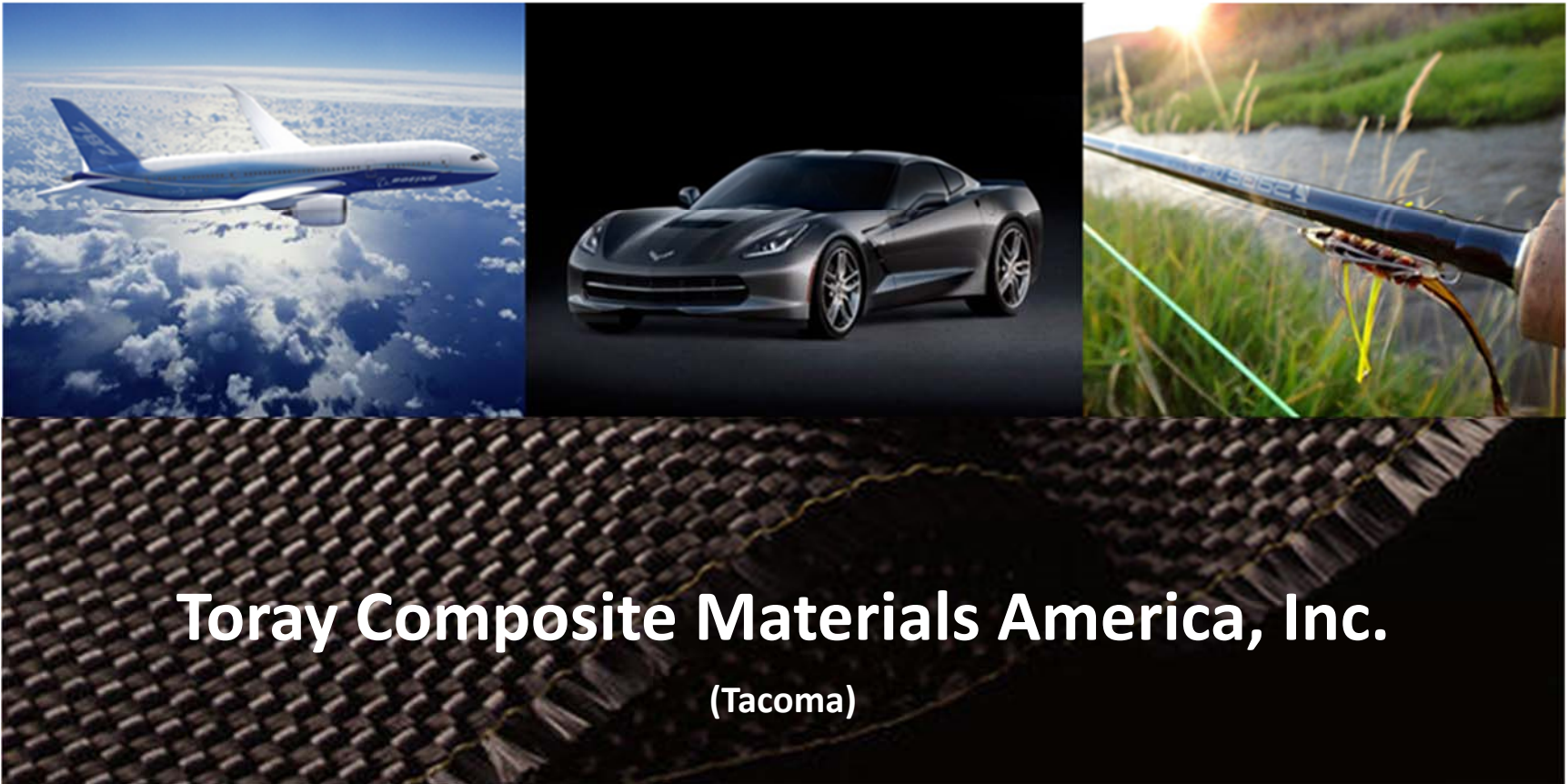




Innovation by Chemistry



Toray Composite Materials America, Inc.

(Tacoma)

Quality & Environmental Manual (QEM)

TCMAN-Q-Q100

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COMPANY OVERVIEW

Toray Composite Materials America, Inc. (CMA) had begun producing advanced composite materials in 1992 as Toray Composites (America), Inc. – incorporated in Pierce County and located adjacent to Boeing’s Composite Manufacturing Center – to enable an efficient supply stream of Toray’s carbon fiber composite materials. First used on the Boeing 777, Toray’s Advanced Carbon Fiber composite materials are now incorporated into the 777 and 787 primary structures and will be used on the new 777X wing. CMA’s Tacoma plant supplies a diverse customer base both domestically and internationally and is a major exporter from Washington State. **Today this site is called the CMA Tacoma Campus (19002 50th Avenue East, Tacoma, WA 98446).**

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In 1997, CMA’s Decatur plant was established, then known as Toray Carbon Fibers America, Inc. (CFA), – incorporated in Morgan County. The Decatur area has been known for its history in the chemical industry and offers attractive conditions for carbon fiber production. CMA Decatur operates production lines from precursor to carbon fiber and has a diverse base of customers in aerospace, defense, industrial, and automotive. They manufacture Standard Modulus [SM], Intermediate Modulus [IM] and Intermediate Modulus (+) [IM+] fibers for a global customer base.

CMA’s newest plant in Spartanburg, SC will be an integrated facility producing precursor, carbon fiber and prepreg in a single manufacturing facility. This plant is a cornerstone of Toray’s growth in North America and provides critical supply chain redundancy and diversification.

With a nationwide footprint, this allows us to build on our success by utilizing our collective knowledge and expertise, and becoming nimbler and responsive to our customers’ needs by centrally managing our combined production facilities. Gaining capability across product lines allows us to increase customer value, shorten time to market, and strengthen critical relationships.



Toray Composite Materials America, Inc. (Tacoma Plant)

TORAY HQ PHILOSOPHY & MISSION

Philosophy:

**Contributing to society through the
creation of new value with innovative ideas, technologies and products.**

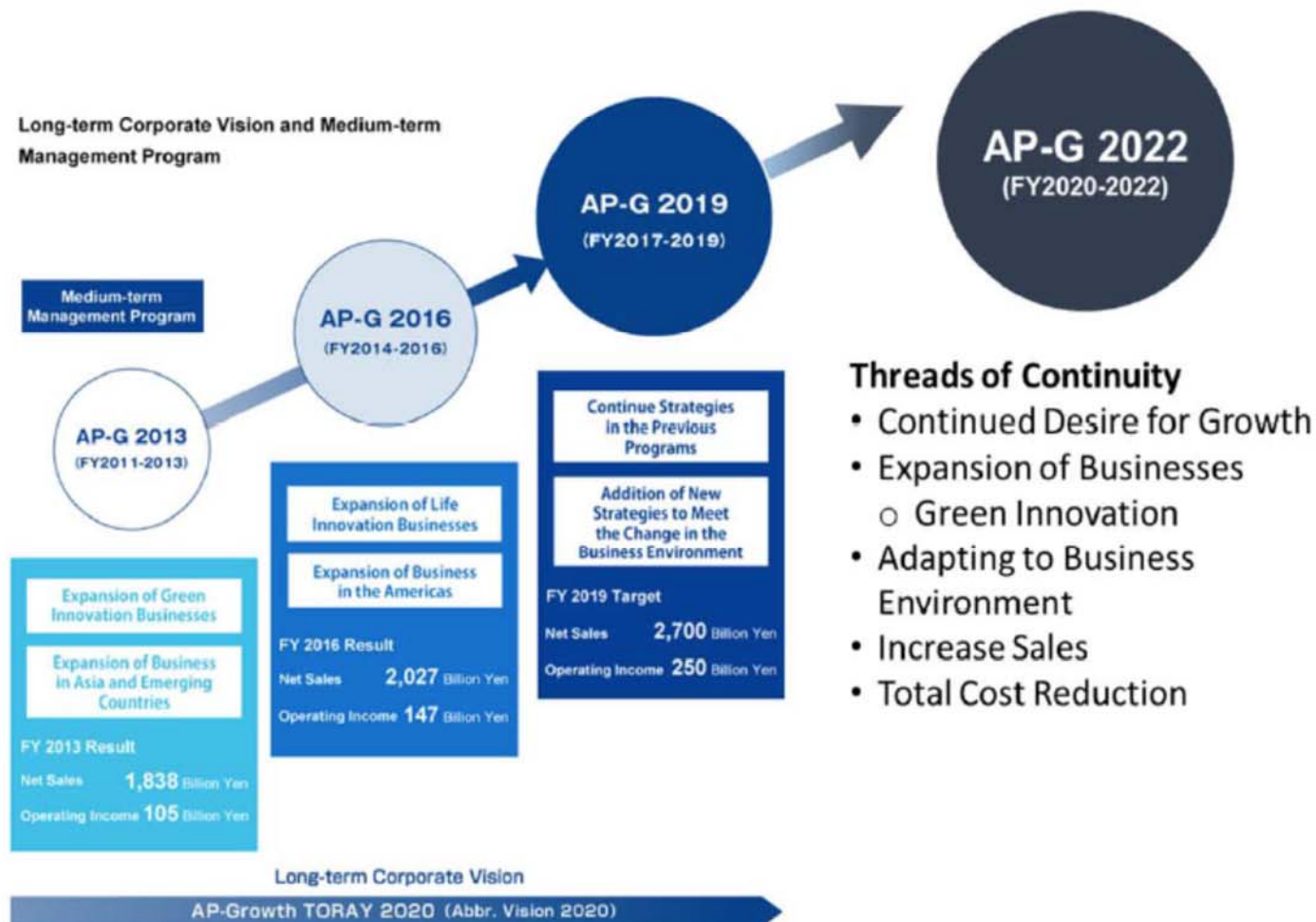
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Mission:

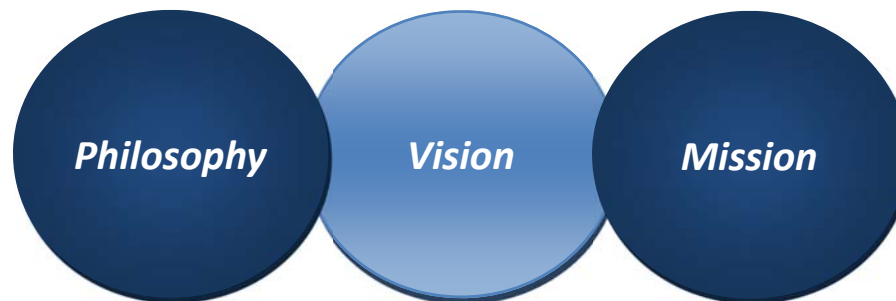
<i>For our customers</i>	To provide new value to our customers through high-quality products and superior services
<i>For our employees</i>	To provide our employees with opportunities for self development in challenging environment
<i>For our shareholders</i>	To provide our shareholders with dependable and trustworthy management
<i>For society</i>	To establish ties and develop mutual trust as a responsible corporate citizen

TORAY HQ VISION

Past Toray Industries Action Plan for Growth (AP-G)



TORAY HQ CORPORATE GUIDING PRINCIPLES



Guiding Principles

Enhance Trust

- **Safety and Environment**

Placing top priority on safety, accident prevention and environmental preservation, ensuring the safety and health of our employees, our customers and local communities, and actively promoting environmental preservation.

- **Ethics and Fairness**

Obtaining the trust of society and meeting the expectation by acting fairly while maintaining high ethical standards and a strong sense of responsibility and maintaining transparency in management.

- **Emphasis on Human Resources**

Providing an environment where employees find value in their work, and building positive, energetic relationships between people and the organization.

Embrace Change

- **Customer Focus**

Providing customers with new values and solutions, and achieving sustainable growth together.

- **Innovation**

Achieving continuous innovation in all corporate activities, and aiming for dynamic evolution and growth.

- **Fieldwork and Initiative**

Strengthening fieldwork abilities and initiative, the foundations of our corporate activities, through consistently learning from one another and constant self-driven efforts.

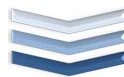
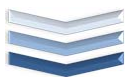
Sustain Progression

- **Global Competitiveness**

Pursing competitiveness through global top quality standards and cost management, and achieving growth and expansion in the global marketplace.

- **Global Coalition**

Developing global coalition through integrated internal linkages and strategic alliances with external parties.



Toray Composite Materials America, Inc. (CMA) Management System is aligned with Toray HQ's Philosophy, Vision, and Mission.
CMA's Safety, Quality, and Environmental policies define our way of working.

CMA SAFETY POLICY

Toray Composite Materials America, Inc. makes Safety a core value in all aspects of our business, with Accident Prevention as our number one priority. We are committed to providing and maintaining a proactive Safety and Health culture for all employees, contractors, and visitors, leading to zero occupational accidents.

We will achieve these goals by:

- Providing a Safe and Healthy Workplace for all employees, while following all applicable laws, regulations, policies, and procedures.
- Establishing the Basics of Safety throughout the company and instilling safety consciousness toward all that we do.
- Creating an accident free environment by detecting, understanding and mitigating hazards and risks that exist within our facilities.
- Holding ourselves accountable and responsible for our actions, and assisting others to do the same in a positive manner.
- Strengthening workplace discipline through communication, clear instruction, evaluation and follow-up.

Toray Composite Materials America integrates these beliefs throughout all divisions of our business.

CMA QUALITY POLICY

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

Principles of our Quality Policy:

<i>Safety:</i>	CMA will provide safe products and work environment
<i>Commitment:</i>	Comply with customer, statutory, and regulatory requirements
<i>Innovation:</i>	Innovation in our customer service, products, and processes
<i>Integrity:</i>	In all aspects of our company activities
<i>Establish:</i>	Review of quality objectives annually
<i>Continuous</i>	Continually improve customer services, products, and processes
<i>Motivation:</i>	To encourage our employees to become involved and to proudly take

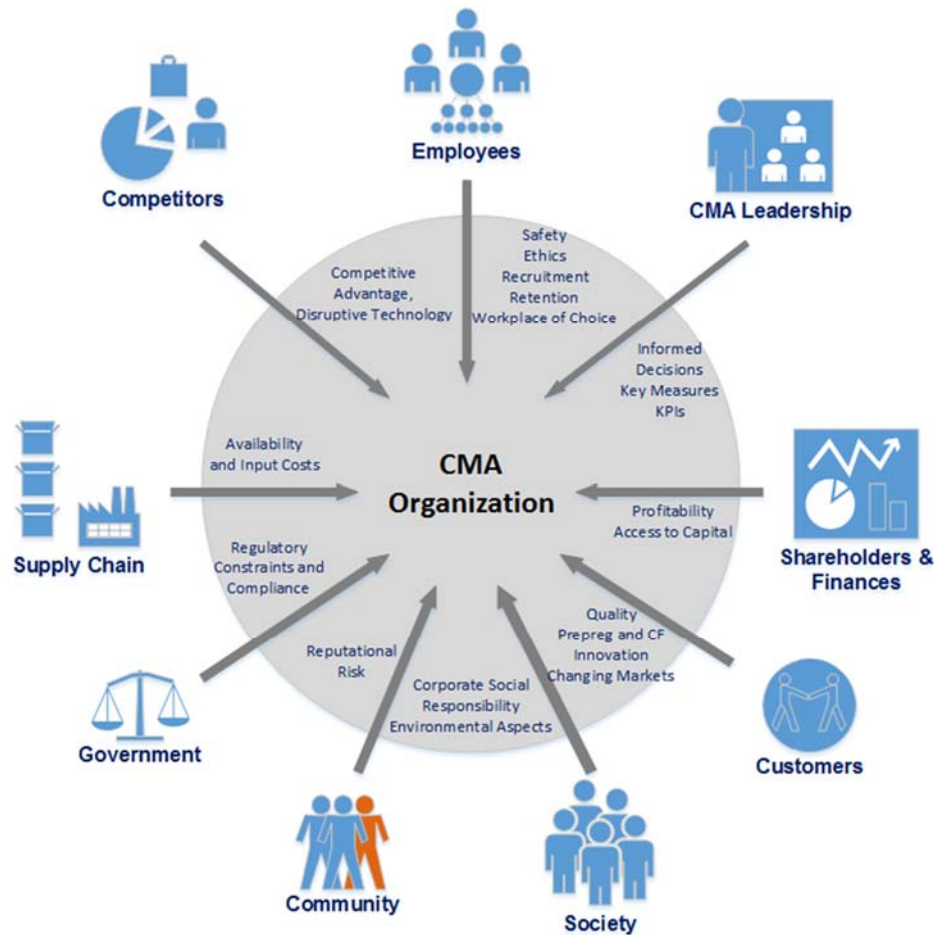
CMA ENVIRONMENTAL POLICY

Toray Composite Materials America, Inc. will conduct our operations in an environmentally responsible and sustainable manner with environmental preservation as the top priority. We are committed to maintain compliance with all applicable legal and other requirements, reducing our waste and use of resources, while continuing to promote continual improvement through the establishment of appropriate objectives and targets.

Environmental excellence shall be maintained through:

- The development of procedures and sustainability of all applicable legal and other requirements, while incorporating the industry's best practices.
- Periodic reviews of established objectives and targets focusing on incident prevention and environmental preservation with consideration given to employee involvement, our processes, and the community.
- Educating our employees, neighbors, and the community on steps taken to reduce our environmental impact and promotion of continual improvement.
- Assistance to our customers in providing environmentally friendly products, contributing an overall improvement to our environment.

CMA INTERESTED PARTIES



<i>Interested Party</i>	<i>Possible Impact</i>	<i>Comments</i>
Employees	•	Safety, Ethics, Recruitment, Retention, Workplace of Choice, Employee Opinion Survey, Benefits, Training
Leadership	•	Management Review, Key Measures and KPIs, All Hands Meeting, Communication
Shareholders & Finances	•	Profitability, Toray HQ, P & L, Balance Sheet Reports
Customers	•	Prepreg and Carbon Fiber Portfolio, Changing Markets, Forecasting Demand, Expanding Markets (Aerospace, Defense, Sporting Good, Industrial and Automotive)
Society	•	Corporate Social Responsibility, Environmental Aspects (ISO14001)
Community / Non-Governmental	•	Reputational Risks, Corporate Social Responsibility
Government	•	Regulatory Constraints and Compliance
Supply Chain	•	Availability, Forecasting
Competitors	•	Competitive Advantage, Disruptive Technology

CMA INTERNAL ISSUES



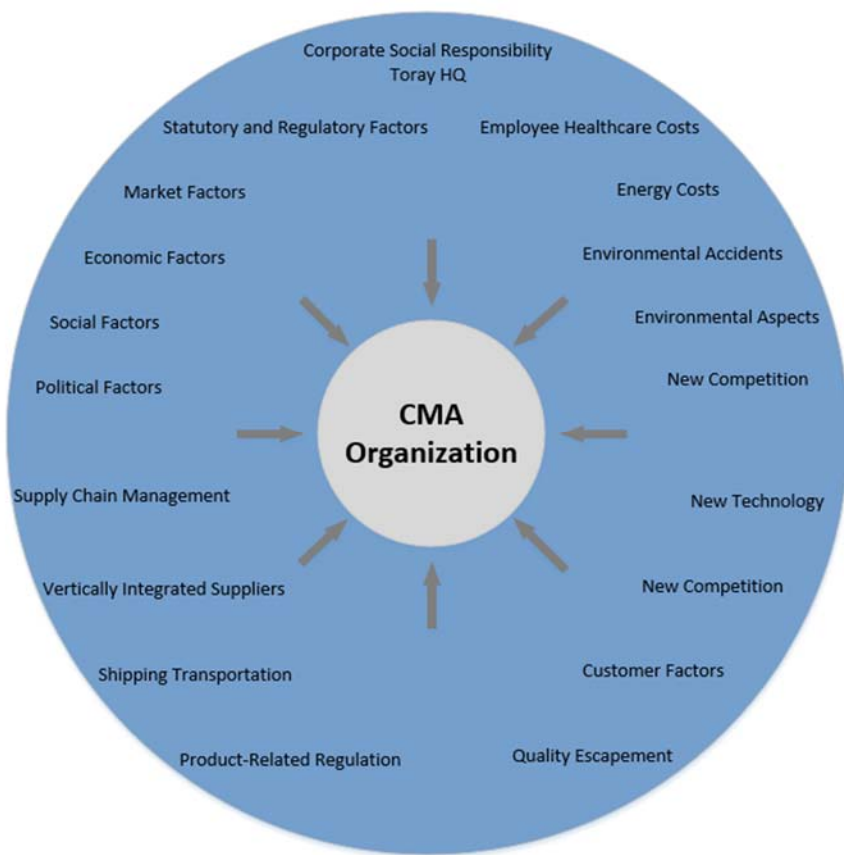
<i>Internal Issues</i>	<i>Possible Impact</i>	<i>Comments</i>
Safety	•	Leadership Commitment to Safety, Safety is First at CMA
Quality	•	QMS Quality Objectives and Key Measures
Ethics	•	Ethics Training, BEAR
Corporate Social Responsibility	•	Toray Group takes a comprehensive approach to practicing social responsibility and pursuing its management philosophy and management strategies, recognizing that fulfilling social responsibilities is integral to business growth.
Employer of Choice	•	Employee Opinion Survey
Benefits	•	Marketplace Evaluation, Annual Review
Incentives	•	Marketplace Evaluation, Annual Review
Employee Retention	•	Marketplace Evaluation, Annual Review
Management Stability	•	Vision, Mission and Objectives, Succession Planning
Organizational Structure	•	X-Matrix, CMA MTP, CMA Annual Budget, Business Roadmap
Environmental Aspects	•	Environmental Objectives, Targets and Programs, Policy, Emissions, Pollution, Local Ecology, Climate, Natural Disasters
Labor Costs	•	X-Matrix, CMA MTP, CMA Annual Budget, Business Roadmap
Profitability	•	Business Roadmap, Prioritization
Strategic Risk	•	X-Matrix, CMA MTP, CMA Annual Budget, Business Roadmap

CMA INTERNAL ISSUES (continued)



<i>Internal Issues</i>	<i>Possible Impact</i>	<i>Comments</i>
Organizational Culture / Behavior	•	Leadership Model
Innovation	•	X-Matrix, Retain, Sustain and Gain Strategy
Resource Management / Factors	•	Budgeting
Business Expansion	•	X-Matrix, CMA MTP, CMA Annual Budget, Business Roadmap
Capital Investment	•	X-Matrix, CMA MTP, CMA Annual Budget, Business Roadmap, CAPEX Planning
Aging Equipment Facilities	•	X-Matrix, CMA MTP, CMA Annual Budget, Business Roadmap
Branding and Marketing	•	Vision, Mission and Objectives, Internet Catalogs
Yield Improvement	•	X-Matrix
Cost Down	•	X-Matrix
Capacity Utilization	•	X-Matrix, Business Roadmap, Retain, Sustain and Gain Strategy
CMA Integration	•	Integration of Tacoma, Decatur, Spartanburg
Systems and System Transparency	•	MES, ERP, CATSWeb, Sitaline, Master Control, Infrastructure
Operational Knowledge	•	Succession Planning

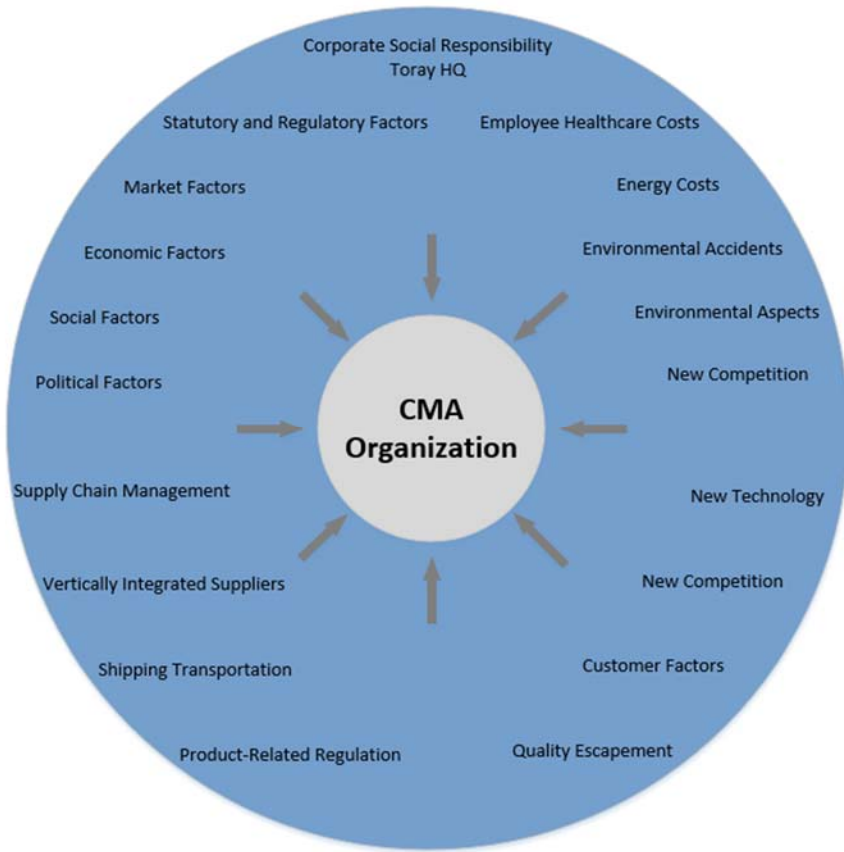
CMA EXTERNAL ISSUES



<i>External Issues</i>	<i>Possible Impact</i>	<i>Comments</i>
Corporate Social Responsibility Toray HQ	•	Toray Group takes a comprehensive approach to practicing social responsibility and pursuing its management philosophy and management strategies, recognizing that fulfilling social responsibilities is integral to business growth.
Employee Healthcare Costs	•	Benefit Assessment, ACA, Regulations, HIPAA
Energy Costs	•	Cost Increases (Manufacturing, Raw Material PAN, Transportation)
Environmental Accidents	•	Prevention, Disaster Recovery, Business Continuity Planning
Environmental Aspects	•	ISO14001, Corporate Social Responsibility, Product Safety, PSCAA, Dept. of Ecology
New Competition	•	Market Disrupting Technology, Price/Performance Competition
New Technology	•	Market Disrupting Technology
Product-Related Regulation	•	ITAR, EAR, STC
Quality Escapement	•	Prevention, QMS Investment, AS9100
Customer Factors	•	Contract Review, Product Safety, Contractual Obligations
Public Health	•	Pandemic, Other Public Health involuntary closures

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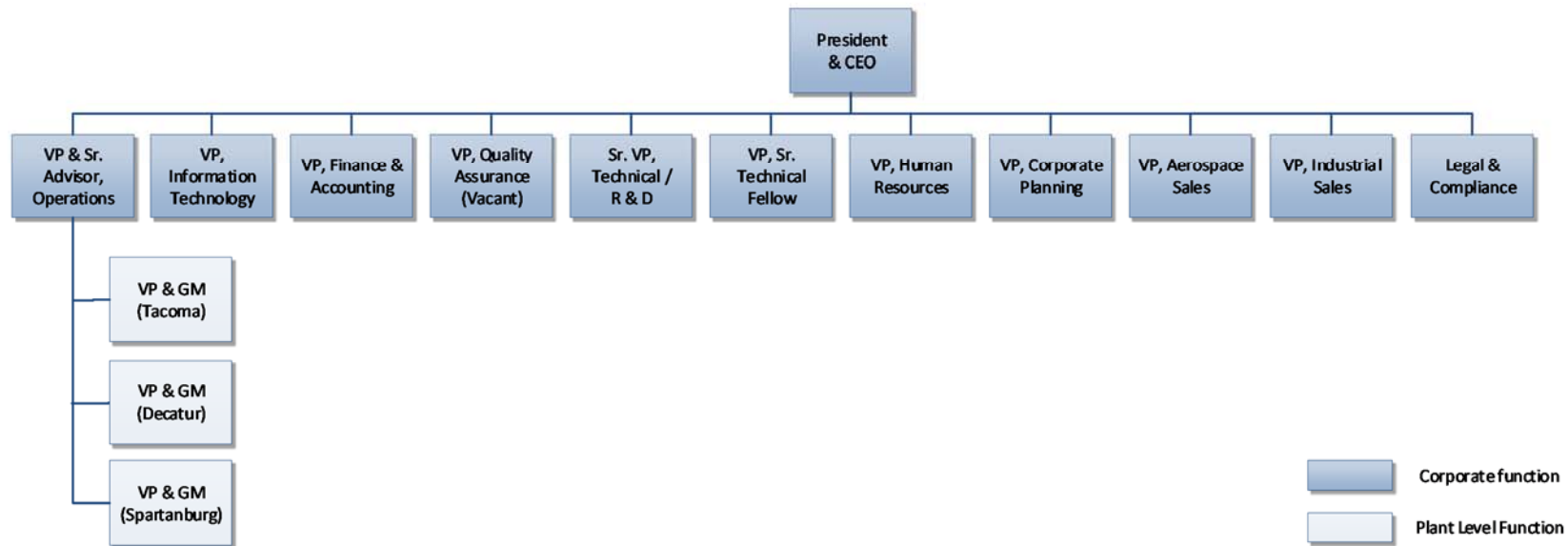
CMA EXTERNAL ISSUES (continued)



<i>External Issues</i>	<i>Possible Impact</i>	<i>Comments</i>
Market Factors	•	Competition, Market Share, Products or Services, Market Leader Trends, Customer Growth Trends, Market Stability, Supply Chain Relationships
Statutory and Regulatory Factors	•	Compliance, Ethics, BEAR, ITAR, EAR, STC, FAA, OSHA, L&I, WAC DOSH 296, Product Safety, HIPAA, DOT, Dept. Ecology/RCRA, CAA, TSCA, REACH
Economic Factors	•	Exchange Rates (Yen to Dollar), Economic Growth, Inflation Forecast, Export Tariffs, Interest Rates
Social Factors	•	Local Unemployment, Education Levels, Perception of Toray and Working Conditions
Political Factors	•	Political Stability, Public investments, Local Infrastructure, International Trade Agreements, International Political Tension
Supply Chain Management	•	Costs, Availability, Transportation, Scaling, Export Control, Risk Mitigation, Disaster Recovery
Vertically Integrated Suppliers	•	Dependency on Toray, Capacity Planning
Shipping Transportation	•	Disruption, Costing, Delivery

LEADERSHIP RESPONSIBILITIES

CMA Organization Chart



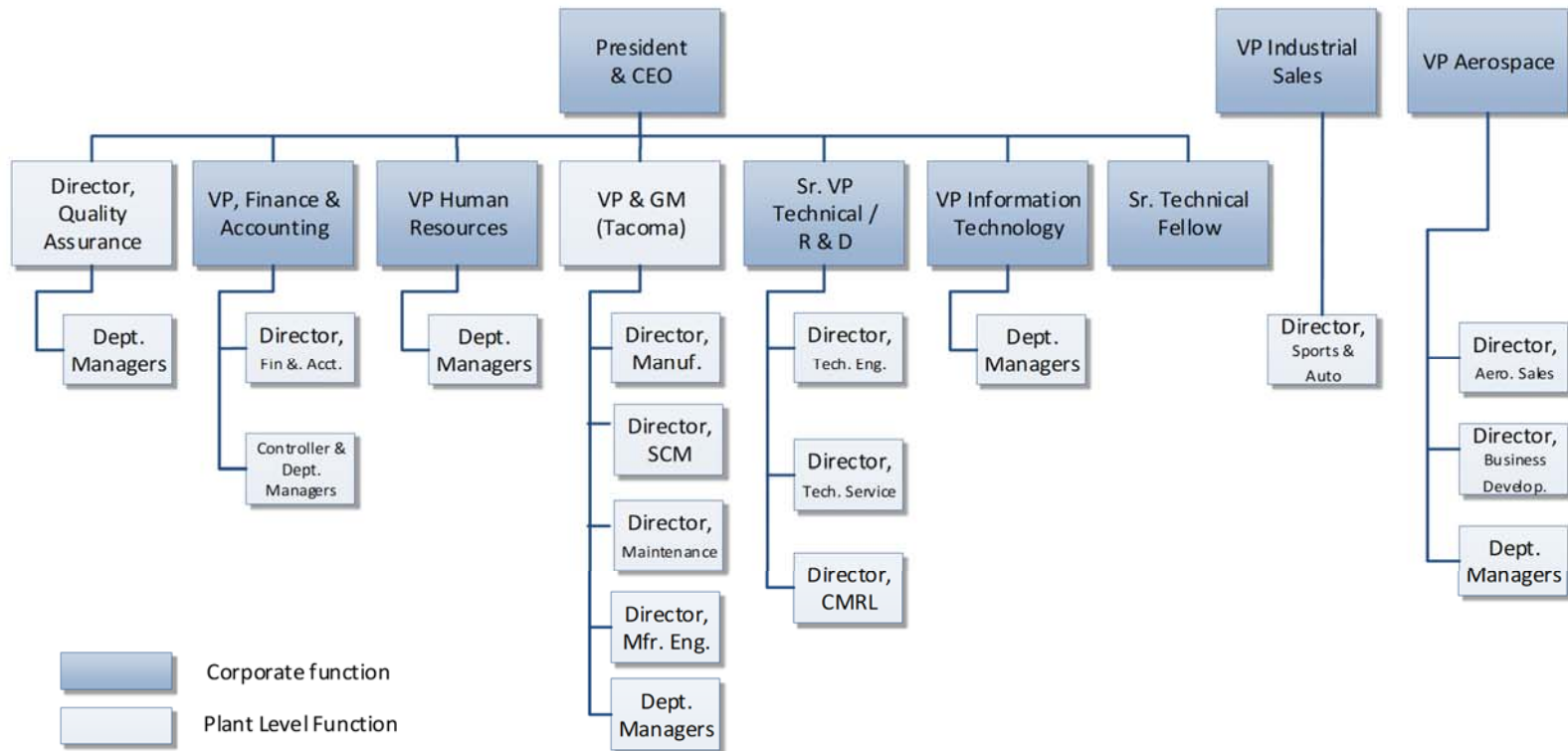
CMA Leadership is responsible for implementing the Management System consistently throughout their site location.

CMA Associates are responsible for working in accordance with the Management System processes and requirements within their site.

Responsibilities for specific activities are detailed within the site specific Management System documentation.

LEADERSHIP RESPONSIBILITIES

Tacoma Campus Organization Chart



The CMA (Tacoma) Management Representative for Quality is the Director of Quality.

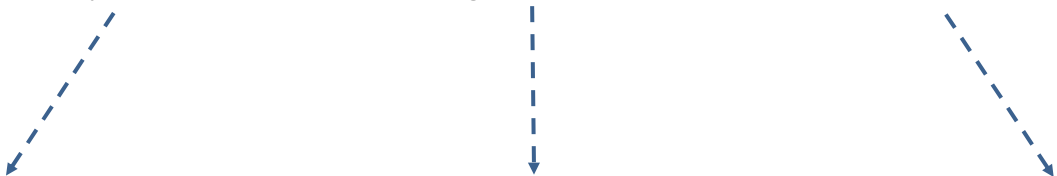
The CMA (Tacoma) Environmental Representative is the Environmental Manager.

SCOPE OF CMA TACOMA CAMPUS

Toray Composite Materials America, Inc. (CMA) Management System is aligned with HQ's:

[PHILOSOPHY VISION MISSION]

CMA's company mission and policies define our way of working, both internally for our site employees and externally for our customers, shareholders, and society. It is based on the following activities and international standards in their latest editions:



Safer	Smarter	Greener
'Safer' means 'improving health and safety' WAC DOSH 296 for Safety	'Smarter' means 'improving our processes for achieving quality' AS9100 Nadcap for Quality Management	'Greener' means 'improving our environmental performance' ISO14001 for Environmental Management

Scope of our QMS:

The design, development, sale (including fiber) and manufacture of Prepreg (composite material), to customer specifications for aviation, space, sports, and industrial applications.

Scope of our EMS:

The manufacture of Prepreg comprising processes such as resin mixing, filming, Prepreg, finishing, and support operations including design, development and testing.

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DOCUMENTATION MANAGEMENT SYSTEM

The Documentation Management System is comprised of this Quality & Environmental Manual (for Tacoma campus) and all the material that defines and supports the processes.

Documentation is available on the internal CMA Quality Document Center or Sitrine (for Tacoma campus) where associates can easily access materials needed to perform activities.

