Mr van Trier pointed out that between 1970 and 1980, Community expenditure on research and development had increased by 18 per cent, but that out of the 20,000 million European Units of Account (EUA) (1 EUA = £0.56) which the member states spent on their energy and research programmes in 1980, only 1.5 per cent was spent jointly. The president of the committee, Hanna Walz, while endorsing Mr Van Trier's affirmation of the significance of Community research, pointed out that there is a considerable gap between the declared intentions of the Council of Ministers and its actions.

Other members of the committee thought that the time was ripe to set in motion a "real Community research policy", since major areas could not be adequately tackled by each country on its own. Dr Schuster said that Community research would continue to concentrate on specific areas, particularly nuclear power, energy and environment, and pointed out that the Community contribution in these areas is 30 per cent, 10 per cent and 20 per cent respectively of total Community spending.

Mr van Trier and the committee agreed that a European market should be created for micro-electronic components and products, but that coordinating national programmes would only be feasible for large projects. The companies themselves must establish relations in order to coordinate the proposed research programmes.

Jasper Becker

US Cabinet appointments

Conservatives in

Washington

One of the few bright spots for US environmentalists in the Cabinet appointments has been Mr Reagan's nomination of Mr James Buckley, a member of the US Senate from 1971 to 1977, as Under-Secretary of State for National Security, Science and Technology. If confirmed by the Senate, Mr Buckley will be directly responsible for the State Department's Bureau of Oceans and International Environmental and Scientific Affairs. Under a reorganization plan being discussed in the White House, the bureau may also be given responsibility for nuclear non-proliferation policy.

Mr Buckley is a conservative Republican. He voted against the War Powers Act giving Congress greater control over presidential decisions, and also opposed the first Strategic Arms Limitation Treaty (SALT), because it limited the United States to the construction of only two anti-ballistic missile sites — which were never built.

As a member of the Senate's environmental pollution subcommittee and its environmental science and technology subcommittee, Mr Buckley helped to forge much of the stringent environmental legislation of the 1970s. He clearly intends to take a close personal interest in environmental issues in his new post. High on his agenda is discussion with Canada of the effects of acid rain from the north-east states. Another issue is international attempts to prevent the extinction of endangered species; Mr Buckley told his nomination hearing in the Senate last week that "as a friend of the snail darter [whose potential extinction was used to hold up a federal dam project] I look forward to extending my responsibilities".

One potential dispute has already been headed off by the State Department. In its preliminary proposals for budget cuts, the Office of Management and Budget had suggested eliminating the $10 million contributed by the United States to the United Nations Environment Programme (UNEP). This — almost a third of the agency's budget — would have devastated UNEP's future programmes, but was successfully resisted by Mr Haig, and a contribution of $7.2 million is being proposed. In his Senate hearing, Mr Buckley said this would be "foolhardy".

Nuclear non-proliferation policy will be more difficult to deal with but will be high on the new Administration's agenda, since India is already preparing to make a further application for the export of enriched uranium to its Tarapur nuclear plant. Mr Buckley told the Senate Foreign Relations Committee that the Reagan Administration was completely reviewing non-proliferation strategy.

Mr Buckley, who ran for the Senate in Connecticut, had been tipped as the new administrator of the Environmental Protection Agency. In fact, the White House announced last week the nomination of a Colorado attorney, Mrs Anne Gorsuch, a close political ally of Interior Secretary James Watt, to head the agency. Both nominations have generated protests from environmentalists.

David Dickson

UK medical research

Money to spend

A £350,000 windfall has landed in the hands of the British Medical Research Council's Laboratory of Molecular Laboratory, Cambridge. The money was donated quite unexpectedly by Mr Thomas Usher, chairman of the Canadian company, Dextran. Since Mr Usher first approached the laboratory last May, a fund has been set up to support research fellows and students over the next seven years.

The offer of money comes with no strings attached, and the company had previously had only brief contact with the laboratory — many years ago Dr Max Perutz gave Mr Usher some advice.

The staff of the laboratory has agreed with Mr Usher that the money should be used to support research staff, the most serious hole left by cuts in the Medical Research Council's budget. The resulting fund will provide £50,000 a year for one to three-year fellowships, short fellowships for visiting scientists and studentships over the next seven years.

The scheme is to get under way in earnest next October. The trustees of the fund — Drs Sydney Brenner, director of the laboratory, Frederick Sanger, John Gurdon, Hugh Huxley and Aaron Klug — will decide on the next recipients in June.

Judy Redfearn

High-energy physics

China backs off

Washington

Economic problems have forced the People's Republic of China to postpone construction of a 50 GeV particle accelerator scheduled to be built near the Ming Tombs, north-west of Peking.

The accelerator, to have been built with the assistance of the US Department of Energy, was central to the agreement between China and the United States signed by President Carter and Vice-Premier Deng Xiao Ping in Washington two years ago.

US official who visited China last month were told that although construction was being deferred as part of a major cutback in capital construction projects, the delay did not imply a reduced commitment to research and training in advanced science and technology. The officials feel, however, that a "softening" in China's previous commitment to high-energy physics is inevitable.

Under the agreement, the Department of Energy would have carried out much of the construction of the components of the accelerator, receiving purchase orders over a period of five years of between $100 and $200 million for work that would have been carried out at the national energy laboratories. Subsequently the terms were changed so that the Chinese would carry out most of the design and construction work, and the United States would only provide basic training and advice.

The Chinese have also told the National Aeronautics and Space Administration that they will have to postpone the planned purchase of a new US-built telecommunications satellite system, another major component of the science and technology agreement. Four major contractors had already discussed with the Chinese the specifications of such a system, and were preparing bids. In a letter, the head of the Chinese academy of space technology, Dr Ran Xin-Mon, has now said that China was being forced to reconsider the whole of its space programme in the light of its economic situation.

China is, however, continuing negotiations over the purchase of equipment to receive geophysical information from the LANDSAT remote sensing satellite. It has

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also said that it intends to reschedule the satellite deal when funds are available.

According to Representative Donald Fugua, chairman of the House of Representatives Science and Technology Committee, who headed the delegation to Peking, China has decided that it will have to cut out about half of its ambitious construction plans in science and technology — including plans for a new steel mill to have been built outside Shanghai. But Chinese officials have stressed that other activities, such as scientific exchanges and research programmes will not be affected.

David Dickson

Soviet space research

Signs of strain

The planned Franco–Soviet mission to Halley's comet in 1986 turns out to involve a substantial cutback for the planned joint mission to Venus in 1984. This development, first indicated last summer, was finally confirmed two weeks ago in Paris. Two of the original four Venus probes have now been assigned to Halley, so that the French have had to abandon plans for a large balloon which would have analysed the atmosphere of Venus. Although the reduced Venus mission could still have accommodated a smaller balloon, the consequent problems of high-temperature electronics could not be solved in time.

According to M. Hubert Curien, president of the Centre National d'Etudes Spatiales, the French side has few regrets. The new programme, he said, is "very full and very attractive". Nevertheless, the final announcement of the scaled-down Venus mission was a reminder that the resources of the Soviet space programme, though vast, are not infinite. It came only a few days after *Pravda* had published two long articles of no great topicality clearly intended to present the Soviet space effort in a favourable light.

One dealt with the detection of iron in the lunar regolith samples recorded by the Luna-16 probe in 1970 and one with the seventieth anniversary of the birth of the late Mstyslav Keldysh, whom Khruschev brought out of the field of military rocketry to lead the academic space programme.

The question of the scale of Soviet space research will arise this week, when the twenty-sixth congress of the Communist party of the Soviet Union will be required to approve the basic guidelines for the next Five-Year Plan. As with the two previous plans, these will include a commitment to space exploration "in the interests of the national economy". This is an empty formula for deep-space research, although satellite photography is playing an increasing part in a number of aspects of Soviet planning, from fish-spotting to geological surveying. The costs of the programme are, however, never published.

Hints that Soviet space spending may be subject to increasing financial constraints have, however, been dropped in recent months. There seem to be no further plans for Comecon participation in manned flights after Mongolia and Romania have put a cosmonaut in orbit. Soviet planners have so far failed to respond to Bulgarian hints that, as their cosmonaut, Georgi Ivanov, failed to complete his mission (his Soyuz transport craft could not link up with the Salyut station), Bulgaria should be allowed another turn, especially in its 1,300th year of statehood. Instead, Bulgaria has been promised two unmanned probes instead of the original one.

The Soviet commitment to Comecon participation in space research nevertheless continues. A new scientific cooperation programme with Poland, announced last month, put special emphasis on space research. Poland, the homeland of Copernicus, may have a special place in Soviet space planning but the Soviet Union's contribution to Comecon collaboration is substantial. It pays the total cost of the launching and ground control. The participating Comecon partner simply has to pay for its own apparatus and the associated data processing — a privilege also extended to the French.

Vera Rich

Science and government

Lords look now

The House of Lords Select Committee on Science and Technology has taken the unusual step of making a public appeal for opinions on the subject of its latest inquiry — science and government. The inquiry's chairman will be Lord Sherfield. Lord Todd, who is thought to have instigated the inquiry, and who was expected to take the chair, seems to have stepped down in the belief that his strong views can be better aired from the body of the committee.

Central to the inquiry will be the need for a chief scientific adviser to the government and the success of the Rothschild customer-contractor principle. The chief scientific adviser's post was abandoned in 1974 after the Rothschild report recommended that individual government departments should take more responsibility for seeking advice and commissioning research. The system of departmental chief scientists that resulted was intended to enable government departments (the "customers") to commission research within the research councils (the "contractors") with money transferred to them from research council budgets.

Although the principle has worked well in some departments, it has been disastrous in others. The Department of Health and Social Security has acknowledged that it cannot place contracts for biomedical research, while the Ministry of Agriculture, Fisheries and Food is considering a proposal to abolish the post of departmental chief scientist as part of its changing relationship with the Agricultural Research Council (*Nature* 1/8 January, p.2).

The committee started taking oral evidence yesterday (25 February) from Sir Ian Bancroft, head of the home civil service. Next on the list are Lord Trend, former Secretary to the Cabinet and author of the 1964 report on the organization of civil science, and Sir Hermann Bondi, chairman of the Natural Environment Research Council and a former chief scientist at the Ministry of Defence and Department of Energy. Those wishing to submit evidence should write to the Clerk of the Select Committee on Science and Technology, Committee Office, House of Lords, London SW1 by 31 March 1981.

Judy Redfearn

Questions to answer

A *Machinery of government*

(1) Should scientific advice and/or research procurement be a distinct function of government separate from the existing departmental structure?

(2) How successful is the system of departmental chief scientists in procuring advice, managing research and influencing policy?

(3) How well supported are ministers when judging scientific priorities in decision making, particularly if government departments are not in agreement?

(4) How far is the scientific advice sought by government geared to supporting predetermined objectives?

B *Finance*

(1) How satisfactory is the division of financial responsibility between the research councils (as a group) and government departments funding research on the customer-contractor principle?

(2) Is any research which could be of real value to government being neglected for lack of identified customers or because it is peripheral to the interest of several customers; if so, what changes could rectify this?

(3) Are any changes in research budgets desirable?

C *Machinery of science*

(1) How adequate are the channels of communication from the scientific community to government, and vice versa?

(2) Is there satisfactory contact between those administering science in higher education, industry, the research councils and government?

(3) How could statutory procedures for consultation by government in scientific matters be improved?

(4) Are existing sources of advice adequate to ensure that the United Kingdom gains all it can from EEC and international research programmes?

D *Scientific manpower*

What manpower constraints are there on the provision of scientific advice to government?

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