

CREATING OPPORTUNITY THROUGH SCIENTIFIC INNOVATION

THE AMERICAN CHEMICAL SOCIETY is the world's largest scientific society with more than 160,000 members in industry, academia, and government. A not-for-profit organization chartered by Congress, ACS works with government to promote public policies that help the chemical enterprise and its practitioners serve the nation. ✨

FOSTER INNOVATION THROUGH RESEARCH AND TECHNOLOGY

Investments in science and engineering have produced more than half of U.S. economic growth since WWII. Strong support for chemistry and other R&D is central to our nation's productivity, defense, public health, energy security, and environmental progress. Although the engines of innovation are largely in private hands, the federal government provides nearly 60 percent of all support for basic research. This investment fosters new knowledge, industrial innovation, and the training of future scientists and engineers. The U.S. Bureau of Economic Affairs has estimated the overall return on R&D capital to average 26 percent, with 6.7 percent of U.S. GDP growth between 1995 and 2002 directly attributable to R&D investment. Government also plays a key role in fostering a healthy climate for innovation through tax policy, international standards, intellectual property, and other incentives.

- Increase and optimize federal investments in R&D, science infrastructure, and industrial innovation.
- Promote incentives and reduce economic, regulatory, and intellectual property barriers to the development of new technologies.
- Speed up the development and commercialization of new energy technologies that promote U.S. energy independence, global competitiveness, and environmental sustainability.
- Foster the development and adoption of green products and processes by industry, academia, and government.

INVEST IN PEOPLE

America needs scientists and engineers. To equip today's students with the skills to fill the technical jobs of tomorrow, we must improve science and mathematics education at the K-12, undergraduate, and graduate levels. We also need to encourage talented people to enter science and engineering fields. Workforce policies must respond to the challenges and opportunities posed by an aging demographic, a more diverse workforce, and major shifts in employment practices.

- Enable lifelong, strong, inquiry-based science education for everyone in both formal and informal settings to improve the scientific understanding of all our citizens.
- Increase state and federal support for pre- and in-service teacher training to strengthen the quality of teaching and enhance student learning.
- Encourage the best and the brightest to pursue scientific careers, particularly more women, underrepresented minorities, and people with disabilities.
- Enhance employment-related benefits for science and engineering professionals.

BALANCE SECURITY AND OPENNESS

Science and technology provide critical tools that help us address dynamic security challenges to our infrastructure, economy, and lives. These challenges require efforts by the scientific community to minimize unintended or nefarious uses of legitimate science and technology. Government efforts to address these concerns must be balanced with the reality that the open exchange of information and ideas is critical to scientific progress toward our societal goals.

- Promote a strong, non-governmental, scientific publishing enterprise that assures access to information and exchange of scientific ideas and information among all parties with legitimate uses while appropriately protecting security-related information.
- Assure the quality of scientific and technological advancement through open, rigorous, and inclusive peer review related to scientific publishing.
- Encourage research and technology that brings the most effective tools to bear on our security needs, including detecting, preventing, and countering weapons of mass destruction, as well as inherently safer technologies that will minimize future threats.
- Assure the most open interactions possible among scientists, engineers, and students from across the globe.

PROMOTE SCIENCE AND ENVIRONMENTAL STEWARDSHIP IN POLICY MAKING

Science can lead to better understanding of new solutions to many of society's problems including environmental and health issues. In order to achieve this, the best science should be available to, and used by, government officials when making decisions. To achieve confidence in government decisions that depend upon science and technology, science must be considered in an open and responsible manner.

- Encourage environmental decisions that promote sustainable resource usage and waste prevention in an economically viable chemical enterprise.
- Encourage appropriate global harmonization of environmental, health, and safety initiatives to advance science and technology around the globe.
- Promote institutions and guidelines to assure that governments make appropriate and open use of scientific and technological information in making policy decisions.
- Promote the responsible use of science in regulations and environmental management.
- Assure appropriate, balanced use of voluntary and regulatory measures in achieving environmental, health, safety, and security goals.

