

**How to Stimulate Green Chemistry Technologies Work Group
Discussion Questions
September 12, 2007**

The How to Stimulate Green Chemistry Technologies Work Group identified questions pertinent to this part of the Green Chemistry Initiative. We welcome your comments and insights to any or all of the questions posted below. Please submit your responses to the [California Green Chemistry Initiative Blog page](#).

How do you think California can stimulate a Green Chemistry transformation in the design of products and processes?

We've received a number of suggestions for how California can stimulate green chemistry. Most of the options are captured under the following general categories:

- research
- economic incentives
- consumer choices/market forces
- education
- awards and recognition
- technical assistance/information dissemination, and
- regulatory/statutory requirements.

Below are some questions in these areas that we hope will further the discussion. Please let us know what you think!

Existing models:

What specific provisions or elements of other programs – in other states, USEPA, internationally – should California consider adopting in order to stimulate green chemistry? Please cite references where possible.

Research:

Are there specific areas of research that should be pursued by the State? What do you see as the highest priority information needs or data gaps that present obstacles to producing greener products and utilizing greener processes? Please provide ideas on the role that State can play in engaging in or promoting research to fill these gaps.

Life Cycle Assessment (LCA) has been mentioned as an important tool for business (or government) to use in decision making, not only to help guide better environmental decisions, but also for the potential long-term economic advantages it may offer companies. How can more businesses be encouraged to conduct LCAs to guide key product design and production decisions?

Economic Incentives:

What taxes or other incentives / disincentives should be considered to steer behavior towards green chemistry / green engineering? If you know of examples that have been effective elsewhere, please describe these. For example, would a program offering grants or low interest loans to retrofit equipment to accommodate 'greener' alternatives be effective? If so, what should be the priorities for targeting such grants?

Consumer choices/market forces:

The concept of government “leading by example” is sometimes cited as a positive factor to influence the wider application of new and more environmentally friendly activities. Do you believe these environmentally preferable purchasing programs by government and the use of green products and technologies can be a useful tool to stimulate green chemistry in California?

What can be done to encourage consumers to purchase and/or demand safer products? Public service announcements such as anti-litter campaigns, fire prevention, and others have been used to encourage people to take or avoid certain actions. Should the government market ‘Green Buying’ to educate and encourage people to buy and use safer product or adopt safer practices?

What kind of market research should be done – directed at consumers? Retailers? Wholesalers? Importers? Manufacturers?

Some have suggested we are entering a phase of marketing where products and services may be promoted as ‘green’ to attract customers increasingly interested in product safety and the environment. If this is the case, what can be done to guard against this kind of “greenwashing” of products? What mechanisms should be put in place to ensure the validity of green product claims?

Green chemistry education:

One suggestion has been that the university system should develop programs in green chemistry and engineering. Do you think this should be done? Any specific ideas?

Could endowments or scholarships for the study of green chemistry play an important role?

How about K-12 education? Should green chemistry concepts be taught in the classroom?

Awards/Recognition:

How can recognition or awards be used to encourage green chemistry? What types of recognition by government will be most effective?

Technical assistance/information dissemination:

Are there priority industry sectors or product categories where the State should focus first in forming partnerships, developing guidance, etc.?

What are the best models for businesses to use in doing ‘safer chemical substitution’ analyses?

Please suggest ways by which the State can systematically disseminate information, provide technical assistance, and facilitate the sharing of data and information useful to businesses in developing “safer” processes and products.

Regulatory/statutory requirements:

Should there be requirements placed on labeling ‘green’ products, similar how the term ‘organic’ is allowed to be used in foods? Are there better models?