

# **National Nanotechnology Initiative**

## **Research and Development Supporting the Next Industrial Revolution**



## **Supplement to the President's FY 2004 Budget**

National Science and Technology Council  
Committee on Technology  
Subcommittee on Nanoscale Science, Engineering, and Technology

*Report prepared by*  
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SUBCOMMITTEE ON NANOSCALE SCIENCE, ENGINEERING, and TECHNOLOGY (NSET)

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MEMBERS OF CONGRESS:

I am pleased to forward with this letter a report on the multi-agency National Nanotechnology Initiative (NNI). Federal investments under the NNI in nanoscale science and engineering research and development (R&D) are extending the frontiers of scientific knowledge and leading to technological advances that have the potential to impact virtually every facet of industry and society. For example, nanoscale science and engineering may one day enable real-time medical diagnoses, enhanced imaging, and targeted drug delivery; efficient manufacturing processes that reduce waste and pollution; new methods for energy conversion and storage; and generations of electronic devices that are smaller, faster and cheaper. Applications that draw on advances in multiple disciplines, such as chemistry, physics, biology and materials, are blurring the distinctions of traditional scientific domains and creating a new culture of interdisciplinary science and engineering.

A recent report of the National Research Council (NRC), *Small Wonders, Endless Frontiers*, underscored the importance of nanoscale science and engineering research and praised the NNI for its role in coordinating interagency nanotechnology funding. To further strengthen this initiative, the NRC panel made several recommendations, including establishing a means for directing advice from the private sector to those in the Federal Government who are managing and coordinating the R&D program, developing strategic goals—and metrics with which to measure progress towards them, increasing interdisciplinary and cross-agency research, stimulating partnerships with industry, and leveraging regional, state, and local initiatives.

The Administration is committed to addressing these and other recommendations by the NRC panel. As a first step, an external advisory board will review and provide advice aimed at strengthening the NNI. The President's Council of Advisors for Science and Technology (PCAST), with expertise relevant to nanotechnology or the management of large-scale, multidisciplinary research and development programs, is conducting this external review.

Investments in nanoscale science and technology R&D are essential to achieving the President's top three priorities: winning the war on terrorism, securing the homeland, and strengthening the economy. Programs such as the NNI will help ensure our global leadership in nanotechnology and the many areas that it impacts.

Sincerely,



John H. Marburger, III  
Director

