

Drastic changes called for in French space programme

Paris. French space policy is badly managed and lacks direction, and its four-fold growth in the past decade threatens the health of other areas of research. That is the conclusion of a report issued earlier this month by the Comité National d'Évaluation de la Recherche (CNER), formed to evaluate the country's research efforts. It says that what is needed is a parliamentary debate on space policy, greater emphasis on research, better financial and scientific management of existing programmes and increased accountability to the scientific community.

The crisis in French space, the world's third largest programme and the driving force behind European efforts in the field, stems from a decision by the French space agency Centre National d'Études Spatiales (CNES) to include manned space flights and a space station in its programme. That decision helped its budget to grow from FF2.1 billion (US\$400 million) in 1982 to FF9.2 billion next year, but it left little for other agency programmes. Similarly, CNES's increasing share of the civilian research budget — from 6.4 per cent in 1982 to 18 per cent next year — has squeezed out other worthy projects.

The problem may be alleviated next month if the European Space Agency, as is expected at a ministerial meeting in Granada, Spain, abandons its plans for an independent European space programme. But CNER is equally concerned about the origins of the problem, and how to prevent it from recurring.

The committee, created in 1989 by France's research minister, Hubert Curien, emphasizes the government's lack of control over space policy and the agency's poor handling of its finances and its research portfolio. Despite being the largest item in the research budget, space research has lacked a coherent strategy. Important decisions are made at various levels within the government, and two supervisory bodies formed in 1988 to improve the situation lack clear terms of reference and rarely meet.

Among other deficiencies, the committee could find no written record of the country's decision in 1985 to build Hermès, for instance, and a programme conceived as a single research satellite, SPOT 1, has somehow grown into a series of four commercial satellites. The SPOT programme is still being funded through the research budget and, despite costing FF8 billion, "nobody knows if the government ever wanted it".

One necessary change would be to form

a powerful space committee within the government to bring CNES under executive control. A second remedy would be simpler accounting procedures allowing the agency's costs to be compared with the rest of civilian research spending. Specifically, the committee wants to end the practice of using the civilian research budget to fund such items as the METEOSAT satellite and road

systems, computing, artificial intelligence, robotics, electronics and the automation of space activities. The committee also questions the wisdom of going ahead with a heavy solid-fuel booster rocket, Ariane V (FF2.7 billion in 1993), designed chiefly to serve the Hermès project, and recommends instead that CNES revives the Ariane IV rocket, which it believes is better suited for both scientific and commercial launches.

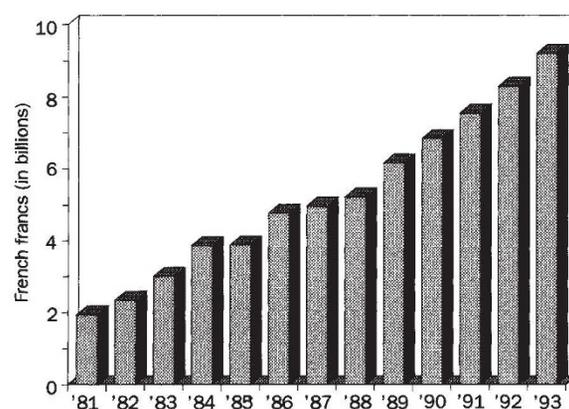
Although Ariane is a notable success, CNES has also had many failures. Facing competition from France Telecom in 1988, CNES pressured companies and banks into supporting a risky venture to develop a commercial position locator system called LOCSTAR. The company went out of business last year after losing FF700 million.

The report also suggests that CNES reduces its industrial activities and return to its research roots. Towards that end, the committee recommends that CNES relinquishes its role in mature telecommunications and meteorological projects to commercial companies and give up its one-third share in Arianespace.

The evaluation committee has no power to enforce its recommendations but it intends to pursue the issues raised in its report. Neither CNES nor the Ministry of Research and Space will comment, but Christian Bécle, president of CNER, says that the report's findings have "moved" the research ministry and that changes are inevitable.

Declan Butler

French space spending takes off



Source: French Ministry of Research and Space

construction at the agency's launch centre in Guyana.

The committee criticizes the agency for failing to recruit new talent to offset an ageing research staff and being too willing to follow the lead of the United States with such projects as Hermès and Columbus. It recommends that CNES pays greater attention to such technologies as new launch

NASA carves up science programme

Washington. The administrator of the US National Aeronautics and Space Administration (NASA), Daniel Goldin, took the science community by surprise last week by splitting the space agency's science office in two and shunting aside its popular chief, Lennard Fisk.

The upheaval is part of Goldin's effort to lower costs, improve quality and reduce the time it takes to launch spacecraft (see *Nature* 358, 701; 1992). He also wants to bring civilian-minded NASA closer to the military, which is eager to place its sophisticated sensors aboard the agency's science satellites.

The reshuffling is more than rearranging the deck chairs on the ship of a sinking Republican administration. While big

changes have been expected since Goldin took over in April, the reorganization raises more questions than it answers — and the confusion is not likely to subside until next year. If George Bush loses the election, Goldin's plans could evaporate if Bill Clinton wants a new NASA administrator. But Clinton could also decide first to see if Goldin's plans succeed.

One uncertainty is that of where NASA's life and materials sciences programmes fit in this regime. Understanding how people function in space is now NASA's primary justification for the space station, and manufacturing flawless crystals and other materials in space is said to be the major industrial application of the station. Yet these two areas are yet to be reassigned. They could

find a home either within the new office devoted to Mission to Planet Earth or fall under the programme for planetary science and astrophysics, the two successors to the space science and applications office that Fisk has led since 1987.

Fisk, having lost control of a \$2-billion programme, has been assigned to the administrator's office as the agency's first chief scientist. At a press conference on 15 October, Fisk said that his new position demonstrates science is vital to NASA, but it is more likely that Fisk has been kicked upstairs.

A familiar sight on Capitol Hill, Fisk gets on well with the congressional committees that oversee NASA. A former professor of physics at the University of New Hampshire, Fisk has won grudging support from researchers for his long-term plan for the agency's space science efforts. His office is responsible for such projects as the multibillion-dollar Earth Observing System (a constellation of satellites to monitor the environment), the Advanced X-Ray Astrophysics Facility to be launched later in the decade and the near-sighted Hubble Space Telescope.

In recent years, however, the White House National Space Council has been pressing NASA to buy the "cheaper, faster, better" approach favoured by the vice president, Dan Quayle. Fisk has been a reluctant supporter of the concept.

Goldin took office after Richard Truly was fired on 10 February for failing to follow Quayle's orders and immediately began pressing his managers to shrink their programmes. Goldin is eager to bring in his own team, and removing Fisk sees a natural step in that process.

The pieces of the old science office fall — at least temporarily — to Shelby Tilford, director of Earth sciences, and Wes Huntress, director of Solar Systems exploration. But Goldin promised last week to allow other NASA employees and outsiders to compete for those two jobs and a host of others. The move could also lower barriers to cooperation with the Defense and Energy departments, whose scientists now want to use sophisticated sensors designed for the Cold War for civilian missions.

Another victim of the reorganization is the office of aeronautics and space technology. Its head, Pete Peterson, has been asked to conduct a long-term study of US aeronautics and space facilities, while Cecil Rosen, who was aeronautics director, takes over as acting chief of a strengthened aeronautics office.

Goldin has transformed the space technology portion of the agency into an advanced concepts office run by Gregory Reck that will also include the agency's commercial programmes. Courtney Stadd, formerly of the White House National Space Council, assumes the job of acting deputy associate administrator for the new office.

Andrew Lawler

Racial tensions entangle NIH in dispute over AIDS drug

Washington. Under pressure from the Nation of Islam and other African-American activist and political groups, the National Institutes of Health (NIH) is reconsidering a report issued earlier this year rejecting Kemron and other interferon alpha-based drugs as useful treatments for people with AIDS. NIH officials concede that they were politically naive when they evaluated the drugs — often touted as an 'African AIDS cure' because some early clinical trials were conducted in Kenya — in the same way as any other experimental therapy without accounting for the desperation and suspicion of those affected by the AIDS epidemic.

Next week, advocates of oral interferon alpha will hold a long-awaited meeting with NIH officials as the first step towards NIH-sponsored clinical trials of the drug for those with AIDS. But even this is fraught with racial tensions. Because many African-American groups believe that the government is ignoring — or even encouraging — the problem of AIDS within minority populations, NIH asked the National Medical Association (NMA), an organization comprised mostly of African-American physicians, to invite the participants and serve as the host. Yet in the same week that invitations were sent out, NIH mailed to NMA members a copy of its April report rejecting interferon alpha as a treatment for AIDS. Advocates of the drug accuse NIH of trying to prejudice the debate; NIH says that it was simply trying to disseminate relevant information to all those interested.

The agendas of the participants reflect the distance separating them: advocates of interferon alpha, who have been selling and distributing the drug to AIDS patients for more than a year, want NIH to evaluate their clinical data and sponsor more formal clinical trials, while NIH officials, including

Daniel Hoth, director of the NIH division of AIDS, have taken the position that they first need to learn more about the claims being made for the drug. However, NIH has agreed to examine some new data and conduct another assessment of interferon alpha to supersede its earlier report. And last month the Congressional Black Caucus, a group of African-American legislators, met NIH officials and argued the case for Kemron.

Various claims have been made for the efficacy of low-dose oral interferon alpha in treating AIDS. After the initial 1989 clinical trial in Kenya, Davy Koech, director of the Kenyan Medical Research Institute, reported that CD4 counts had improved substantially in many of the participants and that as many as 20 per cent had become HIV-seronegative. These results created a worldwide demand. However, since then even Koech has played down 'seroconversion' (which has not been replicated) as a measure of efficacy and has instead focused on such indicators as the level of symptoms and overall health, energy and appetite of the patients.

Although NIH continues to stand behind the April report (see *Nature* 356, 648; 1992), its conclusions have been rejected by many of the groups who use and prescribe the drugs. Advocates point out that NIH focused on the dramatic seroconversion and CD4 claims, rather than the more subjective (and better replicated) reports of symptom reduction. Barbara Justice, a physician affiliated with the Nation of Islam who runs an AIDS clinic in New York, says that NIH also erred in favouring randomized and placebo-controlled clinical trials and immune system measures such as CD4 counts and should have focused instead on whether AIDS patients were healthier — by any measure — after interferon-alpha treatment. "NIH is hung up on 'double-

NHS opens meta-analysis centre

London. Britain's plan to coordinate and strengthen research by the National Health Service (NHS) takes an important step forward next month with the opening of a new centre for meta-analysis.

The Cochrane Centre in Oxford will compile and systematically review clinical and other randomised controlled trials on topics from drugs to surgical instruments. It will also help researchers to perform meta-analyses or overviews of specialist areas with the goal of making the data available to clinicians. The creation of the centre, with an annual budget of £300,000, indicates the increasing importance of meta-analysis in

interpreting clinical trials and is a response to criticism that the results are implemented slowly and inconsistently. The NHS is planning another facility for reviewing work other than randomized controlled trials and has already created a database that, for the first time, gives a clear picture of the amount and nature of research going on in the NHS.

Next month, the NHS is also expected to complete the hiring of 14 regional research and development directors responsible for implementing the new research strategy. The NHS has promised to spend 1.5 per cent of its budget on research by 1997, around £375 million at today's prices. **Ian Mundell**