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This newsletter is completely dedicated to keeping you informed about the progress of the 2009 iNEMI Roadmap. Please pass it on to anyone within your technical network who might be interested in becoming involved in this effort. If this is the first issue you've received and you would like to know more about the Roadmap, see About the 2009 iNEMI Roadmap at the end of the newsletter.

Recent Activity

A short summary of the 2009 iNEMI Roadmap status was presented to the iNEMI Council of Members' gathering at IPC Midwest on September 23 at 6:00 p.m. Jim McElroy gave a short overview for the members present.

Also taking place at the Fall Council meeting, Bob Pfahl, iNEMI VP of Global Operations, presented Dan Gamota (Motorola) and Jie Zhang (Motorola) with plaques acknowledging their hard work as Chair and Co-chair, respectively, of the Large Area, Printed Electronics (previously Organic and Printed Electronics) TWG for the last two roadmap cycles. We all wish Dan and Jie well and thank them for their hard work on the past two roadmaps.

2009 Roadmap Cycle Winding Down/Final Newsletter

Welcome to the final newsletter of the *2009 iNEMI Roadmap* cycle. Since this is the final newsletter for this cycle, it is the perfect time to sincerely thank all of the PEG and TWG Chairs and their committee members who worked tirelessly on this cycle's roadmap. We know that it is not easy to find "spare time" to put into a second job when your "real job" is so demanding. We would also like to thank the iNEMI Technical Committee for their insightful reviews of the chapters during the entire cycle. With all of the hard work from everyone involved, we expect this to be one of the best roadmaps yet published.

Changes for the 2009 Roadmap Cycle

The product sectors covered by our PEGs, and the technology/business topics covered by our TWGs, change according to their relevance to industry and to our members. For the 2009 Roadmap, we have dropped the Aerospace/Defense PEG, have added three new TWGs and renamed three existing ones to better reflect their focus. New this year are chapters on Solid State Illumination, Item-Level Tag (we've decided to make it a stand-alone chapter rather than

include it in an existing chapter), and Photovoltaics. In addition, the decision was made to change the names of the Product Lifecycle Information Management (PLIM) TWG to simply Information Management, The Interconnect Substrates – Organic TWG to Interconnect PCB – Organic and the Organic and Printed Electronics TWG to Large Area, Flexible Electronics. The new TWG topics were added in response to increased industry interest in the opportunities and technology needs of these potential growth areas. We are also dropping two TWGs from this cycle that were unable to identify leaders (Energy Storage & Conversion Systems and Sensors).

Future Activity

PEG Update. PEGs are working toward completing their chapter drafts. The 2009 versions of the Consumer/Portable, Automotive, Netcom and Office/Large Business Systems emulator spreadsheets were distributed to TWG Chairs in July/August, and the updated Medical emulator is due at any time. As of this date, two of the final chapters have been received and the other three are expected shortly. It is now time for the staff to begin editing, developing the executive summary and updating of all the appendices and other introductory parts of the roadmap document in preparation for CD formatting and publication. There is a great deal of work to be done in parallel, and it will be a challenge to complete on time.

You'll note that we've already started planning for the 2011 Roadmap. The PEG kick-off meeting for the next roadmap has been scheduled in conjunction with SMTAI in October 2009. (See the schedule at the end of the newsletter.)

TWG Update. As of this date, 15 of the 20 TWG chapter drafts have been received, and we have commitments from the remaining 5 to have all chapters in shortly. Various issues, including heavy travel requirements, have complicated the chapter chairs' ability to complete their chapters on time.

We have already scheduled several 2011 Roadmap roll-out meetings for the 2011 Roadmap (see the roadmap schedule at the end of the newsletter). Please plan to attend and support 2011 Roadmap roll-out activities if your travel plans take you to the venues where we have meetings planned, or please ask someone from your company with offices in these venues to attend.

Debriefing Telecoms

Shortly after the first of the year, we will be setting up telecoms with all of the chapter chairs (PEGs and TWGs) to discuss lessons learned and suggestions for improving the next roadmap cycle. If you have any ideas or suggestions for making the process work better for the 2011 cycle, please let me know and I will add them to the list. We will distribute a list of questions and topics for discussion prior to the telecoms.

2009 Roadmap Schedule

2008

January 4	Email Word version of 2007 TWG chapters and Executive Summary to each TWG Chair
January 9	Teleconference with TC on PEG Emulator review (Rescheduled from December 17, 2007)
January 11	Organizing teleconference with TWG Chairs
February 20-21	PEG workshop/TWG kick-off (hosted by Agilent Technologies in Santa Clara, CA) <ul style="list-style-type: none"> • Product sector spreadsheets completed – preliminary PEG chapter outlines written • Cross-cut issues are initially addressed
April 4	TC/PEG/TWG face-to-face chapter review meeting at APEX, Las Vegas, NV
May 7	Telecon with TWG Chairs, preliminary PEG Chapters due to staff
May 14	Open roadmap presentation in Herndon, VA
June 18	European Roadmap Workshop at IMEC in Leuven, Belgium
July 15	TWG drafts due for TC review
July 28	Asian Roadmap Workshop in conjunction with ICEPT Shanghai, China
August 6	TC face-to-face review with TWG Chairs at Tyco Electronics, Harrisburg, PA
September 21	Final roadmap chapters due
September 23	iNEMI Council of Members review of key issues, IPC Midwest, Schaumburg
October 31	Edit, prepare Appendices A-D, Executive Summary
November 20	“Go to press”
December 5	Ship to members

2009

1Q2009	Make copies available to industry
2Q2009	Industry presentation at APEX

2011 Roadmap Preliminary Schedule

October 2009	PEG Kickoff at SMTAI, San Diego, CA
February 2010	North American TWG Kickoff, location TBD

About the 2009 iNEMI Roadmap

As a reminder, and to inform new recipients, my name is Chuck Richardson (iNEMI’s Director of Roadmapping), and I am responsible for staff support of the roadmap effort. The roadmap is developed by volunteers from the industry (iNEMI members and non-members) that form groups to develop chapters for five Product Emulator Groups (PEGs) and 20 Technology Working Groups (TWGs), which cover technology and business/infrastructure areas.

2009 iNEMI Roadmap Product Emulator Groups (PEGs):	
<ol style="list-style-type: none"> 1. Automotive 2. Consumer/Portable 	<ol style="list-style-type: none"> 3. Medical 4. Netcom (Network, Datacom & Telecom) 5. Office/Large Business Systems

The PEGs define OEM requirements for their respective product sectors, anticipating product technology and business-related needs over a 10-year horizon. These needs are presented in each PEG chapter, using key attribute spreadsheets and text according to templates that are furnished by the iNEMI Technical Committee. Each PEG has a Chair or Co-chairs and as many group members as needed for a broad-based view of that emulator’s scope (usually 2-5 individuals).

PEG Chairs are expected to attend two to three face-to-face meetings during the 2007/2008 calendar year, but most of the group's work is done by telephone and over the web.

The TWGs use the OEM requirements detailed in the five PEG chapters to prepare each of their roadmap chapters, detailing where their respective technology stands today — and expects to progress over the next 10 years — with respect to the stated needs. Other than the TWG Chairs, who are expected to attend a minimum of three meetings, no travel is required to participate in a TWG, and this activity requires only as many hours as you want to dedicate to it, depending upon how involved you wish to be.

2009 iNEMI Roadmap Technology Working Groups (TWGs):	
1. Board Assembly	10. Large Area, Flexible Electronics
2. Connectors	11. Packaging
3. Environmentally Conscious Electronics	12. Passive Components
4. Final Assembly	13. Photovoltaics
5. Interconnect Substrates - Ceramic	14. Information Management
6. Interconnect PCB - Organic	15. RF Components & Subsystems
7. Mass Data Storage	16. RFID Item-Level Tag
8. Modeling, Simulation & Design Tools	17. Semiconductor Technology
9. Optoelectronics	18. Solid State Illumination
	19. Test, Inspection & Measurement
	20. Thermal Management

The iNEMI Roadmap has become recognized as an important tool for defining the “state of the art” in the electronics industry as well as identifying emerging and disruptive technologies. It also includes keys to developing future iNEMI projects and setting industry R&D priorities over the next 10 years.

With the globalization of the roadmap, each edition becomes even more important as a tool for identifying technology gaps and possible solutions for an increasingly global industry. One example of this fact is the recent declaration by the EU (European Union) that in order for an entity to get funding from them they would have to show a need for the project as identified in either the iNEMI Roadmap on Organic & Printed Electronics or the VDMA (OE-A) (Organic Electronics Association) roadmap. If you would like to be involved with the 2011 iNEMI Roadmap team, or be added to the mailing list of this monthly newsletter, please contact Chuck Richardson at Chuck.Richardson@inemi.org.