

DTE Energy®



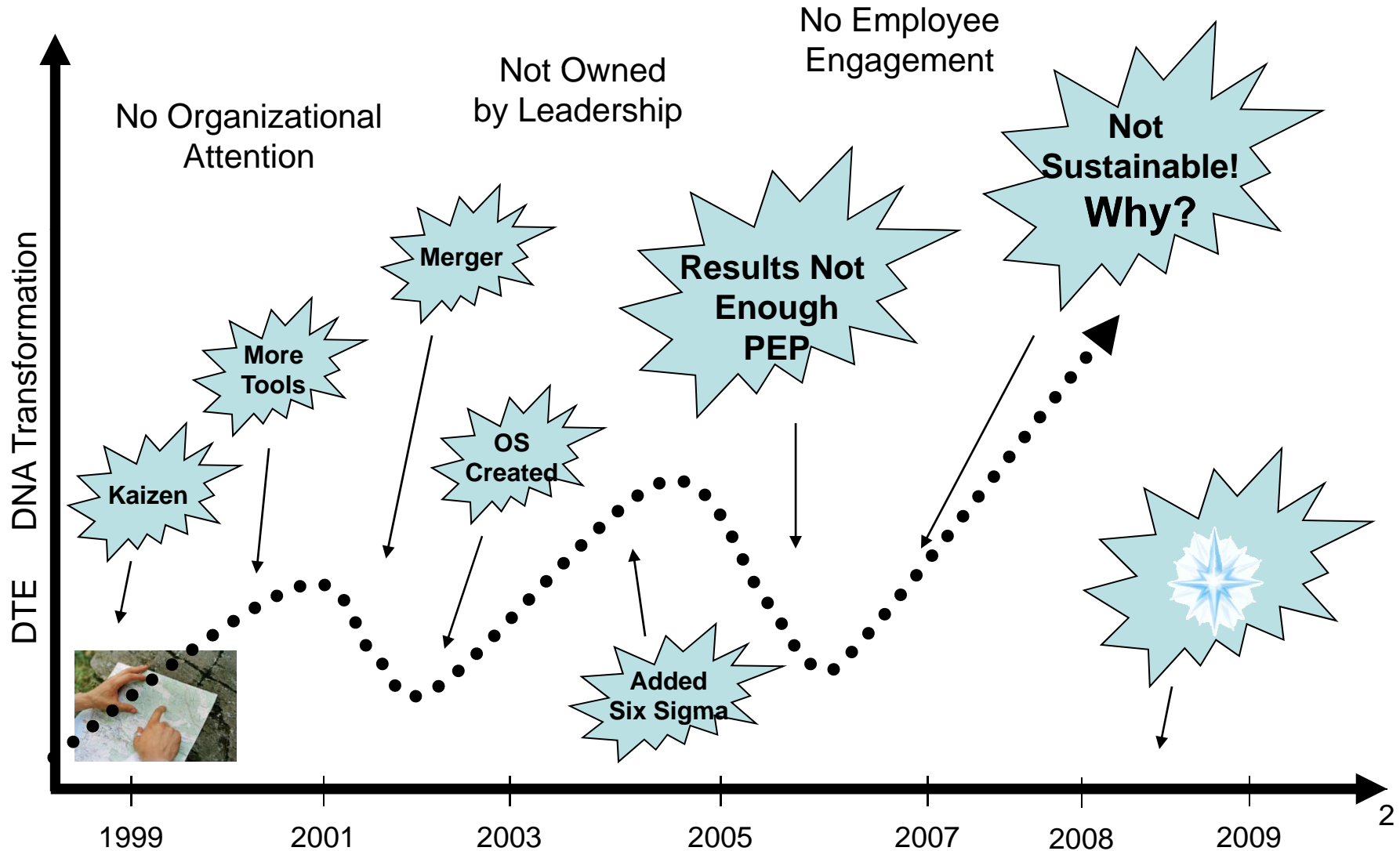
**Continuous Improvement (C1-C4)
and DTE Energy Suppliers**

**Shawn Patterson
June 22, 2010**

Operating System Framework History

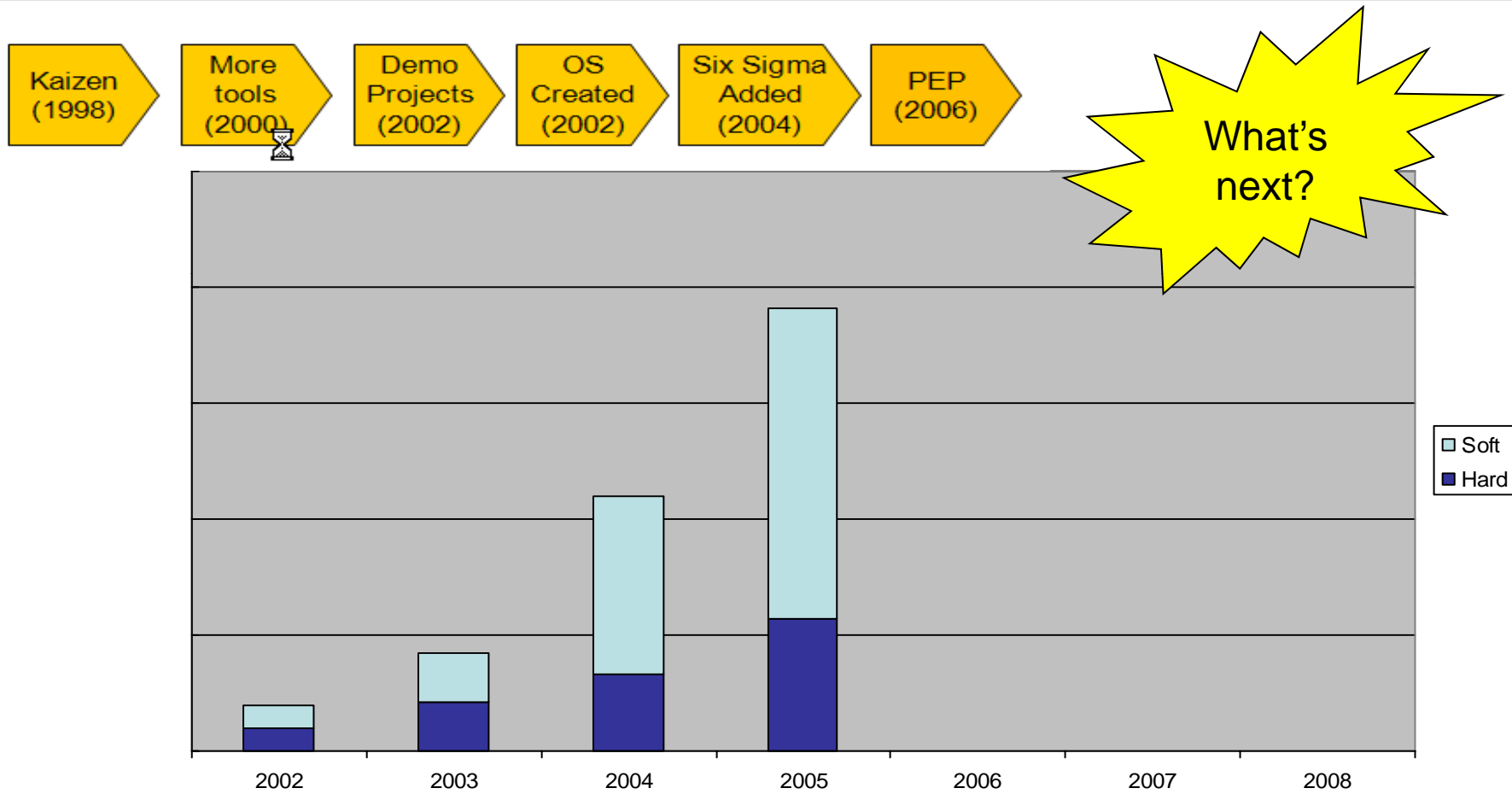


"Those who cannot remember the past are condemned to repeat it." - George Santayana

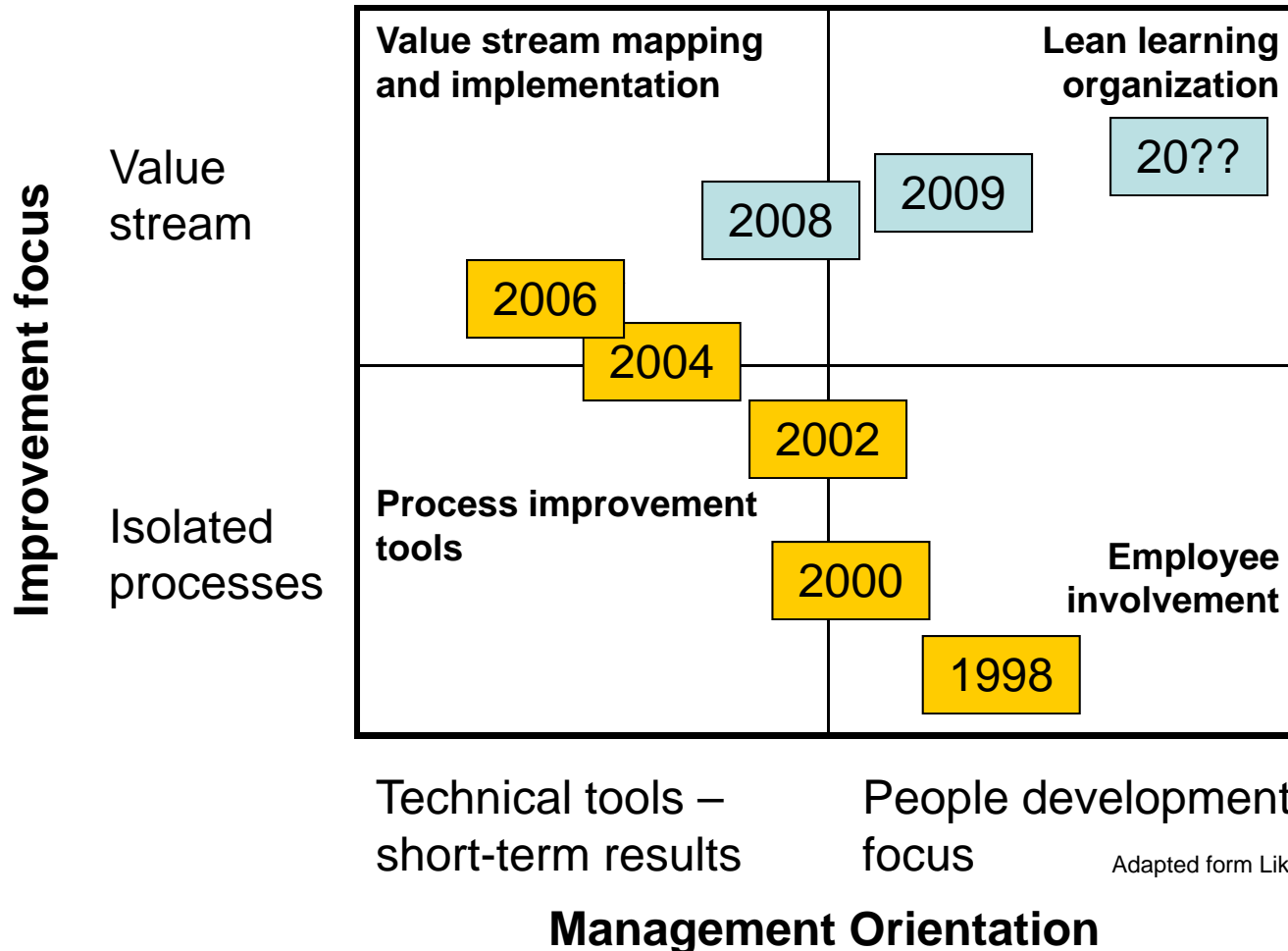




Results of CI Efforts were Improving but not Hitting the Bottom Line Fast Enough...



DTE Energy's Journey has not Tapped the Lean Learning Organization Approach and only Recently has Focused CI Efforts Towards Value Streams



Adapted from Liker – Toyota way Fieldbook



Why do Companies Fail in Sustaining their CI Efforts? - The Four Failure Modes

- As DTE Energy has had difficulty in sustaining its own efforts, we looked to research on why others fail:
- Companies copy lean tools without making the work self-diagnostic
- Companies work around problems even when they are recognized
- Companies don't share systemically what has been learned locally
- Companies don't develop the capabilities of others to design work, solve problems, and institutionalize new knowledge

S. Spear

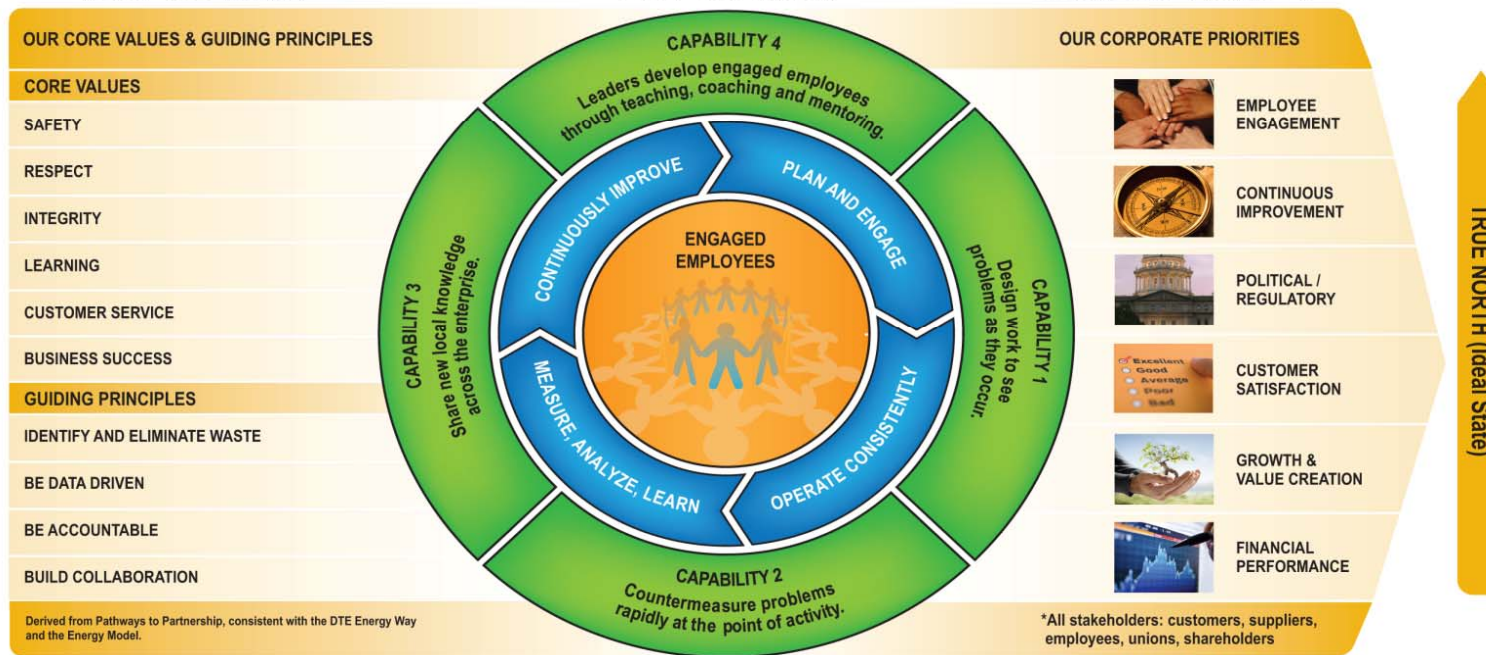


DTE Energy Operating System (2010)

OPERATING SYSTEM FRAMEWORK

OUR PURPOSE: We energize the progress of society. We make dreams real. We are always here.

How We Think + How We Work = What We*Achieve



CONTINUOUS IMPROVEMENT METHODOLOGIES			
People Focus		Project Focus	
Swarming	DNA Building	4 Gate - 9 Step	Just Do It
Lean/Six Sigma			

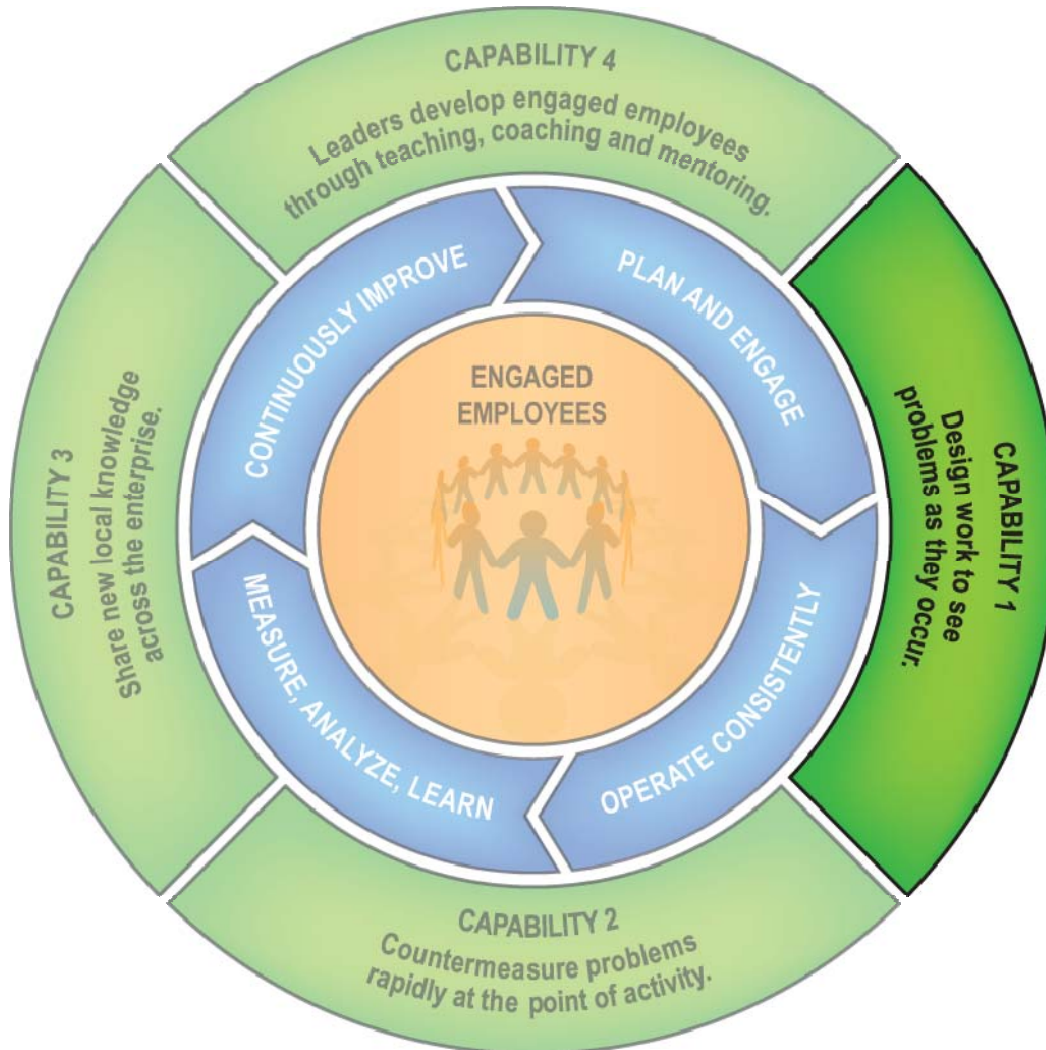
Additional information on Continuous Improvement and OSSG is available on the Operating System Web site on Quest, keyword search: CI



CAPABILITY 1 - Process Design

Design work to see problems as they occur.

All work is designed so best practices are captured and problems are evident immediately so that “problem solving” can occur.





C1 Process Design : Key Points

- All work designed as series of experiments
- Work is clearly specified before it is started
- When work is not successful, it is immediately evident
 - *Tests embedded in work indicate gaps between what is actually happening and what is predicted*
 - *When gaps occur, response should be immediate so that problem solving can occur.*

PROCESS OUTPUT - ACTIVITIES - PATHWAYS - CONNECTIONS

PRE-SPECIFICATION

Document the current Best Practice so that ambiguities are eliminated

EMBEDDED TEST

Now create an embedded test to signal if we have an abnormality to the pre-specification

ESCALATION

Assign a pathway for someone to respond to the test and at what point



Failure Mode 2

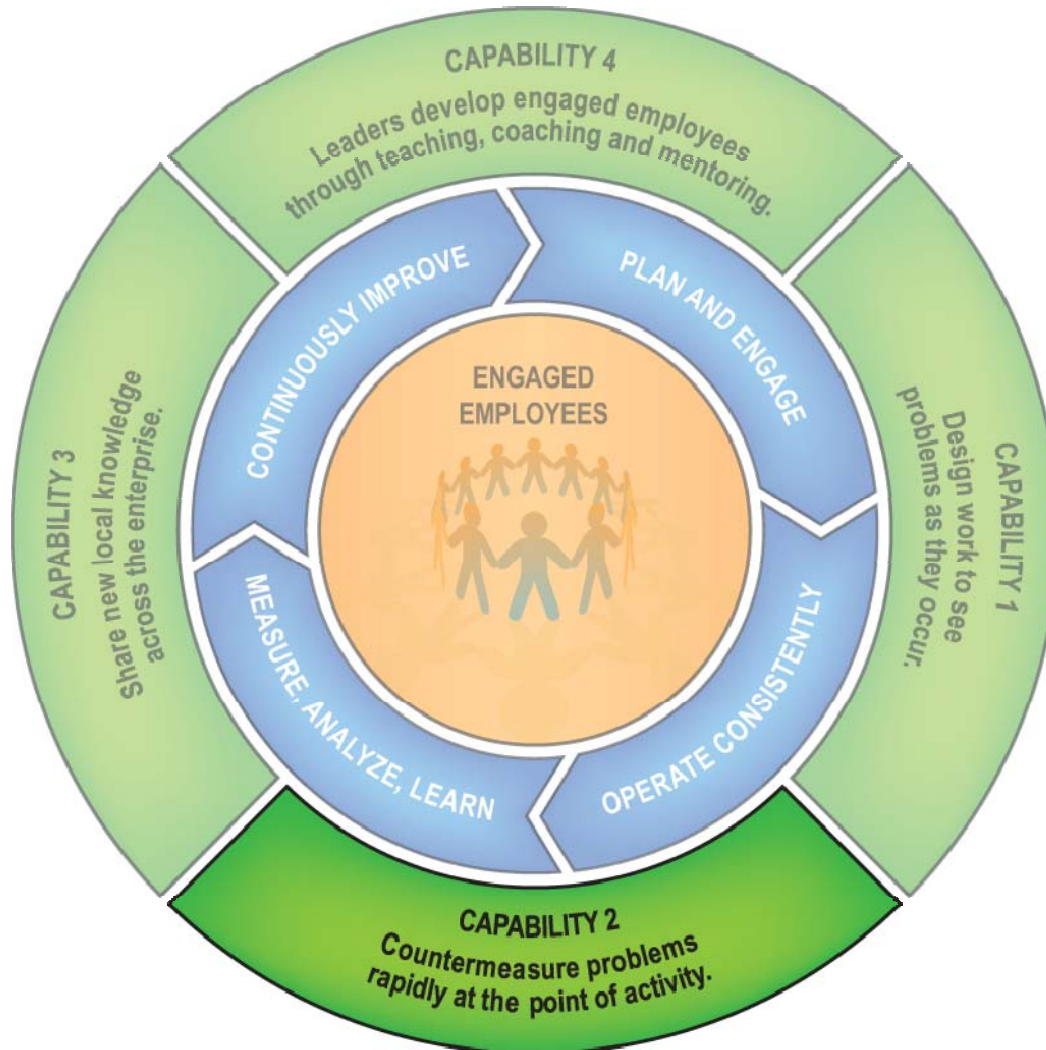
Work around problems even when they are recognized.

- *“Cart should be here, no problem I’ll use this one”*
- *“A step was missed, no problem I’ll cover for him/her”*
- *“The system won’t let me in, no problem I never use it anyhow, do it this way”*

What do all these situations have in common?



CAPABILITY 2 - Problem Solving



Countermeasure problems rapidly at the point of activity

Problems are immediately addressed, both to contain their effects from propagating, and to trigger problem solving.



C2 Problem Solving : Key Points

Two types of Problems:

1. **Abnormality to the Pre-Specification**

- SWARM the problem by responding quickly to the Embedded Test
- Treat problems as CRIME SCENE
 - Go and see the ACTUAL person, place, process, product

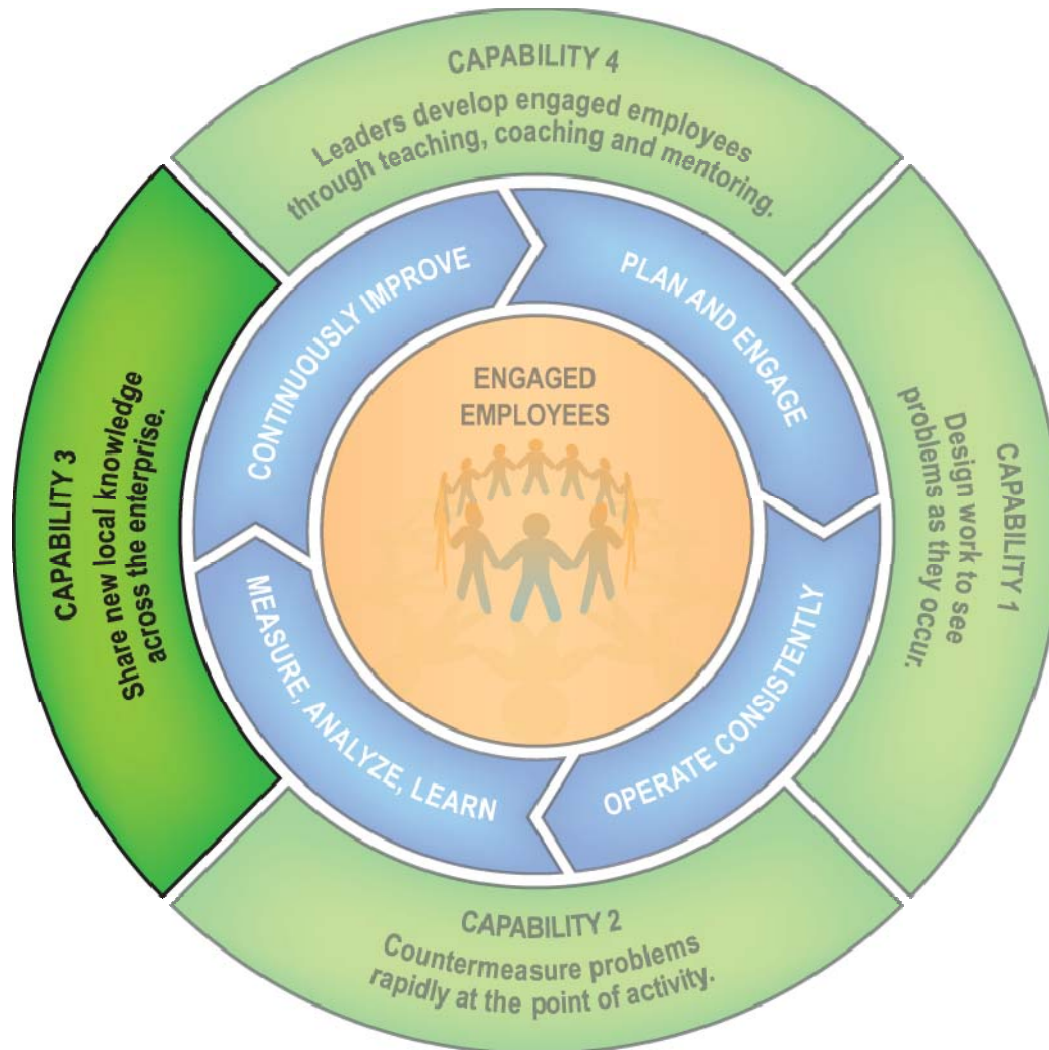
2. **No problem to the Pre-Specification**

- Improve process toward True North

Use the Scientific Method and Rapid, Low cost Experiments to prove your hypothesis



CAPABILITY 3 - Share Knowledge



Share new local knowledge across the enterprise

Knowledge generated locally becomes systemic through shared problem solving

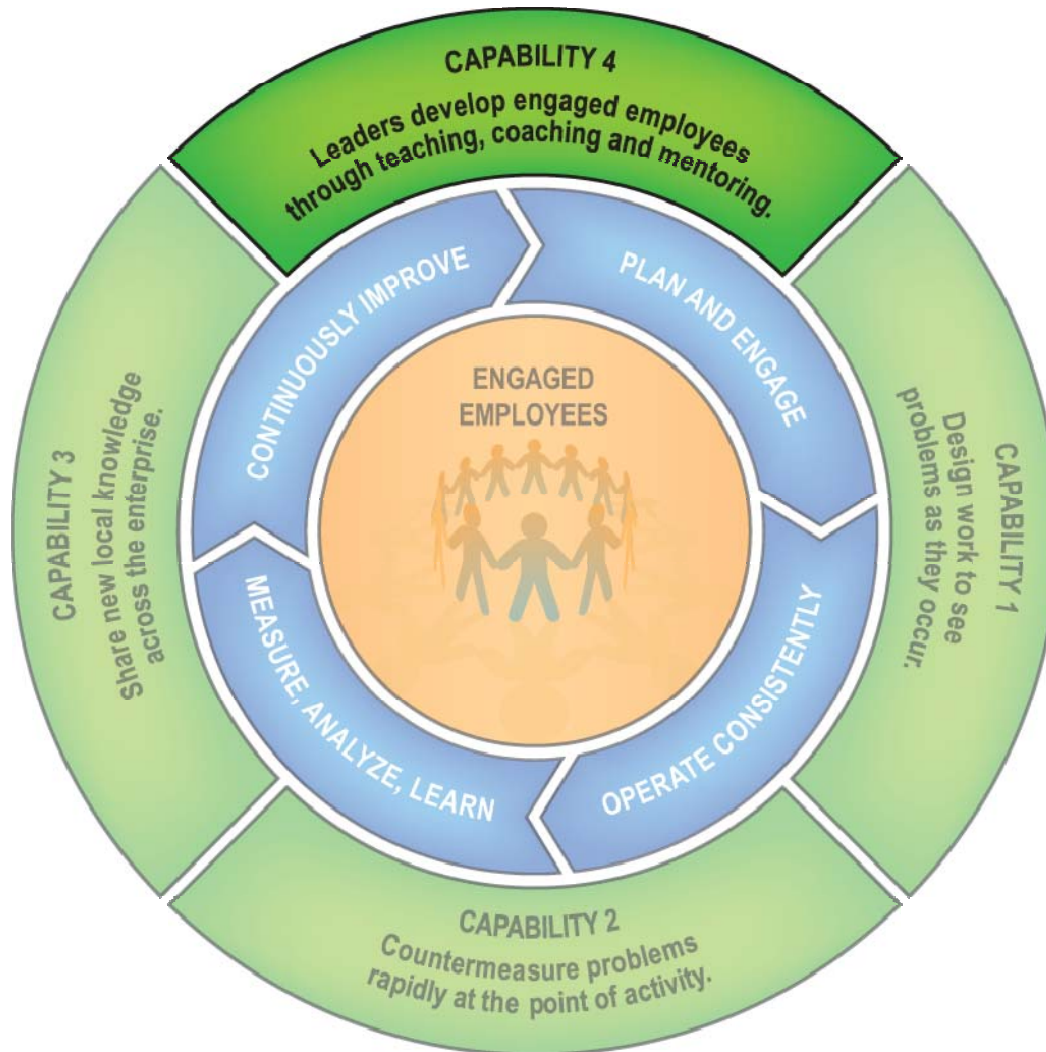


C3 Sharing Knowledge : Key Points

- All people do their work using DTE's COLLECTIVE KNOWLEDGE and experience accomplished through sharing and prespecified process design.
- Lessons learned (successes and failures) are shared with others who have similar processes or problems with LOGICAL APPLICATION.
- Methods of sharing can be PUSH (you don't know you need the information) and PULL (you know you need information). Also methods should be based upon the complexity of the knowledge being transferred.



CAPABILITY 4 - Leaders Develop People



Leaders engage employees through teaching, coaching, and mentoring

One of the Leader's KEY roles is to build the capabilities of others.



C4 Leaders Develop Others : Key Points

- Leaders build the capabilities of others through coaching, mentoring, and teaching
- Leaders must continuously assess, diagnose and develop effective countermeasures to build their peoples capabilities to :
 - Design Processes
 - Solving Problems
 - Share New Knowledge
- Needs of the people at the point of activity determine the work of leaders, not the reverse.



DTE Energy our CI Journey

- **Training and Development**
 - Sr. Leaders used C1-C4 in CI Leadership Workshops
 - Sr. Leaders training Managers and Supervisors using CI Leadership Workshops and Swarm Events
 - Sr. Leaders, Managers and Supervisors training and developing Employees at the point of activity using swarm events and problem solving tools
- **Corporate Services**
 - 100% of Directors and Managers trained on C1-C4 and problem solving tools
 - Employees solving problems at the point of activity to embed capabilities of the Operationally Outstanding

DTE Energy®



Continuous Improvement Survey of DTE Energy Suppliers

Venus Randle
June 22, 2010



Continuous Improvement Survey

Has your Company been engaged in CI activities with DTE Energy and our employees?

Yes

No

Has your Company been engaged with other customers in CI activities and initiatives?

Yes

No

Is your Company using Lean Manufacturing principles and tools?

Yes

No

Is your Company using Six Sigma business management strategies?

Yes

No



Continuous Improvement Survey

What kind of problem solving methodologies and/or tools does your company use? (Check all that apply)

Root Cause Analysis

Kepner- Tregoe Process

Ishikawa/Fishbone Diagrams

Others list your problem solving process and tools:

Please pass your completed Survey to the Buyer or Strategic Category Manager closest to your table.

Thank you for your participation!