

# Nanotechnology Facts & Figures

**Nanotechnology** is the engineering of functional systems at the molecular scale.

Nanotechnology has the **potential to impact every sector of our economy** and nano-enabled products are projected to be a \$2.5 trillion global industry by 2015, increasing from \$60 billion in manufactured goods in 2008.

Sources: Lux Research and Drug Week, August 10, 2007

Nanotechnology is a **building block for high-growth economic sectors** including next generation materials, biotechnology, electronics, energy, homeland security, medical devices, among others.

The number of manufacturer- identified, nanotechnology-enabled products on the market grew **from 54** in 2005 **to 1,317** in 2011. (*NanoTech Project*)

The worldwide need for nanotechnology workers is expected to reach **2 million** by 2015. The United States will house a bigger share of these workers — **45 percent** — than any other country. (*NNI*)

The nation's coordinated federal program charged with organizing nanotechnology efforts across all agencies — the **National Nanotechnology Initiative** (NNI) — aims to catapult nanotechnology innovations and position America as the world leader in this industry. Specifically, the NNI aims to:

- Advance a world-class nanotechnology research and development program.
- Foster the transfer of new technologies into products for commercial and public benefit.
- Develop and sustain educational resources, a skilled workforce, and the supporting infrastructure and tools to advance nanotechnology.

## Did You Know?

There are currently several leading research institutes operating in Illinois that focus on areas of nanotechnology:

- Center for Nanoscale Materials (Argonne National Laboratory)
- Center for Nanoscale Chemical-Electrical-Mechanical Manufacturing Systems (University of Illinois)
- International Institute for Nanotechnology (Northwestern University)
- Institute for Bionanotechnology in Medicine (Northwestern University)
- Center for Nanoscale Science and Technology (University of Illinois)
- Beckman Institute for Advanced Science and Technology (University of Illinois)
- Micro and Nanotechnology Laboratory (University of Illinois)
- The James Franck Institute (University of Chicago)

Source: *Illinois.gov*

## Illinois: A Center for Nanotechnology

Illinois is an “unparalleled multi-disciplinary environment for cutting-edge basic and translational research,” according to *Small Times*, as it ranked No. 4 worldwide in nanotechnology research and education. The journal reported several more Illinois highlights:

- Among U.S. universities, the University of Illinois at Champaign-Urbana (UIUC) ranked No. 2 in facilities and No. 3 in both education and research in 2009. In the same year, it ranked No. 7 in peer nano research.
- In both peer nano research and commercialization, Northwestern University is ranked No. 2 in the United States in 2009.

Illinois is already a leader for high-tech jobs.

- Illinois ranks No. 10 in the country for its number of nanotechnology companies, and it ranks No. 7 for academic and government research. (*NanoTech Project*)
- According to TechAmerica and the U.S. Bureau of Labor Statistics, Illinois ranks No. 7 in high-tech employment. Forty-two of every

The Illinois Science & Technology Coalition is a 501(c)(6) membership-based organization.

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