

# Welcome to the

## 8th Annual

**GC<sup>3</sup>** | Green Chemistry &  
Commerce Council

## Innovators Roundtable

MAY 8-10 • 2013  
New Brunswick, NJ

Hosted by

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# Green Chemistry and Commerce Council Year in Review May 7, 2013



8th Annual  
**GC3 Innovators  
Roundtable**

New Brunswick, NJ | May 8-10, 2013

**GC<sup>3</sup>** Green Chemistry &  
Commerce Council

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## GC3 2012 Accomplishments


- Webinars
  - Significant advancement in project groups
  - Second National Summit for retailers
  - Publications and media attention
  - Increase in members and funding
-




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## The Right Chemistry

65

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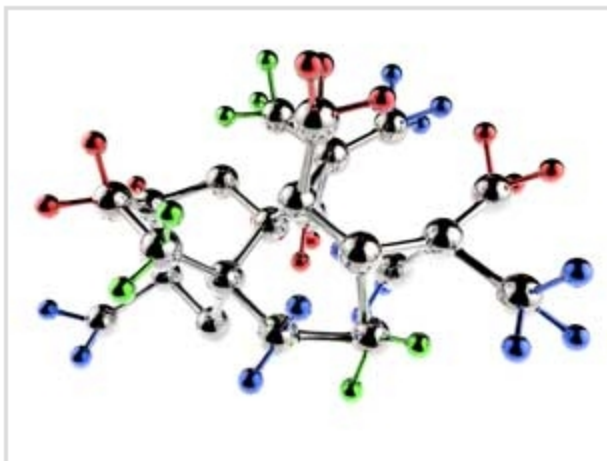
# How collaboration can lead to better decisions on safer chemical alternatives

By [Monica Becker](#)

Published October 26, 2012

Tags: [Chemicals](#), [Green Chemistry & Toxics](#), [More...](#)

[Email](#) | [Print](#) | [Single Page View](#)



The pressure is mounting on brands to eliminate known chemicals of concern from their products. The European Union's REACH regulations, Washington State's Children's Safe Products Act, and California's Green Chemistry Initiative, with new regulations due out imminently, are but a few examples of the many laws driving companies to identify and eliminate chemicals of concern. Add to this list growing interest and pressure from individual consumers, NGOs and retailers for greater safety and transparency.

The path to elimination can be riddled with



### Scaling water & energy optimization

John Schulz  
Director, Sustainability Operations



Boston | May 13-14, 2013



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## The Right Chemistry

### How retailers can collaborate on safer chemicals

By Sally Edwards

Published March 13, 2013

Tags: Business Operations, Chemicals, More...

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Retailers are often caught by surprise when a new chemical of concern hits the news. Headlines such as "Dangerous Toys Lurk on Store Shelves" or "Plastics in Baby Bottles May Pose Health Risk" can send retailers scrambling to remove products from shelves, often in response to public concerns that precede regulations.

While reacting quickly to such news is often an appropriate response, such hurried action can be very costly and can impact customer loyalty and brand integrity. And although it may get some products of concern out of the marketplace, it

does not provide a long-term solution to the problem of harmful chemicals in consumer products. Such a reactive approach can also lead to regrettable substitutions, where a chemical or product of concern is replaced with one that is equally or more dangerous.

As this story plays out over and over with chemicals such as lead, bisphenol A, brominated flame retardants and other toxicants, many retailers are recognizing that it makes much more strategic sense to be proactive rather than reactive. Retailers understand that these events are often a signal that new regulations are imminent.

For example, after 17 million toys were recalled in 2007 for violation of the lead



#### VERGE BOSTON 2013



### Creating Smarter Government

Deval Patrick  
Governor  
State of Massachusetts

Discover radical efficiencies and the tools to achieve institutionalized sustainability goals, coming May 13-14 to Boston (or watch virtually).

#### EDITOR'S CHOICE



### Why Unilever, Patagonia, Puma lead the pack, say sustainability leaders

Joel Makower

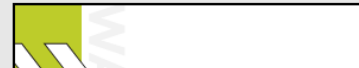
Companies continue to rank low among global institutions when it comes to sustainability leadership. So, who's on

[top?](#) [Read more](#)

### How 3 academics developed brilliant green marketing plans

The wrong-headed solutions of corporate sustainability

Advertisement



Green Chemistry and Sustainable Technology

1413

Edited by R.E. Hester and R.M. Harrison

# Chemical Alternatives Assessments



RSC Publishing



## PROJECTS

### Overview

[Advancing Green Chemistry Education](#)

[Business & Academic Partnerships for Safer Chemicals](#)

[Engaging Retailers in the Adoption of Safer Products](#)

[Facilitating Chemical Data Flow Along Supply Chains](#)



[Members Area](#)

## Projects Overview

Research and outreach activities and deliverables that advance the GC3 mission are carried out through a series of smaller project groups. The projects for each year are decided at the Annual GC3 Roundtable based on suggestions by participants and members, and consultation with the GC3 Advisory Committee. The scope of the projects, timeline, and specific deliverables are developed by members of each project group. All GC3 members are encouraged to participate and take leadership in project groups.

Project groups for 2012-2013 are as follows:

### **Advancing Green Chemistry Education**

This project group is exploring ways to embed green chemistry in university and professional education as well as in research, education, and development funding programs.

### **Business and Academic Partnerships for Safer Chemicals**

In an effort to develop model business partnerships with academic institutions to find green chemistry solutions, this working group is conducting a pilot project on alternatives to phthalates in wire and cable coatings.

### **Engaging Retailers in the Adoption of Safer Products**

This project group is engaging proactive retailers and other stakeholders in dialog about the challenges and solutions to managing chemical ingredients in the products sold in the retail industry.

### **Facilitating Chemical Data Flow Along Supply Chains**

This working group aims to facilitate the efforts of product formulators and fabricators to obtain chemical data from their supply chains for regulatory compliance, green product design, certification and disclosure through a standardized data format.



## **GC3 Advisory Committee**

Mary Grim, Timerland

Cora Leibig, Segetis

John Frazier, Nike

Barbara Hanley, Hewlett Packard

Bob Israel, Valspar

Al Iannuzzi, Johnson & Johnson

Rich Liroff, Investor Environmental Health Network

Roger McFadden, Staples

Ken Zarker, Washington State Department of Ecology



# GC3 advisory committee strategic planning process

- Take stock of accomplishments and directions
- Review mission and accomplishments of the GC3 over 7 years
- Understand changing landscape for promoting green chemistry/sustainable products
- Agree on 5 year vision for GC3 as organization and for work to be accomplished
- Identify key indicators of success – for organization and content work
- Identify who needs to be “at the table” to ensure success

# Draft revision to GC3 mission

## Mission

- To protect public health and the environment by:
  - harnessing the power of innovation for promoting research and the practical application of green chemistry, green engineering, and design for environment, and;
  - making their use standard practice in product design, manufacturing, and procurement.

# GC3 Approach

- Increase demand for and supply of chemicals that are designed and manufactured based on the principles of green chemistry, green engineering, and design for environment.
- Develop and promote practical approaches, tools, initiatives, policies and collaborations that advance safer chemicals and products throughout supply chains.
- Foster collaboration and learning among business, government, nongovernmental organizations, and academic researchers that are working on green chemistry solutions.

# GC3 Summary of Accomplishments

## Education and research

- Publication of reports, case studies and a guidance document on best practices, challenges and opportunities for green chemistry in industry.
- Engaging industry and universities in research and application of alternatives to materials of concern.
- Hosting of regular webinars on cutting-edge green chemistry and design for environment topics.
- Development of a quarterly newsletter outlining GC3 accomplishments, new policy developments, educational opportunities, and relevant news.

## Networking and dialogue

- Hosting an annual Innovators Roundtable, now with more than 100 business and other stakeholders, to share challenges and best practices.
- Convening project groups dedicated to conducting collaborative projects aimed at advancing the state of the art of green chemistry in business.

# GC3 Summary of Accomplishments (cont.)

## Policy

- Development of a policy report for advancing green chemistry and design for environment with the National Pollution Prevention Roundtable.
- Development of model green chemistry research and development policy language and direct advocacy for federal GC R&D Act and passage of America COMPETES Act.
- Support for green chemistry and design for environment research, development, and education funding and programs in government and universities.

## Outreach

- Regular presentations to business, government and other stakeholder audiences on the GC3 and its activities.
- Publication of articles designed to promote green chemistry in industry and academia.
- GC3 website including Retailer Portal, list of chemicals of concern, reports, conference presentations, etc.
- Media outreach on major GC3 projects and reports.

# GC3 Signature Projects

**RETAILER PORTAL DATABASE**  
**Tools to Evaluate Chemical Ingredients in Products**

Key:  Restricted Substances Lists  Standards, Certifications & Labels  Third-party Evaluation Tools

Sector	Restricted Substances Lists (RSLs) e.g. REACH, RoHS, etc.	Standards, Certifications & Labels	Third-party Evaluation Tools
<b>Apparel &amp; Footwear</b>			
Tools relevant to this product sector	BlueSign®	EcoLogo	Global Organic Textile Standard (GOTS)
Tools relevant to all product sectors	Cradle to Cradle® Certification	DE Green Product Analyzer™ (GPA)	Adiso Material Disclosure
<b>Automotive</b>			
Tools relevant to this product sector	EPA Design for Environment (DfE) Safer Product Labeling Program	Green Seal	
Tools relevant to all product sectors	Cradle to Cradle® Certification	DE Green Product Analyzer™ (GPA)	Adiso Material Disclosure
<b>Building Materials &amp; Products</b>			
Tools relevant to this product sector	EcoLogo	GreenGuard	Green Seal
Tools relevant to all product sectors	Cradle to Cradle® Certification	DE Green Product Analyzer™ (GPA)	Adiso Material Disclosure

**Topic: Retail**

**Retailer Portal: Tools to Evaluate Chemical Ingredients in Products**



**Topic: Policy**

**Growing the Green Economy: A State's Guide to Creating Opportunities for Green Chemistry and Design for Environment**



**Topic: Chemical data**

**Meeting Customers' Needs for Chemical Data: A guidance document for suppliers**



**Topic: Chemical data**

**Case studies of Nike, SC Johnson & HP**

# GC3 Signature Events



**2010 GC3 Retailer Summit**

**2013 GC3 Retailer Summit**

## GC3 Webinars

November 8, 2012

Green Chemistry Innovation in the Chemical Industry:  
Venturing and Start-Ups



Cora Leibig, VP of R&D,  
Segetis



Erik Rutten, Senior Investment Manager,  
DSM Venturing

**GC<sup>3</sup> Green Chemistry & Commerce Council** 8th Annual **MAY 8-10 • 2013**  
**Innovators Roundtable**  
NEW BRUNSWICK, NEW JERSEY • HOSTED BY JOHNSON & JOHNSON



- Education
- Research
- Policy
- Collaboration
- Networking



## How has the landscape changed since the GC3 started?

- More scientific information available on chemicals of concern and possible alternatives
- Increased public and advocacy attention and concern
- Increased policy and regulation
- Increased demands for safer chemicals in supply chain (not just the “green” companies)
- Chemical industry is changing
- New sector-focused collaborations
- New tools for assessing chemicals and products

# Recurring themes

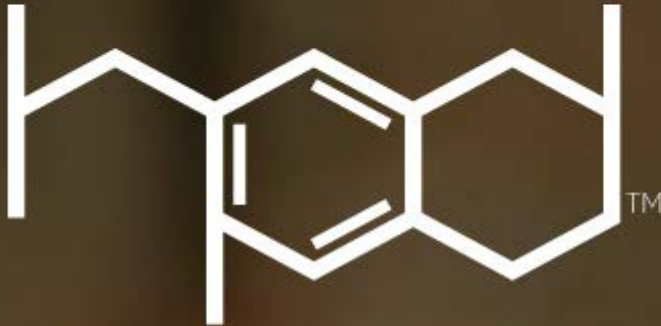
- Transparency
  - Collaboration and partnership (supply chain/sectoral)
  - Power of purchasing
  - Making the business case
  - Metrics and tools
  - Education
-

USE THE HPD

SUPPORT

NEWS

ABOUT



#### WHO

The Health Product Declaration Collaborative is a customer-led organization for companies and individuals committed to the continuous improvement of the building industry's environmental and health performance, through transparency and innovation in the building product supply chain.

#### WHAT

The Health Product Declaration Open Standard is a standard format that systematizes reporting language to enable transparent disclosure of information regarding building product content and associated health information, by defining the critical information that is needed by building designers, specifiers, owners and users

#### HOW

It is an open standard, freely available to all.



HDR

Interface



THE  
Kendeda  
FUND

SMITHGROUP JJR



# Children's Safe Product Act Reports

[Search children's product data](#)   [Help](#)   [Contact Us](#)

For **phase one** data, use **June 1, 2012** as the start date and **September 01, 2012** as the end date.   For **phase two** data, use **September 01, 2012** as the start date and **March 01, 2013** as the end date.   To see the Practical Quantitative Limit (PQL) for each chemical please refer to [this document](#). >

Search children's products data by:

**Company**

[< back to main search](#)

Company:    To Date:   

From Date:

1 of 1   Find | Next

Company: Avon Products, Inc

Company Reported 6 times between 5/1/2011 and 5/6/2013.

Date Searched: 5/6/2013

*The reports are based on the data provided to the agency. The presence of a chemical in a children's product does not necessarily mean that the product is harmful to human health or that there is any violation of existing safety standards or laws. The reporting triggers are not health-based values.*

Chemical ↕	Component ↕	Concentration ↕	Chemical Function ↕	Product Description ↕	Documents
2-Ethyl-hexyl-4-methoxycinnamate    5466-77-3	Homogenous Mixtures (gels, creams, powders, liquids, adhesives, synthetic	Equal to or greater than 10,000 ppm	UV stabilizer/absorber	Lip Balms    10005727	-



# RØADMAP TO ZERO DISCHARGE OF HAZARDOUS CHEMICALS

## THE BIG PICTURE - Systems Map



5 minutes high level video, which illustrates the need for systemic change.





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## Events Calendar

Tell a Friend

### BIFMA CHEMICALS OF CONCERN SUMMIT

4/29/2013 to 4/30/2013

**When:** April 29 - April 30  
Monday 9:30 am - 5 pm; Tuesday 8 am - 3 pm

**Where:** Sheraton Ann Arbor Hotel  
3200 Boardwalk  
Ann Arbor, Michigan 48108  
United States

**Contact:** Brad Miller ([bmiller@bifma.org](mailto:bmiller@bifma.org))



#### Registration Information

*Online registration is closed.*

#### Details

#### Sign In

Username

Password



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#### Calendar

[more](#)

5/8/2013 » 5/10/2013  
GC3 Green Chemistry &  
Commerce Council Innovators  
Roundtable

5/13/2013 » 5/16/2013  
INTERZUM 2013

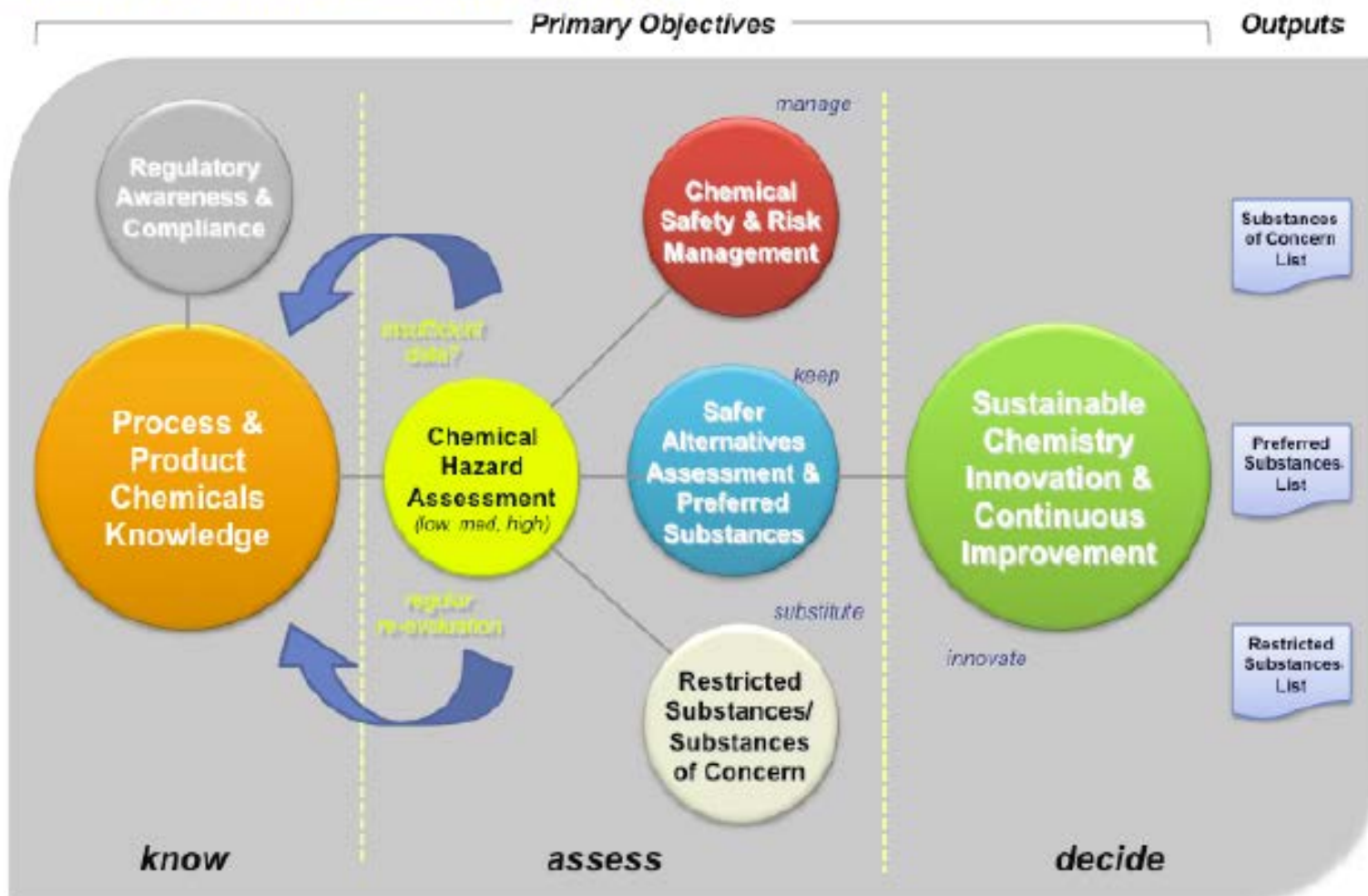
5/13/2013  
BIFMA X5.11 Heavy Chair  
Standard

5/15/2013 » 5/17/2013  
Living Future unConference



# OIA Chemical Management Framework

Diagram 1: THE CHEMICALS MANAGEMENT FRAMEWORK







greenchemistrycommitment.org  
*21<sup>st</sup> century chemistry*

Chemists are currently not trained in toxicology.

**Together we can fill this knowledge gap.**

January 2012 Green Chemistry Commitment Summit

commitment  
overview

Co

advisory  
board

Ab

green chemistry  
resources

Gr

event  
calendar

Ec

2011

# AFIRM Supplier Toolkit



<http://afirm-group.com/suppliersltool.htm>

# Challenges

- Complex and global supply chains
- Challenging to change the supply chain if a company is not big
- Need for:
  - Transparency of ingredients
  - Better understanding of supply chain beyond tiers I and II
  - Traceability
  - Better regulation
- There are some barriers to business to business collaboration that stem from competition, limited resources, and barriers to information flow in supply chains
- There is limited funding/resources for green chemistry research and application in government and many firms. Suppliers, particularly in Asia, do not have resources to innovate given cost-margins



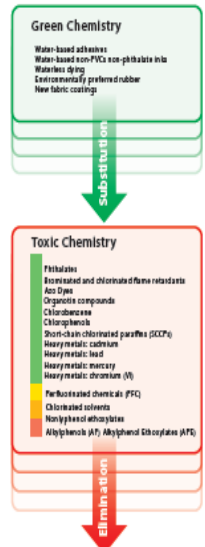
# GCO

## Global Chemicals Outlook

Towards Sound Management of Chemicals



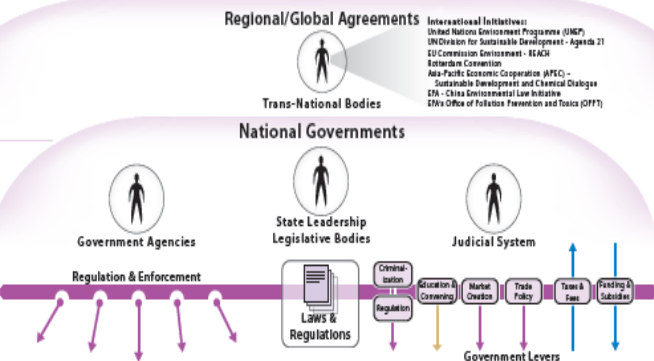
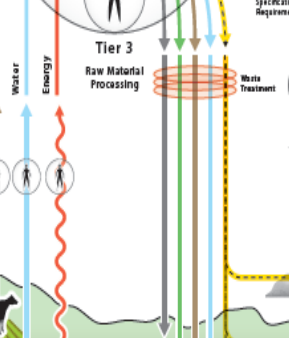
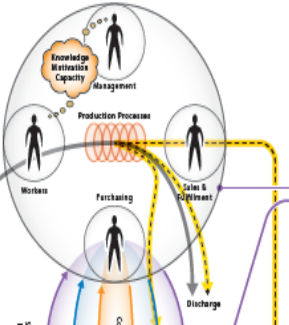
Synthesis Report for Decision-Makers



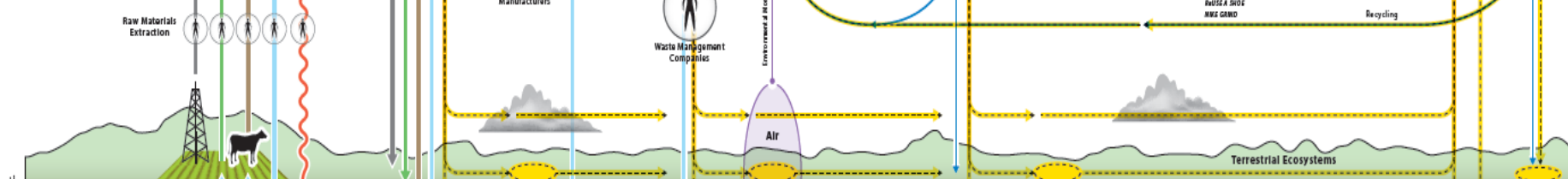
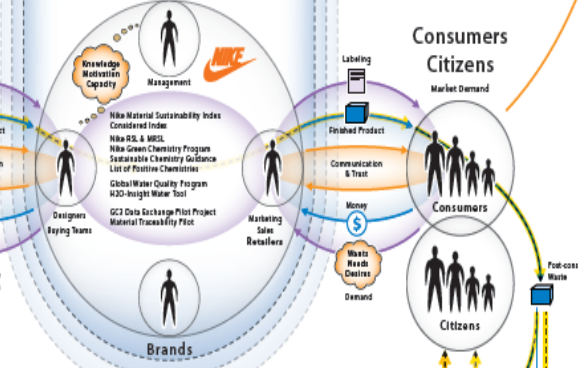
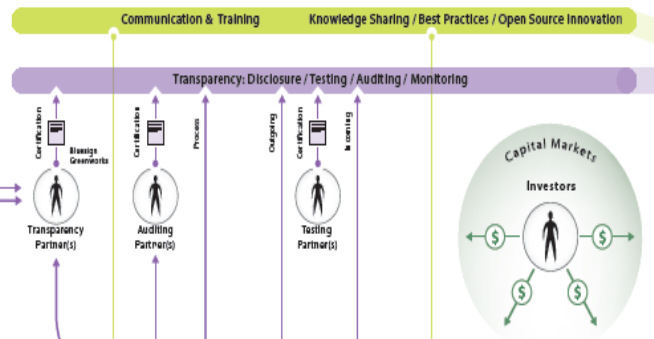
**Locations**



**Chemical Companies**



**Civil Society**



# What is the unique niche of the GC3?

- Business-to-business
- Members are from:
  - Many sectors
  - Multiple points in the value chain: chemical producers, brands, retailers
- Collaborative projects to advance green chemistry and design for environment in industry – solutions to pragmatic challenges
- Chemicals not broader sustainability focus
- Networking
- Education
- Based at a university research center – but could involve other academics, such as business schools



# Next steps from strategic planning

- **Primary goal of the GC3:** To mainstream green chemistry.
- **Charge to the GC3:** Create a roadmap for how to achieve this goal. The roadmap will help the GC3 determine where to focus its efforts. It will bring recognition to what must be changed to mainstream green chemistry.
- **To achieve this, GC3 will need to:**
  - Develop a road map for industry.
  - Develop a road map for policy.
- GC3 projects and efforts would evolve from this roadmap.



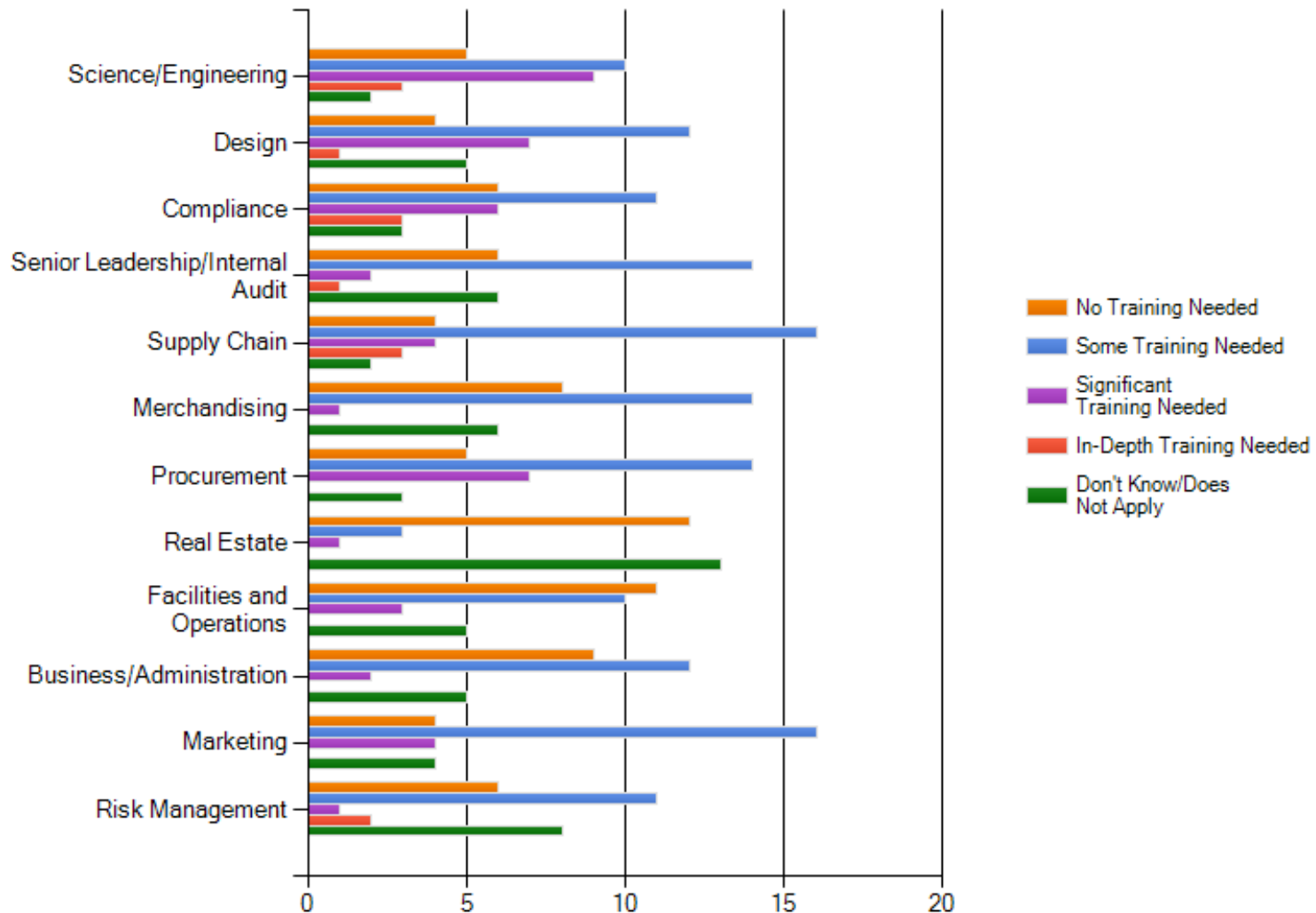
# Taking advantage of changes

- Change market demand
  - Address barriers to green chemistry in the marketplace
  - Help concentrate demand through linking those needing green chemistry solutions and those developing them
- Support innovation
  - University/business partnerships
  - Green chemistry challenges
- Support green chemistry policy
  - R&D and education policy
- Communications and branding
  - Case examples and best practices
  - Making business case

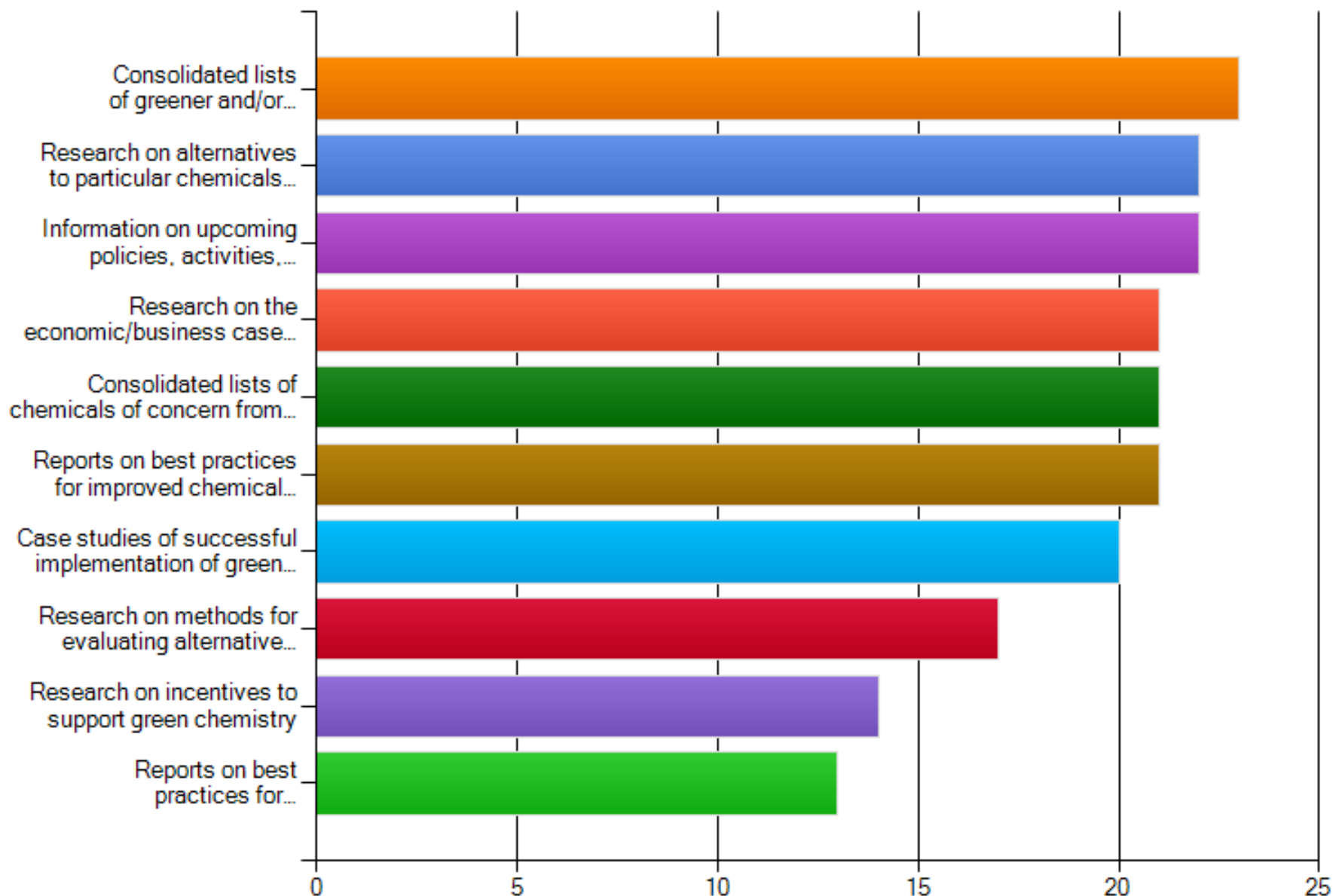
# GC3 Needs Survey

- To evaluate education/training, research, networking and policy support needs of members
  - 28 respondents
  - Many noted the need to “sell” green chemistry and make the business case but want to know ways others may have been successful in this.
-

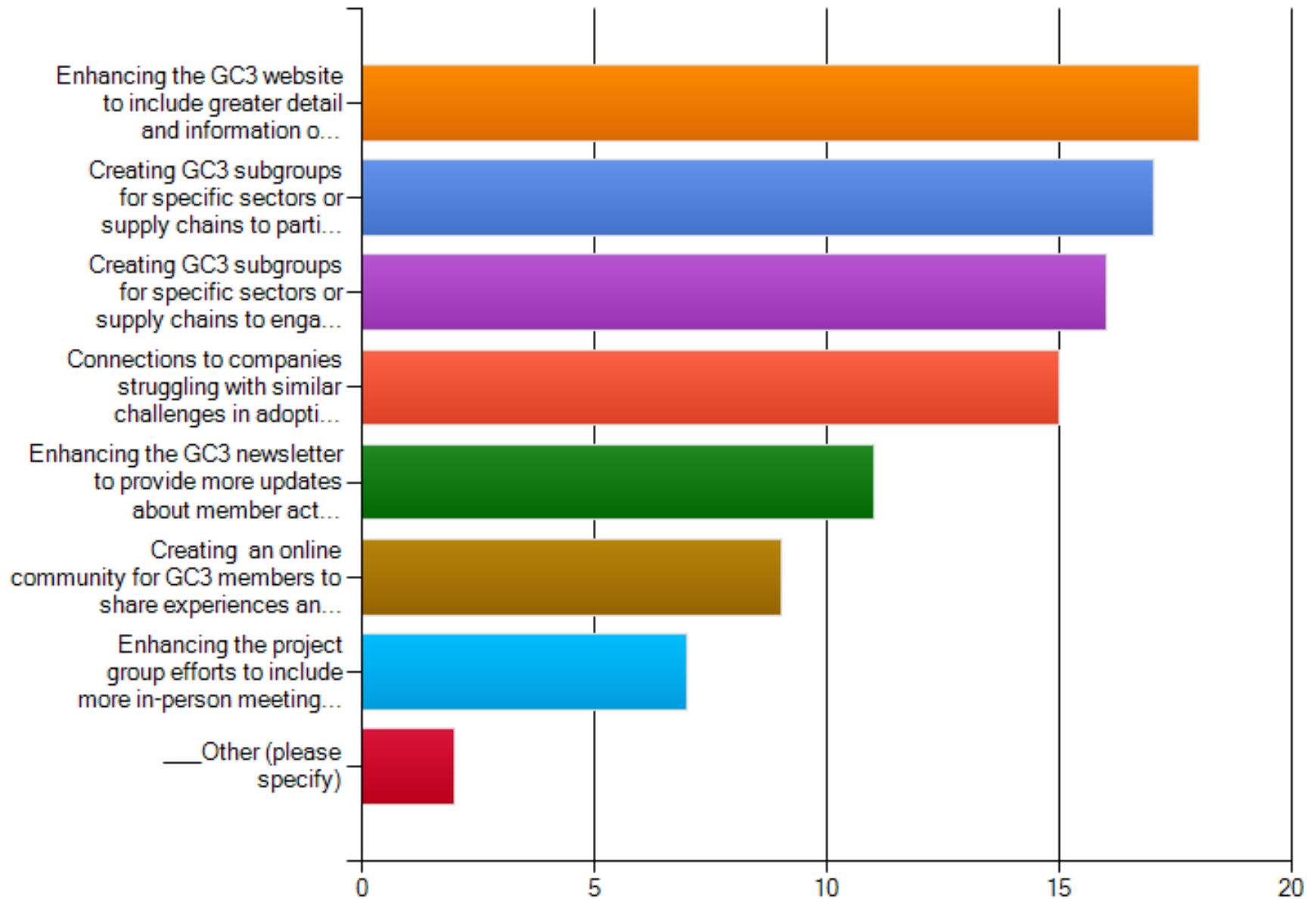
**To what extent do the business units in your company have a need for training in green chemistry?**



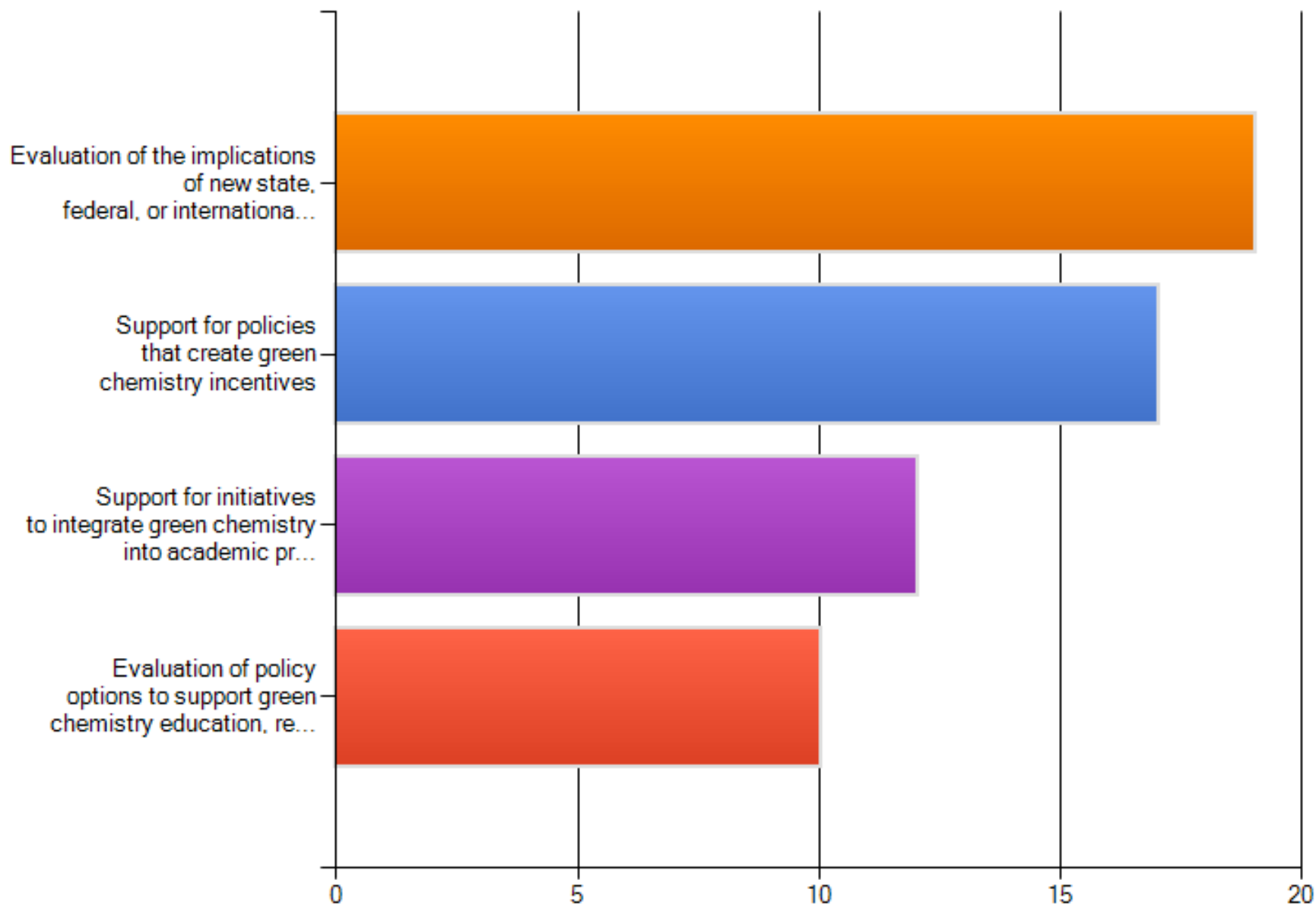
**To advance green chemistry within your firm, what types of research and information would be helpful? (Please check all that apply.)**



**What types of networking and collaboration support would be most helpful for the GC3 to provide? (Please check all that apply.)**



**What types of policy research and support would enhance your firm's green chemistry efforts?  
(Please check all that apply)**



# GC3 Needs Survey – Mainstreaming Green Chemistry

- Case examples that make the business case.
- Integrating into academic education
- Green chemistry evaluation tools
- Public policy changes that address chemicals of concern and provide incentives for safer alternatives
- Education at the senior management level



## GC3 Needs Survey – What could the GC3 do to mainstream green chemistry

- Retailer engagement – particularly linking retailers and chemical/material manufacturers
  - Convening/Networking people across sectors and levels of supply chains
  - White papers addressing key challenges
  - Case examples and best practices to build the business case
-

Long live the GC3!

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# Agenda and Logistics

- Staff
- Meals
- Receptions and Dinner
- Evaluations

# GC3 Green Chemistry Champion for 2013

## Barbara Hanley - HP



The GC3 would like to thank the following companies for their generous support in making this meeting possible:

*Johnson & Johnson*

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