

10th Annual GC3 Innovators Roundtable Session Summaries

Wednesday, April 29th

Session III

Thinking Outside the Box: Innovative Business Efforts to Accelerate Green Chemistry

Matt Dwyer, Patagonia Rey Banatao, Connora Tech Ken Geiser, University of Massachusetts Lowell *(moderator)*

Patagonia is driven by their goal of building the best product and causing no unnecessary harm. They consider people in their supply chain as well as materials. Patagonia has set up a venture fund to invest in sustainable/environmental technology. They are committed to reducing the impact and toxicity of their textile finishes. These directives come from Patagonia's C-suite, which is committed to proactively doing environmental good.

Connora is attempting to make reversible, recyclable thermosets. While thermoplastics are highly recyclable, thermosets are typically designed to be permanent for high-performance applications. Connora's Recyclamine technology creates thermosets with programmable cleavage points which can be "unzipped" by light or pH changes, allowing the components to be reused and value recaptured. The cost of the production process is currently prohibitive, but Connora is working with the sporting goods industry and epoxy manufacturers to license and improve their technology. It has established small scale, niche product models – for example in mini surf boards – to show proof of concept and gain a strong following.

Opportunities for Safer Chemicals and Products

• textile, apparel, and sporting goods industries have complex supply chains with many opportunities for improvement

Key Drivers for Green Chemistry

- businesses are interested in safer products
- customers desire greener products

Challenges for Implementation

- complex supply chains
- desire for IP can slow or block collaborative efforts
- lack of interest from high up in organization

Helpful Actions

- partnering with suppliers and committing to buy green solutions
- understanding and commitment from high up in corporate ladder
- brands using their power to "pull" supply chain
- supply chain aligning with green chemistry
- identify toxicity early on in development

Role for the GC3

- bring different levels of supply chain together at the table
- create collaborative efforts that avoid IP issues
- provide tools for educating/convincing C-suite