



**TORAY**  
Innovation by Chemistry

# Toray Composite Materials America, Inc.

CMA-MAN-0004 Quality Manual (QM), Rev. 01





- **Toray CMA Overview**
- **Philosophy, Vision, and Mission**
- **Guiding Principles**
- **Quality Policy**
- **Interested Parties**
- **Leadership Responsibility & Organization Charts**
- **Scope of the QMS**
- **QMS Process Interaction**
- **QMS Documented Information Management System**

Toray Composite Materials America, Inc. (Toray CMA) began producing advanced composite materials in 1992 in Tacoma, WA. First used on the Boeing 777, Toray's advanced carbon fiber composite materials are now incorporated into the 777 and 787 primary and secondary structures.

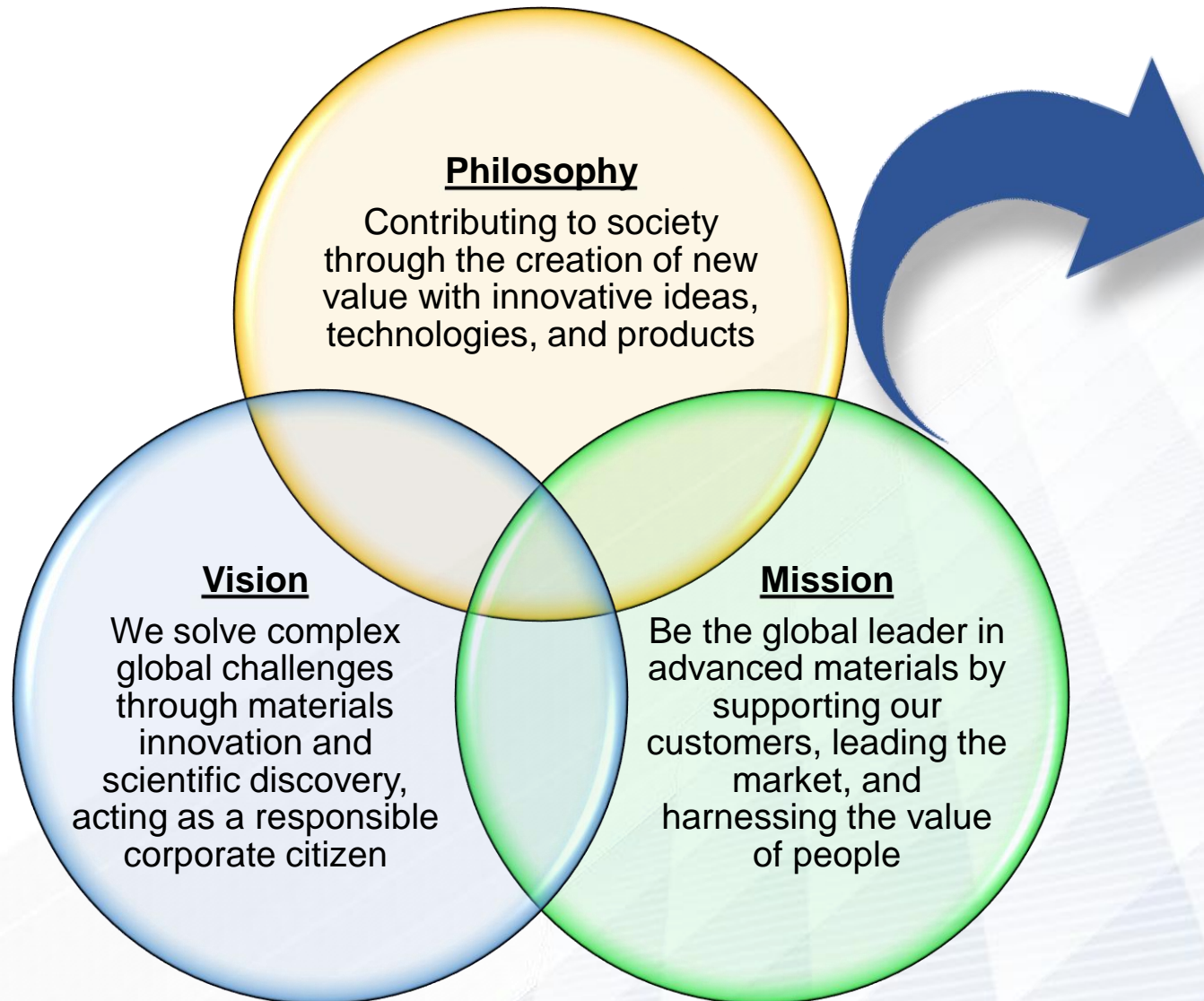
In 1997, Toray CMA's Decatur plant was established. Today, the plant operates production lines from precursor to carbon fiber, producing Standard Modulus [SM], Intermediate Modulus [IM] and Intermediate Modulus (+) [IM+] fibers. Toray CMA's newest plant in Spartanburg, South Carolina, produces precursor, carbon fiber, and prepreg in a single manufacturing facility. This plant provides critical supply chain redundancy and diversification.

All three plants supply a diverse customer base, both domestically and internationally, in aerospace, industrial, and automotive markets.



With a nationwide footprint, CMA is building on its success by utilizing the collective knowledge and expertise of a diverse workforce, becoming nimbler and more responsive to customers' needs by centrally managing production facilities.

Gaining capability across product lines allows CMA to increase customer value, shorten time to market, and strengthen critical relationships.



## GUIDING PRINCIPLES

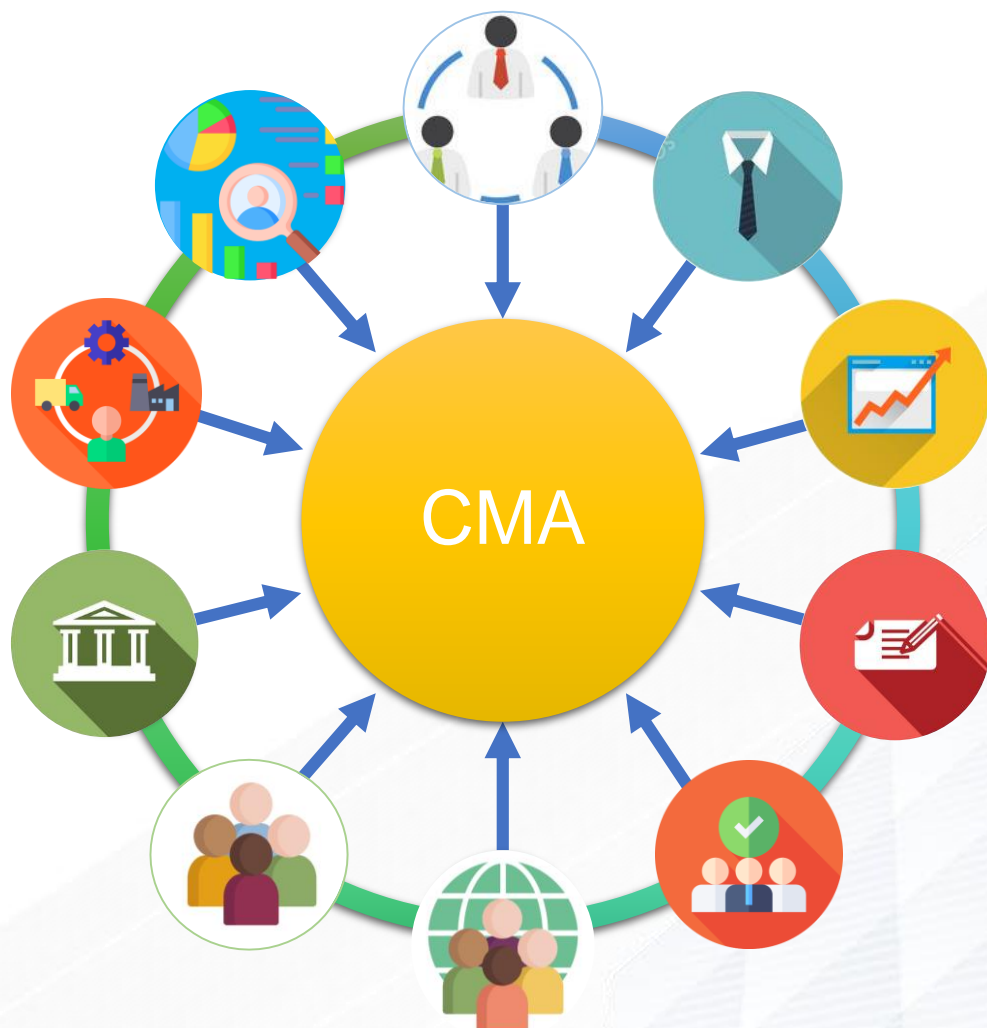
- Safety first, safety always
- Unrival product quality
- Uncompromising integrity
- Treating each other with respect and dignity
- Superior customer service
- Demonstrating Corporate Social Responsibility (CSR)
- Fiscally responsible and value-driven
- Continuous improvement
- Developing and maximizing one's talent
- Improving yourself (by self-criticize) rather than criticizing others



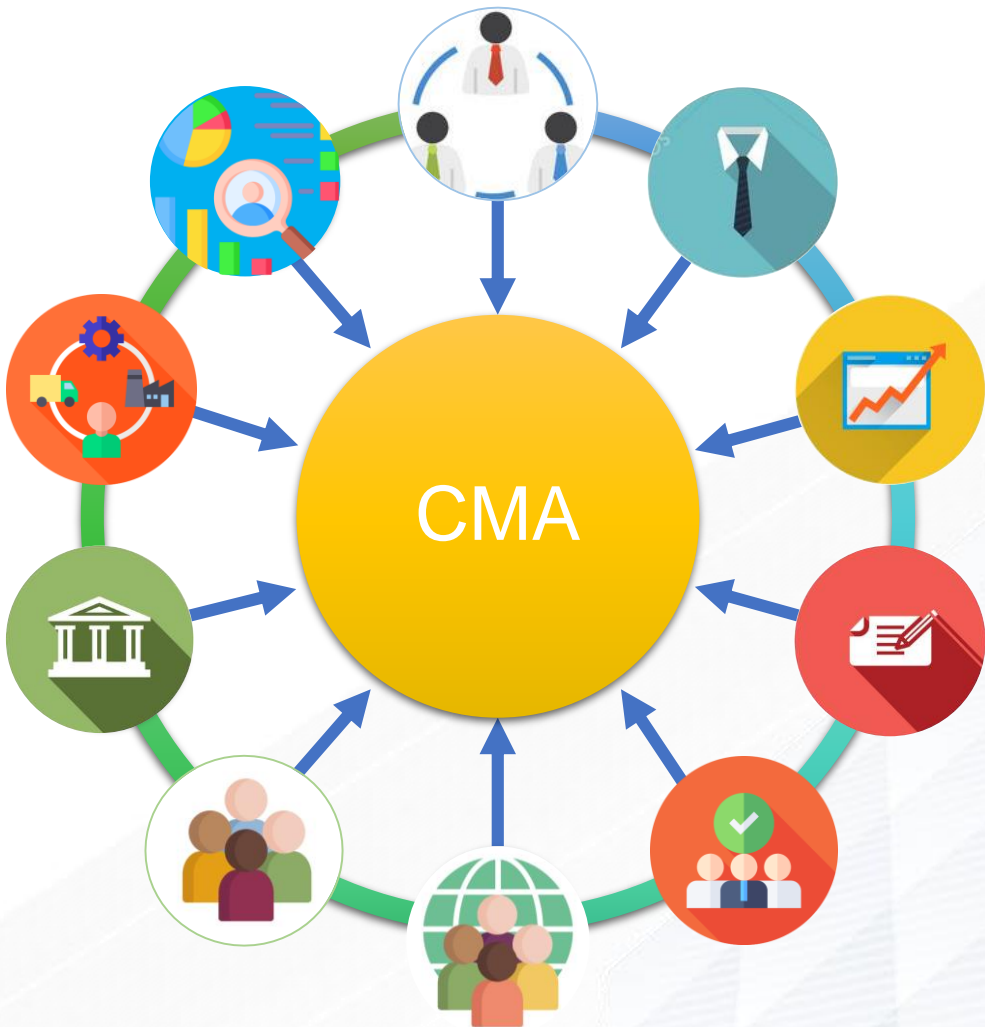
***Toray Composite Materials America, Inc., will strive to provide the highest quality products with innovative technology that meet our customer, statutory, and regulatory requirements with emphasis on continuous process improvements.***

PRINCIPLES OF CMA'S QUALITY POLICY

Safety	• Provide safe products and work environment
Commitment	• Comply with customer, statutory, and regulatory requirements
Innovation	• Innovation in our customer service, products, and processes
Integrity	• Manifest in all aspects of our company activities
Establish	• Annually review quality objectives
Continuous Improvement	• Continually improve customer service, products, and processes
Motivation	• To encourage our employees to become involved and to proudly take ownership of their work

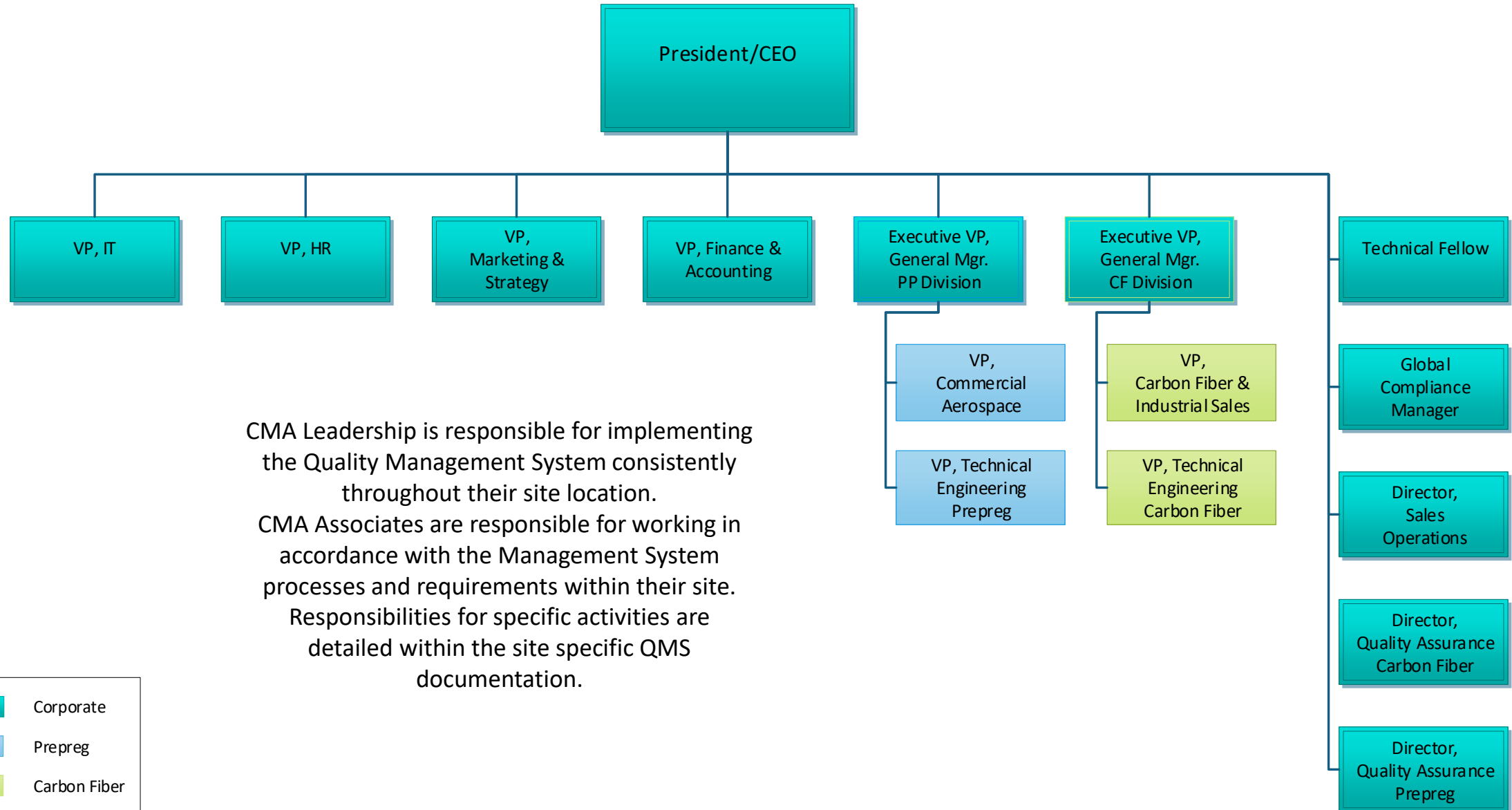


Interested Parties	Expectations from Interested Parties	Key Activities
Employees	Safe work environment with access to benefits and career development	5S, Sail Program, Annual Wage and Benefit Survey, Ethics Policy, Employee Opinion Survey, Training
Leadership	Set vision for Toray CMA Prepreg production and achieve KPIs or develop action plans to meet KPIs and communicate company results	X- Matrix, Management Review, Key Measures and KPIs, All Hands Meetings, Daily dept. meetings
Stakeholders	Profitable, Growth in the Market	Toray HQ, Financial Reports
Insurance	Profitable, Stable business , Low risk and minimum liabilities, fewer claims	Consistent policies, internal polices like safety, quality , and environmental polices and practices
Customers	Provide high quality, innovative products that meet or exceed customer expectations	Annual Customer Survey, OTD monthly tracking, Customer Complaint KPI, Maintain AS9100, NADCAP accreditation where applicable, Technical Transfer of new Technology, Customer Specification Registration, Changing Markets, Forecasting Demand, Expanding Markets (Aerospace, Defense, Sporting Good, Industrial and Automotive)



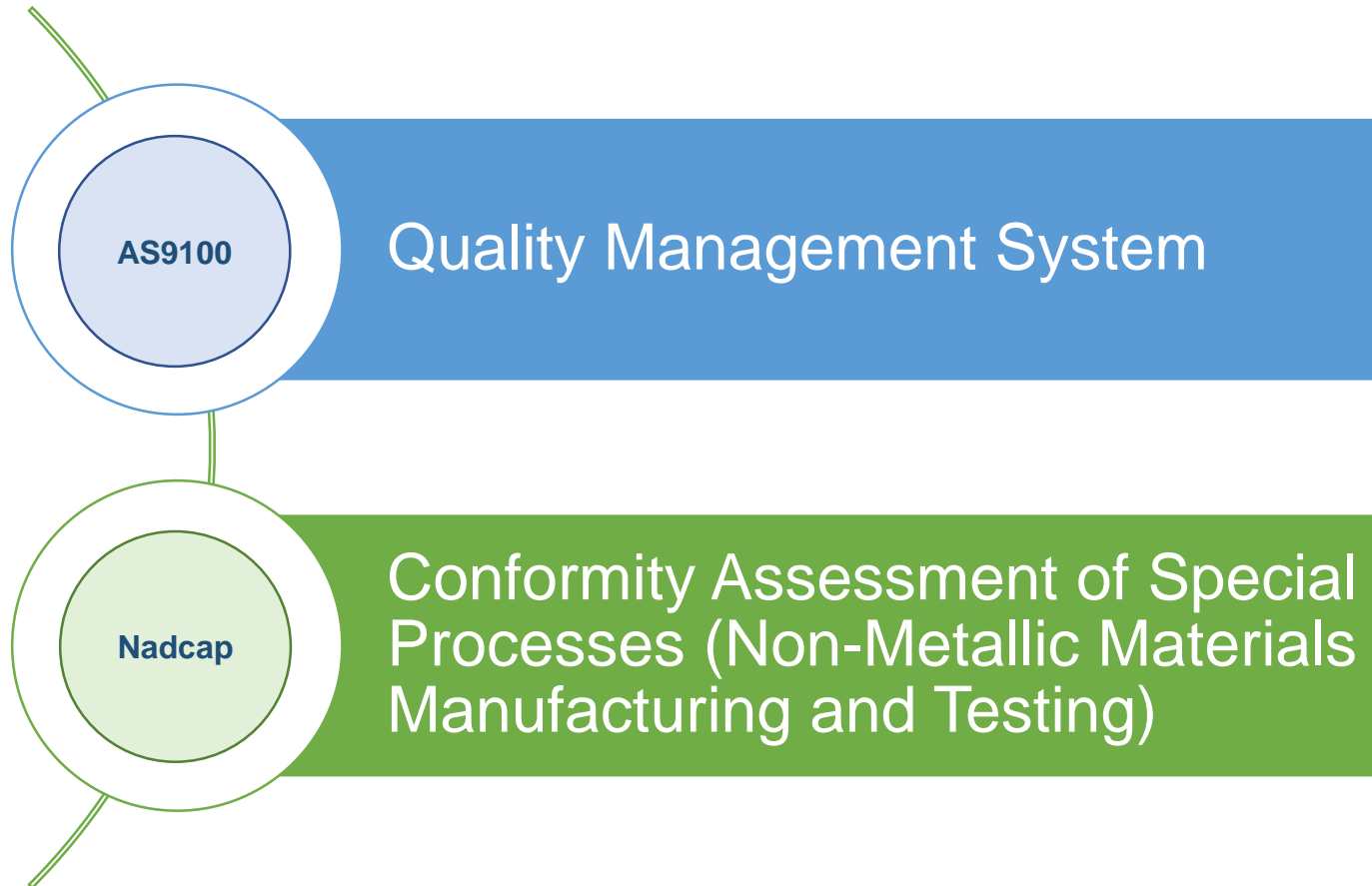
Interested Parties	Expectations from Interested Parties	Key Activities
Society	Corporate Ethics	Corporate Social Responsibility, Environmental Aspects, Maintain ISO14001 certification
Community / Non-Governmental	Reputational Risks, Corporate Social Responsibility, Community Relations	United Way Campaign; FACEs Christmas campaign; Local Food drives
Regulatory	Regulatory Constraints and Compliance	EHS Internal Audits and Report; Financial audits and reporting
Supply Chain	Availability, Forecasting	SIOP Meetings; Global Operations
Competitors	Competitive Advantage, Disruptive Technology	Technical Center Testing

# LEADERSHIP RESPONSIBILITY & ORGANIZATION CHART - CMA





***The design and development of Prepreg (composite material), and the manufacture and sale of Prepreg (composite material) and Polyacrylonitrile Fiber and Carbon Fiber for Aviation, Space, Sports, and Industrial Applications.***

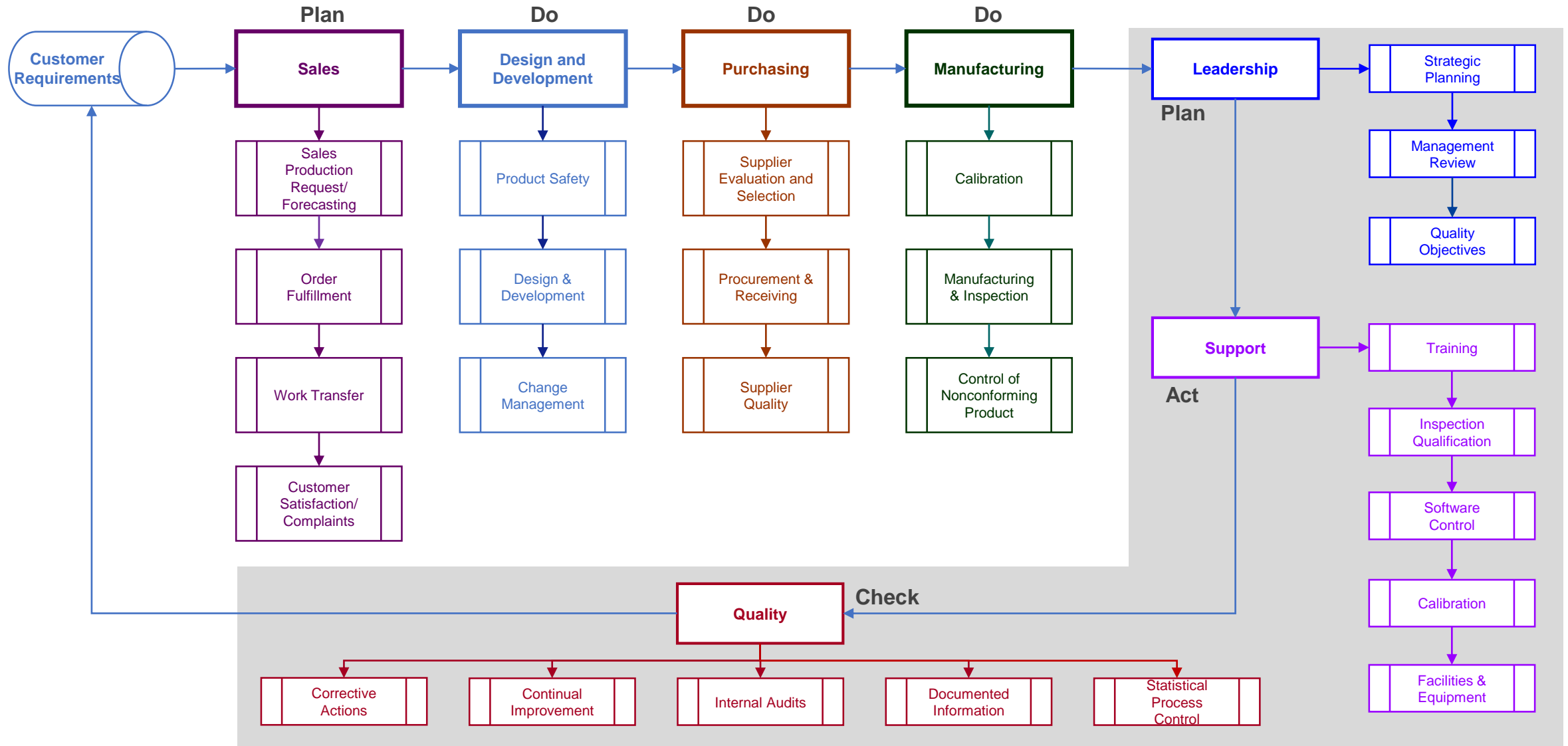


*Design and Development activities are performed only for Prepreg materials and at the Tacoma plant.  
Nadcap applies only to the Tacoma and Decatur plants.*

*The following AS9100 requirements are not applicable:*

- 8.5.5 – Toray CMA does not provide post-delivery activities pertaining to:
  - Collection and analysis of in-service data
  - Control, updating, and provision of technical documentation relating to product use, maintenance, repair, and overhaul
  - Controls required for work undertaken external to the organization
  - Product/customer support pertaining to training, warranties, etc.
- 8.5.3 – Customer property is limited to customer intellectual property in the form of specifications

# QMS PROCESS INTERACTION



# PROCESS RESPONSIBILITY

CMA Process	Associated Procedures	AS9100D Clause(s)	Responsibility
CMA Quality Manual	CMA-MAN-0004	4.4 - Quality Management System	Director(s), QA
Leadership	CMA-MAN-0004 CMA-PROC-0054	5 - Leadership 5.1 - Leadership and Commitment 5.2 - Policy 5.3 - Organizational Roles, Responsibilities, and Authorities 9.1 - Monitoring, Measurement, Analysis, and Evaluation 9.3 - Management Review	President Sr. VP, Operations Director(s), QA
	CMA-PROC-0039	6 - Planning 6.1 - Action to address risk and opportunities 6.2 - Quality objectives and planning to achieve them 6.3 - Planning of changes	President Sr. VP, Operations Director(s), QA
Support	CMA-PROC-0051 CMA-PROC-0033	7.1 - Resource 7.1.1 General 7.1.2 People 7.1.6 Organizational Knowledge 7.2 - Competence 7.3 - Awareness 7.4 - Communication	VP, HR Director(s), QA
	CMA-PROC-0048 CMA-PROC-0064	7.1.3 Infrastructure	VP, IT
	CMA-PROC-0047	7.1.5 - Monitoring and Measuring Resources 7.1.5.1 - General 7.1.5.2 - Measurement Traceability	Director(s), Maintenance
	CMA-PROC-0076	7.1.3 Infrastructure 7.1.4 Environment for the Operation of Processes	Director(s), Maintenance
Quality	CMA-PROC-0033 CORP-PROC-0028	8.5.2 - Identification & Traceability (Stamp Control)	Director(s), QA
	CMA-PROC-0032	9.2 - Internal Audit	Director(s), QA
	CMA-PROC-0035 CMA-PROC-0037	10 - Improvement 10.1 - General 10.2- Nonconformity and Corrective Action 10.3 - Continual Improvement	Director(s), QA
	CMA-PROC-0034 CMA-PROC-0038	7.5 - Documented Information 7.5.1 - General 7.5.2 - Creating and Updating 7.5.3 - Control of Documented Information	Director(s), QA
	CORP-PROC-0031 TA-PROC-0047	8.5.1 - Control of Production and Service Provision	Director(s), QA



# PROCESS RESPONSIBILITY (continued)

CMA Process	Associated Procedures	AS9100D Clause(s)	Responsibility
Sales	CMA-PROC-0072	8.2 - Requirements for production and Service	Executive VP, Sales
	CMA-PROC-0061	8.6 - Release of Products and Services	Executive VP, Sales Director(s), QA
	TA-WI-0660	8.1 Operational Planning and Control 8.4 - Control of Externally Provided Processes, Products, and Services	Executive VP, Sales
	CMA-PROC-0044 CMA-PROC-0008	9.1.2 - Customer Satisfaction 10.2 - Nonconformity and Corrective Action	Executive VP, Sales Director(s), QA
Design and Development	CMA-PROC-0005	8.1.3 - Product Safety	VP, Technical
	TA-PROC-0103	8.1 - Operational Planning and Control 8.1.1 - Operational Risk Management 8.3 - Design and Development of Products and Service	VP, Technical
	CMA-PROC-0031	8.1.2 - Configuration Management	VP, Technical
Purchasing	CMA-PROC-0057 CMA-PROC-0058	8.1 - Operational Planning and Control 8.4 - Control of Externally Provided Processes, Products, and Services	Sr. Manager, SCM Manager, Purchasing VP, Technical Director(s), QA
	CMA-PROC-0055 CORP-PROC-0027	8.1 - Operational Planning and Control 8.1.4 - Prevention of Counterfeit Parts 8.4 - Control of Externally Provided Processes, Products, and Services	Sr. Manager, SCM Manager, Purchasing
	CMA-PROC-0042	8.4 - Control of Externally Provided Processes, Products, and Services	Sr. Manager, SCM Manager, Purchasing Director(s), QA
Manufacturing	CMA-PROC-0047	7.1.5 - Monitoring and Measuring Resources 7.1.5.1 - General 7.1.5.2 - Measurement Traceability	Sr. VP, Operations
	CORP-PROC-0001 CORP-PROC-0023 TA-PROC-0027 CORP-PROC-0014 TA-PROC-0137	8.1 - Operational Planning and Control 8.5 - Production and Service Provision 8.5.1 - Control of Production and Service Provision 8.5.2 - Identification and Traceability 8.5.3 - Property belonging to customer or external providers 8.5.4 - Preservation 8.5.5 - Post Delivery Activities 8.5.6 - Control of Changes	Sr. VP, Operations Director(s), QA
	CMA-PROC-0035	8.7 - Control of Nonconforming Output	Director(s), QA