

Integrating Project Quality Management & Lean Six Sigma Processes to Improve Product Quality

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Motivation: While product quality is critical to mission success in space exploration activities, assuring quality in complex, low volume production operations is often challenging.

Solution: Effectively integrate project quality management & Lean Six Sigma processes

1. Plan Quality Management:

Identifying requirements/ standards & documenting how compliance will be demonstrated

Map Process
Identify KPIs & Targets

2. Perform Quality Assurance

2. Perform Quality Assurance:

Auditing quality requirements & quality control measurements to ensure standards & operational definitions are used

KPI – Key Performance Indicator

Audit Process & Measure
Actual Performance

1. Plan Quality Management

Define

Control

4. Lean Six Sigma

Measure

Improve

Analyze

3. Control Quality

3. Control Quality:

Monitoring & recording results of quality activities to assess performance & recommend necessary changes

4. Lean Six Sigma:

Define: Identify the problem
Measure: Quantify performance
Analyze: Identify root causes
Improve: Implement solutions
Control: Standardize improvements

Actual ≠ Planned
Performance