

to taking his post when the Foundation was established.

Some foreign observers will no doubt look upon the VW Foundation as another example of what they consider to be West Germany's smooth and

self-assured climb to economic eminence. But relatively prosperous as it is, West Germany seethes with rational dissatisfaction over inadequacies in education, social services, housing, and even in the support of scientific re-

search. Too little, maybe too late, almost certainly too cautious—perhaps that is how the VW Foundation should be regarded, rather than as a smooth-running cog in a brilliantly functioning machine.—D. S. GREENBERG

Nixon Advisers Call for Better Integrated Science Support

American science needs not only more money but a better planned and integrated program of federal support, according to the President's Task Force on Science Policy, a group commissioned by President Nixon last October to review federal science policy.

In its recently released report, entitled "Science and Technology: Tools for Progress," the task force* suggests that now that the rate of growth of federal support for scientific research and graduate education has slowed, weaknesses in the "unintegrated management" of that support have been forced into view. The task force calls for doubling the budget of the National Science Foundation (NSF) and for a reassessment of the need for support of certain kinds of research abandoned by the mission-oriented agencies.

It recommends that support for NSF be equivalent to 0.1 percent of the gross national product (GNP). Given the current GNP of about \$960 billion a year, this would mean that the NSF budget would be increased from its present level of \$463 million to nearly \$1 billion. The NSF, which now provides one-eighth of all federal support of fundamental research and one-sixth of the federal support of academic research, would be responsible for providing about one-third of all federal support for research in each of these categories.

The task force says that the mission-oriented agencies should continue to fund some basic research on their own, with the Office of Science and Technology (OST) designated by the President to establish priorities among competing research programs. The panel cautions the Defense Department against an overly narrow interpretation of the Mansfield Amendment, which forbids the Department to fund "any research project or study unless such project or study has a direct and apparent relationship to a specific military function." Although this statement is termed "not unreasonable" by the task force, it warns against "a myopic interpretation" of the bearing of basic research on defense problems. "The close and multiple contacts back and forth between basic research, applied research, and applications themselves, and among Governmental, university, and industrial groups which the United States has achieved is the envy of most other nations," the report says. "The philosophy on which these contracts have been made and maintained seems now to have been forgotten as various forces inside and outside of Government seem intent on dismembering our present very effective system."

Warning against the possibility of "technological surprise," the task force also recommends that the President emphasize research and development for national security, "even at the expense of current military hardware procurement, if necessary." Further gains in de-

fense research and technology will be necessary to dissolve the "Iron" and "Bamboo" curtains, to enable the United States to react quickly to changed circumstances, and to reduce the total costs of military projects and weapons, the panel says.

The task force recommends that Congress adopt policies providing more generous, evenhanded, and predictable support for graduate scientific education. The panel is in general accord with a 1969 report by the National Science Board (NSB) calling for more aid in the form of fellowships and institutional and departmental grants. Currently, 75 percent of federal support to graduate education is in research project grants.

The task force urges that OST develop a federal structure for technology assessment, in keeping with two recent reports to the Congress on this subject by the National Academy of Sciences (*Science*, 5 September) and the National Academy of Engineering (*Science*, 14 November). The proposed technology assessment effort would be part of a larger effort to make more effective use of science and technology in attacking social, urban, and environmental problems. The task force suggests that each government agency or department develop specific goals and draw up a 10- to 15-year plan for achieving them. Requirements for basic and applied research and the methods of meeting them would be identified and stated in a manner understandable to universities, business, and labor. Much of the work necessary to achieve the goals calls for the talents of social scientists, and the OST would be expected to strengthen its resources in the social sciences.

The task force recommends that the President's science advisor develop a broadly based program for the shaping of national science policy. "A specific deficiency in the way we arrive at national goals and priorities is that science and technology inputs come mainly from universities and nonprofit organizations," the report says. "Formulation of national science policy should seek wider participation from private industry, labor, and the professions."—NANCY GRUCHOW

*The chairman of the task force is Ruben F. Mettler, president of TRW, Inc. Other members are Warren G. Bennis, vice president for academic development, State University of New York at Buffalo; Theodore L. Cairns, assistant director, Central Research Department, Du Pont Experimental Station at Wilmington, Del.; Elmer W. Engstrom, chairman of the Executive Committee, RCA Corporation; Solomon Fabricant, professor of economics, Graduate School of Arts and Sciences, New York University; Robert J. Glaser, dean, Stanford University School of Medicine; Philip Handler, president, National Academy of Sciences; Oscar Ruebhausen, Debevoise, Plimpton, Lyons & Gates of New York; Bernard Schriever, Schriever & McKee Associates, Inc. of Arlington Va.; Chauncey Starr, dean, School of Engineering and Applied Science, University of California at Los Angeles; H. Guyford Stever, president, Carnegie-Mellon University; Charles H. Townes, professor-at-large, Department of Physics, University of California at Berkeley; Alvin M. Weinberg, director, Oak Ridge National Laboratory.

The report may be obtained for 35 cents from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.