

## Yugoslav science

## Discontent in abundance

A SWINGING indictment of the implementation of Yugoslav science policy over the past few years emerged from a federal conference of the Socialist Alliance of Working People of Yugoslavia, held earlier this month in Belgrade. Although the persistent and worsening economic crisis can be blamed for some deficiencies, the conference was told that the main problem is that Yugoslav decision makers and society at large undervalue science, in spite of official pronouncements to the contrary.

Unless there is a radical change of this attitude, warned Academician Branislav Soskic, the leading Belgrade economist who opened the conference, the "exciting developments of world science and of the scientific-technological revolution" would bypass Yugoslavia. Science, he urged, must be funded not as *de facto* social expenditure but as a "paramount and decisive productive force".

Because of the economic crisis, Yugoslav science spending fell from 1.07 per cent of the national income in 1978 to 0.91 per cent in 1983. Yet limited resources are often wasted. Lack of coordination means that research projects and expensive equipment are duplicated. Moreover, the number of foreign licences and patents purchased each year continues to increase, in spite of the directives of the Third Congress of Self-Management in 1981, which called for the development of an indigenous base of science and technical know-how.

Yugoslavia has, numerically at least, a considerable scientific work-force. There are more than 830,000 engineers and technicians and some 26,000 researchers working in 850 institutes, 20 universities and eight academies of sciences (one for each constituent republic and autonomous province). According to Dr Branko Zezelj of the Federal Institute of Civil Engineering, the "knowledge and ability" of these people is grossly underrated, and they are provided with neither moral encouragement nor proper material incentives.

Other speakers at the conference, however, took a less rosy view, saying that because there is no "sound and constructive" criticism of scientists' work and qualifications, research support frequently goes not to those with "proven references" but to those who can "spin an attractive yarn".

Self-management procedures in appointing and reappointing the heads of research teams frequently become a cover for "negative selection" and the "fostering of mediocrity". Too often, therefore, competent scientists are driven into a triple brain-drain; from the underdeveloped areas into the cities, from science into more remunerative occupations and out of Yugoslavia altogether.

Even the most enthusiastic advocates of indigenous know-how would not suggest

that Yugoslav science and technology should become entirely self-sufficient. What they want is a more discriminating attitude to foreign achievements and products and the provision of "timely and selective" information about what is going on abroad.

On domestic research, failing increased funds, the conference decided that steps should be taken to deploy existing resources in as rational and careful a manner as possible. Duplication should be eliminated and there should be closer integration between higher education and the "independent" research institutions which enjoy the lion's share of resources. The conference also agreed that there should be a coordinated policy for science and technological development in each republic and autonomous province, while one speaker even called for a Federal Committee for Science, Technology and Information Science. In the most balkanized of all Balkan countries, this is brave talk indeed.

Vera Rich

### French publishing

## CNRS enters the market

THE major French research council, the Centre National de la Recherche Scientifique (CNRS), is to set up a publishing company "along the lines of Cambridge University Press", according to CNRS director Pierre Papon.

The company will begin with only a tiny capitalization (FF3 million, or £300,000) and a staff of 20, and will be based on an existing non-commercial (and loss-making) publishing administration within CNRS, Les Editions du CNRS. Papon hopes in the long run that the new company will make profits that could be fed back to benefit research, although the main objective is to improve French education in the sciences.

The existing Editions du CNRS selects texts only on academic merit, thus acting as a service to those CNRS researchers, mostly in the humanities, who publish their research work through books. Some 70 per cent of current CNRS titles are on humanities subjects. Occasionally, more by chance than design, the books are of general interest — such as a recent study of French foreign affairs and the Corps Diplomatique. This was well received by the Paris newspaper *Le Monde* and seems likely to reach a wide readership even when published at a price of some FF300 (£30) a volume, but such cases are rare.

Thus, according to Papon, CNRS, with a few exceptions, at present has "no editorial policy" — by which he means in effect no commercial policy. The new company, dubbed Les Presses du CNRS, will be different.

"CNRS has two publishing goals", says

## Tunguska observed

DR P.W. Francis of the Open University has drawn attention to the following letter which appeared in *The Times* (London) on 3 July 1908, three days after the Tunguska event in Siberia at 7.14 a.m. on 30 June.

CURIOUS SUN EFFECTS AT NIGHT

TO THE EDITOR OF THE TIMES

Sir,— Struck with the unusual brightness of the heavens, the band of golfers staying here strolled towards the links at 11 o'clock last evening in order that they might obtain an uninterrupted view of the phenomenon. Looking northwards across the sea they found that the sky had the appearance of a dying sunset of exquisite beauty. This not only lasted but actually grew both in extent and intensity till 2.30 this morning, when driving clouds from the East obliterated the gorgeous colouring. I myself was aroused from sleep at 1.15, and so strong was the light at this hour that I could read a book by it in my chamber quite comfortably. At 1.45 the whole sky, N. and N.E., was a delicate salmon pink, and the birds began their matutinal song. No doubt others will have noticed this phenomenon, but as Brancaster holds an almost unique position in facing north to the sea, we who are staying here had the best possible view of it.

Yours faithfully,

HOLCOMBE INGLEBY.

Dormy House Club, Brancaster, July 1.

Papon. One is to publish "scientific tools" of very limited, specialist readership, as at present. That will continue. But "we think we should also have good books, not novels, but broader scientific and technical books like those published by Cambridge University Press, Massachusetts Institute of Technology Press and so on".

This second broader objective cannot be achieved with the present service structure of Les Editions and "we need a commercial company". Under its relatively recent reconstitution, CNRS is free to establish and profit from commercial affiliates. Hence the new publishing company.

The new titles will include both popular works and textbooks. France lacks publishers with an interest in engineering, materials science and even social sciences, says Papon. Students, for example, of thermodynamics, nuclear physics and statistical mechanics often have to use US or British textbooks.

On the face of it, the market for such texts in French is not very great, but a new Swiss technical publishing company based on the technical high school of Lausanne was making a profit on similar books in French within two or three years of its establishment. Papon has visited the company. "They're selling three, four, five thousand copies of each book" in subjects such as informatics and architecture. The potential French-speaking market, apart from France, includes a small part of Switzerland, Belgium, Quebec, French Africa and parts of Asia.

Robert Walgate