## nature

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## Cloud over French science plan

The French minister for research and technology's plan for future expansion may be  $\overline{d}$ elayed by the parliamentary process. But there is in any case a need to think about it more carefully.

The fall of the French franc on Sunday, which brings its devaluation against the German mark to something like 20 per cent in the past 12 months, may concentrate the attention of French parliamentarians wonderfully next week on a key point of the new research law, which is to be debated in the Assembly on Monday: its cost.

The loi d'orientation et de programmation for research and development is intended to be the principal instrument of the minister of state for research and technology, M. Jean-Pierre Chevenement. Almost everything hangs upon it: the restructuring of organizations such as the Centre National de la Recherche Scientifique, their stronger linkage with the economy, modifications in contracts of employment and — not least — the outline of a four-year budget. Under the terms of the bill, the government civil research and development budget, effectively Chevenement's budget, would grow in real terms by 17.8 per cent per year on the average as part of a strategy to bring total research and development expenditure in France to 2.5 per cent of Gross National Product by 1985. All basic research is guaranteed at least 13 per cent but high technological priorities (including biotechnology) would get increases of more than the 17.8 per cent. The absolute size of these annual increases is staggering the best part of one National Science Foundation each year.

This ambitious plan was conceived in the early dreamier days of the present government. Even if the figures are agreed next week at the Assembly, it is doubtful whether they will be faithfully reflected in the 1983 budget, presently subject to horse-trading in the council of ministers. The problem is the overall French budget. The government planned a deficit of FF95,000 million in 1982, but the latest projections give a deficit of FF125,000 million largely because the French economy has not begun to grow at the expected rate of 3 per cent a year, so that tax returns are not covering expenditure. Moreover, increased social welfare benefits and the raising of the minimum wage have pushed up consumer spending but French industry has not been ready to respond, so that consumers have spent their money on imports instead. The government, alerted to the problem, has followed a well-trodden path in France and elsewhere in Western Europe and has imposed a classic squeeze: a four-month freeze on prices and incomes, combined with devaluation. So whither to grand plan now?

President François Mitterrand, speaking only a few days before the squeeze was announced — no doubt to prepare the ground — appeared to be phlegmatic. "We follow the same politics" he said. We are just in its second phase." His government's chief economic objective has been to reconquer the home market. In 1974, 24 per cent of French consumer spending went on imports, but the proportion had risen to 35 per cent by 1981. Part of the government's strategy has been priority for investment in nationalized industry (Mitterrand promised FF25,000 million in 1983) and for industrial innovation. But so far the President has refrained from mentioning a figure for research for 1983.

The research ministry is putting a brave face on this turn of events, but even if the government endorses its hopes for future budgets, trouble in the Assembly about other than financial matters could mean delay. The bill has in any case been badly mauled in the Senate, so that it will be for a joint Senate/Assembly committee eventually to pick up the pieces of Chevènement's grand plan — and to reassemble them as if into a

jigsaw puzzle. If the job cannot be done before I July, the bill will have to wait until the winter.

The moral in this potentially disappointing tale is general and not specific. The present government of France was elected just a year ago on an optimistic programme of reform and renewal. Neither President Mitterrand nor M. Chevenement has exactly echoed Mr (now Sir) Harold Wilson's British pre-election speech of 1963 about the social benefits of "white-hot technology", but they have both been edging in that direction. The promise is valid, but the performance cannot be guaranteed. This is why the British experience in the 1960s should be studied in France. After the 1964 election, money was indeed thrown at a variety of technical projects but without much lasting effect. (An aluminium smelter built at that time in the Scottish Highlands was shut down only a few weeks ago, the predicted victim of the arithmetic of economics but a social catastrophe nonetheless.) In the end, the inflationary consequences of over-optimism precipitated the stagnation of the British science budget which has persisted ever since (Mr Edward Heath's intervening essay in what is now called Reaganomics notwithstanding). This is why other Europeans are distrustful of what the French have embarked on in the past year. The objective of spending more on research and development is entirely admirable, but nothing will be achieved if the bills have to be paid by printing money. For then it will be recognized that public expenditure on research and development is politically discretionary, and the tap will be turned off.

## Who follows Slaughter?

Mr X, the next director of the US National Science Foundation, could spell trouble.

President Ronald Reagan has an unexpected opportunity for putting his own mark on the conduct of US science with the resignation of the director of the National Science Foundation (NSF), John B. Slaughter, whom President Carter appointed in 1980. Slaughter is ending his six-year term of office early, he says, only because he cannot resist an offer to become chancellor of the University of Maryland at College Park, the large state school with a high-quality science and engineering faculty. One of his aims is to integrate the university, which has always been an alsoran to its famous neighbour, Johns Hopkins University, more into the intellectual life of the Washington area. Slaughter says he also wants to attract top quality black students from the region to the university, instead of letting them be lured to other institutions elsewhere in the country. This ambition is understandable. Slaughter is one of the few black scientist-administrators in the United States, and one whose rapid rise has never been tainted with tokenism. (He was an assistant director of NSF, then vicepresident and provost of the University of Washington before returning to NSF as director.) But another motive for his decision is the need to pay for his children's college education, and the Maryland job offers not only a pay rise but a free house. Similar reasons were given by another competent Administration figure, Admiral Bobby Inman, when he announced he would leave as deputy director of the Central Intelligence Agency, saying he would have to take a job in business. Must we conclude that the