



Climate Change

12th Annual Chemical Management
Services Conference

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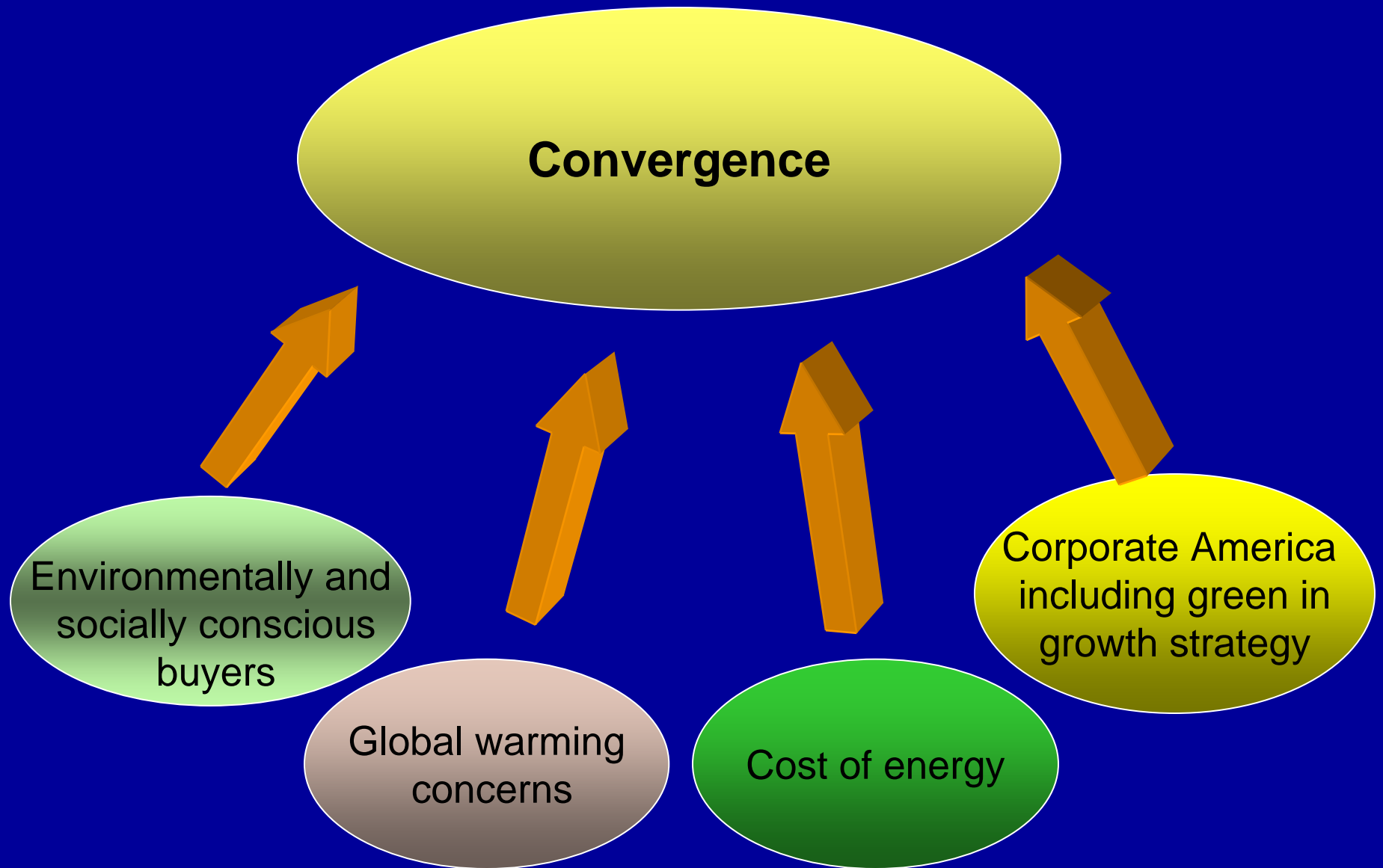
Corporate Overview



- PPG founded in 1883 is a global maker of coatings, flat glass, continuous-strand fiber glass, industrial and specialty chemicals
- 2007 revenues \$11.2 billion
- More than 32,000 people in 21 countries with over 100 production facilities



“Green” is becoming the Product norm...



Providing a new vocabulary...



- ◆ **Green**
- ◆ **Sustainability**
- ◆ **Carbon Footprint**
- ◆ **Embodied Energy**
- ◆ **Life-cycle Analysis**
- ◆ **Bio-mimicry**
- ◆ **Cradle-to-Cradle**

PPG's position on Energy Security and Climate Change...



- ◆ Growing competition for access to abundant, reliable, affordable and environmentally sustainable energy and feedstock sources has had a significant impact on the global economy.
- ◆ Human activity has likely contributed to an increase in greenhouse gas concentrations.
- ◆ These trends will likely continue, and pose risks to the global economy, physical environment and human health.
- ◆ PPG is well positioned to develop new and innovative solutions that address energy security and climate change concerns.
- ◆ Solutions will require sustained and coordinated global cooperation and investment.

How can a CMS provider help customers reduce their GHG impact?



- 1. Direct services to the customer**
- 2. Supply chemical products that improve efficiency and reduce energy use**
- 3. As a supply chain partner, help customers reduce their supply chain GHG impact**

1. Direct services: Chemical Management



PPG helps customers reduce their GHG emissions through its chemical management programs:

- Chemical usage reductions
- Minimize obsolescence
- Maximize efficiencies
- Continuous Process Improvement



PPG currently operates over 65 chemical management programs

- Global footprint with accounts in:
 - North America
 - South America
 - Europe
- Industries represented
 - Automotive
 - Aerospace



2. Supply products that improve efficiency and reduce energy use



PPG product solutions...

2007 internal survey:

\$3B sales have some “Green”
Component

Use “Natural” Feedstock ingredients



- ◆ PPG’s Green Logic™ detackifier is a liquid, chitosan- containing product

- Formulated from crab, lobster, and shrimp shells, which are natural byproducts of the seafood industry



- ◆ EcoBrite is a soy-based packaging ink that reduces oven Temperatures

Use “Natural” Feedstock ingredients



◆ PPG’s Green Logic™

- 2008 Automotive News Pace Environmental Award
- 2008 R&D 100 Award
- Chitosan replaces petroleum based raw materials
- Annualized savings of up to \$250,000 documented for automotive assembly plants
 - Improved product performance
 - Chemical usage reductions
 - Water treatment reductions
 - Waste sludge reductions
 - Reduced system cleanings



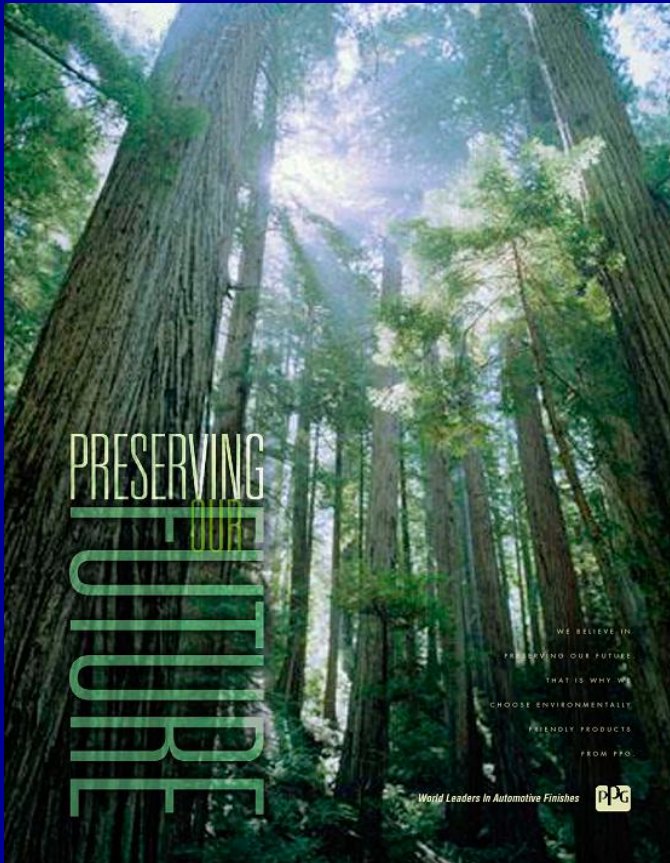
Waterborne Coatings



- ◆ PPG Refinish Technology allows a significant reduction in VOCs.
- ◆ Estimates show a reduction of over 300lbs/VOC per customer.



Waterborne Coatings

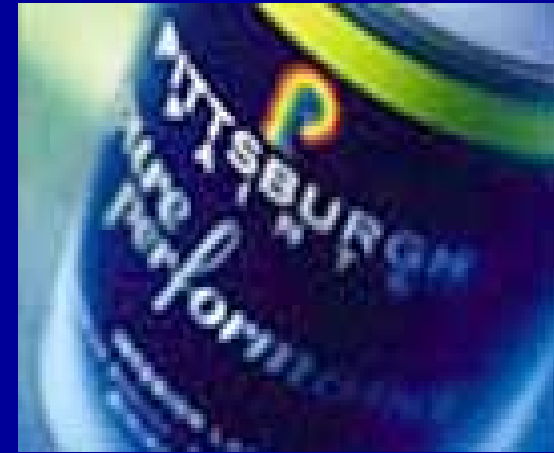


- ◆ PPG Europe has completed the transition of over 20,000 customers to waterborne
- ◆ In 2007, PPG began converting 4,500 Calif. & Canadian customers to the new waterborne technology

Zero VOC Coatings



- ◆ Environ® zero-VOC powder coatings for aluminum and steel substrates
- ◆ Pittsburgh Paints' Pure Performance zero-VOC paint
- ◆ Architectural Coatings' Olympic Stains
- ◆ UV Packaging Coatings



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Energy-Saving Glasses



- ◆ An exclusive collection of select products designed to help architects and specifiers construct “greener” buildings
- ◆ Solarban Glass solar-control, low-e glass blocks 70% of solar infra-red energy



Energy-Saving Glasses



◆ Solarban 70XL glass

- Transparent low-emissivity glass

◆ When compared with dual-pane tinted glass...

- Saves >\$400,000 (15-20%) in HVAC capital equipment costs
- Annual energy cost savings of 11% - 13%
- Cuts CO2 emissions by more than 500 tons/year – equivalent of removing almost 100 cars



The David L. Lawrence Convention Center in Pittsburgh is currently the world's largest LEED certified building.

❖ Calculations using an eight story window-walled office building

3. Supplier helping to reduce the footprint of a customer's entire supply chain



PPG working to reduce the GHG impact of our own operations.

Energy Intensity & GHG Reduction Goals...

- ◆ **2.5% Energy Intensity Reduction Each Year for 10 Years**
 - *Total Energy Intensity Reduction: 25%*

- ◆ **2% Absolute GHG Emissions Reduction (metric tons CO₂) Each Year for 5 years**
 - *Total GHG Emissions Reduction: 10%*

Current PPG efforts...



- ◆ 25% annual energy savings at Lake Charles, LA chemical plant
 - New membrane process for chlorine production
- ◆ Reduced annual electrical usage at Sylmar, CA aerospace facility
 - Savings of more than \$150,000
 - Replaced 2,463 lighting fixtures
- ◆ 20% reduction in natural gas usage at Wichita Falls, TX glazings plant
 - Installation of new oxygen-fuel furnace
 - Significantly cut GHG emissions
- ◆ 50% reduction in natural gas usage at Springdale, PA coatings plant
 - Installation of new regenerative thermal oxidizers



Striving to be a best in class supply chain partner: PPG's Commitments



- ◆ We will continue to conserve energy and increase our use of renewable energy and raw materials.
- ◆ We will continue to implement GHG emissions reduction programs throughout our global operations .
- ◆ We will work with other interested parties to develop fair and effective international policies regarding ES & CC.
- ◆ We will advocate a market-based price of carbon and credits for benefits derived from energy-saving products.
- ◆ ***We will continue to develop and market leading-edge products that benefit the environment and conserve energy.***
- ◆ We will communicate with key stakeholders the risks and opportunities associated with energy security and climate change.

Establishing partnerships provides critical resources and credibility



PPG's efforts are bolstered by the company's valuable partnerships:

- **Alliance to Save Energy**
- **U.S. EPA's Climate Leaders & ENERGY STAR**
- **U.S. Business Roundtable's Climate RESOLVE**
- **U.S. Green Building Council**
- **Green Building Alliance**
- **U.S. DOE's National Renewable Energy and National Energy Technology Laboratories**
- **The Climate Registry**

Thank you



Please feel free to contact PPG if you have any comments or questions:

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