



GC³ Green Chemistry &
Commerce Council

The Green Chemistry and Commerce Council

Background

Chemicals – alone or in compounds - are the platform on which key elements of the global economy stand. These chemicals are incorporated into millions of products we use every day. However, many chemical compounds may have inherently dangerous or environmentally damaging characteristics that can result in ecological and human health impacts throughout chemical supply chains, lifecycles, and the products in which they are used.

A growing number of companies are discovering on their own the benefits of Green Chemistry and Design for Environment (DfE), and are moving forward in transitioning to safer alternatives. This activity is being driven by a reduction in costs associated with the avoided management of toxic chemicals; worker and consumer concerns about the potential impacts of chemicals on health and ecosystems; personal commitment from corporate executives; competition from other companies; and the need to comply with European and global chemicals regulations.

These drivers have created exciting opportunities for innovation, as well as competitive advantage for firms. In some cases companies are developing their own chemicals management tools and policies – however their efforts are limited by difficulties in determining which chemicals function as safer alternatives, finding suppliers who can supply safer alternatives, and by concerns about implying to consumers that their former product was dangerous or that their safer product is of lower quality.

How can innovation in green chemistry and design for environment be promoted and supported? How can businesses work with their suppliers and their end-users to promote the availability and demand for safer products and processes? How do we determine and prioritize the criteria on which to base the design and choice of safer alternatives? How can we more effectively address the continuing lack of available safety information on some chemicals, missing information on supply chain uses, and lack of understanding on material flows?

From November 14-November 16, 2005, The Lowell Center for Sustainable Production at the University of Massachusetts, Lowell, and University of Virginia's Batten Institute at the Darden School of Business convened representatives from 50 forward-thinking companies, government agencies, academia and NGO's to talk about barriers and opportunities in the application of Green Chemistry design principles and safer chemicals selection by the private sector. Close to 70 people spent two and a half days at the *Innovators Roundtable on Sustainable Business and Safer Chemistry Through the Supply Chain* discussing barriers and opportunities in the application of Green Chemistry



in design principles and safer chemicals selection by the private sector, including: 1) how they work with their companies, supply chains and with their customers to move away from suspect chemicals and toxicity, and expand the demand for safer chemicals; 2) the potential impacts of European chemicals policies; 3) tools for choosing safer chemicals and 4) drivers of and barriers to innovation; and more. (See <http://www.chemicalspolicy.org/news.shtml> for background on the roundtable and the final report).

The Green Chemistry and Commerce Council (GC3) was formed by attendees participating in this *Innovators Roundtable* as a means to continue dialogue, information sharing, and collaboration around safer chemicals and products.

The mission of GC3 is to promote and support green chemistry and Design for Environment (DfE) research, practices and purchases nationally among states, federal agencies and other companies by:

- Implementing Green Chemistry, Green Engineering, and Design for Environment throughout supply chains and by sharing strategies to overcome barriers;
- Promoting education and information on safer chemicals and products that can increase demand by a broad range of consumers; and
- Identifying existing and needed information on toxics hazards, risks, exposures and safer alternatives to promote "Green Chemistry" as defined in the *12 Principles of Green Chemistry*.

Through a series of conference calls, in person meetings, and on-line collaborations, the GC3 has established three workgroups with short range action plans:

Advancing DfE and Green Chemistry: focusing on activities to support the federal Design for Environment program and green chemistry legislative initiatives; addressing conflicts between DfE and eco-labeling systems; and integrating state green chemistry initiatives into their work.

Tools for Chemical Assessment and Safer Design: identifying existing and needed tools, as well as tools in development, and considering creating a database of toxicity information for companies looking to make better chemical choices.

Drivers for Innovation and Marketing: conducting a series of interviews to discover company drivers for innovation, and marketing philosophies. This group will also look into marketing opportunities for promoting green chemistry success stories, and consider addressing guidelines around green marketing so consumers know when they're buying a safer product.

Staff from the Lowell Center for Sustainable Production assist the workgroups in accomplishing their work, and sponsor the GC3 listserv.