

## To modernize and open up. . .

FRANÇOIS Kourilsky, the molecular biologist from Marseilles who is now director-general of CNRS, was appointed to his post by Hubert Curien in 1988 with firm instructions to "modernize and open up" CNRS. How well does he believe the task is going?

He is anxious that the organization should not be mistaken for the whole of French science, noting that it accounts for less than 19 per cent of the total civil budget. But he is pleased about the growing links with industry. At the latest count, industrial contracts with CNRS laboratories number 2,700, nearly two for each of the 1,300 distinct research units. Their total value is FF1,300 million, more than a tenth of the total budget. There is, he believes, a long way to go before the laboratories will be at a loss to know where next to sell their services.

Industrial contracts seem to serve a wider purpose than to keep the wolf from the door of some CNRS laboratories. To this outsider, one of the wider consequences has been to persuade industrial companies that there is, indeed, some benefit to be won from research and development.

Kourilsky says that, until recently, French industry has not significantly increased the numbers of people it employed on research and development. But now, he says, there is a surge in the recruitment of people, especially in fields such as mathematics, computer science, electronics and chemistry, not to mention molecular biology. Evidently he shares Curien's view that those who work for him should be doubly honoured if they leave to work in industry.

But is there a danger that the balance between contract work and basic research will be too much skewed against the latter? Not as things are, he holds. Perhaps the difficulties will arise when, as the volume of contract work continues to grow, but patchily, some laboratories will find themselves short of people for their core programmes while other, lacking contracts, will have people but only modest research funds.

Kourilsky agrees with Curien (see page 126) that the salaries of young researchers should be improved, but considers that the promotion bottlenecks are "still a problem".

On the scheme to provide university teachers with research funds through a committee within the education ministry, he holds that the source of funds should be independent of the university system. "On that, I diverge from Claude Allègre." The problem is that of evaluation. He regrets that the Napoleonic universities "lack independence".

CNRS differs from most comparable

organizations in the large number (1,300) of laboratories in which its people are dispersed. The range is from a handful of people to some scores. So how are new laboratories started, and old laboratories disbanded?

As always, it is easier to start than to stop. The process of evaluation, Kourilsky believes, is accurate and reliable. But the law requires that a decision either to open or close a laboratory should be taken only on the basis of expert advice. The process

### BUDGET PRESSURE

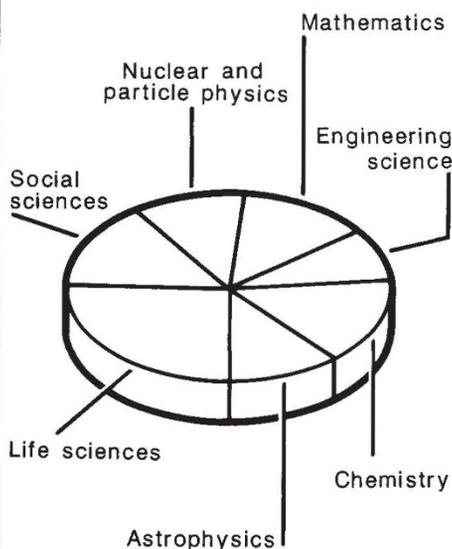
## Staying ahead of the game

THE albatross around the neck of CNRS is the risk of being blamed for everything that goes wrong.

Although, on balance, CNRS attracts more praise than protest, the years ahead may be more difficult. The budget squeeze on CNRS's disposable expenditure is one source of strain. The need for some means of financing university research will be a further complication.

CNRS is potentially the more vulnerable because it has a finger in every pie. The existence of INSERM notwithstanding, for example, the life science division (one of seven) takes a quarter of the total budget. But CNRS is also strong in the humanities and social sciences. (The Science de l'Homme et de la Société division takes more than 10 per cent — see figure below.)

Over the decades since the early 1960s, when it was common to find CNRS researchers working in isolation, and on a shoestring, in cubby-hole laboratories throughout the University of Paris, the organization has shown itself to be remarkably resilient and adaptable.



Distribution of CNRS funds between divisions, 1990.

can be slow.

On the future of the organization, he believes that links with universities will be strengthened, together with those with industry. But there are particular opportunities, he believes, in the emerging pattern of a single Europe for forming stronger links with overseas laboratories.

Kourilsky has not been at his job for long enough for his impact on CNRS to have become clear. Moving the bureaucracy will not be a simple task. But he seems to have one important augury on his side — a largely enthusiastic research force. □

The Chevènement upheaval of the early 1980s may nevertheless be one of the best things to have happened to CNRS, confirming its central place in the French scheme of things as well as the role to which it had already aspired of being one of the chief means of research planning in France.

The then-new director-general of CNRS, Pierre Papon, made forward planning his centrepiece. After an elaborate consultation within CNRS and industry, a score (literally 20) research themes were singled out for special attention, and became the basis for research planning in succeeding years. While the interest of the particular themes may since have been attenuated, the mechanism remains. CNRS is forever organizing consultations among interested groups to determine what weight should be given to particular themes.

During the same period, the influence of CNRS on university research has been formalized and legitimized, by the device of associated (*associés*) laboratories, set up by means of formal contracts between universities and CNRS, and in which CNRS and university employees work side by side. (Other research organizations, such as INSERM and CEA, follow the same practice.) Between them, the research agencies have come to provide support — people as well as money — for most of the outstanding research at French universities. Throughout France, CNRS is this year supporting 1,003 research groups by this mechanism. (It also has 366 in-house research units, some of them very small.)

There is no shortage of academic research groups looking for support of this kind. By a curious device invented in 1982, the education ministry nominates (on the advice of CNRS) research groups considered deserving of outside support — *recommandé* is the designation — which may look for such crumbs as fall from the tables of CNRS and the other *grandes organismes* of research, perhaps