Editorial

SCIENCE AND GOVERNMENT

THE rapid industrialisation of our country based on science presents social, political and economic problems which can be solved by the closest co-operation between scientists, industrialists and the government. The power of a nation, both economic and military, depends on the strength of its technology The government should be interested in and seek to further not merely the technology but science, upon which modern technology ultimately depends. In giving technological support, the national view should be the guiding factor. In this attempt, activity in pure science should not be restricted.

Pure science is a creative activity which has freedom to develop in its own way. A government's attitude to it should be largely that of a patron, Prior to independence, our government was devoting a small percentage of its resources on the support of pure science. Since the second world war, things have changed rapidly. The increasing complexity of scientific research and the vastly increased demand for trained scientists and technologists have combined to raise expenditure in the field of science, It is said that the expenditure on research for science is not adequate. The government have opened a number of national laboratories and regional technical institutes. Though the government would like to spend more on scientific research, the scientific expenditure has to have a limit bearing on the total resources available in the country. For, in this country money and manpower are limited. If we continue to try to emulate all other countries to spread out in all areas of science, we are likely to spread our effort too thinly and achieve leadership in nothing.

A country like ours should depend on technology and, therefore, the money which can be made available for scientific research activities depends on our success in translating new knowledge into goods that we can sell in the highly competitive world of international trade. It is essential that we should align our industrial effort in those directions most likely to be advantageous from this point of view. Though the level of scientific research in our country is quite comparable to that obtaining in advanced countries we lack innovation in adopting the the scientific work in industries by technological development. In these days most industries depend for their success and even survival on technological innovation. Our government is very much concerned that technological innovation has not been keeping pace with the success achieved in the areas of pure science. In our country research associations are very few which can afford to promote technological innovation.

Technological innovation results from the application of new or existing knowledge to the satisfaction of the industry. The time which must elapse between a discovery and its commercial exploitation is variable. The modern science-based industry like the chemicals in general and the chemicals for electroplating industry require a great stimulation. Many of the chemicals used in the electroplating industry have to be of high purity. It is impossible for an individual industry to spend large sums of money and energy to keep up a sustained research activity which may lead to an innovation. The young electroplating industry could ill afford this. It will innovate readily, provided there is sufficient return on investment. Alternatively, this can be overcome by the formation of a consortium of the various interests in the electroplating industry. Even for a consortium advanced research and development is beyond the capacity of the industry. It would be fair for the government, which has greater resources and can take a longer term view than an organisation conducting its business on a normal commercial basis, to invest money in such projects. Government—owned research and technological organisations which are already in existence should seek to co-operate in a partnership with the plating industry so that our electroplating industry forges ahead with regard to technological advances in this field. Such a co-operative effort is essential now more than ever before.

—S.K.