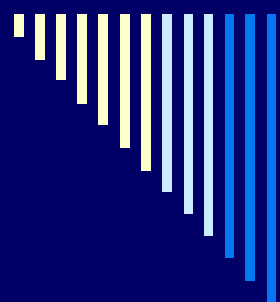


Perspective on a Green Chemistry Transition

**Barbara Cunningham
Acting Deputy Director
Office of Pollution Prevention and Toxics
US EPA**

**5th Annual Green Chemistry & Commerce Council
Innovators Roundtable
April 28, 2010**

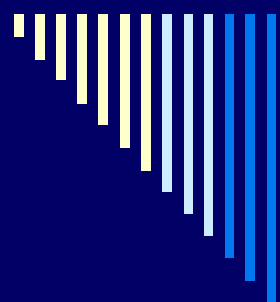


Green Chemistry

- An approach to chemistry, not a discipline of chemistry

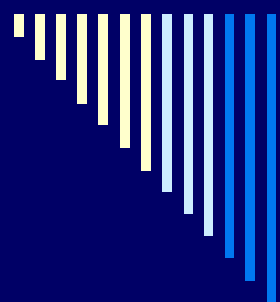
Design of chemical products and processes
to reduce hazard at the source

- Applies to any process or product, so relates to programs across EPA and government
- Widespread, but still growing, recognition of concept
- Key, scientific foundation for sustainability; improves economy as well as environment



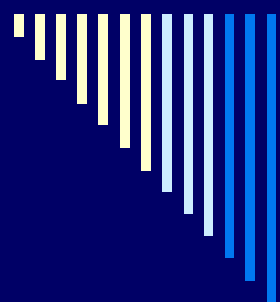
EPA's Chemical Management Program

- Reform of chemicals management legislation
 - Administration's principles specifically point to green chemistry and safer alternatives
 - Senate's introduced Safe Chemicals Act of 2010 and House discussion draft Toxic Chemicals Safety Act
 - Promote innovation/market incentives – use of green chemistry and safer alternatives to chemicals of concern



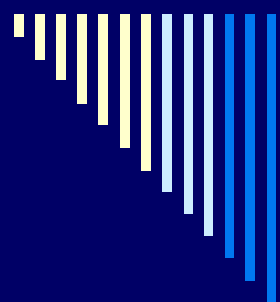
Chemicals Management & P2

- Enhanced chemical management
 - Identify and act upon chemicals of concern
 - Promote/identify potential alternatives
 - Increased public access to information about chemicals
- Leverage P2 opportunities to ensure a greener, more sustainable economy and environment



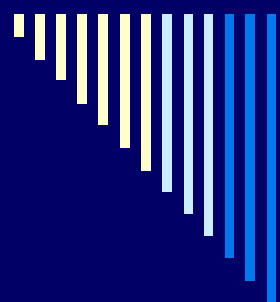
Advancing green chemistries, processes and technologies

- Identify and drive innovation/choices towards safer chemistry, technologies and products
 - Green Chemistry Challenge Awards
 - DfE greener chemistry product recognition; alternatives assessments
 - Green Engineering
 - New Chemicals P2 Recognition
- Promote sustainable Manufacturing
 - Economy, Energy and Environment (E3)
 - Green Suppliers Network



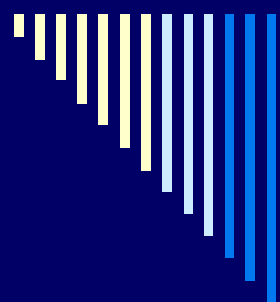
Advancing green chemistries, processes and technologies

- Education:
 - Green Engineering
 - Green Chemistry
 - DfE product labels
- Technical expertise/participation in Standards Development
 - Greener chemistry
 - Green buildings & products; green meetings



Advancing green chemistries, processes and technologies

- Federal Leadership
 - Purchasing of environmentally preferable products
 - Implementation of Executive Order 13514
 - EPEAT and Federal Electronics Challenge
 - Within EPA and across Agencies
- Partnerships with other governments
 - P2 Rx Centers, Tribal portal
 - Grants to States, Local and Tribal governments
 - Specific programs, eg E3
 - International collaborations



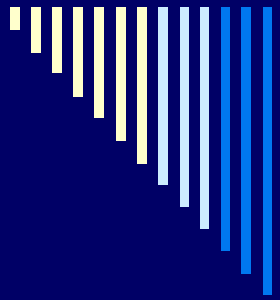
Design for the Environment (DfE)

- 2000 cleaning products carry the DfE logo
- Assess Alternatives to Support Chemical Action Plans
 - BPA
 - Deca-BDE and HBCD
 - Phthalates
- DfE Alternatives Analyses for Safer Chemistry
 - Flame retardants in printed circuit boards
 - LCA for nanoscale innovations in batteries that enable electric vehicles

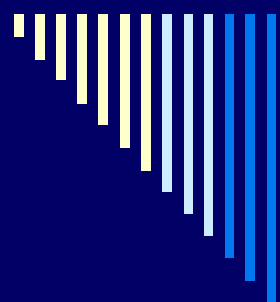


Economy, Energy & Environment (E3)

- Coordinated Federal/local technical assistance initiative that helps communities work with their manufacturing base to:
 - Promote sustainable manufacturing and growth
 - Improve the regional economy
 - Reduce environmental impacts
 - Commerce/NIST and EPA provide
 - Customized, hands-on assessments of production processes and identify energy-saving opportunities
 - Designed to be scalable and replicable
 - Pilots initiated in Columbus, OH and San Antonio, TX
 - Expanding to other states, e.g., AL, MI, NC
-



Opportunities for strengthening the transition to a green economy: open discussion



Resource Information

- Barbara Cunningham, cunningham-HQ.barbara@epa.gov
- EPA Office of Pollution Prevention & Toxics: <http://epa.gov/oppt/>
- P2: <http://www.epa.gov/p2/>
- DfE: <http://epa.gov/dfe/>
- E3: <http://www.epa.gov/greensuppliers/e3.html>