

## GC3 Mainstreaming Green Chemistry Project Group Project Break Out Group Discussion, May 30, 2014

Some overarching thoughts provided by Bob Israel (Valspar):

What role can GC3 play? How can we level the playing field? What role can government play? Can we build a framework of how things work from ideation to product launch?

- Who identifies the problem (or opportunity)
- what are we going to design
- who should be involved
- what communication is involved
- R&D
- Scale up
- Launch

This could be a framework for developing case examples and involving stakeholders

### Discussion

- Who is the audience? Everyone
- Map who is doing what (alternatives assessment needs case examples), how to mainstream the next generation, how raise all ships to a common focus
- Education group is already doing that, innovation group looking at how product is brought to market. What are the other barriers? Look at Presidential GC Award Winners
- Unified vision needed, macro scale. EPA could serve a role by putting out a challenge
- What is driving the market? Electronics (WEE), automotive (End of Life Vehicle), different end market and sectors, where is the driver?
- NGOs have a role to play in education, explaining why green chemistry is good for the environment and public health
- Alignment of purpose is needed
- Lots of research goes on, but little gets to market. Innovation doesn't mean something gets to market.
- Overlay the map idea with presidential green chemistry examples- map success stories and failures.
- ACS works on analysis of presidential GC awards. Produced two documents with real world cases on GC. A lot of documents have been published about the winners. What is our endpoint? Language- toxics removal and safer chemicals, have to change chemistry and chemical enterprise to do that. Need big disruptions, like Ecovative and fungus, new chemical feedstocks such as sugar. These can eliminate jobs, need business case on a macro scale about how jobs are created overall.
- The challenge is in engaging and coalescing the pieces, finding examples
- Use social media to disseminate information
- Look at supply chain, horizontal and vertical integration
- Big end users out there need the pull, need the customer. Who is next to get in the room after the retailers
- Help chemical companies see the next issues, bring together, or have tool. How enlighten issues/concerns that companies are facing?
- Reach outside of this community- marketing, purchasing, economic developers
- Visions/goals for specific areas? Do back-casting- in 20 years, how would companies be acting differently? Government? Customers? Investors? Etc? Then actions would be clearer

- Waste treatment people are part of the supply chain, bridge the discussions
- Need whole session to talk about who the stakeholders are. What do we want to message
- Set the table and let stakeholders talk. Let them ID holes and ways to collaborate. Keep definitional bar of what Green Chemistry is high= big, transformational changes. Keep in mind language issues, for example, chemists vs biologists. Most success is 1:1 mentorship programs.
- Map ecosystem and build coalitions
- Cancer-free economy systems mapping would be useful for us to look at
- Investors- there is \$ in early stage companies, money for commercialization is a problem. Investor community and banks look to industry for information about the industry (Natureworks example).
- How can the timeline of idea to commercialization be shortened?
- Regulation as driver. NGOs can work with industry to develop better regulations
- GC3 should make sure its own house is in order, first- get our members doing better before we broaden the message and ask more of others.