

French budget

Bleak prospect for researchers

THE French government research budget for 1987 is now more or less complete. No figures have been released, nor are they likely to be before September, but the indications are that the spending power of French scientists will at best be pegged at around the levels of 1985. There may also be redundancies, as the Prime Minister, Jacques Chirac, has ordered a 1.5 per cent across-the-board cut in government employment. There is hope, however, that the job losses will be partly compensated by a growth in the recruitment of young scientists, under a government scheme to counter youth unemployment.

The worsening prospects for French scientists, coming after the boom years of the early 1980s, were heralded by an 8 per cent cut in the science budget made in April, just a month after the new government came to power. The change shows

Terrorists strike again

Hamburg

THE terror against technology in West Germany continues. Following the killing of Siemens research manager Karl Heinz Beckurts by terrorists of the Rote Armee Fraktion (RAF), a bomb exploded at the Fraunhofer Institute for Laser Research in Aachen at 5 a.m. on Thursday last week. The total damage has not yet been estimated, but some sensitive machines seem to have been affected. In a letter found near the site, a "Fighting force Sheban Atlouf" admitted its responsibility for the attack. The institute, which is part of the Technical University of Aachen, is carrying out research only on the introduction and use of laser techniques for industrial and medical purposes, according to the head of the institute, Professor Herziger.

RAF struck again last Friday at 5 a.m. This time their chosen target was more in line with their announced aim of hitting military and nuclear research institutes. The bomb exploded outside the headquarters of Dornier GmbH, owned by Daimler Benz, in Immenstaad. Only a wall and about 250 windows were damaged.

Police think that this may be the beginning of a series of bombings against what RAF calls the "Militärisch Industrieller Komplex". Last year, when some bombs exploded near institutes for biotechnology and gene research, the new aim of the terrorists became clear. In the underground newspaper *Sabot*, anonymous sources have announced that "harmless" people in various institutes will face assassination. Protection for such a wide range of imperilled people and institutes cannot be given. Scientists have a hard challenge to face.

Jurgen Neffe

how depressingly shallow-rooted was the science policy-making system instituted by the previous administration during its five years in power. Research, it seems, never became a proper political and administrative fiefdom, and now the parts of the old estate, the ministry of research and technology, have been scattered among the ministries from which they were first confiscated in 1981.

The result, according to one senior French scientist, is that there can no longer be a science policy in France. Rather, research will get the scraps of the budget that are left after the real political carnivores — the ministers responsible for police and defence, among others, in this government — have torn at it. Only then will the minister of research and higher education, the well-meaning physicist Alain Devaquet, have a chance to form a policy. The importance for research and technology of having a politically powerful champion (in the previous French government it was Jean-Pierre Chevènement, who led the largest single wing of the socialist party) has never been clearer. Without power, the budget determines the policy; with it, the reverse is possible.

The Conseil Supérieur de la Recherche et de la Technologie (CSRT), the independent group of high-level scientific advisers to Devaquet, is already well aware of the sea-change facing French science, but seems powerless to act. Having seen the outline budget for 1987, the Conseil has been forbidden by Devaquet to speak of it. The minister will present his budget, which given inflation and the April cuts would need a 6 per cent increase in current francs to retain the spending power of 1985, probably in September. Only then will CSRT, of which Devaquet is *ex-officio* chairman, be free to publish its "advice".

Nevertheless, François Kourilsky, the Marseilles immunologist and scientific president of CSRT, has dared to warn that any suppression of scientific jobs would have "long-term effects incommensurate with the economies achieved", and to demand that the government "finish and publish a research and technology policy". This may come with Devaquet's awaited presentation, but the feeling is now clear in France that science has returned to the doldrums of the 1970s. Then, ministers in the Délégation Générale à la Recherche Scientifique et Technique (DGRST) who were responsible for "coordinating" the research budget in the prime minister's office were renowned for their fine forward-looking speeches in the Assemblée Nationale — but for their almost total lack of power to influence real events.

Robert Walgate

US-Japan trade

No easy end to chip war

Washington

AN agreement is expected early this week in the long and increasingly bitter negotiations between Japan and the United States on semiconductor trade. The United States is seeking greater access to Japanese markets for US semiconductor manufacturers, and an end to "dumping" of Japanese semiconductors on international markets. As both legal and self-imposed deadlines loom, negotiations have entered what a spokesman for the US semiconductor industry termed "a period of trench warfare".

For more than a year, the US semiconductor industry has been pursuing a trade complaint against Japan over access to Japanese semiconductor markets. US chips now account for only 10 per cent of sales in Japan according to US industry figures, as opposed to 83 per cent of sales in the United States and 55 per cent of sales in Europe. In late May, US Trade Representative Clayton Yeutter worked out a framework for concluding the trade case, known as the 301 case after the section of the Trade Act of 1974 that covers unfair trade practices. Included in the framework is the resolution of two other complaints that Japanese companies are selling erasable programmable read-only memory chips (EPROMs) and 256 kilobyte dynamic random access memory chips (256K DRAMs) below their production costs. A preliminary judgement made last year by the Department of Commerce found Japanese companies guilty of dumping in violation of international trade agreements. But in early July, both sides reached a tentative agreement to drop the dumping cases so that negotiations in a comprehensive agreement could continue. Since June, US and Japanese negotiators have been trying to forge an agreement under Yeutter's framework, but so far without success. Without a final decision to stop the dumping cases this week, permanent dumping duties will be imposed on all imported Japanese EPROMs and 256K DRAMs.

Opening Japanese markets to US goods is not straightforward. Despite the power of the Japanese Ministry of International Trade and Industry, it cannot force Japanese companies to buy US chips. The Japanese government has offered to open a special office to assist foreign companies in making semiconductor sales.

Japanese semiconductor producers are large, vertically integrated companies that can subsidize losses in their semiconductor division to purchase market share, an option not open to generally smaller US firms. No agreement will