Expo East Boston, MA September 23, 2009

Questions… >>>>>>>

1.Questions: What are the opportunities to reduce our use of virgin non-renewable materials ('technical nutrients') and achieve zero waste in packaging?

EVERYONE still uses material from the biosphere: What are the criteria for responsible bio based material(s) as biological nutrients?

2. Systems: Think through the system conditions that would enable these possible solutions? (Consider things like recovery and reuse loops; materials pooling; packaging design; changes in laws; retailer-producer collaboration; user-customer engagement.)

3. Challenges/Opportunities: What are the impediments, basic options, and opportunities to these solutions?

Summaries:

GROUP: NO NAME 1

Criteria for Responsible Bio-Based Materials

1. Non-GMO
2. Home compostable
3. Non-food
4. Sustainably grown and harvested
5. Structural integrity
6. Additives, chemicals?
7. Energy use

Impediments:

Societal demand
Small sector/companies (larger companies shape demand)
Lack of cost transparency

Using more PCR Content
R&D improving structural challenges working with partners that hae the resources you need

Changing the product, i.e. liquid to powder reducing need for plastic package
Shifting consumer ideas
Educate consumer re: hidden cost- life cycle cost of some packaging vs. others

How to build infrastructure to move consumer towards re-use

EPR- Making the manufacturer take responsibility (pay for) the full life cycle cost.

Engage the consumer so they understand the cost of convenience

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GROUP: BULL RUSHERS

Opportunities to Reduce Use of Virgin Non-renewables

1. Virgin materials?
   A. Steel - recycled
      1. High rate of recycling
      2. Expensive: freight, handling
   B. Bulk Packaging
      1. need new innovation
      2. decrease waste
      3. less cost
      4. reuseable containers
      5. less packaging is used
   C. Oil- plastic
      1. reduce:
         a. cube
         b. guage
         c. shape
         d. additives
         e. recyclable #1 and #2
   D. Fiber Products
      1. Sustainable
      2. Renewable
      3. Non-compete with Food Crops
      4. Low environmental impact

Challenges/Opportunities

1. Products- made to last longer

2. Lower waste stream - product
3. Consumer- EDUCATION !!!
    Culture Shift: Change of conscience/mind
4. Need space to do this
    Reduce cubes- Opportunity
    Need infrastructure to do this
5. Small companies assisted by large companies to innovate
6. Affordability- recycling
7. Scalability- insutrial scale composting

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GROUP: NO NAME 2

Opportunities to Reduce Use of Virgin Non-renewables

1. Look Back- reusable

2. Combine reuse and recycle

3. Home compostable

4. Use "waste" from other industries (e.g. potato seconds= plastic)

5. Standardized Design

Systems

1. Regional Economy

2. Coops- neighborhood sharing

Challenges

1. Regulations/liability

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GROUP: HUNNEMANIA

Opportunities to Reduce Use of Virgin Non-renewables

1. Reusable/Returnable (plates)
2. Concentrates
3. Large Volume

4. 100% PCR (post consumer recycled)

Solutions

1. Labeling
2. Cimmitment to closing the loop
3. Increase costs in the system- materials, disposal (cheapness- people don't value)
4. Education
5. Standardization of materials and materials requirements
6. Need a uniform system for identification, collection, and separation of materials

Challenges

Who is responsible and what is government role?
Convenience
Labels-hard to ID materials
Contamination of recycling
Confusion/lack of info
Need clarity for appropriate action- common system
Trucks leave empty
Complex distibution systems
Cost of materials is too low

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GROUP: GREEN DOTS!

Reduce Use of Virgin Materials

1. Encourage refillable-bulk use
2. Educate & Awareness: Price reduction incentive: sanitary returnables (exchange) to incentivize consumer
3. Messaging through music- (e.g. Jack Johnson, 3 R's- Reduce, Reuse, Recycle)
4. Packaging: Collaboration
    a. Perhaps: caps (virgin) pool manufacturing R&D instead of doing one doing all the work
    b. Share: Collaborate, yet keep confidentiality
    c. Create Green Packaging Consultant/Aggregator to pool demand & resolve formulas and purchasing which is Nonprofit/Independent/Confidential (use some federal "green job" money to create this type of service)

5. Expand deposit return (Bottle Bill Programs state or community: to include more materials < now bottles, but not clamshells- change this!>
6. Tax credits for recycling or production
7. More community collection centers for hazardous waste!
8. Legalize industrial hemp to replace petroleum & GMO