GC3 Member Update Call

September 26, 2016



Agenda

- 1. Updates on GC3 Membership, Innovators Roundtable and other meetings
- 2. GC3 Advisory Committee
- 3. Work plan for 2016-2017



GC3 Membership

| Chemicals & Materials | 12 | Service Providers | 13 |
|--|----|---------------------------|-----|
| Green & Bio-based Chemical Startups | 8 | University-Based Programs | 6 |
| Personal Care & Household Products | 13 | Government | 6 |
| Apparel and Footwear | 7 | Foundations | 1 |
| Electronics | 4 | NGOs | 13 |
| Office, Institutional & Home Furniture | 6 | | |
| Paints & Coatings | 2 | | |
| Pharmaceutical | 1 | | |
| Retailers | 7 | | |
| Hospital/Medical | 1 | Total Membership | 100 |



New Members Since May

GOJO Industries, Inc.

Center for Biorenewable Chemicals

Omni Tech International

Bemis Associates

GFBiochemicals

Pfizer

SC Johnson

Novozymes

Greening Our Children

OBIC Bioproducts Innovation Center



GC3 Innovators Roundtable

April 25-27, 2017 in Grand Rapids, Michigan

Hosted by Steelcase



| Mon. April 24 | Tues. April 25 | Wed. April 26 | Thurs. April 27 |
|--|--|--|--|
| 2 nd GC3 Green & Bio-based Chemistry Startup Event | Roundtable starts midday Evening Networking Reception | Roundtable - full day conference Dinner Reception | Roundtable - half day conference |
| • | Networking | | |



The Guardian Green Chemistry Conference November 2, 2016 in New York City





Supported by GC3 member SC Johnson. GC3 is a Media Partner.

GC3 members get a 50% discount on registration. Use discount code GC3 when registering.





GC3 Advisory Committee Members

Bob Buck, The Chemours Company James Ewell, GreenBlue **Tess Fennelly**, GFBiochemicals John Frazier, Hohenstien Al Iannuzzi, Johnson & Johnson Al Innes, State of Minnesota Bob Israel, Valspar **Rich Liroff**, Investor Environmental Health Network Roger McFadden, McFadden & Associates/Replenish Babette Petersen, Capricorn Venture Partners Ken Zarker, Washington State, Dept. of Ecology



Project Plan 2016/17



Raising the Profile of GC at National Level

| Project Title | Project Description | Deliverables | Timeline |
|-----------------------------|--|--|--|
| Federal Leadership & Policy | Federal government outreach/education to increase leadership in green chemistry policy | Agency briefings At least one Congressional Briefing GC language in COMPETES | On-going |
| Federal Funding | Understand and advocate for increased funding directed to Green Chemistry Research, Development, and Demonstration | Report on landscape of green chemistry funding Education/outreach briefings to federal funding agencies Initial overview of private sector funding opportunities | Report by fall 2016 Visits by 2016/17 |



Measuring Progress

| Project Title | Project Description | Deliverables | Timeline |
|-----------------------|--|---|-----------------------|
| Measuring Progress | Convene process to establish set of measures and metrics necessary to evaluate | Report on measures and metrics to evaluate progress towards green chemistry | Report by spring 2017 |
| | progress towards mainstreaming green chemistry | Education/outreach briefings to agencies | Visits by spring 2017 |
| | Focus on societal level | Possible factsheet/web resource built from Ann Blake's report | |



Education/Training

| Project Title | Project Description | Deliverables | Timeline |
|--|--|--|------------------------|
| National Summit Green Chemistry Education & Innovation | Explore opportunity/develop concept and plan with other stakeholders | Plan for summit | Plan by spring 2017 |
| GC3 Safer Chemistry Training for Business | Finishing the training materials and increasing use | Finished curriculum Plan & executing strategies to increase use | By spring 2017 |



Collaborations: Supply Chain, Innovation

| Project Title | Project Description | Deliverables | Timeline |
|---------------------------|--|---|---------------------------|
| Preservatives Competition | Collaborative crowdsource competition on | Recruit sponsors, signed agreements, collect \$\$ | Now |
| | preservatives for PC & HH products | Design & launch competition | Oct |
| | GC3 & InnoCentive managing | Evaluate submissions & select winners | Spring, 2017 |
| | Sponsors are suppliers, CPG and | Event for finalists | June/July |
| | retail | Follow-up - partnering, etc. | Q3/Q4 |
| Innovation Portal | Survey to evaluate utility of Portal and | Survey | Decisions by fall 2017 |
| | develop plan going forward | Plan | |



Collaborations: Supply Chain, Innovation (cont.)

| Project Title | Project Description | Deliverables | Timeline |
|---------------------|--|--|--|
| Start-up Network | A new initiative aimed at supporting the growth of green and bio-based startup companies | Convene Steering Committee Webpages on GC3 site Recruit min. 20 start- | Done, first meeting 9/13 Sept |
| | | ups | Sept - Jan |
| | | Workshop on increasing effectiveness of start-up/large company engagements | Jan/Feb |
| | | Pre-meeting at 2017 RT | April |
| | | Webinars, articles, social media | Oct onward |



Collaborations: Supply Chain, Innovation (cont.)

| Project Title | Project Description | Deliverables | Timeline |
|---|------------------------|---|----------------|
| Retailer Leadership Council | Coordination of RLC | Case studies of examples of challenges in supply/demand signals | On-going |
| RLC Retail buyer/supplier education & training | | Training materials and training | By spring 2017 |



Special Projects

| Project Title | Project Description | Deliverables | Timeline |
|---------------------------------------|--|--|--------------------|
| GC3 Messaging | Implement recommendations from Paula Schaper | Member recruitment email | Fall 2016 |
| | Trom Fauta Schaper | Website updates | Fall 2016 |
| | | New brochure | Winter 2016/7 |
| GC Communication | | 2 - 3 Webinars and/or Pre-Meeting | Throughout 2016/17 |
| | | - NMI - Amy Konstant - Alda Center | |
| Expanding GC3 Reach into Europe | GC3 European Roundtable Planning | Meeting | Fall 2017 |



GC3 Federal Green Chemistry Leadership Initiative



Goals

- Green chemistry as a national environmental and innovation priority
- Accelerate implementation of the GC3
 Agenda to Mainstream Green Chemistry
- Build leadership in key agencies
- Work with other organizations to achieve these goals



Build on GC3 activities

- Funding report/outreach
- Metrics discussion
- Start-up network



Activities

- Raise profile of green chemistry research/support in transition - transition memo
- Conduct agency by agency outreach on green chemistry research funding and support to:
 - Make connections/find champions
 - Lay groundwork for implementation of Coons' sustainable chemistry language
 - Create grassroots demand for federal leadership/coordination
- Keep promoting Coons' language in COMPETES and other vehicles



GC3 Green & Bio-based Startup Network



Overview of the Startup Network

Mission: To accelerate the development and market adoption of green chemistry technologies by supporting the growth of green and bio-based startup companies.

Strategic Approach:

- Leverage the GC3 membership to connect green chemistry startups with strategic partners to accelerate their development and growth
- Create opportunities for members to discover new ingredients and technologies
- Identify financial and other resources for green and bio-based start-ups
- Advance the discussion on how best to accelerate green chemistry innovation and the growth of innovative startups

Goal: Recruit at least 20 start-ups by next GC3 Roundtable in April 2017



Steering Committee Members

Derek McPhee, Senior Director, Technology Strategy, Amyris

Sandy Marshall, Executive Director, Bio-industrial Innovation Canada

Rey Banatao, CEO & Ian Legaspi, Director of Operations, Connora

Joel Stone, President, ConVergInce Advisers

Doug Cameron, Co-President & Director, First Green Partners

Molly Morse, CEO & Anne Schauer-Gimenez, VP of Customer Engagement, Mango Materials

Lee Walko, Biobased Business Development Manager, Omnitech International & Scott Phillips, CEO and Founder, The SearchLite

Duncan Cross, Vice President, Corporate Development, Renmatix

Adrian Horotan & Marty Mulvihil, Partners, SaferMade



Startup Network Webpage



Site Search

HOME ABOUT

Overview

Retail

PROJECTS

Education

RETAILER PORTAL

Mainstreaming

TRAINING

RESOURCES

Preservatives Project

Innovators Internship 2016

MEMBERSHIP

MEMBER LOGIN

Green & Bio-based Chemistry Startup Network

Creating an innovation ecosystem for green and bio-based chemistry technologies

Innovation

The mission of the GC3 Green & Bio-based Chemistry Startup Network is to accelerate the development and market adoption of green chemistry technologies by supporting the growth of green and bio-based startup companies.

Startups in our Network

Strategic Approach:

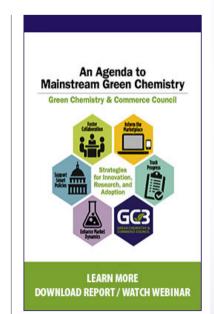
- Leverage the diversity of the GC3 membership to connect innovative green chemistry startups with established chemical suppliers, brands, retailers, and investors who can serve as strategic partners to accelerate their development and growth
- Increase the visibility of startup companies and create opportunities for suppliers, brands, retailers and investors
 to discover new ingredients and materials for their products and find new partnership and investment
 opportunities
- · Identify financial and other strategic resources for green and bio-based start-ups
- Advance the discussion on how best to accelerate green chemistry innovation and the growth of innovative startups

Background:



A key strategy for advancing green chemistry in industry, as identified in the GC3's Agenda to Mainstream Green Chemistry, is supporting the development and adoption of chemicals, materials, manufacturing processes and products that adhere to one or more of the 12 Principles of Green Chemistry. Startups are an important driver of innovation, however

many lack the connections to the strategic partners that they need for



Startup Network Webpage





HOME ABOUT

Overview

Retail

PROJECTS Education

RETAILER PORTAL TRAINING RESOURCES

Mainstreaming

Preservatives Project

Innovators Internship 2016

MEMBER LOGIN

Members of the GC3 Green & Bio-based Chemistry Startup Network

Innovation

Startup companies in this network are bringing technologies and products to market that advance one or more of the 12 Principles of Green Chemistry.

[Please note, this list is intended for illustrative purposes only]



Amyris

No Compromise® sustainable alternatives to a broad range of petroleum-sourced products

www.amyris.com



GF Biochemicals

Bringing bio-based levulinic acid and its value-added derivatives to market

www.gfbiochemicals.com

P2 Science

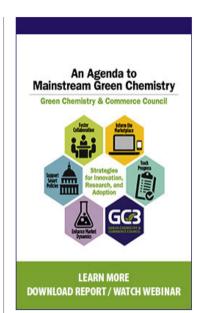


High-value, specialty chemicals for flavor, fragrance and cosmetics ingredients produced from renewable feedstocks

www.p2science.com

Resinate Materials Group

Turning recycled content into greener polyol solutions for the coating, adhesive, sealant, and elastomer markets



Work Plan for 2016-2017

1. Build the Network

Identify and recruit startup companies

2. Organize In-Person Events

- Jan/Feb 2017: Workshop on Effective Strategies for Leveraging Connections with Large Companies
- April 2017: Second Annual Green & Bio-based Chemistry Startup Event

3. Create an Active Network Through Ongoing Communication

Webinars, articles/case studies, social media, etc.



Thank you for joining us!

