

generating joint government and industry support for long-term research, and already approved by Congress with a budget of \$12 million for the first year. In his budget proposals of two weeks ago, Mr Reagan said that "federal financing of long-term research to benefit a particular industry is an inappropriate allocation of federal funds". He is proposing to rescind the full amount appropriated by Congress for the current year, and to terminate the whole programme.

At the National Science Foundation, schemes for encouraging greater technological innovation in small businesses, and for forging closer links between industry and universities, will remain in force, but will not get the substantial increase in funding that the Carter Administration had promised as part of its innovation package.

Support for small industries innovation, for example, was to have been almost doubled, from \$7.5 million to \$14.5 million next year, following its earlier success, but will now be cut back. So too will increased funds for engineering education, but the proposed 20 per cent increase for engineering research is likely to remain.

In contrast with the cuts being proposed in measures which would increase federal involvement in the innovation process, other steps initiated by Mr Carter to reduce the federal role have been warmly endorsed and built upon by the new Administration.

Efforts to reduce the burden of health, safety and environmental regulations, for example, have already been expanded. As expected, Mr Reagan has proposed, along with his budget reductions, a set of regulatory reforms which would submit all new and existing regulation to strict cost-benefit analysis.

Similarly, additional patent reform legislation has already been introduced into the new session of Congress which would expand on Mr Carter's patent reform bill giving universities and small businesses patent rights on federally funded research.

David Dickson

## UK research councils Allen accused

The UK Science Research Council is being hauled over the coals for sloppy bookkeeping. Its chairman, Sir Geoffrey Allen, is to appear before the Public Accounts Committee of the House of Commons on 17 March to explain irregularities in the council's funding in the financial year 1979-80. Details are hard to obtain because the council, usually frank, is saying nothing for fear of offending parliamentary privilege.

Part of the problem stems from the cash bonus that Mrs Shirley Williams, then Secretary of State for Education and Science, obtained for the research councils in 1978. The council's share was £33 million over the four financial years

1979-83. A circular was thereupon sent around universities asking for applications to the council to replace worn-out equipment: truck-loads of applications followed, worth £37 million, of which the council awarded £7.5 million. In the event, a change of government followed, funds were cut and the council received only £5 million.

Another question mark hangs over the university grants current in March 1980, which represented an increase in value of £31 million (34 per cent) over the previous year. There appears to be no indication that this large increase was planned. The exact amount of overspending remains unclear, but much of the money was spent by the Science Board (responsible for such topics as physics of solids and liquids, chemistry and biology). The new Spallation Neutron Source at the Rutherford-Appleton Laboratory at Chilton seems to have been a principal beneficiary.

Other misdemeanours are procedurally more serious. The Auditor General, Sir Douglas Henley, has already complained that the postponement of certain payments into the 1980-81 financial year, as part of an attempt to alleviate the financial deficit, contravenes government regulations. The Public Accounts Committee will also, no doubt, be asking about the council's calculation that the capital value of a site near Slough, yet to be vacated, could be regarded as a part of the income for 1979-80.

The council appears to have been the victim of government financial vagaries combined with inflexible accounting procedures. But the extent to which the problems are also self-generated will not be clear until 17 March.

Sir Geoffrey Allen, formerly the council's accounting officer, came to the end of his spell as chairman in October. The name of his successor is expected to be announced within a few weeks.

Philip Campbell

## Soviet research

### More home growth

The new Soviet Five-Year Plan calls for all branches of the economy to be brought up to the "most up-to-date levels of science and technology". Just how to do this is clearly causing the Soviet leadership considerable anxiety. At the Twenty-Sixth Congress of the Communist Party of the Soviet Union last week, Mr Brezhnev called on the whole scientific establishment to reassess the research and development basis of Soviet industry and to propose ways of regrouping the "scientific forces".

Not only the Academy of Sciences and the State Committee for Science and Technology should take part in this audit, said Mr Brezhnev, but also the science-based industries, including defence. Since Soviet military research is organized quite

separately from the civil sector, this last proposal suggests genuine concern, not simply congress window-dressing.

Mr Brezhnev singled out a number of fields of technology where "impermissible sluggishness" had led to delays in implementing "promising developments" — the continuous casting of steel, powder metallurgy, custom-built DC transmission lines and high-strength artificial fibres. Falling behind foreign competitors, he said, leads to massive expenditure of foreign currency for equipment and technology which the Soviet Union could have produced at home. Soviet potential technological self-sufficiency has been a feature of propaganda speeches since the January 1979 United States embargo. Mr Brezhnev's speech, however, referred rather to one of the major concerns of Soviet research policy: why is there often so long a gap between obtaining a new result and implementing it in production?

Mr Brezhnev suggested two possible lines of reorganization, which appear mutually contradictory. On the one hand, he stressed the Central Committee's support for an increased responsibility for the Soviet Academy of Sciences, and argued a "flexible and mobile" organization of research that would not tolerate "fruitless laboratories and institutes", but would respond "attentively" to the needs of scientists for equipment, instruments and pilot plant facilities. Taken in isolation, these remarks suggest more scope for serendipity and the capacity to switch rapidly from one line of research to a more promising alternative.

Mr Brezhnev went on the say, however, that the major sciences (including basic research) should concentrate more on solving "key national economic questions" and "discoveries capable of making genuinely revolutionary changes in production". The formulation of these tasks, he said, is the task of the central planning bodies and the State Committee for Science and Technology. The exact spheres of competence of the Academy and State Committee are frequently difficult to define, and Mr Brezhnev's speech does not make the issue easier. The previous Congress (1976) had made the Academy responsible for coordinating all science throughout the country, and although, to judge from the report to Congress of Dr Anatolii P. Aleksandrov, the Academy's president, much still remains to be done, there is no suggestion that the task should be taken out of the Academy's hands.

Dr Aleksandrov's report, moreover, reviewed a wide range of recent achievements, from particle physics and cosmology to the utilization of Estonian shales and the need to develop coal liquefaction and gasification techniques. Academy scientists, he said, have made notable advances in thermonuclear fusion, and in prolonging the life of agricultural machinery.

Discussion of future plans, at a Congress