



2013 NNI Strategic Planning *Stakeholder Workshop*

June 10-11, 2013

“It’s the best possible time to be alive, when almost everything you thought you knew is wrong.”

Tom Stoppard--*Arcadia*

Nano Commercialization Challenges

- Cost of equipment
- Cost and quality of nanomaterials
- Lack of manufacturing capabilities or experience
- Lack of early stage private investment
- Regulatory guideline uncertainties
- Intellectual property issues
- Need for analytical tools to evaluate both product quality and environmental, health & safety issues
- Lack of trained workforce
- General lack of understanding of nano's potential

Nano Communication Challenges

- Challenge between technology developers and industry
- Challenge between industry and dollars
- Challenge between technology developers and public

Challenge 1

Institutions

- **Greedy**
- **Over-Protective**
- **Obstructionist**

Industry

- **Stingy**
- **Over-Protective**
- **Obstructionist**

Challenge 2

Companies

- **Greedy**
- **Over-Protective**
- **Obstructionist**

Capital sources

- **Stingy**
- **Over-Protective**
- **Obstructionist**

Challenge 3

Technology

- **Cool and New**
- **Solves all problems**
- **No downside**

Public

- **So what—I don't understand it anyway**
- **Maybe**
- **Lots of downside**

Statement of the Problem

“Universities are uniquely positioned to help states foster technological innovation in emerging fields. Nonetheless, they are not regional development agencies. They will thrive on what they do best—advancing and disseminating knowledge through research, teaching, and outreach—and each university seeks to outperform its peers. Individually and collectively, universities would actually benefit from a policy process that elicits their participation rather than one that simply responds to interests, as their claims for resources could be more fully related to the wider contexts of state-policy needs and industrial R & D. *States, if they wish to lead in innovation rather than simply follow federal priorities and emulate peers, need to create channels for universities, industry, and other agents in the economic development community to interact in productive ways.*”

Source: Sá, Geiger and Hallacher, Review of Policy Research (2008)

Statement of the Problem



“I don’t care if it’s nano, micro, yocto, groucho or zeppo; if it gets me to the FDA 10 minutes faster, I’m interested”

Source: WWVP, Business Development, Multinational Pharm Company

**“Science has cured every disease
known to mice.”**

(Dave Weiner, U. Penn)