

## **WASHINGTON NEWS**

### **FROM THE FEDERATION OF MATERIALS SOCIETIES**

**FEBRUARY 2006**

#### **PRESIDENT DISCOVERS S&T**

President Bush's American Competitiveness Initiative (ACI), emphasized in his State of the Union address, subsequent high-profile speeches, and the proposed FY 2007 budget, is being welcomed with cautious optimism by the science and technology community in Washington. Clearly pressures for reduction of the federal deficit and reinstatement of many social programs proposed for budget cuts will be vying for public and Congressional attention along with the proposed long-term doubling of key research budgets and boosts to science and math education. But the burgeoning number of Senators and Representatives signing on to legislation in the innovation arena coupled with the fact that, as one veteran S&T advocate put it, "the White House finally learned to use the words technology, education, and competitiveness in the same sentence," means that the competition for funding will be on more of a level playing field. A word of warning from a Congressional staffer: "Failure is not an option" for the S&T community this year – the President has made the ACI a priority and if scientists and engineers fail to rally enough support for its basic objectives to pass, the opportunity could be lost for years to come.

#### **AMERICAN COMPETITIVENESS INITIATIVE**

The centerpiece of the American Competitiveness Initiative is the proposed doubling, over 10 years, of the budgets of the National Science Foundation, the Office of Science in the Department of Energy, and the laboratory programs of the National Institute of Standards and Technology. Basic and applied research in the Department of Defense also is slated for an increase over last year's request. The President also is proposing to make the R&D tax credit permanent – the single costliest component of the ACI, and the one which may be the first to fall. Finally, the ACI includes new programs in the Department of Education to expand advanced placement programs, establish an adjunct teacher corps and provide additional incentives for existing and potential teachers of math and science, and identify and disseminate teaching tools for K-12 students through a new National Math Panel patterned after the existing National Reading Panel. The ACI also sustains the Math and Science Partnerships program, continuing the Bush Administration's pattern of providing most of the funding to the Department of Education at the expense of the MSP program in NSF.

## OVERALL BUDGET CONTEXT

One consideration to keep in mind when reading reports on proposed budgets is that the Administration keys its recommendations to last year's proposals – not to the amount finally appropriated by Congress and signed by the President. A preliminary overview by the American Association for the Advancement of Science (AAAS), widely recognized both on and off Capital Hill as the most definitive analysis of R&D budgets, shows that the proposed federal R&D portfolio in FY 2007 is \$137.0 billion, 1.9 percent above FY 2006 appropriated spending levels, shy of the 2.2 percent increase needed to keep pace with expected inflation. Within that increase, according to AAAS, “development would be the clear winner...In real terms, the federal research portfolio would fall nearly 6 percent.” Eliminating Congressional earmarks – funds for specific projects inserted into appropriations bills – is a major effort of the Administration. Earmarking is also a target of the rush in the House and Senate to try to restore and image of Congressional in the wake of the Abramoff scandals.

## AGENCY OVERVIEWS

- **National Science Foundation** – would increase 7.9 percent, to \$6,020.2 million. Mathematical and Physical Sciences, which includes most materials research, would increase 6.0 percent, or \$64.9 million to \$1,150.3 million. The Division of Materials Research would increase 6.0 percent or \$14.5 million from \$242.9 million to \$257.5 million.
- **Department of Energy** – DOE Office of Science would increase 14 percent to \$3.8 billion. The largest programs would all receive increases of 8 percent or more, including double-digit percentage increases for nuclear physics, computing research, several large facilities, and the core life sciences research portfolio. On the other hand, high energy physics, fusion, and biological and environmental research would decline. Outside the Office of Science, DOE's energy R&D is slated for an 8.1 percent increase reflecting large investments in hydrogen, nuclear energy, fuel cells and coal. DOE would spend \$288 million in the Hydrogen Fuel Initiative to develop technologies for hydrogen-powered cars. Nuclear energy and solar energy R&D also would increase dramatically.
- **National Institute of Standards and Technology** -- core programs are a large feature of the President's American Competitiveness Initiative. Intramural research would increase by 18 percent to \$484 million, while construction funding for NIST research facilities would climb 42 percent. Once again, however, the Administration is proposing to eliminate the Advanced Technology Program (ATP) and significantly cut the Manufacturing Extension Partnership Program.

## **OTHER CROSS-CUTTING INITIATIVES**

According to the President's budget documents, the **Networking and Information Technology R&D** program (NITRD) would increase 9 percent over FY 2006, to \$2.7 billion, with a major focus on high-end computing. The **National Nanotechnology Initiative** shows an \$813 million increase, to \$1.2 billion, but that level is lower than the \$1.3 billion actual FY 2006 level which includes Congressional earmarks.

## **CONGRESS FLOCKS TO INNOVATION LEGISLATION**

Momentum is building rapidly in the Senate, and beginning in the House, to enact legislation that addresses the President's competitiveness initiative and the recommendations of recent reports focusing on American innovation and competitiveness. With the introduction of the PACE Acts (Protecting America's Competitive Edge) and the National Innovation Act (NIA), the Senate is poised to hold many committee hearings and possibly have legislation ready for floor action by early summer. The NIA boasts more than a quarter of the Senate as cosponsors with Senators John Ensign (R-NV) and Joseph Lieberman (D-CT), while the three PACE bills each have over 60 cosponsors with Senators Lamar Alexander (R-TN), Jeff Bingaman (D-NM), Pete Domenici (R-NM) and Barbara Mikulski (D-MD). While there are differences among the bills, the intent of the Senators and their staffs is to meld them into a series of proposals that will address education issues at the K-12 level, through community colleges, undergraduate and graduate schools; double funding for the National Science Foundation and focus increased funding and leadership roles in the Department of Energy; expand the R&D tax credit; and establish a President's Council on Innovation. The cosponsors of the bills are almost evenly divided among Republicans and Democrats, which will help build consensus and speed passage. The situation in the House is more clearly delineated along party lines, with Democrats pushing an initiative announced with great fanfare late last year by Minority Leader Nancy Pelosi (D-CA) and Republicans preparing their own bills to be publicly backed by the Speaker.