Also called: PDCA, plan–do–study–act (PDSA) cycle, Deming cycle, Shewhart cycle

The plan–do–check–act cycle (Figure 1) is a four–step model for carrying out change. Just as a circle has no end, the PDCA cycle should be repeated again and again for continuous improvement.


**Figure 1: Plan-do-check-act cycle**

When to Use Plan–Do–Check–Act

* As a model for continuous improvement.
* When starting a new improvement project.
* When developing a new or improved design of a process, product or service.
* When defining a repetitive work process.
* When planning data collection and analysis in order to verify and prioritize problems or root causes.
* When implementing any change.

Plan–Do–Check–Act Procedure

1. Plan. Recognize an opportunity and plan a change.
2. Do. Test the change. Carry out a small-scale study.
3. Check. Review the test, analyze the results and identify what you’ve learned.
4. Act. Take action based on what you learned in the study step: If the change did not work, go through the cycle again with a different plan. If you were successful, incorporate what you learned from the test into wider changes. Use what you learned to plan new improvements, beginning the cycle again.