

## INPUTS

- Establish Future State Process
- Eliminate Wastes
- Identify Key Input Variable
- Develop Potential Solutions
- Asses Failure Modes of Potential Solution
- Validate Potential Improvement by Pilot Studies
- Correct/Re-Evaluate Potential Solution
- Implement Solution
- Determine if the Process Statistically Improved

## Tools & Techniques

- Kaizen
- 5s, Visual Controls, Takt Time
- Line Balancing
- Single piece flow, Pull Systems
- Layout Design, Quick Changeover, TPM, Poke Yoke, Standard work
- Scatter Plots, Modelling, DOE
- Prioritization Matrix, Solution Grid, Customer Interview
- Pugh Selection Matrix
- FMEA, VSM, Data Collection
- Capability Study (Cp, Cpk)
- Hypothesis Testing
- Control Charts, Run Charts
- Box Plots, Histogram, OEE

## OUTPUTS

- Propose Solutions
- Inputs Related to Outputs on IPO
- Selected Solutions
- Future State Processes (VSM, FMEA etc.)
- Implementation Plan
- Implemented Solutions

DEFINE

MEASURE

ANALYZE

IMPROVE

CONTROL