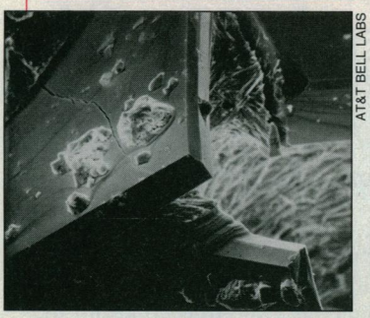
Congress's Top 10



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Critical superconductor crystals.

■ How do you digest a veritable mountain of reports, lists, and testimony from hearings on technologies deemed critical for defense and economic competitiveness? If you're a legislator, you do the obvious (at least for legislators): order another report, but one more portable and focused to meet your needs. Just such a critical-tech "digest" is being prepared by staffers of the House subcommittee on technology and competitiveness and is due out next month.

There won't be any surprising new technologies on this list, says a subcommittee staffer. However, the latest tally will be more than just a wish list: the document will place key technologies—among them, advanced materials and manufacturing processes, miniaturization technologies, and high-performance computing—in a "policy framework" geared to "insure that our national investment will be exploited for our economic growth," the staffer says.

The subcommittee's version follows a flurry of lists, including the Department of Defense's annual "Critical Technologies Plan" that in 1991 listed 21 items; a 22-item biannual list assembled by the National Critical Technologies Panel (appointed by the White House Office of Science and Technology Policy); a 1990 Commerce Department opus; and key technology lists issued by private-sector organizations such as the Materials Research Society. Get ready to chalk up another list to this list of lists.

Computer Consortium Struggles to Get Off the Ground

■ Chief executives from 12 big computer companies will gather at the White House in December to fete the administration's high-performance computing initiative. But one thing they hoped to have ready by the celebration isn't in hand just yet—a model agreement for joint research between private companies and the Department of Energy's (DOE) national labs. The companies and DOE have been negotiating model language for weeks, but they find it's taking longer than expected to settle patent, copyright, and product liability issues, among other things.

The Computer Systems Policy Project, which represents industry in these talks, includes Apple, AT&T, Compaq, Control Data, Cray Research, Data General, Digital Equipment Corp., Hewlett-Packard, IBM, Sun Microsystems, Tandem, and Unisys. The group's executive director, Kenneth Kay, says the companies sent squads of technicians last summer to scour the national labs for intriguing projects. The reconnoitering revealed it would be worthwhile for the companies to join hands in some R&D efforts with federal researchers. But chief executives decided that before putting any more money in, they should first hammer out the broad terms of the partnership.

Officials were aiming to reach agreement and sign a memorandum of understanding with the labs—allowing them to forge the industrial partnerships—by early December. The target date is slipping. "I'm hopeful we'll work things out," says Kay, "but it's not a foregone conclusion."

MSU's Misconduct Move

■ Misconduct and conflict-of-interest charges seem to have gotten administrators all tangled up at Michigan State University (MSU), so they have opted for a new strategy to deal with them—a model that other schools may want to copy if they get in the same pickle. MSU has decided to hire a private attorney to adjudicate a dispute between microbiologist Jeffrey Williams and his former grad student Maie ElKassaby.

The task of designing and launching the investigation falls on Barbara Mishkin, an attorney with an M.A. in neuropsychology at the Washington, D.C. law firm of Hogan & Hartson. She will organize a special investigative committee, recruit its members, and serve as counsel. This will free up MSU's own attorney to advance the university's view.

MSU professor Williams last year accused ElKassaby of misappropriating data; later he attempted—and failed—to block publication of a paper she wrote based on the data (*Science*, 4 January p. 23). Williams also charged the university with violating its own rules by assisting the student, and this in turn led him to charge that university officials were tainted with a conflict of interest. The Office of Scientific Integrity at NIH checked out the case and has agreed to let MSU officials deal with it through Mishkin's arm's-length tribunal.

Mishkin says she intends to put into practice some of her own ideas for guaranteeing due process in such cases, such as giving accused persons a chance to review and comment on all charges. It will be a thorough investigation, she adds. Williams' reaction: "Excellent...this is exactly what I've wanted all along."

Rice Scientists Lay Biotech Network Foundations

■ To help agricultural researchers in poorly funded Asian laboratories improve food crops, the International Rice Research Institute (IRRI) is proposing a biotechnology network that would disseminate instruments, plant genetic materials, chemicals, and scientific info free of charge.

The network will focus primarily on Asian researchers trained at the Philippines-based IRRI who are trying to breed high-yield, disease-resistant rice strains and thereby pump up the world's rice production by about 10 million metric tons a year. The total crop in 1990 was about 520 million tons, says IRRI plant geneticist Gurdev Khush, who is setting up the network.

WORLD BANK PHOTO/EDWIN G. HUFFMAN

Philippine paddy. *Rice farmers ultimately would benefit from biotech network.*

Not all biological substances are legal to import and export, and this may impede distributing some plant genetic material to network scientists. However, at present it is legal to ship molecular DNA markers that are essential for tagging important genes in lab studies. As a test balloon for the network, markers are being distributed to scientists in national agricultural research programs in Bangladesh, China, India, Indonesia, Malaysia, Thailand, and Vietnam, says IRRI geneticist Susan McCouch.

IRRI is seeking $5.5 million in funding, enough to run the network for 5 years, Khush says. If the network becomes a reality, Asian rice scientists may pluck out of the mail something far more valuable than DNA markers or even sweepstakes notices: genetically engineered plants, which might be allowed across national boundaries in 2 or 3 years, Khush says.

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