

THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

Roundtable on Science and Technology for Sustainability June 4-5, 2015

National Academy of Sciences
2100 C Street NW
Lecture Room
Washington, DC

Thursday, June 4, 2015

- 8:30 am Breakfast available
- 9:00 am *Welcome, Introductions and Meeting Goals*
David Dzombak (NAE), Carnegie Mellon University, STS Roundtable Co-Chair
Lynn Scarlett, The Nature Conservancy, STS Roundtable Co-Chair
Jerry Miller, National Research Council
- 9:30 am *Keynote Remarks*
Andrew J. Hoffman, University of Michigan (Sustainability Metrics, Sustainable Enterprise, and Climate Change)

Measuring Progress towards Sustainability: The State of the Science on Indicators and Metrics of Sustainability: Climate Change and Infrastructure Vulnerability

- 10:00 am *Overview and Introduction to Panel*
David Dzombak (NAE)/Lynn Scarlett, STS Roundtable Co-Chairs
- 10:10 am *Panel I: Sustainability Indicators and Metrics: Overview of Current State of the Science*
Moderator: Lynn Scarlett, The Nature Conservancy
- Lidia Berger, Dewberry (Connectedness and Infrastructure: Key Sustainability Challenges)
 - Ralph Sims, Massey University, New Zealand (Cities and Infrastructure Indicators)
- 10:50 am BREAK
- 11:10 am *Panel I: Continued*
- Satyajit Bose, Columbia University (Sustainability Management)
- 11:30 am Q&A and Discussion
- 12:00 pm LUNCH
- 1:00 pm *Panel II: Examples of Innovative Public Sector Sustainability Indicators and Metrics*
Moderator: Suzette Kimball, U.S. Geological Survey
- Michael Slimak, U.S. Environmental Protection Agency (EPA's Report on the Environment)
 - Joe D. Manous, Jr., U.S. Army Corps of Engineers (Sustainability Metrics related to Water Resources and Climate Change Adaptation)

- Melissa Kenney, University of Maryland (Multidisciplinary Climate Change and Impact Indicators Input to USGCRP)
- 2:00 pm Q&A and Discussion
- 2:20 pm BREAK
- 2:40 pm *Panel III: Examples of Innovative Private/NGO Sustainability Indicators and Metrics*
Moderator: Marilu Hastings, Cynthia and George Mitchell Foundation
- Matthew Swibel, Lockheed Martin Corporation (Metrics-Driven Sustainability Decision-Making)
 - David Dornfeld (NAE), University of California, Berkeley (Green Manufacturing and Social Sustainability Metrics, including Climate-related Metrics)
 - David Allen, University of Texas (Sustainable Chemistry and Engineering)
- 3:40 pm Q&A and Discussion
- 4:00 pm BREAK
- 4:10 pm *Discussion and Next Steps on the Use and Development of Sustainability Indicators and Metrics*
Moderator: David Dzombak (NAE), STS Roundtable Co-Chair
- 4:50 pm **Wrap up and plans for next day** (STS Roundtable Co-Chair)
- 5:00 pm **Adjourn**
- 5:15 pm *Reception* (RIS, Federal Room, 2275 L Street, NW, Washington, DC 20037)
- 6:00 pm *Working Dinner* (RIS, Federal Room)
Speaker: Patricia Beneke, United Nations Environment Programme

Friday, June 5, 2015

- 8:30 am Breakfast available
- 9:00 am *Welcome and Feedback from Previous Day*
David Dzombak (NAE)/Lynn Scarlett, STS Roundtable Co-Chairs

Current Activities (STS Roundtable Co-Chair)

- 9:10 am *Transition toward Sustainability after 15 Years: Where Do We Stand in Advancing the Scientific Foundation? A Workshop* (Workshop scheduled for 2015)
David Dzombak (NAE), Carnegie Mellon University
- 9:40 am *Pathways to Urban Sustainability: Challenges and Opportunities* (Consensus report expected in May 2016)
Paulo Ferrão, University of Lisbon

- 9:50 am *Landscape Approaches and Multi-Resource Analysis for Sustainable Natural Resource Management* (Workshop scheduled for June 2, 2015)
Steve Bergman, Shell International Exploration & Production Company
- 10:00 am *Critical Role of Animal Science Research in Food Security and Sustainability* (Consensus report released January 2015)
Ann Bartuska, U.S. Department of Agriculture
- 10:10 am *Housing, Health and Homelessness: Evaluating the Evidence* (Scoping Session held February 2015)
Jennifer Saunders, National Research Council
- 10:20 am *STS Program and Publication Updates*
Jerry Miller, National Research Council
- 10:30 am *NRC Publication Update: Reducing Coastal Risks on the East and Gulf Coasts* (Report released in 2014 by the Water Science and Technology Board and Ocean Studies Board)
Deborah Glickson, Ocean Studies Board, National Research Council
- 10:45 am BREAK

Sustainability and Climate Change Adaptation for Infrastructure

- 11:00 am *Introduction to Panel*
David Dzombak (NAE), Carnegie Mellon University
- 11:05 am *National Perspectives*
Richard Wright (NAE), American Society of Civil Engineers
- 11:25 am *Industry Perspectives*
Catherine McKalip-Thompson, Bechtel Corporation
- 11:45 am Q&A and Discussions

Future Activities (STS Roundtable Co-Chairs)

- 12:00 pm *Proposals from Roundtable Members for Future Roundtable Topics*
All Members
- 12:30 pm **Wrap up** (STS Roundtable Co-Chairs)
- 12:45 pm **Adjourn**

Thank you and safe travels!