

National Science and Technology Council Accomplishments (November 1993--September 1995)

GOAL 1: COORDINATE SCIENCE AND TECHNOLOGY POLICY ACROSS THE FEDERAL GOVERNMENT

- Created a "virtual agency" of nine goal-oriented Research and Development (R&D) Committees to establish priorities that cross-cut multiple agencies' purview:
 - Health, Safety, and Food
 - National Security
 - Information and Communication
 - Civilian Industrial Technology
 - International Science, Engineering, and Technology
 - Environment and Natural Resources
 - Transportation R&D
 - Education and Training
 - Fundamental Science
- Facilitated Federal Government-wide development of [Strategic Planning Documents](#) that articulate S&T goals and include implementation plans.
- Developed the first integrated R&D budget to focus on national S&T goals, utilizing priorities established by each NSTC Committee.
- Implemented R&D programs on an interagency coordinated basis, to derive the benefits of shared resources and to eliminate duplication.
- Collaborated with stakeholders by using national and regional forums and soliciting input of the President's Committee of Advisors on Science and Technology (PCAST).
 - "Conference on Human Health and Climate Change" in September 1995.
 - "America in the Age of Information: A Forum on Federal Information and Communications R&D" in July 1995.
 - "Making it Happen: First in the World in Science and Mathematics Education" Forum in July 1995.
 - "Science in the National Interest Regional Fora" in Massachusetts, Florida, Texas and California in the Spring/Summer 1995.

- Colloquium on "Assessing the Contribution of Fundamental Science" in May 1995.
- "Future Directions in Transportation R&D" Forum in March 1995.
- "The Role of Science and Technology in Promoting National Security and Global Stability" Forum in March 1995.
- White House Conference on Environmental Technology in December 1994.
- "Meeting the Challenge: Health, Safety and Food for America" Forum in November 1994.
- "Environment and Natural Resources R&D" Forum in March 1994.
- Science in the National Interest Forum in January 1994.
- Launched cost sharing partnerships with critical industries:
 - Building and Construction Initiative: Government-Industry partnership to achieve a 50 percent reduction in delivery time, operations, maintenance and energy costs; a 30 percent improvement in productivity and comfort; 50 percent fewer occupant-related and construction work injuries and illnesses; 50 percent less waste and pollution; and 50 percent more durability and flexibility in new construction--all by the year 2003.
 - Partnership for a New Generation of Vehicles: To develop a vehicle with three times the fuel efficiency at no sacrifice in cost, comfort or safety within 10 years.
 - National Electronics Manufacturing Initiative: A public-private partnership focused on leveraging limited resources in electronics manufacturing of electronic information products that connect to information networks in support of sustained national security and economic growth.
 - National Environmental Technology Strategy: A national strategy developed with industry, academia, non-governmental organizations, and state and local governments to support the development and deployment of environmental technologies, both here and abroad.
 - Materials Technology Partnership: Combined efforts of universities, industry, and government to enable development and rapid commercialization of many advanced materials, thereby assisting the Nation in meeting the rapidly changing demands of society and industry, while facilitating economic growth and safeguarding national security.
- Additional specific accomplishments include:

Environment

- Devised a Landsat Remote Sensing Strategy that assures the future continuity of this important environmental data, minimizes operating costs, and promotes private sector commercial opportunities.
- Created an Environmental Technology Strategy: In cooperation with industry, announced a new long term, environmental technology strategy on Earth Day 1995 that fosters economic growth and creates jobs, while improving and sustaining the environment through the innovative use of

environmental technologies. The strategy focuses on anticipating and avoiding environmental damage, rather than reacting to environmental damage, and on increasing overall private sector productivity through environmental technologies and practices that significantly reduce the use of energy and materials.

- Identified cross-cutting ecosystem research needs and developed an integrated, interagency strategy for ecosystem research, monitoring and assessment. This strategy is being used to set interagency priorities for ecosystem research, and is guiding efforts to better coordinate ecological monitoring and assessment activities within Federal agencies.
- Coordinated Federal agency earthquake research and mitigation effort to more fully utilize existing data.

Transportation

- Collaborated with industry, academia, and Federal agencies to define Administration's vision and goals for future Federal investments in aeronautics and aviation research and technology to ensure superiority of U.S. aircraft and engines; improve safety, efficiency, and cost effectiveness of the global air transportation system; and long-term environmental compatibility of the aviation system, as reflected in Goals for a National Partnership in Aeronautics Research and Technology.
- Initiated space policy review to eliminate duplication and increase collaboration among agencies.
- Initiated Global Positioning System (GPS) policy review to recommend national policy on the future management and use of GPS, while considering national security, economic policy and foreign policy issues.

Fundamental Science

- Developed an Administration policy statement, Science in the National Interest, that calls for improving our investment in fundamental science, and stresses the importance of science in our Nation's progress and future economic growth.
- Enhanced utilization of peer review to determine merit of programs in fundamental science.
- Increased access of university, government and industry research scientists to Federal facilities and helped preserve U.S. leadership in S&T by developing a successful \$100 million "User Facility Initiative".
- Recommended regulatory reforms to the Vice President affecting university research and biotechnology.
- Revised OMB Circular A-21, "Cost Principles for Educational Institutions" to fund the best science at the lowest cost, while providing accountability for Federal funds and enhancing consistency in university accounting practices.

Education

- Formed the Interagency Learning Technology Office (ILTO) to initiate and support focused

collaborations of the technology agencies with the Departments of Education and Labor and with the private sector. This collaboration will create and demonstrate learning technologies for the 21st century and encourage the use of technology in all Federal education and training programs.

- In March 1995, the Vice President challenged communities of schools, colleges, libraries, museums, and businesses across the Nation to jointly transform factory era schools into information age learning centers. Over 500 community consortia responded to this challenge--at least one from every state--with 19 Challenge Grants awarded in September 1995.

Health

- Chartered Presidential Advisory Committee on Gulf War Veterans' Illnesses to ensure all possible efforts are exerted to determine the causes of the illnesses reported by Gulf War veterans.

- Coordinated Federal programs for more effective response to emerging and re-emerging infectious diseases.

- Strengthened investment in health research by targeting \$500 million of budget increases for health priorities, including HIV/AIDS, breast cancer and women's health prevention, brain disorders, environmental cancer, and gene therapy.

- Established a National Bioethics Advisory Commission to consider bioethical issues arising from research on human biology and behavior, and the applications of such research.

National Security

- Encouraged and supported the broad program of S&T investments designed to preserve the essential technical base needed to maintain a safe and reliable nuclear weapons stockpile in the absence of nuclear testing, making possible the President's goal of a true zero-yield Comprehensive Test Ban Treaty.

- Developed the country's first National Security Science and Technology Strategy. The strategy describes a coherent policy for applying S&T to our national security goals, identifying priority investments in support of military capability, verifiable arms control, sustainable development abroad, and economic performance at home.

- Developed an extensive and proactive plan to strengthen national and international surveillance of and response to emerging and re-emerging infectious diseases, e.g., tuberculosis, Ebola virus, and AIDS.

Energy

- PCAST identified, in collaboration with NSTC and with international input, a technically sound scheme for restructuring the U.S. fusion program, at a substantially reduced level of funding, underscoring the importance of fusion as an attractive--possibly essential--energy source and the need for international collaboration for demonstrating practical fusion energy.

International

- Developed Country Science and Technology Strategies for China and South Africa which describe priorities for cooperative relations in S&T by identifying areas of mutual benefit and presenting a coordinated U.S. position.
- Developed an S&T initiative for inclusion in the Agenda of the December 1994 Summit of the Americas. The plan of action resulting from the Summit calls for a meeting of S&T ministers to assess ongoing programs, consider ways to improve S&T interactions in the hemisphere, and explore the possibility of establishing a council on science and technology.
- Encouraged and led the creation of a follow-on mechanism to the Organization for Economic Cooperation and Development Megascience Forum. The Megascience Forum supports international collaboration on large and/or sophisticated science projects as a way to gain new scientific and technological advances in a cost effective manner.

Information and Communication

- Improved coordination of 12 agency, annual \$1 billion High Performance Computing and Communications (HPCC) Program that supports the information superhighway.
- Seeded Internet with HPCC funds, enabling ready access to high performance computers and advanced scientific instruments, introducing independence of geographic location capability.
- Provided researchers with new scalable systems and high performance computer resources, enabling R&D discoveries and demonstration of new capabilities that were not possible with earlier technologies, i.e., improved atmospheric weather modeling, new air and water quality models, improved design and manufacture of goods, and increased energy efficiency of cars and airplanes.
- Trained thousands of teachers and students on accessing HPCC resources.

GOAL 2: MAKE GOVERNMENT MORE EFFECTIVE AND COST LESS

- Identified and implemented significant science and technology regulatory reforms affecting university research and biotechnology.
- Instituted reviews that improved efficiency and reduced the operating costs of the three largest [Federal Laboratory Systems](#)--DOE, DOD, and NASA--while ensuring they effectively serve national needs in national security, fundamental science, industrial technologies, environmental protection, and aerospace.
- Developed a National Space Transportation Policy that will assure reliable and affordable access to space, while reducing operating costs; encourage cost-effective use of commercially provided U.S. products and services; and take advantage of foreign capabilities without creating U.S. dependence.
- Coordinated White House efforts in support of NASA's redesign of the space station. The redesign improved performance and safety, accelerated the final assembly complete schedule by 15 months, increased the space station's relevance to today's economic and political climate by partnering with Russia, and decreased life cycle cost by almost \$20 billion.

- Converged U.S.-Polar-Orbiting Weather/Environmental Satellite Systems, reducing unnecessary duplication of systems, encouraging international cooperation, and saving the American taxpayer hundreds of millions of dollars by the turn of the century.
 - Chartered State-Federal Technology Partnership Task Force that recommended ways of strengthening American S&T through better cooperation between the States and the Federal Government, with emphasis on the economic benefits of cooperation.
 - Recognized, documented and promoted the concept of S&T as national investments.
 - High rate of return to investments in fundamental science.
 - Technology as the engine of economic competitiveness and growth, produces good jobs.
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PUBLICATIONS

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