



Focused Improvement Process

May 2017



Focused Improvement Process



- VETech proposes the utilization of a disciplined approach that has been developed after over a decade of supporting OEM's and their supply base with quality improvement initiatives.
- Vetech proposes the utilization of a disciplined approach that has been developed after over a decade of supporting General Motors and their supply base with quality improvement initiatives.
- Vetech has developed a process which applies known quality tools in a systemic way to achieve results. This system provides standardized data collection, problem solving discipline, and reports.
- VETech has seen success at approximately 80% of all supplier locations that have entered this program. On average measurable improvement can be seen with 60 – 90 days of program kick off. We are pleased to submit the following overview of the process: (See Appendix)

Partnering For The Future

- Summary Details.



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Focused Improvement Process

Purpose

- Initiative to identify and resolve any manufacturing, quality, or other pertinent supply issues that may interfere with the uninterrupted supply of quality product to assigned OEM locations in a timely manner

Process

- Supplier driven, under Vetech leadership, systematic approach to bring about required improvement in manufacturing and quality issues

Product

- Measurable and sustainable systemic improvements jointly benefiting the OEM and the supplier

Appendix

Focused Improvement Process

Why we are here:

- On the floor interaction with the plant personnel
- Active, not passive, participation
- Sense of urgency yet not overbearing
- Transfer knowledge for long term improvement
- Communicate to all levels for effective countermeasures & control
- Lead by example

Appendix

Focused Improvement Process

Process Overview:

Protect the Customer

- Implement dock audits with a focus on immediately eliminating the impact at the customer

Correct the Issue

- Analyze all of the data being collected and customer feedback (past and present) to prioritize issues
- Root cause issues and implement irreversible corrective actions

Prevent Future Issues

- Assess manufacturing systems and their effectiveness
- Implement processes to address systemic failures

Daily Supplier Leadership Engagement is the Key to Success

Proprietary. Do Not Copy or Distribute

Appendix

Focused Improvement Process

Focused Improvement Team Discipline

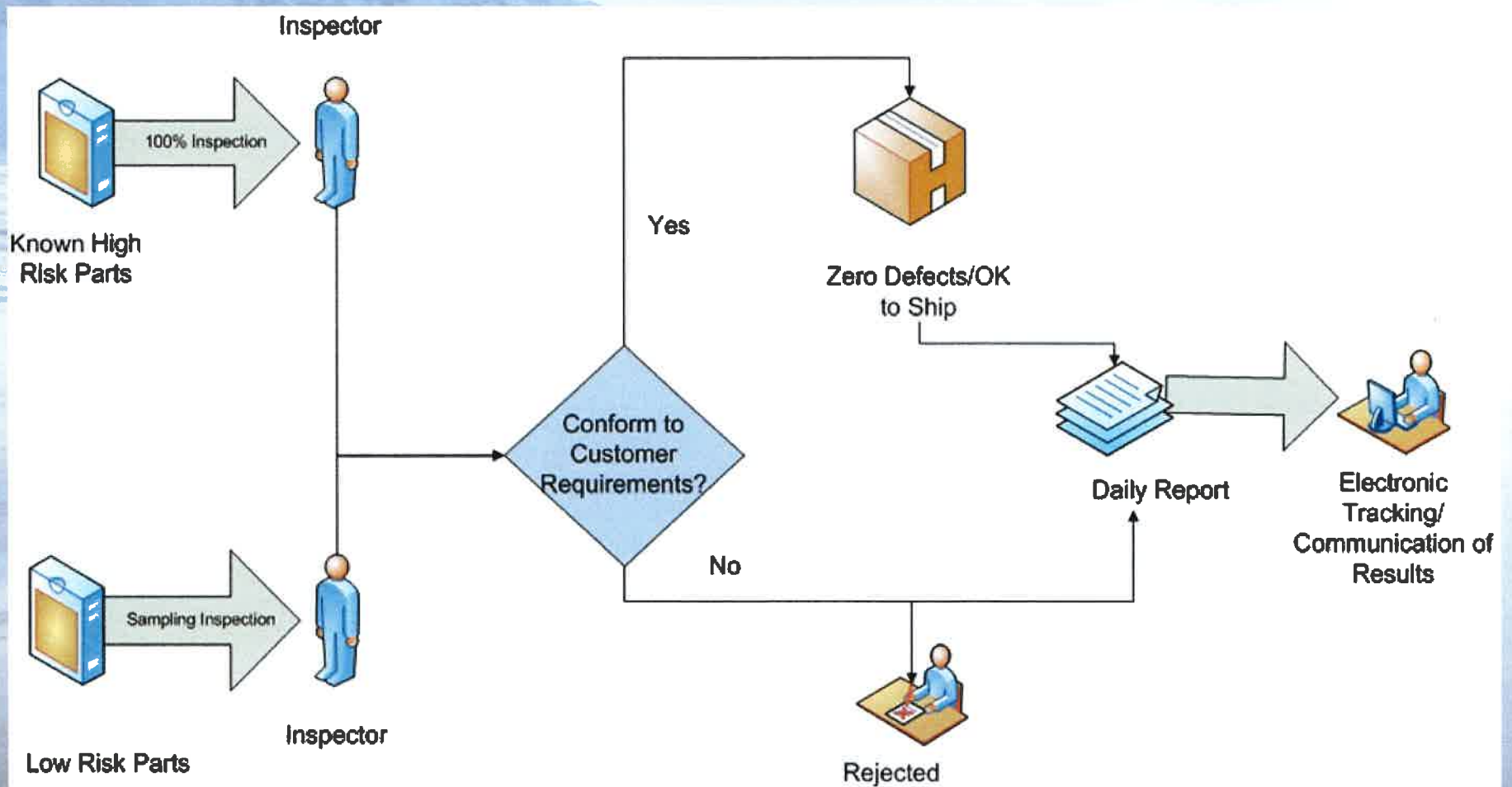
VETech addresses the shortcomings of supplier systems with tools that follow the DMAIC discipline of Six Sigma Methodology

<ul style="list-style-type: none"> ➤ Define the problem, protect the customer and the project goals <ul style="list-style-type: none"> ▪ Require Leadership Engagement from Customer & Supplier ▪ Reference Ongoing Performance Data ▪ Assess Launch Risk ▪ Monitor New Technology ▪ Capture Delivery Issues 	Protect
<ul style="list-style-type: none"> ➤ Measure key aspects of the current process and collect relevant data <ul style="list-style-type: none"> ▪ Station by Station assessment of Capacity/Constraint Issues ▪ Monitor Quality Capability, Process Capability, Design Capability ➤ Analyze the data to investigate and verify cause-and-effect relationships <ul style="list-style-type: none"> ▪ Root Cause Definition ▪ Corrective Action 	Correct
<ul style="list-style-type: none"> ➤ Improve or optimize the current process <ul style="list-style-type: none"> ▪ Error Proofing ▪ Operator Training/Standardized Work ▪ Visual Problem Management ➤ Control the future state process to ensure that any deviations from target are corrected before they result in defects <ul style="list-style-type: none"> ▪ Prevent Methodology ▪ Quality Gates 	Prevent

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Focused Improvement Process

Protect the Customer



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Protect the Customer

Define the problem, protect the customer & the project goals:

Prioritize part risk by analysis of current performance data

- Pareto by part / defect / process / shipping issues.

Implementation of part dock audits

- 100% dock audits on all high risk parts
- Sampling audits on all low risk parts

Establish metrics for improvement and report format

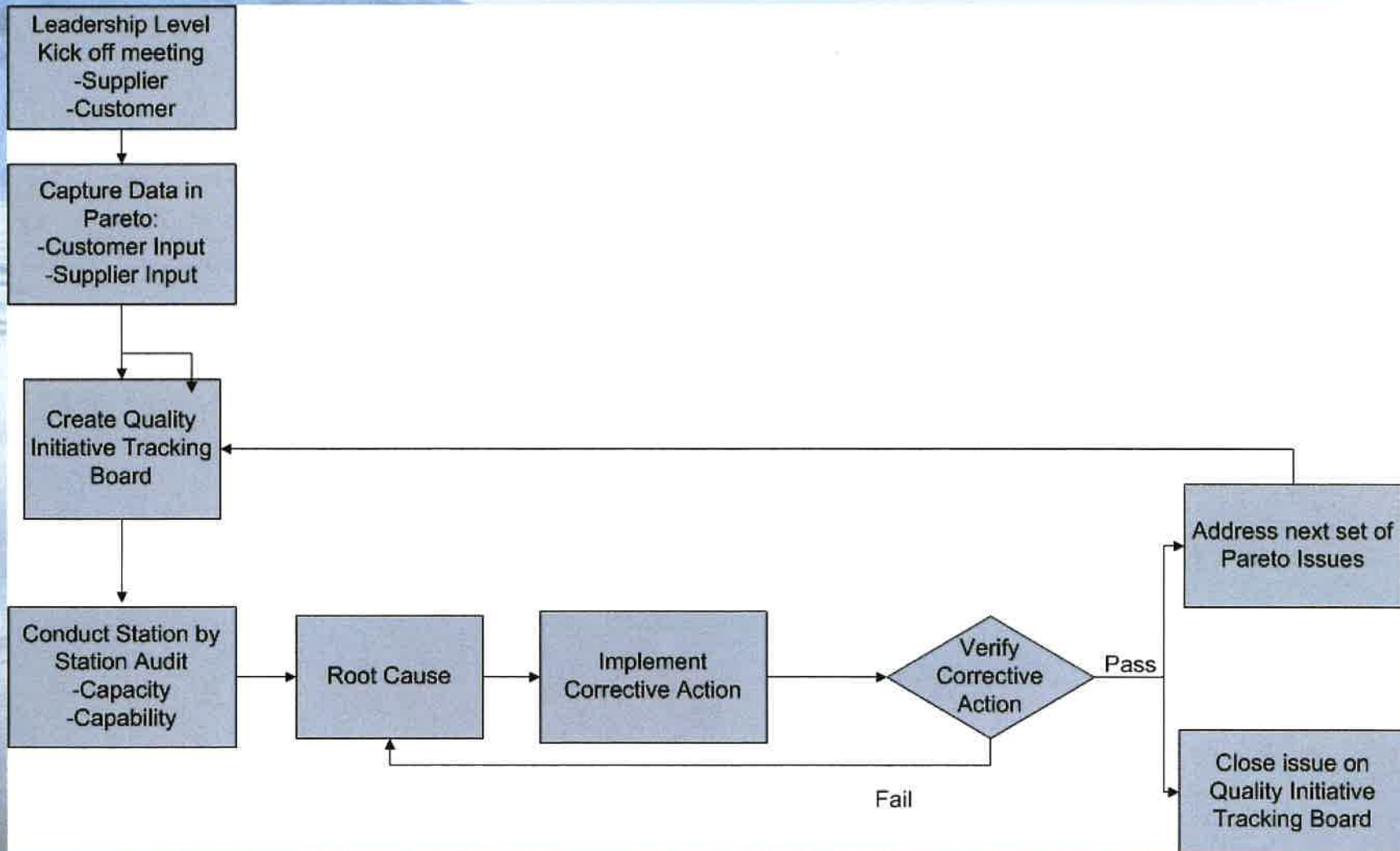
Closed loop feedback on all defects

- Continuously improve inspection criteria based on customer feedback
- Inform the dock audit team of internal issues
- Collect and compile data
- Daily / Weekly review of Pareto and Metric data

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Focused Improvement Process

Correct the Issue





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Correct the Issues

Capability and Capacity are two of the most probable causes for supplier failure

Full time, on-site VETech problem solvers will perform a station by station analysis:

- Uncover process capability issues
- Identify process constraints
- Follow QUIT process to drive issue resolution
 - Defined issue resolution process
 - In-depth root cause analysis
 - Implementation and verification of corrective actions

Utilize Vetech Process Experts On-site for Additional Problem Solving Resources

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Correct the Issues

QUIT Process:

Develop and implement the Quality Improvement Issue Tracking Board (QUIT Board)

- QUIT Board training will be performed at the start of the problem solving activities
- All problem solving assignments are reviewed and tracked daily
- Each issue is assigned an owner

Capability and Capacity – only two causes of Customer Issues

- Collect and analyze defect data (1st Time Quality, Customer Feedback)
- Capacity Analysis

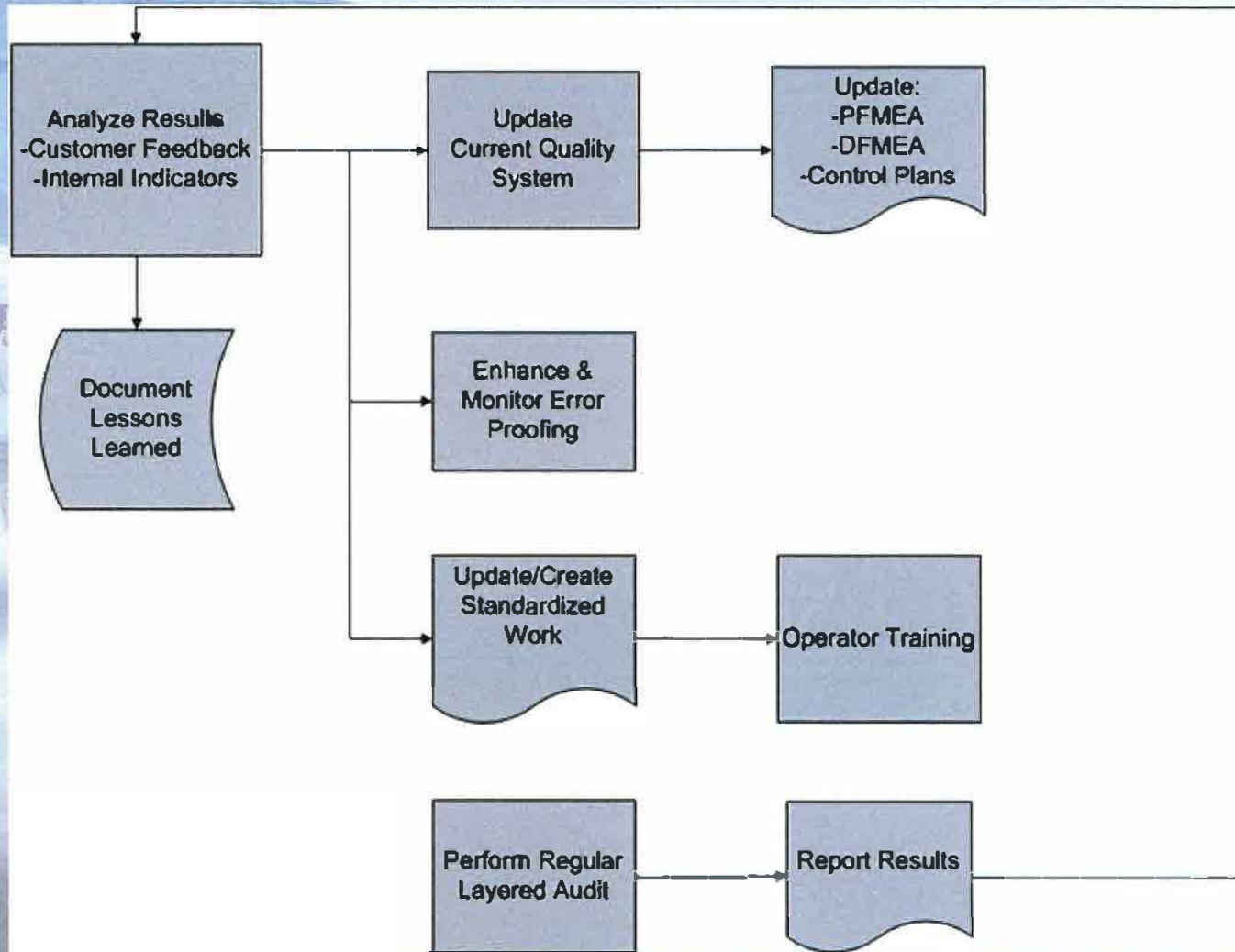
Problem Solving – Using an in-depth 8D problem solving format

- Root cause analysis
- Corrective action implementation and verification (Turn it on/Turn it off)
- Reduce Dock Audit inspection criteria as issues are resolved

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Prevent Future Issues



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Prevent Future Issues

1. Improve current manufacturing and quality processes

- Error proof verification
- Standardized Operator Training
- Standardized Work (5S, Work Instructions)

2. Control process deviations to ensure stability is maintained (Proactive vs. Reactive)

- Quality Gates (Alarms, Takt Board)
- Layered Audits
- Lessons Learned

3. Additional on-site Vetech resources available to assist in manufacturing / quality systems improvement activities

- Process development support
- Implementation support
- Training

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Focused Improvement Team

Key expectations for success:

- ✓ **Leadership** engagement
- ✓ **Creating** Supplier, VETech, and OEM team
- ✓ **Manufacturing & Quality system** execution
- ✓ **Effective Process control**
- ✓ **Performance Attitude – Make it Happen**

Fast Results !!!