

The background of the slide features a large, clear glass flask containing a globe of the Earth. The globe is centered on the Americas and is partially filled with a clear liquid. The Ashland logo is positioned in the upper left corner.

# ASHLAND®

***KeyBanc Analyst Day***  
**August 14, 2009**

**Formula for growth.**

*James J. O'Brien, Chairman and Chief Executive Officer*

*Lamar M. Chambers, Senior Vice President and Chief Financial Officer*

*John E. Panichella, President, Ashland Aqualon Functional Ingredients*

*Paul C. Raymond III, President, Ashland Hercules Water Technologies*

*Eric N. Boni, Director, Investor Relations*

# *Forward-Looking Statements*

This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These forward-looking statements are based upon a number of assumptions, including those mentioned within this presentation. Performance estimates are also based upon internal forecasts and analyses of current and future market conditions and trends; management plans and strategies; operating efficiencies and economic conditions, such as prices, supply and demand, and cost of raw materials; legal proceedings and claims (including environmental and asbestos matters); and weather. These risks and uncertainties may cause actual operating results to differ materially from those stated, projected or implied. Other risks and uncertainties include the possibility that the benefits anticipated from Ashland's acquisition of Hercules will not be fully realized; Ashland's substantial indebtedness may impair its financial condition; the restrictive covenants under the debt instruments may hinder the successful operation of Ashland's business; future cash flow may be insufficient to repay the debt; and other risks that are described in filings made by Ashland with the Securities and Exchange Commission (the "SEC"). Although Ashland believes its expectations are based on reasonable assumptions, it cannot assure the expectations reflected herein will be achieved. This forward-looking information may prove to be inaccurate and actual results may differ significantly from those anticipated if one or more of the underlying assumptions or expectations proves to be inaccurate or is unrealized or if other unexpected conditions or events occur. Other factors, uncertainties and risks affecting Ashland are contained in Ashland's periodic filings made with the SEC, including its Form 10-K for the fiscal year ended Sept. 30, 2008, and Form 10-Q for the quarters ended Dec. 31, 2008, and March 31 and June 30, 2009, which are available on Ashland's Investor Relations website at <http://investor.ashland.com> or the SEC's website at [www.sec.gov](http://www.sec.gov). Ashland undertakes no obligation to subsequently update or revise the forward-looking statements made in this presentation to reflect events or circumstances after the date of this presentation.

# *Agenda*

- Ashland Overview and Strategy
- Ashland Hercules Water Technologies
- Ashland Aqualon Functional Ingredients

---

List of Abbreviations Used in This Presentation

# *Ashland Vision for the Future*

**To be a leading, global specialty chemicals company that is a market leader in all major businesses**

- **Built on three growth platforms**
  - Ashland Aqualon Functional Ingredients
  - Ashland Hercules Water Technologies
  - Ashland Performance Materials
- **Investing in two primary chemistries**
  - Water-soluble polymers
  - Thermoset resins
- **Sharing three common capabilities**
  - Application expertise
  - Formulation expertise
  - Polymerization expertise
- **Focused on five key markets**
  - Paper and packaging
  - Personal care
  - Pharmaceutical
  - Construction
  - Transportation

# *Strong Leadership Positions in the Markets We Serve*

## **Ashland**

Ashland  
Aqualon  
Functional  
Ingredients

*#2 global  
producer  
of cellulose  
ethers*

Ashland  
Hercules  
Water  
Technologies

*#1 global  
producer  
of  
papermaking  
chemicals*

Ashland  
Performance  
Materials

*#1 global leader  
in unsaturated  
polyester resins  
and vinyl ester  
resins*

Ashland  
Consumer  
Markets  
(Valvoline)

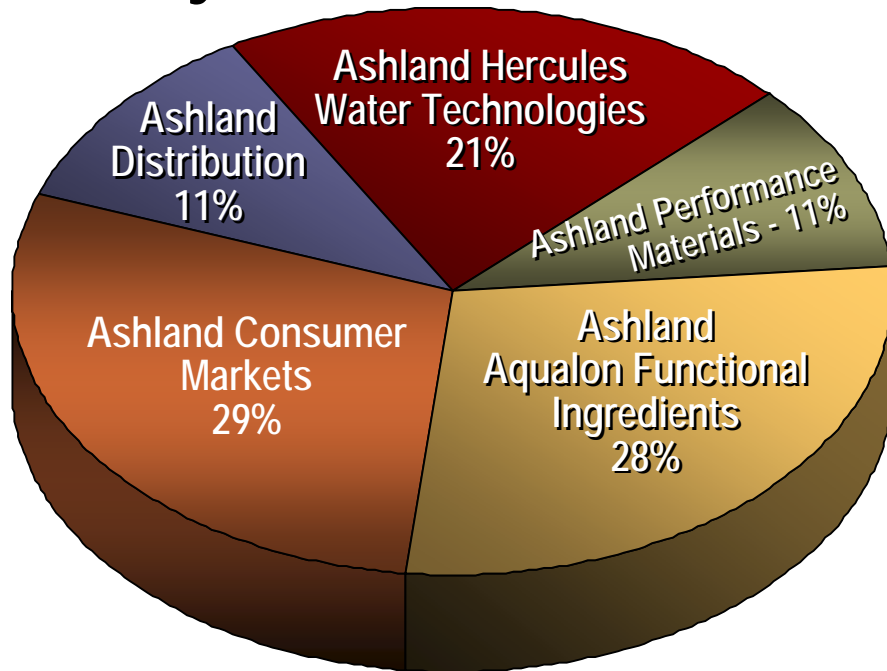
*#3 passenger-  
car motor oil  
and  
#2 quick-lube  
chain in the  
United States*

Ashland  
Distribution

*#2 plastics  
and #3  
chemicals  
distributor  
in North  
America*

# Corporate Profile

## Pro Forma Ongoing EBITDA<sup>1</sup> by Commercial Unit



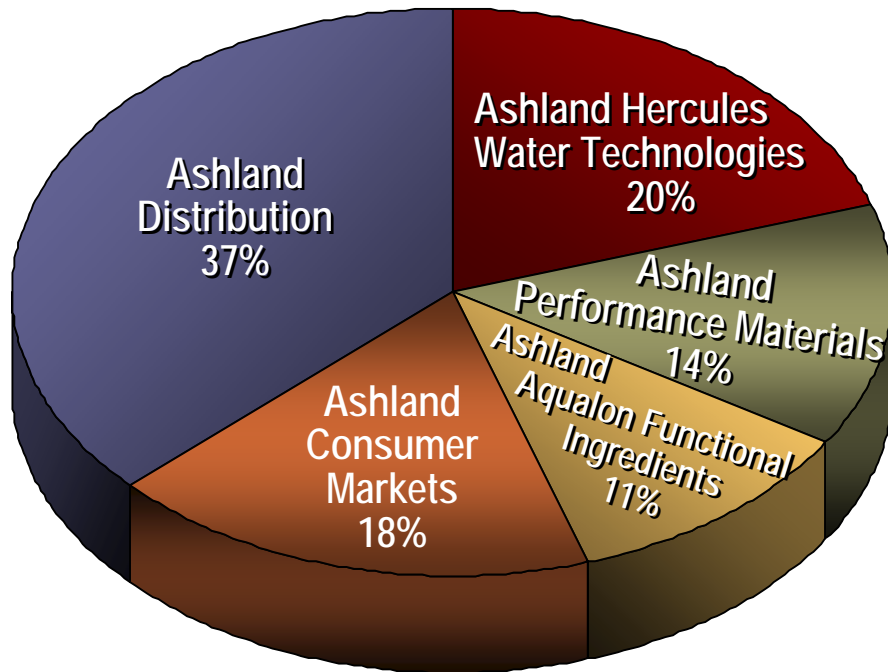
NYSE Ticker Symbol:	ASH
Employees:	~15,000
Number of countries in which Ashland has sales:	More than 100
Active patents in U.S.:	~650
Active patents worldwide:	~2,600

- 60 percent of EBITDA comes from specialty chemicals
  - More than 25 percent from renewable materials

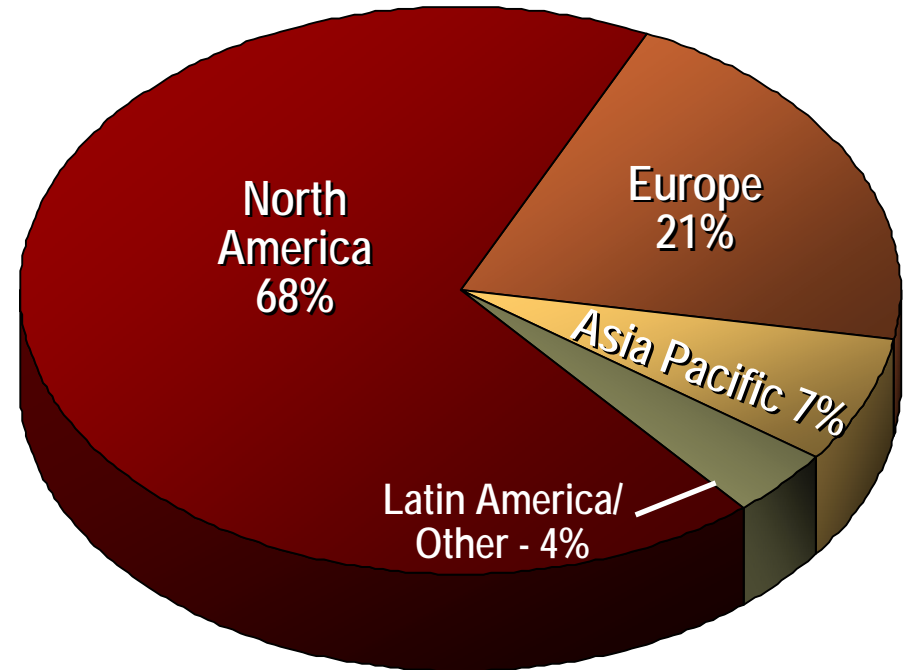
<sup>1</sup> For the 12 months ended June 30, 2009.

# Trailing 12 Months' Pro Forma<sup>1</sup> Sales and Operating Revenue

## By Commercial Unit



## By Geography



- 32 percent of total revenue comes from outside North America

<sup>1</sup> For the 12 months ended June 30, 2009, including intersegment sales.

# Ashland Aqualon Functional Ingredients

## A global leader in managing rheology of water-based systems

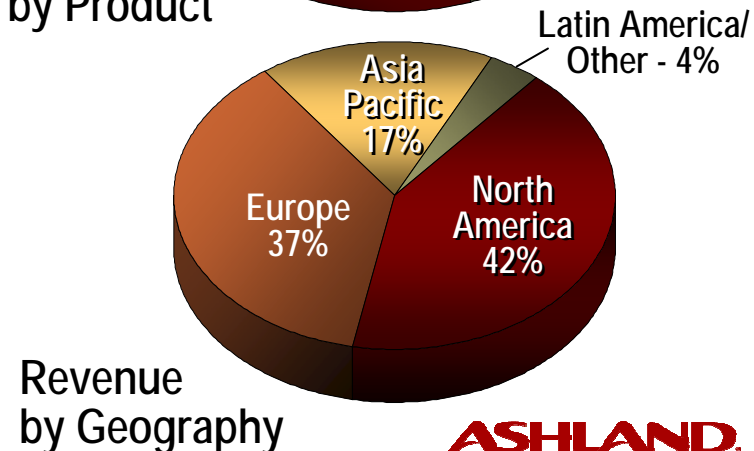
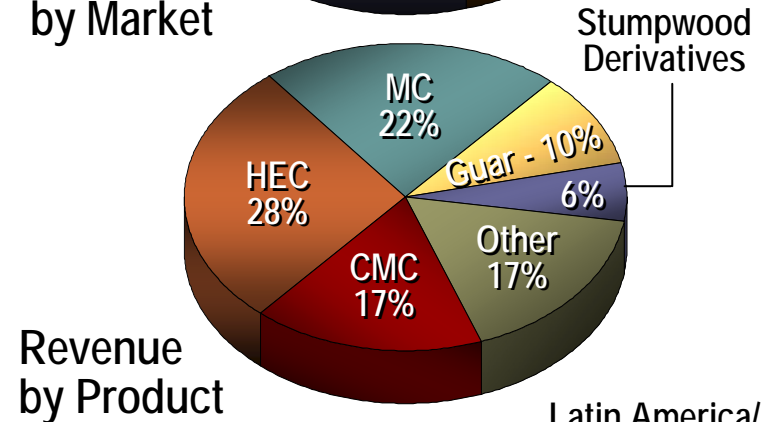
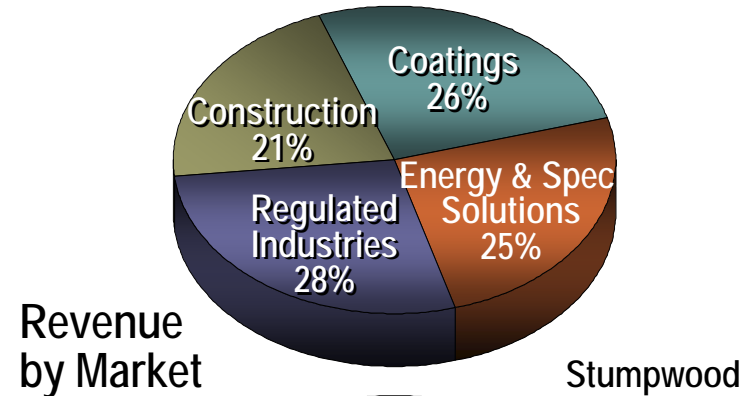
For the 12 Months Ended June 30, 2009

Pro Forma Revenue: \$1.0 billion

Pro Forma Ongoing EBITDA: \$216 million

Pro Forma Ongoing EBITDA Margin: 21.6%

Business Overview	
Customers	<ul style="list-style-type: none"> <li>Diversified, global customer base</li> </ul>
Products	<ul style="list-style-type: none"> <li>Broad product line based on renewable resources                             <ul style="list-style-type: none"> <li>Water-soluble polymers (cellulose ethers and guar derivatives)</li> <li>Refined wood rosin and natural wood terpenes</li> </ul> </li> </ul>
Markets	<ul style="list-style-type: none"> <li>Water-based paints</li> <li>Regulated markets                             <ul style="list-style-type: none"> <li>Personal care</li> <li>Food</li> <li>Pharmaceuticals</li> </ul> </li> <li>Construction</li> <li>Paper coatings</li> <li>Oilfield (chemicals and drilling muds)</li> </ul>



**ASHLAND.**



# *Ashland Aqualon Functional Ingredients Strategy*

- Use leadership position in cellulose ethers to drive growth through product innovation and geographic expansion
- Invest in additional water-soluble polymers that can be leveraged across multiple growth platforms and markets
- Leverage deep customer relationships in core markets (coatings, construction, personal care and pharmaceutical) to introduce high-value complementary products

# Ashland Hercules Water Technologies

## A major global supplier of process and functional chemicals

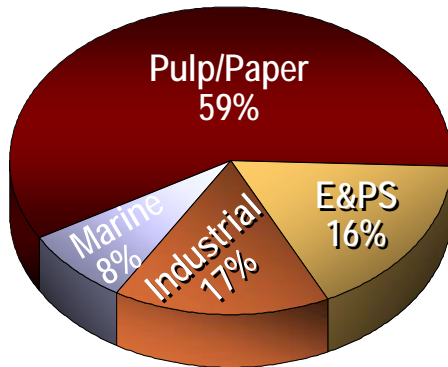
For the 12 Months Ended June 30, 2009

Pro Forma Revenue: \$1.9 billion

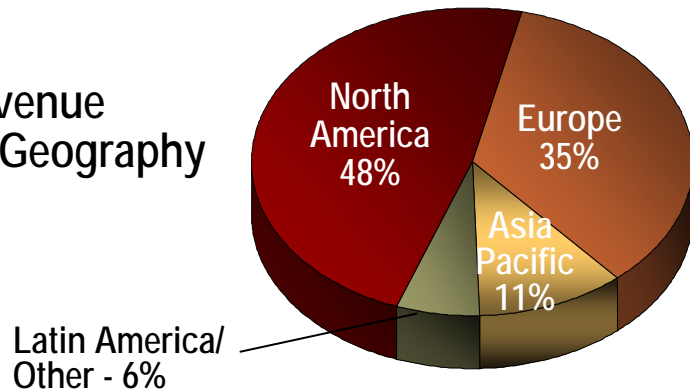
Pro Forma Ongoing EBITDA: \$165 million

Pro Forma Ongoing EBITDA Margin: 8.7%

Revenue  
by Market



Revenue  
by Geography



### Business Overview

#### Customers/ Markets

- Pulp and paper processing
- Industrial and institutional
- Mining
- Municipal wastewater treatment

#### Products/ Services

- Process chemicals for microbial and contaminant control, pulping aids and retention aids
- Functional chemicals for sizing and wet strength
- Utility water treatments
- Process water treatments

# *Ashland Hercules Water Technologies* **Strategy**

- Build on leadership position in specialty papermaking chemicals through product-line extension and geographic expansion
- Extend best-in-class, market-focused business model to additional water-intensive verticals, leveraging core process chemical technologies
- Continue to optimize operational efficiency of high-volume functional chemical assets

# Ashland Performance Materials

## A global leader in specialty chemicals

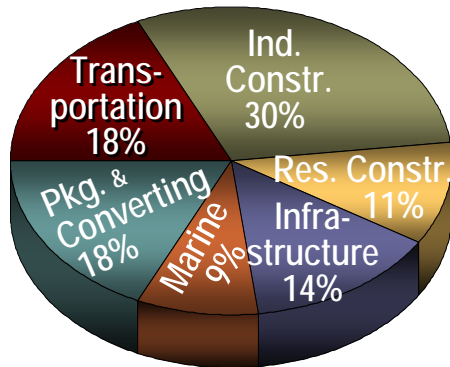
For the 12 Months Ended June 30, 2009

Pro Forma Revenue: \$1.3 billion

Pro Forma Ongoing EBITDA: \$81 million

Pro Forma Ongoing EBITDA Margin: 6.3%

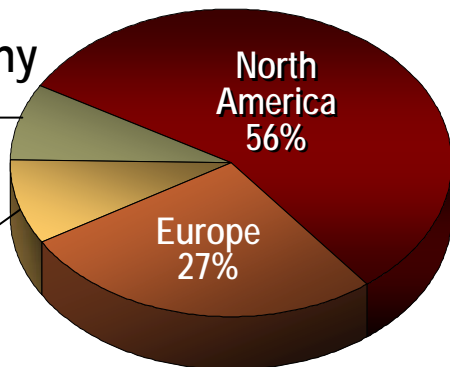
Revenue by Market



Revenue by Geography

Latin America/Other - 8%

Asia Pacific - 9%



### Business Overview

#### Customers

- Auto manufacturers; foundries; pipe and tank fabricators; packaging and converting; bathware, countertop and window lineal manufacturers; pipe relining contractors; boat builders; wide and narrow web printers

#### Products/Services

- Adhesives and Composites
  - Unsaturated polyester resins
  - Vinyl ester resins
  - Gelcoats
  - Pressure-sensitive adhesives
  - Structural adhesives
  - Specialty resins
- Casting Solutions
  - Foundry binder resins
  - Chemicals
  - Sleeves and filters
  - Design services

#### Markets

- Construction, packaging and converting, transportation, and marine

# *Ashland Performance Materials* **Strategy**

- Use market insight and thermoset chemistry expertise to create innovative substitutes that are stronger, lighter and more resistant than traditional materials for core transportation, construction and infrastructure markets
- Use leadership position in unsaturated polyester resins and vinyl ester resins to catalyze growth in Brazil, Russia, India and China
- Further build position in packaging and converting market, capitalizing on strength in high-end, solvent-based systems to drive innovation from our new water-based and radiation-cured technologies

# Ashland Consumer Markets: A leading worldwide marketer of premium-branded automotive lubricants and chemicals

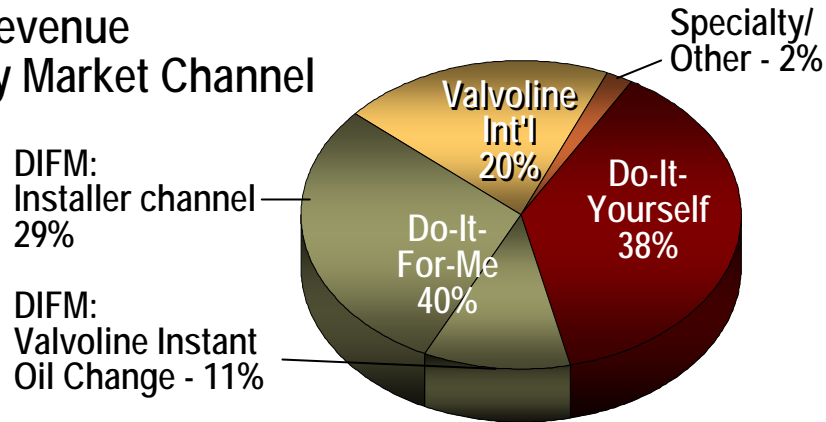
For the 12 Months Ended June 30, 2009

Pro Forma Revenue: \$1.7 billion

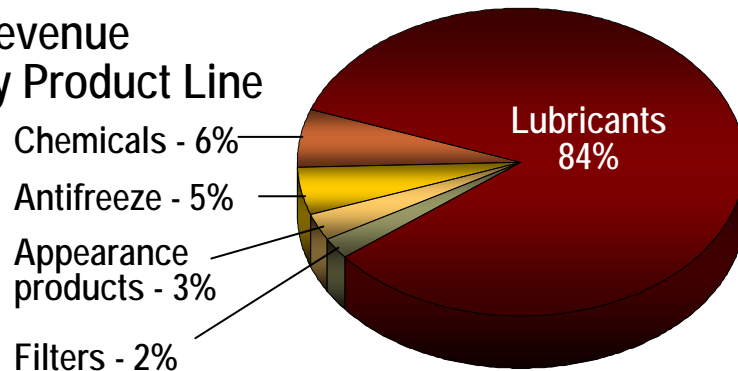
Pro Forma Ongoing EBITDA: \$227 million

Pro Forma Ongoing EBITDA Margin: 13.4%

Revenue by Market Channel



Revenue by Product Line



## Business Overview

Customers	<ul style="list-style-type: none"> <li>Retail auto parts stores and mass merchandisers who sell to consumers; installers, such as car dealers and quick lubes; distributors</li> </ul>
Products/Services	<ul style="list-style-type: none"> <li>Valvoline<sup>®</sup> lubricants and automotive chemicals</li> <li>MaxLife<sup>®</sup> lubricants for high-mileage vehicles</li> <li>SynPower<sup>®</sup> synthetic motor oil</li> <li>Eagle One<sup>®</sup> and Car Brite<sup>®</sup> appearance products</li> <li>Zerex<sup>®</sup> antifreeze</li> <li>Valvoline Instant Oil Change<sup>®</sup> service</li> </ul>
Market Channels	<ul style="list-style-type: none"> <li>Do-It-Yourself (DIY)</li> <li>Do-It-For-Me (DIFM)</li> <li>Valvoline International</li> </ul>

# *Ashland Consumer Markets Strategy*

- Use superior consumer insight to create channel-focused solutions that leverage the Valvoline brand
- Build brand loyalty in key Do-It-Yourself (DIY) growth segments, such as youth and Hispanics, through highly targeted advertising, promotions and programs
- Continue to deliver preferred customer experience in oil-change business through superior employee training, store traffic optimization, point-of-sale enhancements and highly targeted service offerings

# Ashland Distribution

*A leading North American chemicals and plastics distributor*

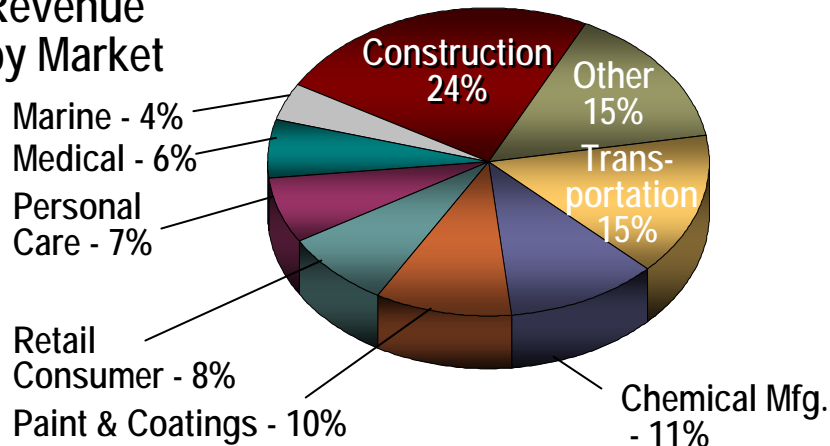
For the 12 Months Ended June 30, 2009

Pro Forma Revenue: \$3.4 billion

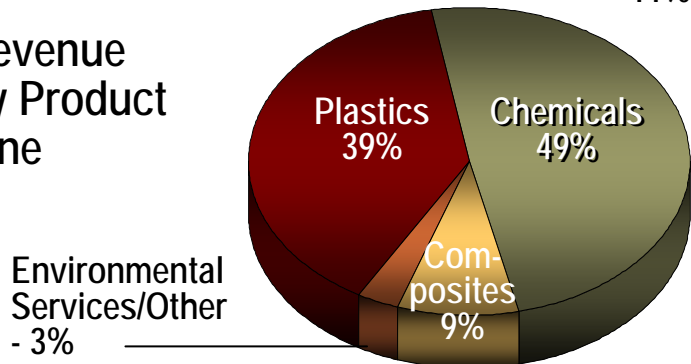
Pro Forma Ongoing EBITDA: \$88 million

Pro Forma Ongoing EBITDA Margin: 2.6%

Revenue by Market



Revenue by Product Line



## Business Overview

### Customers

- Diversified customer base in North America and Europe

### Products/Services

- More than 28,000 packaged and bulk chemicals, solvents, plastics and additives
- Comprehensive, hazardous and nonhazardous waste-management solutions in North America

### Markets

- Construction
- Transportation
- Chemical manufacturing
- Paint and coatings
- Retail consumer
- Personal care
- Medical
- Marine



# *Ashland Distribution Strategy*

- Continue focus on efficiency to create highest-value channel for customers and suppliers
- Build best-in-class product offering by aligning with globally leading suppliers that:
  - have low-cost production
  - can ensure continuity of supply
  - are investing in their business
  - are industry leaders in quality and reliability
- Leverage Ashland's technical resources and asset network to provide mass market penetration for specialty products

# *Ashland Recent Performance and Near-Term Outlook*

- Repayment of debt through cash flow is a priority to achieve investment-grade credit statistics
  - Reduced gross debt to under \$2 billion at June 30
- Focus on generating and growing cash flow
  - Generated cash flows from operating activities of \$649 million for fiscal year-to-date at June 30
  - Can be supplemented with noncore assets sales
- Exceeded \$265 million cost-reduction target by \$22 million, three months ahead of plan
- Margin and price management mitigating significant volume declines
- Resizing business and cost structure to reflect 20-percent volume-reduction environment
- Ashland is well-positioned to outperform as the economy improves

# *Ashland's Strategy*

- Focus on specialty chemicals supported by Hercules acquisition
- Generate cash flow for paying down debt
- Manage cost structure and leverage new scale
- Reduce volatility of earnings and cash flow and retain conservative financial position
- Invest in sustainable technologies to decrease reliance on petroleum-based raw materials
- Continue to grow in water-intensive industries to capitalize on increasing demand for clean, usable water
- Leverage formulation and application expertise into adjacent markets that value our customized-service model
- Accelerate investment in long-term high-growth nations such as Brazil, Russia, India and China
- Improve position in core specialty chemical businesses, while reducing investment in noncore businesses

# ASHLAND®

*Ashland Hercules Water Technologies*

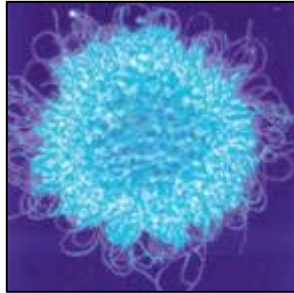
**Formula for growth.**

*Paul C. Raymond III, President*

**HERCULES**

# How Our Products Are Used

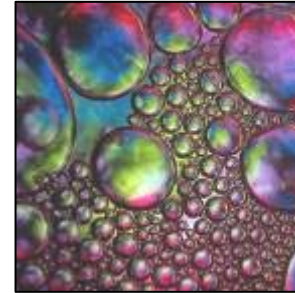
## Process Additives



Microbial Control



Contaminant Control



Foam Control



Retention Aids

## Water Treatment Chemicals



Boiler Water



Cooling Water



Wastewater



Influent Water

## Functional Additives



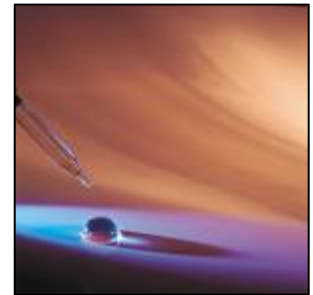
Softness



Strength

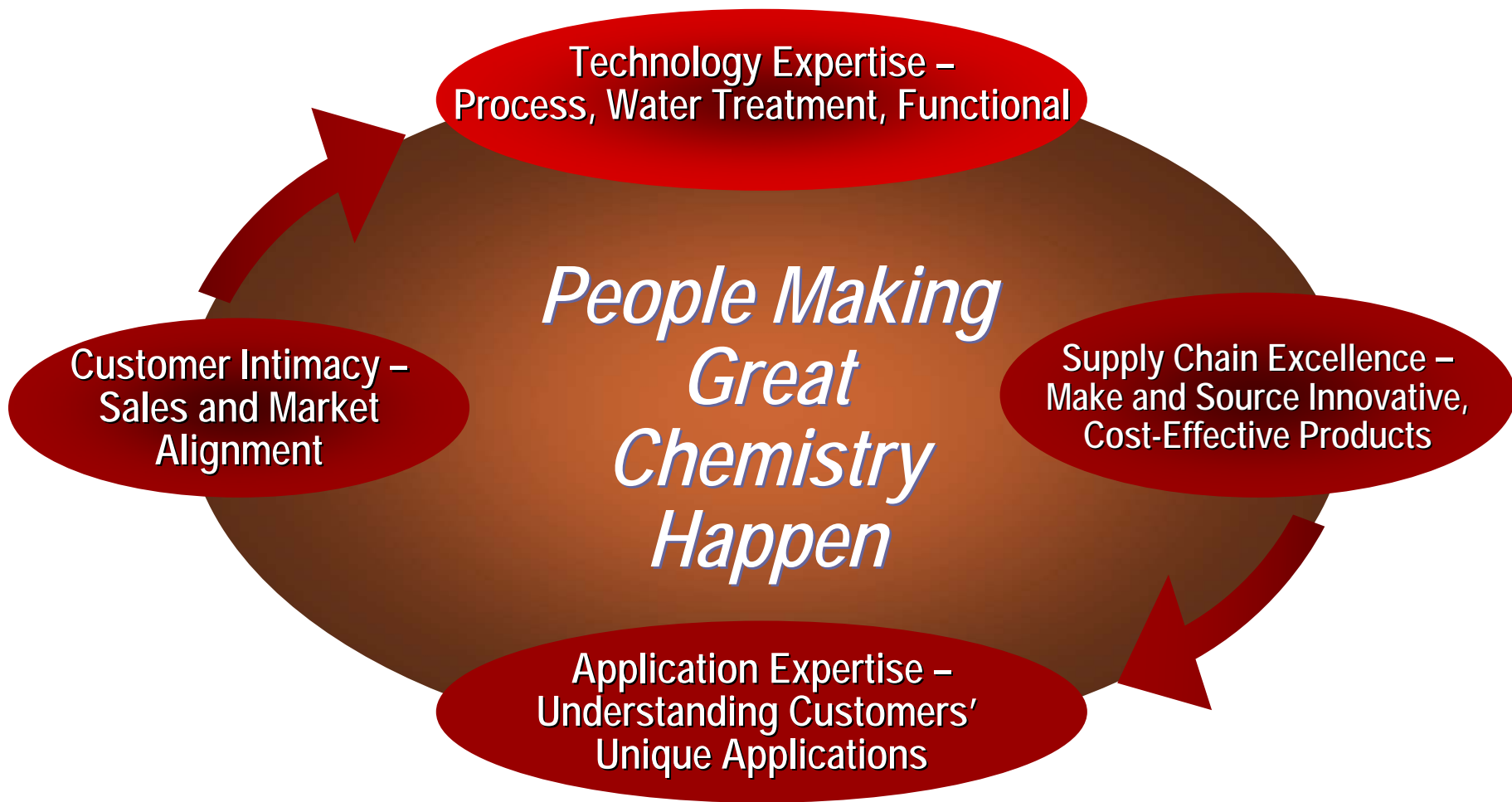


Printability



Sizing

# *Core of the Business ... How We Make Money*



# Platform Launch

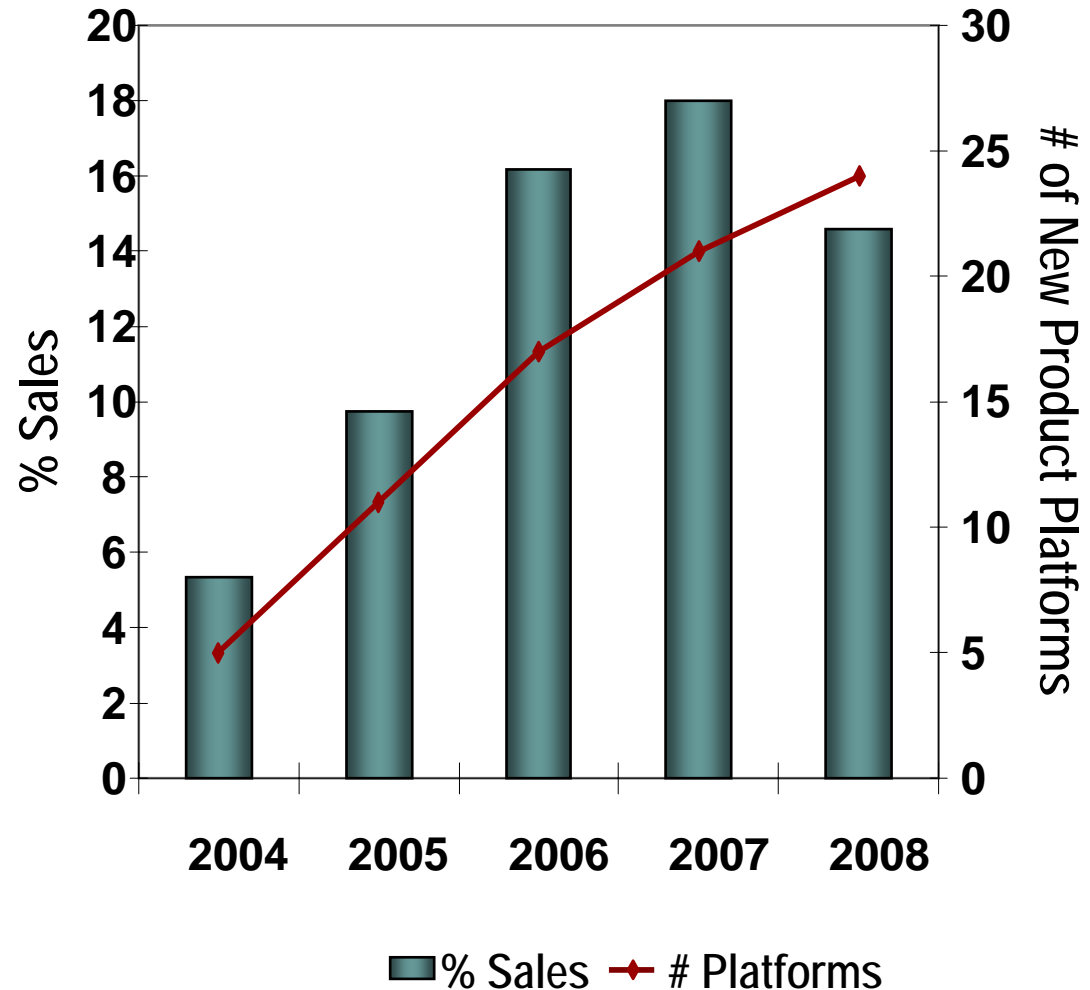
## AHWT Platform Launch

- Reflects strategic priorities
- Emphasizes high-margin products
- Showcases platforms that build competitive advantage

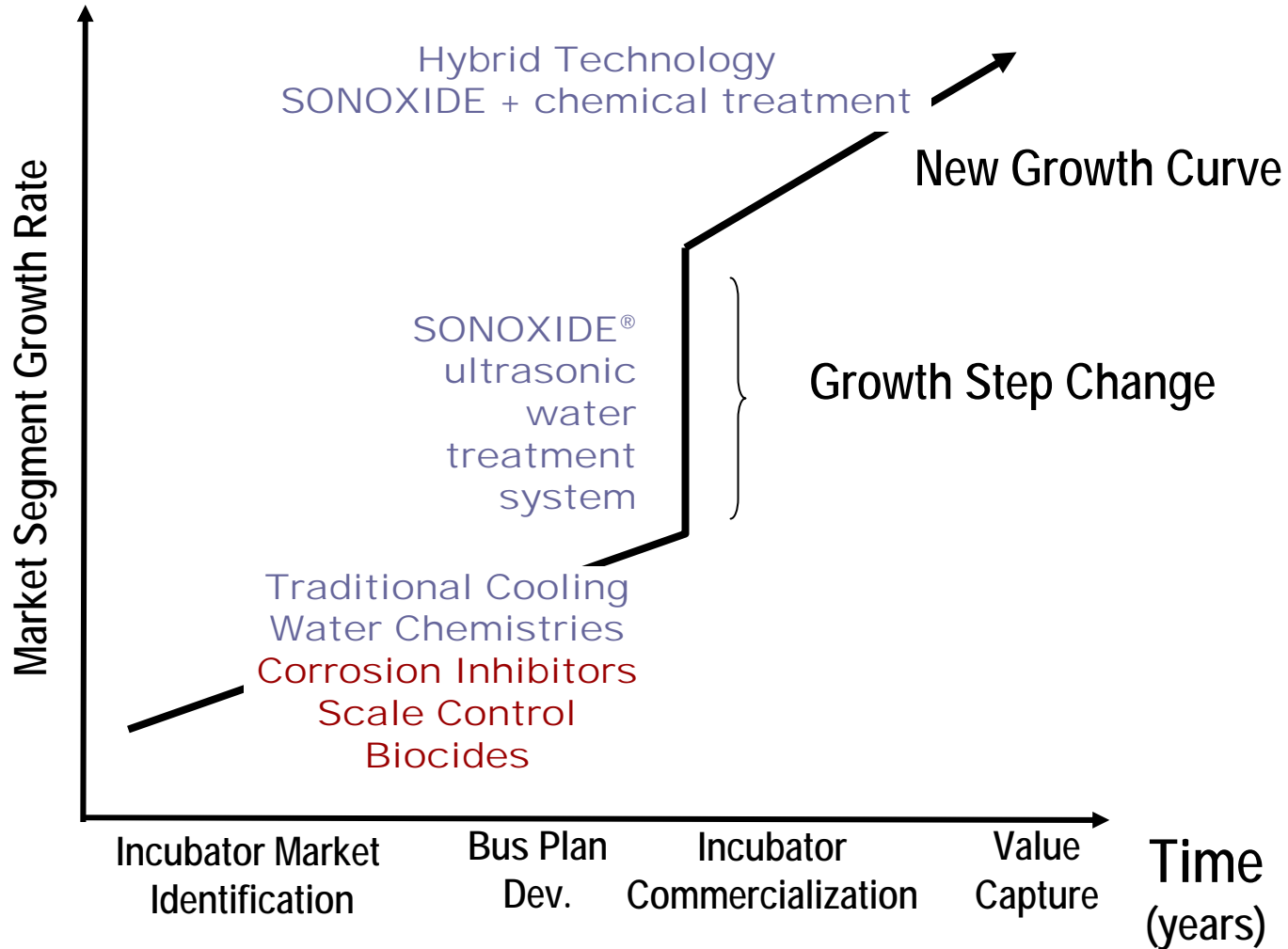


## Organizational Alignment

- Dedicated team in each region
- Specific accountabilities



# Incubator Businesses





# *Sonoxide Ultrasonic Water Treatment System*

- Nonchemical, microbiological control for cooling water systems
- Market: \$800 million in cooling water
- Improved environmental profile
- Energy optimization
- Reduced chemical use
- Improved worker safety

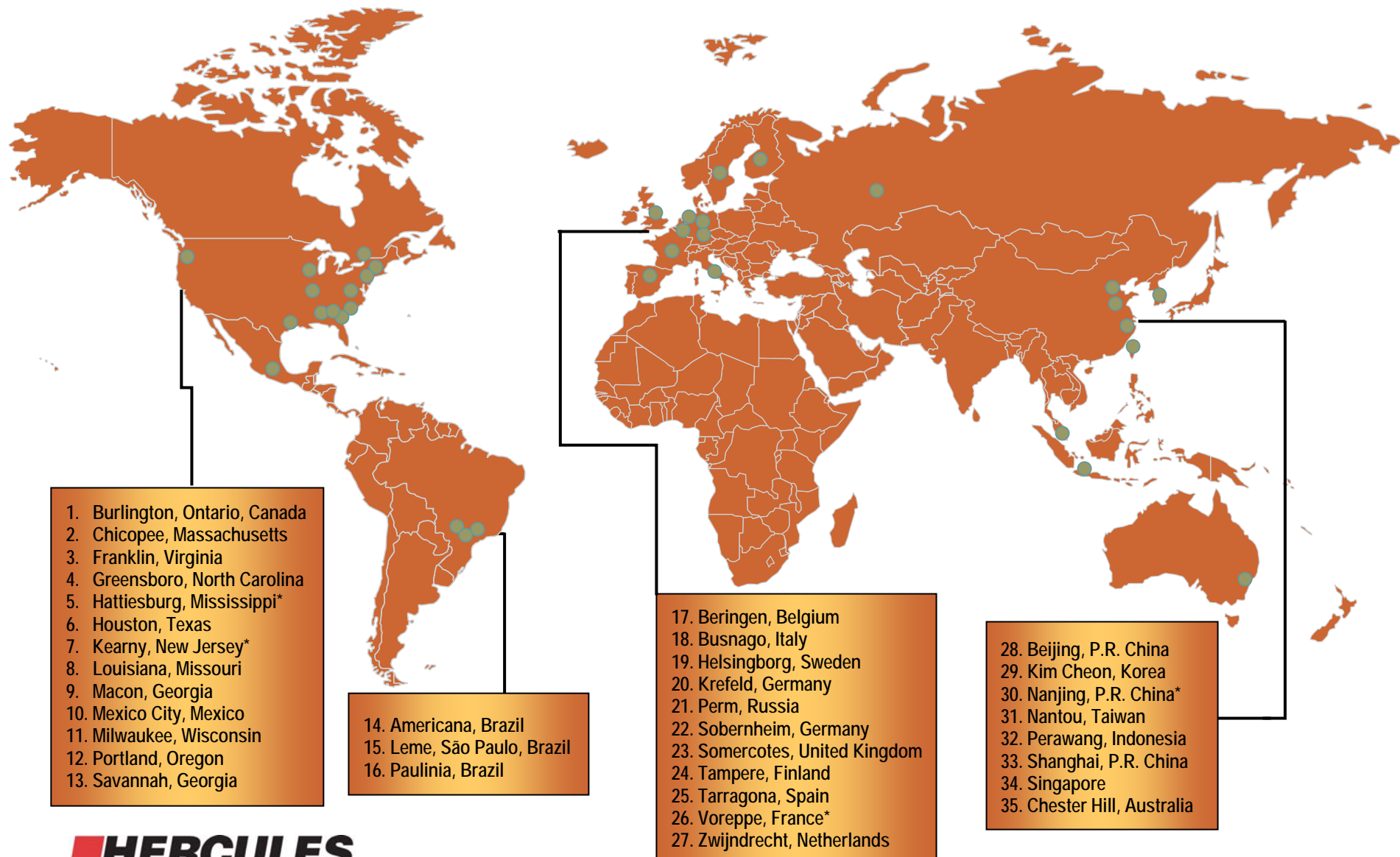


# Global Technology Footprint

- Research & Development
  - Wilmington, Delaware, U.S.A.
  - Krefeld, Germany
- Customer Applications Laboratories
  - Wilmington, Delaware, U.S.A.
  - Krefeld, Germany
  - Shanghai, P.R. China
  - Paulinia, Brazil (2010)



# Global Manufacturing Footprint

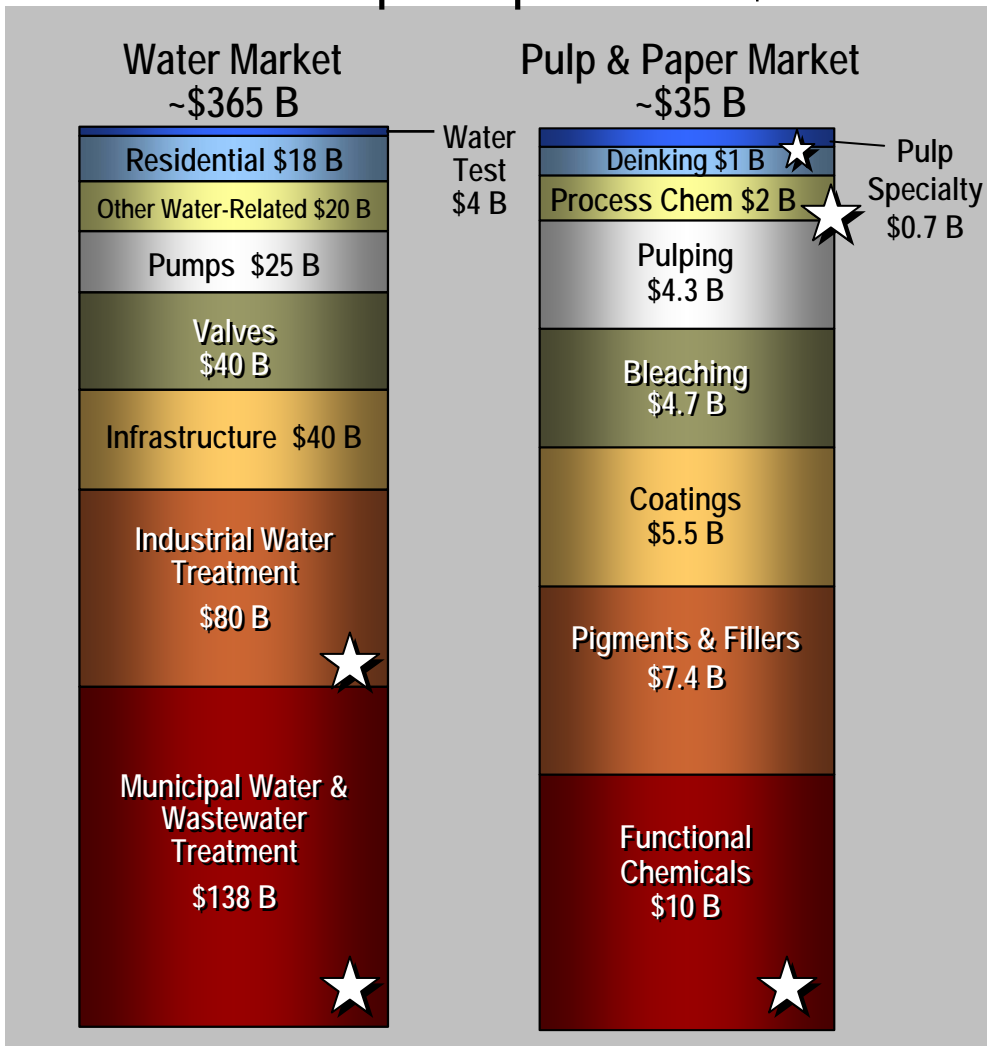


# *Business Strategy*

- Follow Responsible Care\* principles to ensure that safety and environmental excellence are core values
- Achieve leadership positions in all of our growth and base markets
- Improve sales mix through new product introduction
- Grow top line in adjacent markets and emerging geographies
- Leverage external technology to augment internal efforts
- Balance service delivery investment to maximize profitable growth
- Maintain reliable and efficient global supply chain

# Defining AHWT's Markets

Global Water/Pulp & Paper Market \$400 Billion



## Non-Focus Water Segments

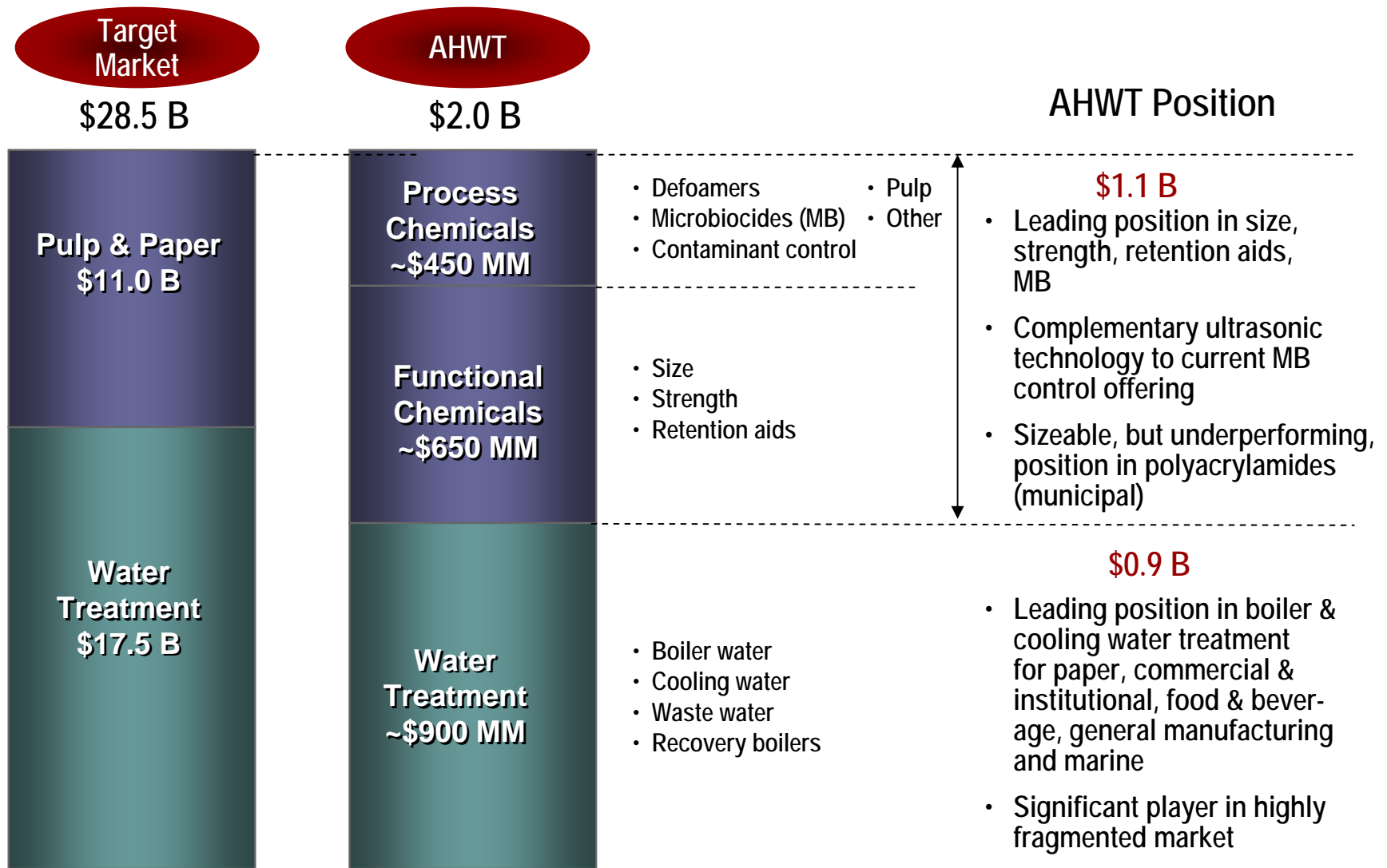
- Equipment and hardware
- Infrastructure
- Residential
- Water test

## Non-Focus Paper Segments

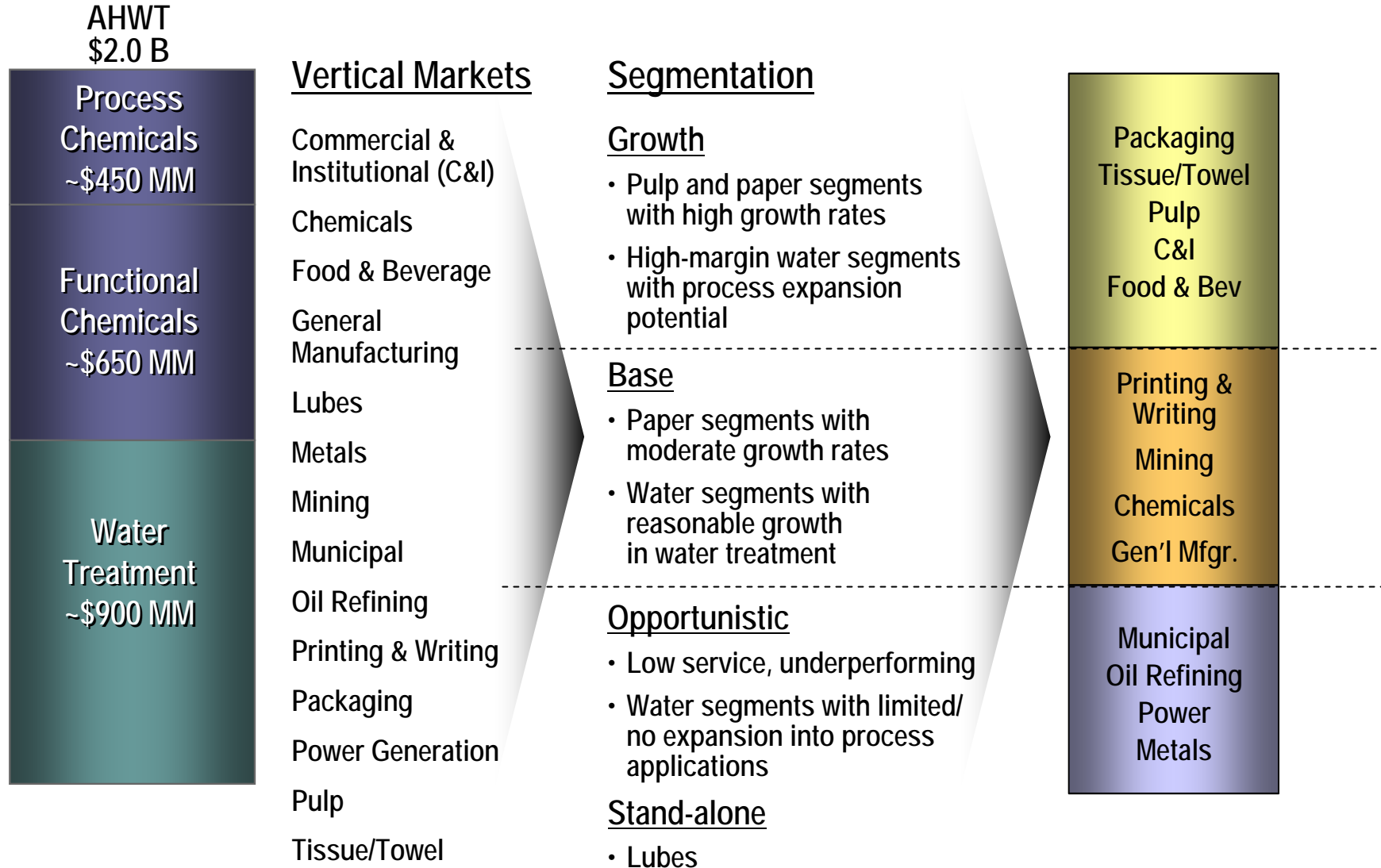
- Pigments and fillers
- Coatings
- Deinking
- Bleaching



# AHWT Business Overview













# AHWT Strategic Market Segmentation



# Growth Market Segments

Focus on markets with inherently higher growth

	Demand	Customer Profitability	Key Drivers
Tissue			<ul style="list-style-type: none"> <li>• Fiber types/recycle – Biocides/contaminant control</li> <li>• Emerging markets growing</li> <li>• Absorbency and strength</li> </ul>
Packaging			<ul style="list-style-type: none"> <li>• Machine productivity – Dry strength</li> <li>• China expansion</li> </ul>
Commercial & Institutional (C&I)			<ul style="list-style-type: none"> <li>• Urbanization driving market growth</li> <li>• Purchasing consolidation driving demand for global suppliers</li> <li>• Geographic expansion in industrialized markets</li> <li>• Energy-reduction requirements driving treatment demand</li> </ul>
Food & Beverage			<ul style="list-style-type: none"> <li>• Industrialization driving demand for processed foods</li> <li>• Increased water and food regulation driving chemical demand</li> <li>• Emerging markets growing rapidly</li> </ul>
Pulp			<ul style="list-style-type: none"> <li>• Changing paper, board, tissue grade needs and fiber source</li> <li>• Emerging market growth (Brazil, Chile, Russia, Indonesia, China and India)</li> <li>• New technologies for new fiber sources</li> </ul>



# 2009 Strategy for Growth Verticals

## Actions

### Align Resources

- Dedicated marketing leader for each growth vertical
- Develop and staff R&D pipeline
- Align platform-launch teams and programs on high-margin, high-growth applications

### Seed Key Industry Verticals

- Build knowledge and credibility in key verticals for future expansion
- Use “incubator” model across high-potential segments

### Expand via Core Technologies









- Paper: MB, retention, contaminant control, dry strength
- Water: Scale inhibitors, defoamers, cooling/boiler water treatment applications
- Rapid deployment in growing geographies (Latin America and Asia Pacific)

### Seek Sustainable Critical Mass

- Carve off verticals that have achieved critical mass into market-focused virtual teams
- Established market-specific product lines and service offerings

# Base Market Segments

Protect and maintain the business base

	Demand	Customer Profitability	Key Drivers
Printing & Writing			<ul style="list-style-type: none"> <li>• Reduce costs – Increase filler loading, reduce overall chemical costs</li> <li>• Resume significant expansion in Asia, mainly China</li> <li>• Building larger machines and shutting the smaller ones</li> </ul>
Mining			<ul style="list-style-type: none"> <li>• Global slowdown has led to high reserves of aluminum, copper, nickel, zinc; prices flat in 2009, down from 2008</li> <li>• Precious metals and coal demand increasing</li> <li>• Increased need for process chemicals to improve metals yield and water removal</li> </ul>
Chemicals			<ul style="list-style-type: none"> <li>• Process-focused, performance-driven and seeking more sophisticated programs and service expertise</li> <li>• Accommodate volatility in supply and demand</li> <li>• Typically engage in long-term corporate and/or global agreements</li> <li>• Energy conservation</li> </ul>
General Manufacturing			<ul style="list-style-type: none"> <li>• Optimize efficiencies and reduce total cost of operation</li> <li>• Cost – Economic slowdown has significantly reduced production in most sectors</li> <li>• Need for restructuring will open door for innovation in water treatment</li> </ul>

# Strategy for Base Verticals

## Actions

### Protect Profit Engine

- Maintain product differentiation in base printing & writing and chemicals via healthy R&D pipeline
- Rationalize manufacturing assets to lower unit costs
- Commercialize new technologies in emerging geographies

### Grow Water Treatment

- Expand geographical coverage in underdeveloped markets
- Develop products to fill gaps (e.g., equipment for dosing and monitoring)

### Standardization

- Identify supply chain synergies to remove costs
- Rationalize water treatment product lines across geographies
- All regions reporting via SAP\* platform

### Channel to Market

- Cross-train field sales team to cover multiple markets
- Improve sales and applications expertise in Latin America and Asia Pacific
- Develop R&D relationships with early-adopter customers to develop game-changing products

# Alternate Business Model

## Business Trends

- Low/declining margins in sizing/wet strength
- Lack of vertical integration in polyacrylamides (PAM) drives uncompetitive cost position in municipal segment
- Overall trend toward product commoditization
- Inability to monetize service offering
- Low value of innovation to customers
- Some competitors have moved to low-cost model



## Product Lines and Verticals Impacted

- Municipal market
- PAM distributors/contract service companies
- Paper sizing
- Paper wet strength

Implement Alternate Business Model

## Targeted Outcomes

SG&A Savings

Consolidate FTEs

Cost Leverage via Lower Complexity

Lower Raw Material and Freight Costs

# Summary

- **AHWT Business Overview**
  - \$2.0 billion business
  - Provides process, water treatment and functional chemistries to paper, pulp, commercial and institutional, food and beverage, chemical, marine and municipal industries
  - Products are used to improve operational efficiencies, enhance product quality, protect plant assets and ensure environmental compliance
- **Business Strategy**
  - Leverage platform-launch and incubator processes to accelerate growth through delivery of innovative, low-cost products to current and adjacent markets
- **Use segmented approach to AHWT vertical markets**
  - Resource growth verticals with dedicated sales, marketing and R&D teams
  - Manage base verticals primarily by sales to maximize profitable growth
  - Alternate business model enables cost-effective approach to volume growth with enhanced profitability in segments that do not require high service levels

# ASHLAND®

*Ashland Aqualon Functional Ingredients*  
**Formula for growth.**

*John E. Panichella, President*



# How Customers Use Our Products



Flow and Leveling



Stabilizing



Flow Properties



Conditioning



Drilling & Fracturing



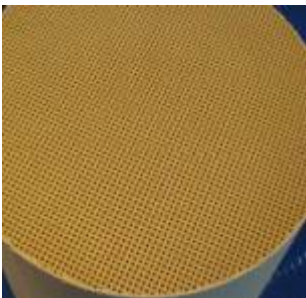
Thickening



Binding



Suspending



Extrusion



Protective Coating



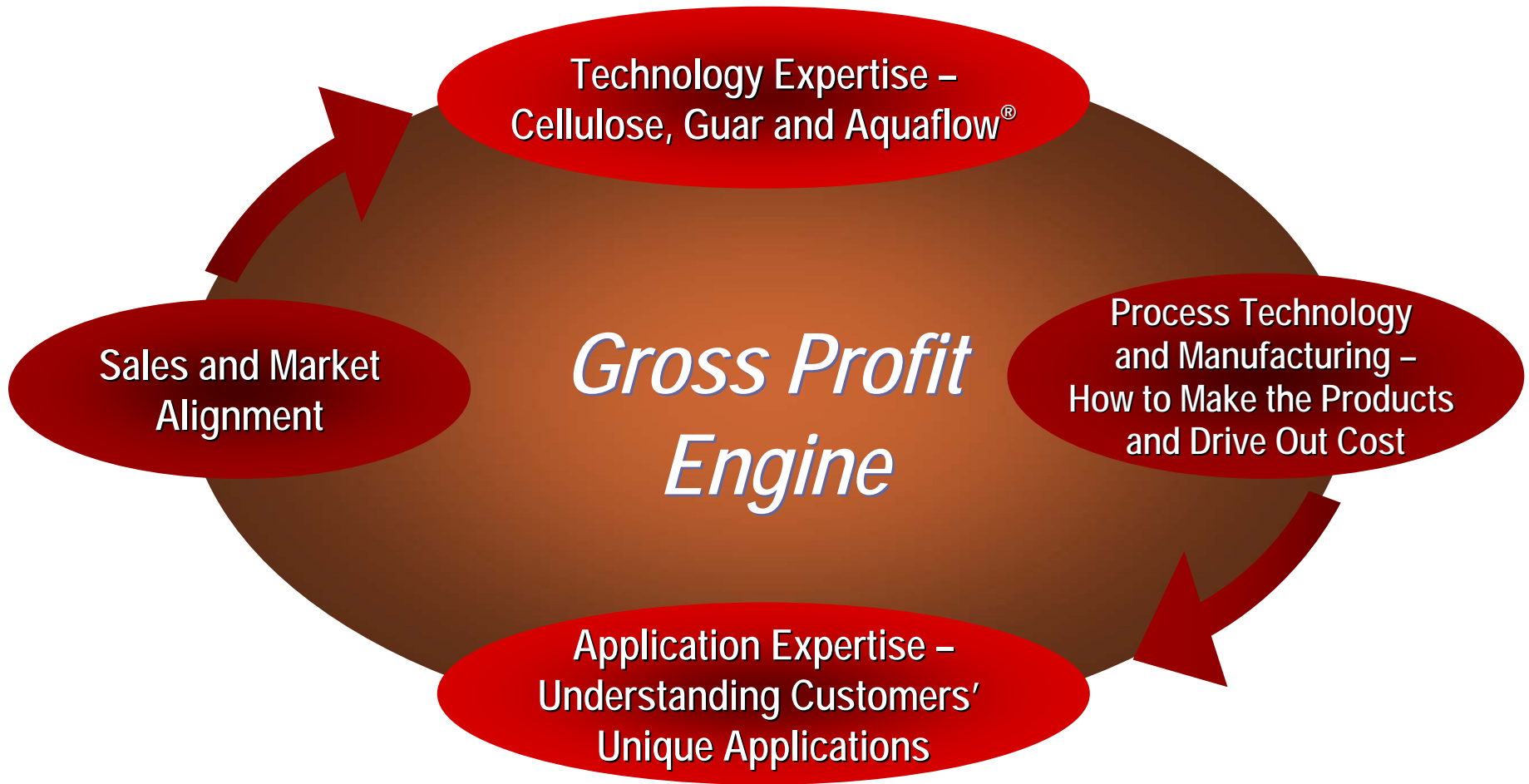
Gel Formation



Water Retention

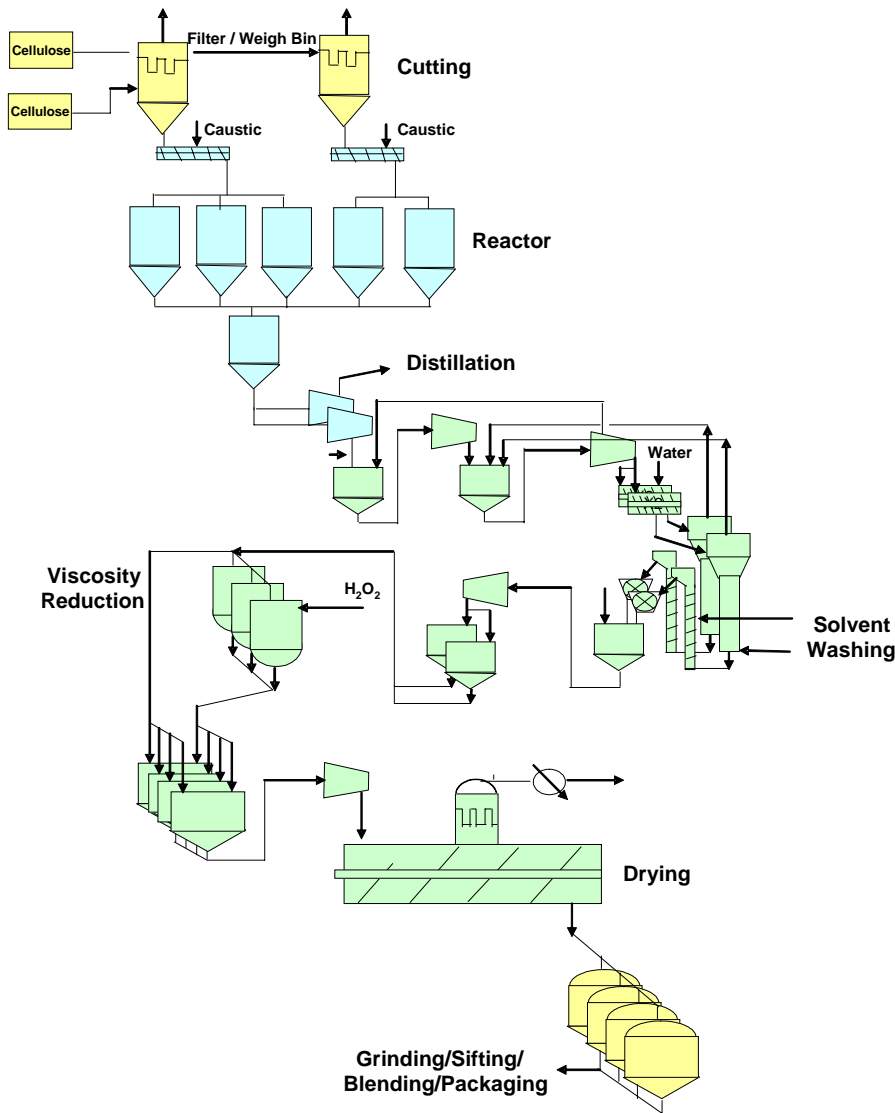


# *Core of the Business ... How We Make Money*



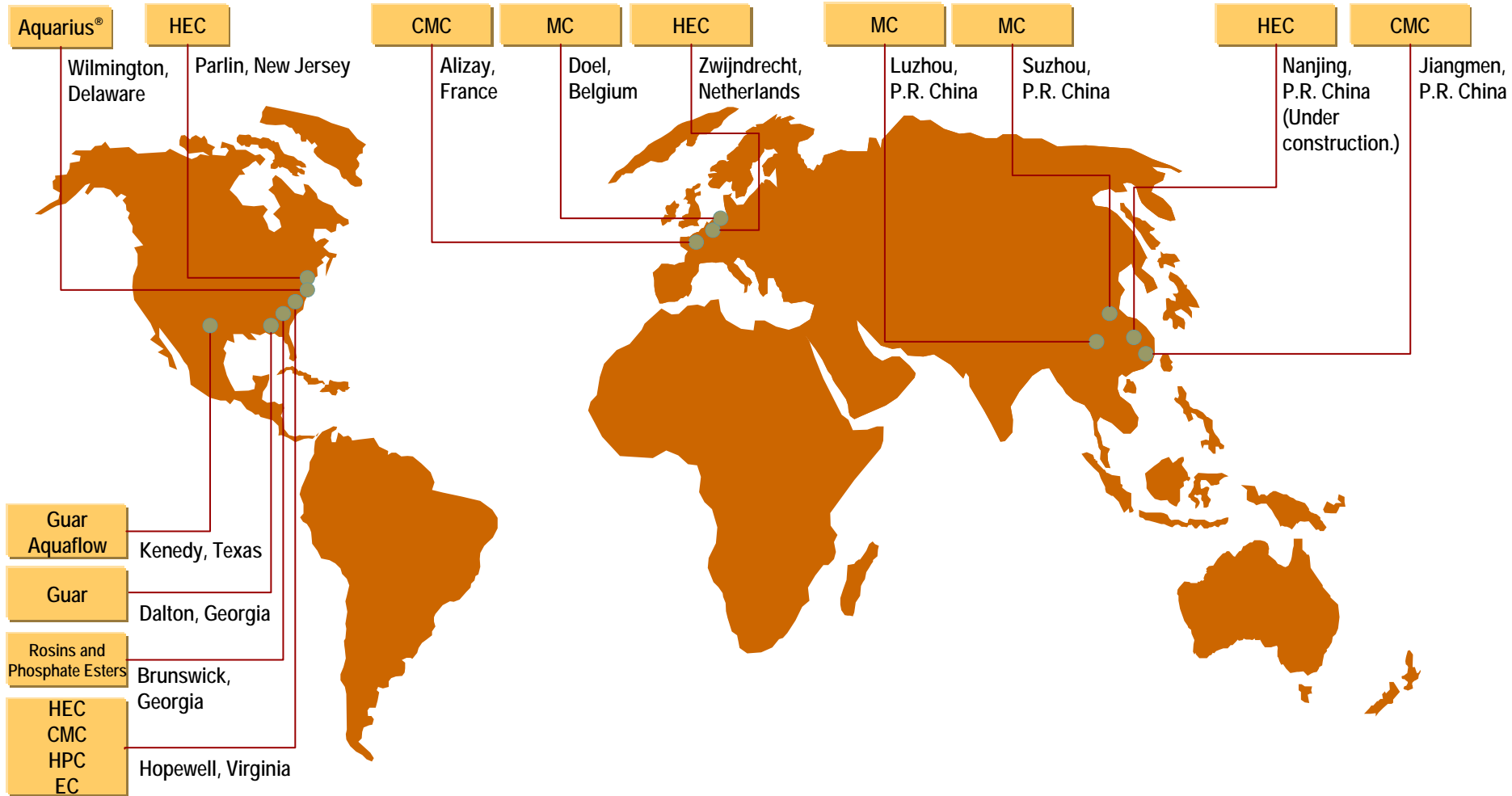


# How We Make Our Products



- Cellulose is cut from sheets/rolls into fine particles
- Cellulose is air-conveyed to reactor and swollen with caustic
- Ethylene oxide, propylene oxide or other reactants impart water-solubility
- Solvent recycled via distillation
- Viscosity reduction and purification
- Hot-air drying
- Grinding to control dissolution rate, dry blending, packing into bags/ sacks

# Global Manufacturing Footprint



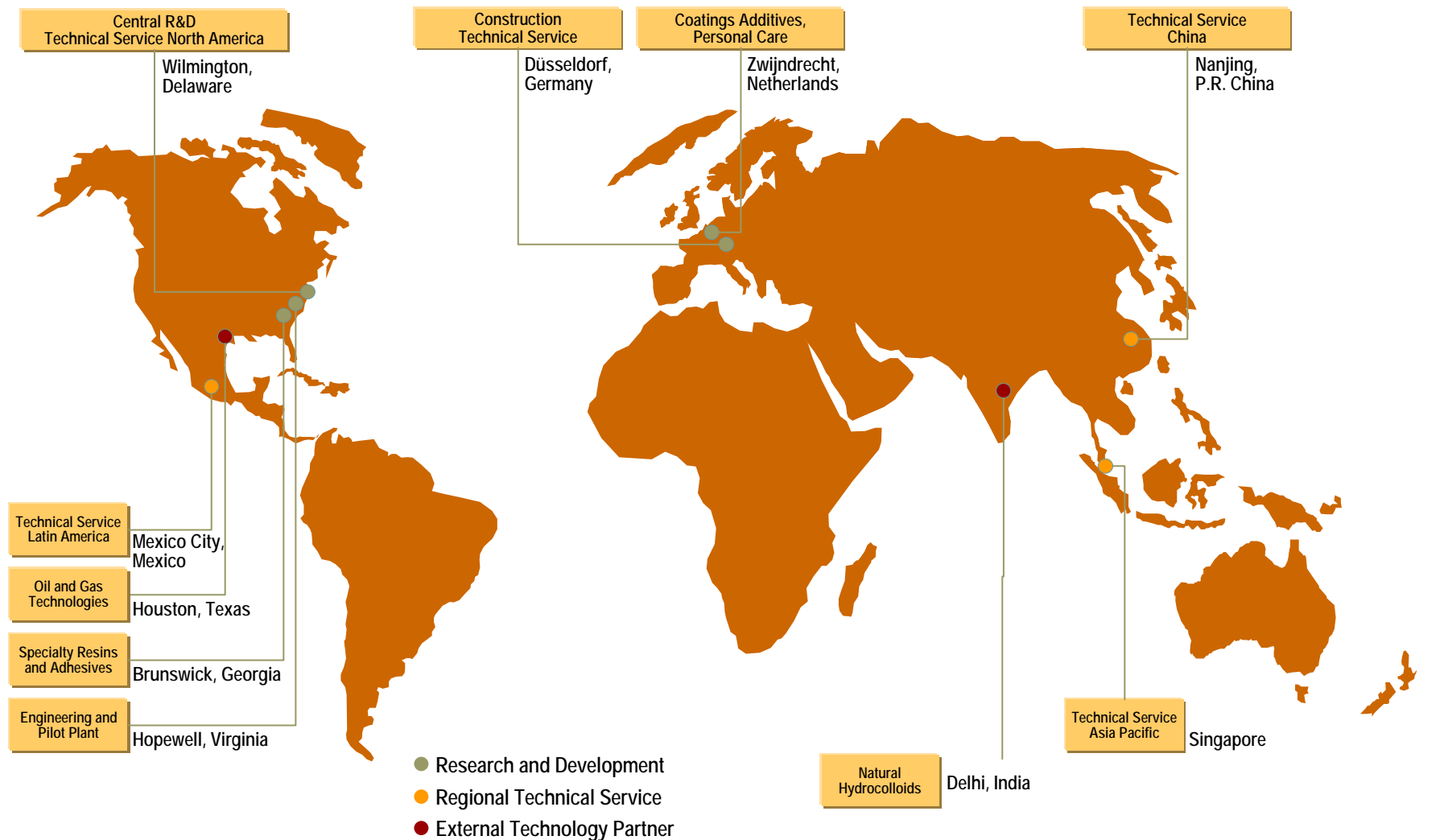
# Facilities and Processes

- Eleven world-class manufacturing facilities including one joint venture
- New 10,000MT HEC facility under construction
- Low-cost facilities
- Combination of batch and continuous processes – 24/7 operations
- All facilities ISO-certified, well-maintained and in compliance with stringent EH&S guidelines
- Capital intensive



Zwinjdrecht, Netherlands

# Global Technology Footprint



# *Growth Strategy*

- Follow Responsible Care\* principles to ensure that safety and environmental excellence are core values
- Expand Ashland Aqualon Functional Ingredients' portfolio of water-soluble polymers while adding complementary adjacent technologies that enable us to provide broader solutions to meet our customers' formulation needs globally

# Ashland Aqualon Functional Ingredients Strategies

## Core Organic

- ▶ Geographic expansion
  - China, Russia, India, Japan and South America
- ▶ Accelerate new product introductions
- ▶ Productivity ... cost/unit reduction
- ▶ Pricing leadership
- ▶ Capital investment consistent with growth

## Adjacent Organic

- ▶ Commercialize existing programs ... film coatings, phosphate esters and redispersible powders
- ▶ Launch adjacent technologies consistent with strategic direction
- ▶ Align resources (capital and work force) to deliver this growth

## Acquisition

- ▶ Accelerate growth via bolt-on acquisitions ... good opportunities and consistent with the strategy

# Solutions Offering ... How We Win!

## Voice of Customer

### Solutions Mode

Broad portfolio of functional ingredients

### Specialty Blends

A product customized to individual customer needs

### Innovation

New products to solve clients' needs

### Regulatory

Products that help customers solve their regulatory issues

### Total Costs

Products and solutions to drive down the total cost of ownership

## Current State

Core products in a narrow technology area ...  
rheology control, water retention, etc.

## Future State ... Solutions Platform

Core products, plus additional functionality

- Broaden the rheology portfolio
- Adjacent functionality ... redispersible powders, antifoam, color, etc.
- Specialty blends
- Synthetic functionality
- Expand hydrocolloid functionality

# Market Segmentation

Industry	Redefined Markets (estimated market size)	Targeted Markets (estimated market size)
Coatings Additives	\$2.3 billion	\$1.7 billion
Construction	\$6.2 billion	\$2.1 billion
Energy	\$1.0 billion	\$0.5 billion
Specialties Solutions	\$3.0 billion	\$1.9 billion
Regulated Industries		
Pharmaceutical	\$2.0 billion	\$1.0 billion
Personal Care	\$3.5 billion	\$1.4 billion
Food	\$5.8 billion	\$2.2 billion

*Segmenting Our Markets to Develop Our Growth Strategy*



Source: Internal estimates.

**ASHLAND.**



# Ashland Aqualon Functional Ingredients Targeted Segments

Industry	Targeted Markets (estimated market size)	Targeted Segment
Coatings Additives	\$1.7 billion	Water-Based Architectural
Construction	\$2.1 billion	Dry Mortar and Gypsum
Energy	\$0.5 billion	Cementing and Stimulation
Specialties Solutions	\$1.9 billion	Civil Engineering and Ceramics
Regulated Industries		
Pharmaceutical	\$1.0 billion	Oral Dosage Binders and Coatings
Personal Care	\$1.4 billion	Hair Care Rheology and Conditioning
Food	\$2.2 billion	Bakery, Process Foods and Beverage

*Targeting Segments to Focus and Align Resources*



Source: Internal estimates.

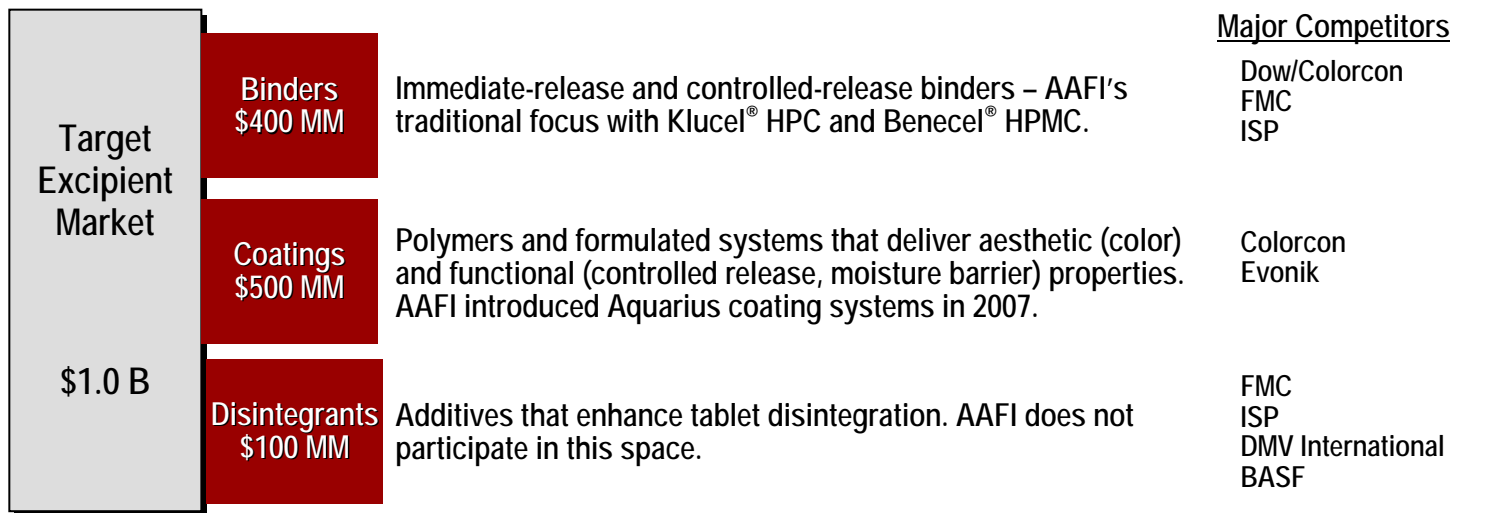


# Targeted Segments

Industry	Primary Target	Future Target
Coatings Additives	Water-Based (rheology, surfactants)	Industrial Coatings Emulsion Polymerization
Construction	Dry Mortar and Gypsum	Concrete
Energy	Cementing and Stimulation	
Specialties Solutions	Civil Engineering and Ceramics	
Regulated Industries		
Pharmaceutical	Oral Dosage (binders, coatings)	Oral Dosage (disintegrants)
Personal Care	Hair Care (rheology, conditioning)	Skin Care
Food	Bakery, Process Foods and Beverage	

*Targeting Segments to Focus and Align Resources*

The \$2.0 billion business of producing and marketing excipients (i.e., inactive ingredients) for pharmaceuticals and nutritional supplements.



## Key Chemistries

- EC
- HEC
- HPC
- MC
- Film coatings

## Key Challenges

- Long approval cycles for new formulations
- Pending patent expirations for key drugs
- Fragmented market

## Health of Industry

- AAFI's highest-margin segment and relatively recession-resistant
- The growth of generics offers opportunity and threat

## Buying Behavior

- The formulator is traditionally the decision maker
- Highly risk averse – compelling value proposition required to dislodge incumbents

## Sources of Differentiation

- Products have a long history of effective performance
- Strong brand recognition with Klucel HPC
- Vertical integration strategy with Aquarius coating systems
- Strong position in the nutritional supplement industry

## Economic Model and Path to Win

- Large industrial base needed for cost-effective excipient manufacturing
  - *Excipients are low-volume, high-value*
- Continue to optimize the customer mix: branded, generic, OTC and nutritional
- Continue to build mind-share with application studies, publications and frequent customer seminars
- Need to improve positioning in the emerging markets



Source: Internal estimates.

<b>Target Additives Market</b>  <b>\$1.7 B</b>	<b>Rheology</b> \$700 MM	Chemicals used to improve flow, leveling, water retention and anti-spatter.	<b>Major Competitors</b> Dow/Rohm & Haas Akzo Nobel SE Tylose
	<b>Surfactants</b> \$300 MM	Chemicals used for surface wetting, dispersion of pigments, improved gloss and color stability.	Dow/Rohm & Haas Rhodia Air Products
	<b>Foam &amp; pH Control</b> \$400 MM	Chemicals used to neutralize and stabilize paint.	Cognis BYK Rhodia
	<b>Preservatives</b> \$300 MM	Chemicals used to ensure long-term stability.	Dow/Rohm & Haas Arch

## Key Chemistries

- HEC
- Synthetic (Aquaflow)
- Phosphate esters
- Antifoams

## Key Challenges

- Weak global economy and paint demand
- Mature product lines contribute a lot of profit today
- Rate of growth of new product sales

## Health of Industry

- Although current crisis hurts industry profitability, long-term prospects for growth are solid, especially as housing standards improve in developing world

## Buying Behavior

- Most customers value technical excellence in products and technical service
- Customers prefer to align with strategic suppliers that are innovators and have broad portfolios

## Sources of Differentiation

- Technical leadership and product performance
- Brand recognition
- Technical support and collaboration, including regional labs
- Global channel to market and depth of relationships with key commercial and technical decision makers

## Economic Model and Path to Win

- Requires new products and strong regional technical service
- Must maintain premium/price leader status in key products, e.g., HEC
- Grow emerging markets via continued investment in people
- Grow via adjacencies that allow us to leverage our strong channel and bring more value with the "total solutions" approach
- Maintain HEC market leadership with technology and manufacturing capacity



Source: Internal estimates.

<b>Target Specialty Chemicals Market</b>  \$1.4 B	<b>Conditioning</b> \$300 MM	Chemicals that are substantive to hair and skin and provide conditioning performance such as softness, smoothness and de-tangling.	<b>Major Competitors</b>  Rhodia BASF ISP
	<b>Rheology Control</b> \$300 MM	Chemicals used to provide flow control, formulation stabilization, syneresis-control and suspension of active ingredients in a wide variety of personal care compositions, including toothpaste, shampoos, shower gels, shaving gels and conditioners	Dow Noveon
	<b>Other Specialty Polymers</b> \$800 MM	Silicones, proteins and fixative polymers. AAFI does not participate in this space today.	Momentive Dow Corning BASF ISP Akzo

## Key Chemistries

- CMC
- HEC
- Guar

## Key Challenges

- 3- to 5-year development timeline
- Replacement of cationic chemistry with less eco-toxic molecules
- Competition from small, lower-priced suppliers in China and India

## Health of Industry

- Recession is hitting even P&G and Unilever hard as retailers manage to lower inventories and consumers switch to generics

## Buying Behavior

- Customers value technical excellence in products and product support
- Customers value interaction and input to their R&D processes

## Sources of Differentiation

- Technical depth in focus areas
- Global account management
- Chemistry based on naturally occurring raw materials

## Economic Model and Path to Win

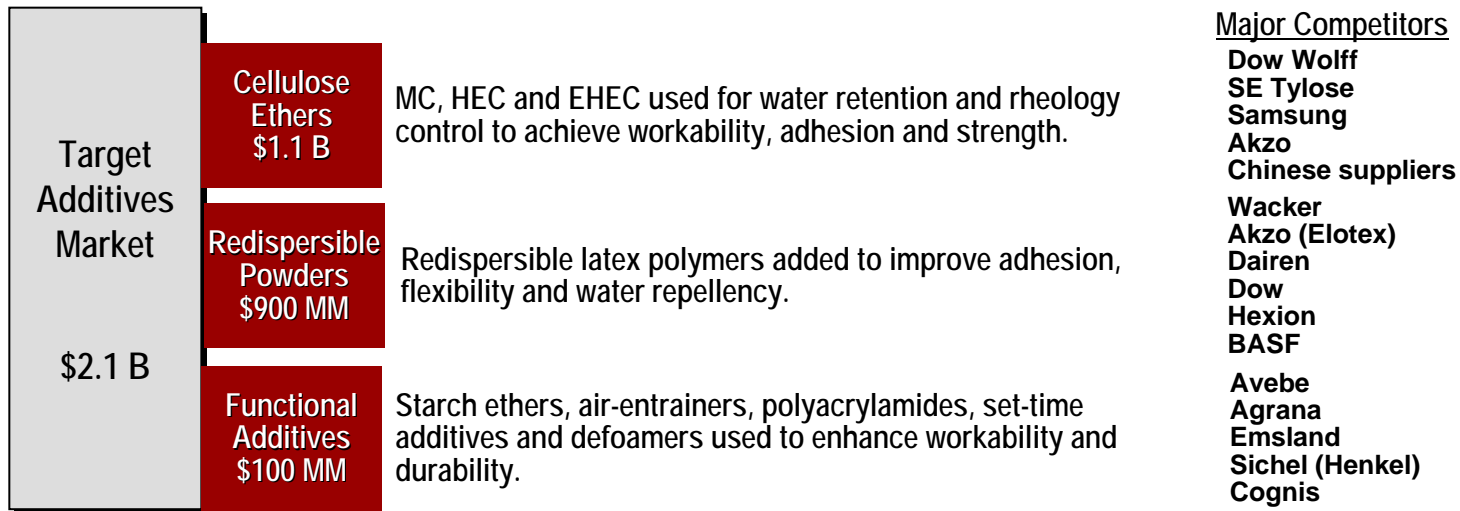
- Must maintain premium/price leader status in key products, e.g., Natrosol HEC and Klucel HPC
- Follow multinational corporations into emerging regions and source the demand from local plants at price points required to win in these geographies
- Engage with multinational corporations at R&D level and focus R&D programs on a key few opportunities where AAFI is competitively positioned to win



Source: Internal estimates.

# Construction

The \$6.2 billion business of producing and marketing additives for the tile cement, gypsum and exterior insulation markets.



## Key Chemistries

- MC
- Redispersible powders

## Key Challenges

- Cellulose supply and costs
- Commoditization
- Mature vs. emerging markets
- Changing construction practice
- Cost vs. performance
- Regional needs

## Health of Industry

- MC global demand has grown steadily over the past 10 years. Continued growth expected, but economic crisis has impacted this market
- Redispersible powders will continue to grow as more formulated products are developed and job-site mixing is reduced in emerging regions

## Buying Behavior

- Customers value technical excellence in products and product support
- Customers expect just-in-time supply and formulation support

## Sources of Differentiation

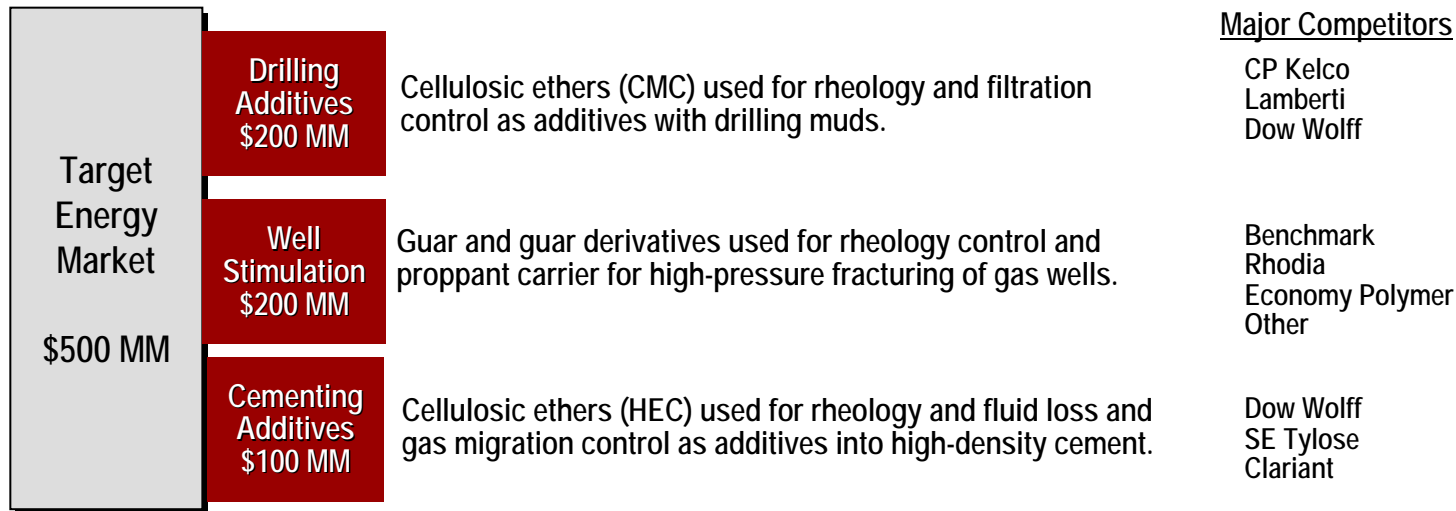
- Technical leadership and product performance
- Product portfolio scope
- Brand recognition
- Large-scale Chinese operations with high quality ... Tianpu joint venture
- First-mover abilities in establishing JDAs with key clients
- Global channel
- Sustainability



Source: Internal estimates.

## Economic Model and Path to Win

- Tianpu joint venture to serve low-end and price-sensitive markets
- Must maintain premium/price leader status
- Grow in emerging markets via investment in plants/people to seed the market as technology advances
- Technology differentiation via formulation expertise
- Grow mature markets via adjacencies; however, need continuous product evolution to offer alternatives to lower-priced products



## Key Chemistries

- CMC
- Guar

## Key Challenges

- Current downturn in global oilfield market
- Global applications expertise
- Geographical expansion
- Emerging market competitors

## Health of Industry

- Current downturn in market due to lower global price/demand for oil and natural gas. N. A. rig count down to levels last seen in 2004
- Industry turnaround expected 2010

## Buying Behavior

- Customers value technical excellence in products and product support
- Customers expect to buy a full range of products from a single supplier
- Customers value suppliers with global reach both commercial and technical

## Sources of Differentiation

- Innovative manufacturer of novel products
- Industry application expertise
- Broad portfolio of additives for drilling, stimulation and cementing
- Global manufacturing footprint

## Economic Model and Path to Win

- Requires supply chain efficiency and ability to maintain local inventory near well sites
- Must maintain premium/price leader status in key products, e.g., cementing, synthetics
- Grow emerging markets via investment in plants/people
- Expand global applications expertise to support regional requirements by service companies

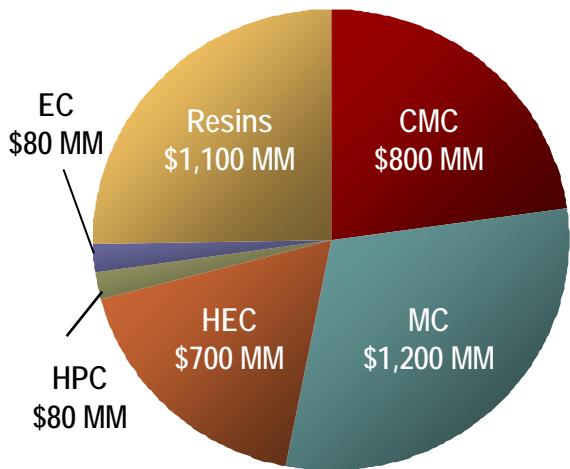


Source: Internal estimates.

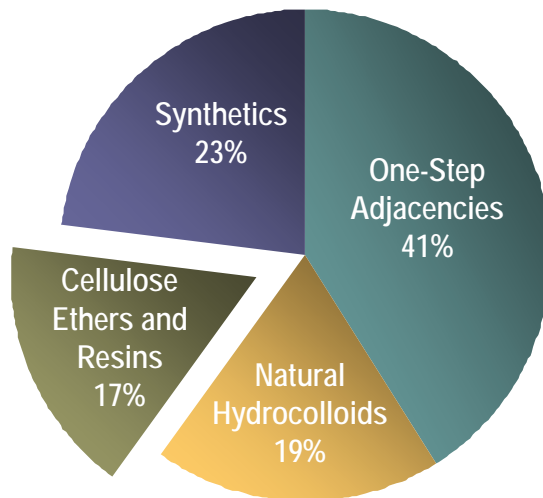
# Grow the Core First ... Then Adjacencies

## Core

(Water-Soluble Polymers)

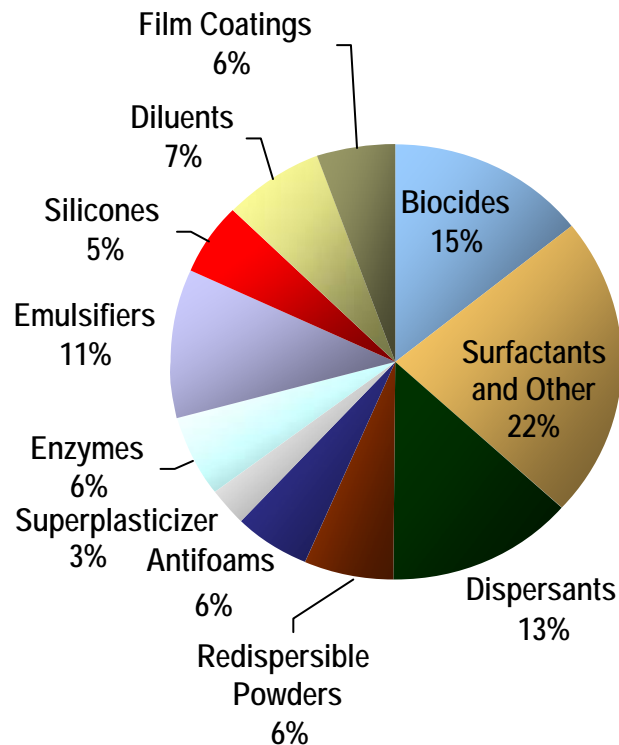


Total = \$4 Billion



Total = \$23 Billion

## One-Step Adjacencies



Total = \$9 Billion

*Significant Potential for Growth*



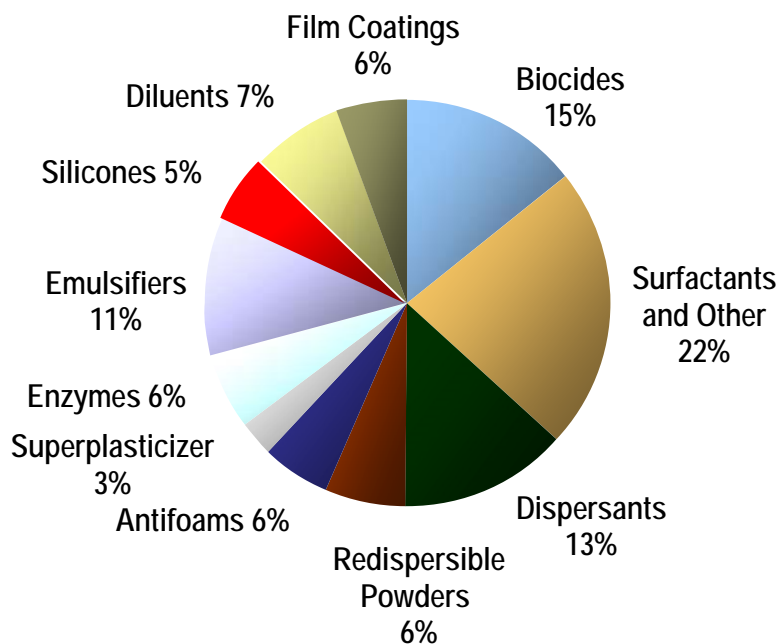
# Products by Industry Segment

	AAFI 2008 (MT)	Food	Pharma	Personal Care	Energy	Construction	Specialties Solutions	Coatings Additives
HEC	42,000		L	L	M	L	L	H
CMC	55,000	H		M	H		M	L
MC	39,000	M	L			H	M	
EC	900		L				H	
HPC	1,900		H				L	
Guar	53,900	M		M	H	L		
Polyterpene Resin	31,500			L			H	
Film Coatings	100		H					
Redispersible Powders	300					H		
Synthetic (Aquaflow)	600				L			H
Phosphate Esters	1,000							H
Antifoams	200					L	M	H

Relative Consumption: H = High, M = Medium, L= Low

# Adjacent Products Selection Criteria

## One-Step Adjacencies



Total = \$9 Billion

- ✓ Market size and growth rate
- ✓ Channel strategy
- ✓ Target existing customer base
- ✓ Competitive landscape
- ✓ Intellectual-property landscape
- ✓ Technical capability requirements
- ✓ Relative cost position vs. market leader
- ✓ Value chain analysis
- ✓ Regulatory environment and trends
- ✓ Formulation expertise
- ✓ Voice-of-customer interviews

# Ashland Aqualon Functional Ingredients Strategies

## Core Organic

- ▶ Geographic expansion
  - China, Russia, India, Japan and South America
- ▶ Accelerate new product introductions
- ▶ Productivity ... cost/unit reduction
- ▶ Pricing leadership
- ▶ Capital investment consistent with growth

## Adjacent Organic

- ▶ Commercialize existing programs ... film coatings, phosphate esters and redispersible powders
- ▶ Launch adjacent technologies consistent with strategic direction
- ▶ Align resources (capital and work force) to deliver this growth

## Acquisition

- ▶ Accelerate growth via bolt-on acquisitions ... good opportunities and consistent with the strategy

# ASHLAND®

*KeyBanc Analyst Day*  
**August 14, 2009**

**Formula for growth.**



# *Investment Highlights*

- **Among top 10 specialty chemicals companies worldwide**
  - Diversified business portfolio serving wide range of end markets
  - Leading market positions across platform
- **Strong emphasis on cash flow generation and debt pay-down**
  - Reduced debt by \$616 million in eight months since Hercules acquisition
- **Over-delivering on cost-reduction program**
  - Achieved \$287 million in total Ashland run-rate savings at June 30, three months ahead of plan
  - Total Hercules run-rate synergies of \$130 million by fiscal year-end 2010
- **Additional sources of cash available**
  - Working capital, auction rate securities, divestitures
- **Management committed to conservative financing structure**
  - Total leverage of 2.4x
  - Aim to achieve investment-grade credit statistics within 12 months
- **Equity market capitalization of approximately \$2.0 billion**
- **Experienced management team**



## ***Abbreviations***

AAFI = Ashland Aqualon Functional Ingredients

AHWT = Ashland Hercules Water Technologies

BWT = Boiler Water Treatment(s)

C&I = Commercial & Institutional

CMC = Carboxymethylcellulose

CWT = Cooling Water Treatment(s)

EC = Ethylcellulose

EH&S = Environmental, Health & Safety

EMEA = Europe, Middle East, Africa

FTEs = Full-time employees

HEC = Hydroxyethylcellulose

HPC = Hydroxypropylcellulose

MB = Microbiocide(s)

MC = Methylcellulose

PAM = Polyacrylamide(s)

RDP = Redispersible powders

® Registered trademark, Ashland or its subsidiaries

\* Trademark owned by third party