



# Climate Change

12<sup>th</sup> Annual Chemical Management  
Services Conference

Michael Stucky  
Product Manager, Optima Solutions

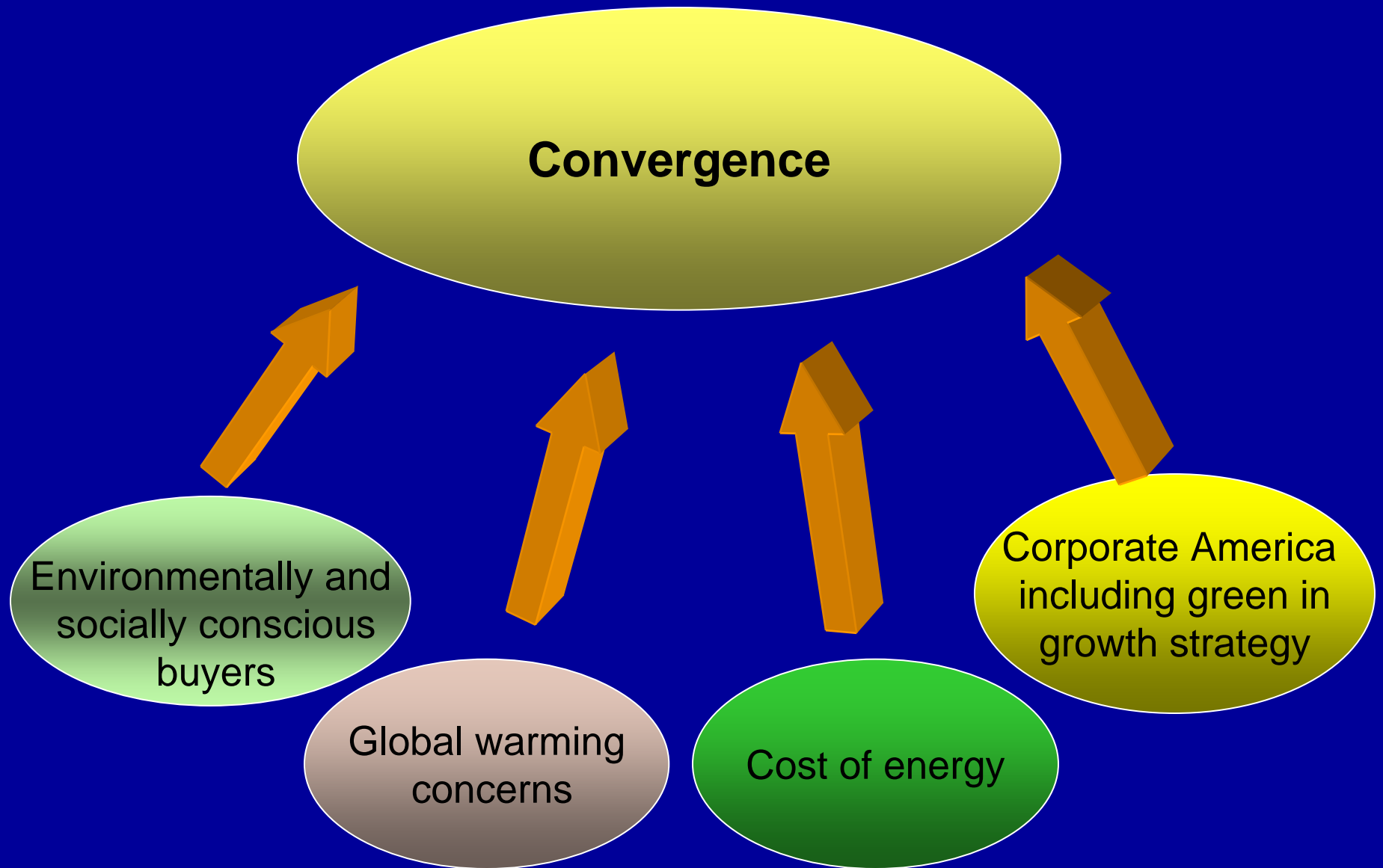
# Corporate Overview



- 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



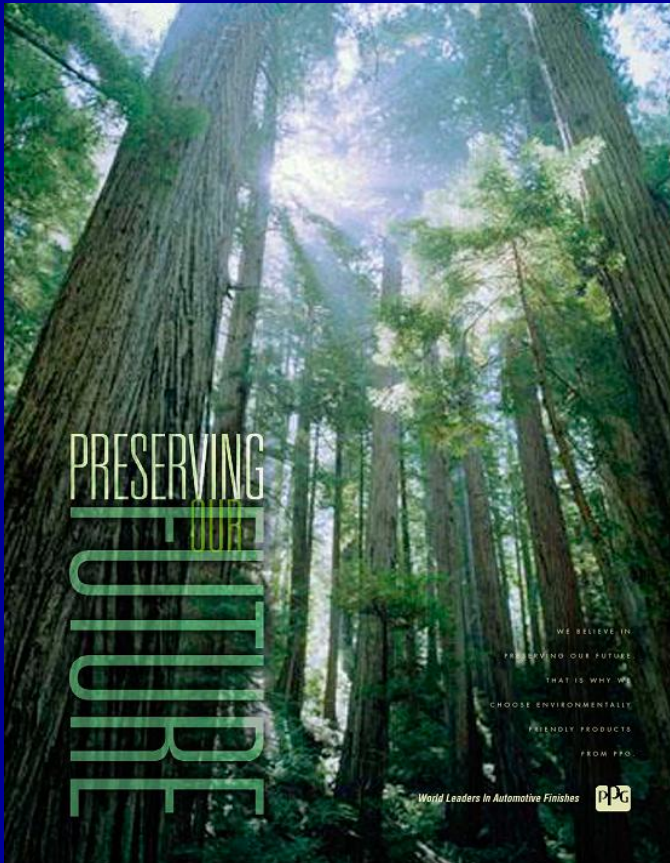
# Waterborne Coatings



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



# Waterborne Coatings

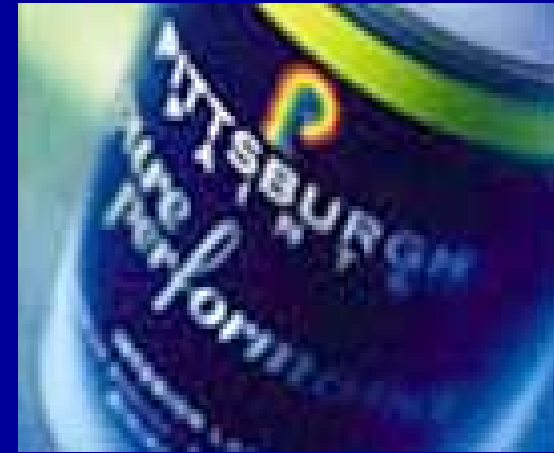


- ◆ PPG Europe has completed the transition of over 20,000 customers to waterborne
- ◆ In 2007, PPG began converting 4,500 Calif. & Canadian customers to the new waterborne technology

# 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





# 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.**

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#### **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 CO<sub>2</sub>) 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:**

**Michael Stucky  
PPG Industries, Inc.  
Product Manager, Optima Solutions  
248-641-2139  
stucky@ppg.com**