NNI STRATEGIC PLANNING
STAKEHOLDER WORKSHOP

The National Nanotechnology Initiative (NNI)
Strategic Planning Stakeholder Workshop
July 13-14, 2010
Hotel Palomar, Arlington, VA

The goal of this workshop is to obtain input from stakeholders—both those who are new to nanoscale science, engineering, and technology and those who are already very familiar with these fields and with the NNI—regarding the goals and objectives of an updated NNI Strategic Plan that is currently under development and scheduled for completion by December 2010. Representatives of the U.S. research community, industry, non-governmental organizations, and interested members of the general public are invited to offer suggestions to the U.S. Government interagency task force that is drafting the new plan, which is an update of the December 2007 NNI Strategic Plan (see http://www.nano.gov/NNI_Strategic_Plan_2007.pdf). In particular, the agencies participating in the NNI are seeking input on the specific objectives that should be included in the updated plan under each of the overarching NNI goals, and on the most likely approaches for achieving those objectives. Workshop participants will asked to help prioritize objectives from a preliminary list prepared by the task force in advance of the workshop, and to suggest additional objectives and implementation strategies that should be included in the plan.

Agenda

July 13 – Morning Session

7:30 – *Registration and continental breakfast*

8:25-8:30 – Call to order – Nora Savage, Environmental Protection Agency (EPA) and Hongda Chen, United States Department of Agriculture/National Institute of Food and Agriculture (USDA/NIFA)

8:30 – Welcome and Charge to Participants – Clayton Teague, Director, National Nanotechnology Coordination Office (NNCO)

9:00 - Overview of the Strategic Plan Goals and Objectives – Travis Earles, Office of Science and Technology Policy (OSTP)

9:20 – OMB Perspective – Courtney Smoot, Office of Management and Budget (OMB)

9:30 – Overview of Nanotechnology Research Directions Study – Mihail Roco, National Science Foundation (NSF)

9:50 - Nanotechnology and Maintaining the Engine of Innovation – George Thompson, Government Programs Manager, Intel

10:20 – *Break*

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10:35 – Reflections on and Critique of the NNI's Strategic Plan: Ethical and Societal Aspects of Nanotechnology – Rosalyn Berne, Associate Professor, Department of Science, Technology and Society, University of Virginia

11:05 – Brief invited expert presentations from various areas of expertise and sectors:

- Wade Adams, Rice University
- Kevin Ausman, Oklahoma State University
- Vince Caprio, NanoBusiness Alliance
- Robert Hwang, Sandia National Laboratory
- William Kojola, American Federation of Labor-Congress of Industrial Unions (AFL-CIO)
- James Murday, University of Southern California
- Robert Rung, Oregon Nanotechnology and Microtechnologies Institute
- Fran Schrotter, American National Standards Institute
- Norman Scott, Cornell University

12:00 - Charge to participants on the mechanics and logistics of the breakout sessions, wrap-up session, evening activities – Janet Carter, Occupational Safety and Health Administration (OSHA) and Elizabeth Nesbitt, United States International Trade Commission (USITC)

12:15 -1:30 - Lunch (Participants will be on their own during this time)

July 13 – Afternoon

1:30 – 4:30 - Concurrent Brainstorming Sessions (each session will begin with a brief presentation) for each of the following NNI goals:

Goal 1 – **Advance a world-class nanotechnology research and development program**
Discussion leader: Norman Scott, Cornell University
Presentations:
- George Adams, Network for Computational Nanotechnology
- Wade Adams, Rice University
- Vinothan Manoharan, Harvard University

Questions to be discussed (tentative):
- Where should the NNI research be distributed on Pasteur's Quadrant? (i.e., what is the appropriate mix of basic and applied research)?

Goal 2 – **Foster the transfer of new technologies into products for commercial and public benefit**
Discussion leader: John Cowie, American Forestry and Paper Association
Presentations:
- Shaun Clancy, Evonik
- Sean Murdock, NanoBusiness Alliance
- John Randall, Zyvex

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Questions to be discussed (tentative):
- Are there new forms of public/private partnerships that you could recommend to improve commercialization?

Goal 3 – **Develop and sustain educational resources, a skilled workforce, and the supporting infrastructure and tools to advance nanotechnology**
Discussion leader: James Murday, University of Southern California
Presentations:
- Vince Caprio, NanoBusiness Alliance
- Stephen Fonash, Pennsylvania State University
- Charles Gause, Luna Innovations

Questions to be discussed (tentative):
- How should the NNI infrastructure be adapted to respond to future needs?

Goal 4 – **Support responsible development of nanotechnology**
Discussion leader: Richard Canady, International Life Science Institute/Research Foundation
Presentations:
- Alison Elder, University of Rochester
- Amy Jones, Applied NanoStructured Solutions
- Pat Mooney, ETC
- Dietram Scheufele, University of Wisconsin

Questions to be discussed (tentative):
- How do we develop appropriate risk analyses to ensure maximum benefit for society?
- How do we engage stakeholders in both anticipatory and participatory governance (in the context of the NNI) regarding the future of nanotechnology?

Overarching questions for all breakout groups:
- With respect to this goal, what has the NNI done right and what should it continue doing?
- With respect to this goal, where has the NNI headed down the wrong path?
- What can the NNI do in the future to address this goal?

(Participants will be identified for expertise and placed in appropriate sessions)
Each of the break out groups (Goal 1, 2, 3, or 4) will have a non-government person as discussion leader and a government person as recorder

Refreshments provided during breakout sessions at participant's convenience

4:40 – Public comment period *(3 minutes each)*

5:15 - Wrap-up with brief verbal reports of the brain storming breakout sessions *(wrap-up will be in reception area)*

6:00 – 7:30 – *Hors d'oeuvres and drinks*

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July 14 – Morning Session

7:30 – *Continental breakfast*

8:25-8:30 – Call to order – Sally Tinkle, National Institutes of Health/National Institute of Environmental Health Sciences (NIH/NIEHS)

8:30 – Welcoming Remarks and Congressional Perspective – Rep. Daniel Lipinski *(tentative)*

8:40 – Keynote – Paul Alivisatos, Director, Lawrence Berkeley National Laboratory, University of California, Berkeley

9:10 – Biomedical Nanotechnology: Past, Present but Mostly Future – James R. Heath, Professor of Chemistry, California Institute of Technology

9:40 – Charge to breakout groups – Janet Carter, Occupational Safety and Health Administration (OSHA) and Elizabeth Nesbitt, United States Internatiol Trade Commission (USITC)

9:40 – 9:50 – *Break*

9:50 – 1:15 - Concurrent Synthesis Breakout Sessions for:
- Goal 1 – Advance a world-class nanotechnology research and development program
- Goal 2 – Foster the transfer of new technologies into products for commercial and public benefit
- Goal 3 – Develop and sustain educational resources, a skilled workforce, and the supporting infrastructure and tools to advance nanotechnology
- Goal 4 – Support responsible development of nanotechnology

(Reprise discussion of goals from day 1 breakout groups as well as discussions on implementation of goals and objectives)
(Half of group will remain and half will be redistributed to other groups to refresh discussions)

Refreshments provided during breakout sessions at participants' convenience

1:15 – 1:45 - *Lunch (working lunch for discussion leaders, reporters, writing team and organizing team)*

July 14 – Afternoon Session

1:45 – Report out of breakout groups by discussion leaders to writing groups
Overview on brainstorming sessions

2:30 - Writing Session – At least the session co-chairs and writing teams, but all are invited to participate

5:30 - Adjourn