

European Space Agency

Plans for the next decade

MINISTERS from eleven European nations meet in Rome next week to decide the future of the European Space Agency (ESA) for upwards of a decade.

ESA has placed a seven-point programme on the table which would raise its present \$650-million annual budget by 60–70 per cent. Yet only one of the points on the Rome agenda directly concerns the highly-

publicized invitation by the US National Aeronautics and Space Administration for Europe to participate in the US space station, due for launch in the mid-1990s.

The items ESA will put before ministers on 30–31 January are:

- A five-per-cent annual real increase in the mandatory science budget of ESA, to fund "Horizon 2000", a well-thought-out package of proposals designed to balance and satisfy the interests of Europe's space scientists for the next 20 years. Target budget: \$130 million a year, double present spending.

- A ten-year, \$1,300-million programme of Earth observation, with the launch of Earth Resources Satellite 2 for oceanography and meteorology in 1992–93, an advanced land observation satellite in 1994–95, and a second-generation meteorological satellite including an all-weather microwave system.

- A telecommunications programme, of which the major element, a \$850-million orbital data relay system (comparable with the US Deep Space Network), should be agreed before the construction phase of the space station begins, according to ESA.

- A \$55-million "technology" pro-

gramme.

- A microgravity research programme costing some \$55 million a year from 1988–92, to cover the use of the space station, a budget item that was ignored in ESA's "Spacelab" programme on the Shuttle.

- A space transportation system; in other words, the extension of Europe's launcher, Ariane, with a new cryogenic engine, HM60. This would cost \$1,750 million to develop over the period 1986–95, plus \$20–30 million a year for the "related elements".

- Finally, Europe's direct contribution to the US space station, which would consist principally of a manned laboratory called "Columbus", developed from Spacelab, and a linked man-rated experimental platform.

These are proposed by Germany and Italy at a price of \$1,750 million including development and use to 1995.

Britain has proposed a separate, automatic platform which its developers, British Aerospace, claim would be substantially cheaper than the German-Italian platform proposal.

And France has proposed that ESA develop Hermès, a man-rated mini-shuttle to be launched by Ariane at a development cost of some \$900 million to 1995. A proposal by British Aerospace to develop HOTOL, an air-breathing launcher that the British company claims would be cheaper to use than the "60s technology" Ariane, and cost \$550 million to develop, came too late to go on the ESA agenda for next week's meeting.

Robert Walgate

UK research councils

Geology to break away

ALTHOUGH the details of the UK Natural Environment Research Council (NERC) corporate plan have yet to be agreed, the staff at one of the council's largest institutes, the British Geological Survey (BGS), are already plotting in defence. The existence of this plan became known only last month, but it is likely to be approved at the next meeting of the council. One of its provisions is that research direction would be centralized at NERC's headquarters in Swindon.

A full meeting of senior officers of BGS last Friday determined, first, that BGS is opposed to the corporate plan and, second, that independence from NERC is its own preferred solution. A letter has been sent to all council members and assessors protesting about certain aspects of the proposed changes, but has been voluntarily embargoed until after the research council's meeting later this week.

In the slightly longer term, BGS is setting up a working party to establish a strategic

plan for its own future function. In essence, this could be an alternative to the NERC proposals. Of particular concern is the relationship between the three often conflicting functions of the survey: as a strategic arm of government, as a centre for applied earth sciences and in pure research.

BGS intends to present detailed plans, covering various financial options, to NERC before 1 April, the date for the first implementation of the proposed changes in management structure within the research institutes. As the largest of them, BGS believes that its working party could mould the shape of other NERC component bodies and guide the future course of their relationships with universities, government departments and industry. Long-serving senior officers of the survey describe the strategic plan as the single most important thing that the Geological Survey has decided upon during their careers. Just how NERC will react remains to be seen.

Peter Gambles

FDA

Ban on quack remedies

Washington

THE Food and Drug Administration (FDA) moved last week to ban the sale of two popular categories of quack medicines — hair growers and aphrodisiacs. In notices published in the *Federal Register*, the agency said that the products being sold over the counter for these purposes were medically worthless, though not necessarily harmful.

Most of the products in question have been on the market for years. Although new chemical substances sold as drugs must go through a lengthy premarket review by FDA to establish their safety and effectiveness as evidenced by laboratory tests and clinical trials, "grandfather clauses" in the food and drug acts and amendments have allowed over-the-counter medicines to stay on the shelves until FDA can prove them dangerous or worthless. The burden of proof in these cases thus shifts to FDA, making for a slow process.

The hair growers and aphrodisiacs were picked out, FDA officials say, because both have been heavily advertised and appeared to be areas of "considerable consumer fraud". A survey of magazine and newspaper advertisements of questionable health products found hair growers second only in frequency to diet nostrums.

Stephen Budiansky

Centrifugal China

DECENTRALIZATION in China is spreading from the management of the economy to that of science. Institutes of the Chinese Academy of Sciences must now be given greater decision-making power as the "highest reform priority".

Addressing a "working conference" of the academy on 13 January, Politburo member Fang Yi stressed that the academy's programme of changes announced in January must bring it to the "forefront of reform" of the country's science and technology structure.

Greater involvement with industry is the main aim of the reform. The proposed changes will allow qualified staff members of academy institutions to work in industry or higher education "so as to use their talent to the full". New technology development centres and companies are to be established to sell research results to clients in the production sector. Institutes concerned with applied science and technology will be financed by a bidding or contract system, while a special fund will be established for institutes dealing with basic research. A special fund of 10 million yuan annually will be established for awards to individual scientists.

Vera Rich