

says, "is determined to support science on the same basis that has proven effective over 40 years in West Germany, that is, on the grounds of excellence." Nevertheless, the MPG will fund a few projects in fields not yet covered by the society. It will also establish research groups within east German universities, funded for 5 years and linked to existing institutes in the west. The MPG senate meets on 8 March to scrutinize 41 proposals. It will fund only 12, adding just 160 jobs to the MPG's western staff of 13,000.

The outstanding problem for the MPG is that "funding is not yet secured," says Dietmar Nickel, who administers part of the MPG's eastern program. Money for MPG institutes is split evenly between state and federal governments. But the states in the east are broke. "We simply don't know where the state share should come from," Nickel told *Science*.

The budget crisis facing eastern states will reverberate through every research establishment, because all German science depends to a greater or lesser extent on state funds. Saxony and Berlin, with several universities and more than half of the academy's 70 institutes, will be hardest hit. Help will have

to come from Bonn and the western states, or the universities will "collapse" soon, according to Saxony's minister of science, Hartmut Häckel.

Even if cash can be found, the announcements so far from the science council, the FhG, and the MPG would secure a mere 1600 positions for east Germany's 147,000 researchers. But Heinz Riesenhuber, federal minister of research, told *Science* he is hopeful that the final tally will be higher. "It will not stay at that. I do not know the final numbers yet, but I expect them to be much higher." He looks beyond the few career opportunities offered by the FhG, the MPG, and the National Research Institutes, and sees some promising signs, though there will have to be what he calls "structural change."

Scientists and engineers should become entrepreneurs, Riesenhuber said. And an increased technical infrastructure in the east—environmental and health agencies, bureaus of standards, factory inspectorates, and the like—will absorb scientific personnel. "We need a lot of competence in these areas, and it would be idle for the professional intelligentsia to wait in their institutes until the end of the year, when funding is to cease. They

should grasp their opportunities," Riesenhuber told *Science*. "Conditions [for entrepreneurs] have never been as good as they are now."

Riesenhuber would also like to see more university research. Previously, the academy and state industries carried out research, while the universities were responsible primarily for teaching. Neither the universities nor the states that fund them are likely to welcome enlargements to their already bloated faculty, but Riesenhuber insists overstaffing has been in administration and teaching, not in research. "Some of this has to be slimmed down, while other areas—science—have to be nursed back to health. This is exactly what has been denoted by structural change."

In spite of Riesenhuber's generally upbeat outlook, however, the prospects for east Germany's researchers remain grim—and their mood varies between truculent and plaintive. As a sign carried by protestors in the recent Berlin march said: "Mister Riesenhuber, my professor and I want to work." ■ RICHARD SIETMANN

Richard Sietmann is a free-lance science writer based in Berlin.

Researchers Protest User Fees at National Labs

A small item buried in the national energy plan unveiled by the Bush Administration last week has been causing consternation in the national labs and among some industrial researchers. It is a proposal to charge all users of facilities such as Brookhaven National Laboratory's synchrotron light source a hefty fee to cover the costs of operating the facilities.

The proposal would overturn a long-standing policy of allowing basic researchers—whether from universities or industry—free access to national lab facilities. The labs currently charge user fees only to corporations that conduct proprietary research.

The impetus for the change comes from Capitol Hill. Last fall Congress inserted a provision into the final budget resolution instructing the Department of Energy (DOE) to study ways to recover the operating costs of its research facilities and to report back on potential options this spring. DOE apparently is leaning toward imposing user fees. It included a reference to the possible imposition of such fees in the energy plan, though it gave no specific details of how they might be levied.

Even before the energy plan was released, individual researchers, research organizations, and national lab officials made known their distaste for the idea. Martin Blume, deputy director of Brookhaven, points out, for example, that even though industrial users don't pay directly to conduct nonproprietary research, they often bear the expense of building and maintaining research instruments. At Brookhaven's light source, he says, some \$120 million in hardware was paid for by outside groups.

Argonne National Laboratory director Alan Schriesheim raises a different objection: "Charging federally supported university groups would merely shift research costs from one federal agency to another," he wrote in a 12 February letter to DOE.

And Arthur Bienenstock, director of the Stanford Synchrotron Radiation Laboratory (SSRL), complained in a 6 February letter to Energy Secretary James Watkins' Task Force on the DOE National Laboratories that user fees "are not likely to return very much money to the Treasury, but are likely to damage both long-term corporate research and valuable collaborations between graduate students and corporate researchers."

The bottom line in most of the complaints is that imposing user fees will simply discourage university and industry groups from conducting research at the labs. Paul M. Horn, an IBM researcher who chairs the users' organization for the Advanced Photo Source being constructed at Argonne, warned Watkins in an 8 February letter, for example, that "U.S. industry is willing to spend a fixed dollar amount on basic research; if that research becomes more expensive, industry will simply do less of it." And Horn's statement is not just an idle threat: Hewlett-Packard notified SSRL's Bienenstock on 6 February that it will sharply curtail research at his facility if DOE imposes user charges. "For an experiment such as we typically propose, the total beam-time charge would be about \$30,000," said Stephen Laderman, head of the company's x-ray diffraction research program. "At this rate, the number of experiments worth bringing to SSRL would decrease markedly," he said.

DOE will give Congress its recommendations in April, and after that the appropriations committees will decide whether they should be implemented. At that point, it will become clear whether the complaints have been heard. ■ MARK CRAWFORD

Mark Crawford is a reporter for New Technology Week in Washington, D.C.