

Lean Six Sigma DMAIC Method for Process Improvement



DEFINE

What is the problem?

- PROBLEM STATEMENT**
Define the problem clearly without jumping to conclusions or assigning blame
- GOAL STATEMENT**
Define the conditions that will determine project success
- PROCESS MAP** Give a bird's eye view of the process
- DEFINE CUSTOMER/CLIENT NEEDS** Use interviews and surveys to discover client requirements, not mindreading
- PROJECT CHARTER, UPDATE SPONSORS**
Communicate project status to stakeholders



MEASURE

What is the nature and magnitude of the problem?

- CURRENT STATE** How does the process currently perform?
- DATA COLLECTION PLAN** Accurate data is crucial, where and how will it be collected?
- GATHER DATA** Use systems info, reports, etc to create project baseline
- UPDATE PROJECT CHARTER** New information and details will inform the nature of the problem



ANALYZE

What are the root causes of the problem?

- ANALYZE THE PROCESS** Use the data, list concerns.
- USE VISUALS** Display the process with charts and graphs.
- DETERMINE CAUSE(S)**
Brainstorm to find the defects in the process, look past symptoms to causes.
- VERIFY CAUSE** Use the data to prove findings
- UPDATE PROJECT CHARTER** Now that the cause is determined, a change in team members may be necessary



IMPROVE

What is the solution to the problem?

- BRAINSTORM SOLUTIONS** Use Kanban boards or other idea-generating methods
- IDENTIFY REALISTIC SOLUTIONS** that will give the most impact for the least cost or resources
- COMPARE** different solutions with process maps
- SELECT** best solution
- IMPLEMENT** solution
- MEASURE SUCCESS**
Collect data and comparing to baseline



CONTROL

Sustain the improvement

- MONITOR** the improved process with an ongoing program
- DOCUMENT** the improvements and results
- APPLY SUCCESSFUL IMPROVEMENTS** to other areas of the organization
- ADVERTISE** the success to the entire organization
- CONTINUE IMPROVEMENTS** and involve all staff