

Hungarian education

Flexibility hurts everyone

ON the heels of last year's reorganization of postgraduate education in Hungary (*Nature* 306, 216; 1983), the government is now turning its attention to the university system as a whole. Béla Köpeczi, Minister of Education and Culture, told the National Assembly (parliament) last week that Hungarian higher education must be made more flexible and provide "greater opportunities for the teaching of the natural and social sciences".

The content and structure of university teaching must be transformed, Köpeczi says, so as to emphasize student "self-education" and the development of "democratic forms and structures". Students should be given a freer choice of subjects while bureaucratic obstacles to university autonomy should be removed. In certain professions, "grades and levels" should be established so that students could obtain a first degree after one or two years' full time study, and, after a few years' practical work, return to full-time study.

Education in Hungary has been controversial at least since the late 1970s, when there were petitions and protests from parents fearing that the traditional *gymnasia* (grammar schools) were about to be abolished. Party officials have since condemned as the development of "intellectual dynasties", the tendency that the children of graduates themselves should have the wish and intellectual ability to go to university. (But the trend appears to have been exaggerated by the publicists; last week, Köpeczi reported that nearly 40 per cent of university students are now the children of manual workers.)

Meanwhile, the new proposal introduced last autumn (*Nature op. cit.*), aimed at letting graduates start working for a higher degree immediately after their first degree, seem simply to have served further to confuse an already complex system.

The new proposals, ostensibly aimed at stimulating the students' initiative and self-reliance, seem also to have increased their work-load. The number of optional subjects will be increased, while standards are to be raised in language courses.

Research facilities in universities will also be improved, and students will be allowed to attend courses in other faculties to broaden their outlook in professions other than their own. This concession may be intended to encourage students to change faculties during their undergraduate years and thus help to solve the perennial problem of Hungarian higher education — how to attract students into the sciences from the humanities, which now attract more students than the universities can accommodate or the job market can absorb.

Vera Rich

US state science

Californian scheme's success

Los Angeles

A PROGRAMME that gives professors extra money, students free training and industry new ideas is proving a spectacular success in California. Called Micro (the Microelectronics Innovation and Computer Research Opportunities Program), it was established in 1981 by legislative fiat to help the state's electronics and computer industry to maintain a competitive edge.

The idea, due to former Governor Jerry Brown, is one of the few to be given continued support by the new administration of Governor Dukemejian. Under the scheme, a professor works up a research plan and submits it to a company. The idea must be on the "cutting edge" of research and not related to near-term product development. If the company likes the idea, it supports at least half of the project's cost in cash and equipment whereupon the state, through the University of California budget, supplies the rest of the funds.

In Micro's first year, 31 projects on six campuses received more than \$2.1 million and 25 companies participated. Last year, 51 projects involved more than \$4.8 million and 33 companies. This academic year, 40 companies are supporting 58 projects costing \$3.9 million. The projects are in microelectronics, computer science and engineering.

The programme rests on two concepts: decentralization and entrepreneurialism. The science works "bottom up," says Al Barber, vice-chancellor at the University of California at Los Angeles. Everything depends on the individual professor, who initiates the proposal, garners support for

it, supervises and participates in the research and maintains liaison with the partner company, represented by a single person empowered, with the professor, to decide what is interesting and worth pursuing.

All benefit — students by working on advanced research projects, by access to ultramodern equipment and fellowship support, professors by an alternative source of funds, while the university gleans



research results, patent rights and trained students for half the usual cost. Industry gains new research ideas, a talent pool of young scientists in the community and strengthened university ties.

Most projects involve advanced computer development, but one unusual study is aimed at the microcomputer control of ski bindings. Since 95 per cent of all ski bindings are sold by European manufacturers and the worldwide market exceeds \$500 million, the California researchers hope that safer microcomputer controlled bindings could crack that near-monopoly.

Sandra Blakeslee

Wildlife photographers, not necessarily of the greater horseshoe bat (right), are invited to enter Britain's "largest ever" wildlife photographic exhibition. Sponsored by Prudential Assurance in association with BBC Wildlife Magazine, The Fauna and Flora Preservation Society and the Natural History Museum, the closing date for the competition is 29 June. Details of the prize categories can be obtained from the British Museum (Natural History), Cromwell Road, London SW7 5BD, UK. The competition is open to professionals and amateurs and includes categories for various age groups.

