

## Research application

# Hungary expects

Budapest, May

The Hungarian Government is hoping to reshape the balance between academic and applied research without reducing the total number of research jobs. This was the burden of a statement by Mr Jozsef Marjai, one of the deputy chairmen of the Hungarian Council of Ministers, at the Investment Goods Spring Fair held here from 23 to 28 May.

Mr Marjai promised that there will be no reduction of the number of research jobs, and said that there may be even more jobs available for scientists and technologists. "But we cannot promise that everyone will stay in the same job."

Mr Marjai's remarks, however, echo a major dilemma in Hungarian science planning. At present, science in Hungary has a top-heavy structure with, it is generally agreed, too many research institutes for a country of 10 million people to support. Last month, Janos Szentagothai, president of the Hungarian Academy of Sciences, told the General Assembly of the Academy that time and energy could no longer be wasted on 'insignificant and middle-level' basic research. Plans are now being formulated for the network of research institutes to be modified to serve 'social and economic needs'.

There is little doubt that many young scientists are reluctant to leave the academic seclusion of their research institutes. Even the show-piece Babolna collective farm has found it difficult to recruit a qualified agricultural economist. Young biology graduates joining the Plant Protection Service speak of their fieldwork as if it were a kind of purgatory. Hungary needs scientists to work in agriculture and industry, and while the planners so far have been unwilling to deny promising students a few years post-graduate research, the view is growing that the country simply cannot afford to give them a niche in some institute for life.

The problem can, to a certain extent, be

ameliorated by directing research talents not to the needs of the Hungarian economy but to export. More than half of the Hungarian GNP comes from exports, and one pavilion at the Budapest Fair was used by the Academy of Sciences, Ministry of Education and National Committee for Technological Development to show that academic research can sometimes yield practical benefits. The goods on display ranged from a laser theodolite to a fixed-bed denitrification column and from a computer-aided electromyograph to an electronic Braille writer. "We don't want over-specialization", explained Gyoergy Paris, science organiser of the Ministry of Education. "We make what foreigners want to buy."

Nevertheless, like most Hungarian scientists, he was not over-enthusiastic about the plans to direct more scientists to industry. "It is a pragmatic solution", he said, "and not good for research. Some people simply cannot do practical work. But we are a small country — and what else can we do?"

Hungarian planners, of course, are not unique among their Comecon partners in trying to integrate science into production. The Hungarians, however, place less emphasis on the socialist virtue of the process. Nevertheless, the Hungarian problem is exacerbated by the lack of natural resources and by a long tradition of academic elitism.

As in most Comecon countries, Hungary has developed a research structure based on Academy institutes which are independent of the universities, and, perhaps, too large for the country to support. Eight years ago, Bulgaria solved this problem by integrating the staff of the institutes of the Academy of Sciences back into the teaching structure of the universities. In the next few years, it seems likely that Hungary may be forced to adopt a similar solution.

During the past year there has been a major press debate, launched in May 1979 by an article by Professor Gyoergy Adam, former Rector of Budapest University, in *Magyar Tudomány* ('Hungarian Science'). The whole role of the university and its is already under discussion. **Vera Rich**

## High-energy physics

# More of less money

Washington

American high-energy physicists are in a jittery mood. They are now faced with the prospect that the three main national particle accelerators may have to close down during the summer months as a result of Congressional budget cuts — and that there may be worse in store next year.

The immediate difficulty stems from a recommendation by the Appropriations Committee of the House of Representatives that \$8 million would be rescinded from the \$325 million already approved — and largely unspent — for the current financial year.

Half of this saving would come from delaying construction costs of the 400 GeV Isabelle Project at the Brookhaven National Laboratory, with relatively little impact expected over the full seven-year period of the project. But the remainder would include \$1 million taken from physics research, \$2 million from facility operations, and \$1 million from high energy physics technology.

The only way such cuts could be absorbed would be to stop all experimental work at the three national accelerator laboratories until the new financial year begins in October. Dr Leon Ledermann, director of Fermilab, said last week that the decision would be disastrous.

Construction of Fermilab's new energy-saver, designed to double the accelerator's energy to 1000 GeV by the use of superconducting magnets, is already biting deeply into the laboratory's operating funds. Further reductions could mean that the operation of the accelerator was halted entirely next year, so that the construction of the Tevatron could be made the laboratory's top priority, according to Dr Ledermann.

At Brookhaven, the proposed reduction in operating funds would mean that between eight and ten weeks of experiments planned for the summer would have to be put off. And the same would be true at the Stanford Linear Accelerator (SLAC) in California, where the new PEP collider has only just come into operation, but on which experiments could not be carried out until the autumn.

In an already tight financial year, the budget axe seems to be falling particularly heavily on energy research, partly because the energy budget is considered jointly by Congress with the budget for dams and other 'pork barrel' construction projects which carry considerable appeal to legislators in an election year.

The situation for next year remains cloudy, largely because the debate over how to balance defence and social expenditures within a balanced budget means that Congress has yet to agree on its own financial guidelines. However there are



Hungarian Academy — changing with the times?