mittee proposed a $415-million budget and the Senate Energy committee is expected to take similar action. But the Appropriations committees in both houses, which hold the real power, want to slow it down. Representative Tom Bevill (D–Ala.), chairman of the House Appropriations subcommitee on energy and water, says some fusion research efforts may have to be abandoned. "The time has come to make a choice," says Bevill, who instigated Congress's cutback of the program in 1984. To overcome this opposition, fusion's supporters are going to have to lobby harder. "We don't participate very much in the national political process . . . ," complains Fusion Power's Dean. The community, he says, must "get pushy."

Indeed, fusion's political base has eroded in recent years. Past champions like the late Senator Henry M. "Scoop" Jackson (D–Wash.) and former Representative Mike McCormack (D–Wash.) are gone. A loyal and influential political base remains, but it is not strong enough to keep fusion on a fast track. Even if the fusion community can expand its lobbying effort, it will face an uphill battle. Pressure to hold down federal spending is sure to remain strong and energy supplies are expected to be plentiful for the foreseeable future.—**MARK CRAWFORD**

New French Law Boosts Industrial R&D

Paris. Increased tax incentives for companies that invest in research and development (R&D), the creation of over 1000 new jobs a year for scientists and engineers, and a scheme under which industrial scientists will be entitled to take a year's "research sabbatical" in a government laboratory, are three of the main features in a new 3-year program for science which was unveiled in Paris last week by French Prime Minister Laurent Fabius.

The government's overall aim, according to Fabius, is to increase the proportion of France's gross national product devoted to civilian research and development to 2.6 percent by 1988—compared to 2.25 percent at present—with an eventual target of reaching 2.9 percent by 1990.

The prime minister, outlining the details of a new research law that will shortly be submitted to the French Parliament, argued that the 4 percent increase in real terms in each of the next 3 years that this target will require underlines the extent to which science remains a top priority of France's socialist government.

More significant than the figures alone, however, is the shift in philosophy that lies behind the new proposals when compared to those enshrined in the earlier 3-year research law, passed in the summer of 1982.

The earlier law sought to boost French science and technology not merely by endorsing a major increase in funding for R&D—17 percent in the first year alone—but also identifying those technical areas where most of this increase was to be channeled by the government.

The French enthusiasm for "dirigisme," reinforced by a more widely held feeling in Europe that governments need to concentrate their resources on strategically important fields of research, still finds expression in the new proposals. For example, it is widely expected that the 1400 new research and engineering jobs that Fabius promised will be created in each of the next 3 years will primarily be in fields with direct or indirect relevance to some form of advanced technology.

Furthermore, the National Center for Scientific Research, France's leading agency for the support of basic research both in universities and in its own laboratories, recently has sought to curry favor with the administration by announcing a list of 20 strategic priorities—ranging from mathematics and the exploitation of remote sensing techniques to the multidisciplinary sciences of communication and evolution—for increased funding over the next 5 to 7 years.

Nevertheless, the proposals for the new law also reflect a growing awareness in Paris that an excessive desire for centralized planning and control of research programs (by no means confined to the present socialist government) is proving less productive than had been hoped.

The Minister of Research and Technology, for example, physicist Hubert Curien, admitted at a meeting of the Council of Ministers last week that government efforts to stimulate the applications of genetic engineering to agriculture and food production, had been disappointing, with both fields "paradoxically keeping their distance from recent developments in modern biology."

The proposed new research law, while maintaining the emphasis on key areas such as microelectronics and biotechnology, will introduce several measures designed to moderate this approach and introduce greater flexibility into the organization of French science.

Tax incentives, for example, are going to be raised substantially in an effort to encourage more companies to adopt a less conservative outlook toward new technologies and to invest their own funds in R&D. At present, according to officials from the Ministry of Research and Technology, French industry only supports 43 percent of the nation's civilian research effort, compared to 60 percent in West Germany and 65 percent in Japan.

A special effort will be made to reduce the bureaucratic barriers, such as the time-consuming form filling and report preparation, that has blunted the effectiveness of recent efforts to increase cooperation between university and government scientists on the one hand, and private companies interested in exploiting their research on the other.

A major thrust of a new "scientific employment policy" to be developed within the framework of the new law will, according to research minister Curien, be aimed at encouraging a far greater movement of scientists, whether between disciplines, between different professional sectors, or between laboratories in different European countries.

One novel way of encouraging a greater interchange of ideas, for example, will be to offer employees in private companies the possibility of spending a year working in a public laboratory, along the same lines as they might currently seek time off for pursuing their education.

The new law is expected to say little about developing the government's previous interest in democratizing scientific institutions. For example, there are no plans to repeat the national research colloquium held in early 1982, and consultation with the research community in drawing up the main provisions of the new law has been primarily restricted to the existing advisory machinery and to top research administrators.—**DAVID DICKSON**