New Scientist

THIS WEEK

Chief scientist calls on industry to shore up British R&D

JOHN FAIRCLOUGH, the government's chief scientific adviser, last week attacked industrialists for failing to invest in R&D—and in the next breath agreed that he was "concerned" that his own government is likely to cut spending on non-military research. The heaviest government cuts will be in pure research and the improvement of technology.

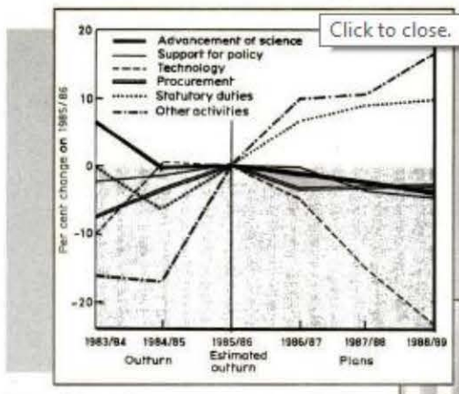
Fairclough focused his criticism on information technologists and firms working for the Ministry of Defence. "There is an environment that the government owes them the R&D they need for future success," he said. And he attacked City analysts for taking a short-term view when assessing company prospects. "This is inconsistent with the timetable of most R&D activities," he said.

He urged companies to declare their spending on R&D in annual reports to improve the City's understanding of such issues, and revealed that the accountancy profession was considering making this standard practice.

Fairclough was introducing the Cabinet Office's latest review of government-funded R&D. The main lesson he had learnt since his appointment as chief scientific adviser, he said, was that "in absolute terms British industry should be spending more on R&D—not at the expense of reduction of government R&D". Yet, he agreed, the report's forecasts, which are now an important planning tool in Whitehall, show a further decline in spending on civil R&D until 1989. The military share of the cake will rise from 51 to 54 per cent.

The report predicts a decline of a further £4 billion in government funding for civil R&D in the next two years. Most of this is due to a sharp decline in spending by the Department of Trade and Industry, especially its Launch Air programme.

The research councils and the University Grants Committee are expected to retain their slice of the shrinking civil cake. But this masks a continuing switch in government funding away from pure research.



The report divides spending on R&D into six categories of which much the largest (because of the Ministry of Defence) is support for procurement decisions. The next two classes are advancement of science (with less than 18 per cent of the cake) and improvement of technology (almost 20 per cent). These two categories are taking the brunt of cuts in spending, forestalling the need for savings in areas such as "support for statutory duties" (set to rise by almost 10 per cent by 1989) and "other activities".

Among the research councils, spending on the advancement of science shows a serious decline at both the Natural Environment and the Science and Engineering Research Councils (NERC and SERC). Between 1984 and 1989, the cut in spending on the advancement of science will be more than 20 per cent at the NERC and more than 30 per cent at the SERC.

By contrast, the NERC's spending on support for policy will more than double to £22 million by 1989.

The government's continuing commitment to nuclear power shows up clearly in the report. The Department of the Environment spends a quarter of its R&D money on radioactive waste. By next year, the Department of Energy's commitment to research for the fast-breeder reactor will exceed £100 million a year, more than half its budget for nuclear R&D. □

Link robs Peter to pay Paul

THE BRITISH government is to make £210 million available to forge better links between the scientific community and industry. The new initiative, called "Link", will support half the cost of collaborative research projects geared towards developing products.

The bad news, however, is that this is not new money. According to Geoffrey Pattie, Minister of State for Industry and Information Technology, research money currently spent by a range of government departments, will simply be re-allocated. It is also unclear how (if at all) Link will relate to the follow-up to the Alvey research and development programme.

Pattie says "Link will address a fundamental problem—Britain's inability to transfer innovations quickly into products. So often, we innovate and others exploit". Link will consist of a range of research programmes, each in a strategic area of science and technology. Pattie pinpointed a number, including molecular electronics, materials technology and robotics.

The Link steering committee is to be chaired by a prominent industrialist (yet to be named). It will feature representatives of government, research councils and the wider scientific community. Its purpose will be to judge what technologies to back.

The government's contribution is to be spread over five years. According to Pattie, industry will be expected to match this funding, producing a total of £420 million for the scheme. Currently, industry is not investing enough in research and development, Pattie claims. By contrast, he says, the government spends £4 billion a year on R&D, half of it on defence.

Apart from stimulating industry to contribute more, the government hope that Link will help industry to exploit science and make scientists in universities and polytechnics more aware of industry's needs.

Applications for money will follow the normal research council practice. The Science and Engineering Research Council (SERC) has sent a letter to universities and polytechnics inviting proposals for joint projects. The closer the technology is to the marketplace, the greater will be the contribution from industry. "We are delighted with the scheme," says Bill Mitchell, chairman of the SERC.

Link will not replace existing collaborative research programmes such as the Alvey programme and the Joint Optoelectronics Research Scheme (JOERS). □

Ministers bid to rescue Framework

THE EUROPEAN Council of Research Ministers reconvenes next week in a last ditch attempt to salvage the Framework research and development programme.

So far, talks on the five-year programme costing £5 billion that has been recommended by the commission have driven deep rifts between member States. Britain, France, Germany and the Netherlands want much smaller budgets while smaller members back the commission (*New Scientist*, last issue, p 17).

But proposals put forward by Karl-Heinz Narjes, the commissioner responsible for Framework, could allow all sides to back down without admitting defeat. On 22 December, the ministers will discuss his suggestion for a three-year £2·5 billion plan. His strategy is to fund the first year with £100 million, increasing the amount by 21 per cent in subsequent years. If the commission then gains an extension to five years, the compound annual increase of 21 per cent would more or less give it the amount of money it wants.

A more detailed package of how the £2·5 billion would be split between biotechnology, energy research, and information technology programmes such as Esprit, Race and Brite was completed by the commission last Friday.

The pressure now rests on British Trade and Industry Minister, Sir Geoffrey Pattie, to accept this Narjes compromise. Although Britain is probably the strictest budget disciplinarian of all the member States, Pattie will have to show some flexibility if the issue is to be resolved before his presidency of the council runs out in just 13 days' time.

There is some feeling in the British camp that the meeting on 22 December may be postponed. □