HOMELAND SECURITY

New Agency Contains Strong Science Arm

A new player is set to burst on the U.S. science policy scene. Congress this week put the finishing touches on legislation to create the Department of Homeland Security (DHS), which will combine 22 existing government agencies and spawn an array of new science-related programs. Much to the delight of biomedical research advocates, lawmakers rejected proposals to give the mammoth agency control of major bioterror research and regulatory programs.

SCIENCE IN THE NEW DEPARTMENT

- Undersecretary for science and technology
- 20-member R&D advisory board
- Homeland Security Advanced Research Projects Agency, with up to $500 million in 2003
- Nonproliferation, pathogen, and animal-science programs from other agencies
- At least one university-based research center
- Homeland Security Institute
- Advisory role for NIH bioterrorism research and regulation of potential bioweapons

"We're very pleased at how this is turning out," says Janet Shoemaker of the American Society for Microbiology in Washington, D.C., one of several science and university groups that lobbied hard to shape the new department, which is designed to shore up the nation's defenses against terrorism.

Bush Administration officials say it will take at least a year to set up DHS, which is expected to start life with more than 150,000 employees and a budget of $37 billion. Although spending details are still scarce, analysts estimate that nearly $1 billion of those funds could go to R&D efforts. The portfolio will be managed by a new undersecretary for science and technology, who will take advice from a 20-member advisory panel.

The biggest single chunk of science-related cash—up to $500 million next year—will go to a new Homeland Security Advanced Research Projects Agency (HSARPA). Modeled after its namesake in the Department of Defense, the new agency will dole out competitive grants and contracts to universities and companies working on an array of detection and border-security technologies. The legislation creates at least one university-based research center for the purpose—an idea championed by Texas A&M University in College Station—as well as an independent think tank, the Homeland Security Institute, in line with a suggestion from the National Academy of Sciences. The new department can pick one of the Department of Energy's (DOE's) national laboratories to coordinate government research efforts. In addition, it will take control of DOE's nonproliferation and pathogen research efforts and an animal-health laboratory in Plum Island, New York, run by the U.S. Department of Agriculture (USDA).

Lawmakers opted not to give DHS control of other major science programs, as President George W. Bush had originally proposed, apparently agreeing with research lobbyists that the new department will lack the necessary expertise. A $1.5 billion bioterror research program will stay under the control of the National Institutes of Health, for instance, although DHS will have a say in setting its course. Similarly, the Centers for Disease Control and Prevention and USDA will continue to regulate laboratories working with potential bioweapons, although DHS can nominate new organisms to be regulated. Congress also nixed moving a cybersecurity program from the National Institute of Standards and Technology. "The science lobby is happy with what [Congress] did but even happier about what [it] didn't do," says one congressional aide.

As *Science* went to press, the Senate rejected a proposal to strip seven controversial provisions from the bill, including one that gives vaccinemakers protection from lawsuits. But Republican leaders agreed to revisit several of the measures next year, including the one creating university-based centers.

–DAVID MALAKOFF

NUCLEAR PHYSICS

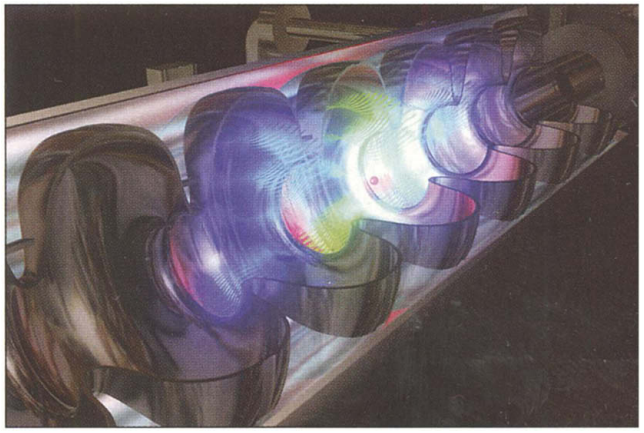
TESLA Accelerates; ESS Falls Back

BERLIN—European physicists this week got mixed news from an eagerly awaited review of a pair of high-profile projects. As anticipated, Germany's science council on 18 November backed plans for a massive new linear collider, the $3.5 billion TeV Energy Superconducting Linear Accelerator (TESLA). But the council disappointed proponents of a $1.4 billion European Spallation Source (ESS), demanding a rewritten proposal before the machine would be considered for government funding.

In fall 2000, Germany's science ministry asked the independent science council to evaluate proposals for nine major projects—with a combined price tag of more than $6.7 billion—to help it allocate a limited pot of research funding. In a preliminary report last July, the council recommended speedy funding for two smaller projects: a $25 million laboratory for very high magnetic fields in Dresden, and a $97 million airplane for atmospheric research. The council said that three big-ticket projects required a few revisions but were worthy of funding. TESLA, based at the DESY synchrotron in Hamburg, is a 33-kilometer-long machine that would complement the Large Hadron Collider, now under construction at CERN, the European laboratory for particle physics near Geneva. The council also liked a companion project to TESLA, a $673 million free-electron laser, and a $675 million accelerator at the Heavy Ion Research Center in Darmstadt, which would, among other things, allow high-energy physicists to probe how stars cook fundamental nuclear particles into elements (see p. 1544).

Left out in the cold was ESS, which would produce high-energy neutrons for materials science and biology research. The council concluded that the proposal from the Research Center Jülich, one of several sites vying to host the project, had not made a strong enough case to merit funding. That assessment angered many in the neutron physics community, who protested that the review committee had underestimated the machine's potential research payoff (*Science*, 18 October, p. 543).

In its final report this week, the council kept ESS in the lowest of its three categories, along with a polar-drilling research ship and a free-electron laser proposed by the BESSY synchrotron in Berlin. But it offered them the chance to submit new proposals based on additional planning. These would be evaluated and considered as the government sets funding priorities in the coming years, says council chair Karl Max Einhäupl.



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Green light. The 33-kilometer-long TESLA got high marks from Germany's science council.