



iNEMI
International Electronics Manufacturing Initiative

First Day Wrap Up

Bob Pfahl, iNEMI

Advancing manufacturing technology



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Leading Change in Industry

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Leading Change in Industry

- **Bill Olson-Motorola**
 - **Less Material**
 - **No Hazardous Materials**
 - **100% Recyclable**
 - **Alternate Energy**
 - **Energy Efficiency**
- **Marc Benowitz-Alcatel-Lucent**
 - **Energy Metrics**
- **Katie Hunt-Rohm and Haas**
 - **Recycling, Reuse**



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Materials

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Materials

- **Holly Evans-Strategic Counsel LLC**
 - Driven by Legal and Market Requirements.
 - PVC phase-out is highly likely
- **Hamid Azimi-Intel**
 - Acceptable Standards for “Halogen-Free”
- **Robert McKay-Sabic**
 - How to get new materials adopted on a big scale
 - Flexible Noryl Resin to Replace PVC
 - Find Solutions Across Industry Boundaries

Materials

- **Lauren Heine-Clean Production Action**
 - **Sustainable Materials Management**
 - **Integrated Actions**
 - **Life Cycle Thinking**
 - **Innovation for Sustainability**
 - **NGO's want**
 - **Transparency**
 - **Ownership (EPR)**
 - **Detoxification**
 - **Dematerialization/Rematerialization**
 - **Metrics**



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Energy

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Energy

- **Sylvia Ratnasamy, Intel**
 - **Efficiency Improvement through Sleep and Rate Modes.**
- **Tom Okrasinski, Alcatel-Lucent**
 - **Systems Approach**
 - **Use Cycle**
 - **Efficient Components**
 - **Effective Cooling**
 - **Alternative Power Sources**
- **Mark Chason Quantum Solar Group**
 - **Standards for Information on Solar Energy**
 - **Solid State Illumination is an opening market**



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Eco-Design

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Eco-Design

- **Tom Okrasinski-Alcatel-Lucent-LCA**
 - Use and Manufacturing are the Important Phases
 - Supply Chain Should Address LCA issues together
- **Wayne Rifer-Green Electronics Council-Green Metrics**
 - Different Markets Need Different Metrics
 - Need Stakeholder Acceptance
 - Recycled Plastics Market
 - Harmonization
- **Todd Brady-Intel-Industry View**
 - Look at Cost versus Benefit in Environmental Changes
 - Focus on Primary Impacts: Use and Manufacturing Phase
 - Smart 2020
- **Todd Myers, Cisco**

Intel-iNEMI Environmentally Friendly Electronics

2008 Intel Symposium on Environmentally Friendly Materials

A Special Invitation from Intel Corporation and iNEMI

Join us for the 2008 Intel Symposium
on Environmentally Friendly Materials

November 11-12, 2008
Shanghai, China

This symposium will address the ongoing discussion about halogen-free* technology — as defined by the elimination of brominated flame retardants (BFRs), chlorinated flame retardants (CFRs) and PVC from electronic products — and the impact this will have on the electronics manufacturing supply chain, including material availability, cost and reliability.

* Halogen-free: BFRs / CFRs / PVC are below 900ppm



Summit Dinner

- **5:15 PM Social Hour**
- **6:15 PM Dinner**
- **7:30 PM “The Practice of Technology in the Anthropocene”**

Professor Brad Allenby, Arizona State University