

when the UFC's new 'competitive bidding' system for funding undergraduate teaching was suspended (see *Nature* 348, 3; 1 November 1990). Under this system, universities told the UFC how many students they wished to teach by 1994-95, and how much this would cost.

The UFC's logic was that the universities, most of which wish to expand, would compete against each other to take on more students at a reduced cost per student. This would have met the government's twin policy aims of expanding higher education and driving down the average cost of teaching. But university vice-chancellors submitted the vast majority of their bids for more students at the maximum 'guide prices' suggested by the UFC, forcing the UFC to withdraw the system. The UFC says it will unveil a replacement system, which will retain 'an element of competition' between the universities for funds, later this month.

A similar bidding system to that which failed in the universities was introduced for polytechnic funding a year earlier, and the polytechnics have co-operated until now.

INDUSTRIAL INNOVATION

Get academics into the boardroom

London

INCREASED links between academic scientists and industry, including the appointment of university and polytechnic staff to company boards, are recommended today (7 March) as a central plank of the UK House of Lords Science and Technology (S&T) Committee's strategy to revive British industry.

The Lords applaud the efforts that higher education institutes and research council laboratories have taken already to promote technology transfer to industry, although they say that the transfer of technology from government department-funded laboratories has been disappointing. Their report also warns that the government should not use increased academic collaboration with industry as an excuse to reduce further its funding for the UK science base.

The S&T committee's inquiry into innovation in British industry was prompted by the lack of investment in British industry during the 1980s, and the consequent decline in the manufacturing sector. Its report paints a gloomy picture, concluding that British industry is caught within a "vicious circle" of financial disincentives to investment.

The government should take a leading role in recreating a favourable climate for innovation in the United Kingdom, the report says. The government's policy over the past few years of reducing its funding for the development of commercial products and the failure of British public spending on research and development (R&D) to keep pace with that of our industrial competitors — is sending "the wrong signals"

But the Committee of Directors of Polytechnics has now followed the CVCP's lead and declared that further efforts to drive down the cost of teaching each student will undermine teaching quality.

The rejection of the bidding systems across both universities and polytechnics is significant because a merger between their funding bodies is becoming an increasingly likely prospect. The vice-chancellors' argument that further reducing teaching costs will undermine quality would have been hard to sustain in a merged system for higher education funding, if the polytechnics had continued to further improve their efficiency without complaint.

Swinnerton-Dyer told the House of Lords Science and Technology Committee last week that he believes a merger between the UFC and the Polytechnics and Colleges Funding Council (PCFC), at least of their support for teaching, is 'inevitable'. The PCFC is expected this week to approve plans to make its methods of funding more similar to those of the UFC — an important first step in any merger plan.

Peter Aldhous

to industry, the Lords say.

During the past few months, the UK government has implicitly acknowledged these concerns, launching a three-year, £32-million grant scheme to promote R&D in small companies and changing the rules of its LINK research programme, which promotes industrial-academic collaboration in R&D, to encourage more companies to take part. But these changes are likely to have a limited effect, and the S&T committee's report notes that the Department of Trade and Industry's spending on industrial innovation was slashed by more than one half between 1985-86, when £283 million was spent, and 1990-91. The mid-1980s budget should be restored, the report says.

The "short-termism" of industrial companies themselves is similarly berated by the S&T committee. British companies invest too little in R&D, ploughing too much of their profits into dividends for their shareholders, the report says. Investment in R&D is further constrained by the fear that companies reinvesting a large proportion of their profit will be less able to fight off hostile take-over bids.

Investment in R&D could be increased by changing the UK tax laws. At present, companies are allowed to write off the full value of their annual investment in R&D against tax. The S&T committee argues that companies' R&D spending could be increased by making 150 per cent of the increase in a company's R&D spending from one year to the next exempt from tax. Australia introduced a similar measure in 1985, and R&D spending has since increased.

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What's in it for science?

London

IN general, British science students do not fare as well as other undergraduates in the recently announced 1991-92 budget from the UFC (see opposite).

While the UFC has announced a 7 per cent increase in funding for all undergraduate teaching over 1990-91, the number of students in the physical sciences will grow by only 5.4 per cent, and fewer agricultural scientists, engineers and technologists will be funded than in the previous year. But biological sciences, with a 14.1 per cent increase, has bucked the trend.

The arts and humanities are expanded to a greater extent. Sir Peter Swinnerton-Dyer, UFC chief executive, says that the decisions were made "on the basis of apparent student demand".

The allocations also show that the UFC's research money is now being distributed more selectively, becoming concentrated in those universities which achieve the best research records. Swinnerton-Dyer told the House of Lords Science and Technology Committee last week that not all of Britain's universities can claim to be important centres for research, and the UFC can no longer afford to fund them all as such.

The idea of "teaching-only" universities was suggested by the Advisory Board for the Research Councils in 1987, but was eventually dropped from the government's plans to reform higher education in 1988 after protest from the universities. The UFC says that teaching-only universities are not on its immediate agenda, but goes on to add that individual universities may wish to spend their research money more selectively, and concentrate on teaching alone in specific subjects.

John Ashworth, director of the London School of Economics, says that separating teaching funds from research is "administratively convenient", but he argues that research spending in the universities helps to maintain teaching quality, because research students and postdoctoral researchers are involved in teaching.

The allocations do contain one piece of welcome news for university science. Last month, the UFC told the universities that it is planning to spend £70 million over three years to upgrade university animal facilities to make them comply with tough new standards for laboratory animal housing introduced in 1989, unexpectedly meeting the universities' requests for money almost in full (see *Nature* 345, 755; 28 June 1990). The universities will receive £35 million in 1991-92. John Bleby, from the Royal Veterinary College, London, says that the new money is "a terrific break for the animals", as well as for biomedical research.

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