Europe in space

Italy treads Columbus path

US pleas for European collaboration in the planned space station have won hearts and minds in Italy. The Italian minister of research, Mr Luigi Granelli, was in London last Friday to persuade the faint-hearted of the British Government that they should contribute some £40–50 million a year from 1986. For Granelli, Europe's only future lies in space. "We've fallen behind in electronics and in biotechnology; we just can't afford to fall behind in space as well." His own government appears to agree. But Britain is still counting its pennies.

Mr Granelli's enthusiasm may yet work in sceptical London the magic it has worked in Rome. Earlier this year, seeking an increase in the budget of the "national space plan", Granelli told his cabinet colleagues that they should either cut the annual 50,000 million lira (£20 million) plan to nothing, or increase it four-fold. "It would have been a waste to continue spending just the 50,000 million lira" he said last week. The Italian cabinet seems to have agreed, to have pulled down their visors and taken a walk in space with Mr Granelli. From this summer, Italian space spending has risen to 150,000 million lira, and will reach 200,000 million lira next year (see box). Italy's contribution to the European Space Agency (ESA), at present 120,000 million lira, comes on top.

Safety in numbers

THE increased Italian space budget is mostly to be spent on technology, but X-ray astronomers may just benefit. The package includes approval for a "phase-B" detailed design of an X-ray satellite (SAX), Italy's first, due for launch at the end of the decade. Italian astronomers have been seeking outside collaborators on instruments for SAX which already, according to some observers, has too many small instruments incorporated to satisfy this or that hungry group of Italian astronomers.

International collaboration could stretch SAX further. Discussions are now at a critical stage with Dutch high-energy astronomers, but Britain and West Germany have been occupied with their collaboration in the German-designed ROSAT. Now, however, Italy may face a problem with the Dutch Government, which has set its face against further satellites after last year's infrared satellite IRAS.

Apart from SAX, other items on the Italian agenda include ITALSAT (a telecommunications satellite) IRIS (a Space Shuttle upper-stage that would put SAX in orbit), TSS (a tethered "satellite" to hang in the atmosphere 100 km beneath the Shuttle) and LAGEOS, a geodesy satellite (also launched by an IRIS-Shuttle combination).

Robert Walgate

Granelli urged the same argument last week on British industry and information technology minister Geoffrey Pattie. Granelli is convening the first ministerial meeting of ESA since 1977 in Rome next January to plan Europe's response to the US invitation. He hopes that British ministers will not be dragging their feet.

Europe needs "coherence" and "a vision" in the face of the National Aeronautics and Space Administration (NASA)'s plan to begin detailed design of the space station (phase B) on 1 April, 1985, and to start construction in January 1986. A series of bilateral arrangements with NASA would be dangerous, he believes, so he seeks a 70 per cent increase in the ESA budget in the period 1986–91.

The Italian vision, shared by West Germany (see *Nature* 25 October, p.696) is that of Columbus, and adjunct to the space station consisting of a manned laboratory (developed from Spacelab), an experiment platform and a control module. But Granelli, statesmanlike, says he is more interested in principles than details. There are as many technical proposals for collaboration as there are space technicians in Europe, he admits. Whether or not Europe builds Columbus matters less than that the old continent should safeguard "our standing and negotiating power with the United States".

In Britain, the issue appears to be whether Europe should plan a truly independent manned capability in space (as seems to be the view in Italy, West Germany and France), almost without counting the cost, or whether the approach should be more gentle. Nevertheless, it is stressed in London that "Britain wants to do something European". There are fears that mainland Europe is beginning to write off Britain as a potential partner. Collaboration in the space station may be a test.

The effect of all this on the space science programme is cloudy. Granelli said last week that he did not know what would happen to the recommendation that ESA's mandatory space science programme should increase by 40 per cent by 1990, mostly for astronomy.

In Britain, cabinet sources suggest that cash for any space station collaboration should come out of "a political pocket", leaving existing space sciences unaffected, but Granelli is not so sure. "When you talk of science, you must think beyond the existing community of space users." Granelli was thinking of "science in zero-gravity" — materials processing and so on. But he added that Earth scientists and astronomers now using space through ESA should not "in principle" suffer, although "someone has to make a choice in the end." So something may be sacrificed on the altar of the space station.

Robert Walgate

Anglo-French cooperation

New guise plea

FRANCE and Britain should set up a joint foundation with the aim of linking universities and industry, the French President, François Mitterrand, told the British Parliament last week. A new idea? No. But each time it pops up it takes a slightly different shape, and each time Britain knocks it down again.

The idea first surfaced in Edinburgh two years ago, during a meeting of the largely commercial Anglo-French Council, when the research director of the French oil and chemicals company Elf-Aquitaine proposed a joint research and development planning agency. This was to be heavily weighted towards industry, and was to devise more projects like the European Airbus.

That plan died until Robert Chabbal, a director at the ministry of research in Paris, transformed it into a proposal for a series of bilateral science and technology seminars. These have taken place — but between France and Sweden, and France and West Germany, rather than with Britain. The British view is that France has gained more than Sweden or West Germany from the meetings so far.

Meanwhile, the science counsellor at the French Embassy in London has been trying to convince his British colleagues that some kind of collaborative structure should be established between Britain and France, but without much success. The French view is that collaborations move best beneath a well-defined governmental "umbrella agreement". The anarchic British, however, say there are already plenty of routes for collaboration, and therefore no need for new structures.

President Mitterrand's intervention may have been stimulated by the suggestion by British science minister Peter Brooke, at the Council of Europe last month, that Europe should establish an international science academy. The French consider that this may be a sign of enlightenment in Britain, perhaps even a basis for their own idea of a science-industry forum.

The British are still reluctant, however, and suspicious that France merely wishes to tap British invention. They may be right. M. Guy Denielou, president of France's only technological university (Compiègne) said last week that he fully approved of an institution such as Mitterrand had proposed.

"Of course, I would hope to be a customer" he said. "British research is too big for British industry... All your ideas get taken up in America or Japan." It would be a good thing, said Denielou, if British science could feed some ideas into French industry as well. The same thing could also happen in reverse, he said. But the suspicious feeling in Britain, rightly or wrongly, is that the traffic would work out to be one-way.

Robert Walgate