

European Space Agency

Supposing stability

The European Space Agency (ESA) is hoping for a budget held steady for a decade, at a real £285 million a year from 1982. The sum is much less than ESA's current budget of £480 million, but it sets a floor below which ESA's rapidly falling spending should not fall.

This comes at a time when all is changing at ESA under Erik Quistgaard, the 58-year-old Danish industrialist who was appointed director-general of ESA in May. The current troubles come from the ending of the development programme for Ariane, ESA's launcher, and its transfer to the private company Arianespace, and the completion of Spacelab, due for launch on the space shuttle in 1983.

Last week Quistgaard presented his proposals to the ESA Council — the top decision-making body of ESA — in an unminuted restricted session of the Council "bureau", which consists of the top national delegates but takes soundings rather than decisions. It was this bureau session which agreed in principle to Quistgaard's budget. The bureau also supported his proposals for a 50 per cent increase over the next ten years in the mandatory science budget (which provides ESA's research satellites — 12 launched so far). This budget has been fixed effectively since 1971 at a level of £60 million a year (1980 prices), and is committed — all but £180 million — to 1990 on six projects.

These are a trip to Halley's comet in 1986 (a mission called Giotto), an astrometry satellite (Hipparcus), an X-ray observatory (Exosat), a 15 per cent involvement in the space telescope, an investigation of the solar corona outside the elliptic, and an experiment to measure the effects on the human body of controlled accelerations in space (SLED).

Whether the money materializes depends on decisions made nationally, and at subsequent meetings of ESA council (the next is this month). Agreement must be reached on the main technological programme of ESA — is it to be improvement of Ariane, Earth resources or communications satellites — against a tendency in France and Germany, opposed by smaller nations, to see ESA primarily as a research and development agency rather than a profit-making space multinational. And there are problems in both France and the United Kingdom over the procedure of contributing to ESA; so a ministerial meeting is being considered for the spring of next year.

In the United Kingdom, the problem is the division of contributions between the Department of Industry (for applications) and the Science Research Council (for research), so that a change in balance must be decided at ministerial level. In France, the problem is the competition between contributions to ESA and a growing

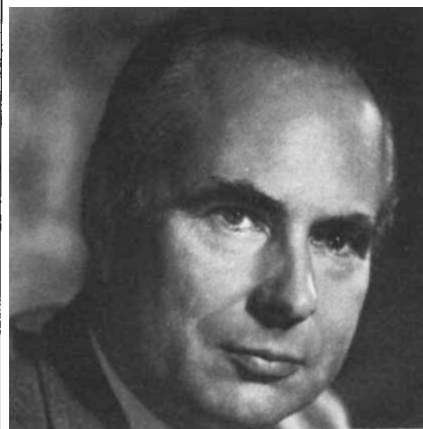
national programme within the budget of a single agency, the Centre National pour les Etudes Spatiales — again a matter for cabinet-level decisions.

But whatever the remaining problems, Quistgaard himself scored a major personal success last week. Delegates came to Council prepared to take their pound of flesh — France, for example, wanted a 10 per cent cut in ESA staff — but in the end they applauded him. In his summing up Quistgaard told delegates "You nearly killed me — but I survived." More than that, he has streamlined ESA, getting Council to agree to eliminate the 40-strong directorate of future programmes and planning, and to set up a think tank of half the size which will report directly to Quistgaard; and to devolve power to the existing directors (now to be called the management team). **Robert Walgate**

Huxley for PRS

Sir Andrew Huxley, the neurophysiologist, is now almost certain to be the next President of the Royal Society in succession to Lord Todd, who comes to the end of his five-year stint at the anniversary meeting, to be held this year on 1 December.

The society's election procedures require that nominations of new council members and also of the new president should first be agreed by the Council, and then submitted to the membership of the society in the form of a single slate of candidates. Sir Andrew Huxley's name



has apparently been agreed for several months, and it is known that several institutions have already engaged him to speak at conferences or to officiate at centenary celebrations well into 1981.

Now that Sir Andrew's nomination by the council is assured, the chances of his not being elected are vanishingly small. This could only happen if a majority of the members of the society were to strike out his name on the ballot paper and to substitute that of some other member.

Sir Andrew, who will be 63 at his election, has been a Royal Society Research Professor in the Department of Physiology, University College London, since 1969.

Indian laboratories

Back to GO

Bangalore

In what is considered to be a major step to tone up the state of Indian research, the government led by Mrs Gandhi has transferred back to the Council of Scientific and Industrial Research (CSIR) four laboratories which the previous Janata government had handed over to user ministries. The laboratories concerned are the Central Fuel Research Institute, Dhanabad; the Indian Institute of Petroleum, Dehra Dun; the Central Road Research Institute, New Delhi; and the Central Building Research Institute, Rourkee.

In April 1978, the Janata government, which under Morarji Desai was firm on "socially committed research", had dissociated these laboratories from CSIR and transferred them to user ministries on an experimental basis. Presumably this "delinking and transfer" was intended to foster a closer relationship between research and industry that would accelerate the country's scientific potential for industrial growth.

However, the decision proved to be counterproductive. Not only did it fail to achieve the desired goal but India's scientific community saw this step as a "vicious attack on scientific autonomy". For the past two years there has been a heated debate on the move in India's administrative and political circles. It was widely alleged that the decision was taken without considering the opinion of the scientific community.

The controversy surrounding the delinking had cast a shadow over scientific research in India. While the advocates of delinking called it an important measure to enhance industry — "research interaction" — the critics saw it as "a dark conspiracy of alien agents acting in collusion with their Indian masters" to subvert indigenous research efforts.

CSIR was established in the early 1950s to promote scientific research into the economic exploitation of India's vast resources. By Indian standards, CSIR is a giant covering four laboratories and research associations, and it has never been handicapped by the paucity of resources or dearth of skilled manpower.

The contribution that the CSIR laboratories have made to indigenous research for industrial development is difficult to assess. While the left-inclined high-technology advocates say that CSIR has been a trail blazer in easing India's poverty and backwardness through innovative research relevant to the socio-economic conditions of the country, pro-Gandhian, appropriate-technology proponents say that CSIR is a "colonial set-up subservient to the capitalistic research" that is alien to the Indian environment.

In recent years, CSIR technocrats have