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# PROMOTING INNOVATION AND COMPETITIVENESS

President Bush's Technology Agenda



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# Promoting Innovation and Competitiveness

## *President Bush’s Technology Agenda*

The United States has long been the leader in innovation and technological invention. From Thomas Jefferson to Gordon Moore, American ingenuity has helped expand the nation’s economy and increase our standard of living. Today more than ever before, technology development and individual enterprise are the critical drivers of economic growth, both in the U.S. and around the world.

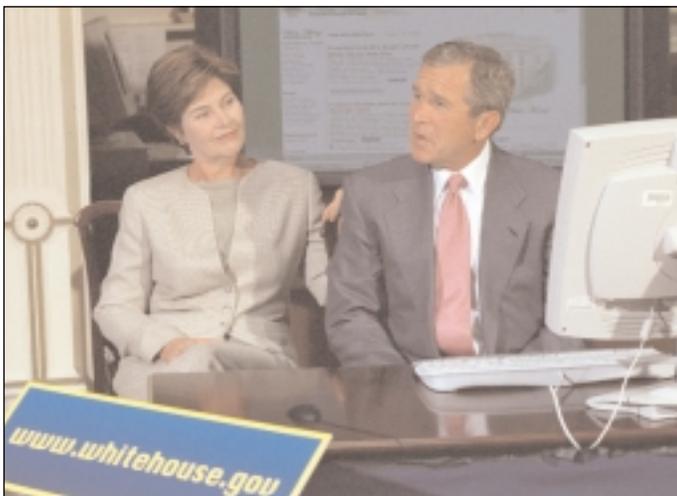
New technologies are revolutionizing the way we learn, work and play – all while improving our quality of life. Agricultural technologies are increasing crop yields while reducing the need to spray herbicides and insecticides on our foods and into our environment. Pharmaceutical and biotechnology companies are generating new cures and treatments that help us live longer and healthier lives. Advances in health care have increased life expectancies, while CAT scans and MRIs, laser scalpels, endoscopes and blood-cleaning technologies make surgery safer, less invasive and more precise. New computational power has given us the keys to our genetic code, transformed the global economy, helped us in our war on terrorism, and opened a universe of business and community service opportunities. Finally, high speed data networks known as broadband offer great potential to increase productivity, promote economic growth and revolutionize how we deliver health care.

President Bush believes that government has an important role to play in creating an environment in which innovators can generate new ideas and entrepreneurs can turn these ideas into new products, new companies and new jobs. As the birthplace of the Internet, and home to the world’s most important information technology companies, the United States is well positioned to continue its leadership in technical innovations for years to come. This report highlights steps the President is taking to ensure that America realizes this promise. Specifically, the President is:

- *Promoting innovation* by fostering the development and deployment of broadband, strengthening research and development funding, and implementing landmark education reform legislation, including significant improvements in math and science education.
- *Supporting entrepreneurship* by removing competitive barriers overseas, reforming the U.S. high tech export control system, and reducing the tax burden on successful entrepreneurs.
- *Empowering citizens* by expanding the federal commitment to e-government, promoting assistive technology and strengthening privacy protections.

## Promoting Innovation

Although industries that produce information technology represent only eight percent of all enterprises in our economy, they produce 29 percent of U.S. exports, generate some of the best



and highest paying new jobs in our nation, and strongly contribute to our productivity growth. Looking forward, we must foster incentives to ensure continued growth in innovation and new technologies. We must invest in basic research, ensure that the intellectual property of innovators is secure at home and abroad, as well as invest in the skills and abilities of all our workers. One innovation that holds significant promise for increased U.S. productivity is the high-speed Internet, also known as broadband.

Already, the President has:

- **Encouraged Broadband Development and Deployment.** As Vice President Cheney stated in February 2002, the Administration is “committed to keeping America the world’s leader in developing new broadband technology and applications.” To achieve this goal the President has:
  - ✓ *Signed into law an economic security package that will speed depreciation schedules.* Deploying the advanced telecommunications equipment and technologies needed for the high-speed Internet is capital intensive. Companies are more likely to make these important investments if they can depreciate the capital costs associated with broadband rollout over a shorter time period.

- ✓ *Worked with Congress to pass an extension of the moratorium on Internet access taxes, which will help keep Internet access, including broadband access, affordable.*

Consumer demand for broadband is very price sensitive. Precluding new access fees on broadband services helps reduce the cost of both the Internet and high-speed data services.



- ✓ *Directed the President's Council of Advisors on Science and Technology (PCAST) to review and make recommendations on how to facilitate broadband deployment, focusing on issues related to consumer demand.* PCAST is the President's private sector science and technology advisory panel. The Council consists of esteemed members of the academic and business community. PCAST is scheduled to make its broadband recommendations to the President this fall.
- ✓ *Promoted research and development.* The President signed into law the largest federal R&D budget in history and proposed broadening and making permanent the research and experimentation tax credit. Federal research and development, including programs such as the \$1.9 billion Networking and Information Technology Research and Development (NITRD) initiative, help lay the foundation for advances in broadband technologies. Equally important is private sector investment in research. The R&E tax credit promotes private sector investment in research on advanced technologies such as broadband.

- **Reformed Education.** President Bush proposed and Congress passed sweeping education reforms that introduced measurement and accountability into the public education system.
- **Improved Math and Science Education.** President Bush signed into law legislation that provides \$160 million in 2002 for a new math and science partnership program. These funds are a down payment on an ambitious, five-year \$1 billion initiative. This program will link elementary and secondary schools with technology-savvy colleges and universities, strengthening math and science teaching and education at all levels.

- **Strengthened Corporate Research and Development.** The Administration has proposed broadening access to the research and experimentation tax credit to make it easier for companies to deduct many costs associated with developing new technologies and drugs. This reform will take effect by mid-2002, and the Administration continues to strongly support making the tax credit permanent.



- **Strengthened Federal and University Research and Development.** To encourage increased innovation, President Bush helped push federal R&D funding over \$100 billion for the first time in history. The President signed into law funding increases for science and technology at the National Science Foundation, the Environmental Protection Agency, and the U.S. Departments of Energy, Agriculture, Interior, Commerce and Transportation.

- **Pursued Pro-Growth Telecommunications Policies.** The Administration is working closely with industry and state and local governments to facilitate the development and deployment of new information technologies and services. On October 24, 2001, the Administration supported successful efforts to lift the wireless spectrum ownership limits, which constrained the wireless industry's ability to provide quality service.

- **Launched the President's Council of Advisors on Science and Technology.** On December 12, 2001 the President held the first meeting of PCAST. PCAST's membership includes John Marburger (President's Science Advisor and co-chairman of PCAST), Floyd Kvasme (PCAST co-chairman, partner, Kleiner Perkins Caufield and Byers), Gordon Moore (founder, Intel), Michael Dell (founder, CEO, Dell Computer) and Charles Vest (President, Massachusetts Institute of Technology), among others. PCAST has been charged with making recommendations to the President in three critical areas in addition to broadband:

- ✓ Science and technology to fight terrorism;
- ✓ Research and development needs for the country; and
- ✓ Energy efficiency to strengthen the nation's economy.

# Supporting Entrepreneurship

America is a land of entrepreneurs. We celebrate inventors, growth companies, new products and new technologies. As entrepreneurs and small businesses are among our most important sources of new technologies, we should design our economic security system to support their growth. Taxes must be kept low, regulations minimized, and free trade expanded.

Already, the President has:

- **Enacted the Largest Tax Relief in a Generation.** On June 7, 2001, the President signed into law the bipartisan tax relief he proposed during his campaign. The tax relief reduced the tax burden on successful entrepreneurs and effectively moderated the economic slowdown that began in 2000. It will result in greater investment and economic activity in the years ahead.
- **Accelerated Tax Depreciation Schedules for Capital Investment.** Advanced technologies are often rendered obsolete well before they are expensed under the tax code. Extended depreciation timelines increase the cost of capital investment in technology and create a disincentive for new investment. The President signed into law reforms of depreciation schedules as part of the economic stimulus package on March 9, 2002.
- **Pressed for Congressional Action on Trade Promotion Authority.** On December 6, 2001, the House of Representatives voted to renew Trade Promotion Authority, a vote the President worked tirelessly to secure. The Senate passed its version of Trade Promotion Authority renewal on May 23, 2002. The President continues to work to obtain an effective and unencumbered renewal of Trade Promotion Authority.



- **Modernized High Tech Export Controls.** The President has led the effort to reform our export control system both to strengthen our national security and our high tech industry's ability to compete overseas. The current high tech export control system is awkwardly structured, hindering U.S. businesses, while failing to strengthen our national security. The administration is committed to fundamental reform of the export control system, including passage of

the Export Administration Act. As an important interim step to ensure that industry is not burdened with outdated licensing requirements, the Administration has significantly raised the control levels for computer systems and announced the elimination of outmoded controls on general purpose microprocessors.

- **Signed the Internet Tax Moratorium.** On November 28, 2001, the President signed into law H.R. 1552, the Internet Non-Discrimination Act. The Administration supported extension of the Internet Tax Moratorium because the President believes the federal government must do its part to make Internet access affordable (by avoiding access taxes) and to encourage innovation in applications and evolving e-commerce business practices.
- **Reinvigorated Global Dialogue on Free Trade.** At the Fourth World Trade Organization Ministerial Conference (Doha, Qatar, November 9-14, 2001), President Bush overcame anti-globalization inertia from the previous WTO meeting in Seattle and reinvigorated efforts to promote enhanced global trade and partnerships.
- **Kept the Internet a Duty-Free Zone.** Also at Doha, Qatar, the Administration sought and secured an extension of the moratorium on customs duties on electronic transmissions. This action preserves the Internet as a duty-free zone, facilitating the growth of e-commerce around the world.
- **Established Permanent Normal Trade Relations with China.** President Bush extended permanent normal trading relations with China and allowed China's accession to the World Trade Organization. Because China is the largest emerging market in the world, American technology companies should benefit from the increased trade with China.
- **Protected U.S. Intellectual Property Rights.** Consistent with the President's pledge to strenuously protect intellectual property rights, the Administration successfully infiltrated and broke-up the notorious DrinkOrDie software piracy ring, seizing contraband and making arrests in 27 cities.



- **Provided Regulatory Relief for Government Contractors, Repealing “Blacklisting” Rule.** The President repealed the so-called “blacklisting” rule. This rule threatened government contractors, including technology companies, with arbitrary and unfair removal from consideration for government contracts.
- **Improved Cybersecurity.** The Administration is working to improve on-line security to create a safer and more stable environment for e-commerce.
  - ✓ *Successfully Negotiated the “Cybercrime Convention.”* On November 23, 2001, the United States signed the Council of Europe Cybercrime Convention along with 28 other nations. The Administration helped negotiate this important treaty, which is the first international treaty to address cybercrime. The Convention will help us and other countries fight criminals and terrorists who use computers to commit crimes, like assaulting global information infrastructures.
  - ✓ *Expanded and Strengthened Critical Infrastructure Protections.* The President recognized the need to ensure continued operation of America’s critical services by creating a national board and designating a special advisor for cyberspace security. Since October, the President’s Critical Infrastructure Protection Board has organized national committees to streamline initiatives and address emergency planning. The Board has initiated research into potential methods to isolate and protect government agency intranets that carry critical communications. It has fostered an unprecedented national government/industry partnership to provide alerts and warnings for cyber threats. It has requested that priority communications services be developed for use during times of crisis. The Board in partnership with the private sector is preparing a national strategy to secure cyberspace.
  - ✓ *Improved higher education for cyber defense professionals.* By injecting scholarship funding into universities across America, the Cybercorps Scholarship for Service program encourages college students to become high tech computer security professionals within the government. Managed by the National Science Foundation and the Office of Personnel Management, this program also helps build academic programs at universities in the area of computer security.

- ✓ *Implemented New Federal Standard for Computer Security.* The President helped foster better computer security at federal agencies. A new federal standard approved for use on December 4, 2001, is designed to protect sensitive, unclassified information well into the 21st Century. The new standard, called the Advanced Encryption Standard, also is expected to be used widely in the private sector, benefiting millions of consumers and businesses.

## Empowering Citizens

The President believes that technology can make the American dream accessible to more Americans, as well as improve the delivery of government services to all citizens. For example, assistive technology helps people with disabilities work and participate in community activities. New e-government initiatives will ensure that agencies leverage e-commerce technologies to communicate with business. Overall, the federal investment in technology represents an opportunity to free-up billions of dollars of wasteful federal spending, to accelerate government response times from weeks to minutes, and to directly support companies, jobs and research and development in the information technology sector.

Already, the President has:

- **Expanded E-Government.** The President has made “Expanded Electronic Government” one of his five management priorities for the entire federal government. Despite spending more than \$50 billion on IT, the federal government has not achieved productivity gains commensurate with commercial firms. Led by the Office of Management and Budget, the Administration is deploying 24 high payoff e-government initiatives to maximize government productivity gains from technology, eliminate redundant systems, and significantly improve government’s quality of service for citizens and businesses over the next 18 to 24 months.
- **Promoted Assistive Technology.** As part of his New Freedom Initiative launched February 1, 2001, the President offered a comprehensive package of initiatives to increase research in, and access to, assistive technologies, including:
  - ✓ Increasing funding for Rehabilitative Engineering Research Centers (\$20 million);
  - ✓ Increasing funding for low-interest loan programs to help people with disabilities purchase assistive technology (\$35 million); and

- **Made Federal Information Technology Accessible to People with Disabilities.** Leading by example, the federal government is promoting the interests of Americans with disabilities, as it works closely with the high tech industry and disability community to ensure full and successful implementation of Section 508, which ensures that information technology purchased by the federal government is accessible to Americans with disabilities. The redesigned White House Web site has been hailed as a model of Section 508 compliance, and President Bush is committed to extending this model throughout the entire federal government, to ensure that the benefits of e-government are available to all Americans, regardless of disability.

- **Strengthened Privacy Protections.** President Bush believes that government has an important role to play in helping ensure that every American has control over his or her personal information, and that the Internet is a safe, secure and rewarding environment. The President and his Administration have taken a number of steps to strengthen Internet privacy protections, including:



- ✓ Swift implementation of new medical privacy protections that give patients greater access to their own medical records and more control over how their personal information is used.
- ✓ Strong enforcement of children’s privacy rights, including prosecuting the first five cases under the Children’s Online Privacy Protection Act.
- ✓ Creation of a national “do not call” list that allows consumers to remove their names from telemarketing lists with a single phone call.
- ✓ Announcing six spam settlements during National Consumer Protection Week in February 2002.

- **Acted to Thwart Identity Theft.** The Administration announced a renewed crack-down on identity thieves on May 2, 2002. Working in conjunction with state and local law enforcement, the Department of Justice announced seventy-three new criminal prosecutions charging 134 individu-

als in 24 districts with identity related crimes. The Administration asked Congress to pass new legislation to help further thwart identify theft, including the establishment of longer prison terms and a new charge of “aggravated identity theft” for those who steal identities to commit crimes. The Administration also created a universal identity-theft affidavit to help identity-theft victims restore their good name. This useful new tool will save consumers time and aggravation when they dispute fraudulent debts and accounts that were opened in their name without their consent.

- **Promoted Teleworking.** The President believes that teleworking is good for families, persons with disabilities, and the environment because it gives workers the flexibility to meet everyday demands. Given such benefits, the President has taken a number of steps to promote telework. For example, within the first two weeks of his administration, President Bush proposed a \$20 million “Access to Telework Fund” to expand employment opportunities for individuals with disabilities by increasing access to teleworking equipment.