Star wars

Israel attracted by spin-off

Rehovot

ISRAEL is almost certain to accept the invitation it has received from the United States to participate in the Strategic Defense Initiative ("star wars") research programme.

If the government does so, it will enjoy the support of most of the scientific community, which hopes that the project will provide research funds that are no longer available from other sources and also create positions for young scientists who might otherwise leave the country.

Professor Josef Singer, president of the Haifa Technion and an aeronautical engineer who has himself done defence research, supports Israeli participation but warns his colleagues that they should not expect the United States "to spend billions of dollars and to engage thousands of scientists and engineers".

Singer points out that the US armed forces have already spent millions of dollars over the past 30 years in support of research projects at institutes in Israel. "And", he says, "while Israel stands to gain more in resources and know-how, it also has a contribution to make. Otherwise, it would not have been invited to participate." He expects there to be benefits for Israel in the high-technology industries. And off the record, other Israeli scientists say that star wars research, although primarily aimed at finding a way to bring down Soviet ballistic missiles, may help to improve Israel's military potential closer to Earth. Specifically, they speculate about the development of an innovative deterrent that might compensate for the fact that shortage of money and manpower make it difficult for Israel to match the military build-up of its Arab adversaries.

A dissenting opinion comes from Professor Giora Shaviv, an expert on space research at the Haifa Technion, who dismisses the invitation to Israel as a propaganda move and says that Israeli researchers "have no real role to play" in the star wars scheme. A small number of politicians and academics have raised the subject of the moral and political implications of Israel's participation in the US programme.

Meir Stiglitz, who teaches a course on nuclear weapons at the Hebrew University's International Relations Department, claims that Israeli leaders are so blinded by the immediate benefits of cooperation with the United States in this sphere that they overlook the potential long-range dangers. As he sees it, these include the possibility that Israel may become a "desirable and legitimate" target for Soviet nuclear missiles, and might be attacked in order "to send a message" to the United States.

Nechemia Meyers

Star wars

France rallies European forces

THE French government is determined to shake Europe awake, and to encourage all the nations of Europe to take a great leap forward in science and technology, by creating a new European research organization with considerable powers and funds, dubbed "Eureka". Or it may be that the French government is scared stiff of participation in the US Strategic Defense Initiative (SDI, or star wars) because it feels this might suck France dry of some of its best weapons technologies, and wishes to form a common European industrial and research front. Eureka would be that front.

Which is the truer picture of French intentions? Probably both are true, which has made it a little difficult for Western European foreign ministers to respond to an urgent letter, proposing the flexible and rapid creation of Eureka, addressed to them last week by their French opposite number, M. Roland Dumas.

In the letter, Dumas says that Eureka (which in a rare French linguistic concession he gives the English name "European Research Coordination Agency") would set up major programmes half-funded by Eureka and half by industry in optronics, new materials, high-powered lasers, artificial intelligence, high-speed and ultra-miniaturized microelectronics and space. Any European state should be able to join in any programme, Dumas suggests, leading to a "variable geometry" Europe for research. But what research? Dumas' shopping list is remarkably similar to one that might be drawn up by SDI, rather than the new technologies in general (where is biotechnology, for example?), but the letter does not mention SDI by name.

Nevertheless, French interest in creating what the Prime Minister, M. Laurent Fabius, calls "a European area for research" is well known, and long pre-dates interest in SDI. France has doubled its government civil research spending since President Mitterrand came to power in 1981, but now realizes that France cannot go it alone against the United States and Japan. Thus Pierre Papon, director-general of the principal French research council, the Centre National de la Recherche Scientifique (CNRS), which has 10,000 researchers, made a detailed tour of Europe last year seeking bilateral research agreements, and the present research minister, ex-president of the French space agency the Centre National d'Etudes Spatiales (CNES), has also shown himself a dedicated European.

But these individuals and others in the French science political scene may be getting impatient at the pace of European integration in science and technology. ESPRIT, the European programme of research in information technology, flagship of the European Economic Community (EEC) programme in

integrated "pre-competitive" research, has been extremely slow to spend real cash, and for the moment can claim only that it has brought a few European companies to the same table. The only really working institutions of any size seem to be the European Organization for Nuclear Research, CERN, which has only a moderate economic impact, the European Space Agency (ESA) of which Curien has been chairman, JET (the European fusion experiment, with impact only far in the future) and the European Airbus.

France wants much more, and earlier this month Jacques Delors, the new French president of the European Commission (the EEC bureaucracy), tried to provide it. In a written presentation, he asked European ministers at a summit meeting to double EEC research spending from its present three per cent of the Brussels budget to six per cent, and he linked the increase with the need for Europe to respond to SDI. Ministers — who at present in the 10-nation EEC must agree any proposal unanimously — threw out both ideas. Many states were, it seems, prepared to increase the research budget, but by nothing like the factor of two, and the SDI link was described by some participants as "half-baked", rushed and ill-prepared. There seems to have been no collaboration between Delors and the French government over the issue, and it may be that Delors had had wind of the Eureka proposal and wished to put up an EEC stake, fearing the likely weakening effect of Eureka on Commission power in research.

Nevertheless, Delors was unsuccessful, and now Dumas has proposed Eureka, determined, it seems, to see something happen for European research. But the announcement of his initiative last week in Paris was not made through the usual channel, the Wednesday council of ministers meeting, but direct from the ministry of foreign affairs itself. Staff of CNRS "read about Eureka in the press". There seems to have been "a little problem of communication" between the foreign ministry and the research council, though Pierre Papon "has since become involved in discussions".

Moreover, the links with defence have clearly become stronger, as Dumas' letter to foreign ministers was delivered a few days in advance of this week's meeting of the Western European Union, a recently-revived forum in which seven of the major European states discuss defence matters. The letter is intended for discussion "on the margins" of the meeting. Dumas will no doubt be expressing concern about French industry, in which spending on armaments has become the principal component. Last year, for the first time, France exported more arms to the United States than it imported from that country. And