

democratization of academic life as a two-stage process. The first, minor, stage, he observed recently, is "already under way" — the introduction of regulations leading to "autonomy, democratization and better information". The second, and more important stage, is to reform the "overdeveloped" administration, and to ensure that scientific committees truly represent the interests of their members.

Cutbacks in the scientific bureaucracy will be greatly welcomed in the natural and technical sciences where the hierarchical classification of research projects, introduced in the early 1970s, means not only that virtually all research has to be orientated to some need of the national economy but also that there should be a vast bureaucracy to deal with funds and administration.

Given less paper-shuffling and a certain latitude in undirected research, few academics would overlook the needs of the economy. On the contrary, Solidarity has already set up its own "All-Poland Coordinating Committee for Science" and the Solidarity chapters in the various universities have put forward their own proposals for what should be done.

Some proposals are ambitious, such as that drawn up two weeks ago by the Jagellonian University of Krakow which calls for action on censorship, visas for academic travel, health service reform, pollution and the amelioration of the social conditions leading to alcoholism. Others are more specific, such as the defence issued by the Maria Curie-Skłodowska University of Lublin of the claim of Poland's 3.5 million peasant farmers to the right to form a trade union. **Vera Rich**

## Telecommunications suit

### Pact postponed

For lack of an assistant attorney-general, the Reagan Administration has had to postpone the settlement of its anti-trust suit against AT&T, the telephone company. Details of the settlement, which were to have been made public last Friday, will not now become known until 2 March, the date set by the trial judge, Howard H. Greene, for the submission of a settlement between the telephone company and the US Department of Justice.

The suit was begun in November 1974, and the trial opened on 16 January with formal statements by the two parties, followed by a recess. The further postponement is at the request of the Department of Justice, which explained in a letter to the court that it could not proceed until the Administration had appointed an assistant attorney-general with responsibility for anti-trust affairs.

The settlement, the essence of which has already been agreed, will have an important influence not merely on the future shape of the telecommunications industry in the United States but also on the

future role of the Bell Laboratories within it. The terms of the settlement are almost certain to include AT&T's separation of its ownership and management of the United States telecommunications network from its manufacturing subsidiary, Western Electric.

In a letter to the court supporting the request for a further postponement of the settlement, AT&T said last week that it had already bound itself to certain undisclosed conditions. There is increasing speculation that, when published on 2 March, these will be found to embody the reorganization of the corporation announced in August last year, involving separate management and accounting for the operating and manufacturing arms of the business. The future of Bell Labs, undecided then, is still in the air.

There is a sense in which the anti-trust suit by the Department of Justice has been overtaken by events, especially by the ruling of the Federal Communications Commission (see *Nature*, 11 September 1980) that companies wishing to supply terminal equipment cannot also manage the common carrier networks that connect them. This decision of what is known as the "Second Computer Inquiry" seems to have been the spur for the reorganization announced by AT&T last summer. Separately from the anti-trust suit against it, AT&T is applying to the courts to have the deadline for the reorganization decreed by the commission (1 March 1982) extended on the grounds that it cannot bring about the "biggest corporate reorganization in history" by then.

## European Community

### Squeezing grants

#### Brussels

Haggling among member states is likely to force down the increase in the budget proposed by the European Community for its scientific and technical training programme. Last Thursday, the member states' permanent representatives to the Community met for the second time and finally decided to allocate to it 8.8 million EUA (European Units of Account) or £4.5 million, which is 3 million EUA less than the original modest proposal. A final decision has still to be taken by the Council of Ministers, but this is expected within the next two weeks. Depending on how the European Community chooses to allocate grants, there will probably be the equivalent of about 340 scholarships.

While the United Kingdom was in favour of keeping the programme at its previous size of 4.5 million EUA, the French were insistent that it should be reduced. Such was their concern that the French felt unable to give their consent without calling Paris for permission. Other member countries were more worried about the number and size of the individual grants. Ireland was in favour of smaller grants for

more researchers while the Danes preferred the idea of devoting larger sums to contract researchers of a high quality.

The four-year programme is intended to give students and junior lecturers a chance to study in another part of the Community. This can be either in one of the joint research centres (Geel, Ispra, Karlsruhe or Petten) or in research institutions in another member state with whom the Commission has concluded research contracts. Those wishing to study at home will be forced to accept a cut in their grant of 25 per cent. About 320 grants were allocated in the last programme but since the new programme must include grants to Greek researchers, there will be no increase in the number available in the rest of the Community.

Normally, grants are awarded for up to a year, but they may be extended to two years for those undertaking major research projects. Part of the aim of the programme, however, is to promote contracts between those responsible for the implementation of research programmes and the relevant education and training establishments. Details can be had from the Directorate-General for Research, Science and Education, Rue de la Loi, Brussels 1049.

Last week's meeting also decided on the budget for the next four-year research programme on the environment. The Commission's initial proposal of 51 million EUA was reduced to 42 million EUA. The programme includes the continuation of a major effort in the field of climatology and other areas covered are the treatment of sewerage sludge, air pollution and organic micropollutants in water. Here again, France was keen to see the budget cut, in this case to 35 million EUA. The Greek delegate spoke for seismological studies, which won agreement in principle. Formal research programmes are at present being examined in the Council of Ministers. **Jasper Becker**

## UN energy conference

### Prospects improve

#### Washington

Prospects are looking up for the forthcoming United Nations Conference on New and Renewable Sources of Energy, due to take place in Nairobi, Kenya, in August.

Last summer, the second meeting of the conference's preparatory committee found the secretariat's efforts so far behind schedule that postponement was seriously considered. In addition, the Kenyan government began to develop cold feet about the costs of staging a major international conference, the first since the 1979 Vienna meeting on science and technology for development, and to mutter about withdrawing its invitation.

But neither threat has materialized. And when a group meets in New York at the end of this month to process the reports of eight

technical panels on the prospects for different energy sources, it is expected to be in a spirit of optimism that few thought possible six months ago.

One reason is the recent appointment of a new secretary general for the conference, Mr Enrique Iglesias, a Uruguayan who is also executive secretary of the Economic Commission for Latin America. Mr Iglesias, thought to be a candidate for Mr Kurt Waldheim's job as Secretary General of the United Nations, succeeds Mr Mohamed H. Gherab, who has recently been charged with accepting loans from subordinate officials.

A second reason for guarded optimism about the energy conference is that at present the UN secretariat seems to be successfully treading the delicate line between the technical and the political.

It has now been generally accepted that, given a lack of time and resources, the conference can only achieve a limited "state of the art" review of new and renewable energy sources (including solar, geothermal, wind, tidal, biomass, oil shale and hydropower energy). The main focus is therefore likely to be on the institutional mechanisms that can accelerate research and development on these various energy sources — and the obstacles that stand in the way of their implementation.

It is unlikely, however, that any new institution will emerge from the Nairobi conference. Proposals are more likely to be along the lines of a scheme being worked on by the World Bank to form an international network of energy research centres, with a clearly defined set of global priorities distributed in a way that minimizes duplication of research efforts.

Parallel initiatives are also under way inside the United Nations Development Programme (UNDP), which last summer set up a new energy account. UNDP has already received \$3.5 million from the World Bank to carry out a survey of the energy needs of 60 developing countries, as part of the ambitious scheme announced by bank president Robert McNamara last year for a programme of energy loans and investment to total about \$25,000 million by 1985.

The main concern of the UN conference organizers is devise a set of policy proposals that will be sufficiently specific to meet the recommendations of the technical panels, but sufficiently broad to generate the necessary political support.

One idea under discussion, for example, is a coordinated effort to replant trees that have been cut down for fuel. The World Bank has already proposed raising \$1,000 million towards such a scheme, on the basis that a comparable sum would be found by the individual countries concerned.

Inevitably, there will be points of conflict, some of which have already come to the surface. Little attention, for example, will be given to the environmental efforts of different energy sources, a problem at present of greater concern to

the developed than the developing world. Similarly, the United Nations General Assembly has explicitly stated that the conference will not consider conservation technologies, even though many in the developed countries feel that a reduction in demand is one of the likeliest ways of tackling the energy problem.

There is also dispute about the role of the oil-producing nations. These hold many of the important cards, both in terms of their ability to affect energy prices and in having the cash surpluses available to which access would be needed for any major investment schemes. Their attitude towards the conference remains ambiguous, although Mr McNamara has made it clear that the success of his proposals depends largely on their support.

Given the actual and potential disagreements on each of these topics, therefore, the success of the Nairobi conference still hangs in the balance. But some see light at the end of the tunnel, and argue that although time is getting short, elements such as the World Bank and UNDP initiatives, existing trends in foreign aid budgets and the completion of the technical reports are sufficient to allow a successful outcome.

David Dickson

## Ariane space launcher Still in trouble

The problems of Ariane, Europe's hope for a space launcher, are not over yet. The third test flight, delayed after a failure in a first stage engine on the second test flight last summer, is now unlikely to get off the ground until well after June, the date to which the European Space Agency is still clinging. The difficulty is that no precise explanation of what went wrong with the second flight has yet emerged, and correcting the fault still seems to be a matter of trial and error.

A new schedule for the Ariane programme will not be released until one of two modified fuel injection systems identified as the cause of the fault has been chosen after tests expected to last 4–8 weeks.

The second test flight failed after high amplitude oscillations at 2,300 and 2,700 Hz developed in one of the first stage engines. Tests last October with modified fuel injectors of improved tolerance seemed to solve the problem at 2,300 Hz, but the 2,700 Hz oscillation remained.

Oscillations at these frequencies had not shown up in early tests of the Ariane engines and injectors. But tests up to the middle of last month indicate that the injectors used in early Ariane development differ from new ones, suggesting that they have been modified during assembly, preparation or testing. Nobody has been able to discover precisely how the injectors were modified, but the space agency says it is now trying to increase the margin of error acceptable in the injector design.

The latest line of attack is to test two modified injectors in the hope that one of them will be free from oscillation problems. Officials are hopeful that one system can be chosen within the next couple of months and work can begin on preparing the third test flight. Even if there are no more setbacks, however, a launch in June seems optimistic.

Meanwhile, the French space agency, whose idea it was that Europe should build its own space launcher, is now planning to propose another multi-million dollar venture to the European Space Agency. France wants to be in on the "industrialization" of space in the 1990s and hopes to suggest a remote controlled space laboratory, along the lines of the Russian Salyut space station.

The plan is to build a laboratory for materials processing under micro-gravity that would be placed in geosynchronous orbit by Ariane. The laboratory would be serviced by an expendable vehicle that would deliver supplies and bring processed materials back to earth. A third spacecraft, also in orbit, would be capable of building large structures and experiments for use by the laboratory. The proposal is still only a feasibility study, and will not be put to the space agency before the end of the year. Before then, the French plan to sound out other European nations; preliminary discussions with Germany have already taken place.

Judy Redfearn

## UK research councils

### Getting off lightly

Next year's allocation of the "science vote" of the UK Department of Education and Science is being accepted thankfully by the UK research councils. The thinking may be that if Prime Minister Margaret Thatcher's government can make £200 million cuts in the Conservatives' defence budget, the councils are lucky not to suffer even more.

The Science Research Council, for example, gets £174 million for 1981–82 (at October 1979 prices). Converted to average prices for the current year (say October 1980) this works out at £198 million, compared with current spending for 1980–81 of £204 million — a 3 per cent decrease in real terms. In its annual report for 1979–80, published last November, the council expected "a modest increase" in the next two years; yet a spokesman said this week that the council was "pleased" that the government was treating science and engineering so well.

The Science Research Council's nominal spending on science within the United Kingdom is at present £150.5 million (for 1980–81), and on international subscriptions a nominal £44.5 million. But the latter was calculated at 1979 exchange rates, since when the pound has strengthened sufficiently to reduce the subscriptions bill by some £9 million to