European defence programme

Favourable noises for Eureka

EUREKA, the French project for a European alternative to the American "star wars" or Strategic Defense Initiative (SDI) programme, seems to be in a much better state — politically speaking — than it was a few weeks ago. Or so French sources are making out, now that the British foreign minister, Sir Geoffrey Howe, has indicated to his French counterpart M. Roland Dumas that he favours Eureka, despite initial British reticence.

The new British position seems to be that a variable-geometry, high-technology European programme, run by what the French describe as a "light" administration that would include the European Commission but not be controlled by it, could well be effective. Sir Geoffrey, it is believed, would like Eureka to concentrate on the "coordinated exploitation" of basic research. This is a logical insistence, as it is exactly what Britain alone has for long failed to achieve.

However, while Paris is now happy with London's support, and while administrations in many European states are now behind Eureka, contradictory statements and confusions about the project still abound, both between nations and between senior ministers of single nations, and particularly between France and Germany. Originally, German Chancellor Helmut Kohl had embraced SDI research in collaboration with the United States while French President Francois Mitterrand had rejected it, describing it as mere "subcontracting" and fearing a drain of technology and brains to the United States. But two weeks ago the West German foreign minister Herr Hans-Dietrich Genscher had visited the French capital and expressed doubts about star wars and enthusiasm for the Eureka project. Hopes were high for an agreement of last week's summit meeting between Kohl and Mitterrand at Lake Constance in Bavaria. In the event Kohl refused to abandon his support for SDI research, and failed to give any explicit backing to Eureka.

Afterwards, *Le Monde,* normally France's most respectable newspaper, launched an extraordinary front-page, and apparently politically inspired, attack on Kohl, describing him as provincial and vaccillating, and complaining that deep issues went completely over his head. But Mitterrand on Friday lowered the temperature greatly by describing Eureka as "a Franco-German idea", by claiming that it was of "vital necessity for West Germany" and that Germany agreed with this. Thus the waters muddy, and the true Eureka is hard to find.

At least the French view is becoming sharper. For example, M. Hubert Curien, the research minister, has now clearly confined M. Mitterrand's "non" to star wars to government actions and government support, and left industry free to decide for itself whether SDI involvement would pay. In practice, then, as countries that have said "yes" or "ja" are unlikely to be enthusiastic about SDI research if it involves the spending of large amounts of government money (unless that government is American), there may be little difference between the French and other positions.

In further clarification, Curien last week made the longest public statement yet on the precise nature of Eureka. He claimed it was well received in Rome, Copenhagen and Berne as well as in London (and Bonn), and promised the first "one or two" real programmes by the end of the summer. He was at pains to emphasize the need for industrial involvement in defining programme content and objectives, and said that such consultations were well under way. As to what the programmes will be, Curien remained curiously silent.

Robert Walgate

In vitro fertilization

Travemünde

MOST participants at this year's meeting of West German physicians (Deutscher Ärztetag) believe that the absence of legal guidelines in modern reproductive medicine should be made good by their own initiative. Fertilizations outside the mother's womb now occur in a "legal vacuum".

The physicians resolved to adopt professional rules (*Richtlinien*) to decide between correct and incorrect behaviour. Their unanimous opinion was that such rules should not be left solely to politicians and lawyers. Although it was also clear that many physicians have no wish to play a decisive role in *in vitro* fertilization, their demand was refused that there should be a stop to the programme until the inherent complications are understood.

The final communique was described by some as a presumptuous attempt by physicians to force their morals on the rest of society, particularly the restriction of the new technology to married couples.

Supporters of the restriction, however, hold that marriage and the family are the more relevant legal and ethical values, and that exceptions should be allowed only on the recommendation of a specially founded commission. Both sides agreed that the "rent-a-mother" (*Leihmutter*) concept is unacceptable, if only because of the risks of commercialization.

The physicians have taken this initiative now because the federal government is as slow and indecisive in this context as in that of recombinant DNA technology. One aim of the meeting was to put pressure on the government to clarify the legal position so that physicians are not left to decide alone. Jürgen Neffe

European defence programme

Ambitions of Heriot-Watt

WHILE European governments consider how to respond to American Secretary of State Casper Weinberger's invitation to join in star wars — otherwise the Stategic Defense Initiative (or SDI) — research, the SDI organization in Washington is not letting any grass grow under its feet. Last week, an SDI representative in England visited Europe's leading laboratory in optical computing at Heriot-Watt University in Edinburgh, and all but made an offer of a $150,000 grant, with a promise of several times that amount to come. In return Professor S. Desmond Smith and his team, who lead an eight-university European group created by the European Commission in Brussels to design the first all-optical computer, will join an American network working for SDI.

The Heriot-Watt group leads the world in this technology. In the past few months Smith and colleagues were able to demonstrate the first thee-element loop of optical switches operating at visible wavelengths at room temperature. This shows that "an indefinite extension of optical logic circuits is possible" said Professor Smith on Monday. Optical computing may offer not only speed but also enormous parallel processing capability, and is of much interest to SDI proponents, as it might make possible the rapid computations needed to identify, track and destroy multiple targets.

Is this the kind of loss of European high technology to the United States that the French had in mind in putting forward the Eureka programme? Not quite. "I'm here to build Europe", says Smith, "and if this grant is not going to help them I'm not going to use it".

For Smith, the lesson of this first SDI grant in Europe, which he described as "peanuts" compared with his collaboration's existing £2 million from British and European sources over the next three years, is that the US Department of Defense seems to spend not just for defence, but for the whole of American industry. This is exactly how US industry get into new technology so fast, Smith feels. By contrast, in seeking UK support to build prototypes of a working optical parallel processing system, Smith is finding that his requirement falls neatly between the Department of Education and Science, the Department of Trade and Industry and the Ministry of Defence. But in an exchange of letters with the Prime Minister, her chief scientific adviser, Sir Robin Nicholson, and others, Smith finds there is considerable support for an improvement in interdepartmental cooperation. Meanwhile, he is keeping closely in touch with the British government about the American approaches.

Robert Walgate