



**NEWS MEDIA CONTACT:  
Jack Solomon, 203-837-2164**

**FOR IMMEDIATE RELEASE  
December 12, 2003**

## **Chemical Industry Releases Roadmap for Nanomaterials By Design**

The Chemical Industry Vision2020 Technology Partnership today released the *Chemical Industry R&D Roadmap for Nanomaterials By Design: From Fundamentals to Function*. The document is based on input gathered from key stakeholders during the "Nanomaterials and the Chemical Industry R&D Roadmap Workshop" in September 2002. Sponsors included Vision2020, the National Nanotechnology Initiative (NNI), and the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy.

"This Roadmap is designed to help accelerate delivery of enormous nanomaterial benefits to the U.S. economy and all of society," said Jack Solomon, chair of the Vision2020 Nanomaterials Roadmap Steering Committee. With NNI and DOE support, Solomon's twelve-member committee assembled the workshop results into a novel research and development (R&D) roadmap designed to stimulate public and private investment, help guide chemical industry R&D, and inform policy development. Solomon said, "Vision2020 hopes that NNI will adopt the roadmap as a core strategy for its grand challenge in Nanostructured Materials by Design."

To accelerate widespread market entry of beneficial nanomaterials, the strategy suggests major innovations in the approach to nanomaterials R&D. Nanomaterials on the market today have evolved largely through the discovery of new phenomena and subsequent application development. While individual researchers will continue that approach, the novel strategy proposes a broader, collaborative effort to systematically build a fundamental knowledge of nanostructures and properties in tandem with the necessary tools, modeling, and manufacturing capabilities. The long-term goal is to develop the capability to design nanomaterials tailored to specific end-use functions, moving the United States to the forefront of this emerging science. Potential applications promise revolutionary advances in energy, computing, medicine, and other fields. Success will require such closely integrated, multidisciplinary R&D from fundamentals to function, that it signifies a cultural change in the way science and technology are pursued.

The roadmap identifies R&D priorities in each core area (fundamental knowledge, tools, modeling, and manufacturing capabilities) and additional activities in key enabling areas. The enabling areas include health, safety, and environment; standards and informatics; technology transfer; education; and infrastructure.

Vision2020 is seeking chemical company leaders to help implement the roadmap. Current members include Air Products and Chemicals Incorporated, BP, Cargill, Ciba Specialty Chemicals, The Dow Chemical Company, E.I. du Pont de Nemours and Company, Eastman Chemical Company, General Electric Company, Honeywell, Praxair Incorporated, Rohm and Haas Company, the American Chemical Society, the American Institute of Chemical Engineers, the Council for Chemical Research, and the Materials Technology Institute of the Chemical Process Industries. View the Roadmap at [www.ChemicalVision2020.org](http://www.ChemicalVision2020.org).