

ming or coordinating diverse government-supported science programs, of keeping generally informed about research and development activity in the private sector and within other nations, of identifying relatively neglected areas requiring additional attention, and of evaluating accomplishments in the light of objectives sought and resources expended. Science policy is moreover but an aspect of overall national policy, and cannot be formulated in isolation."

This is a pretty large order, and it is a bit disappointing to discover that the body supposed to shoulder the task is a model "Science and Policy Office," manned by three or more senior advisers and a small staff. If the point is only that some authority is needed to supplant the treasuries and budget bureaus which, all over the world, end up making most decisions on the allocation of funds to science (as to most other things), it is well taken. Or if the monograph means to suggest that wisdom is more important than direct supervision in the overall guidance of a nation's science program, again, the recommendation can stand up. But as the answer to the massive problems of directing and coordinating today's huge scientific establishments, a three-man policy office simply will not do.

Not only national but also international science programs, according to "Science and the Policies of Governments," are in disarray. Concern about the logic of cooperative scientific activities is less acute in the United States, where a relatively small percentage of annual R&D expenditures is committed to international programs. But the problem is greater in some of the smaller European countries, which may devote between 25 and 50 percent of their much smaller R&D outlays to international organizations.

Cooperative science agencies in Europe are numerous and varied. There are international research institutes and laboratories, such as the Rome Computer Centre, the Training Centre for Experimental Aerodynamics in Brussels, and the European Organization for Nuclear Research (CERN). There are intergovernmental scientific agencies: the European Nuclear Energy Agency (ENEA), European Atomic Energy Agency (EURATOM), the European Launcher Development Organization (ELDO), and the European Space Research Organization (ESRO). And, in addition, there are multilateral and bilateral programs in fields such as

oceanography and water pollution, and there are scientific activities connected with Europe's political and military organizations—NATO, the European Economic Community, and OECD itself.

The profusion of these organizations, says the OECD monograph, "their sometimes overlapping mandates, . . . their several responsibilities to different and often uncoordinated points of official contact within governments, their occasional duplication of programs, and above all their increasing pressures on limited national scientific resources," have led to demands for greater rationalization, and for some measure of overall policy planning and guidance.

Here again, however, "Science and the Policies of Governments," after scrupulously reviewing and rejecting all conceivable alternatives for international coordination, including a single international science-policy-making office (which it rightly considers an "illusory ideal"), finishes up with a rather weak call for increased policy orientation of the scientific activities of international organizations and the wan hope that there may yet develop among them a "natural cooperation."

If, for reasons of security, of time, and of the variousness of their problems, the science ministers at the OECD meeting could do nothing concrete beyond agreeing to meet again and to set up a high-level interim committee to continue talking things over, the meeting is still an event worth marking. Ministers of agriculture, finance, defense, and state meet together to discuss common problems as regularly as they please; this is the first time officials responsible for science have attempted to rope off a domain of their own.

The science ministers who attended the Paris meeting need less instruction than most on the ad hoc and fragile nature of most present governmental arrangements for science. The U.S. was represented by Leland Haworth, director of the National Science Foundation; Britain, by Lord Hailsham, Minister for Science; and France and Germany, by Cabinet-level ministers specifically charged with responsibility for science. Other countries, however, were represented by an assortment of commerce, industry, and education ministers and Belgium was represented by her Prime Minister, Théo Lefèvre. Luxembourg, thumbing its nose at C. P. Snow, sent along its Minister of Culture and Science.—ELINOR LANGER

Announcements

The Public Health Service last week announced the establishment of the **National Advisory General Medical Sciences Council**; eight of a planned 12-member committee have been appointed. The council was authorized earlier this year when the Division of General Medical Sciences was given Institute status. It will meet three times a year to review and make recommendations for the award of NIGMS research and research training grants and to advise the Surgeon General on matters relating to activities in the basic medical sciences and the affiliated natural and behavioral sciences.

The members appointed so far include the following:

Richard T. Eastwood, executive vice president, Texas Medical Center, Houston; Carlyle F. Jacobsen, president, Upstate Medical College, and dean of the College of Medicine, State University of New York; Thomas D. Kinney, chairman, pathology department, Duke University Medical School; Herbert E. Longenecker, president, Tulane University; Jonathan E. Rhoads, chairman, department of surgery, University of Pennsylvania School of Medicine; Walter F. Riker, chairman, department of pharmacology, Cornell University Medical School; Theodore C. Ruch, executive officer and professor of physiology and biophysics, University of Washington School of Medicine, Seattle; William R. Wood, president, University of Alaska.

A list of **ichthyologists** is being compiled as an index of specialists in the field. Further information is available from S. H. Vernick of the department of biology, Georgetown University, Washington, D.C. Persons interested in being included in the index should send their address and specific area of interest.

A research laboratory in **electro-optical sciences** has been established in the University of Michigan's Institute of Science and Technology. The new facility is part of a recently initiated program to enable graduate students to work with modern developments in optics. The laboratory will conduct studies in diffraction gratings, light propagation and measurement, electro-optical communications, and optical electronics. George W. Stroke, formerly at M.I.T., is head of the unit.