Senate Commerce Committee authorization bill report to come up with a plan that defined more clearly how such a joint venture would fit in with the agency's measurement mission and would give the endeavor a national rather than a local focus. A revised proposal is now in committee hands, but Senate staff sources say that approval of the project is by no means assured.

On the University of Maryland side, CARB was seen as fitting into a larger scheme as one of four separate institutes making up a comprehensive biotechnology initiative. The other institutes would be devoted to marine, medical, and agricultural biotechnology. As the first, however, CARB raised new issues. For example, the proposal apparently prompted the state board of higher education to seek assurances that the university was not taking unilateral action affecting academic credit and degrees over which the board has authority. But the major effect of CARB on the university stems from the recognition that existing policies were not adequate to cover participation in a joint venture in which the purposes of the various partners differ. A range of issues from rules for appointment to the staff of the center to dealing with patents and proprietary rights are under discussion. And the prospective partners are still working out a financial plan to govern industry affiliation. There is optimism among university officials that these prenatal problems can be worked out, but also a view that, as one of those involved put it, "We're trying to develop a new set of relationships. It's fair to call it an experiment."

Maryland went through something of a dry run on policy reformulation earlier this year when it vied for the Software Engineering Institute, which Carnegie-Mellon was selected to manage. During the competition period there were objections from Maryland faculty and students about the prospect of university involvement in secret research for the military. This raised echoes of the Vietnam protest era when several interdisciplinary research centers became targets of activists. There are faint rumblings of such protests on U.S. campuses now, and some so-far mild objections to the use of public resources represented by the universities for corporate advantage. But at this point, the main concern seems to be to protect the traditional university values and interests. And to do this, university officials with the most experience in this sphere emphasize that it is essential for universities entering new joint ventures to get the terms right.—**JOHN WALSH**

Garrison Compromise Proposed

A congressionally mandated commission, after 4 months of study, has submitted recommendations for substantial revision of the Garrison diversion project, a controversial irrigation program in North Dakota that environmentalists have been trying to scuttle for years (*Science*, 31 August 1984, p. 904).

The commission, manned mostly by western Republicans, has come up with a plan that at $1.1 billion is no cheaper than the original, but which would include $401 million in new money for industrial and municipal water delivery systems. Total irrigated acreage, authorized at 250 million, would be reduced to 130 million, including 17 million acres of Indian reservation to compensate for Indian lands inundated by the Garrison Dam in 1953.

The compromise would satisfy Canadians, who have expressed strong concerns about the transfer of Missouri River biota to the Hudson Bay watershed, by concentrating most of the irrigation in the James River watershed.

The commission calls for a halt to construction of the Lonetree Reservoir, the heart of the network, and its replacement by a canal. It states that the area, which contains a wildlife refuge, should be managed for wildlife but not put off bounds for future irrigation needs. The panel recommends permanent preservation of Kraft Slough, a prized habitat for migratory waterfowl and other species, which was scheduled to be inundated for a reservoir. It also advocates the formation of a panel of experts to oversee wildlife mitigation efforts.

The new proposals would rescue the project from a political stalemate. North Dakota politicians have been defending it fiercely for years despite declining public and congressional support. For the past few years plans have been limited to building "phase 1," which contains most of the costly and environmentally destructive infrastructure but which is only designed to irrigate 85,000 acres.

The Bureau of Reclamation is now free to proceed with the parts of the plan that are already authorized. Interior Secretary William P. Clark is expected to submit a request for those requiring congressional action by 15 February.

The commission exercise represents a unique solution to a major public works conflict. Environmentalists in North Dakota, who wanted the project deauthorized, are unhappy with the outcome. But the Audubon Society, leader of the anti-Garrison crusade, has expressed willingness to live with the modified plan, which it says reflects a more realistic response to the state's water needs.

—**CONSTANCE HOLDEN**

Industry-Academia Cooperation Touted

An extremely positive account of university-industry research projects is offered by the National Science Foundation (NSF) in a new report on its Industry/University Cooperative Research projects program (IUCR).*

The program, in operation since 1977, is "one of a very few federal efforts to create explicit bridges between the world of academia and the world of commerce," says the NSF, and there is little information on what makes such arrangements work.

So NSF mailed out 20-page questionnaires to 226 scientists working on 118 joint projects funded from 1978 to 1980, which covered basic research on subjects ranging from computer language systems to filtration processes.

The industry and university scientists showed broad agreement on the goals of research ("develop patentable products" was the most important) and were very pleased with its quality and with the synergistic effects of cooperation.

The report says the most important variables contributing to the success of the projects were "those related to interpersonal interaction." Most of the scientists involved represent the crème de la crème—senior professionals in major research universities and Fortune 500 companies. Collabo-

*"Cooperative Science: A National Study of University and Industry Researchers," from the Productivity Improvement Research Section, Division of Industrial Science and Technological Innovation, National Science Foundation, Washington, D.C. 20550, November 1984.