IMMM – IDEAL

Integrating Multiple Methods & Models – An IDEAL Relationship

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NDIA CMMI Technology Conference

Denver, CO

Presentation Outline

- NAVAIR Commander's Guidance 2008
- Continuous Process Improvement (CPI)
- CPI Journey
- CPI Foundations
- IDEAL Relationship
- Model and Method Comparisons & Integration
- Lessons Learned
- 3 Key Messages
- Questions?

NAVAIR Commander's Guidance 2008/2009

***Value*: "Continuous Improvement. Improved reliability, reduced cost, faster cycle times and increased productivity are ingrained in our culture"**

Current Readiness: ***Contribute to delivering Naval Aviation units ready for tasking with the right capability, at the right time, at the right cost***

- Objective 3, Action 1: *Improve the processes* for identifying, responding to, and reporting emergent warfighter needs by maturing NAVAIR's Warfighter Response Centers (WRC) in support of Fleet Forces Command's Distance Support Initiative and deliver the following

Future Capability: ***Deliver new aircraft, weapons, and systems on time and within budget that meet required reliability and capability***

- Objective 2, Action 1: Implement the NAE-approved process for developing NAE S&T Objectives which address validated capability needs

People: ***Recruit, develop, and retain our workforce and provide them with the tools and processes they need to do their work***

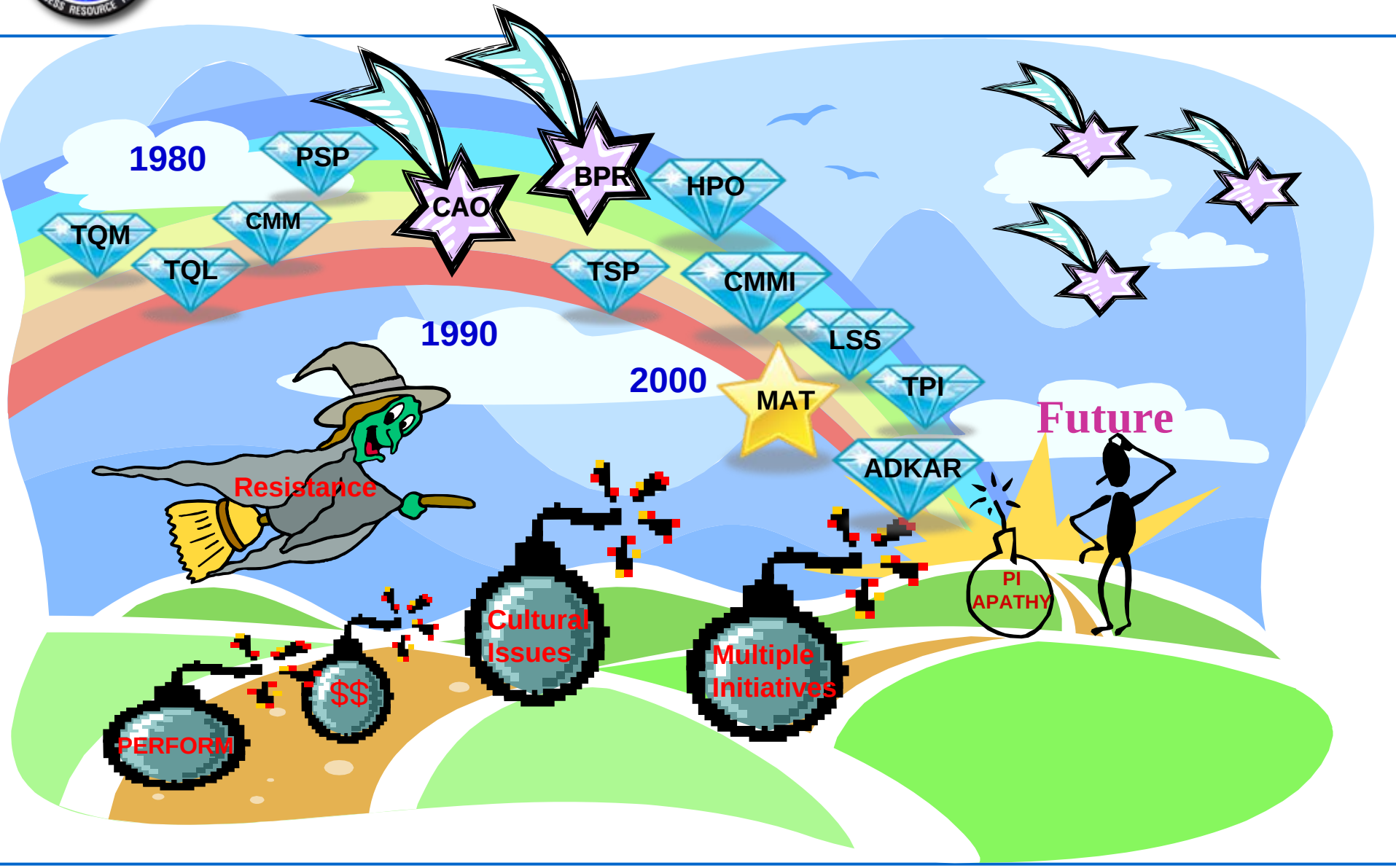
- Objective. 5: Identify and ***improve key processes*** that support our people in delivering capable and reliable aircraft, weapons, and systems on time and within budget
  - Action 1: Strengthen and expand NAVAIR's CPI Program
  - Action 2: ***Apply a strategic process*** for selecting and prioritizing high-value CPI projects that produce meaningful results

NAVAIR Continuous Process Improvement

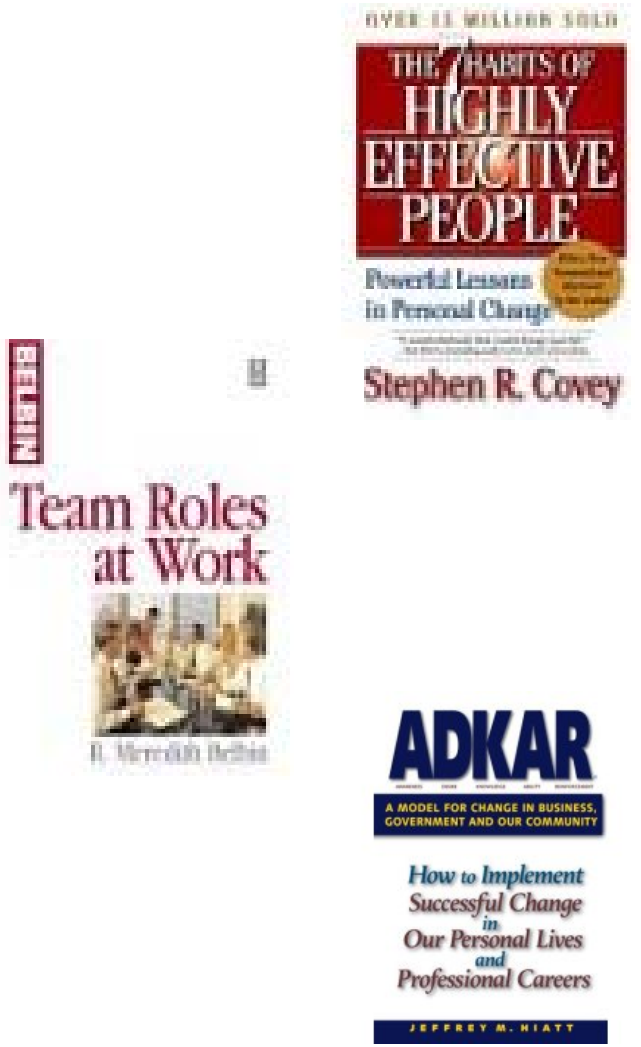
- "Our process improvement efforts are collectively labeled AIR*Speed*, a term encompassing various tools at work throughout NAVAIR. All of these tools are considered elements of Continuous Process Improvement. CPI is not a new initiative; it is as an ongoing part of our everyday work and is a continuance of AIR*Speed* that includes every aspect of process improvement in place today and planned for the future. "

- **NAVAIR continues to leverage off past active learning experience to gain an *understanding* of the approach needed to accomplish process improvement objectives:**
  - Use of models & best practices for technology improvement
    - AIR*Speed* is the NAVAIR implementation of Lean Six Sigma (LSS) & Theory of Constraints (ToC)
    - CMMI is the framework for process improvement efforts
  - "Design" the integration of multiple models, methods & tools
    - Understand how change happens & what needs to be accomplished
  - Use of models & best practices focused on the "people side of change"
    - ADKAR® & High Performance Organization (HPO) deal with personal & organizational vision & values

NAVAIR's Continuous Process Improvement Journey

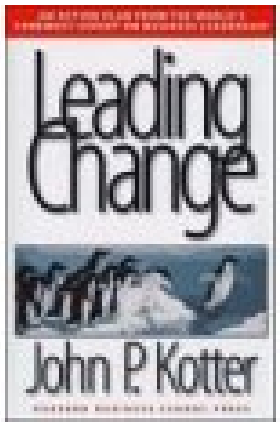


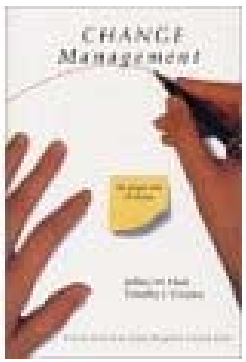
Know thyself . . .

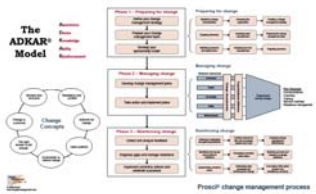


- What type of personality are you?
- How effective are you?
- How do you interact with members on your team or within your organization?
- What changes are currently taking place in your organization?
  - Awareness
  - Desire
  - Knowledge
  - Ability
  - Reinforcement

Change Management



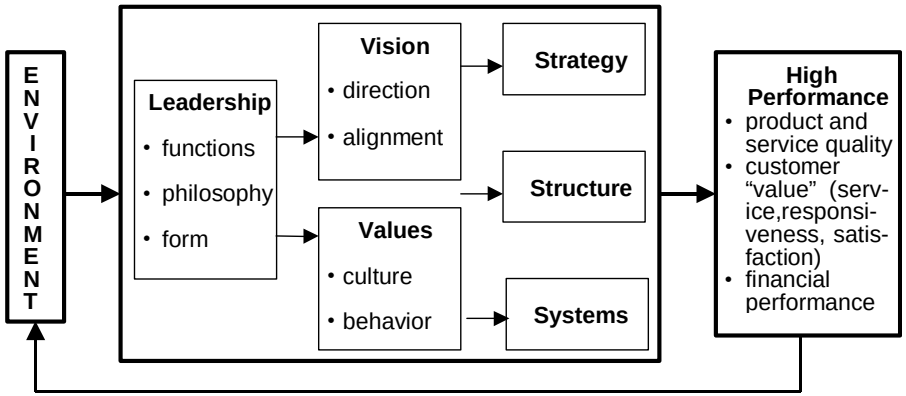




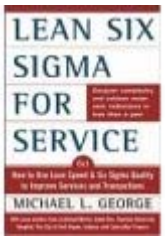
- Principles
  - Communication
    - Senders
    - Receivers
  - Resistance & Comfort
  - Authority for Change
  - Value Systems
  - Incremental vs. Radical Change
  - Right is not enough
  - Change is a process (ADKAR)
    - Preparing for change
    - Managing the change
    - Reinforcing the change

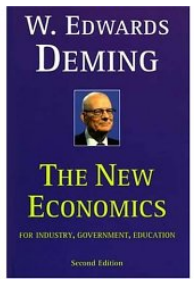
Business Improvement Methodologies

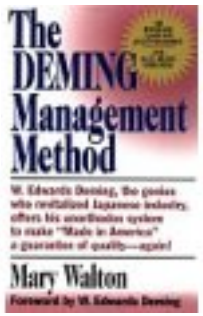
FIGURE 1 : The CCHPO High-Performance Organization Change Model *



* A version of this model was published in John W. Pickering and Robert E. Matson, "Why Executive Development Programs (Alone) Don't Work," *Training and Development*, (ASTD, May 1992), p. 92.

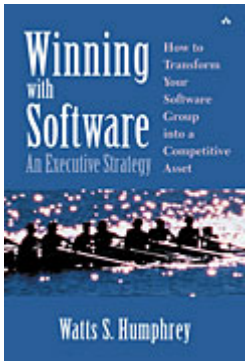


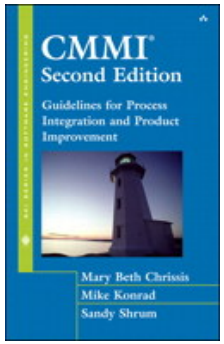


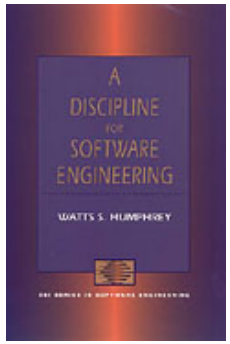


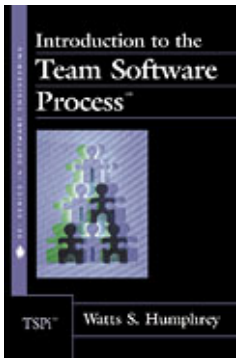
- Business Process Reengineering
- High Performance Organization Diagnostic Change Model
- Total Quality Management/Leadership
- Lean Six Sigma
- Restructuring or reorganization
- Performance Measurement

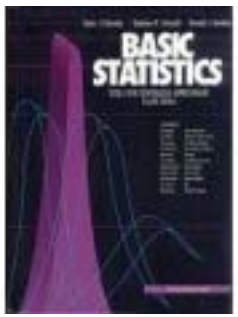
Process Improvement Methodologies







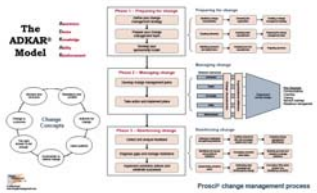


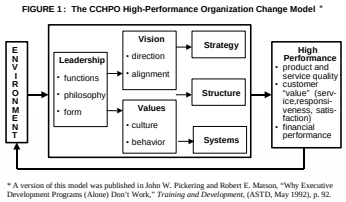


- IDEAL
  - Provide a framework for process improvement
- SEI – CMMI
  - Provide a benchmark of best practices
- PSP/TSP/TPI
  - Using metrics improve productivity of individual software engineer, software team and system team
- Six Sigma
  - Reduce process/product variation
- Lean
  - Eliminate waste (TIM WOOD & U)
- TOC
  - Improve work flow through the process

An IDEAL Relationship

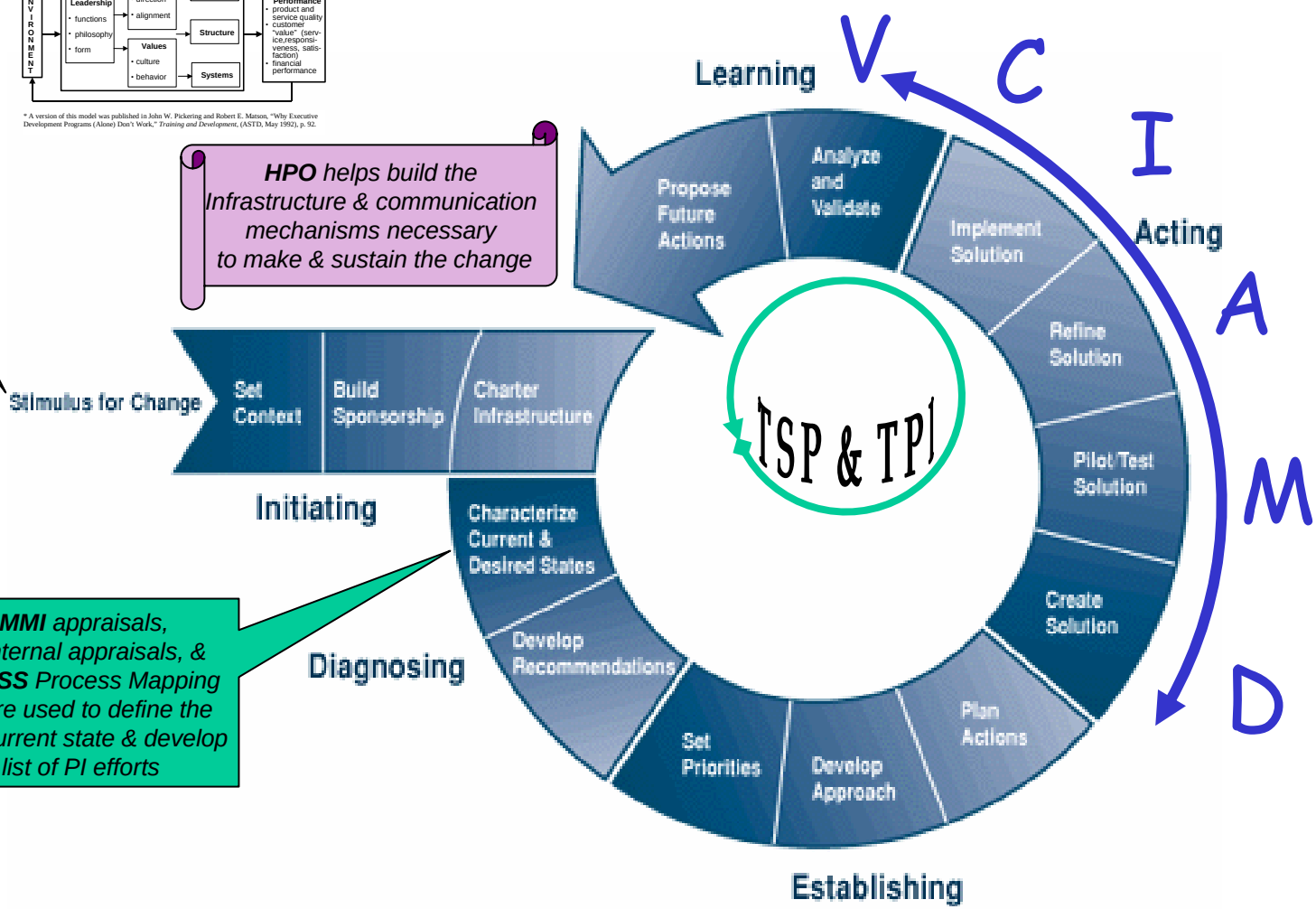
ADKAR is a toolset used to assess where people are with respect to change and to develop plans for sponsorship, resistance & communication to manage the people side of change



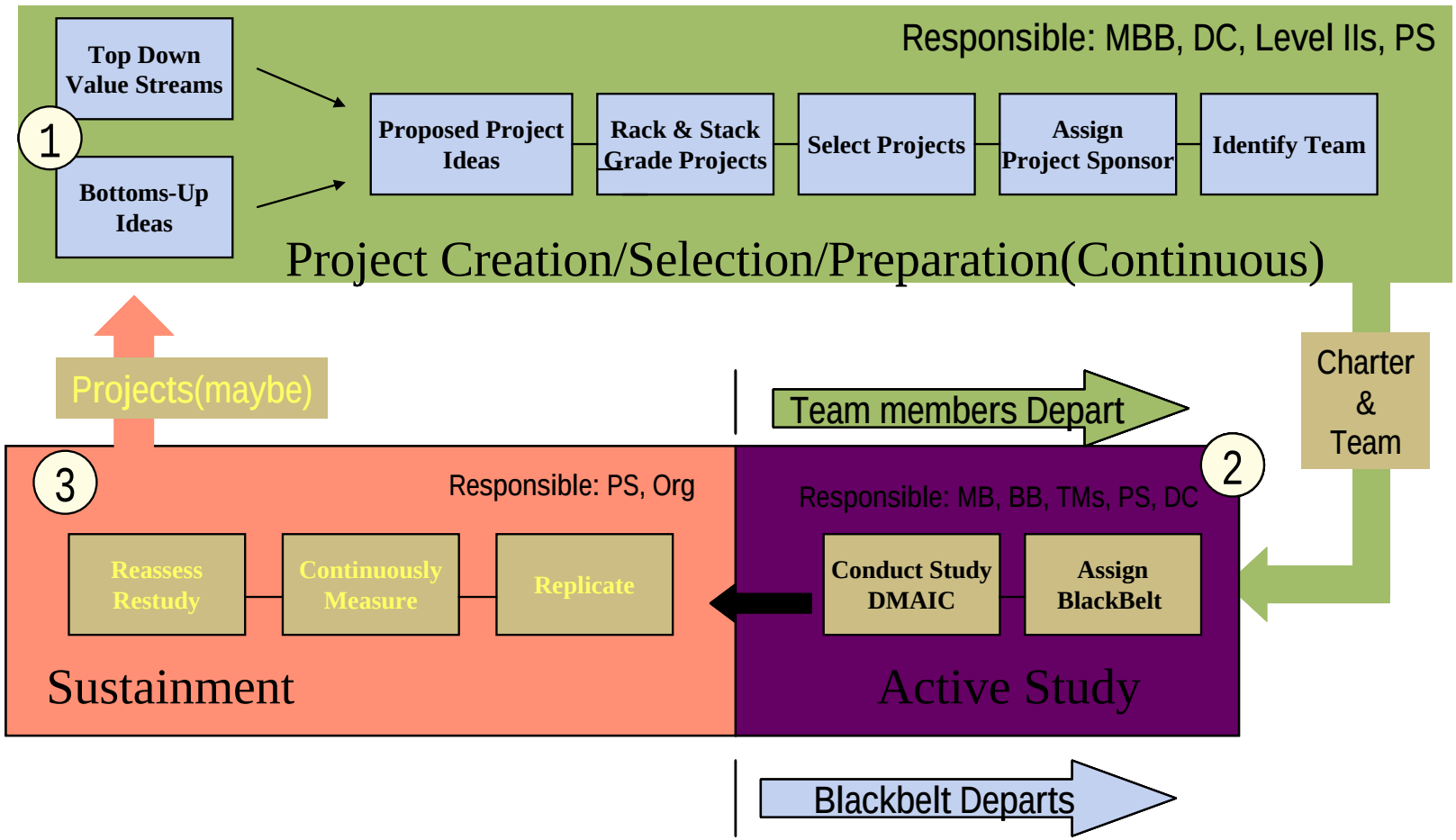


***HPO** helps build the Infrastructure & communication mechanisms necessary to make & sustain the change*

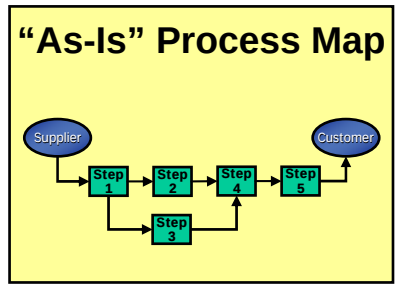
***CMMI** appraisals, Internal appraisals, & **LSS** Process Mapping are used to define the current state & develop a list of PI efforts*



AIR*Speed* Process

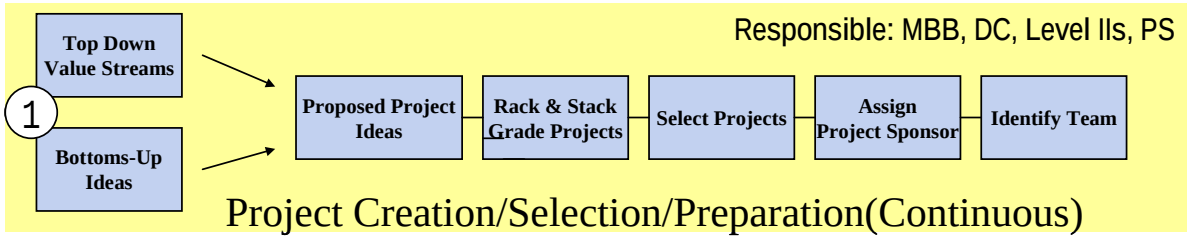


Diagnosing



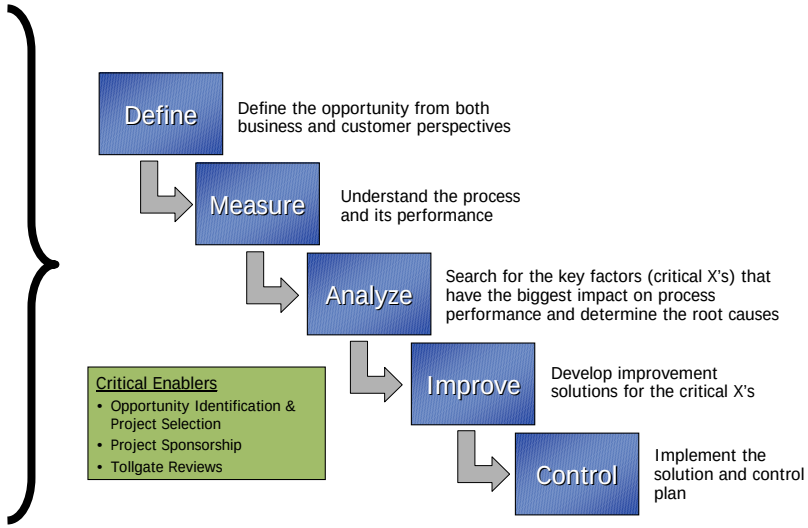
	ADKAR	IDEAL	AIR*Speed*
Purpose	Create an effective process for gathering diagnostic feedback	Establish baseline of organization's current state	Define the current process state and identify potential areas of improvement
Tasks	Analyze data collected from ADKAR surveys Identify trends & patterns Diagnose gaps in change management efforts	Determine what baselines are needed Plan for baselining Conduct baselines Communicate findings & recommendations to organization	Create Top-level Value Stream Maps & SIPOCs Collect data on process performance, quality and cost Determine potential areas for improvement
Participants	All Stakeholders	Management & Employees	Leadership, Management & Employees
Products	Structured feedback on awareness for needed change	Baseline Findings and Recommendations Report; Draft SPI Strategic Action Plan	"As-Is" Value Stream Maps/SIPOCs Potential Areas of Improvement

Establishing



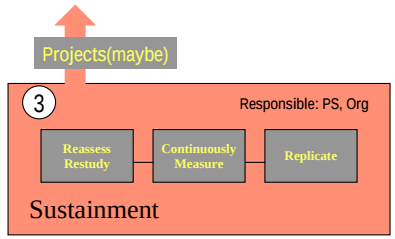
	HPO	IDEAL	AIR*Speed*
Purpose	Develop vision/values connected to strategy, structure, and system	Establish goals & priorities; complete action plan.	Identify AIR*Speed* projects.
Tasks	Perform an SCVA Perform strategic thinking Develop stewardship roles Build a "learning/renewing" organization (benchmarking/best practices/reengineering/continuous improvement)	Review Organization's vision, business plan, key business issues, past improvement efforts & motivations to improve; Reconcile existing improvement efforts with baseline findings; Create/update Strategic Action Plan; Commit resources to action; Form TWGs.	Generate potential project ideas based on problem areas identified in Diagnosing phase Rack and stack project ideas Select projects to generate a charter Identify project sponsor, process owner Identify Team
Participants	Entire Organization	Leadership & Management	Master Black Belts, Deployment Champions, Project Sponsors, CAO Level, MAT & PT Leads
Products	Tactical Operational Plan	Strategic Action Plan	Project Charter, Project Team Members

Acting



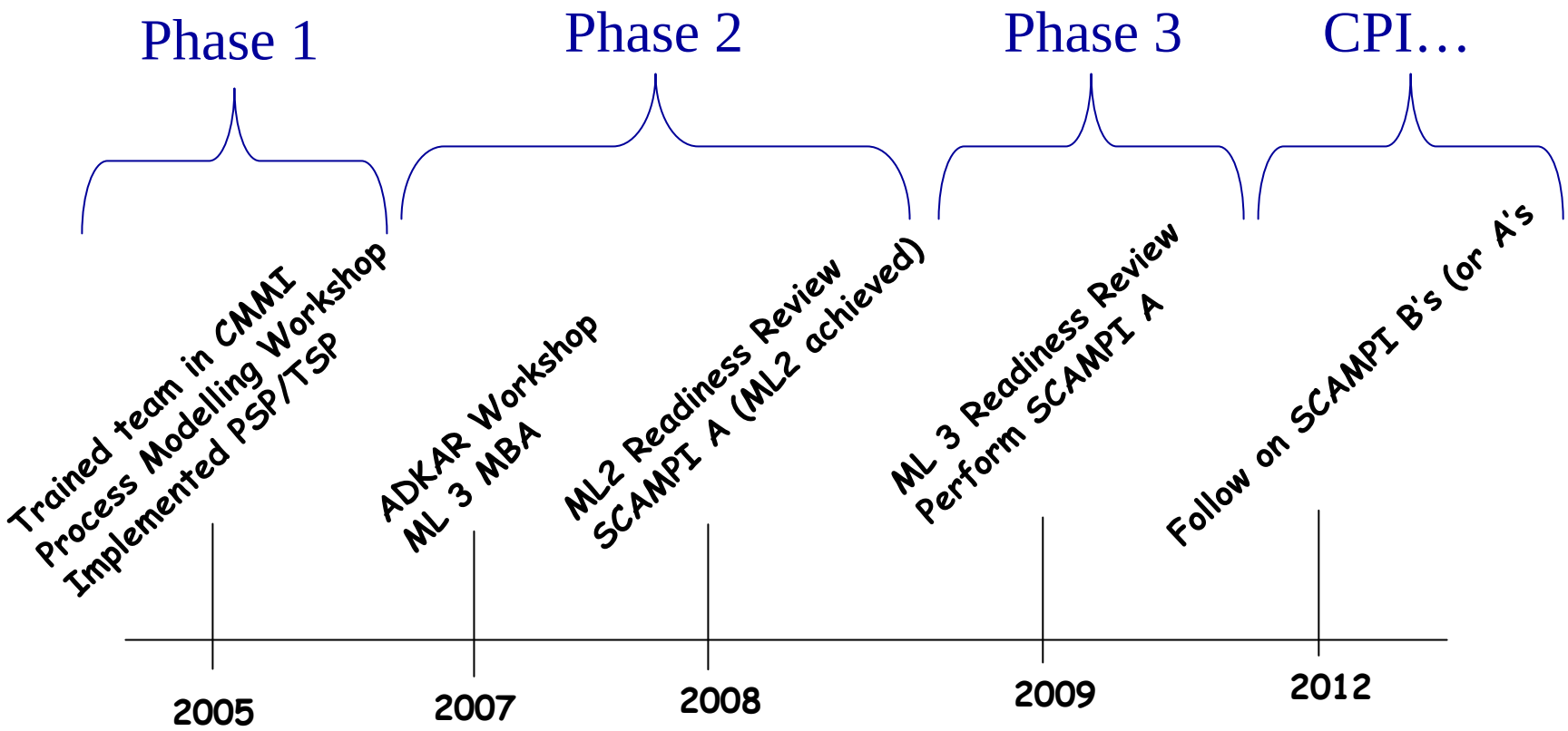
	IDEAL	DMAIC	TSP/TPI
Organizational Unit	Technical Working Group	AIR*Speed* Project Team	Technical Project Team
Purpose	Improve the process that it was chartered to evaluate and improve.	Implement a solution to the problem that it has been chartered to evaluate and improve.	To provide a method/framework to support project planning & execution.
Tasks	Create a solution; Pilot test solution; Refine solution; Implement solution	Define; Measure; Analyze; Improve; Control	Conduct a structured Launch Week in which work is planned & scheduled; Populate tracking tool to measure progress of work and review on periodic basis.
Participants	Team leader is process owner; members of team are customers, suppliers, and users.	Team leader is selected amongst membership of customers, suppliers, and users. Black/Green Belt facilitates the team toward a solution.	Technical Project Team and organizational stakeholders

Learning/Leveraging & Sustainment



	ADKAR	IDEAL	AIR*Speed*
Purpose	To be used as a communication diagnostic and sustainment tool	Prepare for the next cycle through the IDEAL model. Apply lessons learned.	Sustain performance improvements and identify possible new AIR*Speed* projects.
Tasks	Conduct survey to assess team's awareness, desire, knowledge, ability & reinforcement mechanisms for the change	Gather & Analyze lessons learned; Revise organizational PI approach; Revise PI proposal for next cycle.	Sustain performance improvements; Continuously measure; Identify possible improvement ideas.
Participants	Stakeholders	Stakeholders	Process Owner, Customers, Users & Stakeholders
Products	Survey results; corrective action plan	Updated/revised SPI approach	Performance Improvement Ideas

One Team's Approach



Lessons Learned

- We will always be on the process improvement journey and will always be experiencing active learning!
- CPI facilitators need to continue to update their "toolboxes" with the latest knowledge/technology and apply the appropriate method/tool to the situation.

- One method or tool does not address all aspects of the problem - define an approach, then look for the tool
- Teams needs to be adequately prepared for the changes that they will personally experience.

- It is important to "take our pulse" and make sure we are "doing the right thing".
- Leadership must be actively ***ENGAGED*** in process improvement!

Building upon Foundational Theories

3 Key Messages

- Become familiar with many different methodologies – understand the relationships between them in developing your approach
- Choose the appropriate methodology that will address the improvement challenge – perhaps a combination of methods will be required
- Be flexible & ready for change during your CPI journey!

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Are there any comments or questions?