

Japan backs university centres of excellence...

Tokyo. Japan's Ministry of Education, Science and Culture (MESC), is seeking several billion yen of new money in its budget request for the fiscal year 1995, submitted to the Ministry of Finance at the end of August, to stimulate the development of centres of excellence — known in Japan as COEs — within universities.

If accepted in its entirety, the new scheme will pump over ¥3 billion yen (US\$30 million) of extra money into a number of university-related institutes, and will also provide large grants of several hundred million yen each to a small number of selected teams of researchers. A relaxation of the rules on how the money can be spent will provide some much needed flexibility in the university research system.

In the past few years, every science-related government ministry and agency has sought to create COEs. MESC's scheme follows one introduced by the Science and Technology Agency last year (see *Nature* 370, 86; 1994) and the Ministry of International Trade and Industry has also introduced several measures aimed at establishing such centres. These initiatives all stem from a recognition of the need to revitalize the environment in which Japan's government-funded research takes place.

MESC's scheme consists of two parts. The ministry is asking for ¥3.42 billion to be distributed among 46 university-related institutes; these include the 14 national research institutes for joint university research, such as the Institute of Space and Astronautical Science, and the National Laboratory for High Energy Physics.

The money will go to targeted research fields in which the institutes specialize. It will be used not only for research but also to employ young research fellows on a short-term basis, to invite foreign research fellows — about one per institute — and to finance international symposiums.

Under the second part of the scheme, with a proposed budget of ¥2.69 billion for 1995, five large grants will be given to selected teams of researchers. These will be selected from researchers who are awarded 'special distinguished' or 'priority' grants by the ministry.

The special distinguished grants go to small teams of researchers headed by an individual, whereas the priority grants go to large teams of scientists spread throughout Japan. They are at present the largest and most prestigious of the ministry's grants.

The COE money will average about ¥500 million for each selected team. Unlike stand-

ard research grants, which can only be used for strictly limited purposes such as buying equipment and reagents, it can be used to employ foreign research fellows (about two per team) and young Japanese research fellows (about four per team), as well as to finance international symposiums.

Until now, grants and fellowships have been funded under separate schemes, with no all-encompassing general-purpose grants equivalent to those in the West. As a result, money can only be spent according to strict rules laid down by the ministry.

The flexibility in the new scheme is therefore likely to be welcomed. But it remains to be seen if it will lead to a more open system for employment of young post-doctoral research fellows. Nearly all research fellowships for the university system, both for foreign and Japanese researchers, are awarded through the Japan Society for Promotion of Science (JSPS), a semi-governmental organization affiliated to the ministry.

Leading Japanese researchers complain bitterly that this system stops them employing the postdoctoral research fellows they want. Details of recruitment procedures for research fellows under the new COE scheme have yet to be revealed, but JSPS will still be involved. **David Swinbanks**

... but industry is sceptical of promised new tax breaks

Tokyo. Japan's Science and Technology Agency (STA) has proposed a new tax break to encourage companies to boost their research and development (R&D) budgets. But many research managers in industry are sceptical about whether such measures have any effect on the amount of money their companies spend on research in practice.

Since 1967, Japanese companies have been able to deduct from their taxable income 20 per cent of the excess of their R&D expenditure in any particular year over their previous highest annual R&D expenditure.

This system worked well for 25 years, as such expenditures increased steadily. Since 1992, however, spending on R&D has been decreasing because of the recession (see *Nature* 356, 93; 1992), and companies have not been able to benefit from the tax break.

STA's proposal was submitted to the Ministry of Finance at the end of last month, together with the agency's budget request for fiscal year 1995. Under the proposal, companies would be given the alternative option of setting 6 per cent of any increase over the previous year's expenditure against taxable income.

Although Japan is now thought to be beginning to pull out of recession, research spending by the private sector continues to remain virtually static, as confirmed by a

recent survey of companies carried out by the *Nikkei Shimbun*, a leading financial newspaper (see table).

The STA hopes the 6 per cent tax break — which, if accepted by the Finance Ministry, will become effective in fiscal year 1995 — will encourage companies to spend more on research. But research managers in Japan's private companies, while welcoming the proposal, are sceptical.

Ranking		Amount ¥ billions	
1	NTT	300	(+3.6%)
2	NEC	280	(0.0%)
3	Toshiba	275	(-0.1%)
4	Fujitsu	270	(-1.5%)
5	Mitsubishi Electric	165	(-0.6%)
6	Mitsubishi Heavy Industries	117	(+1.5%)
7	Sharp	110	(+1.6%)
8	Sanyo Electric	81	(-0.2%)
9	Fuji Photo Film	73	(+2.0%)
10	Mazda Motor	72	(+3.3%)

Source: *Nikkei Shimbun*
Figures in parentheses represent % change 1993-1994

In 1985, the government introduced another tax incentive for research, offering a 7 per cent tax deduction on money spent on equipment and facilities for basic research. The move coincided with the creation of a number of basic research institutes by the private sector in Japan, and some have attributed this in part to the tax incentive.

But many in industry and elsewhere argue that the 1985 tax break simply followed an existing trend by companies to set up basic research institutes during the bubble economy of the mid- to late-1980s, when these companies were flush with money, and cannot be seen as the cause of the trend.

The STA claims that its proposed new tax break has been put forward in response to prompting by industry. An official of the Ministry of International Trade and Industry argues that such tax incentives have been an important factor in encouraging the large expenditures on R&D by the private sector.

But the manager of research planning at one company says that industry only made requests to the STA after it had been asked to do so by the agency. He claims that the STA proposal is merely an attempt by government officials to appear to be trying to do something about research spending in industry — and that such moves have little impact on decision making in industry. **D. S.**