

Fundamentals of **T**otal **Q**uality **L**eadership

Module 3

System of Profound Knowledge

Lesson 4

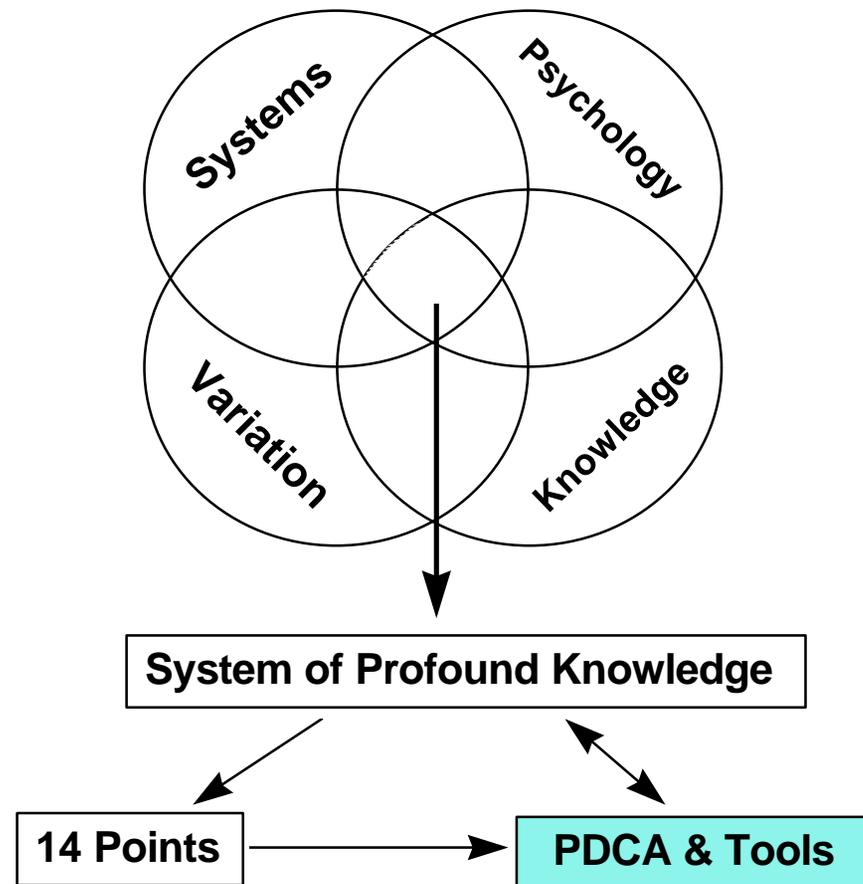
Knowledge

Learning Objectives

By the end of the lesson the student will be able to:

- ◆ Explain the definition of the theory of knowledge
- ◆ Explain the effective planning and decision-making approaches
- ◆ Explain that planning and decision-making require prediction
- ◆ Describe the importance of operational definitions
- ◆ Describe the Plan-Do-Check-Act (PDCA) cycle
- ◆ Explain how the PDCA cycle provides a method for continual improvement

DON Approach to Quality Management



Theory of Knowledge

- ◆ **Systematic approach to learning**
- ◆ **Knowledge is the only source of improvement and innovation**



Typical Approaches to Planning and Decision-Making

- ◆ React to problems
- ◆ “Shoot from the hip”
- ◆ Form “tiger teams”
- ◆ Blame the workers
- ◆ Work around the system
- ◆ Take a short-term perspective



Quality Approaches to Planning and Decision-Making

- ◆ Plan for improvements
- ◆ Make data-based decisions
- ◆ Pursue continuous process improvement
- ◆ Improve processes
- ◆ Improve the organizational system
- ◆ Take a long-term perspective

Management and the Theory of Knowledge

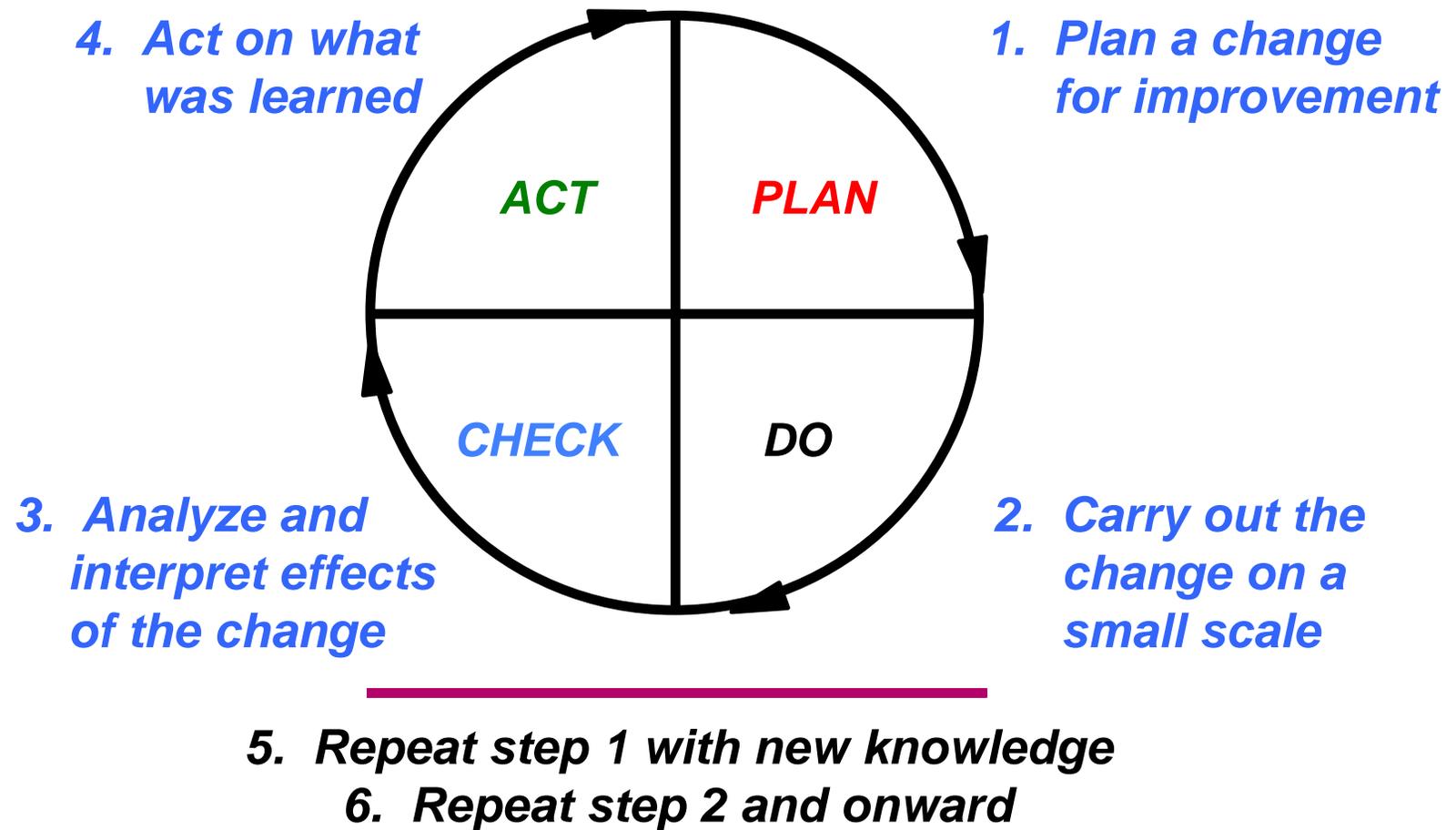
- ◆ Management must be able to predict the future
- ◆ Prediction requires knowledge
- ◆ Theory is required to increase knowledge
- ◆ Knowledge comes from applying the scientific method



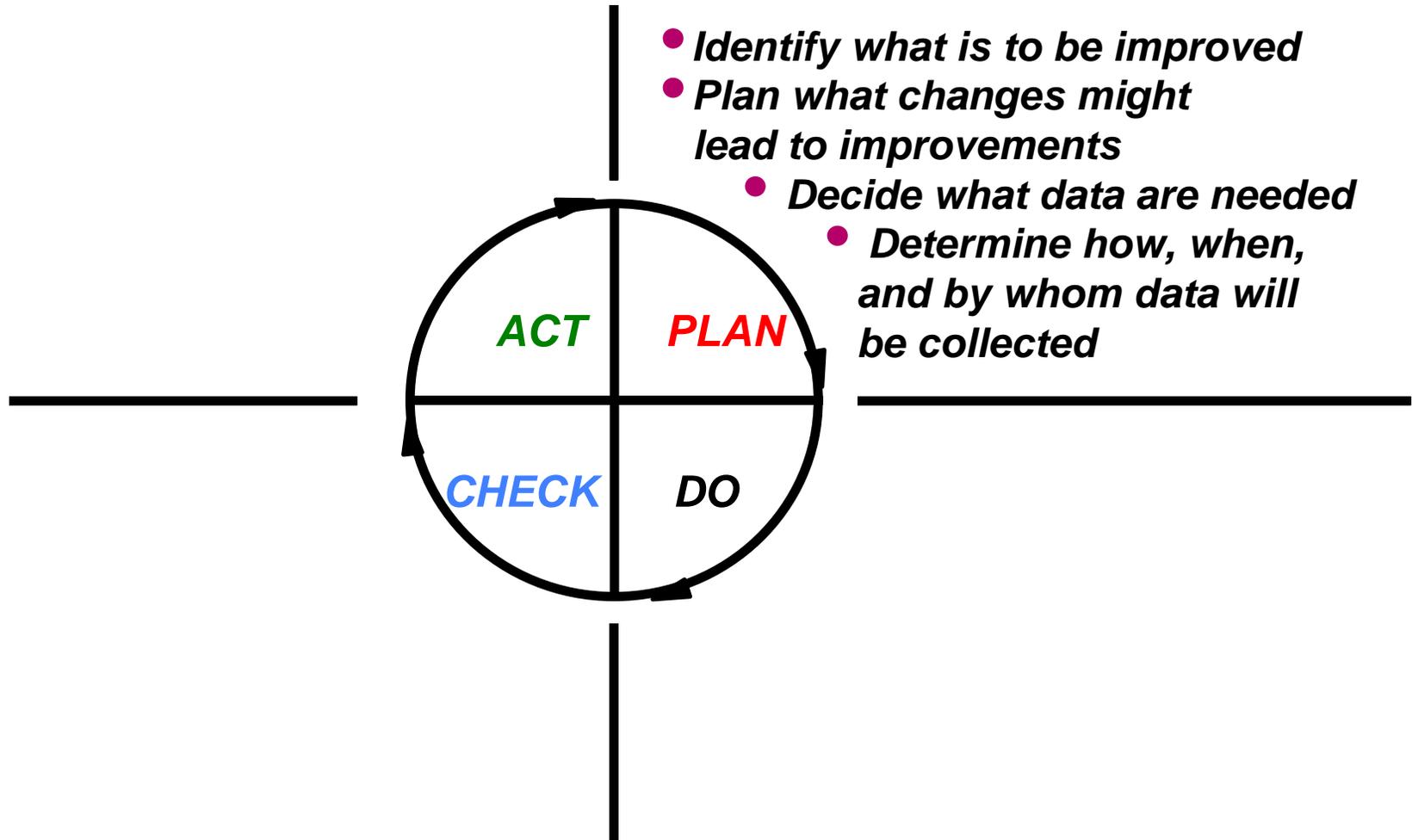
Operational Definition

- ◆ Give communicable meaning to a concept by specifying how the concept is measured and applied within a particular set of circumstances
- ◆ Operational definitions have three elements:
 - Criterion
 - Test
 - Decision

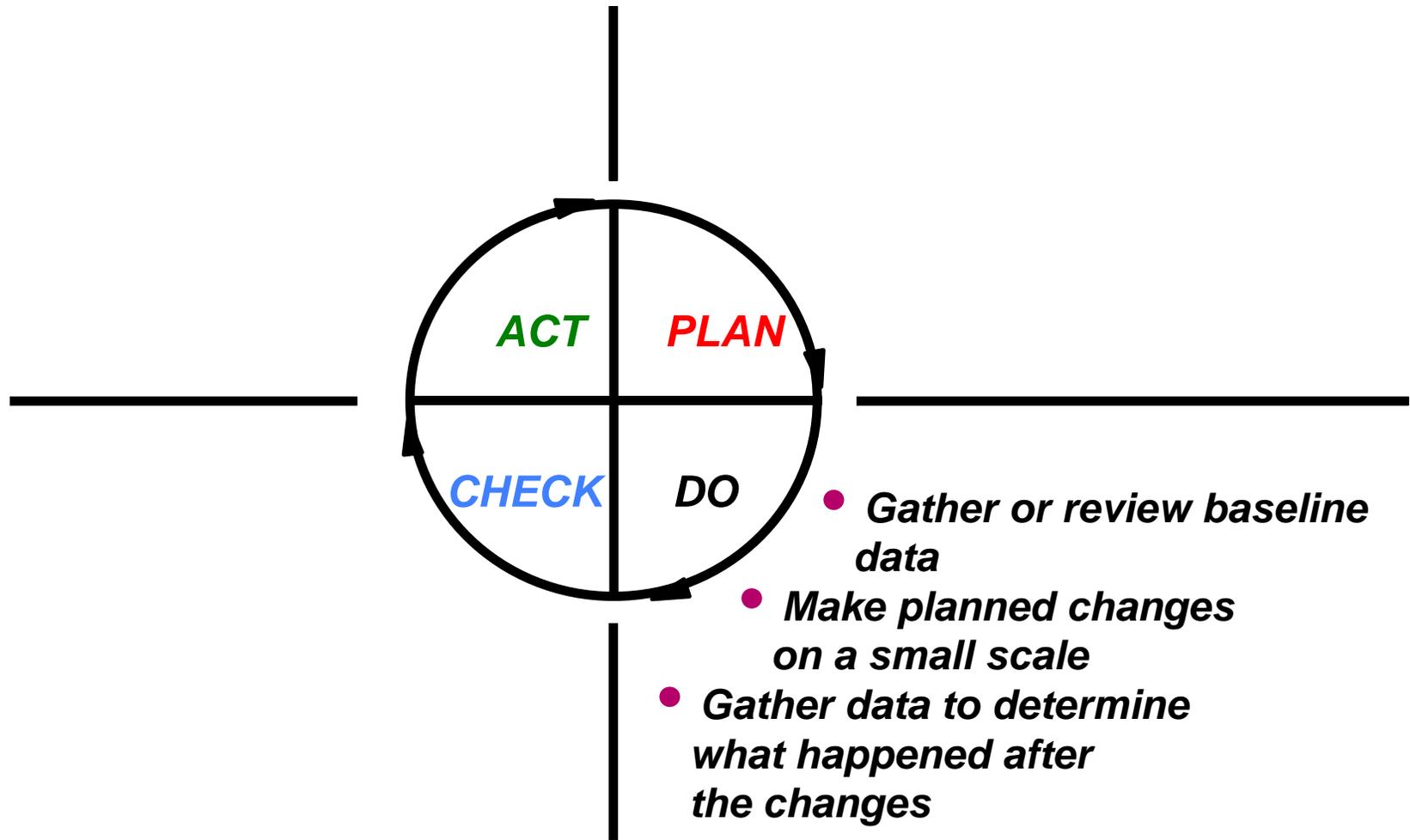
The Plan-Do-Check-Act (PDCA) Cycle



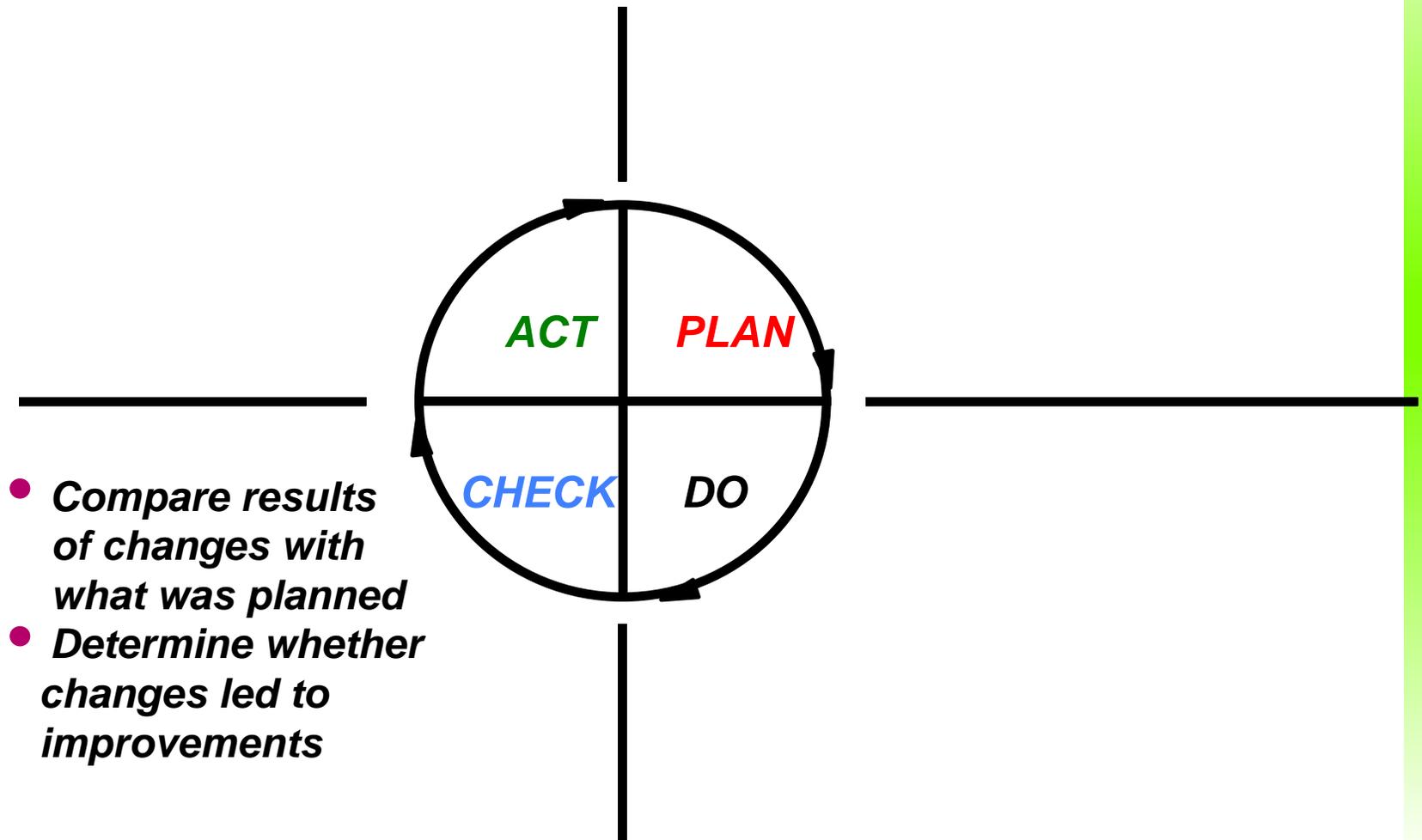
PLAN Phase



DO Phase

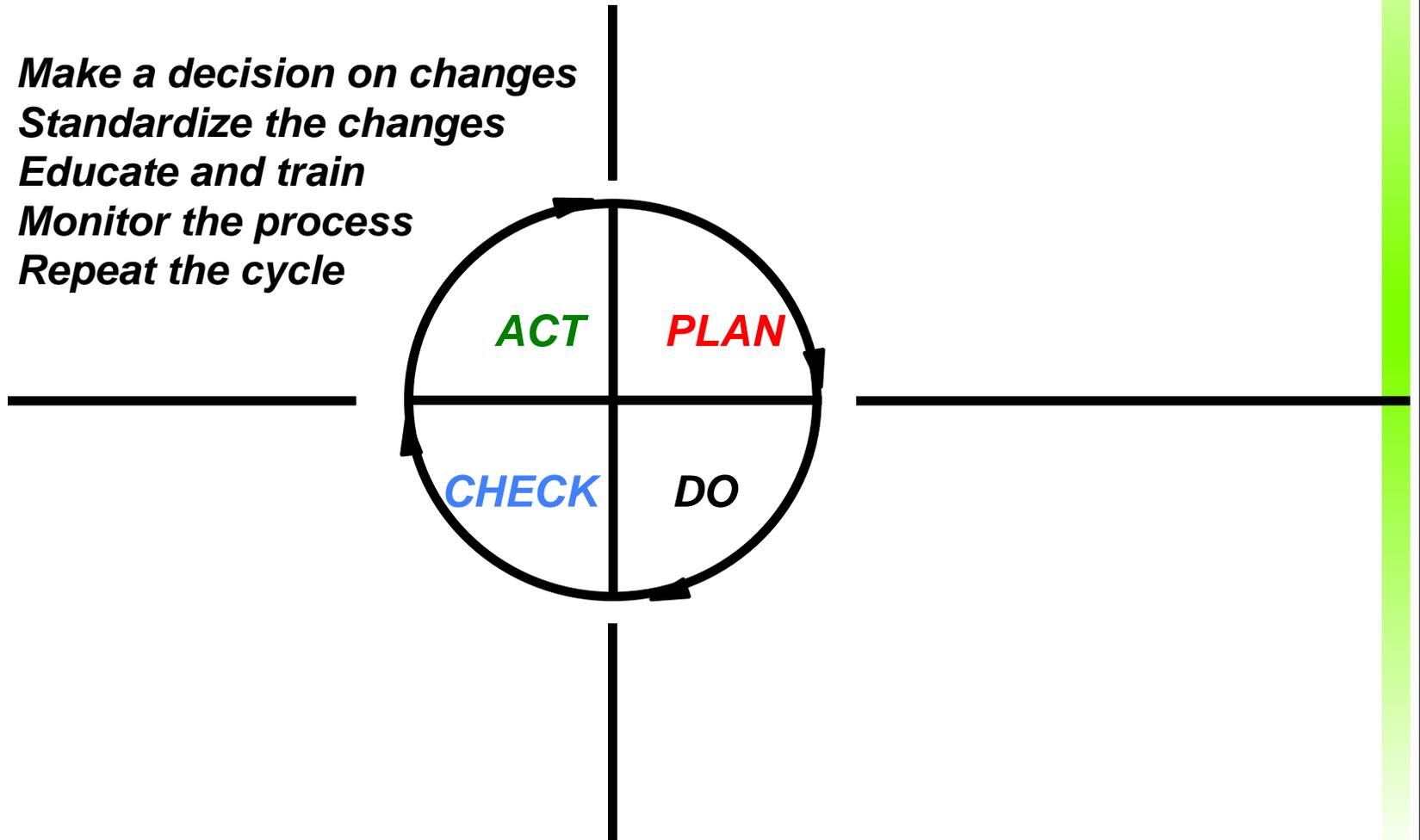


CHECK Phase

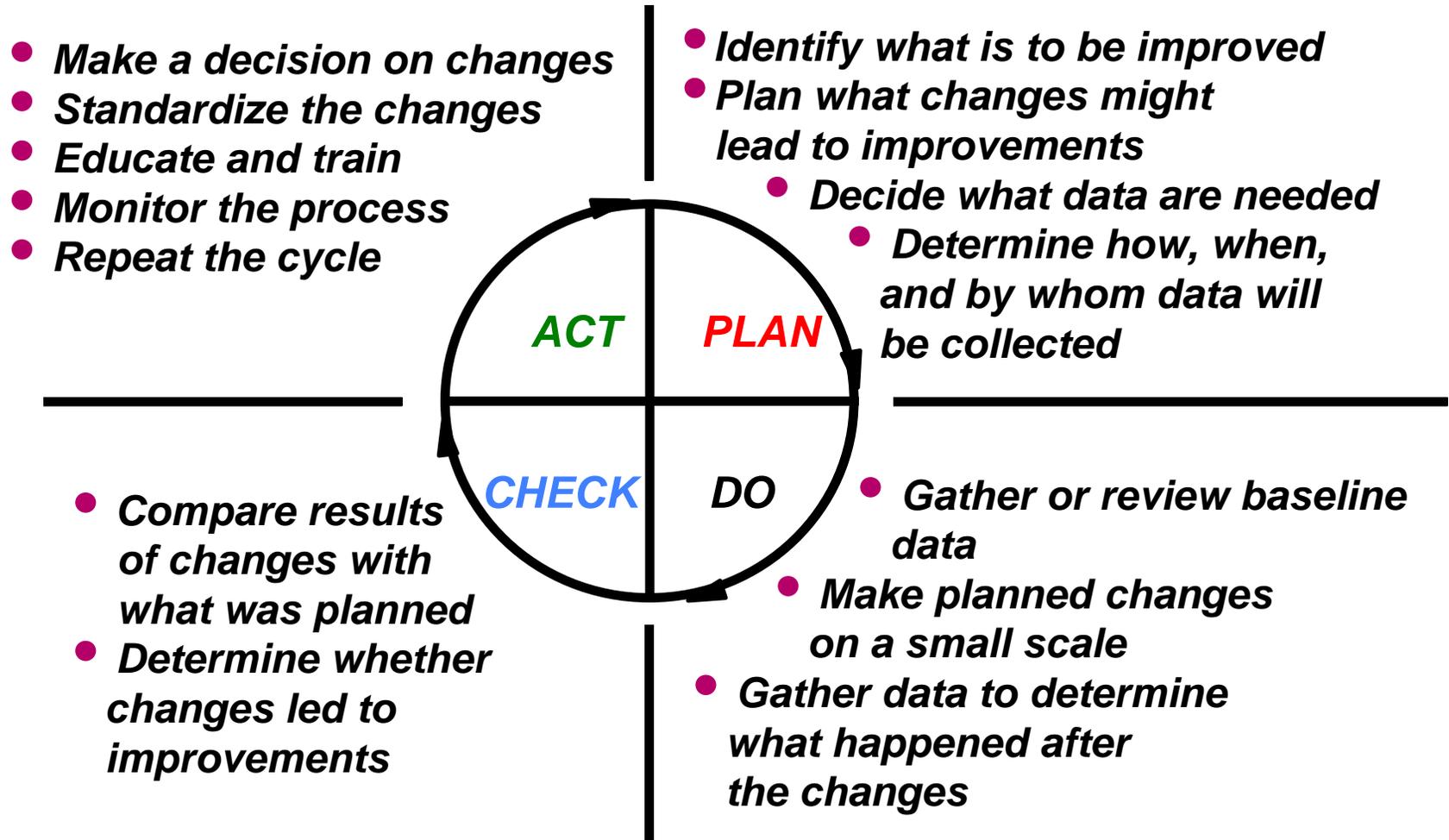


ACT Phase

- *Make a decision on changes*
- *Standardize the changes*
- *Educate and train*
- *Monitor the process*
- *Repeat the cycle*



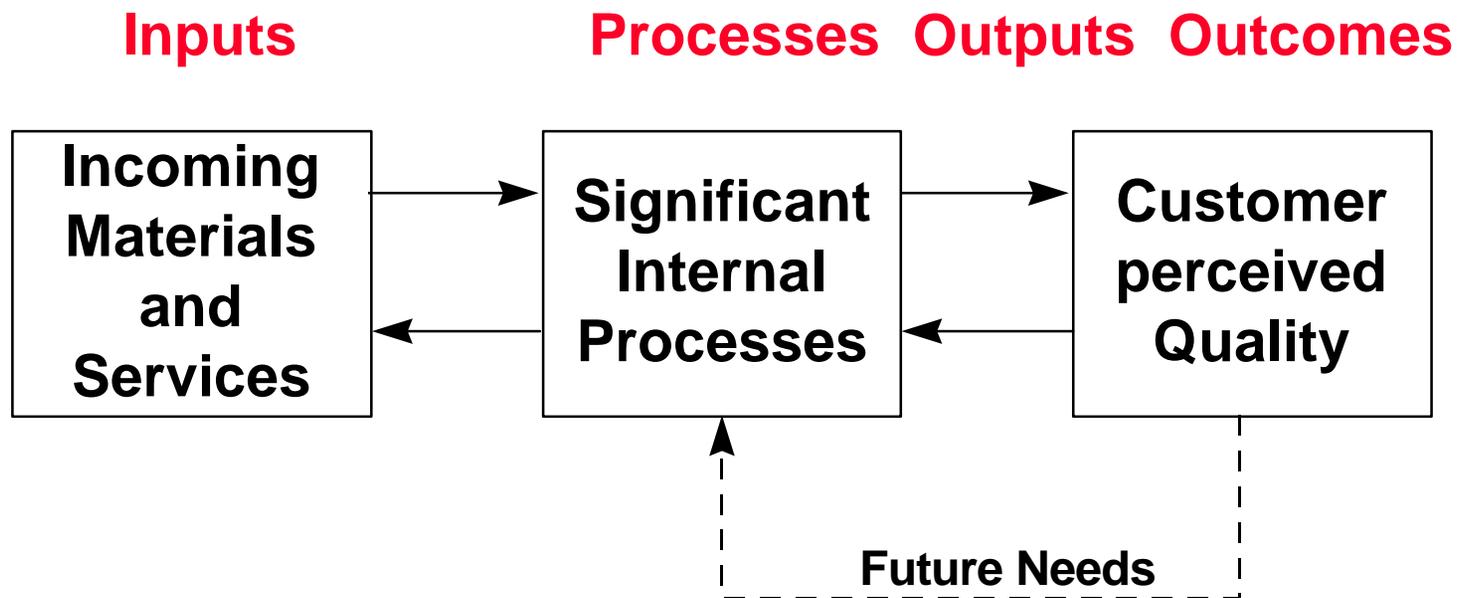
PDCA Cycle and Process Improvement



How the PDCA Cycle can be applied

- ◆ **Improve existing products and services**
- ◆ **Improve existing processes**
- ◆ **Innovations in products, services, and processes**

Where the PDCA Cycle can be applied



Lesson Summary

- ◆ **The theory of knowledge is an integral part of the System of Profound Knowledge**
- ◆ **A total quality approach must replace typical approaches to planning and decision-making**
- ◆ **Planning and decision-making require prediction and prediction comes from knowledge**
- ◆ **Operational definitions are required**
- ◆ **The PDCA cycle provides a scientific method for increasing process knowledge**
- ◆ **Knowledge guides us in the improvement and innovation of processes, products, and services**
- ◆ **Continuous process improvement is required to increase quality**