SRC tries apprenticeship scheme

DETAILED plans for two new experimental schemes aimed at improving the performance of graduates in industry are now being finalised by Britain's Science Research Council. The programmes, to be based on part-time studies, represent an unusual step by the normally academically-orientated SRC and indicate a strong feeling that British industry in general makes poor use of its scientific and engineering intake.

Although many of the UK's larger companies have adequate training schemes for developing the industrial potential of new graduates, many smaller firms make practically no arrangements for this. The two SRC projects aim to remedy the bias.

The first scheme, known as graduate initial education, will take the form of an apprenticeship package which will follow newly qualified students into industry. Through systems of tutorials, demonstrations and company-based projects over a two- or three-year period it will tailor their performance to the specific needs of their firms. A first experimental package, to cost about £100,000, is to be ready for student intake in October 1980.

The second programme will consist of technological topping-up education for graduates of about 10-year standing who require up-dated instruction on new industrial practices. This will include the many managers whose educations cover only transistor electronics and not modern microelectronics. The scheme will aim at familiarity with a basic working knowledge.

In both systems, universities will probably undertake instruction, and may even award degrees if it is thought the schemes would otherwise affect staff-student ratios. However, in the case of the technological top-up programme, it is possible that the Open University, with its experience of popular presentation, may be introduced to instruct industrialists who might be alienated by a dry academic approach.

At the moment, both schemes are still at a rudimentary stage of planning and although they have been given the full go-ahead by the central council of the SRC, approval still has to be given by the Department of Education and Science as part-time higher education is not at present considered to be part of the council's remit.

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Robin McKie

Max Planck production venture fails

"WE will concentrate future activities on our original function, which is to commercialise research results of the Max Planck Institute by licensing only," according to a spokesman of Garching Instrumente, a 100% commercial subsidiary of Max Planck Gesellschaft. The young enterprise has run into considerable difficulties, and finally has been forced to close down activities connected with the development and production of highly sophisiticated instruments and pilot equipment — activities that accounted for nearly three-quarters of Garching Instrumente's turnover and employment.

MPG established Garching Instrumente in 1970 as a limited liability company whose aim was to commercialise technically useful research results of the Max Planck Institute in the industrial field. Stimulated by successful American ventures of a similar kind (from which the un-German name "Instrumente" was borrowed) Garching Instrumente was not only to deal with licensing (especially of Max Planck Institute patents), but also with the development, production and distribution of high technology hardware.

From its beginning, the new company raised considerable hopes and expectations, for it was considered to be the prototype of the young, small high technology venture needed in West Germany. The importance attached to it can be deduced from the remarkable efforts of the Federal Ministry of Research and Technology in the early 1970s to establish a risk financing corporation specifically to assist risky high technology ventures.

In the first years of operation, at least, Garching Instrumente seemed to fulfil the high expectations. Turnover increased to DM4 million with around 24 staff; among its clients were big companies like Siemens AG, as well as small enterprises, research institutes and universities. About 75% of the licence agreements were contracted with the instrument, electronics and pharmaceutical industries.

As time passed, however, it became increasingly obvious that research work on the one hand and manufacturing business on the other were very different, and that switching from one to the other is not easy. The activities of the manufacturing division of Garching Instrumente seemed to be less and less in line with the expectations of the Max Planck Gesellschaft, and there were rumours not only of management deficiencies but also of losses higher than could be tolerated even in a newly founded venture. Now, as a consequence, MPG has closed down all development and manufacturing activities, dismissed the management and reduced the staff to a mere handful. Activities are now restricted to licensing.

The new management looks optimistically to the future: "The actual turnover out of licence agreements already exceeds DM1 million. That brings us near the break-even point of our present activities."

Klaus Höpfner

Maurice Bazin reports from Brazil on the return of the exiles for the country's major scientific conference

Scientists protest at US tycoon's Amazonian project

OVER 5000 scientists and social scientists congregated in the Brazilian north-east town of Fortaleza in mid-July for the 31st meeting of the SBPC, the Brazilian Society for the Progress of Science. The meeting's central theme was 'Dilemmas of Scientific Production in Brazil', reflecting the participants' preoccupation with the ways in which General President Figueiredo's Brazil is helping — or hindering — science. The problem of external dependency also lurked in the background as an ever-present spectre.

"The developed countries control science and technology, but they charge for letting us use it. And they charge dearly . . . . It is enough to see the chronic deficit of the Brazilian balance of payments. Part of this deficit comes from paying royalties and patent rights; these are, in the last analysis, the price we pay for scientific and technological dependence" read an official note distributed by the general secretariat of the SBPC on the opening day. This point came up at a round-table on 'National Scientific Policy' which involved three representatives of agencies financing scientific research in Brazil. Physics Professor José Leite Lopes, visiting his country after ten years of exile, declared: "It is useless to discuss a science policy without discussing the forces which oppose its formulation. Shall we discuss scientific policy without discussing economic policies?" He then added that nothing could be done as long as the economic forces representing the interests of multinational companies determine technological and scientific production in Brazil.

The president of the SBPC reminded everyone that the Brazilian scientific community was never consulted in the past about national projects, and it became evident during the meeting that academics were ready to take advantge of the recently granted freedom of expression to criticise strongly the government's options. The relaxed atmosphere of the meeting (where mornings were left free to allow participants to enjoy the town's beaches) was interrupted, however, when local police arrested five student participants for distributing "subversive material"; a federal security agent declared later that "in addition, they all had taken drugs".

The hottest discussions centred on two huge ongoing projects: the Jari agro-industrial project in the Amazonian jungle and the nuclear agreement with West

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