

ment of businesses are both involved in technological development, they should be made the subject of programs of studies in higher education.

(d) Promising young students should be drawn into technical disciplines, and more of them should be encouraged to prepare themselves for careers in the application of the natural and social sciences in business and industry.

In view of the reduction in the number of students currently attracted by scientific subjects, it is essential to reverse this trend to intervene both at the secondary education stage and subsequently to organize programs of higher education which, being adapted to the modern world, would promise to stimulate interest, and enthusiasm, for demanding subjects.

Continuous education in the technological field should be encouraged by industrial firms. This could be accomplished by staff participation in technical re-training or advanced training courses lasting from one to six months and taking place outside the firm. The teaching profession would have to develop many programs adapted to modern industrial needs. The organization of these programs will facilitate collaboration between industrial and educational circles.

None of these proposals are very new; many of the methods have already been applied, and they do not have the same importance for all the countries of the Atlantic world. Nevertheless, it is well to emphasize these guiding principles, if only to stress the pressing need for such efforts.

2. Research

While the excellence of much of the fundamental research of Europe is evident, many reforms are necessary to increase its effectiveness. This is a matter of urgency since such research is a pre-requisite for increasing technological vitality for the following reasons:

- (a) it is vital to the quality and scope of the educational process;
- (b) it produces new knowledge available for development and industrial innovation;
- (c) without a first class research effort, the level of scientific awareness of a nation can hardly provide a critical assessment of the significance of scientific developments throughout the world which have high technological potential;
- (d) advanced study, associated with research is necessary for the provision of higher skills;
- (e) the encouragement of inter-European cooperation should be considered as a means of extending and complementing national efforts.

Considerable barriers to the full deployment of European effort exist in the rigidity of many of the national systems and institutions. Recommendations are therefore made:

- (1) to encourage mobility of scientists between European countries;
- (2) to improve university-industry relations.

3. Mobility of Scientists

(a) All European governments should recognize university degrees in science and technology granted by the other countries. (Discussion of equivalence of diplomas is likely to be sterile but employers and especially research institutes are well aware of the value and nature of degrees in the main countries. Degrees in medicine pose special problems preventing mutual recognition.)

(b) Governments should make it possible for foreigners to occupy university chairs where this is not now possible. Provision should be made for the appointment of visiting professors from abroad.

(c) Consideration should be given to means of maintaining pension rights on movement from one country to another and also that social security schemes should be extended where necessary to insure medical and other benefits.

4. University-Industry Relations

(a) It is highly desirable that mobility between universities, industrial firms and government research laboratories be encouraged. Furthermore, it is to the benefit of both firms and universities that many other forms of cooperation be extended including the acceptance of suitable research projects by universities, the use of university staff for advice, the recognition of good work completed in industrial and governmental laboratories for higher degree purposes, and the participation of industrialists in special university courses and seminars.

(b) It is specifically recommended that each country should initiate dialogue between industrialists and academics to assess the existing situation on such