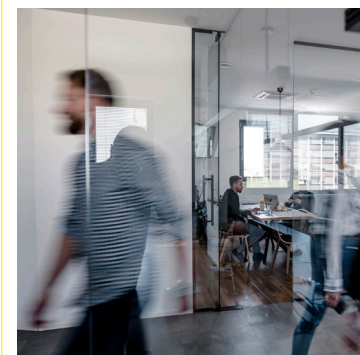
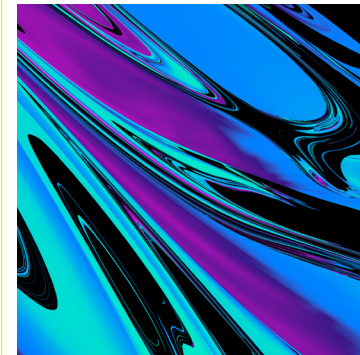


# GC3 2021

YEAR *in review*





**Joel A. Tickner, ScD**  
Executive Director

Dear Colleagues,

**2021** was an important year for the GC3. It was GC3's first year of operations as an independent non-profit association, the first mission driven business organization dedicated to advancing safer, more sustainable chemicals, materials, and products. The decision to spin the GC3 out of its home for 15 years at the University of Massachusetts Lowell, was the result of an ambitious two-year strategic planning process to grow the organization's impact. A centerpiece of the GC3's strategic plan is to accelerate commercialization of green chemistry solutions through a combination of value chain collaboration, public policy advocacy, and commitments to change from C-Suite decision-makers. GC3's sister organization, the Sustainable Chemistry Catalyst at UMass Lowell, will continue to play a critical role in research, analysis, and strategic engagement that supports the GC3 mission. GC3 now has a committed, talented **Board of Directors** and an engaged **Member Advisory Committee** to guide and support the organization's growth and impact.

The year was also a challenging one in many respects. A raging global pandemic disrupted supply chains, posed economic challenges for many companies and communities, and limited our ability to engage in strategic discussions with our members and

other collaborators. Despite these challenges, we were able to thoughtfully engage GC3 members, host our first virtual European Roundtable, and publish a number of cutting-edge reports. The pandemic, combined with global commitments on climate action at COP26 in Glasgow and the European Green Deal Chemical Strategy for Sustainability, only strengthened government and business resolve to advance the growth of chemicals that are safe and sustainable by design.

The GC3 is well positioned to play a critical role in advancing safer, more sustainable chemicals, materials, and products globally. With 100 companies and organizations representing trillions of dollars of purchasing power and including leading chemistry and product innovators, we have a unique opportunity to scale solutions through marketplace and policy actions. I'm hopeful and confident that with open dialogue, value chain collaboration, compromise, and commitment, combined with thoughtful analysis and strategy, we can make large gains in growing green and sustainable chemistry solutions in the coming years. We couldn't do this without our incredible, innovative members and other important collaborators. Thank you for your continued support and leadership!

Sincerely,

A handwritten signature in green ink, appearing to read 'Joel A. Tickner', enclosed within a large, stylized green oval.

Joel A. Tickner, ScD  
Executive Director

## GC3 Vision and Mission

*The GC3 envisions a global economy where all chemicals, materials and products are safe and sustainable in their creation, use, transport, disposal, recycling, and reuse.*

*GC3 drives large scale commercial adoption of ever safer, more sustainable, high-performing chemical solutions by:*

- *Fostering value chain collaboration*
- *Cultivating first-movers*
- *Convening industry decision-makers to secure major commitments*
- *Creating a supportive policy environment*

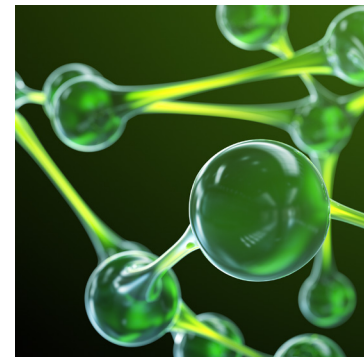


## What is Green Chemistry?

Green chemistry is the thoughtful redesign of chemical products and processes, applied at the molecular level, to eliminate the use and generation of hazardous substances. Green chemistry has tremendous potential, because intentional design has the power to improve the economic, environmental, human health, and functional performance of those products and processes. Sustainable chemistry encompasses the broader application of chemistry to achieve sustainability goals while reducing toxicity, energy use, waste and climate and biodiversity impacts throughout process and product lifecycles.

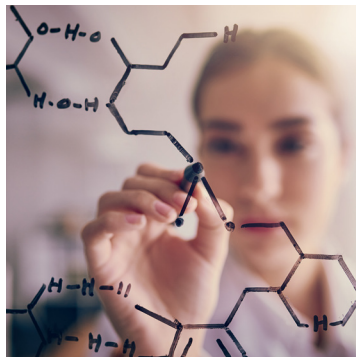
The decisions and information that guide design choices are scattered throughout the entire value chain of a product: From raw materials, up through several layers of chemical manufacturing and formulation, to product assembly and branding, to the shelves of retailers, and into the hands of customers. At any point in this long chain, the tenets of green and sustainable chemistry can be applied to make the products, and the methods of making those products, safer and more sustainable. And at every point in that chain, information is generated that can both enable the design of better chemistry and help to drive the demand for it.

The GC3 engages with companies, government officials, academics, non-profits and other organizations throughout this entire process. We bring these parties together on collaborative projects to target the systems, practices, and chemical functions most in need of innovation. The GC3 is the only organization that mobilizes the entire global value chain and multiple sectors to accelerate the commercialization of safe and sustainable chemistry.



**The decisions and information that guide design choices are scattered throughout the entire value chain of a product: From raw materials, up through several layers of chemical manufacturing and formulation, to product assembly and branding, to the shelves of retailers, and into the hands of customers.**





### 2021 Highlights:

- The GC3's **Sustainable Chemistry Alliance** scored a major US policy win with the passage of the Sustainable Chemistry Research & Development Act, 16 years after the bill was first introduced. The Alliance also garnered \$5M in grant funding for sustainable chemistry research and development at the US Department of Energy.
- After two years of collaboration, following the issuance of the earlier GC3 Transparency Road Map, the GC3 released its **Recommended Framework for Ingredient Disclosure for Articles** which aims to help streamline communications between retailers and suppliers in providing baseline chemical composition information.
- The GC3 **Blueprint of Green Chemistry Opportunities for a Circular Economy** was released in collaboration with the Ellen MacArthur Foundation and explores the synergies between green chemistry principles and the circular economy framework.
- The **GC3 Specifications for Green Chemistry Alternatives to Silicone Chemistry for Cosmetics & Personal Care Products** was published, designed to spur innovation by articulating clear criteria for alternatives to meet market demand.
- The GC3, along with the Sustainable Chemistry Catalyst at UMass Lowell, released a report entitled, **Green Chemistry: A Strong Driver of Innovation, Growth, and Business Opportunity**, which found a sharp rise in the market share of green chemistry-marketed household and personal care products between 2015 and 2020, compared to traditional products in the same product category.
- The GC3 released a **Landscape Analysis of Drivers, Enablers, and Barriers to Plasticizer Substitution** examining the constellation of factors related to successful adoption of plasticizer substitutes in various product categories.
- The GC3 hosted its first **European Innovators Forum**, modeled after the annual GC3 Innovators Roundtable, with virtual sessions tailored to fostering deeper collaboration in the European market context.
- The GC3 established a **Member Advisory Committee** with the goal of stewarding member feedback and relationships as well remaining abreast of market trends to accelerate the adoption of green and sustainable chemistry.



### Sustainable Chemistry Alliance

The GC3 Sustainable Chemistry Alliance is the US policy advocacy arm of the GC3, focused on furthering policies and incentives that will accelerate the discovery, development, commercialization and scale of more sustainable chemistry products and processes. In the US, strategic attention and investment by the federal government on advanced materials and manufacturing, particularly that reduces climate impact and increases circularity has catalyzed progress in numerous industries. The Alliance is focused on leveraging growing global market demand to drive US policy that stimulates innovation and funding for the development and application of safer, more sustainable chemistry.

In 2021, the Alliance's efforts paid off when the Sustainable Chemistry Research & Development Act was finally enacted, 16 years after the bill had first been introduced. This was the culmination of work the GC3 led, starting originally in 2007 and in a more organized fashion with the formation of the Alliance in



The GC3 and the US Department of Energy's Advanced Manufacturing Office (AMO), co-hosted a virtual stakeholder workshop to provide input from industry experts on AMO's efforts to incorporate sustainable chemistry processes and practices into the manufacturing of consumer and commercial products.

2018, intentionally cultivating a very broad coalition that spanned chemicals, biotechnology, consumer and commercial products and manufacturing trade associations, NGOs and others to effectively advocate together.

The Sustainable Chemistry Research & Development Act directs the White House Office of Science and Technology Policy to convene a multiagency task force that will, for the first time, coordinate federal funding and promotion of sustainable chemistry research and development across the entire federal government. By coordinating and amplifying these diverse government activities, the US federal government enhances its investment and enables faster progress in sustainable chemistry innovation and adoption which can create significant economic and job benefits. GC3's Executive Director, Joel Tickner, co-authored an article on the history of the Act in the journal *Issues in Science and Technology*.

The GC3 and the US Department of Energy's Advanced Manufacturing Office (AMO), co-hosted a **virtual stakeholder workshop** to provide input from industry experts on AMO's efforts to incorporate sustainable chemistry processes and practices into the manufacturing of consumer and commercial products. The workshop resulted in an AMO report issued in 2021, discussing five themes: scalability of feedstocks and sustainable chemistry processes, information-sharing and collaboration, supply chain integration, techno-economic and lifecycle analyses, and chemical manufacturing processes for energy-efficiency. The report also covered opportunities for continued sustainable chemistry advances, knowledge gaps, technology/commercialization barriers, and R&D needs to address those barriers. It

specifically identified the need for significant federal funding to amplify private sector efforts to incorporate sustainable chemistry into manufacturing consumer and commercial products.

The AMO stakeholder workshop grew out of language that the GC3 Sustainable Chemistry Alliance successfully added in the previous year's Energy and Water Appropriations report—calling for a Report to Congress on the potential benefits of sustainable chemistry in manufacturing. In related advocacy, the GC3 Alliance was also successful in including language directing \$5 million in spending on sustainable chemistry in funding opportunities announced in 2021.

**The Alliance is focused on leveraging growing global market demand to drive US policy that stimulates innovation and funding for the development and application of safer, more sustainable chemistry.**







### Retailer Leadership Council and Supply Chain Working Group

The GC3 offers members two common interest groups focused on different parts of value chain: The Retailer Leadership Council (RLC) and the Supply Chain Working Group (SCWG). Now in its eighth year, the GC3 Retailer Leadership Council (RLC) is a group of 14 major retailers working proactively to identify and communicate chemical functions of concern in products, develop and implement chemicals management policies/strategies, and engage suppliers in identifying safer, cost-effective high-performance alternatives. The RLC is designed to be an active learning community, sharing best practices, challenges, and lessons learned, and connecting with experts about the latest resources available to assist retailers in implementing their chemicals management programs.

The Supply Chain Working Group was formed in 2020 to provide a forum for brands, formulators, and chemical manufacturers to address the unique challenges they face in effectively responding to increasing market and policy demands for safer, more sustainable chemical ingredients. This group focuses on sharing understanding of barriers and enablers, delivering information and creating dialogue around the needs to advance the development, commercialization and adoption of green chemistry solutions. Suppliers, product manufacturers and brands are working to deliver those solutions quickly and cost-effectively—while matching the performance and cost of incumbent chemicals.

As a convener of the entire value chain, the GC3 works to facilitate understanding, connections and collaborative work between retailers and suppliers to accelerate the commercialization of green and sustainable chemistry. Among the highlights of 2021 work:



### Recommended Framework for Ingredient Disclosure for Articles

In June 2021, the GC3 finalized and released a recommended framework for ingredient disclosure for articles. This is the first multi-sector framework to enable consistent disclosure of chemical ingredient information for items such as furniture, home décor and office products.

The framework builds on earlier GC3 work on supply chain transparency and confidential information protection as well as a 2017-18 RLC initiative that culminated in the 2019 **“Statement on Chemical Innovation Priorities and Transparency Road Map.”** The Statement serves as a clear market signal from leading retailers, outlining chemical functions and priority product categories where innovation in safer alternatives is needed. The statement also outlined a road map to encourage improvement in supply chain and public transparency of chemical ingredients in consumer products.

To move the Transparency Roadmap forward, the GC3 brought together retailers and suppliers separately to develop an initial framework for article ingredient disclosure. Through months of collaboration, the GC3 facilitated an iterative process between member retailers and suppliers to create the “GC3 Recommended Framework for Ingredient Disclosure for Articles”. The framework is designed to streamline communications between retailers and suppliers regarding product ingredients, encouraging collaboration across the supply chain to innovate safer, more sustainable chemicals.

## Blueprint of Green Chemistry Opportunities for a Circular Economy

The GC3's "Blueprint of Green Chemistry Opportunities for a Circular Economy" was released in February 2021 and explores the synergies between green chemistry principles and the circular economy framework being advanced by the Ellen MacArthur Foundation and others. The Blueprint was designed as a starting point for ongoing dialogue on how to co-optimize the circularity, safety, and sustainability of chemicals, materials, and products, while minimizing potential trade-offs.

There are increasing policy, marketplace, and investor demands for more circular materials and products. Green chemistry and the circular economy share the fundamental goals of shifting towards an economy that uses resources efficiently and safely, thereby reducing waste and protecting human health and the environment. Both start with a fundamental rethinking of how to design chemicals, materials, products, and processes to be safer and more sustainable.

The concept of a circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems. Because the inputs that go into such a system can remain useful for much longer, a circular economy would consume far fewer resources and produce far less waste.

The GC3 recognized that green chemistry offers a powerful tool to meet those redesign challenges. The GC3 analyzed ways in which green chemistry can support and amplify the goals outlined in the circular economy models. The result is a "blueprint" that can help companies throughout the value chain as

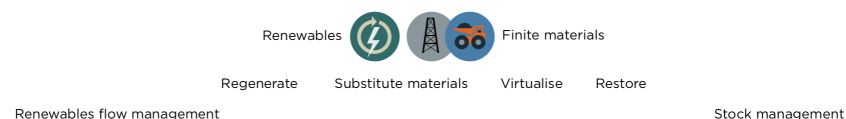
they make design, sourcing, and manufacturing decisions that co-optimize efforts to drive the circular economy and green and sustainable chemistry forward.

Following publication of the report, the GC3 convened a number of conversations with members to explore how to put the Blueprint into action, including circularity for formulated products, and will continue to use the report to engage discussions with members and others.

The concept of a circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems.

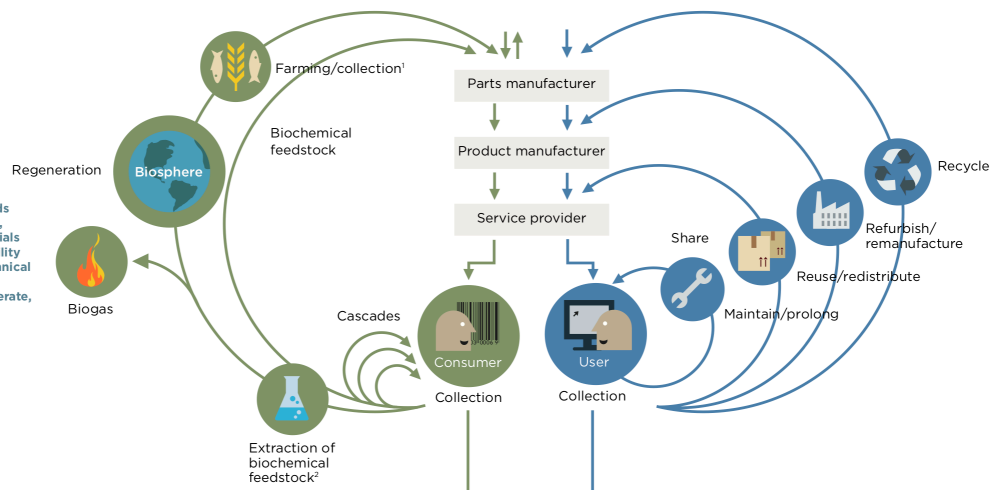
### PRINCIPLE 1

Preserve and enhance natural capital by controlling finite stocks and balancing renewable resource flows  
**ReSOLVE** levers: regenerate, virtualise, exchange



### PRINCIPLE 2

Optimise resource yields by circulating products, components and materials in use at the highest utility at all times in both technical and biological cycles  
**ReSOLVE** levers: regenerate, share, optimise, loop



### PRINCIPLE 3

Foster system effectiveness by revealing and designing out negative externalities  
**All ReSOLVE** levers

Minimise systematic leakage and negative externalities

1. Hunting and fishing  
 2. Can take both post-harvest and post-consumer waste as an input  
 Source: Ellen MacArthur Foundation, SUN, and McKinsey Center for Business and Environment; Drawing from Braungart & McDonough, Cradle to Cradle (C2C).





### Collaborative Innovation and Commercialization Hub

---

The core of the GC3's strategic plan is a heightened focus on driving commercialization and scale of safer, more sustainable chemistry. For years, the GC3 has engaged in Collaborative Innovation Programming that convenes companies from across the value chain to identify "pain points"—innovation challenges—as well as innovative green chemistry alternatives that can meet market demand for safer, more sustainable chemical ingredients. The GC3 Collaborative Innovation initiatives effectively leverage this constellation of circumstances:

- Many of the environmental and health concerns identified in consumer products are linked to core functional chemistries that give these products their desired functionality and performance.
- While these functional chemistries are often key to many products, they are not necessarily the cornerstone of any one brand's competitive advantage. With a trusted convener like the GC3, companies can be willing to pool their resources of expertise and experience to advance the search for alternatives in pre-competitive domains, for the benefit of all.
- Because of broad industry-wide buy-in, and the ubiquitous use of these chemistries, any green chemistry alternative that can be brought to market has the potential to yield rapid, widespread change.

The GC3 regularly updates its **GC3 Green Chemistry Technology Needs** document in which GC3 member companies including manufacturers, brands, and retailers have identified specific chemistry technology areas for which they are actively seeking more sustainable solutions. The GC3 maintains this list as a



technology scouting mechanism to engage innovative start-ups and others that may have solutions and leverages a number of activities throughout the year to connect solutions providers with larger strategics. The Technology Needs document, along with Member interest, also helps identify various Collaborative Innovation projects the GC3 undertakes. In 2021, the GC3 focused on two Collaborative Innovation projects, one on green chemistry alternatives for silicone chemistries in personal care products and the other on low VOC solvents in a range of applications.

### Specifications for Green Chemistry Alternatives to Silicone Chemistry for Cosmetics & Personal Care Products

---

For this project, 14 GC3 member companies representing chemical manufacturers, cosmetic and personal care product manufacturers, and the environmental services sector came together in response to recent regulatory and market drivers restricting the use of some silicone chemistries. This project resulted in the publication of a consensus criteria document entitled "*Specifications for Green Chemistry Alternatives to Silicone Chemistry for Cosmetics & Personal Care Products*." This GC3 member-developed document is designed to spur innovation by articulating clear criteria for alternatives to meet market demand. It is designed to help suppliers better understand cosmetic and personal care product manufacturers' priorities for silicone chemistry alternatives. A GC3 survey of these manufacturers during the project found such alternatives highly prioritized. Suppliers can also identify current applications and functions of silicone chemistries and inform testing strategies to assess safety and environmental impacts of alternatives. **The GC3 encourages the sharing of this document between suppliers and product manufacturers working to advance the development of safer, more sustainable alternatives to silicone chemistries.**

## Low VOC Solvents

---

In Summer 2021, a GC3 member company approached GC3 to leverage the collaborative strength of the organization to help address an increasing challenge in the market: limited chemical hazard assessment data on solvents designed to meet regulations limiting the use of volatile organic compounds (VOCs). The market is seeing an influx of low VOC (LVOC) solvents and formulations as a result of environmental product regulations in many markets and regions, including China, for example, restricting the use of VOCs in industrial protective coatings, adhesives, printing inks, and cleaning agents. The availability of LVOC alternatives is a step towards compliance; however, GC3 members tend to think beyond compliance and seek to minimize regrettable substitution and its associated time, brand, economic, and environmental and health impacts. A small team of four GC3 member companies representing different segments of the value chain developed a survey designed to identify market sectors and member interest in a collaborative project to develop a database consisting of com-



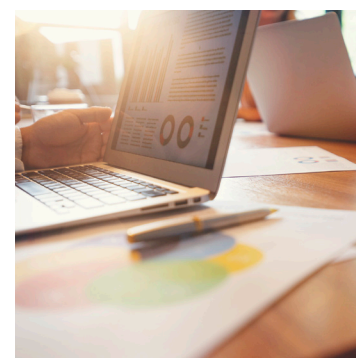
prehensive, comparable hazard information on LVOC solvents. In early January of this year the survey was issued to GC3 member companies, and positive feedback has expanded the team to 11 companies representing chemical manufacturers, formulators, and brands in multiple sectors. This action-oriented team is working to deliver a valuable tool to facilitate informed substitution in 2022. Watch the GC3 Member Update for more information or contact Julie Manley to join the team.

## Commercialization Hub

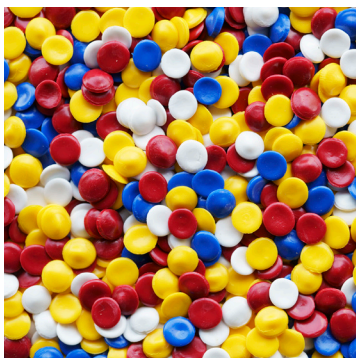
---

Years of success in bringing together the full value chain in building understanding of common challenges, needs, and enablers, along with our work in collaborative innovation the foundation for a more intentional focus on commercialization and scale. The Commercialization Hub (C-Hub), a centerpiece of the GC3's strategic plan, aims to accelerate the pace of green and sustainable chemistry innovation across the value chain. Throughout 2021, the GC3 undertook extensive member engagement and planning to launch the first C-Hub pilot project which focuses on sustainable preservative technologies. This project responds to an urgent need across multiple member sectors and product categories, as regulatory and market actions have significantly restricted preservation options for companies making everything from personal care products to paints and coatings.

The pilot builds on the innovative, successful 2018 GC3 Preservative Challenge that identified emerging preservative technologies with improved environmental health and safety profiles, convening two retailers, 11 brands, and six suppliers. That original workgroup, representing brands and retailers in the beauty, personal care and household products space, created a







road-map for change, signaling to suppliers and other potential innovators the specific criteria that their alternatives would need to meet to be considered for potential commercialization. The group issued a challenge for innovators to bring forward novel safe and effective preservatives. After testing and evaluation, seven finalists were chosen from the competing pool of 48 innovators, and those seven were awarded prizes and supported in their efforts to partner with interested suppliers and brands that participated in the workgroup.



The new C-Hub pilot builds on the earlier preservatives effort to develop an innovative "collaborative commercialization" process that can be used to guide the further development and commercialization of market ready or close to market ready alternative preservative technologies. This pilot will help establish the GC3 framework for actively supporting commercialization and scale of new safer, more sustainable chemistry alternatives. Learnings from this pilot will lay the groundwork for our future Commercialization Hub activities focused on additional chemical functions and applications of interest to members.



**The Commercialization Hub (C-Hub), a centerpiece of the GC3's strategic plan, aims to accelerate the pace of green and sustainable chemistry innovation across the value chain.**





## 2021 Events

---

### European Innovators Forum

From May 18–27, over 300 participants from Europe, North America, and Asia came together virtually for the GC3's first European Innovators Forum, a series of six sessions focusing on perspectives specific to the European market, including the EU's new Chemical Strategies for Sustainability.

The GC3 brought its distinctly collaborative, full value chain approach to dialogue on a series of topics, including Strategizing to Advance Safer, More Sustainable Materials, Innovating Under the EU Chemical Strategy for Sustainability, and Exploring Functional Substitution as an Opportunity for Essential Use Management.

Policymakers, companies, NGOs, and others had an opportunity to present, engage, and explore themes together with ample examples from companies deeply engaged in developing and adopting safer, more sustainable chemistry. A retailer-focused session examined Going Beyond REACH to Meet Consumer Expectations, while the Driving for Carbon-Neutral Circular Materials presentations highlighted the GC3's "Blueprint of Green Chemistry Opportunities for a Circular Economy." The final session, Commercializing Sustainable Chemistry in the EU, drew key lessons from 15 years of GC3 engagement with members to set the stage for discussion of the GC3's emerging focus on collaborative innovation and commercialization.

### GC3 Speed Scouting

With more than 50 companies participating, the 2021 GC3 virtual Speed Scouting event provided ample networking opportunities for large strategic companies and startups alike. Using a panel format, technical and investment experts asked questions of GC3 start-ups regarding recent advances in new products, markets, scale-up, and commercialization. As part of the structured networking, participating strategics were able to sign up for 1:1 follow up meetings with the startups, resulting in extensive follow-on discussions.

### GC3 presentations at government and industry meetings

As a result of GC3's reputation as a knowledgeable, trusted convenor, GC3's Executive Director, Joel Tickner, and staff are often invited to present on GC3's experience and strategies at government and industry forums. In 2021, GC3 presented at more than 15 meetings, including the Household and Consumer Products Association Annual Meeting, the German Ministry of Environment Transformation Conference, the European Chemical Industry Association (CEFIC) Digital Week, Helsinki Chemicals Forum, and *Chemical Watch's* Global Chemicals Management Conference. GC3 was featured in several articles in *Chemical Watch* and other trade journals.



### **The Sustainable Chemistry Catalyst**

The Sustainable Chemistry Catalyst is a research and strategy initiative, based at the Lowell Center for Sustainable Production (University of Massachusetts Lowell), that is focused on accelerating the transition to safer, more sustainable chemistry through research and analysis, and stakeholder engagement with scientists, policymakers, and commercial actors. The Catalyst works to understand barriers and opportunities to commercialization of safe and sustainable chemistry, identifies model solutions and strategies, develops methods to evaluate safer alternatives, and builds a community of expertise to support the transition to safer, more sustainable chemistries and technologies, including hosting the Association for the Advancement of Alternatives Assessment. The Catalyst frequently authors reports and articles on key topics related to green and sustainable chemistry, identified by GC3 members and others as priorities. In 2021, the Sustainable Chemistry Catalyst led the development of two reports for GC3.

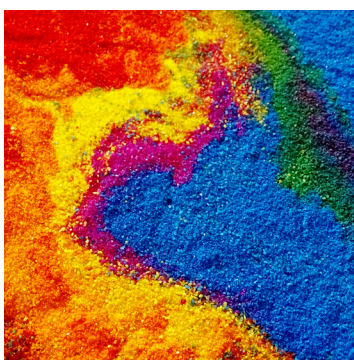


### **Green Chemistry: A Strong Driver of Innovation, Growth, and Business Opportunity**

In November 2021, the GC3 released a major report outlining the economic and business imperative for investment in green chemistry solutions. The report was developed through the Sustainable Chemistry Catalyst in partnership with NYU Stern Center for Sustainable Business, North Carolina State University, the Dynamic Sustainability Lab at Syracuse University, and Duke University.

The report includes a powerful analysis of consumer trends related to green chemistry-marketed personal care and household products that documents significant growth in green chemistry-marketed products, both in sales and consumer demand.

The analysis found green chemistry products delivered 62% of market growth, 12.6 times faster than their conventional counter-



parts. In eight out of 10 categories, growth in sales of such products outpaced the growth of their respective categories. Product categories included automobile wax, dish detergent, floor cleaner, household cleaners, pavement de-icing, pool chemicals, skincare, soap, suntan lotion, and laundry detergent. On-packaging messaging included phrases like "EPA Safer Choice," "plant-based," "organic," "phthalate free," and "paraben free."

Through an industry survey and GC3 member case studies, the research team found that, in addition to consumer activity, growth of the green chemistry sector is being fueled by investor expectations as well as government policies like the European Commission's Chemicals Strategy for Sustainability. Leaders across the value chain are taking note: in a survey of 55 companies, 84% say they've increased investment in R&D of green chemistry products during the analysis period, with 98% anticipating continued investment over the next five years.

The sector's trajectory indicates a strong source of job and economic growth: for every job created in the green chemistry industry, on average, eight additional jobs are created, and for every dollar of value-added created, over six dollars of value-added are created throughout the U.S. economy.

### **Landscape Analysis of Drivers, Enablers, and Barriers to Plasticizer Substitution**

In December 2021, the GC3 released a report entitled "Landscape Analysis of Drivers, Enablers, and Barriers to Plasticizer Substitution" to identify barriers and enablers to the adoption of green and sustainable chemistry that can be effectively leveraged to accelerate commercialization and adoption actions in the future. Safe and effective plasticizer options were identified by GC3's RLC and other supply chain actors as a key area of innovation need. GC3 hosted two in person meetings to identify challenges to and success sto-

ries of plasticizer substitution and conducted case studies on key product sectors. The analysis found factors supporting successful substitution hinged on brand action, customer expectations, NGO campaigns, regulations, and the availability of suitable substitutions. It also concluded that the substitution process is complex and that the enablers and barriers are often dependent on context.

One of the major findings of this report is that a clear, nuanced understanding of enablers and barriers can support the design, the business cases/plans, and executive-level commitments across the value chain to pull through green and sustainable chemistry options. The GC3 will continue to improve the utility of the evaluation framework used in the report to establish critical background knowledge that will enable the development of strategies to accelerate the commercialization and adoption of green chemistry solutions for other chemical functions and applications.

**“When new members understand the value proposition of the GC3, they get excited. GC3 is a connector and convener of the value chain that otherwise would not have an opportunity to talk to each other. GC3 is the difference between what is being developed and what is needed.”**

— Eunice Heath, Corporate Director of Sustainability,  
Dow Chemical Company

**“The GC3 catalyzes effective collaborations and partnerships across the supply chain that can't be found in any other context. We get tremendous value from making these connections and learning about the latest developments in green chemistry”**

— Paul Ellis, Head of Sustainable Chemicals Management,  
Kingfisher

### Top Ten Reasons to Join the GC3?

The GC3 is a vibrant and diverse network of companies working together to advance the commercialization and scale of green and sustainable chemistry solutions. Here are the top ten reasons to join:

1. Identify green chemistry technology needs throughout the supply chain
2. Discover the latest green chemistry technologies for specific industry applications
3. Learn about and connect to cutting-edge green chemistry research and technology development in universities and in startups
4. Learn and share best practices that can accelerate your green chemistry innovation program
5. Connect with industry leaders from a range of sectors and across the supply chain to exchange ideas and build new business partnerships
6. Get the latest information on green chemistry trends: market demand and growth, retailer initiatives, capital investments, chemical restrictions, regulatory risk and consumer demand
7. Tap into the GC3's broad network of contacts and expertise in green chemistry, environmental health and public policy
8. Identify technologies and chemical management strategies that can advance efforts to meet your corporate Sustainable Development Goals
9. Enhance your company's brand reputation by demonstrating its commitment to green chemistry and sustainability
10. Receive priority registration and discounted registration for the annual Roundtables

If you are interested in becoming a member or sponsoring the research or engagement efforts of the GC3, please contact Jennifer MacKellar, Program Director, at [jenny@greenchemistryandcommerce.org](mailto:jenny@greenchemistryandcommerce.org).