

## TELEVISION FOR SCHOOL SCIENCE

THE economic strength of Western Europe depends increasingly on the application of science and technology and, consequently, on a growing supply of scientific and technical manpower. Unfortunately, there is a growing shortage of teachers and schools are already overburdened. School television could perhaps be of considerable assistance in overcoming such deficiencies in educational facilities. The medium has proved effective in various countries, including France, Italy, the United Kingdom and the United States of America, while its scope has been considerably extended by recent technical developments such as the use of closed-circuit systems. A year ago, the Organization for European Economic Co-operation, believing that much could be gained from the experience of countries which had been exploiting the new medium for teaching science subjects, conducted a survey on the present status of school television in Western Europe, and convened a forum of international experts in this field, "Teaching through Television", during June 1960. The report of this meeting is now available\*.

The seminar was held at Ashridge (Nr. Berkhamsted), with three main objectives: to give countries beginning educational television an opportunity to learn from the experience of those where educational television has been in operation for some years; to encourage the development of international contacts, on a personal basis, between programme producers and to seek ways and means to secure improved co-ordination in securing sources of informa-

\* Organization for European Economic Co-operation: Office for Scientific and Technical Personnel. Television for School Science: Report on an O.E.E.C. Seminar, Ashridge (England), July 1960. Pp. v+181, (Paris: Organization for European Economic Co-operation, 1961.)

tion on programme material. Two different tendencies emerged during the conference: the use of school television as a complete substitute for traditional teaching (this is the case with the "Telescuola" in Italy, where there is a severe shortage of teachers and schools) or as a complementary broadcast for use in the framework of normal school activities. School television is also used for teachers' training, as, for example, in the 'continental classroom' of the United States.

Other topics included technical aspects of programme-production problems, the use of films, of consultants, advisers and specialists, of economical visual techniques and devices. Future developments were concerned chiefly with the use of closed-circuit television. Great progress has been made in the development of inexpensive systems which can be used to link any number of classrooms (or even schools) to a central school studio from which live or recorded lessons are 'piped' to pupil audiences. During the seminar it became clear that great possibilities exist for the exchange of information on films and other material and the international exchange of production facilities and personnel.

The report also provides information about the Tele-Lille mathematics experimental project, lists of films available for educational television, examples of science programmes, and a list of scientific film associations and their addresses. A small group has been set up to carry out the recommendations (improved information, training school science producers, research, experimental projects, co-operation with industries) of the seminar. It will report progress to the Organization for European Economic Co-operation and ensure liaison with organizations concerned with science teaching, films and television.

## THE INSTITUTE FOR THE ENCOURAGEMENT OF SCIENTIFIC RESEARCH IN INDUSTRY AND AGRICULTURE, BRUSSELS

THE annual report of the Institute for the Encouragement of Scientific Research in Industry and Agriculture, Brussels, for 1960\* records sixty subsidies, totalling 264,772,837 francs, during the year, including 3 million francs to the Committee for the Study and Exploitation of Electronic Computers, and estimates that 267 research workers and 529 technicians are thereby employed. The National Centre for Metallurgical Research received 29,275,000 francs for analytical research, investigations on the physical metallurgy of steel, analytical research on the physical metallurgy of zinc, research on the agglomeration of minerals, etc., while the Belgian Society for Nitrogen and Chemical Products, of Marly, received 25,898,000 for research on the pyrolysis of hydrocarbons, on the synthesis of vinyl chloride and other investigations in the field of heterogeneous catalysis.

The Committee for Mapping the Soils and Vegetation of Belgium received a grant of 20,155,000 francs

\* Institut pour l'Encouragement de la Recherche Scientifique dans l'Industrie et l'Agriculture. Rapport Annuel Exercice, 1960. Pp. 255. (Bruxelles: Institut pour l'Encouragement de la Recherche Scientifique dans l'Industrie et l'Agriculture, 1961.)

for its systematic study of the pedological character of the soils and towards the pedological map of Belgium, while grants of 10,000,000 francs and 8,560,000 francs went to the Centre for the Study of High Polymers for its work on high polymers and their degradation, on photopolymerization initiated by silver salts and the stability of the polymers and for some industrial work on the extrusion of crystallizable polymers. The Centre of Applied Electronics received 12,450,000 francs for work on passive circuits, on amplifiers, modulators and oscillators of transistors and on industrial circuits; 11,505,000 francs went to the Committee for the Study of Diseases and Feeding of Farm Animals; 9,950,000 francs to the Centre for Scientific and Technical Research of the Metal Manufacturing Industry for investigations on the adaptation of numerical techniques to other machine tools and in automation, as well as 2,980,000 francs for research on resistance to fatigue of cooled alloys, etc.; 8,317,590 francs to the National Centre of Metallurgical Research for low-temperature furnace research, and 7,474,273 francs to the Scientific and Technical Centre of the Belgian Textile Industry for research on wool, cotton,