

a warning of worse to come. British universities are not the only ones recently to have been exhorted to create wealth, and to be seen to be doing so. The result has been that academic enterprises have flourished. Some have been excellent. (The investment of Trinity College, Cambridge, using private funds, in a neighbouring science park is an illustration of success.) But there is every likelihood that some universities will have backed industrial enterprises of various kinds that will then fail. There is a general understanding (sometimes a flat prohibition) that public money should not be put at risk in ways like these, but borrowed money is also money, and can just as easily be lost. What happens when such an enterprise goes to the wall, putting a university in the wrong with a group of angry creditors? And what will the consequences be for the educational enterprise that should be its true business?

What the academic enterprise therefore needs is a proper understanding of its obligations to its financial sponsors and some mechanism for making sure that their intentions are reflected in the rules with which it is required to comply. Governments (national or regional) as sponsors are usually clear about their intentions; universities exist to educate young people, admittedly in fields that the sponsors rather than the universities judge to be socially and economically beneficial. (British universities are now paid a fee per student that varies from one field to another, and which is essentially decided by the government's civil service, not those who have been seconded to the Universities Funding Council.) The government is purchasing a service (higher education) from its universities, presumably because it has been convinced that the result will further national interest.

Research on this logic is something else again. That is the commodity whose supply universities wish to see increased. Governments are on the whole indifferent, but they have been brainwashed over decades by academics protesting that teaching will be the worse if not accompanied by research, and that research is in any case the seedcorn from which productive innovation springs. So governments go along with the proposition, saying that if they must spend money on research, they want the seedcorn bit not the 'blue skies' bit. But not having the time themselves, they appoint businessmen to tell the difference for them. That is a good description of how the British government has been behaving in the past 15 years. Mr Newt Gingrich will soon be saying much the same in the United States unless President Bill Clinton says "no" more often than seems likely.

The trouble with businessmen is not that they are unimaginative, but that the timescale of their imagination is so much shorter than that of people who have been drawn into academic life by their interest in how the world is made. To say that is not to acknowledge that academic researchers' projects will bear fruit only ten years or more ahead — there has hardly ever been a time when the delay between the conception of an idea and its profitable execution has been so short — but that businessmen choose between different routes to the same goal by making crude estimates of the journey time. They rarely calculate the alternative values of the prizes that will await them. In business language they pay

less attention to the balance sheet than to the profit-and-loss account and sometimes even less to that than to the cash flow. Their inclination to take expensive short cuts when it seems to them that their 'time is money', probably explains why two new British universities have been deeply embarrassed. The concept of a university as a business has also taken a tumble (which does not give universities a licence to be unbusinesslike in their own affairs). Let us hope that when governments abandon their model of the universities as a business, not too many academics will be disadvantaged. □

## Apaches against stars

**There is no merit in the campaign of the Apache Survival Coalition against the Mount Graham telescope.**

A letter from the self-styled "Apache Survival Coalition" appears on page 589 of this issue. This group, which admits in court documents that it does not represent the views of the Apache nation, a tribe of native Americans in the southwestern United States, has recently gone further. It has been sending hate mail to all and sundry in an attempt to block the development of an observatory near the top of Mount Graham, in southern Arizona.

Three native shrines, dating from the twelfth century, were identified on Mount Graham during the course of an environmental impact survey by the would-be builders of the telescope. All southwestern tribes, including the San Carlos Apaches, were informed in 1985 of the discoveries. Four tribes responded, but the San Carlos Apaches were not among them. The Zunis and Hopis expressed interest in the shrines, as they appear to be attributable to ancestors of those tribes, but felt that the proposed observatory would not affect the shrines (the closest of which is about a half mile from the observatory). The tribal council of the San Carlos Apaches took an officially neutral position on the observatory in July 1993. (In the tribal records, the decision is listed as JY-93-127.) That neutrality is appropriate; the San Carlos Apaches first migrated to southern Arizona during the 1600s.

The more lurid claims of the Apache Survival Coalition, which began its activities in 1989 when it became clear that the presence of the indigenous Mount Graham red squirrel would not prove an insuperable obstacle to the development of the observatory, include charges of "cultural genocide" against agencies of the German government. A recently distributed flyer claims that the building of the telescope is comparable with the Holocaust. These charges, combined with a campaign of misinformation, stand in stark contrast to the fact that the Apache Survival Coalition has not objected to the roads, summer homes and microwave transmitters on the mountain.

Can it be significant that names associated with the controversy over the effect of the observatory on the red squirrels (see *Nature* 372, 215-216; 1994) are also associated with the Apache Survival Coalition? On the face of things, the group seems to have a clear agenda — to block the observatory at all costs. It is a pity for the Apache Survival Coalition that it does not have a leg to stand on. Not even one. □