

Accelper Six Sigma Project Roadmap

Define Phase Activities	Key Tools	Expected Output	Benefits
Project Selection Customer Requirements Process Baseline Project Charter	Project Priority Index, Kano's Model, Pareto, SIPOC, Process Mapping, Project Planning	Project with economic impact, Critical customer requirement, Completed SIPOC, Project Charter	Realistic savings potential, Well scoped out project, Clear customer requirements, Process thinking and Project milestones established
Measure Phase Activities			
Performance baseline, and areas for improvement for economic impact	Basic Stat, DPU, DPMO, Cp/Cpk/ FPY, COPQ, Sigma level	Quantification of process performance, COPQ, and verification of savings potential	Establishment of performance baseline for improvement/ Statistical thinking
Analyze Phase Activities			
Root cause analysis to eliminate trivial causes, identify the few critical variables	Root cause analysis, FMEA, Regression analysis, Hypothesis testing, ANOVA	Reduced number of variables, and $Y = f(X)$ model, majority of problem solutions identified	Rapid elimination of trivial causes, Identification of the vital few
Improve Phase Activities			
Developing solutions based on the analysis, and implementing the solution for improvement	Comparative Experiment, DOE, Organization alignment, Innovative Thinking	Significant process improvement solution, Effective deployment, Breakthrough solution	Better process performance, Innovative thinking and resultant savings
Control Phase Activities			
Sustaining the improved process performance	Control Chart, 4P model for Process Management, Scorecard, Report and Communication, Audit and Corrective Actions	Reduced error rate, improved reliability (early life field failures), and reduced verification activities	Realizing financial gains from the improvement

Ref: Gupta, Praveen, The Six Sigma Performance Handbook, McGraw Hill Publishers, 2004