DMAIC Methodology

Define

- A problem
- The Customers
- Voice of the customer (VOC) and Critical to Quality (CTQs)
- The target process subject to DMAIC and other related business processes
- Project targets or goal
- Project boundaries or scope

Measure

- Identify the gap between current and required performance.
- Collect data to create a process performance capability baseline for the project metric.
- Assess the measurement system for adequate accuracy and precision.
- Establish a high level process flow baseline.

Analyze

- List and prioritize potential causes of the problem
- Prioritize the root causes to pursue in the Improve step
- Identify how the process inputs (Xs) affect the process outputs (Ys).
- Help pin-point where in the process the root causes reside, and what might be contributing to the occurrence.

Improve

- Create innovative solutions
- Focus on the simplest and easiest solutions
- Test solutions using Plan-Do-Check-Act cycle
- Using FMEA to anticipate any avoidable risks associated with the "improvement"
- Create a detailed implementation plan

Control

- Monitor the improvements to ensure continued and sustainable success.
- Create a control plan.
- Update documents, business process and training records as required.