

next 5 years. These investments would have been used to attract private finance into energy development. In essence, the UNERG conference was seen as establishing a broad framework that would help guide the World Bank's expanded investment program in renewable energy development.

In February, however, the Reagan Administration announced that it could not support the energy affiliate, and the proposal has been derailed (*Science*, 3 April 1981, p. 21). This could cause some strife at UNERG.

The focal point for negotiations over the proposed World Bank affiliate will, however, be the economic summit meeting of Western leaders to be held in Ottawa on 19 to 21 July. There, supporters of the idea, notably Canada and France, will try to persuade the Reagan Administration to change its mind. The most that can be expected, according to U.S. government sources, however, is a promise that the Administration will not oppose an expansion of the bank's energy lending programs within its current structure.

A second forum for thrashing out energy funding will be the North-South summit meeting scheduled for Cancun, Mexico, in October. Again, the United States is likely to find itself under pressure to support an expanded World Bank energy lending program. These negotiations over the World Bank "will be critical for the success of the [UNERG] conference," Taniguchi acknowledged in a conversation with *Science*.

The UNERG gathering is thus unlikely to produce grandiose schemes for solving the world's energy problems. But some suggest that the central achievement of the conference is the fact that it is taking place at all. David Chatfield, a representative of Friends of the Earth who has been helping coordinate the input of non-governmental organizations into UNERG, argues that the conference will help to raise the general level of understanding about the potential for renewable energy sources. "If UNERG pushes the energy transition forward by a few years, then it will have been a success," he says.

Before the Stockholm conference, notes Stromayer, only about a dozen governments had established offices concerned with protecting the environment; within a year after the conference, virtually every country had an office in place. UNERG, suggests Stromayer, "may similarly legitimize the role of new and renewable energy sources."

—COLIN NORMAN

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## French Government Bullish on Science and Technology

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Both a bigger budget and substantial changes in organization are in store for French science under the Socialist government of President François Mitterrand. Decisions on funding and on details of restructuring are at least several months away, but the government is moving to carry out Mitterrand's design of using research and development as a major tool for achieving economic recovery and social reform.

Mitterrand has kept a preelection promise to give full cabinet status to a science minister; the post has been subordinated to the Minister of Industry in recent French governments. The new Minister of State for Research and Technology is Jean-Pierre Chevènement, 42, an intellectual technocrat from the left wing of the Socialist Party. He appears to have won a contest within the cabinet for control over the agencies that are responsible for basic research and scientific information. He is also expected to exert increased influence in nonmilitary nuclear affairs and the French space program.

In recent public statements, Chevènement has affirmed Mitterrand's pledges to increase spending on R & D from the present 1.8 percent of the gross national product to 2.5 percent by 1985, and to ask parliament to expand the nation's corps of researchers by some 4 percent, the largest increase since 1969.

Other Mitterrand proposals include creation of a special parliamentary committee for technology assessment and for a council on science and culture that would report directly to the President. Chevènement last month announced the government's intention to sponsor a national conference on scientific options in the autumn. The discussions would form the basis for a new science program to be submitted to parliament in 1982.

As part of a grand strategy for science, Chevènement says that the government will sponsor special programs in biotechnology, microelectronics, and new sources of energy. Chevènement is reputed to admire the partnership between government

and industry in Japan and is expected to advocate a similar alliance in France.

Chevènement has repeatedly expressed views like those quoted in an interview in the Paris magazine *Le Point*: "Above all, the technological revolution is at the heart of the problems. Moreover, it conditions all the others—energy independence, length of the work week, rapport with the Third World, health policy, industrial competitiveness, etc. We are fully aware, we Socialists, that it is illusory to wish to make society more just and more humane without integrating the parameter of technology."

French scientists' fortunes these days appear more favorable than those of their counterparts in Britain, Germany, and the United States. The catch is that special treatment may be accompanied by exaggerated expectations of results.—*John Walsh*

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## China to Get \$200 Million for University Expansion

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In its first loan to the People's Republic of China, the World Bank has advanced \$200 million for the support of higher education, particularly graduate education and research in science and technology. The loan is intended to support China's ambitious plans to increase the enrollment of science and engineering students at Chinese universities and to reestablish a graduate education system that was effectively dismantled during the Cultural Revolution.

The bulk of the loan, some \$160 million, will purchase research and teaching equipment from abroad. It will be used to strengthen science and engineering departments in 26 universities throughout China.

The loan is geared to China's plan to increase undergraduate enrollment by 7 percent a year, reaching 2.2 million by 1990. Enrollment in graduate programs is slated to rise from close to zero at present to about 200,000 by the end of the decade.

Because enrollment in Chinese universities is currently well below the average for developing countries, China suffers from an acute shortage of skilled and technically qualified peo-