Preparing the Next Generation of Engineering Students to Implement Sustainable Development: A Dialogue with Engineering School Thought Leaders and Business Executives

A World Environment Center Roundtable Sponsored by:
Boeing, CH2M Hill, The Dow Chemical Company and Royal Dutch Shell
National Press Club
Holman Lounge (13th Floor)
529 14th Street, NW, Washington, D.C.
June 10-11, 2013

June 10
2:30 p.m. Registration
3:00 Welcome and Introduction
Terry F. Yosie, President & CEO, World Environment Center

3:15 Keynote Address and Discussion: Current Issues and Trends in Sustainable Development Teaching Concepts and Their Application in Leading Engineering Schools
Moderator: Terry F. Yosie, World Environment Center
Speaker: David T. Allen, Gertz Regents Professor in Chemical Engineering and Director, Center for Energy and Environmental Resources, The University of Texas at Austin
Question and Answer Session

4:00 Panel #1 Discussion: Integrating Sustainability Into Engineering School Curricula: Current Practices
Moderator: Alan D. Hecht, Director for Sustainable Development, EPA Office of Research and Development
Panelists:
- Thomas E. Graedel, Clifton R. Musser Professor of Industrial Ecology, Professor of Chemical Engineering and Professor of Geology and Geophysics, Yale School of Forestry & Environmental Studies
- Chris Hendrickson, Duquesne Light Company University Professor of Engineering, and Co-Director, Green Design Institute, Carnegie Mellon University
- Christine Bratrich, Director of ETH Sustainability, Swiss Federal Institute of Technology

5:00 Reception
6:00 Recess
June 11

8:30 a.m.  
**Panel #2 Discussion: What Skills Do Global Companies Want Their New Hires to Possess?**

Moderator: Marianne Horinko, President, The Horinko Group

Panelists:
- Tim Vinopal, Chief Engineer-EH&S Engineering, Boeing
- Neil C. Hawkins, Vice President, EHS & Sustainability, The Dow Chemical Company
- Robert W. Patterson, Vice President Projects Deep Water, Royal Dutch Shell
- John W. Mogge, Jr., Senior Vice President and Director, Technology Practice and Design, CH2M Hill

9:30  
**Panel #3 Discussion: How Can Global Companies and Engineering Schools More Effectively Work Together in the Future?**

Moderator: William Roby, Senior Vice President of Operations and Production Engineering, Occidental Oil and Gas Corporation

Panelists:
- Theresa Maldonado, Division Director, Engineering Education & Centers Directorate, U.S. National Science Foundation
- Hans VanBrackle, Global Products Research Manager, ExxonMobil Chemical Company
- Peter Adriaens, Professor of Civil and Environmental Engineering and Professor of Entrepreneurship and Strategy, Ross School of Business, University of Michigan

10:30  
Coffee and Conversation

10:45  
**Keynote Address and Discussion: Integrating the Valuation of Ecosystems with Engineering Design**

Moderator: Neil C. Hawkins, The Dow Chemical Company
Speaker: Glenn T. Prickett, Chief External Affairs Officer, The Nature Conservancy

11:45  
**Roundtable Assignment for Each Table:** Recommendations for Designing Sustainable Development Concepts and Practices into the Core Engineering Curriculum

1. What is the key sustainability content for a “core” engineering curriculum?
2. What key skills should graduate level engineering students possess?
3. How should the private sector participate with engineering schools?

12:45 p.m.  
Closing Remarks and Follow-up WEC Project

Terry F. Yosie, World Environment Center

1:00  
Adjournment and Lunch