

GENERAL DYNAMICS

Electric Boat

Benefits of an Effective Management System
Resulting in Quality Business Performance

March 3, 2026

Objectives

Learning Objectives:

- Baseline what quality means
- Define a Management system and how it enables the company to achieve operational efficiency and effectiveness
- Explain the core principles that support effective management systems
- Highlight how the principles and the structure of a management system are established to achieve quality results
- Define the expected commitment to quality
- Review how Electric Boat Quality will engage, and our commitment to the supply base
- Review how quality performance will be assessed by Electric Boat
- Share available resources and lessons learned

Quality Defined

“Quality is the totality of features and characteristics of a product and/or service that bear on its ability to satisfy a given need.” -

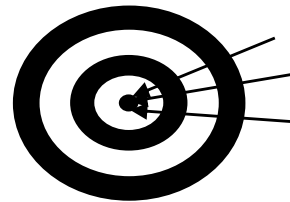
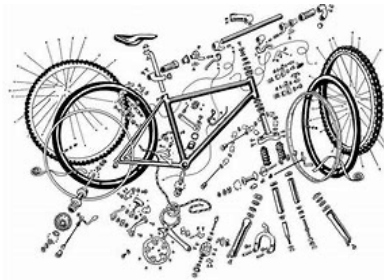
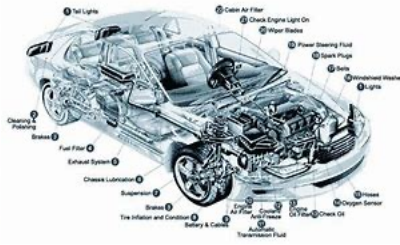
ASQ.org

- **Quality** - the standard of something as measured against other things of a similar kind; the degree of excellence of something; general excellence of standard or level; a distinctive attribute or characteristic possessed by someone or something
- **The Quality Department** - the department or team responsible for assuring and/or controlling quality within an organization. Typically, the Quality department's role is to educate and assist other departments in monitoring and improving quality.
- **Management System** - is a set of policies, processes and procedures used by an organization to ensure that it can fulfill the tasks required to achieve its objectives

How does your Management System achieve quality?

Management System

Systems are greater than the sum of their parts



Accuracy &
Repeatability



Reliability



Efficiency

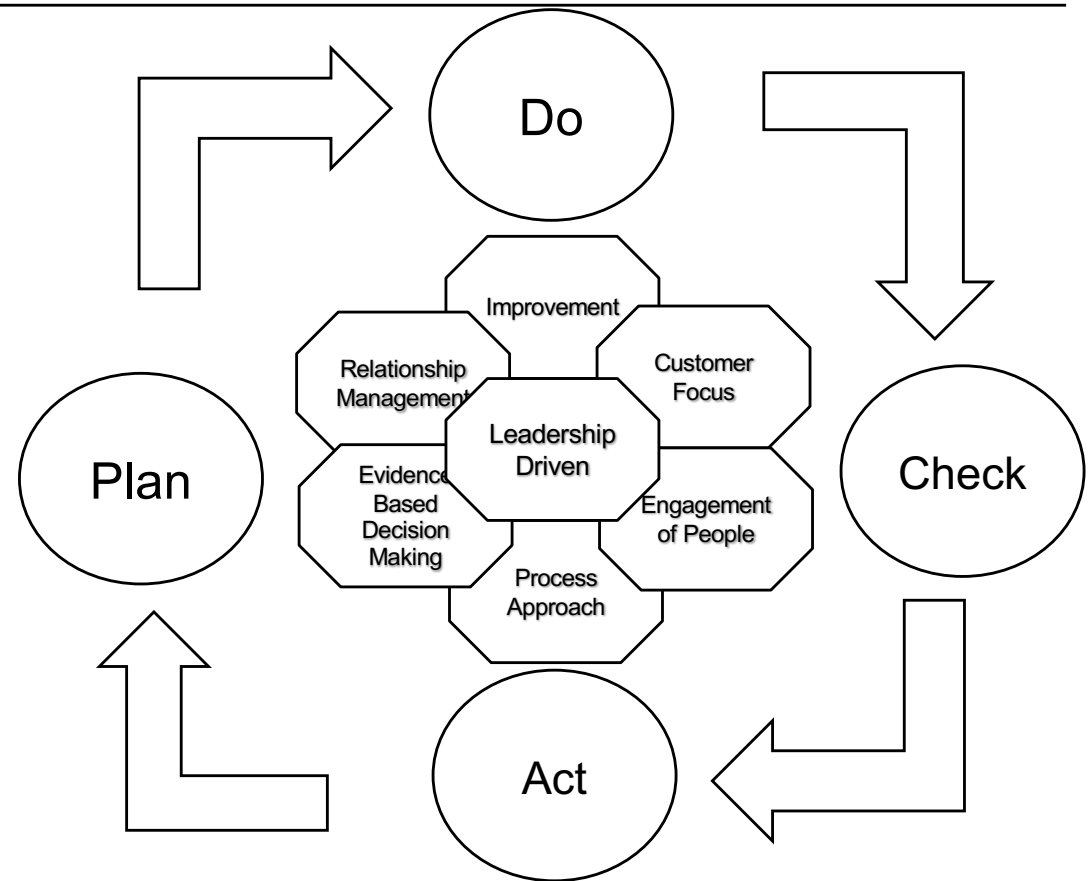
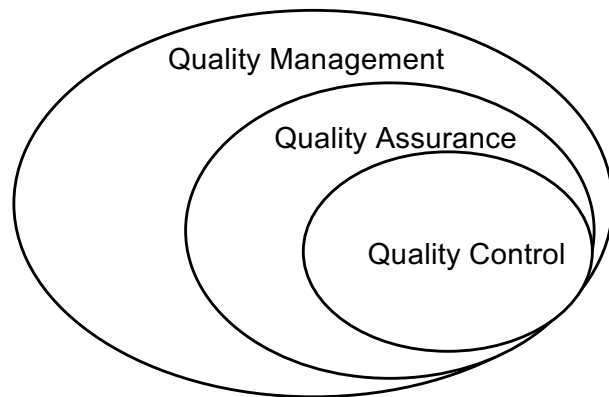
The management system should be designed to achieve quality through a structured framework

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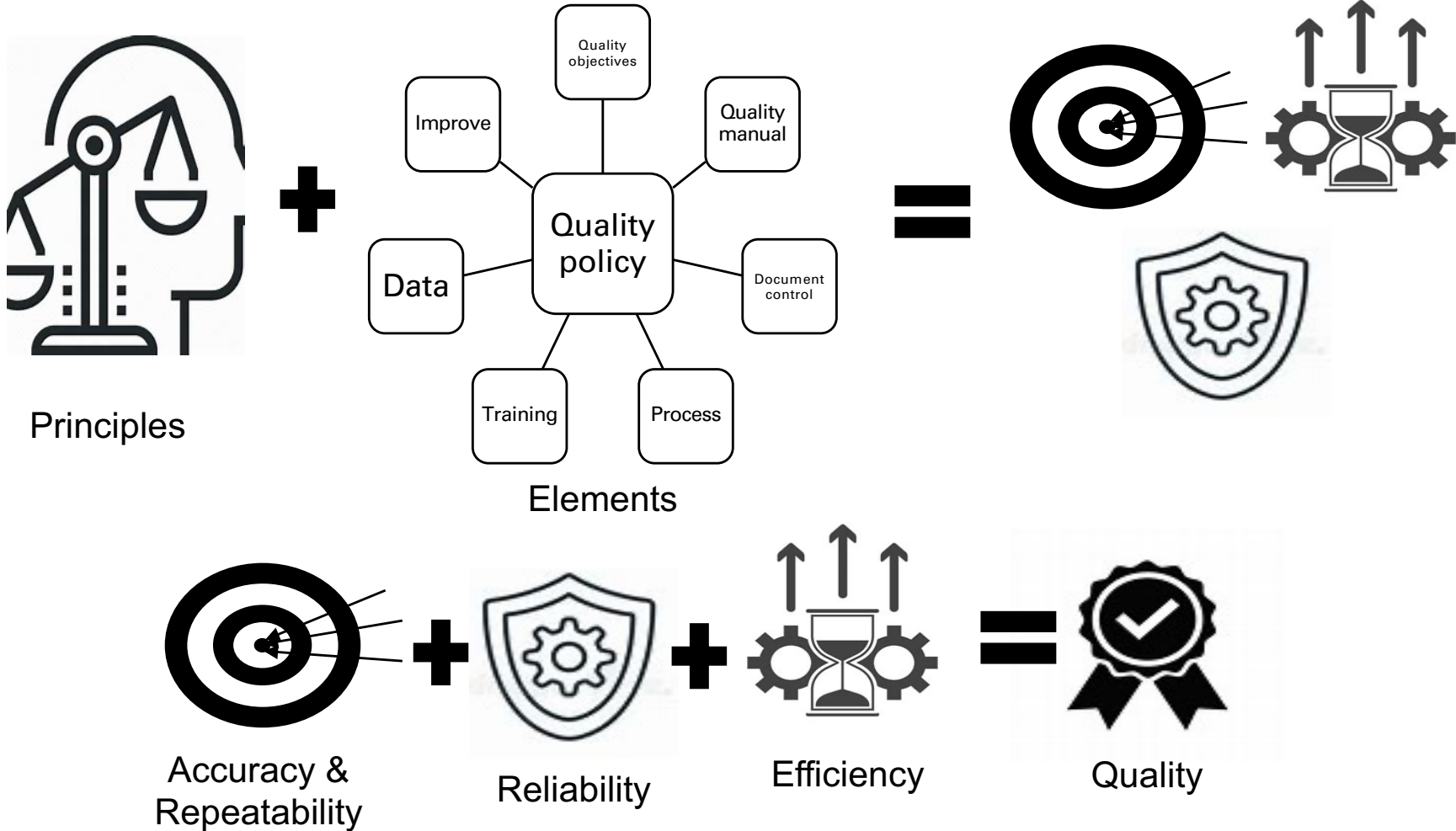
Management System Principles

- Say what you do
- Do what you say
- Prove it!



Principles are fundamental truths that serve as a foundation for behavior, establish the basis for reasoning and are vital to success of the management system

Elements of the Management System Applied



Quality Commitment

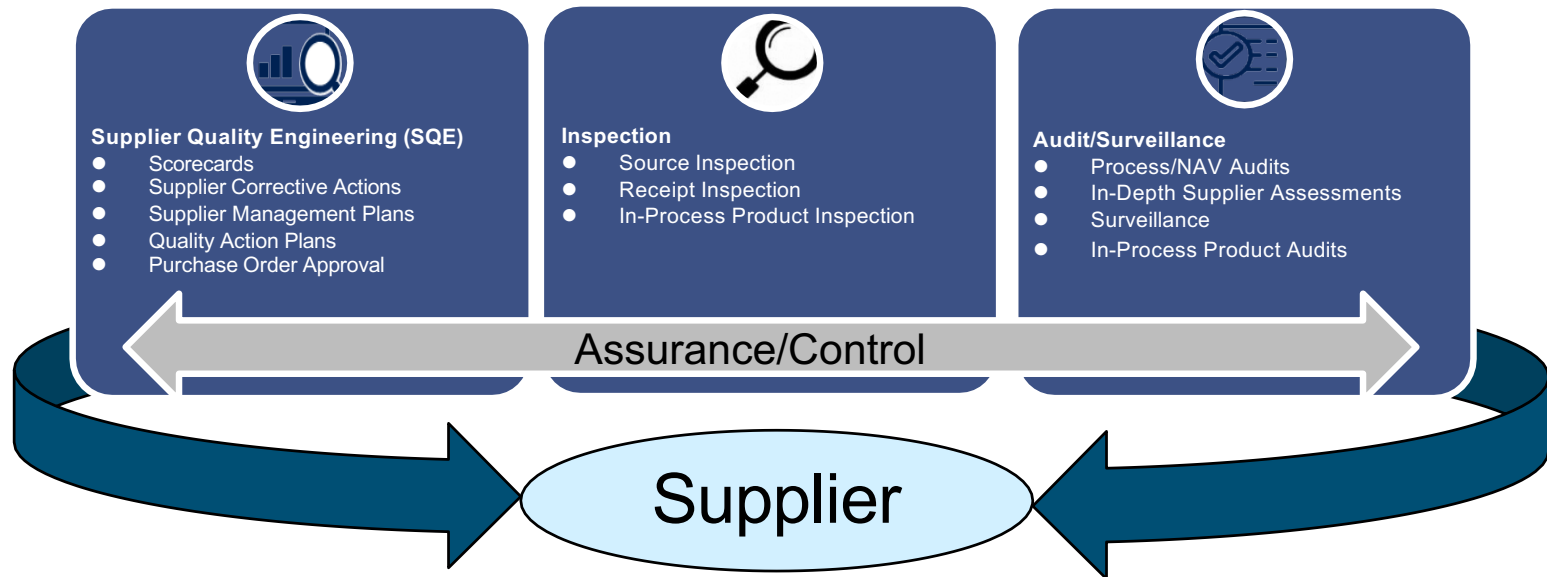
Electric Boat sets high standards for our suppliers to ensure product quality

Expectations & Requirements	Performance	Continuous Improvement
<ul style="list-style-type: none">• Robust Management System designed to achieve quality• Management Accountability for Quality Excellence• Culture aligned to effective quality principles• Processes, Procedures and Training/Qualification Programs that define how requirements are achieved and documented	<ul style="list-style-type: none">• Consistently Meets Contract Requirements• Self-regulation with timely engagement with the customer on Corrective Action Requests/Inquiries• Clear Recovery Plan When Performance Does Not Meet Expectations	<ul style="list-style-type: none">• Self-Assessment/management review Program• Actionable Trend Analysis• Effective Root Cause Corrective/Preventive Action Program

Suppliers must have unyielding commitment for quality performance to deliver high quality material meeting purchase order requirements

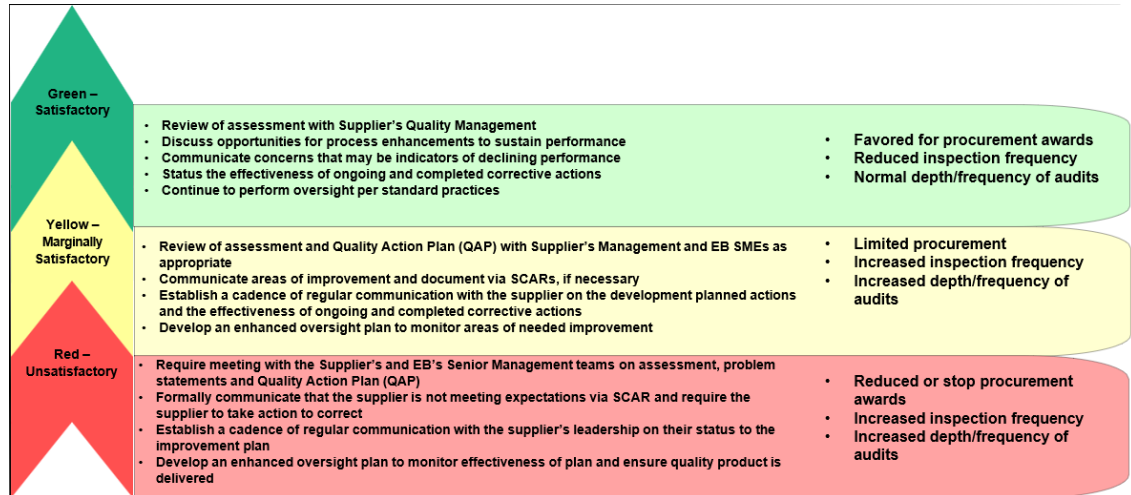
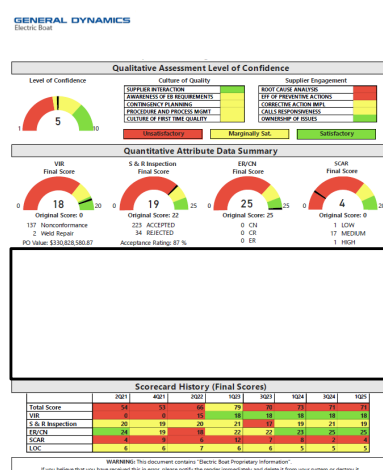
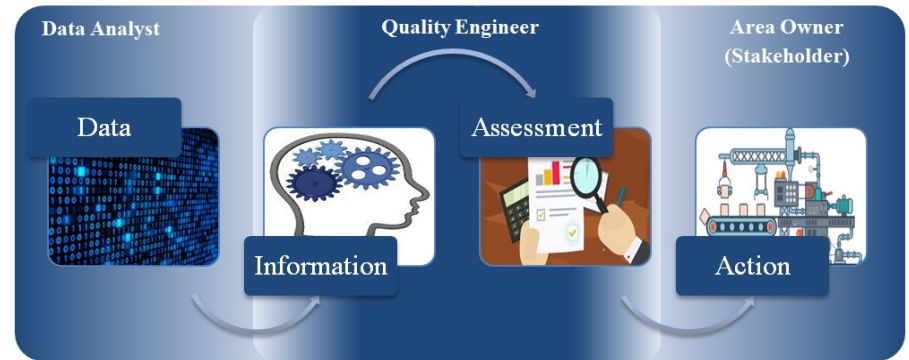
Managing Supplier Quality Performance

The Supplier Quality organization lines of effort work together to measure, assess and address suppliers' quality performance



Supplier Quality Scorecard Process

- Quantitative Evaluation (90 points)
 - In-process non-conformances
 - Acceptance rating
 - Post delivery non-conformances
 - Supplier Corrective Action Reports
 - Adjusted for accuracy where required
- Qualitative Evaluation (10 points)
 - Level of Confidence used to assess supplier culture and engagement



Lessons Learned

Timely and quality problem identification and resolution may have the most positive impact on performance

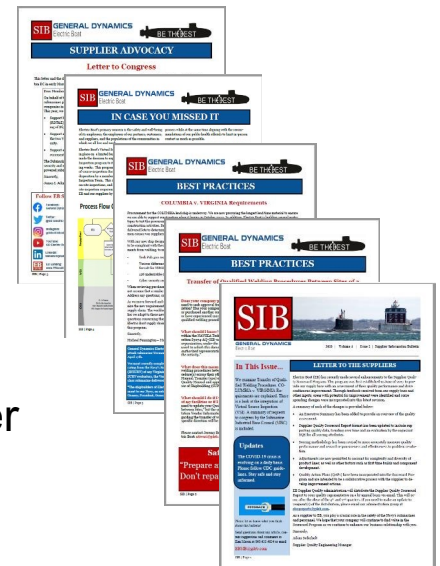
- **Basic Quality Tools:**
 - 1.Cause and effect diagram
 - 2.Check sheet
 - 3.Control chart
 - 4.Histogram
 - 5.Pareto chart
 - 6.Scatter plot or diagram
 - 7.Stratification, Flowchart or Run chart
- **Containment and Bounding**
- **Corrective and Preventative Actions**

ASQ.org provides industry standard resources that can help improve your management system quality



Supplier Communications from EB

- Electric Boat uses a variety of vehicles to communication expectations, requirements and other information to suppliers
- Communication of Contractual Requirements include but are not limited to:
 - Purchase Order Terms and Conditions
 - Standard Clauses
 - EB Specifications/Drawings
- Communication of Information Guidance include but are not limited to:
 - Quality Bulletins
 - Targeted quality alerts and lessons learned
 - Electric Boat iSupplier Update Bulletins
 - Important information regarding system changes within iSupplier
 - Supplier Information Bulletin (SIB)
 - Quarterly publication to supply base
 - Pertinent information from Electric Boat
 - Industry quality trends
 - Letter of Concern



GDEB.com/suppliers

Takeaway



Questions?