academics, it would ride roughshod over the treasured traditions and autonomy of the institutions.

As a principle or ideal it was welcomed by the ministers and has few opponents in the academic world. The difficulty is that the Education Council realized that the edict cannot be enforced by law. Efforts over the past twenty years to encourage bilateral or multilateral agreements have not kept pace with the growth of higher education and diplomas. The Commission has now been instructed to persevere in its efforts to find ways of encouraging more agreements.

Jasper Becker

High-energy physics

CERN in a hole

The Large Electron Positron ring (LEP), the future project of the European centre for subnuclear research (CERN) near Geneva, has run foul of a small group of environmentalists formed a decade or two ago to protect the Jura Mountains, north of the CERN site, as a national park. Last week the group obtained an injunction at a Lyon tribunal which annuls CERN's licence to bore an exploration gallery for the LEP tunnel into the Jura.

The Lyon decision rests on a technicality. It stipulates that the exploration gallery is not a "temporary construction", as it must be according to the law under which CERN began drilling, but a permanent one. CERN counters that if the tunnel revealed that the construction of LEP would be impossible, then the work would indeed be temporary. However, CERN intends to use the 4 km tunnel as an entrance gallery if LEP goes ahead — so their position was not too strong.

Meanwhile, CERN has not been informed officially of the injunction. Being an international organization, its relations with states — including Switzerland and France — on whose territory it rests, are mediated through the foreign ministers of those states; and there will now be an internal wrangle in France either to get the Lyon decision overruled, or to gain approval for the gallery under another law.

The conservationists, the Association de Protection de la Nature Gessienne (that is, of the Pays de Gex where the gallery was to be drilled), are worried about potential damage to natural springs in the region, and atmospheric pollution from LEP power supplies and cooling systems.

The group timed its injunction well: it coincided with the mid-year CERN council meeting at which national positions on the LEP project were being sounded. In the event, the French delegate at the council, M. Yves Jacques, promised to appeal against the Lyon decision at the highest court — the Conseil d'Etat — and the voting was as previously expected: eight clearly in favour and four undecided. Of

the latter, Denmark expects parliamentary approval soon; after a confusing general election, the Netherlands wishes to delay a decision; Sweden is in similar position after the collapse of the Conservative government; and Norway wishes to wait until after its general election on 14 September.

A committee of the CERN council is to meet in October, and if member states are then ready, a full meeting could be convened to reach the unanimous approval that CERN seeks. (Strictly the eight-to-four majority is sufficient, as LEP will come within the normal CERN budget; but unanimity on such a big commitment — more than SF 600 million (£150 million) for five years or more — is thought politic.) At that final meeting, which could be delayed to December, the central issue is likely to be not whether the states all approve of LEP, but at what budget they want it built — which affects the speed of LEP construction. Argument on the budget was heated in the meeting last week, and no agreement was reached. **Robert Walgate**

Polish economy

Culling ministries

The Polish government's plans for economic recovery will be based on a major restructuring of the country's production ministries, Prime Minister Jaruzelski announced in the Sejm (parliament) recently. During the past few years, there has been a tendency for Polish ministries to proliferate — for example, separate ministries for the metallurgical industry, for the engineering industry, and for heavy and agricultural machinery existed at the same time. Even during the past few weeks, there have been suggestions that some of Poland's most urgent problems, environmental protection and geological surveying among others, could best be tackled by creating new ministries.

The new plan proposes replacing ten existing ministries with four larger ones. These four would cover agriculture, food procurement and production, and forestry; mining of coal and lignite and energy production; heavy industry and machine construction; and chemical processing of timber, natural and artificial fibres, and the ceramics, glass, cellulose and paper industries.

General Jaruzelski went on to remind the Sejm of some of the mistakes of past years, when separating the mining industries from power production, and machine building from foundry production caused serious losses in productivity.

The new proposals have not met with unqualified approval. The Sejm Commission for Forestry and the Timber Industry is unhappy at combining forestry with agriculture, but the corresponding commission dealing with agriculture and the food industry seems fairly happy with the union.

Vera Rich

US standards bureau

Wider horizons

Washington

The US National Bureau of Standards, traditionally a preserve of the physical and engineering sciences, is being asked by a congressional committee to broaden its horizons and take on responsibility for the burgeoning field of biotechnology. The recommendation is one of several being put to the bureau as a way of "enhancing the technological and scientific base of the nation's industrial capability".

There has been little reaction yet from the Reagan Administration to the proposals, which have been drafted by the science, research and technology subcommittee of the House Committee on Science and Technology. Secretary of Commerce Malcolm Baldrige told the committee at a hearing in Washington last week that the whole internal organization of his department, which is responsible for National Bureau of Standards, is under review. He talked of an important role for the bureau — in helping to boost US exports by providing data about foreign product standards but said it was too soon to be specific about changes.

The changes being proposed are in line with the findings of recent studies of the bureau, including reports from the General Accounting Office and the Congressional Research Service. In addition to its traditional responsibilities for weights and measures, several committee members, including chairman Doug Walgren, are convinced that the standards bureau could have a central role in federal efforts to stimulate technological innovation in the private sector.

The bureau's principal responsibility has been to help ensure the compatibility of measurement standards needed by industry, consumers, the scientific community and other organizations. In recent years Congress has given the bureau various additional functions, such as administering the Center for Fire Research and the Center for Consumer Product Technology. But often the bureau has been given a new role without adequate funding with the result that other programmes, have been cut back or eliminated.

Last year both the Senate and the House of Representatives held authorization hearings on the bureau's budget to explore possible remedies. Now the House committee is drafting a bill making the bureau's responsibilities more explicit, but also intended to enlarge its contact with the broader research community.

Many of the committee's suggestions are uncontroversial. There is general agreement that adding the biological to the physical sciences would be appropriate, in particular in the development of standards, testing procedures and measurement instrumentation needed for the advancement of biotechnology and genetic

engineering, although there is concern that the changes should not go too far for fear of conflict with work already being carried out by the National Institutes of Health.

There is widespread support for a proposed amendment that would require the National Bureau of Standards to engage in international cooperation, and that it should maintain measurement research and development as its top priority. The bureau's director, Dr Ernest Ambler, welcomed the committee's recommendation that any new new functions should be provided with adequate funds and manpower.

The committee's suggestion that the bureau be given authority to promote economic growth by "contributing to the development of the basic technologies which underlie product and process development, technological innovation and productivity" raises greater difficulties. Although the bureau does at present support research aimed at the general enhancement of industrial innovation — for example in computers or machine tools — these are undertaken only when they can be shown to be measurement-related. Members of the committee argue, however, that in practice

the bureau already seems to be stretching its definition of measurement in some of the research that it supports. If the organization feels it is limited by the terms of its existing statute, then the solution, they argue, is merely to change the wording of the legislation.

Several witnesses at last week's hearing felt the bureau could have the wider role envisaged in the proposed legislation. It would unduly limit the potential value of the bureau to the nation if its only activities were in the field of metrology.

The committee suggests that the bureau strengthen its links with the academic community by being allowed to make grants and to award fellowships in science and engineering. But Mr William Carey executive officer of the American Association for the Advancement of Science and until recently chairman of the bureau's board of visitors, warned against this on the grounds that "the granting business these days is bogged down with rules and controls for fiscal accountability" and that "adding another granting agency to the confusion would be regrettable".

How far the committee's recommendations go will depend greatly on how far they agree with the Department of Commerce's own views. Mr Baldrige has already eliminated the position of assistant secretary for science and technology, the post previously occupied by Dr Jordan Baruch, a principal author of President Carter's domestic policy review on industrial innovation. Upgrading the National Bureau of Standards would be one way of filling the resulting gap.

David Dickson

Support for Argentinian

Leblon, Brazil

Professor Nicolas G. Bazan, sacked in controversial circumstances as director of the Biochemical Research Institute of the University of the South in Bahia Blanca, Argentina (*Nature* 14 May, p.100), was greeted enthusiastically at a symposium last month organized by the Argentinian Academy of Sciences in the city of Córdoba.

Several of the foreign biologists invited to the symposium, on molecular aspects of the nervous system and memory, carried letters from their professional societies protesting against the dismissal of Bazan and the continued arbitrary attacks by the Argentinian government on scientists. Among them were letters from the American Society of Neurochemistry and from the European Society of Neurochemistry. In spite of the risks of reprisals, the Argentinian academy publicly endorsed these protests from the international scientific community.

Bazan has been invited to visit the United Kingdom to attend the forthcoming biannual meeting of the International Society for Neurochemistry in Nottingham next September, where a special symposium on the human rights issue in Latin America is being planned. It will deal in particular with the situation of the several hundred Argentinian scientists who are reported as "disappeared", "arrested" or "summarily dismissed".

Maurice Bazin

India in space

Another orbit

Lucknow

India's latest venture into space was the launch of the experimental telecommunications satellite, Apple, aboard the third Ariane test flight last month. Apple is unlikely to prove as successful as the Indian Space Research Organisation must have hoped after one of the two solar panels failed to deploy shortly after launch. But there is a chance that such a small satellite, 616 kilogrammes, can operate satisfactorily with one solar panel for long enough for the bulk of the experimental work to be done.

The Apple programme is only one of the fronts on which India is advancing into space. At the end of May, as part of the first developmental flight of its satellite launch vehicle SLV-3, India placed a 38-kilogramme satellite into a low Earth orbit. That was the second satellite to be put into orbit using the Indian rocket, the first having been launched last July (*Nature* 286, 324; 1980).

The latest Indian-launched satellite, designated RS-DI, carried a solid-state

sensor capable of identifying salient features on the Earth and transmitting data back to the ground stations.

The main objective of the Apple satellite launched on Ariane but built at the Space Application Centre in Ahmedabad, is to gain experience in the operation and management of communications satellites. Yet another satellite, Bhaskara II, is due for launch at the end of the year and is for the development of remote sensing technology.

Experiments planned for Apple include logging the movements of railway wagons and of railway passenger reservations in large cities, the setting up of an inter-library information system and the development of a "national classroom" for postgraduate engineering students at the five Indian Institutes of Technology. Under the last programme, students at the five centres will be given televised lectures and be able to question the lecturers directly.

Zaka Imam

Occupational health

US industry to pay

Washington

In a decision that represents a victory for the US labour movement and a major blow to the Reagan Administration's efforts to reduce the burden of health and safety regulations on private industry, the US Supreme Court has ruled that the Department of Labor's Occupational Safety and Health Administration (OSHA) is not required to carry out rigorous cost-benefit analyses of new regulations covering exposure to toxic substances before the rules are put into effect.

The drive to put occupational safety and environmental regulations on a strictly cost-benefit footing has been central to the new Administration's "regulatory reform" strategy. In line with this, the head of OSHA, Mr Thorne Aughton, asked the Supreme Court in March to delay a decision on whether regulations introduced by the Carter Administration in 1978 to reduce workers' exposure to cotton dust were invalid since they had not been accompanied by a thorough analysis of the relative costs and benefits.

However, the court has turned a deaf ear to the agency's request. In a move that will now require both OSHA and the White House to ask for new legislation from Congress if it wants to pursue the strategy, the court ruled by five votes to three, with one abstention, that there is nothing in the law to require such analysis. Rather it has accepted the interpretation of OSHA officials under the previous administration, that the mandate requires the agency to do all it can to reduce health hazards to workers, short of bankrupting the industry concerned.

The new cotton dust regulations, which are already being implemented by most large textile manufacturers, are aimed at