



PUBLIC PARTICIPATION INN
NANOTECHNOLOGY
WORKSHOP:
What Do We Want to Learn
from Public Participation in
Nanotechnology?

David H. Guston
Center for Nanotechnology in Society
Consortium for Science, Policy & Outcomes
Arizona State University

Nanotechnology in Society Network

- Awards made Fall 2005
- NSEC/Center for Nanotechnology in Society at Arizona State University
\$6.2 million
- NSEC/Center for Nanotechnology in Society at UC Santa Barbara
\$5 million
 - Project at Harvard/UCLA (\$1.7 M)
 - Project at University of South Carolina (\$1.4 M)

NSEC/CNS-ASU Network

- Arizona State University
- University of Wisconsin, Madison
- GA Tech
- North Carolina State University
- Rutgers University
- University of Colorado

21st Century Nanotechnology R&D Act of 2003 (PL 108-153)

- Sec 2(b)(10):
 - (a) establish societal implications research program
 - (b) require NSECs address societal implications
 - (c) integrate societal concerns w/ nano R&D for benefit of all
 - **(d) provide for public input**



Why Do We Want Public Input?

- Practical Reasons (better outcomes)
 - The public knows some things (local knowledge)
 - E.g., Wynne's sheep farmers
 - Consumers have some power (technological adoption)
 - E.g., do better than nuclear power and GMOs
 - The citizenry has symbolic meaning (legitimation/representation)
 - E.g., response to "legitimation crisis" -- trust

Why Do We Want Public Input?

- Normative Reasons (more just outcomes)
 - S&T are constitutive of society (technology is legislation)
 - E.g., Langdon Winner
 - Decisions in S&T embody broad values (priorities, risks, (in)equities, etc.)
 - E.g., Asilomar as a closed shop
 - Route to fulfilling scientific responsibility (macroethics)
 - E.g., Rosalyn Berne

But Public Participation is not a Silver Bullet

- More to methods of policy analysis and technology assessment than participation
- More to tool of participation than impact on the policy process
- More to policy outcomes than new laws or regulations

Impact of Public Participation, I

- Actual Impact
 - Substantive
 - On Policy
 - E.g., content of a new regulation for nanotechnology in the environment

Impact of Public Participation, II

- General Thinking
 - Substantive, Procedural
 - On Politics
 - Novel properties of nanotechnology deserve novel scrutiny and treatment
 - Public participation will be part of developing nanotechnologies

Impact of Public Participation, III

- Training of knowledgeable personnel
 - Substantive, Procedural, Reflexive
 - On elites
 - What does the public expect from nanotechnology?
 - How do we integrate public values into S&T decision making?
 - Why are we engaged in public participation activities?

Impact of Public Participation, IV

- Interaction with lay knowledge
 - Substantive, Procedural, Reflexive
 - On lay citizens
 - What kind of novel properties and products are promised by nanotechnology?
 - How do I influence the development of such products?
 - What kind of stake or interest do I have in these developing nanotechnologies?

Conclusions

- Public participation mandated by Congress
- Multiplicity of practical and normative reasons to want public participation
- Multiplicity of impacts public participation can have
- Significant design challenges to marry the mandate, the motives, and the impacts