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News Release

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Mapping the New U.S. “Nano Metro” Economy Five Cities Lead as Nanotech Business, Research, and Education Clusters

WASHINGTON — With nanotechnology poised to be the globe’s next big economic driver, five U.S. cities have emerged as the country’s top “Nano Metro” locations—areas with the nation’s highest concentration of nanotech companies, universities, research laboratories, and organizations.

Three leading “Nano Metro” centers—San Jose, San Francisco and Oakland—are in California, the state emerging as the domestic frontrunner in nanotechnology competition. The other two—Boston and Middlesex-Essex—are in Massachusetts.

This information is on view as part of a new interactive map displaying the growing “Nano Metro” landscape. The map and accompanying analysis—presented by the Wilson Center’s Project on Emerging Nanotechnologies—depicts and ranks cities and states by numbers of companies, nanotechnology academic and government research centers, organizations, business sectors, and much more. It is powered by Google Maps® and is available at no cost online at www.nanotechproject.org/121.

Nanotechnology Map Highlights:

- The **top 4 nanotechnology states** are: **California, Massachusetts, New York, and Texas** (each with over 50 entries).
- The **top 5 “Nano Metro” areas** are: **San Jose, CA; Boston, MA; San Francisco, CA; Oakland, CA; and Middlesex-Essex, MA** (each with over 20 entries).
- Nanotechnology companies are working in **3 main sectors: materials, medicine and health, and tools and instruments** (each with over 100 entries).
- The **number of universities and government laboratories working on some aspect of nanotechnology is significant**, with 138 identified.
- In all, **47 of 50 states and the District of Columbia** contain at least one company, university, government laboratory, or organization working in nanotechnology, showing that nanotechnology activity is occurring throughout the United States.

In 2006, according to Lux Research, governments, corporations and venture capitalists worldwide spent \$12.4 billion on nanotechnology research and development (R&D)—up almost 30 percent from 2005. By 2014, Lux estimates \$2.6 trillion in manufactured goods will incorporate nanotechnology—or about 15 percent of total global output.

“Nanotechnology is usually seen as a worldwide or national enterprise, with the U.S. government alone investing \$6.8 billion in nanotech R&D over the last decade. But what some describe as ‘The Next Industrial Revolution,’ is actually taking place at a local and state level,” said Project on Emerging Nanotechnologies Director David Rejeski. “The top 20 U.S. “Nano Metro” areas include cities as different as Raleigh, NC, Albuquerque, NM, and New York, NY.”

“This map is drawn from publicly available information in key databases and it is not complete,” according to Rejeski. “We know there is a lot more nanotech commercial and research activity than is reflected here. But this is a first attempt to show that nanotechnology is not a Silicon Valley or Boston Route 128 phenomena. Nanotechnology increasingly is on Main Street everywhere. As the Project receives new data, we plan to update the map to provide the best possible depiction of this country’s emerging nanotechnology landscape.”

Nanotechnology is the ability to measure, see, manipulate and manufacture things usually between 1 and 100 nanometers (nm). A nanometer is one billionth of a meter. A human hair is roughly 100,000 nanometers wide. The limit of the human eye’s capacity to see without a microscope is about 10,000 nm.

The **Project on Emerging Nanotechnologies** is an initiative launched by the Woodrow Wilson International Center for Scholars and The Pew Charitable Trusts in 2005. It is dedicated to helping business, government and the public anticipate and manage possible health and environmental implications of nanotechnology.

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