West German research

Industry's subsidy attacked

Hamburg

WITH a healthy balance of payments, a strong currency and low inflation, West Germany's economy is the strongest in Europe — and much of that strength is based upon successes in high-technology industries. Despite all this, there is concern that West Germany might not be keeping up with other countries in technology and scientific knowledge. And there is controversy over just what to do about it.

Decisions made by BMFT, the Federal Ministry of Research and Technology, hold the key to many of the major research and development projects, especially those requiring long-term investment. The minister at the head of BMFT, Heinz Riesenhuber, has his own ideas on how best to compete with the United States and Japan in fields such as biotechnology, space and information technology — he watches the markets to try to identify potentially profitable areas at an early stage and then sets up subsidy programmes to help industry to develop competitive research independent of government.

This "private enterprise" approach is

very much in line with the policies of Riesenhuber's party — he is a Social Democrat — and it seems to be paying political dividends, as he is regarded as a leading light in Chancellor Kohl's cabinet. The scientific value of BMFT's decisions is disputed by some experts, however. The nuclear power programme is one that has been criticized: more than DM3,000 million has been sunk into work on the fast-breeder reactor over the past decade or so, while high-temperature reactor technology has been neglected (only one prototype reactor has been built, in Hamm) and support for alternative energies such as solar power has been paltry. But Riesenhuber's ability to change priorities for BMFT's spending is severely limited: of a total civil budget of DM18,600 million, BMFT is responsible for DM7,500 million, but nearly three-quarters of that is tied up in long-term projects, support for major institutions and West Germany's contributions to international projects such as CERN and the European Space Agency. What should be done with the remaining funds — DM2,502 million last year — is hotly disputed.

In 1985 the nuclear programme took a large share of BMFT's industrial subsidy — DM740 million — leaving DM1,780 million with which to influence research trends in the rest of industry. Riesenhuber has favoured smaller companies (with an annual turnover of less than DM500 million) which now receive DM710 million a

West Germany's total research spending is 2.8 per cent of gross domestic product, which compares favourably to that in Japan and the United States. Two-thirds of this is met by trade and industry and one third by government.

year, whereas the larger companies now get around DM856 million compared with DM1,204 million in 1981.

This government support has to be matched with an equal investment from the company receiving the subsidy, but this has not prevented the accusation that government money is being spent extravagantly to support research that the companies would otherwise have to pay for themselves to survive in a free enterprise economy.

In particular, the Christian Democrats' coalition partners, the Free Democrats, are strongly opposed to the plan to subsidize Siemens and Philips to the tune of DM320 million over the next few years for the development of the four-megabit chip.

Riesenhuber, however, remains convinced that BMFT is following the right path. Support of DM1,000 million to 1989 in biotechnology is intended to achieve "jumps of perception" (see *Nature* 316, 287; 1985) and the number of scientists carrying out basic research in information technology should rise to 4,000 in 1992 from today's 1,700. And despite the problems of struggling with the very high cost of space research, Riesenhuber hopes to be able to support the Hermes shuttle project as well as participating in the US space station and the Ariane-5 launcher.

On nuclear power and alternative energy research, events and political expedience are causing some rethinking of BMFT policy. In the aftermath of Chernobyl, the views of environmental groups and the Federation of Solar Energy, an association of institutions and companies working on wind and solar energy, appear more attractive and Riesenhuber has announced that his ministry will support every promising project dealing with wind and solar energy.

Jürgen Neffe

French science

Researchers all at loggerheads

MEMBERS of the principal French researchers' trades union, the Syndicat National des Chercheurs Scientifiques (SNCS), earlier this month halted government plans to increase the power of universities over the Centre National de la Recherche Scientifique (CNRS), which funds the cream of French science, by walking out of a key decision-making meeting.

This action, according to SNCS officials, forced the new management at CNRS to negotiate with them over the issue, which it had refused to do earlier. The conflict centres on the reconstitution of the Comité Nationale, the recently dissolved collection of 44 elected specialist panels that makes the final decisions on appointments, promotions and grants at CNRS. The previous Comité was disbanded after it was declared illegal, leaving newly appointed scientists unsure whether they have posts at CNRS or not.

The proposition that university teachers and professors should have increased representation at the expense of CNRS scientists has provoked bitter opposition from SNCS, containing as it does a large proportion of CNRS scientists.

According to an SNCS official, the CNRS management is independently opposing the changes, and conflicting proposals from both management and SNCS are now going forward for the

ministry of research and higher education to disentangle. The union objects to two major proposals. The first is that Comité members would be from a single list, mixing both full-time CNRS scientists and university staff. In some disciplines, CNRS staff are completely outnumbered by those from university, so this would represent a total loss of power of CNRS researchers. The second proposal is that the number of middle-ranking researchers and technicians in each Comité panel would be reduced. The net result, the union would say, is that power over the CNRS would be too concentrated in the hands of the "mandarins".

The real issue is the long-standing competition between CNRS and the universities. Some university professors and departments, particularly in the humanities, social sciences, law and medicine, remain extremely reluctant to accept the power of CNRS, which has remained partly separate from the university system, despite the existence of many joint laboratories. Some objectors still go so far as to demand the dissolution of CNRS and its medical counterpart, INSERM, and a private bill (not sponsored by the government) to exactly that effect is to be read in the French National Assembly next session. The bill is unlikely to become law, but is certain to sustain conflict.

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