

INDUSTRIAL AND AGRICULTURAL RESEARCH IN BELGIUM

THE annual report of the Belgian Institute for the Encouragement of Scientific Research in Industry and Agriculture for 1962* records the award during the year of 62 subsidies totalling 303 million francs, on which 319 research workers and 930 technicians were engaged. Of this total, 65 million francs went to the National Centre for Metallurgical Research for work in physical and chemical metallurgy, on constructional steel and special steels and the metallurgy of iron, etc. Eight grants, totalling some 20.4 million francs, also went to the Centre for Scientific and Technical Research on the manufacture of metals. The Committee for Mapping the Soil and Vegetation of Belgium received a subsidy of 23.5 million francs, and the Committee for the Study of the Diseases and Nourishment of Cattle 16.7 million francs, while another 16 million francs went to the Centre for Applied Electronics for investigations on impulsion circuits, industrial control systems and of amplifiers, modulators and oscillators for transistors. The Road Research Centre received a subsidy of 14.75 million francs, while the Scientific and Technical Centre of the Belgian Textile Industry was granted 11.5 million francs for research covering cotton, wool, jute, linen, rayon and acrylic fibres. Apart from a subsidy of 11.35 million francs to the Centre for Scientific and Technical Research of the Metal Manufacturing Industry included among the eight already noted, and one of 10.75 million francs to the Belgian Society for Nitrogen and Chemical Products of Marly, only the subsidies of 9.9 million francs to the National Committee for the Study of Fruit Cultivation and of 9.5 million francs to the Committee for the Study of the Solid State are worthy of special mention. The Committee for the Scientific and Technical Study of Milk received 5.8 million francs, the Committee for the Study of

* Institut pour l'Encouragement de la Recherche Scientifique dans l'Industrie et l'Agriculture, Bruxelles. Rapport Annuel, Exercice 1962. Pp. 277. (Bruxelles: Institut pour l'Encouragement de la Recherche Scientifique dans l'Industrie et l'Agriculture, 1963.)

High Polymers 5.6 million francs for research on the behaviour of high polymers to irradiation on the degradation of high polymers used as insulators, and on photopolymerization, the Research Centre for Animal Breeding and Fodder in High Belgium 5.27 million francs, and the Scientific and Technical Research Centre for the Explosives Industry 5.25 million francs.

The only other grant of 5 million francs or more was to the National Centre for Herbage and Fodder Research, but 4.7 million francs went to the Belgian Institute for Improvement of Beetroot, 4.3 million francs to the Belgian Centre for the Study and Documentation of Water, for research including, besides investigations on potable and industrial waters, on corrosion and effluents, some work on atmospheric pollution, and 4 million francs to the Committee for the Study of the Structure of the Soil. Among other large subsidies may be mentioned 3.8 million francs to the Technical and Scientific Centre for the Brewing, Malt and Related Industries, 3.4 million francs for tobacco research, 3.4 million francs for investigations of vegetable reproduction, 3.1 million francs for work on the conservation of fruit and vegetables, and 3.1 million francs for research on vegetable parasitology; 2.2 million francs went to the Belgian Wood Centre and almost 2 million francs each to the Belgian Centre for the Study of Medicinal Plants, the Research Centre of the Belgian Ceramic Industry and the Committee for the Study of Agriculture. Grants totalling almost 3 million francs went to the National Centre for Scientific and Technical Research for the Cement Industry, of which some 1.3 million francs were jointly for the Scientific and Technical Centre for Construction for an investigation on the measurement of the resistance of bitumen to compression. The report indicates briefly the extent of the investigations for which the subsidies are given and includes a list of publications during the year dealing with the subsidized investigations.

CIVIL RESEARCH POLICY

THE report of the F.B.I. (Federation of British Industries) Working Party on Civil Research Policy* is the outcome of a remit from the Federation to consider recommendations as to how the Government should support civil scientific research and development in industry, bearing in mind the possible lessening of such support for defence research and development, which has had valuable civil application. Part of the memorandum is addressed to industry and part to the Government.

The prime concept of the report is the presentation of a case intended to find ways and means of increasing very substantially the financial resources to be put into civil research and development. The magnitude of the target is a sum of £100 million per annum. A considerable proportion of this, it is advised, should be spent as direct support of research and development in industry. The responsibility for determining the allocation of such funds to the many claimants is recommended to be assigned to the Minister for Science, advised by a Council having presumably wide representation.

The following comments on the report in question are based on a long experience in three distinct fields of scientific research: in industry with a company noted for

its technological development; in the university, in charge of a technological department; and in research associations, covering no less than seven in various capacities from member of research committees to Department of Scientific and Industrial Research visitor.

A very important statement of the Working Party, amounting almost to a reservation, is its expression of concern as to whether its ideas would be practicable in terms of man-power. This question, apart from the problem of finding the money, becomes the crucial one of the whole matter. Mere multiplication of numbers will not give a corresponding increase of achievement in respect of fruitful research though it may give acceleration of the rate of progress at possibly a relatively increased price. Rather should the means be sought of strengthening existing organizations. This is in some measure advocated in the report, but it is not suggested to apply in any marked degree to the industrial Research Associations. Induced as a broad generalization the Working Party says: "We are bound to confess that the opinion in industry about Research Associations is not universally favourable". But how could one in all seriousness expect a unanimous opinion from industry on so wide a matter? I suggest that on balance industry is favourably impressed by the system of Government-aided research

* *Civil Research Policy: a Report of an F.B.I. Working Party*. Pp. iii+11. (London: Federation of British Industries, 1963.) 2s. 6d.