

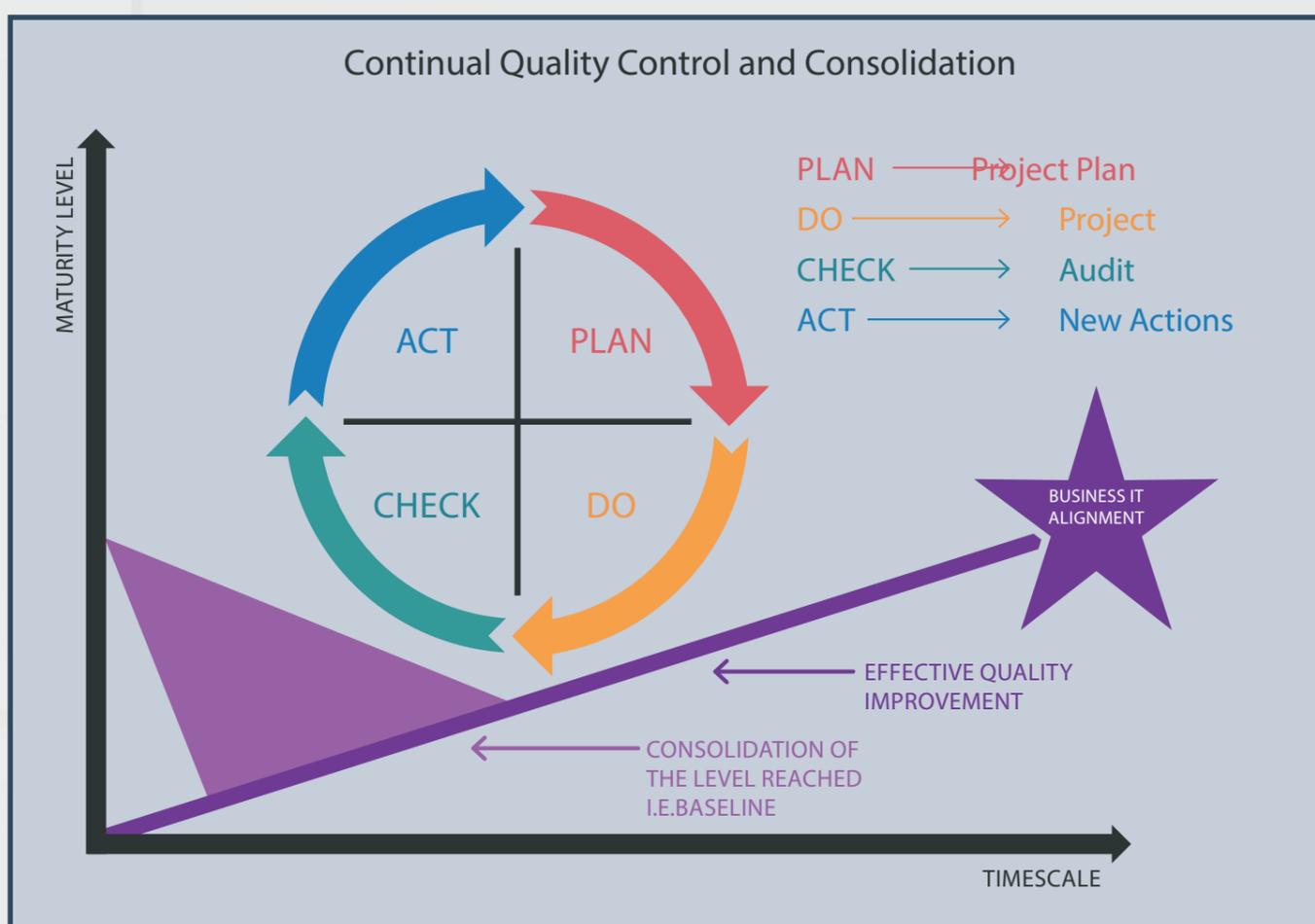
# ITIL® Poster Series #54

## The Deming Cycle

### Introduction

One of the many approaches available in improvement activities is the Deming cycle. This was devised by W. Edwards Deming, an academic who advised large companies on quality improvement, leading to higher-quality, increased productivity and a more competitive position for the organization. Deming's approach to quality improvement was encapsulated in the Deming Cycle. This approach is applicable to Continual Service Improvement and is used in the quality management systems of standards such as ISO/IEC 20000. The four key stages of the cycle are Plan-Do-Check-Act (PDCA), followed by a phase of consolidation. Here we examine each step in turn.

### THE DEMING CYCLE



Continual service improvement is key to the success of the service management approach, because organizations do not stay static in their requirements. Reviewing performance and identifying improvement opportunities allow the continued development of higher-quality, lower-cost services, in line with the objectives of the business. The goal in using the Deming Cycle is steady, ongoing improvement. This approach is a fundamental tenet of CSI.

#### PLAN

The Plan stage, involves planning the activity for the improvement. It sets the goals for improvement. A gap analysis defines the desired end state, and this step defines the steps to be taken to close the gap. It also establishes the measurements to that will be required to ensure that the improvement measures have been successful, and the benefits achieved. Ensuring that there is a plan is part of all service management activity, and it is also part of the governance controls within standards such as ISO/IEC 20000 (the Service Management standard). In the remaining stages of the PDCA cycle, the activities defined and agreed on in the plan are actioned.

#### DO

In this step, the planned actions are implemented. These may be small improvements, or a complex series of actions managed as part of a project. In the Do step of the process, it is important to capture the activity and make updates to the CSI register.

#### CHECK

The following step, Check, involves checking on the activity that has been carried out. The achievements are measured, using the measurements devised during the Plan step. This will determine whether the identified gap has been closed successfully, and the objectives met. It may be that the improvement actions have been partially successful, and it is sometimes the case that the remaining gap may be considered tolerable if the actual performance is within allowable limits of performance.

#### ACT

The decision whether to undertake further work to close remaining gaps is taken during this step. If further actions are deemed necessary, the necessary resources are allocated. Decisions made during this step are inputs to the Plan step of the next improvement iteration.

At the conclusion of the cycle, there is a consolidation effort. This is shown in the diagram as a wedge, preventing the improvements from being eroded. The effort of reaching a target may be considerable, but often the effort required to maintain the achievement is just as great. The PDCA cycle manages this effectively.

The Deming cycle is underpinned by a process-led approach. This means that defined processes are in place, the activities are measured for compliance to agreed-upon values, and the outputs are audited to identify improvements. The PDCA cycle is critical at two points in CSI: implementation of CSI, when all four stages of the PDCA cycle are used, and for ongoing improvements, when CSI uses the check and act stages to monitor, measure, review, and implement initiatives.

