

Whether this will be sufficient to answer the critics remains uncertain. While scientists were voicing their fears about academic freedom, several investment houses were saying in public last week that they thought it was a bad thing for a university to get involved in commercial operations. Dr Bok's announcement about whether the university intends to go ahead with plans to set up the new company is therefore awaited with great interest.

David Dickson

European science

Foundation stones

Strasbourg

The European Science Foundation ended its annual general assembly here last week (13 November) in a vaguely hesitant frame of mind. Unlike previous assemblies, this was less a general amplification of the enthusiasm for international collaboration of member organizations (now 47 research councils and learned academies from 18 countries) than a reluctant recognition that the next six years may be more difficult than the past — and first — six.

Part of the hesitancy stems from changes of personnel. Lord Flowers, rector of Imperial College, London, and president of the foundation for the past six years, handed over at this year's assembly to Professor H. Curien, director of the CNRS (Centre National d'Etudes Spatiales) in Paris, while Dr. John Goormaghtigh succeeded Dr Friedrich Schneider as secretary-general only a year ago. But the member organizations seem also to be preoccupied with domestic funding problems and thus less able to think expansively than in recent years.

Several of the foundation's recent initiatives appear also to be at critical, even

anxious, stages. Thus the development of a plan for what is called the European Synchrotron Radiation Facility, on which a foundation study group has been working for the past three years, is in the air. At the general assembly in 1979, the retiring secretary-general, Dr Schneider, was asked to spend a year sounding out European governments on their willingness to contribute towards the cost of the machine, estimated at something of the order of \$100 million.

Dr Schneider appears to have found this a disappointing year. Potential contributors to the cost of the machine have taken the view that haste might jeopardize eventual construction. Some governments also appear to be suspicious that the foundation is usurping their role of making treaties among themselves for multinational projects. The study group (under Professor Y. Farge of Orsay) will, nevertheless, remain in being during 1981, concentrating on the further refinement of its proposals.

The foundation is also despondent about the prospects for space research in Europe. A year ago, one of the foundation's published reports took the European Space Agency to task for the degree to which its then programme was biased to the development of the Ariane launching system, to the detriment of plans for launching scientific satellites. At this assembly, delegates were told that there has been no substantial improvement. Plans for launching European scientific satellites are so sparse that scientists who are members of space research groups in Europe may have to wait about five to seven years between successive experiments. Professor Curien told the assembly that this might be inevitable in studies of "the reproduction of the elephant, or of silviculture", but that it was

an entirely artificial circumstance in space research.

The foundation is not, however, entirely frustrated. Its programme on polymer structure is going well (see box), while the assembly agreed to launch a number of new projects in the social sciences while continuing most of its past successes, the programme of training in "brain and behavioural research", for example.

On more general questions, the foundation has decided to keep in being the Liaison Committee on Recombinant DNA Research even though, according to a statement from the committee, the need for attempts to coordinate containment guidelines has melted away. The focus of anxiety has moved to what are called "second generation" issues, including the pace and the manner in which recombinant DNA techniques are being commercialized with the possible consequential risks to academic research. Dr Philip Handler, president of the US National Academy of Sciences, said in his invited address to the assembly that academics forming commercial links with DNA companies were "creating a great deal of difficulty for the others working in this field".

The foundation has also issued a statement asking that national governments planning new legislation on the confidentiality of computerized data banks should also bear in mind the value of such data, suitably shorn of identification, for the research community.

The assembly approved the foundation's budget for 1981, which exceeds FF5 million for the first time, and which does not include the cost of the special research projects (called "additional activities") to which member organizations contribute on a voluntary basis.

Lord Flowers estimated, in his final address to the assembly, that the total expenditure on the foundation's activities amounted to less than 0.1 per cent of the budgets of member organizations, and hoped that the next six years would see a tenfold increase in this proportion in the next six years, as well as a further extension of the foundation's sphere of interest. The academy of Finland was admitted as a full member of the foundation with effect from 1981.

Fusion research

Livermore looks up

Washington

After a period of considerable uncertainty, scientists in the two main fusion energy programmes at the US Department of Energy's Lawrence Livermore Laboratory in California are confident that recent technical advances are given a significant boost to the chances of being able to exploit nuclear fusion as a commercial source of power.

In the magnetic confinement programme, successful tests with so-called tandem mirrors, which could be used to

Something ventured, something done

Both the new research projects approved by the 1980 assembly are in the social sciences. One, under the rubric of "comparative law", and to which ten countries have agreed to contribute, includes an attempt to define and compare the medical responsibility within Europe. The study will include the responsibilities of physicians and drug firms towards patients and the influence of medical insurance on the behaviour of physicians. There is also to be a European study of procedures for summary jurisdiction in civil and other courts.

The social scientists are preoccupied with migration and language, and have won approval for two other research projects — the problems of language acquisition by adult migrants within Europe (of whom there are estimated to be 11 million) and a series of research workshops on the human and cultural aspects of migration within Europe.

There is also to be a one-year study of

problems of technical innovation and social change, chiefly so as to identify fields in which coordination by the foundation might be beneficial.

Continuing projects that appear to be flourishing, or nearing fruition, include:

- *Chinese studies.* A handbook of Chinese literature in the period 1900-49 is nearing completion, while a descriptive catalogue of the body of fifteenth century Chinese literature known as the *Tao-Tsang* is well under way.

- *Brain and behaviour research.* The foundation plans to spend in 1981 a total of FF1.3 million on this programme of training awards and travel grants.

- *Taxonomy.* The *ad hoc* group on European taxonomy is to be disbanded, and its final report published in March next year. The draft report claims to have made substantial progress towards understanding the difficulties of coordinating European taxonomic nomenclature.