



ACS GCI CHEMICAL MANUFACTURER'S ROUNDTABLE 2011 YEAR IN REVIEW

The ACS Green Chemistry Institute® Chemical Manufacturer's Roundtable (Roundtable) is a partnership between the ACS Green Chemistry Institute® (ACS GCI) and chemical manufacturers united by a shared commitment to integrate the principles of green chemistry and engineering into the business of chemical manufacturing. The Roundtable's activities reflect the joint belief that the pursuit of green chemistry and engineering is imperative for a sustainable business and environment.

The Roundtable's mission is to provide leadership and education in the interpretation and implementation of green chemistry and green engineering principles* as applied in the chemical manufacturing industry by providing a consistent source of credible, scientifically sound information on the application of the principles to chemical manufacturing industry stakeholders to influence policy, standard setting organizations, and third parties directly relevant to the chemical manufacturing industry. *as defined by [NSF/GCI/ANSI 355 Greener Chemicals and Processes Information Standard](#).

The ACS GCI Chemical Manufacturer's Roundtable welcomes the active participation of member companies including establishments producing basic chemicals, and establishments manufacturing products by predominantly chemical processes. Establishments manufacture general classes of products such as basic chemicals and specialty chemicals, including acids, alkalies, salts, organic chemicals, and polymers to be used in further manufacture and formulation. Current members include DuPont, Sigma Aldrich, Dixie Chemicals, Pennakem, BWA Water Additives, Segetis, Purac, and Arizona Chemical.

From its launch in June 2010 through 2011, the ACS GCI Chemical Manufacturer's Roundtable has been setting the framework to make significant contributions to green chemistry and engineering in the industry by focusing on the strategic priorities summarized below. The collaborative work of the Roundtable in 2011 is highlighted here in alignment with the group's respective strategic priority.

Strategic Priorities

- To identify, communicate, and consistently promote green chemistry and green engineering best practices within the industry especially with regard to metrics.

Roundtable members shared examples of green chemistry and/or green engineering applications in their company to demonstrate the benefits of green technology to the company and society at large. The examples were then incorporated into a brochure promoting green chemistry and engineering and the ACS GCI Chemical Manufacturer's Roundtable.

The Roundtable performed a benchmarking exercise to understand the green metrics implemented at each member company. While the metrics varied and were implemented at the corporate level, product level, or the process level depending on the company, the common denominator was that all companies aligned their metrics with the business, utilizing the metrics that were most appropriate for their business needs. The Roundtable will be exploring this further in 2012 by initially defining the characteristics of good green metrics.

- To encourage policy & standard setting organizations to adopt the Roundtable identified best practices.

By providing standard setting bodies with feedback based on the consensus of our membership and leveraging the independent position of ACS GCI, the Roundtable provides a resource to standard setting bodies and provides our members an opportunity for a stronger voice representing than a single company may be able to achieve independently. The Roundtable met with NSF International to provide feedback on future implementation of the [NSF/GCI/ANSI 355 Greener Chemicals and Processes Information Standard](#). The Roundtable also discussed the Sustainable Chemistry Program with the National Science Foundation's Director of the Division of Chemistry.

The Roundtable also prepared a compilation of green certifier organizations (including the criteria for greenness, target markets and products for that certification) with the intent to provide an analysis of the organizations to improve chemical manufacturer's knowledge of green certifier organizations.

- To educate external chemical manufacturer stakeholders on the best practices and principles.

The Roundtable believes that leadership is demonstrated by action, and chose to educate stakeholders by exhibiting and presenting in various arenas including the 15th Annual Green Chemistry & Engineering Conference in Washington, DC, and the Cleaning Products Conference in Arlington, VA.

The Roundtable co-hosted the ACS GCI Roundtable Poster Reception, a networking event hosted by the three ACS GCI industrial roundtables (pharmaceutical, formulators, and chemical manufacturers). The reception focused on the opportunities and availability of greener alternatives. Four companies, Amway, Genencor, Novozymes, and NSF International, sponsored the event where posters were presented by 26 organizations representing industry, trade associations, academia, and not for profit organizations. Following the event, the approximate 100 attendees were surveyed, and most notably, 72% of survey respondents learned about a greener technology, material, market need, or research idea that may be applicable to their organization. Additionally 100% of poster presenters and attendees would encourage others to present and/or attend a future reception. Based on this success, the reception will now be an annual event as part of the Green Chemistry & Engineering Conference held in June each year.

The Roundtable will continue to collaborate with the other ACS GCI Roundtables to share at least one common goal in 2012 to elevate the impact of all of the efforts.

- To define and communicate opportunities that could significantly improve the ability to effectively implement green chemistry and green engineering in the chemical manufacturing industry, recognizing any success could have a global impact on sustainability in the chemical enterprise.

The Roundtable performed a survey to assess the greatest challenges to green chemistry and engineering implementation in the chemical manufacturing industry. The area of renewable chemical feedstocks was deemed the space in which the Roundtable should increase its focus. In 2012, the Roundtable plans to initially focus on the promotion/advocacy of sensible use of renewable chemical feedstocks. The group recognizes the need to encourage renewable chemicals while focusing on the performance of the chemical as well as the environmental profile as compared to petroleum-based chemicals.

The ACS GCI Chemical Manufacturer's Roundtable thanks all of its members for their commitment to green chemistry and green engineering, and looks forward to another productive year in 2012.

**For references or membership information, email gci@acs.org or
go to www.acs.org/gci_chem_mfr.**