

to be slipped away from the cavernous Jura limestone, and further into the stable sandstone of the valley, in which all previous CERN accelerators have been built.

The result is that only 3 km (as opposed to 8 km previously) of the 27 km tunnel for LEP will be in the unpredictable limestone. Moreover, at the Jura side the ring will be higher — about 140 metres below the surface — so that if any difficult water-filled caves are encountered, it will be possible to deal with them from above.

A further — and far from negligible — benefit may prove to be political. There has previously been vociferous environmental opposition to LEP from the French side (the Jura; LEP straddles the French-Swiss border). This opposition rested in large part on the (distributed) effect that the limestone borings might have on the source and flow of the River Allondon, which supplies water to a number of villages. The source was to have been within the LEP ring; now it is outside, and where the ring passes under the river it is within stable sandstone.

LEP will be paid for out of the current budget only by running down certain existing facilities. The intersecting storage rings for protons and other nuclei will be closed at the end of 1983; and operations on the 600-MeV synchrocyclotron (CERN's first accelerator) will be reduced to the mainly Scandinavian Isotope Separator On-Line (ISOLDE), which performs unique experiments on short-lived nuclei and, incidentally, keeps the Nordic countries happy. **Robert Walgate**

UK university funding

No reprieve

The British government is sticking to its guns over cuts in university grants, indicating that universities have failed to convince the government that spreading the cuts over five instead of three years would cost less because compulsory redundancies, involving large compensation payments, would be avoided. Last week, Sir Keith Joseph, Secretary of State for Education and Science, reaffirmed his belief that the cost to the taxpayer will be less if the cuts are implemented quickly.

Hence, it is no surprise that the universities' recurrent grant for 1981–82 has been set broadly in line with the government's expenditure plans of last April. The grant at £995 million will be only £16 million more than the estimate, to account mainly for an inflation rate higher than expected. The research councils, however, may have come off slightly better than feared. At £478 million, the science vote for 1982–83 will be roughly in line with this year's figure, although the allowance for increases during the year is only 5.5 per cent.

Despite his rejection of the universities' argument, Sir Keith has nevertheless accepted that the cost of redundancies

cannot be met out of the universities' recurrent grant. But his allocation of £50 million in 1982–83 for restructuring the university system has already met with derision from the Committee of Vice-Chancellors and Principals which says that the sum is far too small. The vice-chancellors also fear that if the 5.5 per cent inflation allowance cannot be met then the number of redundancies will increase. A sum for restructuring in 1983–84 will be announced some time next year.

Sir Keith expects to reach a decision early in the new year on the scheme proposed by the vice-chancellors' committee for compensating redundant academics. Academics who take their cases to court, however, could be awarded considerably more than indicated under the scheme, making it almost impossible at present to estimate the total redundancy bill.

Advanced higher education has fared worse than any other sector of education under the government's cutbacks. The overall reduction in the education budget next year compared with this is one per cent, with further education for non-academic school leavers winning increased support. Clearly, the universities have lost out to the much stronger voice of the growing numbers of unemployed.

Judy Redfearn

Recombinant DNA research EEC safety dispute

Brussels

A deep division of opinion has become evident among the EEC's institutions over the need for strict legal controls to minimize the dangers of research using recombinant DNA techniques. By a narrow margin, the European Parliament's Committee on the Environment, Public Health and Consumer Protection came out against the EEC going further than merely making recommendations on the registration of all relevant research. However, following a colloquy held in May (see *Nature* 21 May, p.181) the Economic and Social Committee (ESC) is strongly advocating that the European Community adopt a legally binding text enforcing tight safety controls.

Both opinions will be taken into account by the ultimate decision-makers in the Committee of the Permanent Representatives to the EEC (Coreper) whose experts have been awaiting the views of the two consultative bodies.

The issue has been subject to an unusual amount of debate. In 1979 the European Commission itself proposed a legally binding directive along the lines demanded by ESC. This was then withdrawn and replaced by a set of recommendations to take account of evidence and scientific opinion which increasingly suggests that the dangers from bioengineering are less than were at first feared.

ESC thinks that the recommendations are too weak and that the reasons put forward to justify the original draft directive still hold good. It still considers that in the long term the unforeseeable and potentially serious consequences of recombinant DNA work require a "better safe than sorry approach", especially when pathogens are used as vectors or hosts. Also, the EEC has a responsibility to ensure that competition for commercially applicable research is not distorted by different rules on what can be done, and at what speed, in each member state.

The colloquy held by ESC to debate these points failed to budge the committee from its opinion, although many of the speakers there affirmed that the risks associated with genetic manipulation are small or negligible. The committee, however, remains convinced that transferring the techniques from laboratory to factory will not mean lower safety standards. Official guidelines would, therefore, be better than a system of self-regulation.

The report produced by Italian Euro-MP Domenico Ceravolo for the parliament echoes many of these concerns, but his resolution in favour of a directive was overturned in the committee vote by a majority of only one. In his report, Ceravolo attacks the European Commission's view by saying that even if a risk is only based on a hypothetical chain of events, this is no justification for thinking it any less valid or significant. And he argues further that the conjectural risks cannot be dismissed because no suitable criteria are available for assessing them.

Whether his arguments will win the day in the parliament's plenary session remains to be seen. A full vote was postponed at the last minute on 18 December but the vote is expected to go against Ceravolo. The liberals and conservatives, who form the majority in the house, support the Commission and feel that too much legislation will slow down the growth of Europe's biotechnology industry. The socialists and communists disagree and take their cue from the Italian left wing which sees EEC legislation as the best way of bringing Italian research under control.

Jasper Becker

Electronic publishing Journal plugs in

The British experiment to explore the feasibility of electronic scientific communication is well under way. The experimental electronic journal of the Universities of Loughborough and Birmingham, *Computer-Human Factors*, has received 16 papers in its first year — more than an earlier experiment in the United States received in its three-year life. Last week, the British Library, which is backing the experiment with £256,000, organized a demonstration for publishers,