they'll help when it comes time to look for a job. It favors limiting cumulative postdoctoral appointments to about five years. Besides that, however, the report's recommendations to advisers and institutions are broad: Spell out what's expected of a postdoc, and provide grievance procedures, career counseling, and other benefits. Says Dresselhaus, "It may be necessary for the funding agencies to require coverage of the basic needs of postdocs, such as medical insurance. That may mean that fewer postdocs can be funded. There are real changes implied by this report."

TONI FEDER

Saying "No" to Top Government Jobs

Later this month, phones will start ringing in offices of corporations, universities, and private organizations across the country as the transition team for the new president begins its effort to lure scores of science and technology experts into government service. And while those receiving the calls may be tempted by the opportunity to become an undersecretary, a commissioner, or even a director in some powerful federal agency, many will say, "No."

The reason, according to a new report by the National Academies, is that "an increasingly complex web of restrictions makes it difficult for appointees to enter government service and then resume their careers after government service." The report, a brief document designed for quick digestion by government headhunters, is the latest in a string of studies by various groups published during the past 12 years recommending that the process of presidential appointment and Senate confirmation be made less burdensome to prospective jobholders.

The report, Science and Technology in the National Interest: The Presidential Appointment Process, was put together by a panel of former government science and technology officeholders under the direction of Mary Lowe Good, a former undersecretary for technology at the Department of Commerce. It focuses on about 80 senior science and technology positions in the government that require presidential appointment and Senate confirmation—everything from the president's science adviser to the head of NASA, to the administrator of the Federal Aviation Administration.

The report recommends that the new administration move quickly to get appointees in place, particularly the president's science adviser. Once in place, the science adviser should help fill what the report identifies as "the 50 most urgent science and technology presidential appointments."

Filling those positions is problematic, however, because the approval process is notoriously slow, intrusive,

and unpleasant for candidates. "A term in Washington for scientists and engineers often means two steps backward for every step forward along a career path," says panel member John McTague, a retired Ford Motor Co executive who served as acting director of the Office of Science and Technology Policy under President Reagan. McTague says scientists who join the government "may lose touch with the cutting edge of their field and find themselves in an irreversible career shift toward management."

The approval process for a candidate includes filling out lengthy forms and opening up one's life—both public and private-to intense FBI and IRS scrutiny. Candidates must also meet increasingly restrictive ethical standards that can require them to forgo pension benefits, sell stocks and options, and sever ties with the industries from which they come. "Sensible standards are clearly necessary to prevent conflicts of interest, but the number and complexity of employment restrictions have risen to a point where they deter potential candidates," McTague says.

There are difficulties in all sectors, but industry is particularly affected. The report notes that during the Reagan and Bush years, 25% of the science and technology appointees were from industry, compared to only 12% under Clinton. The decline is due to ever-tightening restrictions, not to which political party holds the White House. The full report, as well as background documents, can be found on the Web at http://www.national-academies.org/presidentialappointments.

Until reforms take place, people who receive job offers from the next president might want to pick up *The Survivor's Guide for Presidential Nominees*, a book being published by the Brookings Institution's Presidential Appointee Initiative. The guide will be available on the Web on 15 November at http://www.appointee.brookings.org.

JIM DAWSON

Soleil Rises: French Synchrotron Gets Go-Ahead

France's science community is reveling in the decision to build a synchrotron light source on French soil, announced on 11 September by research minister Roger-Gérard Schwartzenberg after years of flipflopping by changing governments and steadfast lobbying by scientists. Schwartzenberg chose the Paris suburb of Ile de France from among nearly a dozen competing regions as the site for the new synchrotron, Soleil (French for "sun").

When he became research minister this past March, Schwartzenberg hinted that he would revisit building Soleil, which his ousted predecessor, Claude Allègre, had canceled in favor of joining the UK synchrotron Diamond (see PHYSICS TODAY, January page 50, and May, page 53). In July, Schwartzenberg said he was "95% certain" to approve Soleil, and the focus shifted to where it would go.

Expecting Soleil's presence to boost the local economy, several regions offered to pay the Fr 1.2 billion (about \$160 million) construction cost if they got to host the synchrotron. Ile de France, home to the country's existing synchrotron, the Laboratoire pour l'Utilisation du Rayonnement Electromagnétique (LURE), won out because of nearby academic and industrial labs, particularly in genome research, and because of its accessibility to scientists. The runnerup was Lille, in northern France, which has no major scientific facilities. "People at LURE are extremely happy that it will be built, and built nearby," says the synchrotron's director, Robert Comes. "Even if one wants to decentralize France, that doesn't



SUPPORTERS CELEBRATE the decision to build a third-generation synchrotron, Soleil, near Paris.

mean everything should be taken from Paris. You don't kill an institute like LURE just to move things around."

Counting salaries and four years of operation, the estimate for building Soleil totals Fr 2.1 billion. Spain plans to contribute about Fr 100 million, and other countries may also join. With the contributions of the host region and other member countries, plus savings from transferring personnel and equipment from LURE, the French government will have to chip in only about Fr 300 million for Soleil.

The approval of Soleil raises questions about France's participation in the UK synchrotron. According to the deal Allègre had made, France is supposed to contribute about Fr 350 million toward Diamond in exchange for beam time. Now, says François Wuilleumier, who oversees plans for siting Soleil in Ile de France, "it's clear that the French community won't need all these beam lines at Diamond-but we are open to crossed collaborations to make the best use of both facilities." Government-level talks are under way, and France and the UK may join each other's synchrotrons, with no money changing hands.

The Soleil design was completed two years ago, and just needs to be tweaked. says Comes. For example, "the choice of beam lines will be reviewed—there will be more for biology." A 2.5–2.75 GeV machine, Soleil will emit ultraviolet radiation and both hard and soft x rays (photon emissions up to 20 keV). It will have 14 straight sections for inserting undulators and wigglers-the key to achieving the brilliance of third-generation synchrotrons-and room for a total of 40 beam lines, although the plan is to start with 24.

Legally, Soleil will be a not-forprofit business, giving it more flexibility than it would have as a public facility. Staff members will get to choose between the security of working for the government and the higher pay of a less secure industrial job.

Construction on Soleil is slated to begin late next year, with the first beam lines to start operating in 2005.

TONI FEDER

Grunder Picks Up **Argonne Reins**

On 1 November, Hermann Grunder became director of Argonne National Laboratory, filling a job that had been open since Dean Eastman stepped down in June 1998. Grunder had been the director of the Thomas Jefferson National Accelerator Facility in Newport News, Virginia, for 15

Heading up Argonne, says Grunder, "is an opportunity to contribute. I recognize a good research environment when I see it." Grunder wants to increase the number of biologists using Argonne's Advanced Photon Source and to strengthen ties to the University of Chicago, which runs the lab for the Department of Energy (DOE). But he's reluctant to reveal further plans: "I'm sure my ideas will change. I'm starting out with the usual set of misconceptions.'

"I will work together with my friends-the directors of other national laboratories-to articulate a joint mission in science," Grunder adds. The labs have often competed with each other since money got tight after the cold war ended. But, says Grunder, "they are a larger asset to the nation if they work as a system. If we now, as a scientific community, focus on what that system can do, then that is a new paradigm."

Argonne is a multipurpose lab with an annual budget of \$465 million. Its research areas include high-energy, nuclear, and medical physics, materials science, and, at its Idaho satellite site, nuclear energy. One of the key aspects of running Argonne, says University of Chicago vice president Arthur Sussman, "is advocating it—in Congress, within DOE, with the local population, and with the lab's staff. Grunder's long experience, his understanding of the science and the processes of government, combined with his energy, made him seem like the right person for the job."

The search committee had a short list in summer 1999, but it renewed its hunt after energy secretary Bill Richardson wrote to the president of the University of Chicago on 28 July of that year: "I find it difficult to believe that there are not qualified, talented women and minority scientists who are interested in being considered for the position of laboratory director. I ask that you devote the time necessary to do a comprehensive search that yields a wide range of candidates for this top position.

"We spent almost a year on that, and identified some very attractive candidates. None of them was interested in the job," says Argonne board member Richard Quisenberry, who headed up the search. "We found that the Argonne directorship could not compete successfully with other opportunities confronting outstanding women and minority science managers."

Previously, as director of Jefferson Lab. Grunder oversaw the construction of a continuous electron beam accelerator. Before that. he held various scientific. managerial, and advisory posts at Lawrence Berkeley National Laboratory and at DOE's



GRUNDER

Washington headquarters. Grunder came to the US in 1967, after earning his PhD in experimental nuclear physics in his native Switzerland.

Grunder succeeds Yoon Chang, who served as interim director from July 1999. Chang was a member of the search committee and has returned to his role as associate director for engineering research. Frank Fradin, associate lab director for physical, biological, and computing sciences, also did a stint as interim

The interim head of Jefferson Lab is Christoph Leemann, who was Grunder's deputy director there.

TONI FEDER

Physics Grid Grapples with **Growing Datasets**

rid Physics Network, a new sys-Item for handling vast volumes of experimental physics data, is getting started with an \$11.9 million grant from the National Science Foundation. Over the next five years, collaborators from 16 US universities will need another \$60 million to construct GriPhyN (pronounced "griffin"), which aims to connect thousands of computers involved in the Sloan Digital Sky Survey, the Laser Interferometer Gravitational-Wave Observatory, and two high-energy experiments at CERN's Large Hadron Collider (LHC) into a single virtual system.

GriPhyN's software will link existing computers, regional networks, and experimental facilities to coordinate complex data analysis. "We have computers in one location, experiments in another, and smart people somewhere else," says GriPhyN project head Paul Avery of the University of Florida. GriPhyN will consist of a hierarchy of computers, from individual desktops to national servers, sharing information, software, and computing power.