

Iron and Steel Research Association keeps its sights firmly on the need to produce and refine iron and steel more cheaply. One of its most successful projects has been the development of electro-slag refining as a secondary refining process for steel, and last week saw the commissioning of a new plant for production and research. The process, which involves passing drops of metal through molten slag to remove impurities, was developed by BISRA and has proved so effective that a special commercially viable unit has been created to develop and market it. Other novel processes being evaluated include a process for producing iron continuously, for manufacturing stainless steel strip directly from powder and a fast method for putting protective lacquer coatings on sheet steel.

Long-term research planning is on a sounder basis now that BISRA has direct access to reliable plant operation costs and economics. The operational research department, which is responsible for technological forecasting and planning, is expected to extend its activities this year. It will have to deal with the changes in research policy that will probably accompany the reorganization of the British Steel Corporation onto a system based on a small number of product divisions.

ROCKEFELLER

Feeding People

IN its annual report for 1968, the Rockefeller Foundation continues to bang the drum for the dwarf strains of wheat and rice developed largely under its auspices in Mexico and the Philippines. And justifiably so—the new high-yielding cereals, though only a few years old, have made a dramatic impact on the world's agriculture. In 1967, the Philippines reached self-sufficiency in rice production for the first time in decades, and Pakistan is expected to do the same this year. Turkey bought 22,000 tons of Mexican seed wheat in 1967 and was rewarded the following year by double or triple yields on many farms near the coast. India has devoted over 16 million acres to the new cereals, and her grain production in 1967–68 exceeded 100 million tons—about 12 million tons more than the previous peak. This is a success story by any standards, and the chief question now must be the extent to which western philanthropy intends to make its discoveries available to the rest of Asia. The report makes no mention of this.

The Rockefeller Foundation has cast its net ever wider for worthwhile projects in recent years, but as yet it has nothing to report as spectacular as its plant breeding programmes. Population control has absorbed \$20 million of the foundation's resources over the past five years, and the teaching and application of family planning have taken the lion's share, although \$5 million has been spent on fundamental research into reproductive biology. The report says that worthwhile progress has been made in controlling the world's population growth. Of the thirteen developing countries with populations of more than 25 million, only three—Nigeria, Brazil and Burma—have taken no official action to encourage family planning. But concrete achievements are still in short supply. Only a few countries—Hong Kong, Singapore, Taiwan and perhaps South Korea—have reduced their birth

rates to a level consistent with a reasonable steady state. The Rockefeller Foundation seems to pursue its task of spreading favourable attitudes to contraception with the self-effacing wiles of the diplomat. In Turkey, field workers held informal meetings for local young fathers in coffee-houses, and sparked off an awareness that eventually led to a government birth control programme. In Santiago, Chile, family planning movies are shown to newly delivered mothers, at what is surely a receptive moment in their lives.

A few years ago the foundation hoped that the oral pill and the IUD between them would be a sufficient armoury for the world's birth control. The chances that they will be now seem slight, and there is need for fundamental research into alternatives, the male pill, hormone implants, contraceptive vaccines and the like. The foundation is supporting a wide spectrum of such work in American universities, and it seems to be taking care not to step on the toes of the federal granting agencies.

Rockefeller fortunes have also been finding their way into the patronage of the arts and the expansion of negro education. It is in describing these areas that the liberal assumptions of philanthropy begin to wear a little thin. The section describing the arts is littered with forgettable aphorisms like "the quest for a humane centre of personal experience has caused scientists to become aesthetes, and artists to become technicians".

PHARMACEUTICALS

Industry keeps Cheerful

THE 1968–69 annual report of the Association of British Pharmaceutical Industry presents a picture of an industry remarkably pleased with itself. Exports reached a record £97 million in 1968, well over the 1967 figure of £80 million, itself a record. The industry went metric in March, an event marked by the appearance of the plastic 5 ml. standard spoon. A further item for self-congratulation is that price reductions within the industry, mainly in antibiotics, led to estimated savings for the NHS of £10 million in 1968.

Relations between drug manufacturers and the legislature nonetheless remain somewhat strained. In 1967, the Sainsbury Committee came to the conclusion that the pharmaceutical industry was reaping unfair profits by its exploitation of the British prescription medicines market. The industry replied with a quick spate of furious denials, but 1968 has seen a more temperate series of discussions between the industry and the Department of Health and Social Security. Meanwhile, various academic studies of the economics of drug manufacture have appeared. Cooper and Parker of the University of Exeter have concluded that the high profitability of the British pharmaceutical industry is an illusion based on the accounting conventions used when comparing profits of different industries. In the words of Cooper and Parker, "the wide disparity between the profitability of the pharmaceutical industry and of industry in general owes more to the structural differences in organization than to any real differences in the respective rewards to capital employed".

The Minister of Health last year also drew attention to the high level of sales promotion costs in the industry