

Frameworks for Alternative Chemical Assessment Role for HESI

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Outline

- Recap of issue
- Drivers – why action needed now?
- What HESI provides
- Value of project

Proposal

- Current proposal combination of two separate proposals
 - Dow Chemical
 - ExxonMobil
- Reinforces that alternatives assessment frameworks/initiatives are an important scientific area of growing concern

Recap of Issue

- Increased focus on replacing potentially harmful chemicals with safer, greener alternatives
- Methods are largely hazard-based, vary greatly which can lead to different conclusions and recommendations
 - Confusion
 - Unintended consequences
 - Approved substances meet requirements of low hazard but not other performance criteria
 - Missed opportunity to promote use of a more sustainable option.
 - Erode public confidence/trust

Regulatory & Marketplace Trends

Suggest the Time is Now!

- Regulatory Trends
 - Increasing focus on PBT, CMR, etc., and the identification and elimination of such products from commerce
 - REACH Authorization
 - CA Safer Consumer Product Alternatives regulation
 - TSCA Reform
 - Marketplace Trends in “Green” Chemistry
 - Focus on hazard reduction
 - Low hazard = safer alternative= greener product
 - Selection of “green”, de-selection of hazard-classified products
- Safer options now being identified outside regulatory framework
- Ecolabels are one way that “green-ness” is gauged
 - Today more than 300 separate programs
 - Voluntary substitution, alternative assessment programs other options

Some Major Ecolabel Programs



Each program has its own unique framework/
criteria, typically organized by product
application, number of programs increasing

Why HESI?

- Provides a opportunity for a tripartite, neutral **forum** of experts to critically evaluate the issue and develop best solutions
- Promotes **cross-disciplinary** activity
 - Different perspectives (gov't, industry, academia)
 - Different expertise (integrated solutions)
 - Leverage best practices of all
- Organization/Funding – not available by any other mechanism

Project Impact

Scientific Impact	<ul style="list-style-type: none">➤ Scientifically supported framework for selecting “safer alternatives” that reduces unintended consequences, (i.e. elimination of sustainable options and <i>vice versa</i>)➤ Moves away from all or none mentality - recognize and advance products/chemistries that move us in the right direction➤
Policy Impact	<ul style="list-style-type: none">➤ Improve the basis for organizations to develop validated methods for assessment and identification of best alternatives➤ Increase transparency, greater confidence in ability to select safer alternatives

Proposed Approach

- 6-9 month timeframe
 - Small group to identify critical areas of expertise
 - Assemble group of experts
 - Gather and evaluate information on different approaches/best practices
 - Work to develop a consensus document
 - What works well
 - What to avoid
 - Further work
- Consensus document launch pad for future activities

Criteria for success

- Agreed set of principles to guide a comparison of alternative chemicals
- Framework will guide selection of the most appropriate alternative based on performance, toxicity profile and other LCA-like parameters
 - Solution oriented to help supply chain/society to make sound decisions about chemicals used
- Leads to increased transparency regarding selection of alternatives
 - Criteria and evaluations need to be well communicated
- Broad Agreement/endorsement at a HESI level by:
 - Key stakeholders/expert(s)

Conclusion

- Emerging need for improved, integrated and harmonized framework for selection of safer alternatives
- HESI is well positioned to support this
- No other forum better suited to bring together the right scientific expertise to address the issue