WASHINGTON NEWS

FROM THE FEDERATION OF MATERIALS SOCIETIES

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INNOVATION BILLS MOVING IN HOUSE

The House Science Committee reported out two bills which address the education and workforce segments of the President's American Competitiveness Initiative. After fact-finding hearings earlier this year, the Republicans on the committee had introduced their legislative package as three bills. Weeks of negotiation led to the full Committee's unanimous action on June 7 approving a consolidation of the bills into two measures which incorporated proposals by the panel's Democratic members. H.R.5356, the Early Career Research Act, authorizes programs at the National Science Foundation and the Department of Energy's Office of Science to provide grants to researchers just starting their careers to conduct high-risk, high-return research. The bill also expands an NSF program that helps universities acquire high-tech equipment to be shared by researchers and students from various fields. H.R.5358, the Science and Mathematics Education for Competitiveness Act, would address science, math and engineering education at all levels, from K-12 through graduate school. The committee report notes that "rather than create a slate of new programs, H.R.5358 builds upon and expands existing programs at NSF, several of which the Committee wrote into law as part of the 2002 NSF reauthorization act." Building on existing programs rather than creating new ones is a calculated effort to assuage the House leadership, which is on record as being disinclined to bring to the floor any "new" spending priorities.

The Federation of Materials Societies, along with other technical societies, corporations, and universities, sent letters to House Speaker Hastert and Majority Leader Boehner urging them to schedule time for floor debate and votes. "We applaud the President and members of Congress who have brought these issues to the forefront of national attention. Just as the discovery of new materials and innovative ways to use them and more traditional materials are a vital enabler of technological progress, so too are development of the human resources of scientists and engineers," the FMS letter concluded.

SENATE COMPETITIVENESS BILL DRAWS ADMINISTRATION CONCERN

Taking a more aggressive tack, the Senate Commerce Committee approved a bill which actually creates new programs which go beyond the President's American Competitiveness Initiative. S.2802 would establish a President's Council on Innovation and Competitiveness charged with developing an agenda for promoting innovation in the public and private sectors. It would authorize the President's request for increased

funding for the National Science Foundation, and would authorize NSF grants to community colleges for new technical apprenticeship and mentoring programs for women high school, college and graduate students. Moving beyond the Administration's request, the bill would require NASA to establish an executive council with oversight over distribution and management of basic research activities, and an institute to manage the agency's aeronautical research programs. New R&D and education programs also would be created in the National Oceanic and Atmospheric Administration (NOAA). John Marburger, Director of the White House Office of Science and Technology Policy, wrote to the Committee expressing concern that the bill's new programs either duplicate existing programs or "put the government in the position of competing with private investment," and that the bill contains "excessive" authorization levels.

NSF FARES WELL, NIST A MIXED BAG IN HOUSE BILL

The House Appropriations Committee on June 20 reported out the Science, State, Justice and Commerce appropriations bill with full funding of the President's American Competitiveness Initiative for the National Science Foundation. NSF would receive $6 billion, an increase of $439 million above FY 2006. Of that total, $4.6 billion would go to research, and $832.4 million to science education. In the same bill, the Committee provides $627 million for NIST, nearly 16 percent lower than NIST's FY 2006 spending level. NIST's core laboratory programs would receive significant increases, as called for in the President's initiative, but funding would decline for the Hollings Manufacturing Extension Program (MEP) and would be zeroed out for the Advanced Technology Program (ATP). Every year, the Bush Administration proposes to terminate the ATP and just as reliably Congress reinserts some funding for the program. How that scenario plays out this year remains to be seen.

In its report accompanying the bill, the Appropriations Committee said that the American Competitiveness Initiative funds will focus on "physical science research and standards that will foster innovation. Specifically, funding is recommended for the following activities: (1) enhancing NIST's national research facilities, including support for the Center for Nanoscale Science and Technology and the Center for Neutron Research; (2) furthering the work of NIST's laboratories and technical programs, including support for developing a robust hydrogen economy, …creating manufacturing innovation through supply chain integration, building the infrastructure for innovation through quantum information science developments, furthering structural safety from hurricanes, fires and earthquakes, and developing the next generation of materials; and (3) opening markets for American workers and exporters through development of international standards and innovation, including support for developments in measurement science and enhancements in bioimaging, cybersecurity, and biometric identification technologies."

DOE SCIENCE FUNDING LOOKS GOOD

After years of flat or declining funding, the Department of Energy's Office of Science is faring very well so far in the budget process for Fiscal Year 2007. The committee report accompanying the Energy and Water Appropriations bill adopted this month by the House "recognizes that funding a significant increase for the Office of Science required some difficult choices regarding other DOE programs." The report states that "the Committee supports the Secretary's judgment that robust funding for the basic research mission of the Department represents the best long-term use of the Department's constrained resources, and the best long-term investment for the economic future of the country." Noting that the appropriations bill significantly reduces the number of "earmarks" or special one-time projects, the Committee praises the Office of Science because it "took seriously the Congressional direction to prepare laboratory business plans and five-year budget plans, and these plans give added credibility and context to the FY 2007 budget request."

In other DOE action, Dr. Raymond L. Orbach was sworn in as the first Under Secretary for Science, a new position created by the Energy Policy Act of 2005. Dr. Orbach, a condensed matter physicist and former Chancellor of the University of California-Riverside, has been Director of the Office of Science since March 2002. Energy Secretary Samuel W. Bodman said after the swearing-in ceremony, "Today marks an important occasion….for this department, as we elevate our science mission. As the primary supporter of physical science research in the country and home to ten national laboratories, the Department of Energy's Office of Science provides the nation and the world untold promise for discovery. As Undersecretary for Science, (Dr. Orbach) will be tasked with the department's implementation of the President's bold new initiative…The American Competitiveness Initiative will help us expand the United States' leadership in math and science and will allow us to continue to grow our nation's economy."

NSF REORGANIZES ENGINEERING DIRECTORATE

Effective October 1, 2006, the Engineering Directorate (ENG) of the National Science Foundation will put in place a new organizational structure which will, according to a "Dear Colleague" letter from the Acting Assistant Director, "further enhance agility within disciplines, broaden multidisciplinary research, and enable discovery at the frontiers of engineering." The new structure consolidates ENG's five current disciplinary divisions into three, and establishes three crosscutting units:

- The division of Chemical and Transport Systems and the division of Bioengineering and Environmental Systems will merge to form the division of Chemical, Bioengineering, Environmental and Transport Systems. The new division will support research and education in chemical, environmental, and bioengineering, and in areas that involve the transformation and/or transport of matter and energy by chemical, thermal, or mechanical means.

- The divisions of Civil and Mechanical Systems and Design and Manufacturing Innovation will merge to form the division of Civil, Mechanical and Manufacturing Innovation.

- The division of Electrical and Communications Systems will add cyber systems to its portfolio to become the division of Electrical, Communications and Cyber Systems.

- The office of Engineering Education and Centers will provide more emphasis on its role as a crosscutting division, to "enable the continual evolution of the engineering education and research enterprise at U.S. universities."

- The Office of Industrial Innovation, which houses SBIR/STTR, will broaden to include new partnerships, and become the division of Industrial Innovation and Partnerships.

- A crosscutting Office of Emerging Frontiers in Research and Innovation (EFRI) will be added, reporting directly to the Office of the Assistant Director for Engineering. According to the announcement letter, "EFRI will recommend, prioritize, and fund interdisciplinary initiatives…These investments will represent transformative opportunities, potentially leading to: new research areas for NSF, ENG, and other agencies; new industries or capabilities that result in a leadership position for the country; and/or significant progress on a recognized national need or grand challenge."

Further information is available at http://www.nsf.gov/dir/index.jsp?org=ENG