elaborating formal programmes. The experimental phase will test out this concept in seven areas which are considered important and in need of "stimulation" — pharmacobiology, solid state physics, optics, combustion, photometry, photoacoustics, interface phenomena and climatology.

Under the new system, a consultative committee (CODEST) made up of outstanding authorities in science and technology will advise the Commission on how to spend the money. Applications for research grants, subsidies for laboratory twinning, development contracts, subsidies for research teams, seminars and workshops will all be considered.

If the experimental phase is successful, the scheme will be extended for the years 1984–87 and a figure — perhaps as much as £12 million, or 5 per cent of the Community's joint annual research expenditure, will be set aside each year.

The scheme was first agreed in principle at the last Council on 30 June, as was the Esprit programme, for which a pilot stage was agreed by the November Council, with 11.5 million ECU (£6 million) available from the EEC budget. Universities and companies will be expected to contribute at least 50 per cent of the cost if they seek support in carrying out research. Money has been set aside for pilot projects in advanced electronics (two projects), software technology (three), advanced information processing (three), office automation (four), computer integrated manufacturing (three), and information exchange systems. Each contract must contain at least one industrial participant.

A 5-year programme budgeted at 16 million ECU (£8.5 million) will now also start, aimed at building an advanced translation machine to "extend the frontiers of computational linguistics". The advantages of such a machine are evident when one considers that about a third of the 16,000 EEC civil servants are currently involved in translating or interpreting the seven Community languages.

And for the first time, the EEC will have a joint research programme in aid of developing countries (see *Nature* 15 July, p.218); 40 million ECU (£21 million) will be spent on two sub-programmes between 1982 and 1986: tropical agriculture and medicine, health and nutrition in the tropics. The programme has raised doubts in the minds of some delegations and at the European Parliament, since despite its title the programme will mostly benefit laboratories in the EEC rather than directly helping developing countries. However, the agreement to have the programme at all is an important step towards realizing the ambition of Viscount Etienne Davignon, European Commissioner with responsibility for research and development, to make work dedicated to assisting the developing world one of the seven pillars of the EEC's research and development strategy for the 1980s. **Jasper Becker**

French research and development

Can the good times last?

France's foreign debt is now estimated to be FF 300,000 million (£25,000 million), double the figure of a year ago, and the balance of trade deficit was running at FF 12,000 million (£1,000 million) a month in September. But still France continues to promise to spend, spend, spend on research and development. Earlier this month the National Assembly voted the government civil research budget for 1983: it will be FF 52,200 million (£4,300 million), 28 per cent up in money terms over 1982, and 17.8 per cent up in real terms. This is not a jot different from that previewed in the July "law for research" but the economic problems are raising fears that the figures will prove, in the end, a mere façade.

For instance, this year the finance minister ordered a freeze on government spending which — so far as science was concerned — held back a quarter of the planned budget for new research equipment. Caught unawares, laboratories which had already made orders found themselves falling rapidly into the red — until the minister of research and industry was able to claw back the 25 per cent just a few weeks ago. Other ministries, such as the ministry of national education, were not so successful. There is talk next year of a freeze of 30 per cent. Will the research minister claw that back too? Some doubt it, despite the fact that in France, research and technology appear to have become the new faith.

Nevertheless the budget figures are worth analysing as indicators of intention. Jean-Pierre Chevènement, the research and industry minister, plans to cut his cake of FF 52,200 million (£4,300 million) for 1983 into FF 32.5 million for civil research and development, and FF 19.7 million in support of his industrial and energy policy.

The research budget proper — money for the research councils — will be up 17 per cent to FF 23,500 million. The figure includes many salaries. There will also be fiscal support to companies undertaking more research (in particular a rather backhanded relief from a new "tax on fortunes"). This and other measures are intended to help industry boost its own research budget by 8 per cent next year, as envisaged in Chevènement's grand plan.

Basic science is not the principal beneficiary of the increases, although it is not neglected. The French government's fundamental objective is the renewal of industry through long-sighted, government-managed investment. So the greatest increase — 62 per cent — within the FF 32.5 million goes to Chevènement's seven "*programmes mobilisateurs*", which cover new energies, electronics, biotechnology, research and innovation for the Third World, research on the conditions of labour, the promotion of the French language in science and technology, and general support for industrial innovation. These are the workhorses of Chevènement's policy, although nobody seems sure exactly how the cash will be harnessed to research. **Robert Walgate**

French civil research and development budget (thousand million FF)

	Budget 1982	Budget 1983	Increase (per cent)
"*Programmes mobilisateurs*"	5.3	8.6	62
Applied research	3.7	4.5	22
Technology programmes (nuclear, aerospace and oceans)	6.6	8.1	23
Other	5.1	5.5	8
Total government civil research and development	25.4	32.5	28

FF 11.75 = £1. Amounts are in current francs; inflation cuts increases by about 10 per cent.

Direct support for French scientists and the research organizations (thousand million FF)

	Budget 1982	Budget 1983	Increase (per cent)
Direct ministerial support	1.16	1.49	28
Centre National de la Recherche Scientifique	5.95	6.94	17
Commissariat à l'Energie Atomique	5.26	5.85	11
CNES (space)	2.15	2.74	27
INRA (agriculture)	1.51	1.74	15
INSERM (medical)	1.04	1.25	21
ANVAR (transfer of research to industry)	0.83	0.99	19
ORSTOM + GERDAT (Third World)	0.76	0.89	17
ADI + INRIA (informatics)	0.44	0.48	9
CNEXO (oceans)	0.40	0.49	22
AFME (new energies)	0.30	0.39	30
Institut Pasteur (Paris)	0.14	0.17	21
Other	0.11	0.12	10
Total	**20.05**	**23.54**	**17**

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