

***Accelerating The Radical
Innovation Process:
Information Enhanced NanoEnterprises
(43 Oral Presentations & 10 Poster Papers)***

May 16 – 21, 2004

Charleston, South Carolina, USA
DoubleTree Guest Suites Charleston – Historic District

Conference Co-Chairs

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Start of Conference

Sunday, May 16

16:00 – 18:00	Registration
18:00 – 18:30	Reception
18:30 – 19:00	Opening Remarks <ul style="list-style-type: none">• Conference Co-Chairs• ECI Liaison
19:00-20:00	Dinner
20:00-21:00	Social Hour

Monday, May 17, 2004 (11 Oral Presentations)

07:00 – 07:50	Breakfast
07:50 – 08:00	Opening Remarks Conference Co-Chairs
08:00 – 08:45	Managing Radical Innovation <i>Dr. D. Bruce Merrifield, Pridco Management Corporation, USA</i>
08:45 – 09:25	Next-Generation MOT On The Move Towards Dynamic and Flexible Just-In-Time Innovation Management <i>Prof. Akio Kameoka, JAIST, Japan</i>
09:25 – 10:05	The Chinese Status and Objectives For Radical Innovation <i>Prof. Chen Jin, Zhejiang University, China</i>
10:05 – 10:20	Coffee Break
10:20 – 11:00	Issues In The Redesign Of the US R&D Infrastructure <i>Prof. Frederick Betz, University of Maryland, USA</i>
11:00 – 11:40	The Growth Model Of Venture Companies Based On Case Studies <i>Prof. Katsumori Matsushima, Tokyo University, Tokyo, Japan</i>
11:40 – 12:20	Radical Innovation Processes: Popular Myths and Empirical Evidence <i>Prof. Dr. Hans Georg Gemuenden, TU Berlin, Berlin, Germany</i>
12:20 – 13:00	Lead Generation and Breakthrough Downstream Research <i>Dr. Andrew Kaldor, ExxonMobil Corporate Research, NJ, USA</i>
13:00 – 14:30	Lunch
14:30 – 16:30	Brainstorming Session for Monday Presentations - Grand Challenges For Accelerated Radical Innovation In The 21st Century Moderators: Prof. John A. Bers and Prof. Soeren Salomo
16:30 – 17:00	Coffee Break
17:00 – 17:40	The Identification Of Value And Real Markets For Nanomaterials <i>Dr. Joseph Lichtenhan, Hybrid Plastics, Inc., USA</i>
17:40 – 18:20	Carbon Nanofiber For Engineered Polymers <i>Dr. Max L. Lake, Applied Sciences, Inc., USA</i>
18:20 – 19:00	Environmental Remediation With Iron Nanoparticles <i>Prof. Wei-xian Zhang, Lehigh University, USA</i>
19:00 – 19:40	The Particular Challenges of New Nanotechnology Companies <i>Dr. Wasiq Bokhari, Quantum Insight, Menlo Park, CA, USA</i>
20:00 - 21:15	Dinner
21:15 – 22:30	Social Hour

Tuesday, May 18, 2004 (10 Oral Presentations)

07:00 – 08:00	Breakfast
08:00 – 08:45	Sociological and Political Issues For Emerging Technologies <i>Dean Dr. Seeram Ramakrishna, National University of Singapore, Singapore</i>
08:45 – 09:30	Structuring Knowledge On Nanomaterials Processing <i>Prof. Yukio Yamaguchi, Tokyo University, Japan</i>
09:30 – 10:15	Nanotechnology: Opportunities and Challenges <i>Dr. Meyya Meyyapan, NASA Ames Research Center, USA</i>
10:15 – 10:45	Coffee Break
10:45 – 11:30	Creation of Nanoenterprises: The Indian Perspective <i>Dr. G. Sundararajan, International Advanced Research Center, India</i>
11:30 – 12:15	Organized Competencies For Radical Innovation In Established Companies <i>Prof. Soeren Salomo, TU Berlin, Berlin, Germany and Prof. Richard Leifer, RPI, Troy, NY, USA</i>
11:50 – 12:30	Nanofluids <i>Prof. Richard A. Williams, Leeds University, UK</i>
12:30 – 14:00	Lunch
14:00 – 16:00	Brainstorming Session for Tuesday Presentations - Grand Challenges For Accelerated Radical Innovation In The 21st Century <i>Moderators: Dr. Qian-Qiu Zhao and Prof. John A. Bers</i>
15:00 – 17:00	Poster Session with Coffee (10 Poster Papers) <i>Session Chair: Prof. Lawrence Miller</i>
17:00 – 17:45	Driving Profitable Materials Development <i>Prof. Jainagesh Sekhar, University of Cincinnati, Cincinnati, OH</i>
17:45 – 18:30	New Venture Initiative For Commercialization of Fullerenes <i>Dr. Hideki Murayama, Frontier Carbon Co., Japan</i>
18:30 – 19:10	Innovative Cooperation In The Nanotechnology Business: From Smallest Particles To Value Creating Networks <i>Dipl.-Chem. Saskia Ruehmer, University of Munster, Germany</i>
19:10 – 19:50	Nanotechnology Frontiers in Federal Laboratories <i>Dr. John A. Carlisle, Argonne National Laboratory, USA</i>
20:00 – 21:15	Dinner
21:15 – 22:30	Social Hour

POSTER SESSION: 10 Poster Papers
Tuesday, May 18

15:00 – 17:00

Session Chair:

Prof. Lawrence Miller, University of Toledo, USA

1. **Information Enhanced Radical Innovation**
Prof. John P. Dismukes, The University of Toledo, USA
2. **Disciplined Innovation For Top Line Growth**
Dr. Qian Qiu Zhao, DuPont Central R&D, USA
3. **Front End Discovery: What Are The Most Effective Methods, Tools and Techniques**
Prof. Peter Koen, Stevens Institute of Technology, USA
4. **Design and Evaluation Of Lean Manufacturing Cell At Visteon Corporation:
A Simulation Model**
Mr. Abraham Abdumula, Visteon Corporation, USA
5. **The Future of Information Exchange: Markup Languages For Product Development
and Innovation**
Prof. Lawrence K. Miller, The University of Toledo, USA
6. **An Analytical Approach To Building A Technology Development Envelope-TDE For
Technology Roadmapping of Emerging Technologies**
Mr. Nathasit Gerd Sri, Portland State University, USA
7. **The Radical Innovation Landscape: Mapping The Literature**
Mr. David J. Schoeneck, Search Technology, Inc., USA, and Prof. Alan L. Porter, GaTech, USA
8. **Structured Knowledge Platform For Nano Materials and Products: A Just-In-Time
Knowledge System For Nanomanufacturing**
Dr. Eichi Watanabe, University of Tokyo, Japan
9. **A Navigation Program For The Innovative R&D**
Dr. Keiji Tamura, UT Research Institute, Japan
10. **Economic Development for the 21st Century: Industrial Clusters
as Pathways to Prosperity**
*Prof. Michael Carrol, Bowling Green State University, Ohio, USA and
Prof. Neil Reid, University of Toledo, Ohio, USA*

Wednesday, May 19, 2004 (10 Oral Presentations)

7:00 – 8:00	Breakfast
08:00 – 08:45	University-Industry Collaboration Effort For Next Generation Nano-Business <i>Dr. Kenichi Yoshie, MC Research & Innovation Center, USA</i>
8:45 – 9:30	Dovetailing Invention and Innovation: Balancing Inside-Out and Outside-In To Expedite Transitions <i>Prof. William B. Rouse, Georgia Institute of Technology, USA</i>
09:30 – 10:15	Tools and Techniques For Enhancing Knowledge Creation For Breakthrough Innovation In Large Organizations <i>Prof. Peter A. Koen, Stephens Institute of Technology, USA</i>
10:15 – 10:45	Coffee Break
10:45 – 11:30	Radical Innovation, Technology Roadmap and Government-Funded R&D <i>Dr. YuKo Yasunaga, NEDO, Japan</i>
11:30 – 12:15	The Role of Users In The Radical Innovation Process <i>Dr. Christopher Lettl, TU Berlin, Berlin, Germany</i>
12:15 – 13:15	Lunch
13:15 – 14:00	Free Time
14:00 – 16:00	Brainstorming Session for Wed. Presentations - Grand Challenges For Accelerated Radical Innovation In The 21st Century <i>Moderators: Dr. Kenichi Yoshie and Prof. John A. Bers</i>
16:00 – 16:45	Coffee Break
16:45 – 17:30	The Technology Roadmapping Process As A Learning Tool For Adaptive Enterprises <i>Dr. Olin H. Bray, Sandia Laboratories, USA</i>
17:30 – 18:10	Innovation Mapping <i>Prof. Alan L. Porter, GaTech, USA</i>
18:10 – 18:45	Implementation of a Technology Roadmap <i>Mr. David Densel, Eaton Corporation, USA</i>
18:45 – 19:25	The Right People and Leader Accelerate Radical Innovation <i>Dr. Richard Tait, Bottom Line Innovation Associates, Inc., USA</i>
19:25 – 20:05	Successfully Commercializing A Radical Innovation By Integrating Internal Knowledge With External Intelligence <i>Mr. Frederick D. Buggie, Strategic Innovations, USA</i>
20:15 – 21:15	Dinner
21:15 – 22:30	Social Hour

Thursday, May 20, 2004 (10 Oral Presentations)

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| 7:00 – 8:00 | Breakfast |
| 8:00 – 8:45 | Europe's Way To The Knowledge Society: Research Activities And Policies To Enhance Innovation
<i>Dr. Erastos Filos</i> and <i>Dr. Rosalie Zobel</i> , European Commission, Belgium |
| 8:45 – 9:30 | Creating Value From Radical Innovation: Issues and Challenges
<i>Dr. Uma Chowdhry</i> , DuPont, USA |
| 9:30 – 10:15 | Innovation In Management of Research & Development In Mitsubishi Chemical
<i>Dr. Makoto Imanari</i> , Mitsubishi Chemical Corp., Japan |
| 10:15 – 10:45 | Coffee Break |
| 10:45 – 11:30 | The Transformation of The Automotive Industry: A Vision of Radical Product Innovations
<i>Dr. Markus Seidel</i> and <i>Mr. Cristoph Loch</i> , BMW AG, Germany |
| 11:30 – 12:15 | An Integrated Strategic Technology Planning Environment
<i>Dr. Mark Polcynski</i> , Eaton Corp. Innovation Center, USA |
| 12:15 – 13:00 | Lunch |
| 13:00-15:00 | Brainstorming Session for Thu. Presentations - Grand Challenges For Accelerated Radical Innovation In The 21st Century
<i>Prof. John A. Bers</i> , Vanderbilt University, and
<i>Prof. John P. Dismukes</i> , University of Toledo |
| 15:00-16:00 | Coffee Break |
| 16:00 – 16:40 | Economic Development for the 21st Century: Industrial Clusters as Pathways to Prosperity
<i>Prof. Neil Reid</i> , University of Toledo, USA, and
<i>Prof. Michael Carroll</i> , Bowling Green State University, USA |
| 16:40 – 17:20 | Accelerating Radical Innovation In A Developing Country: The South African Case
<i>Prof. Andre J. Buys</i> , University of Pretoria, South Africa |
| 17:20 – 18:00 | The Radical Innovation Landscape: Mapping The Literature
<i>Mr. David J. Schoeneck</i> , Search Technology, Inc., USA, and
<i>Dr. Alan L. Porter</i> , Georgia Institute of Technology, USA. |
| 18:00 – 18:40 | Scenario Analysis For The Potential Hydrogen Economy
<i>Mr. Anish Patil</i> and <i>Prof. Kas Hemmes</i> , TU-Delft, Netherlands |
| 19:00 – 21:00 | Conference Banquet & Plenary Speaker
<i>Mr. Michael Gallis</i> , Michael Gallis & Associates |
| 21:00 – 22:30 | Social Hour |

Friday, May 21, 2004 (2 Oral Presentations)

07:00 – 08:00	Breakfast
08:00 – 08:15	<u>Workshop Charter</u> Conference Co-Chairs Generating A Conference Consensus on Grand Challenges For Accelerated Radical Innovation
08:15 – 09:05	<u>Plenary Workshop Paper</u> Addressing The Grand Challenges To Accelerated Radical Innovation <i>Mr. Stephen Socolof, New Venture Partners, USA</i>
09:05 – 09:50	The Critical Role of Simulation and Modeling In Accelerating The Radical Innovation Process <i>Prof. John A. Bers, Vanderbilt University, USA</i>
09:50 – 10:15	Coffee Break
10:15 – 10:30	Brainstorming Session Conclusions on Status and Grand Challenges For Accelerating Radical Innovation Conference Co-Chairs
10:30 – 12:30	Workshop Assessment and Consensus on Grand Challenges Discussion of Conference Conclusions and Recommendations <i>All Conference Attendees</i>
12:30 – 12:45	Closing Remarks
12:45 – 14:00	Lunch
14:00	Depart