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Congress and U.S. Research

Erich Bloch and Charles M. Vest

Washington memories are short. Many a good idea has gotten buried between the end of one Congress and the start of a new one. One idea that the 106th Congress must not bury is the growing recognition that the federal government has an important responsibility to fund research and to provide an appropriate policy environment that stimulates private-sector investment in research and development (R&D).

Last year, the House of Representatives unanimously adopted a resolution, HR578, that takes into consideration the principles outlined in the 1998 report *Unlocking the Future—Toward a New National Science Policy*, authored by Representative Vernon Ehlers (R-MI), vice chairman of the House Science Committee. And the Senate unanimously passed a bill (S2217) promoting federal investment in R&D that was sponsored by Senators Bill Frist (R-TN), John D. Rockefeller (D-WV), Pete V. Domenici (R-NM), and Joseph Lieberman (D-CT). These two congressional actions, together with a plethora of independent reports on R&D investment and the changing policy environment, establish a momentum that must be embraced and accelerated by the new Congress.

There is plenty of disagreement about the details of how U.S. science and technology policy should move forward. However, we wish to point to four recommendations of the Ehlers report that are especially worthy of strong bipartisan support in the 106th Congress.

First, Congress should give high priority to stable and substantial federal funding for fundamental scientific research. Such research is the basis for future developments in areas ranging from health and medicine to computers and software and thus is essential to maintain our nation's economic strength. Federal support of fundamental research has declined as a percentage of gross domestic product during this decade. Ironically, our research base has not benefited from the very economic expansion it helped to create.

Second, the federal government should invest in fundamental research across a wide spectrum of disciplines in science, mathematics, and engineering. The Ehlers report specifically warns against concentration of funds in any particular area. The seamlessness of science and technology and the interrelation of their subfields are demonstrated every day. Advances in one area are necessary for progress in another, and synergies at their interfaces are increasingly important.

Third, an increased focus on partnerships is needed. University-industry partnerships, government-industry partnerships, and three-way efforts are required today because of the complicated relationship between research and the needs and constraints of each sector. Furthermore, we learned in the past decade that research is increasingly expensive and that the rates of scientific discovery and technological change are too great and resources too scarce for every company, government laboratory, or university to go it alone.

Finally, the policy environment for research must be improved. The Research and Experimentation Tax Credit must be strengthened and made permanent. This credit has been on again, off again during the past 15 years, despite its effectiveness in stimulating private industry to invest in R&D. This impermanence discourages industry from using it effectively. Well-conceived modifications include incentives to encourage capitalization of new companies that focus on long-term research or stimulate industry-sponsored university research. The Ehlers report points out the importance of removing a number of unnecessary regulations that damage or inhibit research or that stimulate companies to conduct research offshore. A familiar example is the medical device industry, for which time to market is much longer in the United States than in many other countries that have a similar record of safety.

With HR578 as a base and S2217 as a context, Congress, during hearings on the administration's FY2000 budget, should ensure that R&D, especially fundamental research, receives the priority it deserves and that partnerships between government, academia, and the private sector are given an objective hearing. The research community, in turn, cannot assume that research is a protected and preferred expenditure in the federal budget. At every opportunity, we need to explain the benefits of this national investment to the public, to Congress, and to the administration.

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