

2011-2012 GC3 Activities at a Glance

GC3 E-Newsletter

The GC3 quarterly newsletters provide important updates on GC3 project groups as well as information about upcoming meetings and news relevant to green chemistry and design for environment

- April 2012
- January 2012
- September 2011
- May 2011

GC3 Webinars

GC3 quarterly webinars provide participants with important technical and applied case studies on green chemistry and design for environment application including experiences, challenges, and lessons learned.

How Companies Can Meet Increasing Demands for Greater Transparency on Chemicals While Still Protecting Critical Intellectual Property

This webinar kicked-off a GC3 dialogue on the issue of greater transparency and protection of intellectual property. Roger McFadden described the challenges that OEMs, retailers, specifiers and consumers are facing in obtaining the chemical information that they need from their suppliers for decisions ranging from product design, specification, and purchasing. Mark Greenwood followed with his thoughts on some of challenges to and strategies for information disclosure and for protection of intellectual property.

Mark Greenwood, Partner, Ropes & Gray and Roger McFadden, VP, Senior Scientist, Staples, April 10, 2012

<u>The Boots UK Story: How a British Retailer is Moving Beyond Compliance and Leading the</u> <u>Way in Reducing Toxic Chemicals in its Products</u>

Stephen Johnson of Boots, UK, discussed the factors that led his company to move beyond compliance to become a leader in addressing toxic chemicals in its products and supporting green chemistry. He described the systems Boots has put in place to ensure that its products are more sustainable and the strategic opportunities he sees for retailers that are interested in greening their supply chain.

Stephen Johnson, Head Of Quality & Technical Policy, Boots, UK, April 5, 2012

The Making and Marketing of Greener Products

In this webinar participants learned about the drivers for developing greener products, and case studies of how leading companies like GE, Seventh Generation, SC Johnson, BASF, etc. develop and market greener products. Marketing methods and market segmentation of consumers were discussed, as well as greenwashing and the proper use of eco-labels. Al lannuzzi expressed his thoughts on the best practices for both making and marketing greener products.

Al Iannuzzi, Senior Director of Product Stewardship and Green Marketing, Johnson & Johnson, January 11, 2012

Technology Advances Green Chemistry: Four Case Studies on how GreenWERCS has helped advance safer chemistry

Kieran Callahan explained how industry leaders are using the latest science on Green Chemistry, coupled with the latest software technology to advance safer alternatives, reduce cost and interact with their supply chain to produce safer products. The webinar covered key drivers from 4 uniquely different companies; Allergan Pharmaceutical, Halliburton, Gig-a-Base and Wal-Mart. Callahan also provided an overview of the GreenWERCS software describing how scoring models can be developed electronically from concept to practice, and what motivated industry leaders to pursue a software solution for advancing green chemistry. Participants gained critical information on "lessons learned" as these companies blazed their individual paths toward advancing green chemistry within their companies and industry sectors.

Kieran Callahan, Director, Business Development, The Wercs Ltd. September 20, 2011

Project Group Deliverables

The four GC3 project groups undertook a range of applied projects to advance the application of safer chemistry and products through supply chains. The project groups met on numerous occasions during the year to complete pragmatic projects with broad impacts.

Advancing Green Chemistry Education

- Drafted GC3 policy statement on green chemistry and higher education, including ten initial signatories.
- Created evaluation matrix of corporate and other organizational training programs in green chemistry and safer alternatives.
- Developed goals and draft list of training modules for green chemistry/safer alternatives boot camp training.
- Conducted analysis of potential roles and "customers" for such a training program, including the types of information/training needed for different roles in the firm.

• Collected existing curricula on green chemistry and safer alternatives.

Business and Academic Partnerships for Safer Chemicals

- Created model protocol for collaborative chemical/material alternatives assessment that can be applied to other chemicals and sectors, including specific protocols for managing the process.
- Completed comparative chemical hazard assessment pilot project involving alternatives to phthalate plasticizers in wire and cable with 9 GreenScreen[™] assessments completed
- Developed prototype web portal to disseminate information for collaborative alternatives assessment.
- Created presentation outlining pilot project process, results, and lessons learned.

Engaging Retailers in the Adoption of Safer Products

- Created retailer portal, an online database of tools and companion document, to help retailers determine the best system to manage chemical ingredients in products.
- Drafted "business case" to help retail decision makers understand green chemistry, its relationship to safer products and the benefits of selling products made using green chemistry.
- Developed online resource of select retailer chemicals policies that address chemical hazards in products.
- Conducted inventory of initiatives and organizations relevant to retailers that are advancing sustainability with a focus on safer chemicals and products.
- Initiated webinar series to educate retailers new to the discussion of safer and greener products and to help advance the dialogue with retailers already engaged in this pursuit.

Facilitating Chemical Data Flow Along Supply Chains

- Established electronics pilot project workgroup, consisting of Texas Instruments, Seagate, HP and Staples (an actual supply chain).
- Developed a chemical data "superset" universe of data that will satisfy the needs of the companies in the electronics pilot project workgroup
- Summarized gaps and challenges to standardization of chemical data, such as lack of a robust system of unique chemical

- Developed presentation outlining lessons learned from the electronics supply chain's efforts to facilitate data communication within their sector and to standardize data systems.
- Initiated dialogue on mechanisms to address confidential business information as an obstacle to the sharing of chemical data in supply chains

Presentations

Lowell Center staff and fellows presented results from GC3 project groups and lessons learned from GC3 activities as a whole in a number of business, academic, and government forums.

Innovative Business/University Partnership: The GC3's Safer Plasticizer Assessment Project: April 2012

Massachusetts Toxics Use Reduction Institute - Spring 2012 TUR Planner Continuing Education Conference

Presentation on the Business/University Pilot Project for environmental, safety, and process professionals who are engaged in the Massachusetts Toxics Use Reduction (TUR) Program.

<u>B2B Communication of Chemical Data Along Supply Chains: The GC3's Chemical Data Project</u> <u>Group: April 2012</u>

Massachusetts Toxics Use Reduction Institute - Spring 2012 TUR Planner Continuing Education Conference

Presentation on the work of the GC3's Chemical Data Project for environmental, safety, and process professionals who are engaged in the Massachusetts Toxics Use Reduction (TUR) Program.

Industry Efforts to Advance Green Chemistry in Higher Education: Green Chemistry and Commerce Council (GC3): January 2012

Beyond Benign: Green Chemistry Commitment Conference, Boston, MA Presentation on GC3 Green Chemistry in Education Project group activities at meeting to initiate the Beyond Benign Green Chemistry Commitment, hosted by EPA Region 1.

<u>Data Standardization to Support Safer Products: November 2011</u> *Biz-NGO Annual Conference, Framingham, MA* Presentation on GC3 Data Standardization Group activities at Biz-NGO network meeting, hosted by Staples.

<u>Green Chemistry & Commerce Council: October 2011</u> Sustainable Chemistry Summit, GreenCentre Canada, Kingston, Ontario, Canada Presentation on the GC3, highlighting the activities of the Chemical Data and Business/University Partnership Project.

<u>De un control reactivo de las sustancias a una política integral en materia de riesgo químico – experiencias de EEUU: October 2011</u>

Webinar Conference to Mexican government authorities on advancing safer chemistry through national policy, hosted by the Mexican National Institute of Ecology

Presentation to an interagency group of Mexican government experts on tools and approaches to advance safer chemicals and materials, including an overview of activities of the GC3.

Safer Chemistry Activities of the Lowell Center for Sustainable Production and Toxics Use Reduction Institute: August, 2011

Webinar to IBM toxicology and materials staff

Presentation to IBM experts working on safer chemicals and materials regarding green chemistry and design for environment research at UMASS Lowell including an overview of the GC3.