

Universities waste science funds

Peter Williams

Universities in Britain are unable to cope with the demands of the modern research enterprise. But who will ensure that the necessary changes to the system are made?

UNIVERSITIES in Britain receive more than £1 billion each year in grants for research from many sources. This money is nearly all given after a time-consuming, competitive application procedure involving peer-reviewers and adjudicating committees. When an award is made, its administration is undertaken in the university where the grant-holder works.

British universities, in general, control the funds centrally, pay personal stipends through their payrolls and delegate to individual departments the handling of the expenses element. Departments expect grant-holders to make their own purchases and pass the invoices to the departmental administration to check and transmit to the university's central office. The purchases are once more checked, invoices paid and reimbursement claimed from the donor — a cumbersome and time-wasting process. Considerable amounts can be lost if bulk purchasing arrangements, unpopular with individual researchers, are not used. In addition, departments need to keep inventories, and be alert to deadlines for reports and closing dates for renewals and submission of accounts.

There are also significant problems for university research in handling commercial opportunities. A system for making contracts with commercial companies is needed, using high-quality legal advice. If patentable discoveries are made, arrangements must be made for their registration and for the payment of the considerable costs involved; future protection must also be arranged. Without a satisfactory system, the university may lose a great deal of potential income.

Need for change

In parallel with these requirements for handling a grant system, there is the question of the distribution of the overhead payments received from the research councils and, in the case of the charities, through the Higher Education Funding Council. If these overheads do not support the research that earned them, something has gone wrong.

Finally, the filtrate from all this university activity reaches the donor organization, which has to process and pay out funds from the grants it has awarded. The donors between them have about 45,000 current grants at any one time. My experience as the director of a donor organization and working with a university depart-

ment with a large grant income has led me to believe that there is a need for a drastic change. Let me therefore give a few examples.

Recipients of grants are asked to submit claims 3 months in arrears. Who is expected to carry the costs of this delay? One major charity that awards fellowships pays the first year's stipend in advance but requires a report before it sends out the second instalment. That charity has accumulated a bank balance of £10 million because the reports have still not been supplied, yet universities are still paying the fellows' stipends! In many cases, cheques are sent out just before Christmas in the knowledge that they will not be deposited for 10 days.

In one large university, the processing of information from the grant-holder through his or her department to the central administration is conducted through two or three computer systems with a print-out each month of 5 kg of spreadsheet. A centralized system has been developed at Cambridge, but other university computer systems do not have the sophistication to handle the workload. It is not yet possible to buy a computer program that will handle the day-to-day needs of a large department. A program could be devised, at some cost, but has not been, presumably because such a task falls between the needs of large industry and small businesses.

The lack of cash-flow management in a university can be very expensive. Taking the example of Cambridge (the figures are similar for Oxford), the university spent £75 million from more than 3,000 grants last year. Half was paid in arrears, which cost the university more than £500,000 in lost interest. On a national scale, the sum wasted must have been more than £8 million. This sum could be saved if the research councils and charities paid up on time, which most of them would be willing to do if the situation was explained to them and the requisite data supplied.

At the level of the individual researcher, an immense amount of time is spent in writing applications, submitting reports and the piecemeal ordering of research materials. This time away from the bench could be lessened with the use of modern electronic systems that transmit information to and from the supplier, university administrator and funder. But, above all, scientific competition and the potential financial value of university research re-

quires sophisticated administration and speed of action. If universities are to operate in this field, they need entrepreneurial management, decentralization, greater flexibility, sound financial planning and modern technical capacity.

No perfect model is available, but the research laboratories of industry and business-efficiency advisers have the expertise to produce suitable systems. Universities will have to accept that the money available for scientific research has outstripped their capacity to cope, under the present arrangements. More is required than a tinkering with the present bureaucratic, committee-bound, precedent-governed system, which is too slow for the research world of today.

Is it too much to hope that modern methods of information transfer and accounting technology should be applied to university-based science? Or has this not been done because funding for research comes from too many sources, each with its own rules? If that is the case, surely there must be a role for the Department for Science, the Association of Medical Research Charities and other organizations to collaborate to make access to their funds less cumbersome and reimbursement less complex. Or are there too many universities, each operating a separate budget within an independent framework and unable to afford to change to new systems and modern technology? If that is the case, there seems to be a role for, say, the Committee of Vice-Chancellors and Principals. It is difficult to accept the plea of poverty in the presence of waste caused by inefficiency.

The need for change is urgent. The methods can easily be developed. The cost relative to present wastage is minimal. The result would produce a much less frustrating and time-wasting situation than research endures today. The proliferation of grant funding to the universities and the monetary value of scientific achievement now need a response from the universities receiving the grants to show that they have the capacity to handle the large and growing sums flowing in. The alternative is for the funds to be used elsewhere. □

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