



NASA Green Engineering Masters Forum
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California Green Chemistry Initiative: Updates

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California Department of Toxic Substances Control

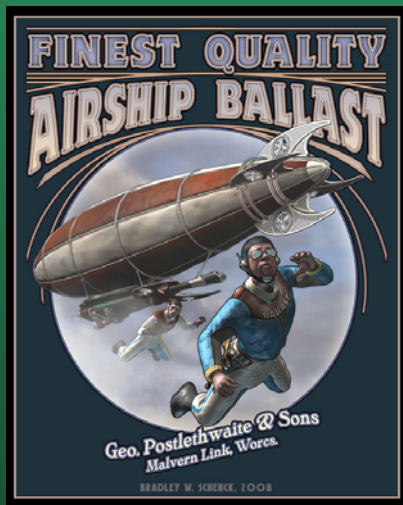


Disclaimer

Opinions presented today are those of the presenter.

The policy approach of the Green Chemistry Initiative is still evolving through stakeholder input.

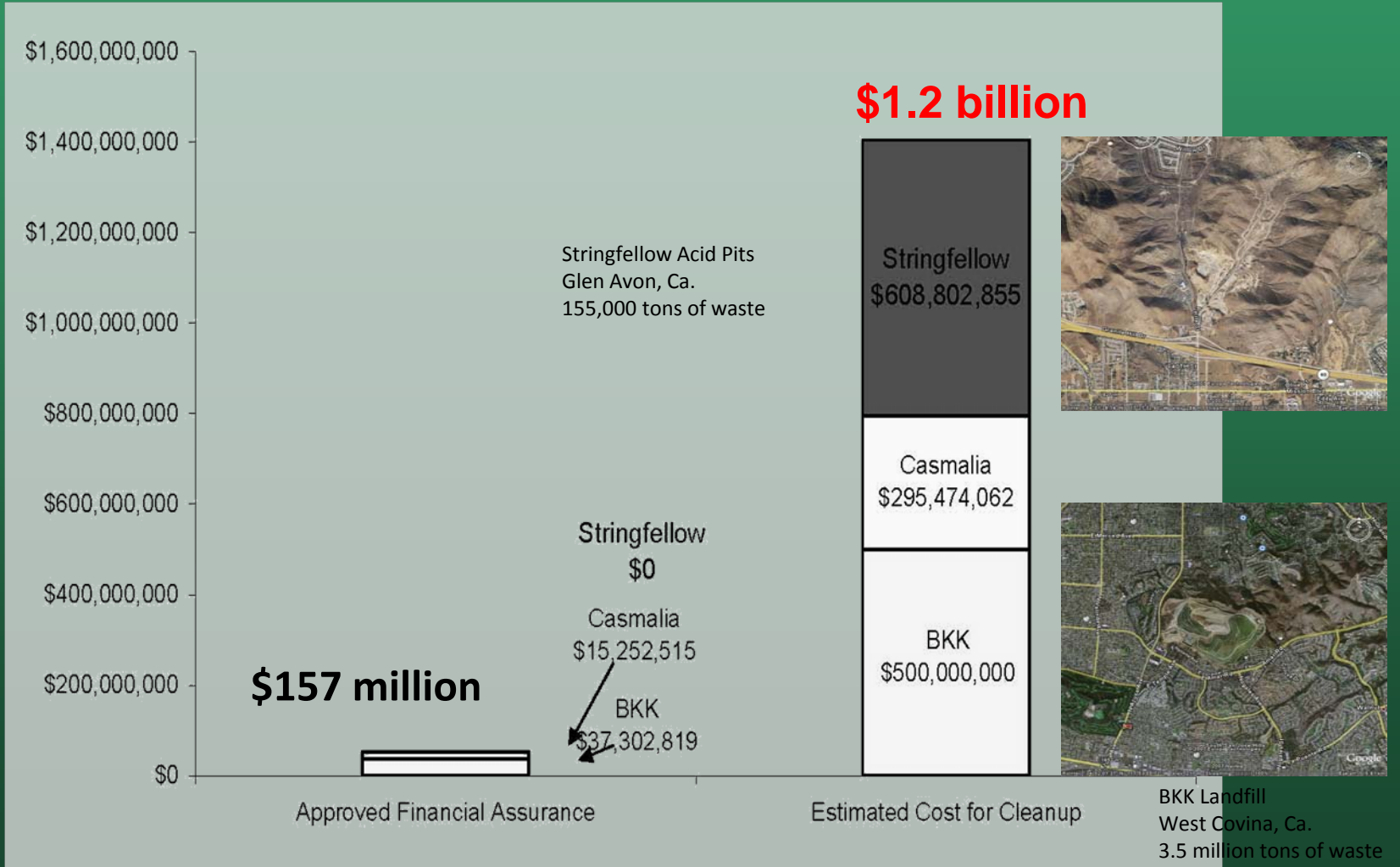
What you hear today may not represent a final position, policy or approach.



Graphic by Bradley W. Schenck @ <http://www.webomator.com/bws/>



Failed Graves: Reduce Public Long-Term Cost of Management





Annual Economic Costs of Selected Human Health Disorders in California, Connecticut, and New York (in millions of 2006 dollars)*

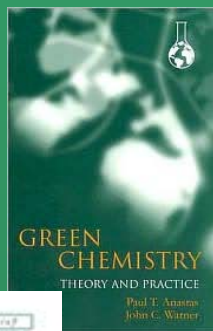
Disease	California	Connecticut	New York	Totals (by disease)
Childhood Asthma	\$289 (range: \$96 - \$338)	\$28 (range: \$9 - \$33)	\$154 (range: \$51 - \$181)	\$471
Childhood and Adult Cancers	\$1,260 (range: \$503 - \$2,510)	\$122 (range: \$49 - \$244)	\$670 (range: \$268 - \$1,340)	\$2,052
Neurobehavioral Disorders (non-lead)	\$1,390 (range: \$700 - \$2,780)	\$140 (range: \$70 - \$270)	\$740 (range: \$370 - \$1,480)	\$2,270
Neurobehavioral Disorders (lead-only)	\$6,560	\$637	\$3,500	\$10,697
Totals (by state)	\$9,499	\$927	\$5,064	\$15,490

*Costs are "best" estimates within the ranges shown.



California Green Chemistry Initiative

- Goal: Leadership in innovation, use, and manufacture of safer, ever more environmentally benign chemicals and products.
 - Producer Responsibility
 - Create incentives that fill the marketplace with information about products
 - Move market thinking beyond “Reduce, Re-use, and Re-cycle”
 - Not abandoning the original GC definition or principles
 - GC has become the symbol of broad policy objectives

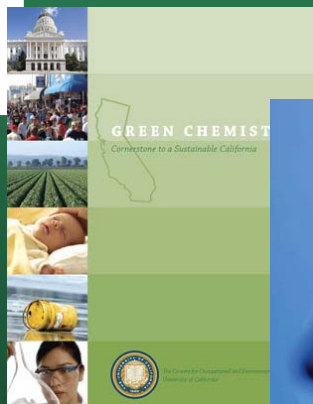


Progress...



AB 1879 Alternatives Analysis

SB 509 On-line Clearinghouse



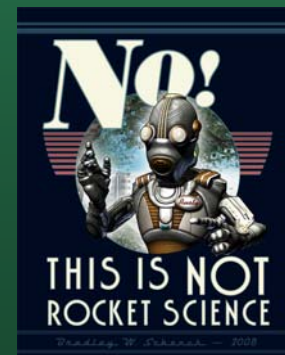
Dr. Megan Schwarzman & Michael Wilson





Options

California Green Chemistry Initiative Final Report



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On-line Toxics Clearinghouse

- Established by SB 509:
 - “Decentralized Web-based system for the collection, maintenance, and distribution of specific chemical hazard trait and environmental and toxicological end-point data”
 - “Accessible to the public through a single Internet Web portal”
 - DTSC shall “operate the clearinghouse at the least possible cost to the state”



Senator Joe Simitian
D-Palo Alto



AB 1879

Accelerate Quest for Safer Products



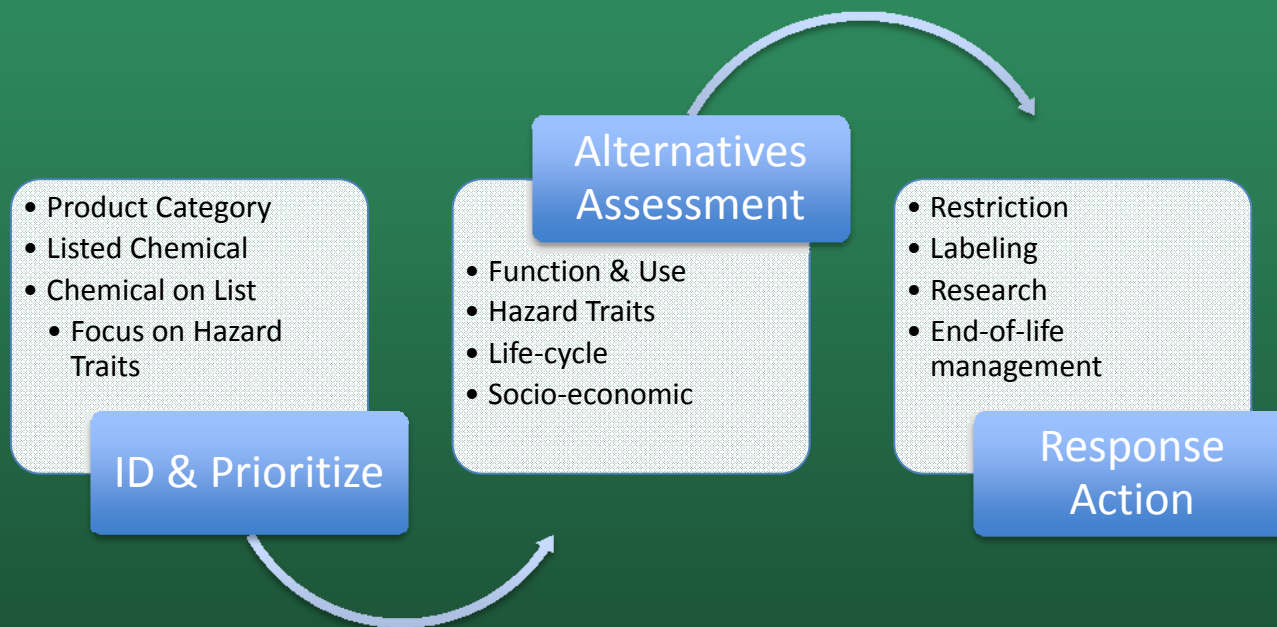
Assembly
Member
Michael Feuer,
42nd District

- DTSC shall establish a process to identify and prioritize chemicals of concern in consumer products, which will include:
 - Volume in commerce
 - Exposure potential
 - Potential effects on sensitive subpopulations
- As part of the process, DTSC shall develop criteria for evaluating chemicals and alternatives, which will include:
 - “The traits, characteristics and endpoints that are included in the clearinghouse data”



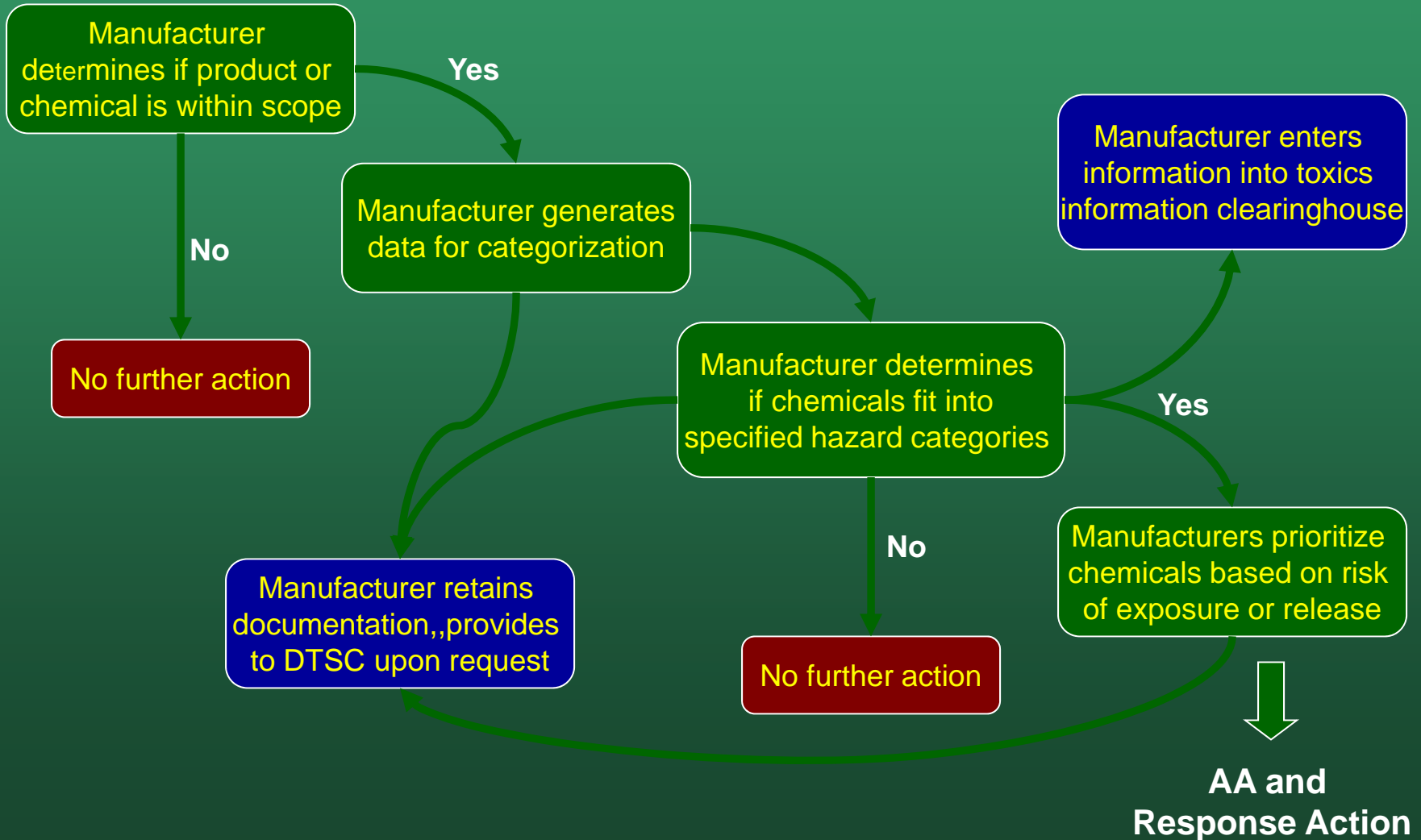


Process Concept



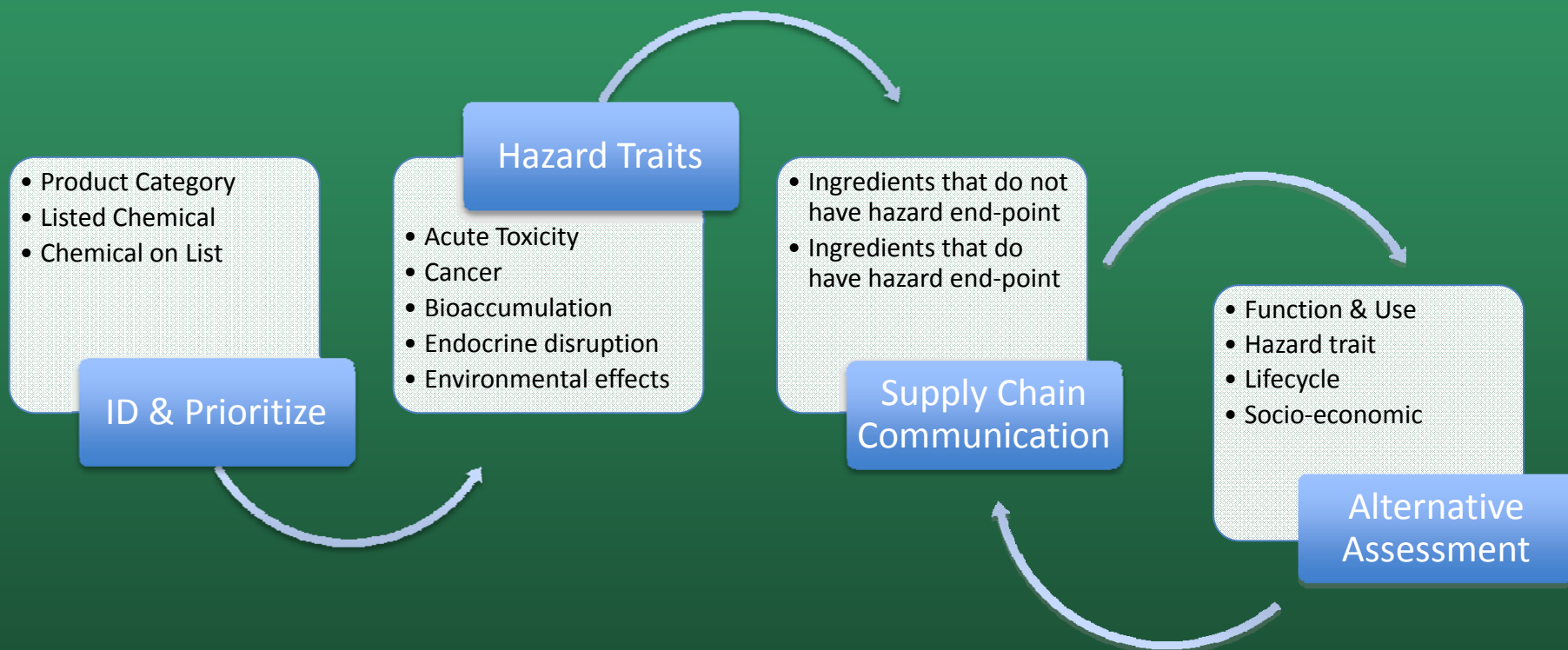


Identification & Prioritization



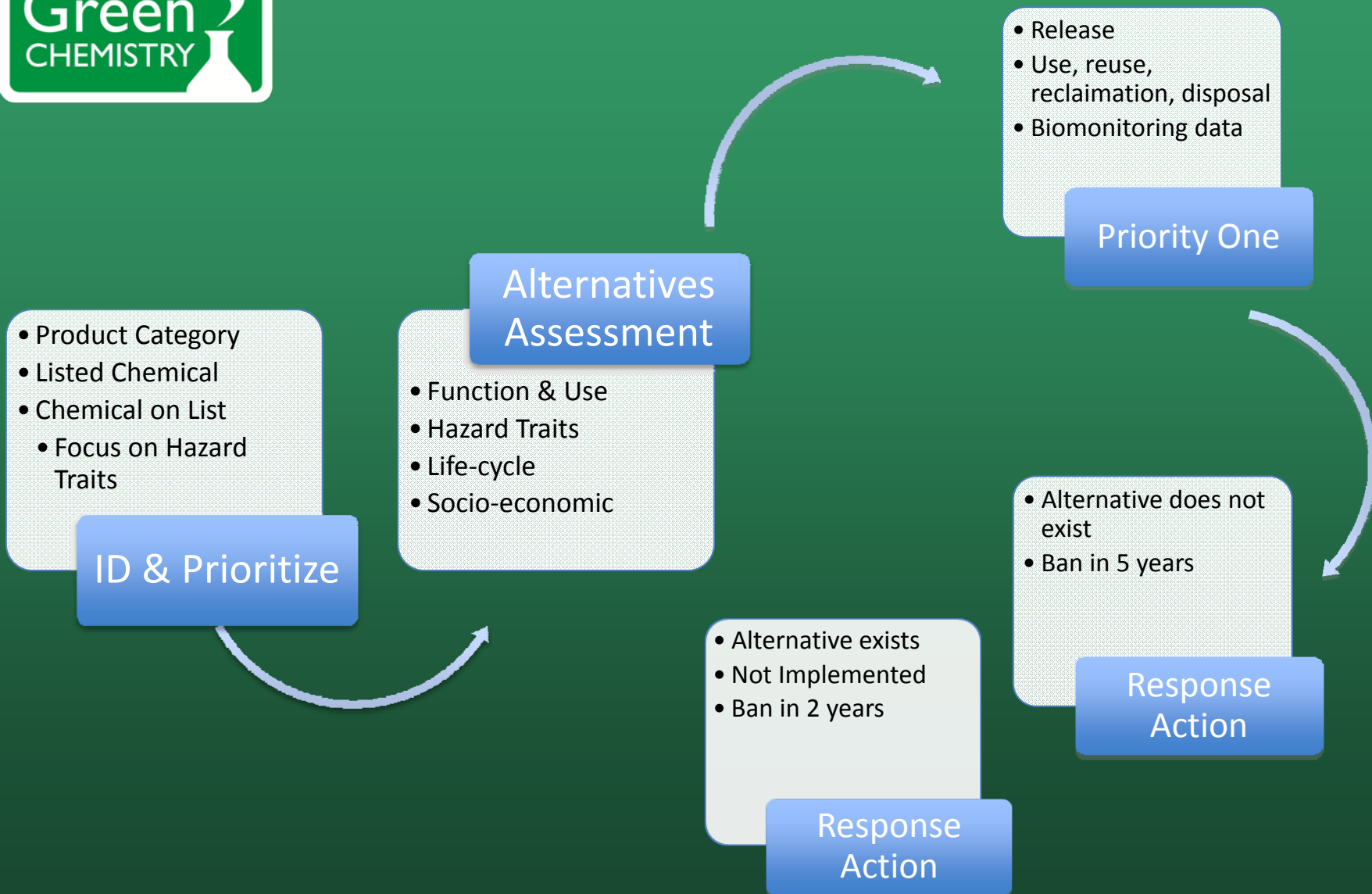


Alternative Analysis & Supply Chain Communication



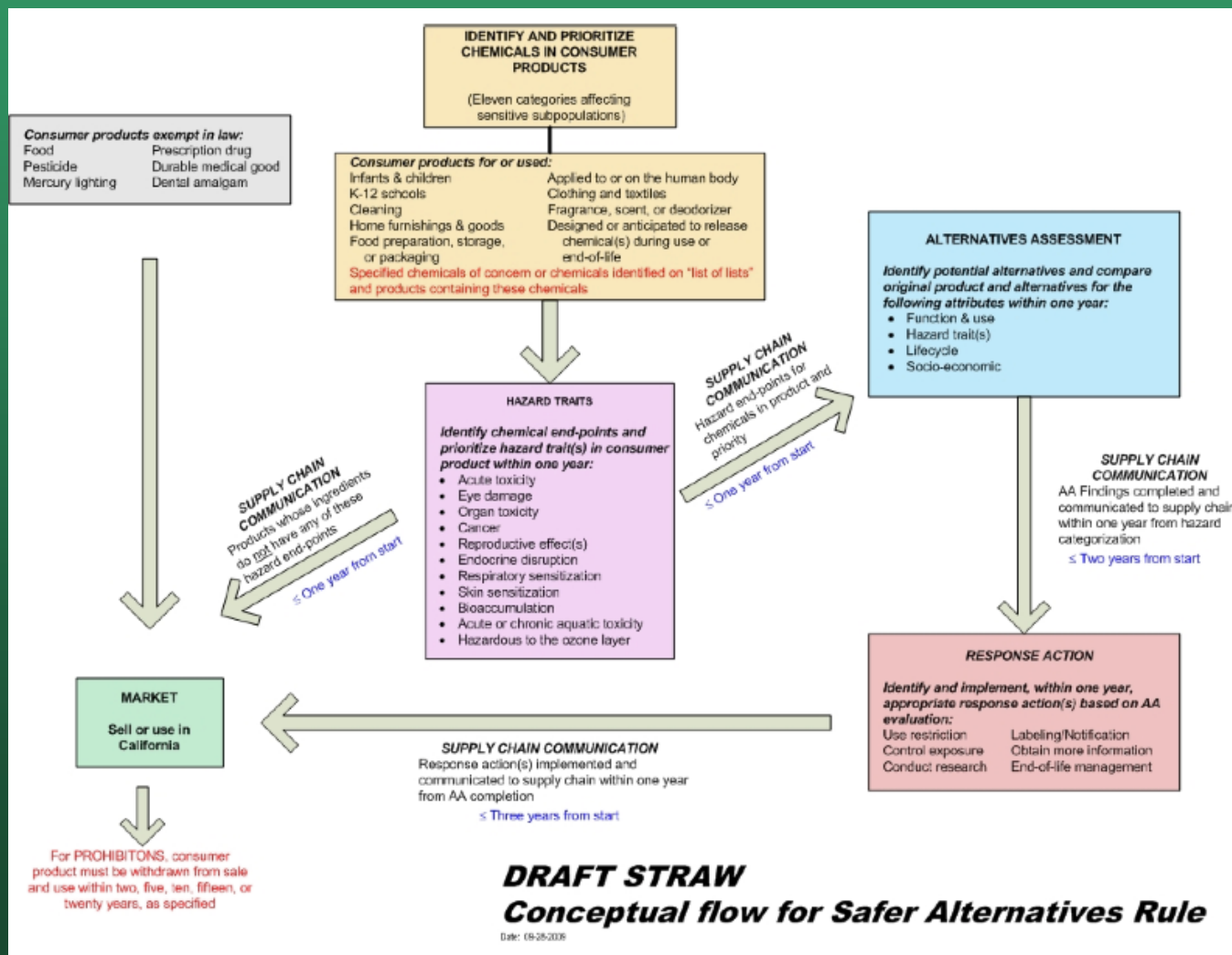


Response Action





Concept Integration





Nanomaterials

*Sustaining Innovation and Success by
Maintaining Trust in the Marketplace*



Margo Johnson,
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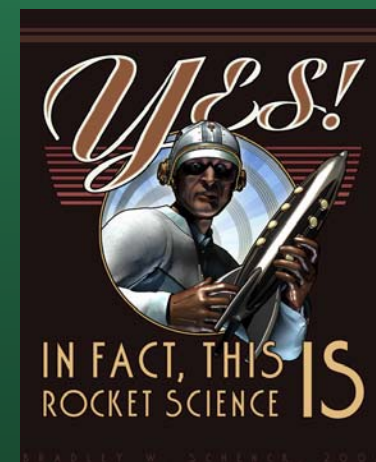
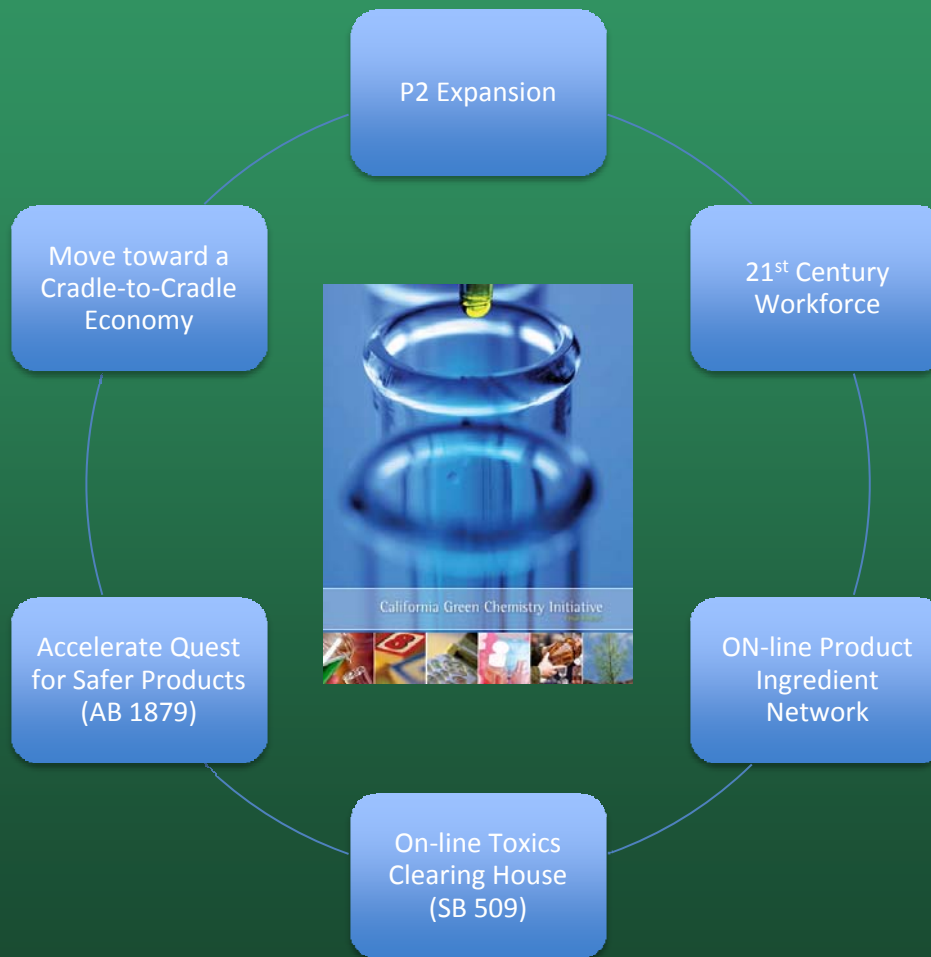
- **Unique properties**
- Unknown hazards associated with size, shape, chemical/physical properties, etc.
- Unknown exposures
- Lack of standardized analytical and hazard evaluation methodologies...

- AB 289, 2006, Assembly Member Wilma Chan
- **Mandatory Data Call-in**
- Public-Private Partnership
 - DTSC-UC-Nanotech Sector





4 more GCI options !

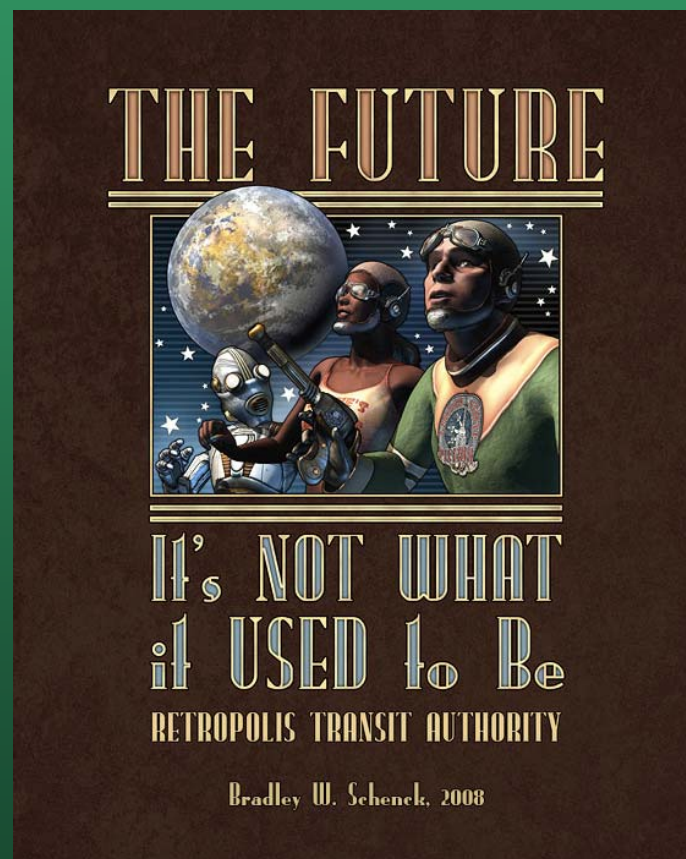


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Thank you !

- Thank you very much for your attention !!
- Thank you to NASA for the support
- Questions ?



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