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Basic Research a Luxury?

Although, as we pointed out earlier on this page (3 April 1959), science and technology form the indispensable basis for the solution of Israel's economic problems, Israeli scientists, technologists, lay citizens, and government officials do not agree about the role of basic research. The question, in its bluntest form, is: How much, if any, of the national effort should be devoted to pure research?

This question is the subject of searching discussion in Israel, and the reasons it is framed in this form are not far to seek. The country is ringed about by hostile states and must consequently devote a large share of her effort to the maintenance of her armed forces; her commitment to accept immigrants forces her to allocate another large share of her resources to preparations for housing, and finding work for, tens of thousands annually. The recent increase in immigration from Romania has forced Israel to impose upon her citizens a stiff compulsory loan on top of income taxes and import duties that dwarf those in this country. So much for the internal difficulties; there are external ones as well. Israel has an adverse balance of trade greater than \$200 million per year. This dollar gap is currently filled by funds from private philanthropy, U.S. Government projects, the sale of bonds, and German reparations. But all these fluctuate in amount, and one of them at least, the German reparations, will come to an end between 1962 and 1964.

In view of these economic realities, it is not surprising to find that many government officials and some scientists with technological leanings think that Israel should devote all or nearly all of her resources for research to applied science. They contend that Israel is too limited in manpower and other resources to support basic research and that such research is a luxury the country cannot afford. Two scientists who share this attitude expressed it thus: "The country is too small to have specialized research," and "Basic science does not pay in Israel."

Those whose orientation is toward basic research take quite a different position. They think the country can, and indeed must, have both kinds of research. They take the view that even in a country that faces harsh economic problems, basic research will be practical in the long run, for without it no advanced technology can be kept vigorous; that quite aside from economic considerations, basic research is an important cultural activity; that Israel gains intangible but nevertheless valuable world recognition and status from her accomplishments in pure science; and, finally, that Israel has a historic role to play as a scientific outpost in the Middle East.

The practice of basic research in Israel antedates the formation of the state: this month the Daniel Sieff Research Institute, which formed the nucleus for the Weizmann Institute, celebrates its 25th anniversary, and the Hebrew University was founded in 1925, the Technion in 1924. These institutions have been supported in part by foreign private philanthropy and, in recent years, by research contracts from United States government agencies, among them the Department of Defense, the Atomic Energy Commission, and the National Science Foundation.

Both the strong tradition of basic research in Israel and the prospect of continuing outside support make it likely that basic research will survive the present crisis.—G. DuS.