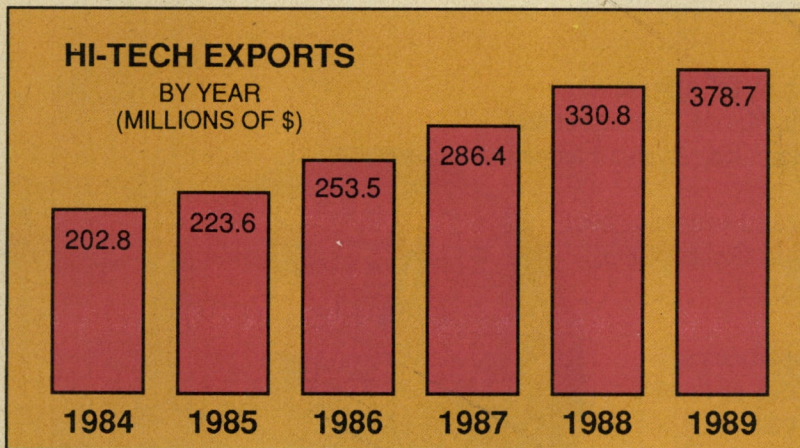


ISRAEL'S FUTURE IN ADVANCED TECHNOLOGY

By Opher Arian

AN INTERVIEW WITH YIGAL ERLICH, CHIEF SCIENTIST OF THE INDUSTRY AND TRADE MINISTRY



Question: What are the duties of the Chief Scientist?

Answer: The Chief Scientist of the Ministry of Industry and Trade is responsible for the advancement of the country's industry through technological innovation. My activities are directed toward increasing exports of new products, developed in Israel.

There is general agreement that Israel's future depends on introducing advanced technologies into the production and development processes of the country's industry. An innovative product, based on exclusive development, has an immeasurably better competitive capability on the world market than a product whose relative advantage is based on other elements, like capital-intensiveness, cheap labor or purchased technology.

The office of Chief Scientist was created in 1971, and since 1985 it has functioned on the basis of the law for the encouragement of investment in industrial research and development.

The main activities of the Chief Scientist and his bureau include providing financial resources for developers of new technologies or those working to improve existing technologies. He also strives to develop and expand the technological infrastructure for science-based industries. He guides and advises enterprises, mainly new ones; identifies and promotes preferred areas of research; and fosters links which will enable Israeli companies to cooperate with others abroad.

Question: What tools do you have at your disposal for achieving these goals?

Answer: I have a budget which has increased over the years, reaching \$120 million last year, up from \$35 million in 1984, when even that sum was not fully utilized.

From this budget, those entitled by law are given participatory grants to finance research and development. The usual participation is 50 percent of the authorized cost of the project, but it has reach up to 66 percent in a special cases, such as new enterprises or those located in development zones. Similar 50 percent participation is also granted to pre-industrial projects, carried out by academic institutions and likely to be translated into industrial products when completed. Grants are in the nature of conditional loans. The recipients undertake to return the sum in full if the project succeeds, by paying a certain percentage of revenue from the sale of the product into a special fund. Last year, the

ministry received some \$17 million dollars from these royalties, which were reinvested in new projects.

Question: Much has been spoken of the potential of the immigrants from the Soviet Union and the need to create jobs for them. Have you decided on new modes of assistance to attain this goal?

Answer: The professional composition of the new immigration is of unusually high quality, with two-thirds having university degrees or technical education. They are especially suitable for the development of high-tech industry, which invests in advanced technological research and development.

We have decided on a series of new frameworks, aimed at creating jobs. "Greenhouses" for technological initiatives will be set up to support enterprises with original ideas, but inadequate financial or managerial skills. They will enjoy the assistance of existing companies, which will provide them with appropriate infrastructure, organization and guidance. This framework will also make possible connections with non-industrial business or even other bodies which have proven capability in managing projects which involve R&D. The government will provide up to 66 percent of the R&D costs in these projects and will also assist in exploring the marketing possibilities of the end product.

It has also been decided to participate up to 60 percent in projects which have been delayed by lack of funds or because of high risk factors, if they increase the number of their employees by at least 50 percent. And assistance to the extent of 20 percent of the costs will be given to projects subcontracted to Israeli firms by foreign companies, if they hire at least five new employees.

Israeli companies which have cooperated in the development of a new product or technology will enjoy aid to the tune of 60 percent of the R&D costs.

We have also decided to set up funds to encourage venture capital investment in R&D. The intention is for the government to put up 10 percent of the initial capital of these funds. The investor will have the option of buying the government's share at the price of the investment plus interest.

I believe that Israel has true potential for a flourishing high-tech industry; a potential that will only grow with the immigration. I have no doubt that the steps we have taken will bear fruit soon. The day is not far off when Israel will be considered an industrial power.