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PROMOTING INNOVATION

Research and Development Funding in the President's 2005 Budget

American economic strength and national security depend on our Nation's rich tradition of technological innovation. The FY 2005 Budget calls for: Research and Development (R&D) investments to promote technological innovation in high-priority areas including nanotechnology, information technology and manufacturing; the creation of incentives for increased private sector R&D funding; and stronger intellectual property protections. These investments will stimulate innovation and enhance U.S. competitiveness.

Supporting Innovation through R&D. The 2005 Budget provides for an unprecedented \$132 billion investment in R&D, building on the record levels of 2004 and representing an annualized increase of more than 10 percent since 2001. In FY 2005, 13.5 percent of all discretionary outlays are dedicated to R&D—the highest share in 37 years. Of this, the President's Budget commits 5.7 percent of discretionary outlays to non-defense R&D, which represents the third highest level in 25 years. Key areas of investment are:

- **Nanotechnology.** The President's Budget includes \$1 billion in funding aimed at increasing understanding, and developing applications based on, the unique properties of matter that occur at the nanoscale—that is, at the level of clusters of atoms and molecules. Funding for nanotechnology R&D has more than doubled since 2001, reflecting an average annual increase of over 20 percent. Advances in nanotechnology promise to lead to revolutionary new materials and devices that will contribute to improvements in medicine, manufacturing, information technology, energy supply and the environment.
- **Networking and Information Technology.** The information technology sector generates some of the Nation's best and highest paying jobs, and contributes in numerous ways to broader productivity growth. Since 2001, funding for networking and information technology R&D has increased by 14 percent to over \$2 billion, and the R&D funded by this effort has laid the foundation for many of the technological innovations that have driven this sector forward. The President's FY 2005 Budget sustains this significant investment.
- **Manufacturing Technology.** U.S. manufacturers are a critical element of today's economy, and their ability to remain competitive will continue to be tied strongly to technological innovation. The President's Budget requests increased funding for a number of programs aimed at strengthening manufacturing innovation, including those within the National Science Foundation's Design, Manufacture and Industrial Innovation Division—up 27 percent since 2001 to \$66 million—and the Manufacturing Engineering Laboratory at the National Institute of Standards and Technology (NIST)—up 50 percent since 2001 to \$30 million. The FY 2005 Budget sustains funding for the Manufacturing Extension Partnership at the 2004 level and proposes to implement reforms to improve the efficiency and effectiveness of the program.

Measurement and Standards. A key to the commercialization of new technologies is the development of measurement tools and methods, as well as standards that protect consumers and industries alike. The President's Budget requests \$482 million—an increase of 20 percent over FY 2004—for core programs at NIST, to continue to support the work of the agency's world-class researchers.

Stimulating Private Investment in R&D. The President recognizes the importance of enhancing the opportunities for entrepreneurs to turn innovative ideas into new products, new companies, and new jobs. Thus the President's Budget calls for making the Research and Experimentation tax credit permanent in order to stimulate private sector investment in R&D, building on earlier and broader-based tax relief.

Protecting Intellectual Property. The FY 2005 Budget provides an increase of over \$300 million for the U.S. Patent and Trademark Office (PTO) in support of the agency's strategic plan to improve performance, thereby providing businesses with better and more timely intellectual property protection, which is key in today's marketplace. The President's Budget provides the PTO access to all of the revenue it generates from the collection of fees in 2005, estimated at over \$1.5 billion.