



BE PRO
TECHNOLOGIES

DMAIIC

Lean Implementation Methodology– BEPC Lean Implementation follows the six-step DMAIIC Process. The goal of this process is to identify how much waste can be eliminated through different processes or tools, such as Value Stream Mapping, Kaizen, Standardization, and Control Plans which are all facets of becoming a lean enterprise. The objectives are to provide the client with a solid understanding of key wastes and specifically how the business can benefit from tackling waste head-on, and to implement improvement activities that will enable the organization to move towards becoming a lean enterprise.

Phase 1: Define

In the define phase projects goals and boundaries are set based on current knowledge of the organization's business goals, customer requirements, and processes that need to be improved to achieve higher levels of performance.

Objectives:

- Problem Statement
- Team Charter
- Identify areas and levels of impact
- Understand Voice of the Customer

Phase 2 Measure:

In the measure phase, the goal is to pinpoint the location or source of problems as precisely as you can by building a factual understanding of existing process conditions and problems (As-Is condition). Business baseline and capability levels are identified during the Measure Phase. Combinations of different tools are utilized during the measure phase in order to confirm that realistic Business baselines and capabilities levels are identified.

Objectives:

- Benchmark current process performance

- To identify critical measures that are necessary to evaluate the success meeting critical customer requirements and begin developing a methodology to effectively collect data to measure process performance.
- To understand the elements of the Six Sigma calculation and establish baseline sigma for the processes the team is analyzing.
- Define Defect, Opportunity, Unit and Metrics
- Detailed Process Map of Appropriate Areas
- Collect the Data
- Determine Process Capability and Sigma Baseline

Phase 3 Analyze:

In the Analysis phase, theories of root causes are developed. The theories are confirmed with data, and the root cause(s) of the problem are identified.

Objectives:

- Define Performance Objectives
- Identify Value/Non-Value Added Process Steps
- Identify Sources of Variation
- Determine Root Cause(s)

Phase 4 Innovative Improvement:

In the improvement phase, solutions are developed and tested to verify that root cause of problems are reduced or eliminated. The goal is to demonstrate, with data, that your solutions will solve the problems and lead to improvements. Generate (and test) possible solutions, select the best solutions, design implementation plan.

Objectives:

- Perform Design of Experiments
- Develop Potential Solutions
- Define Operating Tolerances of Potential System
- Assess Failure Modes of Potential Solutions
- Validate Potential Improvement by Pilot Studies
- Correct/Re-Evaluate Potential Solution

Phase 5 Implementation:

In the implementation phase, plans for process changes and improvements are established. Activities covered during this phase are:

- Implement 5S identified on the improvement phase
- Develop and rollout training plans on Lean Implementation to Staff, Management, and to Employees directly affected by the process improvements.
- Create plans on process/product/procedure changes that affect business.
- Set and implement changes that have already been communicated to the organization.
- Create support groups that will provide direction and/or instructions in how changes affect current (As-Is) process.

Phase 6 Control:

In the Control phase, the organization ensures the problems stay fixed and that new methods can be further improved over time. Control methods are established, work and processes are standardized, changes are documented, results are monitored and adjustments are made to the new processes. Lean Implementation improvements/results are brought to closure.

Objectives:

- Define and Validate Monitoring and Control System
- Develop Standards and Procedures
- Implement Statistical Process Control
- Determine Process Capability
- Develop Transfer Plan, Handoff to Process Owner
- Verify Benefits, Cost Savings/Avoidance, Profit Growth
- Close Project, Finalize Documentation
- Communicate to Business, Celebrate

Kaizen is a system that involves every employee - from upper management to the cleaning crew. Everyone is encouraged to come up with small improvement suggestions on a regular basis. This is not a once a month or once a year activity. It is continuous.

Standardization. The methods used to reduce or eliminate variability and potential added costs and quality problems. Standardization techniques include rationalizing offerings and performing cost studies to determine the true costs associated with designing, documenting, performing, etc. a custom or variable process. It help document the normal or accepted methodology and help form the basis for conformance evaluation.

Control plans provide a written summary description of the systems used in minimizing process and product variation. The control plan is an integral part of an overall quality process and is to be utilized as a living document. Therefore this section should be used in conjunction with other related documents.