

# National Science Foundation Societal Implications of Nanotechnology 2007 Principal Investigators' Meeting

15 March 2007

NSEC/Center for Nanotechnology in Society  
at Arizona State University

Arizona State University

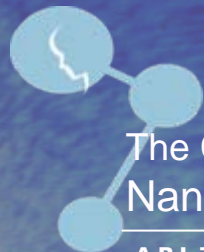
University of Wisconsin-Madison

Georgia Institute of Technology

North Carolina State University

Rutgers, The State University of New Jersey

University of Colorado, Boulder



The Center for  
Nanotechnology in Society

ARIZONA STATE UNIVERSITY

Award No. # 0531194

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<http://cns.asu.edu>

# NSEC/CNS-ASU Mission & Research Program

**Research societal aspects of NSE;**

**Train a community of scholars to perform this research;**

**Engage publics, elites, and NSE researchers in dialogues about the goals and implications of NSE**

**Partner with NSE laboratories to encourage reflexivity in R&D**



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## Real-Time Technology Assessment

- Research and Innovation Systems Analysis (RISA) – Jan Youtie
- Public Opinion and Values (POV)
- Deliberation and Participation (D&P) – Dave Guston
- Reflexivity Assessment and Evaluation (RAE)

## Thematic Research Clusters

- Freedom, Privacy, & Security
- Human Identity, Enhancement & Biology (HIEB) – Jason Robert

# Higher-Order Research & Demonstration Goals

Encouraging reflexivity  
among NSE research  
establishment

Building capacity for  
anticipatory governance

## Reflexivity

➤ a capacity for social learning (by individuals, groups, institutions, publics) in the NSE enterprise narrowly and society broadly that expands the domain of and informs the available choices in decision making about nano.

## Anticipatory Governance

➤ a broad-based capacity extended through society for steering emerging knowledge-based technologies – to maximize benefits and minimize risks – while such steering is still possible.

## RTTA 1: Research and Innovation Systems Analysis

## RTTA 2: Public Opinion and Values

### RTTA 1/1 Research Program Assessment

- Who is doing what kind of NSE research?
- Data-mining, interviews, etc.

### RTTA 1/2 Public Value Mapping

- Can we measure NSE's contribution to societal goals?
- Conceptual development, cases

### RTTA 1/3 Workforce Assessment

- What nano training do we need in regional markets?
- Supply and demand analysis

### RTTA 2/1 Public Opinion Polling

- What does the public know and feel about nano?
- RDD surveys, longitudinal and comparative

### RTTA 2/2 Media Influence

- How do the media influence public perspectives?
- Experimental science news stories

### RTTA 2/3 Scientists' Values

- What do NSE researchers know and feel about nano?
- Paper surveys, population from RTTA 1/1

## RTTA 3: Deliberation & Participation

## RTTA 4: Reflexivity, Assessment and Evaluation

### RTTA 3/1 Scenario Development

- What are plausible nano-enabled futures?
- Deliberative exercise among experts

### RTTA 3/2 InnovationSpace

- How can we envision responsible nano products?
- User-centered research and design course

### RTTA 3/3 CriticalCorps

- What are the cultural resonances of NSE futures?
- Critical theory

### RTTA 3/4 National Citizens' Technology Forum

- How can the public be engaged in nano decision making?
- Six interlinked citizen's panels

### RTTA 4/1 Reflexivity Assessment

- How does CNS-ASU know it is being effective?
- Intensive interviews w/ nano researchers about I/K/P

### RTTA 4/2 Boundary Organizations

- What has CNS-ASU contributed to institutional change?
- Comparative case studies to assess "ways of knowing"