

been complaining that there are virtually no takers for the processes and technologies developed in CSIR laboratories. In fact, most public and private sector industries in India have favoured the wholesale import of foreign technology. This anomaly was said to be the motivation behind the handing over of the laboratories to user ministries. But the import of technology by the bureaucrats in the user ministries has continued unabated.

**B. Radhakrishna Rao**

## NIH research grants

### Trying new tricks

#### Washington

In an attempt to cut down on the amount of "time and effort" reporting required of scientists, the National Institutes of Health (NIH) are being urged to try a new mechanism for funding research grants that would make the researcher financially accountable to his or her university or research institution rather than directly to the funding agency.

At present, NIH project grants — whose total value is about \$1,400 million, over half the total NIH research budget — are awarded on a "cost reimbursement" basis, under which the government agrees to cover all previously agreed costs that can be properly accounted for.

The proposal is to experiment with so-called "fixed obligation grants" (or "fixed price grants") where the research institution merely has to demonstrate to the funding agency that the scientific and technical goals of the research have been satisfactorily pursued.

"Time and effort" reporting is the most controversial of the strict new rules on accounting for research expenditures introduced last month by the Office of Management and Budget (OMB) in a document on cost principles known as Circular A-21.

These rules require all principal investigators to provide a semester-by-semester breakdown of the way they distribute their time between teaching, research, administration and other activities — and to report any change in this distribution to the federal government.

Federal auditors argue that this is necessary to ensure that money is being allocated and spent in the way agreed when a research grant is awarded. But scientists argue that in an over-zealous enthusiasm to minimize fraud and abuse — a popular target of congressional committees — the auditors are reducing the productivity of research laboratories for a minimal return.

Despite earlier protests, OMB had refused to delay the implementation of the new rules, the outcome of several years of negotiation. However, under continued pressure from universities, the agency is now prepared to discuss ways of reaching its accountability goals more effectively.

OMB has already agreed to experiment

at ten universities where "time and effort" reporting will be on a statistical basis rather than professor-by-professor. What is now being suggested, however, is considered by NIH director Dr Donald Frederickson to be revolutionary — "as radical as *Finnegan's Wake*".

The outlines of the proposal were presented to the NIH Directors' Advisory Committee (DAC) by Dr Linda Wilson, Associate Vice-Chancellor for Research at the University of Illinois in Urbana, and Mr James Kelly, previously Executive Vice-Chancellor of the State University of New York and a long-time proponent of fixed-price contracts.

The general idea is that there would be no change in the present pre-award proposal process for the selection of research and determining the amount of an award. However, post-award administration would be changed to delegate most of the responsibility to the recipient institution and the principal investigator, in particular the emphasis of accountability would be shifted from the allowability of costs and the adequacy of documentation to criteria that indicate "reasonableness of technical progress".

Supporters of this new proposal, which comes out of a recommendation made in a recent report from the National Commission on Research for Experiments in Grant-in-Aid Support for Research Institutions, argue that it should still be possible to build in enough controls to ensure that public funds are not misused (such as spot auditing checks). The new system might eliminate some existing problems, but there could be new ones. For example, by shifting prime responsibility for the financial conduct of the grant from the federal government to the research institution, tensions between the government and the institutions could be replaced by tensions between the institution and its principal investigators.

Additional pressure would also be incurred on efforts to measure scientific accountability; Dr Wilson emphasizes that research grants should be treated as *assistance* rather than *procurement* funds, to avoid the rigid accountability — and hence loss of flexibility.

Mr Kelly told members of the DAC that there was little evidence that a new system for administering grants would save much money and that any increase in research productivity would not necessarily be measurable. The principal advantage, he said, was that the new approach might reduce tensions between universities and the federal government, currently running high in the wake of the introduction of Circular A-21.

Any experiments in this direction are likely to receive the approval of the Office of Science and Technology Policy (OSTP), whose associate director, Dr Denis Prager, told the committee that reducing non-budgetary constraints on research was one of OSTP's top priorities, particularly by

encouraging forms of regulation based on performance.

## Polish academy

### Flexing muscle

Polish scientists wishing to travel abroad for professional purposes should in future find it considerably less complicated to obtain the necessary passport. Last week, Dr Jan Kaczmarek, Academic Secretary of the Polish Academy of Sciences, announced that the academy now has the right to decide such matters for its members.

This announcement marks a small, but significant step towards the greater academic autonomy widely demanded by Polish intellectuals in the wake of the Gdansk accords. It was made at an extraordinary general meeting of the Polish Academy of Sciences, which was called to discuss and re-evaluate the role of the academy, and of the scientific establishment generally, in the light of the recent changes in the country. The meeting, which participants reported had a warm and open atmosphere, made some sharp criticisms about the situation in Poland during the past few years, in particular, both the over-centralistic attitude of the authorities, which made it extremely difficult to get a

## No stay for badgers



This will be a bad week for British badgers. Today (Thursday, 30 October) Lord Zuckerman's report on the practice of gassing badgers thought to be infected with bovine tuberculosis will be made public. This issue is contentious among conservationists because the Badger Act, carried through the British parliament with some emotion, which makes it a criminal offence to kill badgers even when they damage land and crops, provided an exemption for the Ministry of Agriculture, Fisheries and Food to allow the destruction of badger hides thought to be a reservoir of bovine tuberculosis.

Conservationists have since protested that the practice of gassing badgers for the sake of protecting cattle has been too widely licensed, and that it is in any case unnecessary or ineffective. Lord Zuckerman's report it thought to argue in an opposite direction.

hearing for constructive criticism, and the consequent lack of responsibility. To remedy this situation, the academy called for clear limits to be set to the competence of anyone in authority and of rank-and-file functionaries.

A comprehensive system, the academy said, must be worked out for the proper functioning of the economy, based on the "broad utilization of all available and permissible self-regulating mechanisms". The authorities, it said, must show they trust the people. One obvious sign of such trust would be freedom of expression and the phasing out of censorship (except for the minimum needs of national security), which constituted a major point in the Gdansk accords.

A prominent speaker on this theme was Dr Jan Kielanowski, a leading nutritionist. He reminded the meeting that he and Dr Edward Lipinski had tried to raise the same issue of academic freedom and the abolition of the censorship at the academy's Annual General Meeting in May 1979 — but on that occasion, the motion was ruled out of order from the chair. Now, however, he observed, when the initiative came not from a couple of members of the academy, but from the broad masses of the Polish workers, the academy was prepared to listen.

The academy, in fact, had not waited until the extraordinary general meeting to take up the issue. Censorship and academic freedom had already been raised at the praesidium of the academy on 30 September. On that occasion, Professor Janusz Groszkowski, a former chairman of the academy, called for a detailed analysis of the situation in Polish research, including the moral and professional scrutiny of those researchers and scientists known to be letting down the intellectual integrity of their profession. Some researchers, said Groszkowski, are guilty of plagiarism, intellectual dishonesty, idleness and ignorance, while young people of genuine talent were given no opportunity to develop freely. "Hence", he concluded, "we have no great names and no great achievements." The academy, he said, must take the initiative in the reform and renewal of the scientific profession, without waiting for a lead; its deliberations should include possible changes in the legislation governing scientific research, the management of scientific institutes and the question of independent, trades unions for scientific research workers.

However, before this last proposal could be put to the general meeting of the academy, Poland's scientists had made their own decision: at the second delegate meeting of the new "Free Trade Union of Scientific, Technical and Educational Workers" (13 October), it was decided to terminate the existence of this body as a separate entity, and to transform it into a branch of the "Solidarity" confederation.

Vera Rich

## European community

### Research without end

#### Strasbourg

A meeting called by the European Commission here last week ended with a general air of expectancy among its participants. Next June, the commission will be proposing to the Council of Ministers a new research "enterprise". So far, however, it is not known how much the enterprise will cost, when it will start or even what it will do.

Commission officials nevertheless consider that last week's conference gave them a mandate to do something. And whatever it is, the cost will be added to the commission's present research budget, running at five per cent of the member states' research and development budgets.

The impetus for the initiative is twofold. First, there is a feeling in Brussels that there will be some slack in the EEC budget in the near future. Some think the Common Agricultural Policy will collapse, others that some part of agricultural spending will be put to other uses. All the community's

directorates-general, including that for research, science and education, are eager to pick up the crumbs.

There is also a sense that something must be done to free posts and talent at the universities. As Sir Hermann Bondi put it last week, "the universities have been static for many years while other things are changing fast". He went on to advocate the setting up of research structures parallel to but in touch with the universities.

Most of those at Strasbourg agreed, but failed to provide the political wrapping or the precision that might lead to practical proposals to create scientific jobs or to improve mobility in Europe. In the end, the commission will work out its policy on the basis of background documents\* prepared for Strasbourg, particularly those of Guy Denielou, president of the Technical University of Compiègne, Ilya Prigogine of the Free University of Brussels and Freddie Clarke, research director responsible for renewable energy at Harwell. Dr Günter Schuster, who heads the Brussels directorate-general for research, science and education, will now set up a task force to prepare proposals for June. There will be three scenarios, from ambitious to pessimistic, to cater for the unknown political climate nine months hence.

Schuster will rely largely on Denielou's proposals to define the "enterprise". But, says Denielou, the definition should concentrate on structure rather than topics. How the enterprise should function is more important, at this stage, than what it should do. The structure should not be academic, but like a business. It should be flexible, creating and closing teams as needs change. Its administration should be "very light". It should be cheap, probably based on existing laboratories.

A principal objective would be to foster mobility, for scientists are considered less free in Europe than in the United States. Research teams in the enterprise would therefore be drawn from across Europe. He proposes an experiment — three years, 50 teams of 30 scientists each, costs borne largely by the host laboratories.

To determine the subjects to be studied, the enterprise would need what Prigogine calls "an organ of perception" — something like the National Research Council in the United States — which would also select institutions and teams to investigate the chosen topics, using international referees. Brussels would thus be gaining an instrument for a centralized research policy — and a critical question for June will be what relationship such an instrument should have to the council, the supreme body in the community.

Robert Walgate

\*"Towards a new undertaking in European research" by Guy Denielou and others; "Science and society in a changing Europe" by Ilya Prigogine; and "Community industrial research priorities for the early 1980s" by F. J. P. Clarke and others. (Commission of the European Communities (DG XII), Brussels.)

### China plays profit

Researchers at the Institute of Physics of the Chinese Academy of Sciences have recently been working on a new project — how to sell their results to industry.

It seems that until the recent economic reforms, what is now officially described as "a lack of communications" and "obstacles inherent in the system" prevented new scientific results from being applied to industry. New findings remained inaccessibly locked away in publications and festschrifts. Consequently, scientists had become upset and frustrated, while factories, unaware of new advances, were unable to modernize.

With the fall of the Gang of Four, however, factory managements were able to approach the scientists for advice on new results and how to apply them. So far, the Institute of Physics has worked out three possible cooperation procedures: (1) outright sale of the new technology, with technical assistance provided until the technology goes into production; (2) contracts for technological guidance, involving sending experts to the factories or training workers at the institute; with the onset of production, the institute is repaid on a sliding scale related to the profits from the new technology; for example, 20% in the first year, 10% in the second, 5% in the third; (3) provision of the new technology, for a decreasing percentage of its profits, for example, 5% the first year, 3% the second, and so on.

So far, the institute has signed contracts with 19 factories, many of which are already benefiting financially from such deals.

Vera Rich