

National Nanotechnology Initiative Workshop

Nanomaterials and Human Health & Instrumentation, Metrology, and Analytical Methods

November 17-18, 2009

Clayton Teague

Director

National Nanotechnology Coordination Office

Chair

ANSI Technical Advisory Group to

ISO Technical Committee on Nanotechnologies - TC229

NNI Overview

- ✓ The NNI is an interagency, cross-cut program that coordinates Federal nanoscale research and development activities and related efforts among various participating agencies (currently 25) with a range of research, industry, trade, and regulatory roles and responsibilities.
- ✓ The NNI began in 2001 and its activities were codified and further defined in the 21st Century Nanotechnology Research and Development Act (Dec. 2003)
- ✓ Thirteen of the participating agencies have R&D budgets that relate to nanotechnology, with the reported NNI budget representing the collective sum of these (\$1.6 billion in 2009 and 2010)
- ✓ The NNI is not a separately funded line item in the Federal budget or a funding agency.
- ✓ The NNI informs and influences the Federal budget and planning processes through its member agencies.

A future in which the ability to understand and control matter on the nanoscale leads to a revolution in technology and industry that benefits society

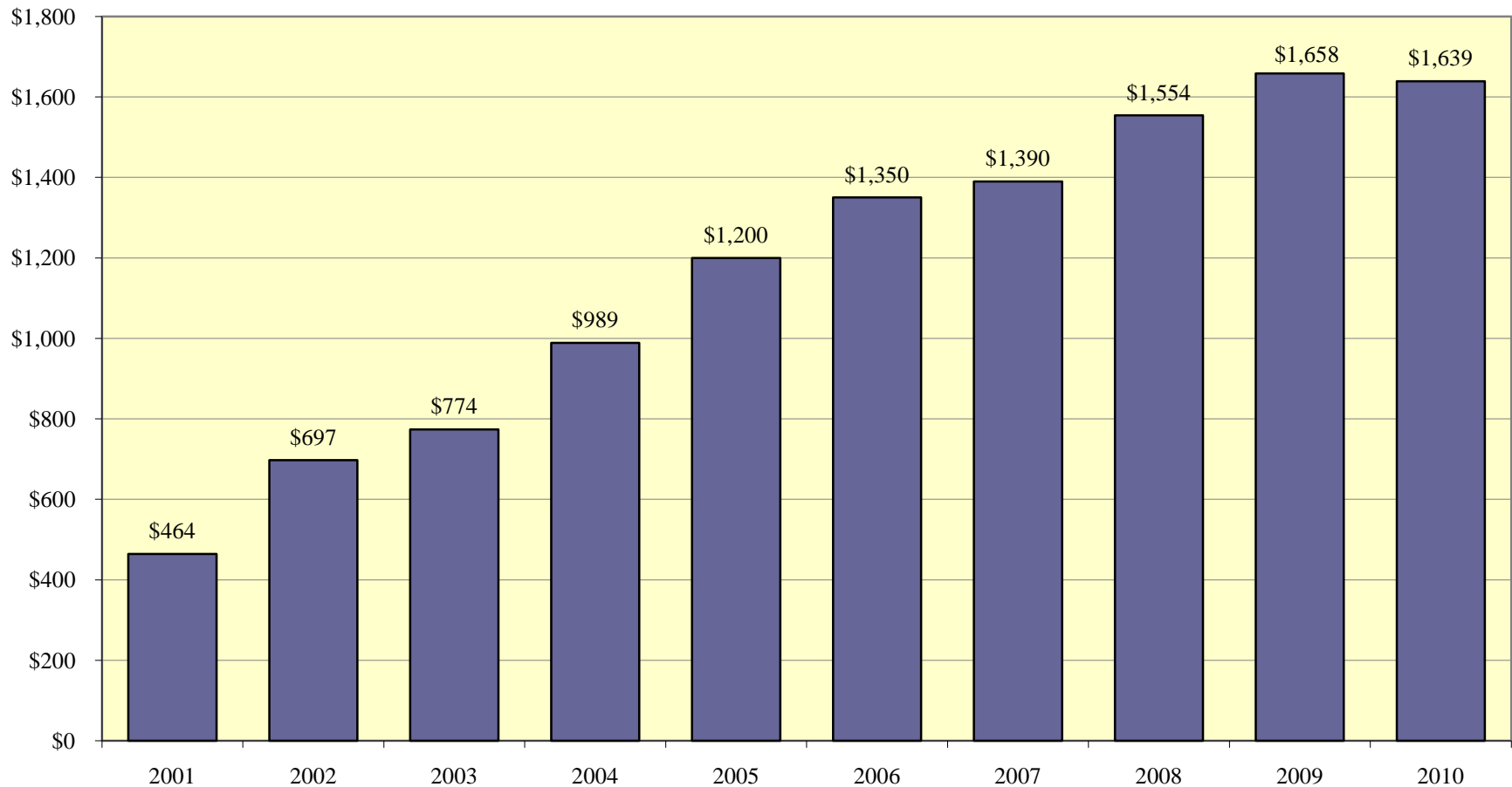
Expedite discovery, development, and deployment of nanotechnology

- To serve the public good
- For economic benefit
- National & homeland security

NNI Goals

- ✓ Advance a world class R&D program
- ✓ Foster transfer of new technologies
- ✓ Develop & sustain educational resources, a skilled workforce, and the supporting infrastructure and tools to advance nanotechnology
- ✓ Support responsible development of nanotechnology

NNI Investment

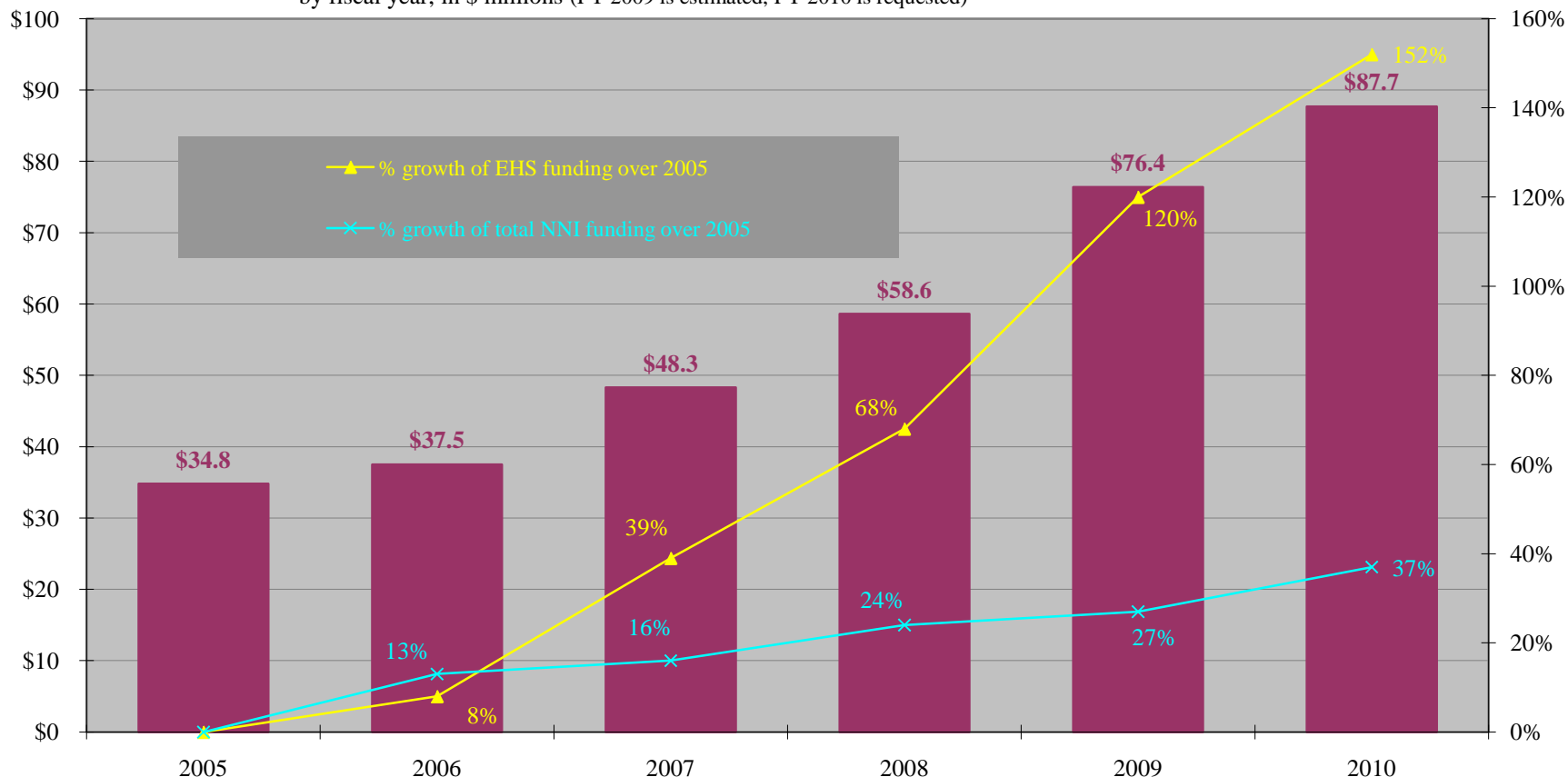


Collective agency funding (in \$ millions) reported since NNI inception (2009 is estimated and 2010 is requested)

NNI Support for EHS Research

NNI Funding for Nanotechnology-Related EHS Research (PCA 7)

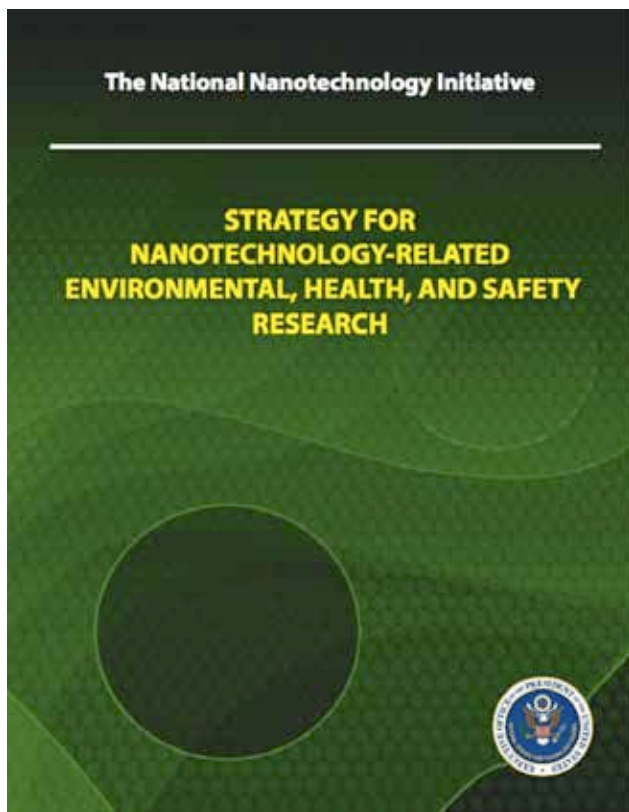
by fiscal year, in \$ millions (FY 2009 is estimated, FY 2010 is requested)



* research whose primary purpose is to understand and address potential risks to health and to the environment from nanotechnology, i.e., not including related instrumentation and metrology research

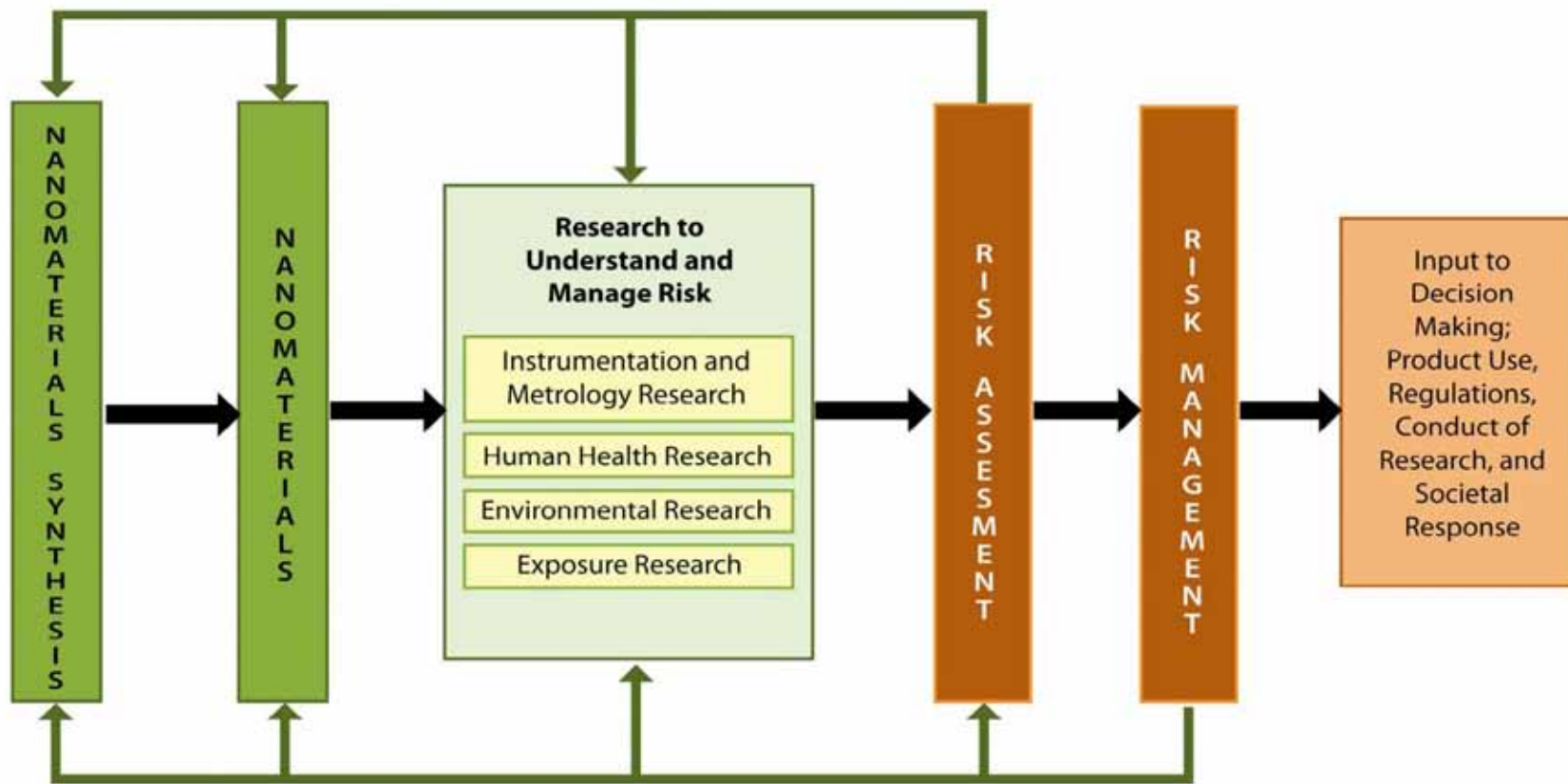
How Is This Strategy Used By Federal Agencies?

- Common framework for ongoing dialogue, collaboration, and co-funding
- Foundation from which agencies can build or modify their implementation plans
- Near to long term perspective with an internal adaptive management process



The National Nanotechnology Initiative: EHS Research Framework

Role of nanotechnology-related EHS research in risk management of nanomaterials*



* from Strategy for Nanotechnology-Related Environmental, Health, and Safety Research (February 2008):
http://www.nano.gov/NNI_EHS_research_needs.pdf

Welcome and Thanks

✓ Planning Team

- Carolyn Cairns, Consumers Union
- David Castner, University of Minnesota
- Charles Gause, Luna Innovations
- Amit Kulkarni, GE Global Research
- Bill Kojola, AFL-CIO
- Dianne Poster, NNI/NIST
- Steve Roberts, University of Florida
- Sally Tinkle, NNI/NIH/NIEHS

✓ Over 26 invited experts

✓ NEHI Agency Representatives

✓ Participants Today and Tomorrow

✓ Rapporteurs