

# National Nanotechnology Initiative

**Website: [nano.gov](http://nano.gov)**

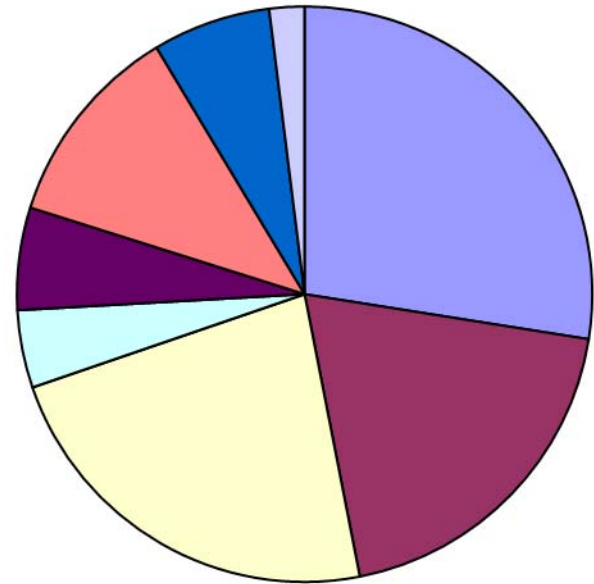


# National Nanotechnology Initiative



## NNI Scientific Organization: Program Component Areas

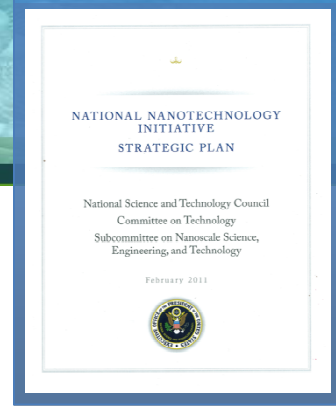
- **Fundamental Nanoscale Phenomena and Processes**
- **Nanomaterials**
- **Nanoscale Devices and Systems**
- **Instrumentation Research, Metrology, and Standards for Nanotechnology**
- **Nanomanufacturing**
- **Major Research Facilities and Instrumentation Acquisition**
- **Environment, Health, and Safety**
- **Education and Societal Dimensions**



## NNI Support for Innovation

- Cumulative NNI investment of over **\$16 billion** (including the President's request for 2012).
- Advanced foundational knowledge for control of matter at the nanoscale with over **4500 research projects in all 50 states.**
- Developed an **extensive infrastructure** of interdisciplinary research centers, networks and user facilities distributed across the country.
- Invested significantly in nanotechnology-related **EHS research** to date and anticipate continuing targeted increases.
- Established major **networks for developing public awareness** of nanotechnology through informal and formal educational programs.





## 2011 NNI Strategic Plan: What's New?

### Outcomes for each goal

- Informs and influences the Federal budget and planning processes through its member agencies
- Three- to five-year objectives

### Examples of Objectives

- **1.3** Identify and support goal-oriented nanoscale science and technology research aimed at national priorities informed by active engagement with academia, industry, and other stakeholders.
- **2.1** Develop robust, scalable nanomanufacturing methods necessary to facilitate commercialization by doubling the share of the NNI investment in nanomanufacturing research over the next five years.
- **3.1** Initiate, develop, support, and sustain programs for educating, training, and maintaining a skilled nanotechnology workforce.



## **Solar Energy Collection and Conversion**

**Goal:** Enhance understanding of conversion and storage phenomena at the nanoscale, improve nanoscale characterization of electronic properties, and help to enable economical nanomanufacturing.

## **Sustainable Nanomanufacturing**

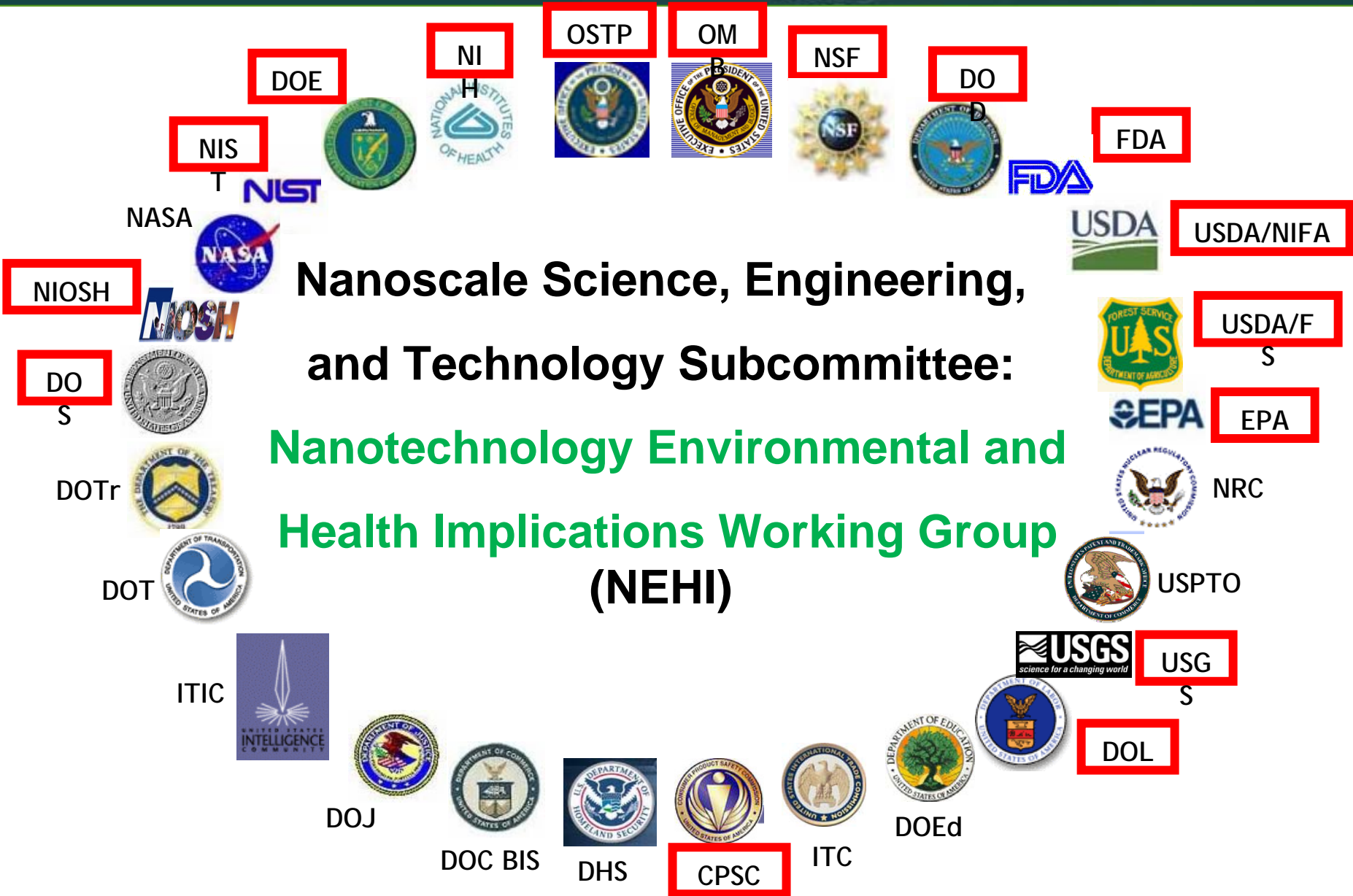
**Goal:** Immediate extension of methods to manufacture more complex components, systems, and devices that result from nanotechnology and will help secure and strengthen the U.S. manufacturing base by creating the industries of the future.

## **Nanoelectronics for 2020 and Beyond**

**Goal:** accelerate the discovery and use of novel nanoscale fabrication processes and innovative concepts to produce revolutionary materials, devices, systems, and architectures to advance the field of nanoelectronics.



# National Nanotechnology Initiative



National Nanotechnology Initiative Investments v1

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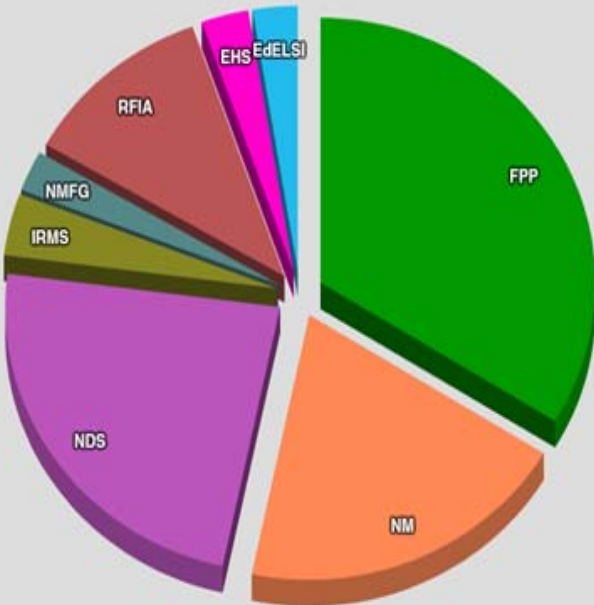
Toggle View between Agency and PCA  
Select Budget Type to power charts

NNI Agency

Actuals

National Nanotechnology Initiative (NNI) Investments

2006 > All Agencies >



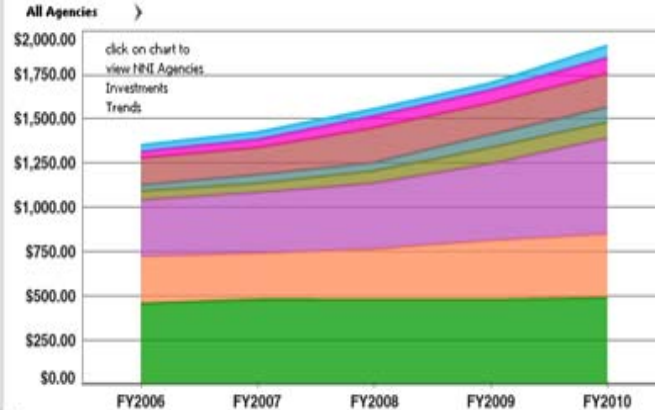
2006 > All Agencies >

Agency	Investments (\$ in Millions)
FPP	\$455.90
NM	\$265.10
NDS	\$319.60
IRMS	\$51.00
NMFG	\$33.80
RFIA	\$152.40
EHS	\$37.70
EdELSI	\$35.70
<b>Total</b>	<b>\$1,351.20</b>

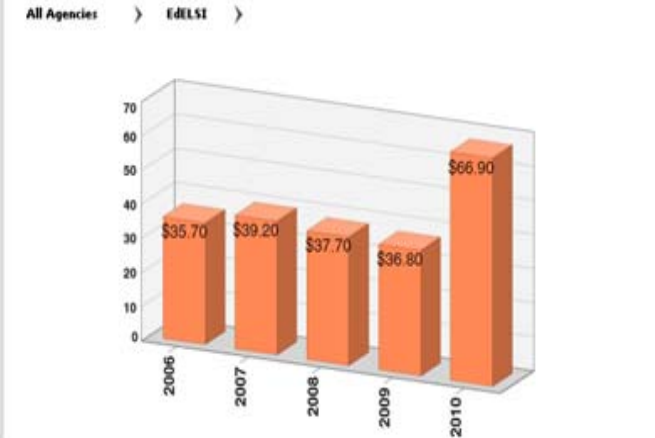
PCA Group	PCA Number	Description
FPP	1	Fundamental Phenomena & Processes
NM	2	Nanomaterials
NDS	3	Nanoscale Devices & Systems
IRMS	4	Instrument Research, Metrology & Standards
NMFG	5	Nanomaterials Manufacturing
RFIA	6	Major Research Facilities & Instrument Acquisition
EHS	7	Environmental, Health & Safety
EdELSI	8	Education and Social Dimensions

NNI Agency	Description
CPSC	Consumer Product Safety Commission
DOD	Department of Defense
NSF	National Science Foundation
DOE	Department of Energy
DHHS/FDA	Department of Health and Human Services, Food and Drug Administr...
DHHS/NIH	Department of Health and Human Services, National Institutes of Health
DOC/NIST	Department of Commerce, National Institute of Standards and Technol...
NASA	National Aeronautics and Space Administration
EPA	Environmental Protection Agency
DHHS/NIOSH	Department of Health and Human Services, National Institute of Occu...
USDA/NIFA	US Department of Agriculture, National Institute of Food and Agricultur...
USDA/FS	US Department of Agriculture, Forest Service

PCA Investments Trends over the years



NNI Funding Trends







Nanotechnology  
101

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Welcome to the new Nano.gov! We hope you will like the changes we've made. If you have any questions or comments, feel free to contact us.

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What is Nanotech?

What are the Benefits?

How is the NNI Helping?

- Nanotechnology is the understanding and control of matter at the nanoscale, at dimensions between approximately 1 and 100 nanometers, where unique phenomena enable novel applications.
- Encompassing nanoscale science, engineering, and technology, nanotechnology involves imaging, measuring, modeling, and manipulating matter at this length scale.
- So how small is "nano"? A nanometer is one billionth of a meter. A sheet of paper is about 100,000 nanometers thick. And there are 25,400,000 nanometers in one inch.

[See more in Nano 101](#)



### NNI Strategic Planning Stakeholder Workshop Report

The NNI obtained inputs from academia, industry, NGOs, and various publics in order to update the objectives and goals of the NNI Strategic Plan.

### News & Media Releases



Apr 25, 2011

Dr. Clayton Teague Steps Down After Eight Years as NNCO Director

Oct 26, 2010

National Nanotechnology Coordination Office Announces New Deputy Director Dr. Sally Tinkle

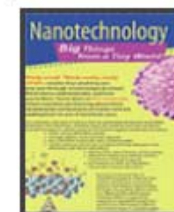
[Newsroom](#)



### NNI Strategic Plan

This document describes the NNI vision and goals and the objectives by which these goals are to be achieved.

[See all NNI publications>>](#)



### Nanotechnology: Big Things from a Tiny World

Request a brochure, view it online, or print a copy yourself.



**Nano.gov**

National Nanotechnology Initiative

*Leading to a revolution in technology  
and industry that benefits society*

**Thank you!**

