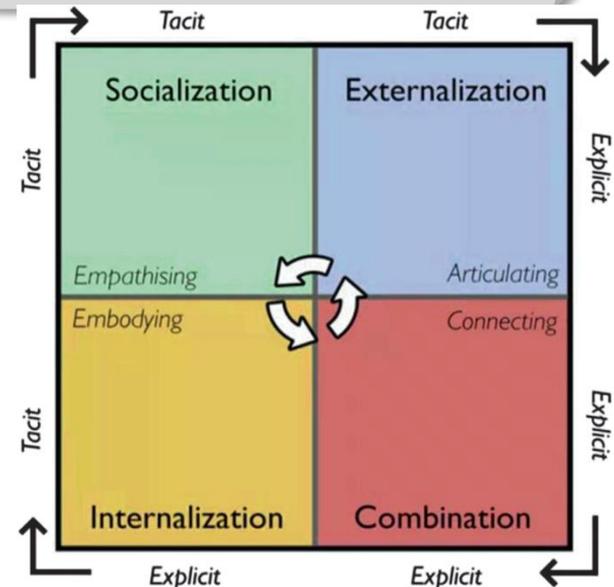
source: Nonaka and Takeuchi

Contextualize into standard tools

Contextualize

- Build into the change plan
- Ensure in place before implementation
- Procedure, Training, Tools

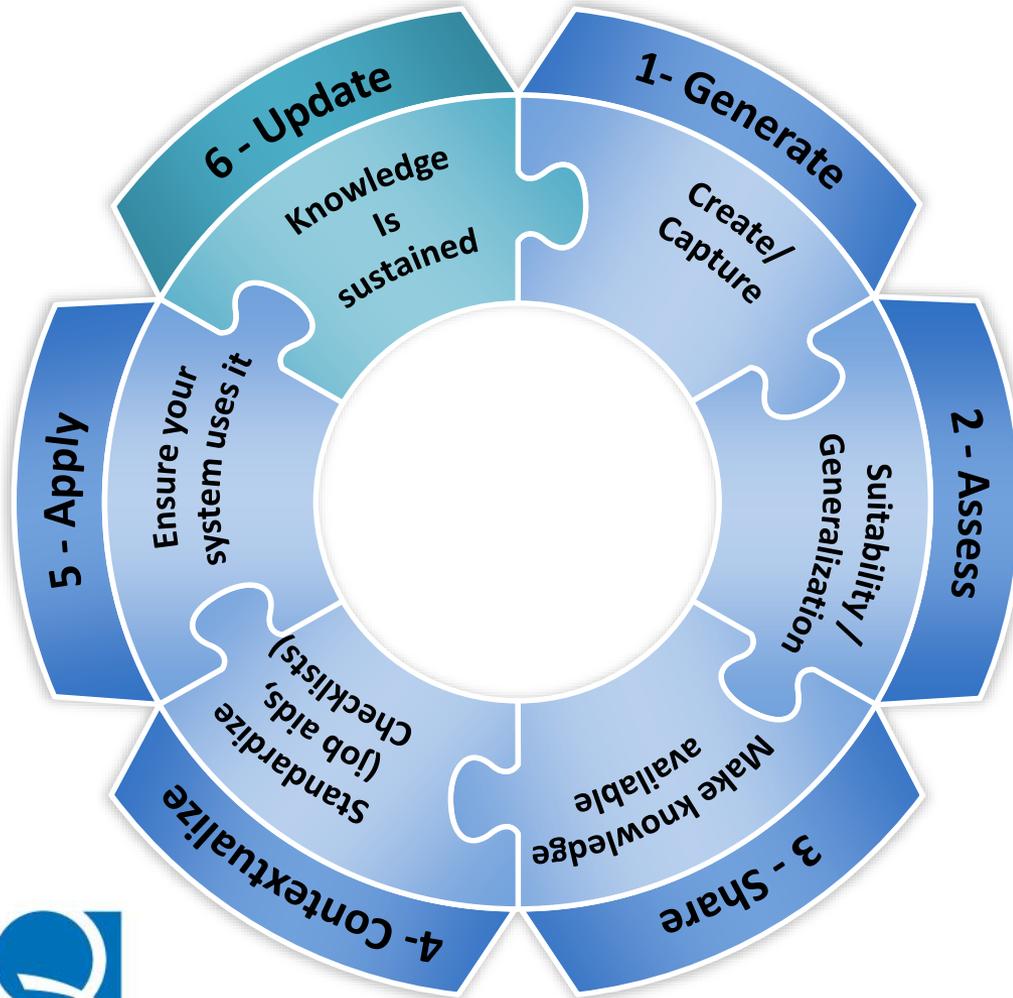| Build	HOLD	POOL	Apply
Obtain	Remember	Co-ordinate	Task Performance
Analyze	Accumulate in repositories	Assemble	Analyse
Reconstruct	Embed in repositories	Reconstruct	Synthesize
Synchronise	Archive	Synthesize	Evaluate
Codify		Access	Decide
Organize		Retrieve	Implement

Apply the Knowledge

Apply

- Update Processes
- Train others
- Make sure the knowledge is used
- Change Implementation

Diagram labels (clockwise): Put Text Here · 1- Generate · Create/Capture · 2 - Assess · Suitability / Generalization · 3 - Share · Make knowledge available · 4- Contextualize · Standardize (job aids, Checklists) · 5 - Apply · Ensure your system uses it · Your Text Here

Sustain and Update

The diagram shows a circular puzzle process with six segments:

- **6 - Update**: Knowledge Is sustained
- **1 - Generate**: Create/Capture
- **2 - Assess**: Suitability / Generalization
- **3 - Share**: Make knowledge available
- **4 - Contextualize**: Standardize (job aids, Checklists)
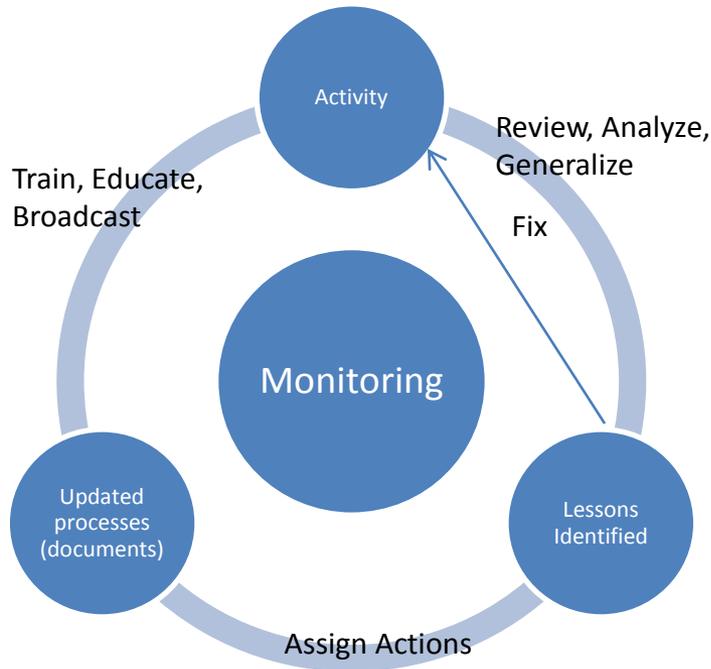- **5 - Apply**: Ensure your system uses it

Update

- Make sure the knowledge is sustained and regularly updated.
- Effectiveness Review
- Build criteria to measure success into the change
- Build into audit/self inspection, process confirmations, "GEMBA" walks
- Lessons Learned

Target — Antecedents (A), Behaviors (B), Consequences (C); Workplace, self, peer group, leader, organizational Motivators; Enablers: Skills, clarity of purpose, resources; Measure; 20% impact; 80% impact; Activate the Consequences Target ratio 4:1 positive to negative

Lessons Learned

Activity

Review, Analyze, Generalize

Train, Educate, Broadcast

Fix

Monitoring

Updated processes (documents)

Lessons Identified

Assign Actions

Successful lessons learned:

- Are based on solid performance data
- Look at positive and negative experiences.
- Refer back to the change management process, objectives of the change, and other success criteria
- Separate experience from opinion as much as possible
- Generate distinct lessons from which others can learn and take action. A good action avoids generalities.
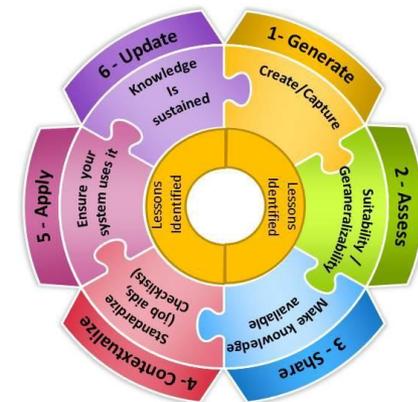
Take-aways

- Through this session, you should have:
  - Become familiar with application-based Six Sigma projects
  - Understand how to integrate projects into training/academic courses
  - Learn to enhance project success through "action learning"

Questions?

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