

technology are most readily met in a society which is flexible and willing to evolve new forms of person-to-person, institution-to-institution relations. The relatively larger sector of American society which has been educated on the college and university level, contributes to that flexibility and mobility which enhances employment opportunities.

Among the factors judged by most conference members to be at the base of technological differences between Europe and America, the disparities of values, mobility, structure, size, and rigidity were viewed as the most serious. Their influence was great because they were related to each other in an interacting system in which the multiplier effect of the American assets made the potential of the United States appear enormous and European disadvantages appear to be part of a vicious circle.

The pessimism which appeared in some panels as a result of diagnosing the problem was relieved by a number of alternative views. It is evident that there has been substantial success in Europe. There are many examples which cast doubt on the assumptions in the diagnosis. Evidently, there are firms which, applying technology, successfully compete with the United States, even in the North American home market. There are industries—notably, nuclear energy, metallurgy, and chemicals—which have readily technologically equalled or surpassed their competitors in the United States. Obviously, the vicious circle can be—and has been—broken in many technological areas.

The examples of success show that a diagnosis which excludes the possibility of remedial solutions is too pessimistic. Nonetheless, these are severe restrictions on Europe's ability to rapidly accelerate and close the gap in a short time. The interaction of factors is complicated. It requires systematic treatment. While there was a consensus on the list of important factors, there was no consensus on their relative importance and the nature of their interaction. Scientific and systematic methods of analysis must themselves be brought to an understanding of the process of technological growth. The conference participants had no such systematic knowledge available to them. Differences of opinion derived not only from different values, but also from different understandings of what is needed to stimulate technology. It was clear from differences in national and sector performances, that the problems are complex and in need of further systematic effort.

However, no one underestimated the magnitude of the assignment. A large body of interacting and complex factors had to be moved together to make a major assault on the problem. To do this, goals had to be defined which would capture the attention of relevant parties and motivate them to a major effort. However, when the panels turned their attention to the goals which might provide the unifying and motivating impetus, the agreement on causes gave way to disagreement on aims. While the motivating symbols of past regional co-operation still commanded attention, they did not now suffice to ensure consensus. Instead, more emphasis was placed on solving problems by functional categories. Regional loyalties to nation or to Europe or to the Atlantic area were determined by the pragmatic criterion of their respective relevance to the solution of problems at hand.

In sum, the gap was recognized. Though its seriousness was evaluated differently, no one wanted to allow present forces to continue in the present direction. Whether the reasons for action be political, economic, social, or some mix of these motives, action was desired by the greatest number of participants. The panels then turned their attention to a program for action.

PART II—RECOMMENDATIONS

A. GENERAL

In dealing with such a complex problem as the Transatlantic technological gap it is much easier to diagnose the causes of disparities than it is to present prescriptions for eliminating them, let alone to achieve consensus as to which prescriptions should be adopted. The recommendations which follow reflect a consolidation of those reported by the various panel chairmen as both desirable and to a lesser extent feasible. Their presentation does not imply any endorsement by individual panel members or by the conference as a whole. These recommendations were preceded by discussions of American and European environments and goals respectively.