Center for Nanotechnology in Society at Arizona State University
(NSEC #0531194; #0937591)

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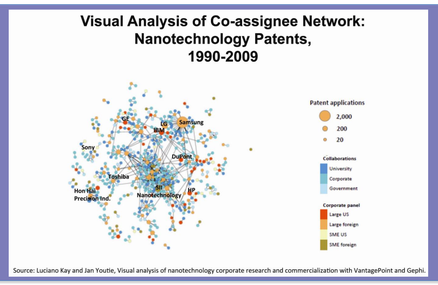
Methods-oriented Real-time Technology Assessment (RTTA) Programs

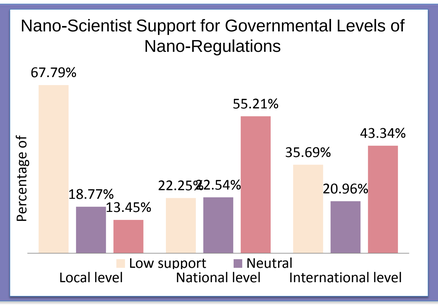
RTTA 1: Research and Innovation Systems Analysis
Using bibliometric and patent analyses to understand the evolving dynamics of the NSE enterprise



Source: Luciano Kay and Jan Youtie, Visual analysis of nanotechnology corporate research and commercialization with VantagePoint and Gephi.

Co-assignment of nanotechnology patents is concentrated around large companies such as Samsung, LG, and IBM, which apply for patents in collaboration with other corporations and, to lesser extent, with universities and governments.

RTTA 2: Public Opinion and Values
Using surveys and quasi-experimental media studies to understand changing public and scientists' perspectives on NSE

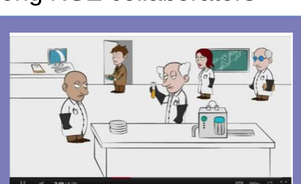


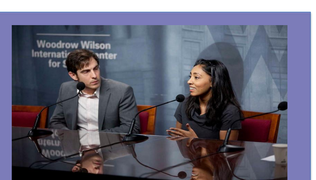
While three distinguishable groups of nano-scientists exist – cautious innovators, nano-regulators, and techno-optimists – most nano-scientists support regulation of health and environmental risk of nanotechnology at the national level.

RTTA 3: Anticipation and Deliberation
Using scenario development and other techniques to foster deliberation on plausible NSE applications

"Finding Futures" pilot experience (Lisbon, May 2011) for the planned FutureScape City Tours, a public deliberation that will identify path dependencies and emerging socio-technical trends in the city.

RTTA 4: Reflexivity and Integration
Using participant-observation and other techniques to assess the Center's influence on reflexivity among NSE collaborators





Socio-technical Integration Research (STIR) has challenged myths about protecting science from outside influences and is sharing the message with policy makers that cross-disciplinary collaborations can improve science.

Education and Outreach

Outreach: CNS-developed posters circulated through NISE Net to hundreds of science museums

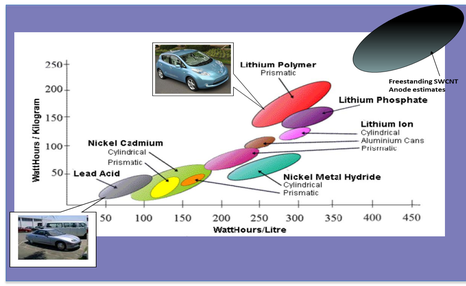
Education: CNS holds monthly science cafés that bring together the general public, scientists, engineers, and sometimes social scientists to discuss how science and technology impact our lives.

Cross-cutting and Fundamental Thematic Research Clusters (TRCs)

TRC 1: Equity, Equality and Responsibility
Exploring the ways in which NSE research interacts with ideas of social and economic equity, responsible innovation, and development

Field work in South Africa (Summer 2011) finds few efforts to develop nano directly for the benefit of the poor or disenfranchised but that research often focuses on local industries and developing capacity not just for South Africa, but for the continent as a whole.

TRC 2: Urban Design, Materials, and the Built Environment
(Nano and the City) Investigating visions of the nano-enabled city of the future through links among NSE, the built environment, and sustainability



Anticipatory life cycle analysis looks prospectively at materials use for nano applications in transportation.

TRC 2 (retired): Human Identity, Enhancement, and Biology
Understanding linkages among NSE research and ethical perspectives on human enhancement technologies, particular related to the brain

Yearbook of Nanotechnology in Society, volume 3: Nanotechnology, the Brain and the Future (Springer, Forthcoming).

The Center for Nanotechnology in Society ARIZONA STATE UNIVERSITY

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