

Mission: Define what we are trying to accomplish in a clear and concise way that conveys the symptoms of the problem, without suggesting a particular cause or solution.

Background

<u>OBJECTIVE</u>	<u>KEY POINTS</u>	<u>RECOMMENDED TOOLS</u>
<ul style="list-style-type: none">Describe why we are trying to accomplish our mission.Include pertinent background information.Convey the importance of the situation.Do not suggest a particular cause or solution.	<ul style="list-style-type: none">Items that might be included in the background are:<ul style="list-style-type: none">how the problem was discoveredwhy the problem is important to the organization's goalsthe various parties involved,the problem symptoms, past performance or experience organization structure	<ul style="list-style-type: none">Cause and Effect DiagramBrainstormingPareto Chart <p><u>QUESTIONS</u></p> <ul style="list-style-type: none">How and when was the problem seen?What is the problem's magnitudeWhat are the consequences of the problem?

Current Condition

<u>OBJECTIVE</u>	<u>KEY POINTS</u>	<u>RECOMMENDED TOOLS</u>
<ul style="list-style-type: none">Diagram the current condition of the process.Represent the flow of material and/or information.Demonstrate what is not ideal.Include relevant information.Show the extent of the problems.	<ul style="list-style-type: none">Observe the work processes first hand, and document observations.Create a diagram that shows how the work is currently done. Any number of formal process charting or mapping tools can be used, but often simple stick figures and arrows will do the trick.Quantify the magnitude of the problem (e.g., % of customer deliveries that are late, # of stock outs in a month, # of errors reported per quarter, % of work time that is value-added); if possible, represent the data graphically.	<ul style="list-style-type: none">Value Stream MapValue Added vs. Non-Value AddedFlowchartControl ChartProcess CapabilityLittle's Law (Lead Time)Spaghetti Diagram <p><u>QUESTIONS</u></p> <ul style="list-style-type: none">What are the Process' Quality, Cost, and Delivery performance?How does value flow through the process?What waste, irregularity, and strain is there in the process?How capable is the process?How accurate is the measurement and data analysis systems?

Cause Analysis

<u>OBJECTIVE</u>	<u>RECOMMENDED TOOLS</u>	<u>QUESTIONS</u>
<ul style="list-style-type: none">List the problems and their root causes.Understand cause and effect relationships.	<ul style="list-style-type: none">5 WhysBrainstormingFishbone DiagramDesign of experimentsHistogramHypothesis TestPareto ChartBox PlotCorrelation MatrixWaste analysis	<ul style="list-style-type: none">Three basic principles organizational systems design:<ol style="list-style-type: none">Are work activities sufficiently specified according to content, sequence, timing, and outcome?Are connections between entities clear, direct, and immediately comprehended?Are the pathways along which goods/services travel simple, direct, and uninterrupted; are all the steps value-added?Are root causes understood in terms of waste, irregularity and/or strain?What or who is the source of the waste, irregularity, and/or strain?Does data support your conclusions regarding cause and effect?Does the project theme require any revision?Do any root causes represent low lying fruit that can be resolved immediately?

Prepared By:

Date:

Target Condition

<u>OBJECTIVE</u>	<u>KEY POINTS</u>	<u>QUESTIONS</u>
<ul style="list-style-type: none">Diagram proposed processShow countermeasures as fluffy clouds.Describe how work will get done with countermeasures in place.Include measurable targets (Qty, Time, etc)	<ul style="list-style-type: none">Brainstorm for solutions to each critical root causeEvaluate, select, and optimize the best solutionsOn the A3 report, the target condition should be a diagram (similar to the current condition) that illustrates how the new proposed process will work.The specific countermeasures should be noted or listed, and the expected improvement should be predicted specifically and quantitatively.Define targets for KPI.Gain consensus among all team members and management approval of the concept before continuing with Implementation Plan.	<ul style="list-style-type: none">Does the target condition involve a new layout? If yes, what is the new layout?Is it clear how the target condition permanently addresses the root cause?How can the solution be optimized?Are any assumptions being made? What are they?What is the budget of this improvement?Is there consensus?

<u>RECOMMENDED TOOLS</u>
<ul style="list-style-type: none">Value Stream MapFlowchartBrainstormingContinuous FlowPull SystemsVisual ControlsMistake ProofingStandard WorkSOPsCost/Benefit AnalysisPrioritization Matrix

Implementation Plan

<u>OBJECTIVE</u>	<u>KEY POINTS</u>	<u>PLAN SHOULD INCLUDE:</u>
<ul style="list-style-type: none">Who does what when?Assess the cost.	<ul style="list-style-type: none">If the improvement is large in scope, a pilot implementation on a smaller scale should be considered. If this is done, analyze pilot results thoroughly to verify effectiveness and make any necessary adjustments to the plan before implementing on a large scale. Aspects of the implementation plan can be broken out on separate action plans.Contingency plans should be considered for solutions that have not been tested.Include plans to give final ownership to the appropriate personnel.Assess Cost of implementation.Gain approval of Plan before proceeding.	<ul style="list-style-type: none">A breakdown of major tasks with Due dates and assigned responsibilityProcurement of new materials and equipmentRequired Training and training materialsA measurement system for on-going assessment of performance of target stateWays to involve workers in the implementationCreation or updating of SOPsPlans to help affected workers deal with their changing environmentPlans for giving the improvement project visibility and those involved, recognitionPlans for follow-up to verify the effectiveness of the improvementCelebration upon successful completion of project.

<u>RECOMMENDED TOOLS</u>
<ul style="list-style-type: none">Gantt ChartSOPs/Work InstructionsPowerPointMistake ProofingChecklistsFlowchartMetric Visibility

<u>QUESTIONS</u>
<ul style="list-style-type: none">Are item completion milestones clearly defined?

Follow-Up

<u>OBJECTIVE</u>	<u>KEY POINTS</u>	<u>QUESTIONS</u>
<ul style="list-style-type: none">Define how and when you will determine project success.In actuals, include date or timeframe check was done	<ul style="list-style-type: none">It should include a realistic and quantified prediction of how the new system will perform (e.g., X% decrease in defects, or turnaround time reduced to Y minutes).The prediction should be as accurate as possible, based upon the author's deep understanding of the work and the countermeasures planned.Be realistic. Don't take a shot in the dark.For example, while ideally we would like to see zero defects, will the countermeasures envisioned realistically achieve zero defects? If not, how many defects can we expect with the new system?	<ul style="list-style-type: none">How will the organization know that the new system is actually better than the old?Did we meet our targets? If not, why?Did we exceed our targets? Why was our target not more precise?What did we learn from this project?

<u>RECOMMENDED TOOLS</u>
<ul style="list-style-type: none">Data CollectionChecklistsMetrics Board Reporting