

An Investment in the Future

President Bush believes that science is key to protecting our Nation, strengthening our economy and improving our lives. During President Bush's Administration we have seen a dramatic increase in science funding that will ensure our dominant status as the world's leading innovator and drive new scientific discovery and technological innovation. These investments will lead to advances in national and homeland security and improvements in quality of life for everyone.

America leads the world in government funding for research. America currently spends one and a half times more on federally funded research and development than all the European Union countries combined, and three times more than Japan, the next highest investor in R&D. Our scientists collectively have the best laboratories in the world, the most extensive infrastructure supporting research, the greatest opportunities to pursue novel lines of investigation, and the most freedom to turn their discoveries into profitable ventures if they are inclined to do so. We are leaders not only in virtually every scientific and technical field, but also leaders in translating laboratory results into new medicines, technologies and safe, affordable products that enhance the lives of each and every one of us every day.

The President's FY05 budget request of \$132 billion for Federal R&D activities marks a 44 percent increase since 2001 and the highest percentage of discretionary funds invested in science since the Apollo space program. Looking to the future, the President's Federal R&D spending request in his 2005 budget amounts to the greatest share of GDP in more than a decade. Funding for basic research, the fuel for future technology development, is at an all-time high of \$26.8 billion in FY 2005, compared to \$21.3 billion just four years ago. These impressive figures are further multiplied by private investment in R&D, which is more than twice public expenditures. These private investments have been supported by the President's tax relief, which extended the Research and Experimentation tax credit through 2005. President Bush supports making the R&E tax credit permanent,

The Bush Administration has supported research and development in a wide spectrum of priority areas including clean energy, nanotechnology, broadband, information technology, homeland and national security, education, bio-medical research and climate change. For example, less than a year ago the President signed into law the 21st Century Nanotechnology Research and Development Act, which will be instrumental in developing new medical breakthroughs, new applications for managing our environment, enhanced products and improved manufacturing methods. The President's 2005 Budget provides \$1 billion for NNI, a doubling over levels in 2001. Most recently, the President signed Project BioShield legislation that will provide \$5.6 billion to develop new technologies and medicines to defend against chemical, biological, radiological and nuclear attacks.

In addition, President Bush also understands the importance of strong math and science skills in a globally competitive economy. The President has proposed a \$120 million increase in funding for the Department of Education's Math and Science Partnership program to promote strong teaching skills for elementary and secondary math and science teachers; expanded student loan forgiveness for math and science teachers who teach in low-income schools; and the Presidential

Math and Science Scholars Fund to provide college scholarships of up to \$5,000 to low-income students who study math or science.

President Bush also values the integrity of science as a vital asset in the policy-making process. In addition to ensuring science and technology leadership through unprecedented Federal funding, the Bush Administration looks to the best sources of technical expertise — both inside and outside the government—for policy input and advice. This Administration has repeatedly sought independent assessments through organizations such as the National Academy of Sciences (NAS). The NAS reviewed issues such as air pollution policy, fuel economy standards, and the use of human tests for pesticide toxicity – all at the Administration’s request - and reviews of dioxin and perchlorate are ongoing. The Administration’s climate change science program is based on an NAS report that was requested by the President in the spring of 2001, and NAS continues to review our programs and strategic research planning in this field. Advice from the NAS and the work of the myriad boards and councils that advise Federal agencies have strongly informed policy and consistently shaped government decisions.

Science continues to expand in scope and power under President Bush’s leadership, and is linked more strongly than ever to technologies essential for national security, economic strength, job growth, environmental improvement and quality of life. This Administration has committed generous resources to this vital endeavor in the face of other urgent priorities because President Bush believes science, like security, is a gift to future generations.

John H. Marburger, III
Science Advisor to the President and Director, Office of Science and Technology Policy