



**Asia-Pacific  
Economic Cooperation**

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**2009/ISTWG37/021**  
Agenda Item: SM2.5

**Progress Report – Developing the Cleaner  
Production Approaches through Partnership Build-  
up for the Sustainable Development of Electronics  
Sector in APEC 2006-2009**

Purpose: Information  
Submitted by: Chinese Taipei



**37<sup>th</sup> Industrial Science and Technology  
Working Group Meeting  
Suzhou, China  
24-26 September 2009**

**37th APEC-ISTWG MEETING**  
**24-26 Sep. 2009, Suzhou, China**

**Developing the Cleaner Production  
Approaches through Partnership  
Build-up for the Sustainable  
Development of Electronics Sector in  
APEC 2006-2009 (Chinese Taipei)**

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## **Objectives**

- Develop the Cleaner Production Approach for SME in APEC Economies
- Building up the capability through partnerships in response to the environment impact mainly caused by the electrical and electronic industries



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## Partnership Built up

- Join the International Electronics Manufacturing Initiatives (iNEMI) and become the official member
- Join the Environmentally Conscious Electronics Technology (ECE) Working Group of iNEMI
- Build up the linkage with iNEMI Asia organization in Shanghai China



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## Progresses

- **HFR-Free Leadership Program**
- **Technology Roadmap development 2009**



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## HFR-Free Leadership Program

- Identify key electrical and mechanical HFR-free PCB material characteristics to material suppliers and
- identify a proposed set of technology guidelines. Identify supply chain readiness, supply capability and



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## Scope of Work

### Phase I: Design

1. **Identify candidate materials for evaluation**
2. **Identify key performance characteristics and test criteria**
3. **Design minimal number of test vehicle(s) and test methodologies, leverage standards where possible**



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## Scope of Work

### Phase II: Test / Validation

1. Develop evaluation plan and schedule
2. Procure parts and test vehicles
3. Assign teams to carry out completion of the testing in a standardized fashion
4. Perform mechanical and reliability testing on test vehicles



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## Scope of Work

### Phase III: Results

1. Assess technology readiness / identify gaps
2. Assess manufacturing capability and supply capacity



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# TECHNOLOGY ROADMAPS 2009

## ENVIRONMENTALLY CONSCIOUS ELECTRONICS

- Materials
- Energy
- Recycling



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## Materials

- Develop and implement good scientific methodologies to assess true environmental impacts of materials and potential trade-offs of alternatives. •
- Industry must be more involved in policy making on material restrictions so that policy makers understand trade-offs inherent in material substitution.



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# Energy

Promotion of basic principles for effective energy efficiency policies; which include elements to ensure they are:

1. In support of Voluntary initiatives
2. Harmonized with existing requirements
3. Flexible
4. Cost Effective
5. Measurable
6. Account for Product Differentiation
7. Developed transparently and implemented fairly
8. Compliance requirements that are not unnecessarily burdensome



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# Recycling

- Support research and development to create a sustainable infrastructure and viable recycled materials market for use in new products and other applications.



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## Recent Activity

**iNEMI HFR-Free  
Leadership Program  
Meeting  
iNEMI Taipei Meeting  
Hosted by ITRI  
Tuesday, October 20,  
2009  
1:00 - 6:00 pm  
ITRI Taipei Office**



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## **Welcome APEC Partners Further contact**

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