

Documents show French government is still looking to 'streamline' CNRS

Paris. Thousands of researchers from the Centre National de la Recherche Scientifique (CNRS), the largest basic-research organization in Europe, took to the streets across France last week to protest against a decision by Guy Aubert, the agency's new director-general, that researchers spend no more than 60 per cent of the funds they had been allocated for this year.

The protests were fuelled not only by the last-minute budget revision, but also by uncertainty over the future of the agency itself. One proposal contained in an unpublished government circular could reduce the number of CNRS scientific departments from

seven to three, for example, and its laboratories from 1,300 to as few as 400, with the control of many laboratories passing directly to universities.

From Marseilles to Orsay, last week saw a flurry of emergency meetings by researchers, amid an atmosphere of rebellion not seen since the last conservative government slashed research funding in 1986. Feelings were running particularly high as the government had already cut the research budget (excluding salaries) by 8 per cent in June (see *Nature* 369, 511; 1994).

Most researchers agree that CNRS needs to act to avert an imminent financial crisis.

But there has been outrage at the demand that they spend no more than 60 per cent of the funds they were allocated for 1994. Many have already spent this proportion, and therefore have no more money until the end of the year.

In a letter to Aubert, the five directors of the Institut Jacques Monod in Paris, which has already spent 75 per cent of its allocated budget for this year, demanded that he withdraw the revision. Its repercussions, they warn, would extend well beyond the end of the year.

Vice-chancellors and laboratory heads have similarly warned that the budget revision would "partially or totally paralyse" research. Scientists have said that this would mean that they will be unable to buy reagents to keep cell cultures alive or radioisotopes for DNA sequencing.

At Orsay, outside Paris, where several major CNRS laboratories stand to have FFfr20 million (US\$3.8 million) less than expected to spend — equivalent to running expenses for two months — researchers have said they will be forced to send postgraduate students to "work in the library" for the remainder of the year.

Aubert has said that it was "not easy" to take such measures so soon after being appointed, and that he understands that researchers may feel in a state of shock. "Previously oblivious to the financial situation, they have taken off their blindfolds, only to see the wall that is waiting for them," he said in an interview with *Le Monde*.

The "wall" in question is a FFfr550 million gap in the CNRS's finances which has accumulated over the past few years because annual payments from the state have failed to match promises made in the budget.

But trade unions argue that the CNRS has access to a 'reserve' of unspent funds that exceeds this deficit. They claim that Aubert is only taking such harsh action because he badly needs a "war-chest" to finance his proposed reforms of CNRS, and that CNRS has already taken out a bank loan to finance the proposed reforms.

Earlier this year, François Fillon, the minister for higher education and research, appeared to have abandoned wide-ranging reforms of the research system that the government had previously been contemplating, after strong resistance from researchers (see *Nature* 368, 675; 1994). But many of the main elements have now reappeared.

For example, an internal circular at the science ministry, dated 12 October, suggests reforms that would eventually transform the CNRS from a research organization directly employing thousands of ►

'Seaborgium' fails to win approval

San Francisco. Researchers at the Lawrence Berkeley Laboratory (LBL) in California will continue to call element 106 seaborgium, after Glenn T. Seaborg, the Nobel prizewinning chemist, even though the International Union of Pure and Applied Chemistry (IUPAC) has rejected the name. IUPAC has decided that it is not prepared to name new elements after living scientists.

The team that created and identified element 106 in 1974 announced its decision to name it after Seaborg, who shared in the discovery of plutonium and nine other transuranium elements, at a meeting of the American

Chemical Society (ACS) in March. The ACS's nomenclature committee subsequently accepted the name.

But seaborgium is not among the nine names recommended last month for elements 101 to 109 by IUPAC's Commission on Nomenclature of Inorganic Chemistry. The 20 chemists from 12 countries on the committee said they had decided elements should not be named after living people, and gave element 106 the name rutherfordium after Ernest Rutherford, the New Zealand physicist who discovered the atom.

"The majority of the commission felt it was necessary to have the perspective of history in relation to these discoveries before such a decision was made," the commission wrote in the announcement, to be published in the December issue of *Pure and Applied Chemistry*.

In general, the commission used names

proposed by the three major German, Russian and US groups involved in the nine discoveries — although not in the order suggested. But Albert Ghiorso, the senior nuclear scientist emeritus at Lawrence Berkeley Laboratory (LBL) who led the team that discovered element 106, said he felt that seaborgium had fallen victim to political horsetrading.

Ghiorso says that it was the first time that a discoverer of an element had not been allowed to have his or her name attached to the element concerned. He added that Seaborg was the obvious person to name the element after.

Seaborg himself, who won the 1951 Nobel prize in chemistry with E. M. McMillan for his work on the chemistry of the transuranium elements, says that he is disappointed by the decision, which he calls "illogical". He points out that some of his accomplishments took place more than 50 years ago, clearly withstanding IUPAC's test of time.

The IUPAC committee has proposed that elements 101, 102 and 103 be named mendelevium, nobelium and lawrencium respectively. It also recommended two Russian-proposed names of dubnium (after Dubna, near Moscow) and joliotium (after the physicists Frédéric Joliot) for elements 104 and 105.

All the proposed names are subject to ratification by the IUPAC Council at its meeting in Guildford, England, in August 1995.

Sally Lehrman

IMAGE
UNAVAILABLE
FOR COPYRIGHT
REASONS

Jim Bechler/Sandia National Laboratories

Rutherford (left) to be honoured with element 106 in place of Seaborg (right).

► scientists into a research council concerned primarily with distributing grants.

CNRS now gives research funds to its laboratories to spend as they see fit. But one proposal in the circular is that CNRS spend almost half its funds on a series of new research 'programmes', with funding awarded to individual research groups on the basis of peer review of grant proposals.

The circular claims that the goal of this is to improve the effectiveness and "dynamism" of research. But the trade unions argue that the main objective of the reforms is to shift control of research from the research organizations to the science ministry, and to reorient research towards political and economic goals.

Bernard Bigot, head of the science and technology commission at the research ministry, has said that one goal of the reforms is to strengthen the link between CNRS research and national objectives. Such objectives will be fixed by a 'Strategic Committee of Orientation' to be created within the science ministry next month.

CNRS has 27,000 staff, and a well-developed structure for implementing its research strategy. But, claim the unions, its political independence has become an obstacle to Fillon's plans to orient research towards national priorities. They describe the reforms as a "dilution of the CNRS's role, and an explosion of its structures".

The circular suggests that "administrative and scientific" control of more than half of CNRS laboratories — mainly those already 'associated' with universities — would pass to the universities, although these would be free to apply for grants from the proposed CNRS programmes.

CNRS has yet to make any public comment on the proposed changes. But many scientists are concerned that universities, already hard-pressed to recruit the staff needed to keep pace with burgeoning student numbers, might not be able to afford to maintain new laboratories adequately.

The main concern, says Henri-Edouard Audier, a chemist at the Ecole Polytechnique, is that the government is being driven not primarily by considerations of research but by a desire to cut costs. By reducing the number of CNRS laboratories, it hopes to release funds for the planned strategic research programmes, he claims.

Furthermore, although France has many first-class research universities, not only in Paris but also, for example, in Lyons, Marseilles and Strasbourg, many are oriented primarily towards teaching, and lack the research traditions of their Anglo-Saxon counterparts. Some are also rife with nepotism, political wrangling and mediocrity.

Audier also claims that a proposal to reduce the number of CNRS scientific departments from seven to three — social sciences, life sciences and material sciences and engineering — is only a first step towards slimming CNRS down further.

Declan Butler

Hewlett and Packard boost support for basic research

San Francisco & Cambridge, UK. The US computer and instrument company Hewlett-Packard last week became the source of two separate grants aimed at supporting basic research, acknowledging its founders' belief in the past (and future) contribution of such research to their company's fortunes.

In California, William R. Hewlett and David Packard, two of the original Silicon Valley pioneers, announced a joint gift of \$77.4 million to Stanford University, where they first met in the 1930s. The gift — the single largest in Stanford's history — completes the financing needed for a \$175-million, nine-building science and engineering complex.

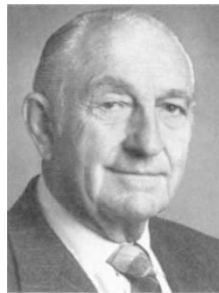
In a separate development, the president of Britain's Royal Society, Sir Michael Atiyah, formally inaugurated a new Basic Research Institute in the Mathematical Sciences (BRIMS), based at Hewlett-Packard's research laboratories in Bristol.

BRIMS will have close links with the Isaac Newton Institute in Cambridge, of which Sir Michael is the director. The company will also finance a fellowship at the Newton Institute, funding its first full-time staff member.

The gift to Stanford will pay for the construction of four major buildings, as well as the demolition of several existing ones to make room for them. The project began in the early 1980s with a pledge of \$40 million by Hewlett and Packard. The complete design is centred on a wooded courtyard and is intended to foster collaboration between disciplines, according to David Glen, principal gift director at Stanford.

"We've tried to look at the way our scientists do science and to design a campus that meets their needs — not only for science, but also for teaching," says Glen. He adds that the proximity of the scientific laboratories to humanities and business would help to realize Hewlett and Packard's vision of graduates who have a broad understanding of a variety of disciplines.

An electrical engineering building, together with the new Gates Information Science Building — made possible by a \$6-million donation from Bill Gates of Microsoft Corporation — and the expansion of the Center for Integrated Systems, will combine research and studies in both computer hardware and software.



Packard: eyes on long-term strategy.

A laboratory for advanced materials research will allow chemists to work closely with engineers, while a statistics department building will be placed next to a new complex of lecture halls and classrooms. The entire new section will be close to the university's medical centre and biology buildings.

In a joint statement, Hewlett and Packard, who were both members of Stanford's class of 1934, said: "We believe this gift will ensure that Stanford University will have leadership in science and engineering second to none during the sude century."

The new UK institute is intended to give the company's researchers in Europe and the United States access to advanced mathematical thinking — particularly in areas such as nonlinear mathematics — which is likely to provide the underpinning of future developments in fields ranging from quantum devices to broadband networking.

According to John Taylor, the director of the HP Laboratories in Bristol at which BRIMS will be based, the institute is being financed from money that the company has set aside at the personal direction of David Packard to support basic research. Packard stepped down as chairman in September but remains chairman emeritus.

"Last year, Packard said that it would be okay to spend some resources on long-range topics, and that has given us permission to resist pressure from the rest of the company and work on things that have no particular application at the present," says Taylor.

At the same time, Taylor points out that non-linear mathematics has potential relevance to many parts of the company's business, such as soliton propagation in optical fibres, the chaotic modelling of cardiac arrhythmia and the statistical mechanics of very large networks.

The Newton Institute, which was opened two years ago, will provide support for short courses on advanced mathematics at Bristol and will also reinforce the activities of BRIMS in other ways. In return, the company has provided the institute with 10 new computers, as well as financing the research fellow in Cambridge and another shared appointment with the University of Bristol.

Atiyah says that Hewlett-Packard's backing for the Cambridge institute will have no direct influence on its choice of research topics. At the same time, he is keen to emphasize that, with university researchers being urged to contribute towards wealth creation, the new deal illustrates how even basic mathematics can play its part. "It is in the spirit of last year's white paper on science and technology," he says.

Sally Lehman & David Dickson