

PRODUCTIVITY

Productivity
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PRODUCTIVITY CENTERS AROUND THE WORLD

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CONTENTS

	<u>Page</u>
Preface	iii
Chapter I. BACKGROUND	1
Chapter II. OBJECTIVES OF CENTERS	3
Chapter III. FUNCTIONS OF CENTERS	5
Chapter IV. ORGANIZATION OF CENTERS	13
Chapter V. CASE STUDIES OF SELECTED CENTERS	17
Chapter VI. SUMMARY AND EVALUATION	29
Appendix A BRIEF DESCRIPTIONS OF SELECTED EUROPEAN COUNTRIES	31

PREFACE

The post-war expansion of European and Japanese economies, largely as a result of rapid productivity growth, has been one of the most dramatic chapters in recent economic history. Public and private programs favoring capital investment, technological change, and economic growth underlay their remarkable productivity records. An important feature of these efforts was the establishment of national productivity centers to encourage widespread adoption of innovative "best practices" in business and industry, with the least possible social cost.

The activities of these centers have gone through three phases. In the 1950's, immediately after their establishment, centers concentrated on activities that tried to incorporate the concept of productivity in industrial reconstruction plans. This phase involved massive public education, importation of new technology, intensive training in technical skills, and cooperative activities among companies to develop productivity measures.

The period of the 1960's witnessed much adaptation and expansion. The centers concentrated on improving and extending management education and training and keeping abreast of new techniques of management and automation. Productivity grew at a rapid rate in this period.

The third phase, beginning in the 1970's, saw a growing concern for the "quality of life." More attention is being directed to the interaction between efforts to improve productivity and the conservation of the physical environment, the quality of working life, and the job satisfaction of workers. Centers are also becoming more concerned about ways of translating social research into every day practice.

This report describes the current objectives, functions, and operations of major productivity centers around the world and suggests some reasons for their continued growth and influence. The centers covered by this report include the members of the European Association of National Productivity Centers: Belgium, Bulgaria, Czechoslovakia, Denmark, France, West Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxemburg, the Netherlands, Norway, Portugal, Spain, Turkey, and Yugoslavia. In addition, the centers of Australia, Israel, Japan, New Zealand, and South Africa are covered. The less industrialized members of the Asian Productivity Organization and centers in South America are excluded. No attempt was made to describe activities to improve productivity in important industrial countries without formal productivity centers, such as Canada, Sweden, and the U.S.S.R. The British Productivity Council, which is concerned primarily with local educational activities, is also excluded.

The major sources of information used in preparing this study are the annual report and publications of the centers and the European Association of National Productivity Centers (EANPC). Also, much valuable information was provided by the directors of several major centers who were interviewed by a

NCOP staff member in 1973 and 1974. The Commission also is indebted to Mr. Tony Hubert, Secretary-General of the EANPC and Mr. Joji Arai of the Japan Productivity Center whose comments have been most useful. The report was prepared by Edgar Weinberg, Assistant to the Executive Director and Richard Hornick, Editorial consultant.

Chapter I. BACKGROUND

Productivity improvement has become a key goal of many economies in the past 20 years. Productivity centers, institutes, and agencies have been established from Iceland to Australia; in the planned economies of Eastern Europe; and in the free enterprise economies of the West. Yet before World War II the concept of productivity was little understood in most countries.

The American idea of mass production, Taylor's scientific management, and the assemblyline concept of Henry Ford made a profound impact on American industry after World War I. The successful businessman in the U.S. sought out new and better ways to produce new and better goods in less time. But such concepts were only slowly accepted by many European industrialists. Tradition was the watchword of European economies. The old ways were so ingrained that in 1939 Britain's productivity was about one-third that of the U.S.

The immense job of reconstruction after World War II stimulated European nations to depart from traditional methods. They realized that their people wanted a consumer society patterned after the U.S. model. (The Anglo-American Productivity Council, one of the first efforts to transfer this knowledge to Europe after World War II, adopted the slogan We Too Can Prosper.) Only the techniques and technology of the most productive economy in the world could meet such demands.

The Marshall Plan was the first step in the process of transferring U.S. know-how and technology to these countries. The U.S. missions supervised this infusion and urged individual countries to help themselves as much as possible. They especially encouraged the establishment of national productivity centers, which, by the end of 1952, all European nations had formed. Simultaneously, the 17-nation Organization for European Economic Cooperation (OEEC) began to direct its attention toward the urgent need for productivity improvement.

In 1952 the U.S. Congress passed the Second Mutual Security Act which provided \$100 million in grants for use by the 17 OEEC members to modernize plants and subsidize national productivity programs. The OEEC also received funds to set up a European Productivity Agency (EPA) to coordinate the activities of the national productivity centers and exchange technical information with the U.S. through study tours and other means.

The U.S. provided financial assistance to these centers until 1961. In 1966 the EPA became the European Association of National Productivity Centers; its parent organization, the OEEC, had become a part of the global Organization for Economic Cooperation and Development.

Outside of Europe, productivity centers were established in Japan, Israel, and other countries. The Japanese productivity movement was

initiated in December 1953, when the U.S. offered Japan the same technical aid it had made available to Europe. Although the U.S. terminated assistance in 1961, the JPC has since increased its size and scope greatly. The major portion of the U.S. assistance was used to finance tours of American industries by Japanese management and labor leaders and for American-taught seminars on management concepts and scientific management techniques. Both were designed to acquaint the Japanese with our advances in technology and management science.

The Japan Productivity Center (JPC) was established on March 1, 1955. The JPC initiated the formation of the Asian Productivity Organization (APO) in 1961. Seven other Asian nations which hoped to learn from Japan joined in. The APO now has 14 members.

The Israel Institute of Productivity was launched in 1954 under the auspices of AID's Point Four technical assistance program, with the U.S. providing experts and equipment (mostly teaching devices and training apparatus).

Australia's productivity movement began in 1957 although an actual center was not established until 1969. Several East European nations have formed centers in the last five years, and New Zealand opened a center in 1973.

Clearly, the need for productivity improvement has not abated since 1953. Some productivity centers have had their activities sharply curtailed (e.g., Britain), but many new centers have been established. Some countries, such as Canada, have developed extensive productivity programs without institutionalizing them yet in the form of an actual productivity center. In virtually every industrialized country in the world, there now exists a center for productivity improvement which functions as a focal point for a wide range of information, training, consulting, sector and research activities.

Chapter II. OBJECTIVES OF CENTERS

The major objective of productivity centers is to increase productivity, but each center has a slightly different approach. Most centers realize the need for continual flexibility and responsiveness and thus periodically reassess their objectives and approaches.

Some, such as the Netherlands Commissie Opvoering Produktiviteit nieuws (COP), place stress on anticipating future problems. The COP's September 1973 issue of Produktiviteitsnews describes the evolution of a new action program:

This adjustment of the action programme has recently been given priority. In 1968 in a memo on the guidelines for the development of a multiyear action program a policy was expressly chosen in which considerably more emphasis than in the past was placed on the whole question of the future problems of business. In other words, without cutting down on its traditional task of filling the gaps on the ways in which companies work, the COP has increasingly emphasized the need for business to introduce relevant changes sufficiently in advance: fostering innovative processes.

Another innovative, adaptive approach in developing objectives can be seen in the new program of Norway's Norsk Produktivitetstuttt (NPI). Given a new mandate by the Norwegian Parliament in 1969, the NPI was instructed to emphasize problems concerning the human factor and human welfare. In a recent NPI publication this concern was described as follows:

Efficiency work in industrialized countries has hitherto laid the main emphasis on technical and economic development. In these fields a rapid expansion has taken place... to a large extent irrespective of the importance the human factor today is recognized to have and irrespective of the serious human problems the modern society is facing. A guideline for the NPI's future activities, therefore, will be to clarify the human aspects of productivity work and to meet the needs for practical actions in these fields.

For the most part, however, centers tend to concentrate on filling the gaps that exist in their economy's infra-structure. Italy's Istituto Nazionale per l'Incremento della Produttivita (INIP) views its objectives in this light. According to INIP, its functions of training, consulting, research, and public awareness

...aim at the diffusion of techniques for a more rational exploitation of production possibilities and the adoption of the most up-to-date methodologies of company organization.

France's Centre National d'Information pour le Progres Economique (CNIPE), sees increasing productivity as a primary instrument for achieving economic growth. It tries to make the French people more aware of the constraints and challenges of economic progress through dissemination of information, believing that broader economic understanding will lead to better decisionmaking and greater productivity.

While many centers are charged with improving labor-management relations, it seems they do not interpret this as a directive to become involved in organizing labor-management committees (such as those in our steel industry). This task is left either to government ministries or private organizations.

Chapter III. FUNCTIONS OF CENTERS

All centers have similar functions, but each decides which to stress, since each economy has different needs. The major functions can be grouped under five broad headings: public awareness, training and development, consulting, sector studies, and research.

Public Awareness

Since the concept of productivity is somewhat recent, many centers have concentrated their efforts, especially in their early years, on convincing the public of the need for productivity improvement, not only by eliminating opposition, but also by developing positive public support for the concept.

The Japanese and Israeli centers placed heavy emphasis on public awareness in their early stages but no longer find it necessary to stress this activity.

Some centers, however, still devote much of their time and resources to such programs. Luxembourg's Office Luxembourgeois pour l'Accroissement de la Productivité (OLAP) uses State radio station extensively sponsoring round-table debates which aim at increasing the dialogue on and, thus, understanding of these complex topics. A variety of economic and social topics have been the subject of recent discussions. For example:

- What Is Management?
- Are We Powerless Against Rising Inflation?
- Health Insurance Reforms
- Adjustable Working Hours
- Age and Performance
- Economic Growth and the Welfare Society at the Cost of Environmental Degradation?

Many centers have used and still use advertising. In the late 1960s the Irish Productivity Centre (IPC) launched its MOVE (Make Ourselves Very Effective) campaign in conjunction with a National Productivity Year. The slogan of the campaign was Let's Get a Move On!

As a follow-up, the IPC has attempted to maintain interest in and improve understanding of the importance of productivity. A film, Targo, was produced which explains in simple terms the basic facts of economic life in Ireland, particularly emphasizing the interrelationships between prices,

incomes, and productivity. In the first year of distribution it was seen by over 100,000 people.

As a result of its interest in making school children more aware of the economic facts of life, the IPC organized an extensive program which included a Student Project Competition open to all post-primary students under 18 years of age. Over 300 projects, mostly group studies, were submitted.

Centers usually concentrate their public awareness activities on informing industry and business institutions, trade unions, and government about new developments in productivity improvement. New Zealand's Productivity Centre, for example, produces a newsletter on recent productivity developments, a directory of available services to assist institutions in improving productivity, and a series of technical monographs dealing with specific productivity problems.

The newsletter is a common form of communication to interested parties by productivity centers, but there are as many styles as there are centers. For example, Turkey's MPM publishes its monthly newsletter in newspaper form whereas Italy's INIP publishes a monthly glossy journal of from 80 to 100 pages.

Training and Development

Many centers view training and development as their main function, since significant productivity gains are felt to come from improved management techniques and a well-trained workforce. Furthermore, the business schools, which are less common than in America, tend to serve sophisticated enterprises; thus the productivity centers must act to fill this gap. This responsibility is a major concern of the Japanese and other centers in the Asian Productivity Organization.

Italy's INIP has a major educational program consisting of courses, seminars, conferences, and intercompany meetings specifically designed for the various levels of personnel. They deal with such subjects as:

- organization of production
- personnel management, including trade union and social problems resulting from personnel management techniques and policies
- business administration
- commercial management and organization -- sales -- marketing
- problems of general organization -- documentation and filing techniques
- electronic data processing

- planning and industrial technology
- management

INIP also organizes ad hoc courses on specific subjects and proposes syllabuses on the request of individual organizations and companies. These courses are tailored to particular company needs, and it is quite usual for the Institute to conduct a preliminary survey and group meetings with interested parties to ascertain the principal points of interest.

Trade union training has been an important activity in some centers. The Belgium and Danish centers have been able, to some extent, to stimulate and help unions adapt their policies to changing conditions. Several channel funds to unions for training programs, and Germany's RKW provides money for developing training materials for union members.

The Danish Productivity Council on Industry, Handicraft, and Commerce, a division of the government Danish Trade Fund, spends almost half its annual budget on training activities, with one-third of the budget going for trade union training. These latter funds are channeled through the Council to the trade unions themselves, especially for the training of shop stewards who, in turn, pass their knowledge on to the workers.

Consulting Services

Many centers provide management consulting services to individual firms because management consulting is less advanced than in the United States. Even those countries where consulting is well developed realize that small- to medium-size companies often cannot afford such assistance, although they are often those which need it most.

The Dutch COP provides a two-pronged consulting service to small- to medium-size firms in the areas of accounting, production, finance, and personnel. First, a consultant makes a diagnosis of the strong and weak points of the firm and advises on the type of specialized services it can draw on from the government's technical and industrial information services. Second, specialists are made available free of charge through the regional productivity centers. In the past two years the service has been considerably expanded. The Government recently made available \$12 million, one-third of which comes from the Ministry of Social Affairs. The objective of the project is to reach all small- and medium-size firms in Northern Holland

The Irish Productivity Centre's Business Advisory Service (BAS), established in 1963 to provide business consultancy to medium and small firms, employs a staff of 20 accountants and engineers trained in business administration. Fees are charged at a subsidized rate covering about 40 percent of BAS expenses so that medium and small firms can take advantage of the service. The BAS has adopted a comprehensive approach to assist these

firms:

- Evaluation: Confidential investigation to provide an overall evaluation of a company's present state and pinpoint areas where improvement is necessary. A technique which allows an evaluation to be completed in three or four days has been developed.
- Development planning: Projecting the future potential of a firm and the resources of men, money, and machinery which would be needed to realize this potential. The plan usually covers a three-year period and incorporates projected financial accounts and cash flow statements. The plan can be used in justifying expenditures for expansion.
- Men: Company reorganization and the design of management structures. Job specifications. Staff recruitment.
- Methods: The installation of control systems and the use of problem-solving techniques.
 - o Systems: Product Costing; Management Accounting; Budgetary Control; Stock Control; Production Planning and Control
 - o Techniques: Method Study; Plant Layout; Financial Analysis; Sales Analysis and Forecasting; Feasibility Studies.
- Follow-up: Regular follow-up visits to provide continuing help are either part of an assignment or on a retainer basis.

The strategy is to integrate these activities where possible, into a total plan and follow-up approach for the firm.

Italy's INIP has also established an industrial consultancy service which provides assistance to small- to medium-size firms in the areas of accounting, personnel, and finance. It is operated with the cooperation of top-level experts, mostly business managers, who are loaned to INIP for this purpose. Most of the consulting services are offered through INIP's regional centers, which were established in 1971. The fees are kept as low as possible and are adjusted to an extent of ability to pay.

Germany's RKW and Japan's JPC have similar but more extensive services operating out of their regional offices. RKW's consulting services are financed from the federal budget, with individual states contributing additional financial support.

Sector Activities

Some centers concentrate on finding the bottlenecks which prevent various sectors of the economy from improving their productivity performance. For the most part they have focused on manufacturing sectors. Gradually, however, increasing emphasis is being placed on service sectors, such as banking and insurance (in Israel), government (in Italy), health (in Australia), and distribution (in Denmark). However, the service sectors by no means constitute the major effort of any center's sector function.

The sector approach has usually developed from studies of interfirm comparisons of productivity. While the operating ratios covered by these studies provide management a tool for determining a firm's comparative performance in various activities, the reasons often are beyond the ability of the individual firm to correct. This is usually the case when the industry's problems are affected by regional factors. Several centers have developed intensive industry study programs involving management and trade union representatives who have responsibilities in implementing any required changes.

South Africa's National Productivity Institute (NPI), which is directly responsible to Parliament, has been directed to concentrate almost its entire resources on sector studies. First, the NPI undertakes a statistical study of a sector's performance to determine the most effective way to improve productivity. A Project Steering Committee (PSC) is formed to facilitate labor-management cooperation. Chaired by an industrialist, PSC membership is drawn from labor as well as industry, and people with special knowledge of the sector may be invited to serve on the PSC.

Next a sample of manufacturers within the sector are chosen for intensive study. The size and nature of such studies require a multidisciplinary team of experts trained in financial analysis, production engineering, management, and personnel. Experts who can deal with the different technologies involved are also employed. All information acquired is kept in strictest confidence, as some of it may disclose the competitive advantages of the manufacturers studied.

The report resulting from the study contains interfirm comparisons of productivity (the performance range of the various enterprises studied but not their names) and recommendations explaining what can be done by the individual companies and what will have to be done by the government or by the companies and government acting in concert.

The NPI report *Improving Productivity in the Men's and Boys' Clothing Industry in South Africa: How to Overcome Hampering Factors* is typical of its sector work. The report presents a survey of the current status of the industry, including comparisons of the time required by different firms to produce different types of garments. A simple formula is provided to enable enterprises to rank themselves relative to the performance of other firms cited in the study. The remaining 60 percent of the report concentrates on

providing general recommendations on improving performance. These are divided between "factors outside the control of industrialists" and "factors controllable by industrialists."

The NPI has found that there are no easy solutions to the problems of a whole sector. Each manufacturer has his own problems and an individual approach was found to be necessary in solving them. NPI has neither the staff nor the inclination to provide such assistance, but it does provide companies with the means of developing their own productivity indices.

In addition, the NPI is establishing permanent productivity units for each sector which will collect, process, and disseminate information that may be beneficial to the sectors' productivity and growth. The chairmen will not be connected with the specific sector, but the units will be made up of representatives from management and labor of the concerned sector and NPI staff. Funding will be 50 percent from the NPI and 50 percent from the sector.

Research Activities

Research done by productivity centers ranges fairly widely, including such topics as macroeconomic studies of international comparisons, micro-economic surveys of clothing sizes, and behavioral science research on labor mobility.

Behavioral science research has a less direct effect on productivity than the other two types but is becoming more popular. The Irish Productivity Centre for example, is conducting a comprehensive study to determine why university graduates leave Ireland in such large numbers because, as the IPC points out, any future productivity planning must be based on data on the movement of skilled men, especially those with managerial qualifications. In the study, the IPC is attempting to contact all those who have completed degree courses in Irish universities over the five years previous to the study's inception in 1972 as well as those nearing graduation (through 1974). They plan to investigate the decisionmaking process with regard to emigration and reasons for returning. Thus, the study will not only provide information on the future supply of qualified managers but will, as well, enable the IPC to find ways to encourage graduates to remain in Ireland or return after they have left.

A good deal of microeconomic research with a direct effect on productivity is undertaken by centers. For example, the Greek Productivity Center (GPC) surveyed 6,000 men in Greater Athens to determine standard sizes in menswear, a standardization which greatly facilitated ready-to-wear clothes production. The study was well received by both the industry and the public and is now being extended to establish standard sizes for women's clothes.

Macroeconomic research cannot be applied so directly, but it is still viewed, particularly in the planned economies, as essential for long-term

productivity improvement. In 1972, Bulgaria's Natsionalen Tsentre Po Obshchestvenata Proizvoditelnost na Trude launched a four-stage "comparative intercountry analysis of the level and dynamics of labor productivity."

In stage one, comparable statistics on labor productivity were located and four countries were selected for comparative purposes. These were Austria, France, Hungary, and Czechoslovakia.

Stage two involved the comparison of Bulgaria with the four nations in terms of levels of productivity in different industrial branches or sectors.

Stage three entailed polling plant managers for their opinions regarding the prime factors affecting productivity. Only Bulgarian enterprises were covered, but the results were compared to those from similar studies done in Hungary, Czechoslovakia, and Poland. The fourth and final stage will be the development of an action program based on the study.

With regard to technological research and development, centers tend to concentrate on the software of technology. That is, the emphasis is on studying how and where new technology can best be utilized and on training programs which enable workers to operate this technology most efficiently.

Chapter IV. ORGANIZATION OF CENTERS

Organizational structures of national centers vary greatly, with the type of organization reflecting the main direction of the center and political realities of each country. For example, if one of the objectives is to encourage labor-management cooperation, then the center will likely have a bipartite governing council or board of directors with equal representation from management and labor. The Irish Productivity Centre has such an arrangement, with 6 representatives each from labor and management on its 12-man council.

The Norwegian Noršk Produktivitetinstitutt (NPI), which seeks to raise efficiency in all aspects of life and all sectors of the economy, is also drawn as an adviser into the economic planning processes of the government. Thus, it has a tripartite Council, with the members divided evenly among labor, management, and academia.

Bipartite and tripartite governing bodies are the rule, but quadripartite organizations, also exist as, for example, the U.S., as well as multipartite organizations, as in Turkey. General Assembly members of Turkey's Milli Produktivite Merkezi (MPM) are drawn from seven groups: academia, government ministries, state-owned corporations, the Union of Chambers of Commerce and Industry, professional organizations, the Confederation of Employers, and the trade unions.

These governing bodies usually meet quarterly. Their primary role is to provide general policy guidance on the overall direction of the centers' programs. In many cases, however, they have the equally important role of insuring that the people or groups they represent will accept and support the activities of the centers. Usually, an executive committee of these Councils oversees the administration of centers.

Staff Organization

Day-to-day operational affairs of the centers are typically supervised by an executive director or general secretary supported by a staff of professional and administrative workers. The professional staff is usually divided along functional lines. For example, the Dutch COP has three main sections: (1) programing (studies and research projects); (2) operational tasks (professional and sector activities); and (3) publicity, information, and international contacts.

Staff size depends on the types of work performed, how much of the work is retained within the center, and how much is contracted out. Over the years there has been a tendency to rely more on center staff and less on contractors who tend to be less interested in utilization of results.

The Japanese, Israeli, and German centers have large (several hundred people) permanent staffs, but most centers employ fairly small permanent staffs backed up by a pool of consultants and/or people detailed to the center. For example, Bulgaria's Center (NTsOPT) has only 17 permanent employees, but its 16 working groups employ 80 specialists on detail from ministries, industry, and academia.

Most centers rely heavily on regional offices, and even tiny Netherlands has eight such offices. The regional offices are used as distribution points for publications and other materials generated by the main office, as local training centers, and for providing management consulting services. Regional offices, through their training and consulting activities, serve as the focal point for diffusion of practical innovations which the central office has developed out of basic research. But perhaps the most important function of regional offices is to channel information upwards and keep the central offices informed about the needs of the people whom they are serving.

Finances

All centers rely to some degree on government subsidies, but most supplement this income from fees for services (training and consulting) and sales of materials (books, pamphlets, and films), some charge a membership fee to corporations which in return are entitled to reduced rates for services and materials.

Perhaps the least-subsidized center is the Japan Productivity Center (JPC), which receives only 3 percent of its budget from the government. More typical is the Greek Productivity Center, which receives two-thirds of its budget as a subsidy with the remainder from membership fees and reserves. Some centers receive all their funding from the government: for example, Spain, Hungary, Czechoslovakia, Bulgaria, and the United States.

Government Relations

To a large measure a center's funding is determined by or determines the center's relationship to the government. The Czechoslovak center, for example, serves almost exclusively as an advisory board to the Federal Ministry of Labor and Social Affairs, of which it is a bureau. It develops general concepts and recommendations for government policy on productivity, especially as regards most efficient manpower use.

Many operate within or are closely connected with government ministries, even though they are accountable to boards or councils composed, for the most part, of nongovernment people. This split authority often causes problems, such as those experienced by Belgium's Office Belge pour l'Accroissement de la Productivité (OBAP), which temporarily went out of business in 1972 as a result of a decision by a government official. (It was subsequently com-

pletely restored after a change in the Belgian government.) OBAP's managing board is composed of 15 representatives from management, 15 from labor, and 8 from academia, but it is wholly financed by the government.

Finally, some centers which receive government subsidies are private, nonprofit institutions. Norway's NPI is such an example. NPI's situation is not too different from that of OBAP, but since it is a private foundation with a tripartite council, it has somewhat more latitude and can develop its own public image. In addition, by stressing the need for productivity in all aspects of life, it creates a larger audience from which to draw support.

Chapter V. CASE STUDIES OF SELECTED CENTERS

The nature and work of productivity centers around the world can perhaps best be illustrated by several leading in depth examples: the centers of Japan, Germany, Israel, and Australia, all of which have expanding programs, and the unique French center, which was reconstituted in 1969 on a totally different basis from that of its predecessor.

JAPAN

The Japan Productivity Center (JPC) is probably the most successful of all. Much of Japan's remarkable productivity growth since 1960 can be attributed to such factors, as economic growth and high investment rates. Nevertheless, the JPC's study tours, seminars and training programs, consulting services, systems development, labor-management relations, and public awareness programs contributed to establishing necessary conditions for that growth.

As was mentioned earlier, the JPC was founded in 1955 with U.S. Government support. The first Productivity Liaison Conference, which was held on May 21, 1955, and attended by representatives from government, labor, and management, adopted three guiding principles which summarize the nature and purpose of the productivity movement:

1. In the long run, improvement in productivity will increase employment. However, during the transition, before the full effects of improved productivity have yet become apparent, the government and the people, in order to minimize temporary frictions which may disturb the national economy, must cooperate to provide suitable measures, such as the transferring of surplus workers to areas where needed in order to prevent unemployment.
2. In developing concrete measures to increase productivity, labor and management, conforming to the conditions existing in respective enterprises, must cooperate in discussing, studying and deliberating such measures.
3. The fruits of improved productivity must, in correspondence with the condition of the national economy, be fairly distributed among management, labor, and the consumer.

Programs

The JPC sponsors some 50 overseas study teams annually. This Technological Exchange Program, whereby Japanese managers are sent abroad to learn the latest technologies and management techniques, was launched in 1955 with U.S.

funding. Between 1955 and 1962, the U.S. gave over \$6 million, and about 13,000 business executives and labor leaders traveled to the U.S. In 1962 the JPC took over its own funding and has been sending approximately 600 people per year to the United States. Participants take back to Japan first-hand information on modern techniques in accounting, plant management, marketing, distribution, materials handling, and industrial engineering.

The other major JPC program which continues to this day is in management development. Originally the courses and seminars were taught by Americans under the auspices of the International Cooperation Administration and subsequently the Agency for International Development. Japanese teachers, however, were trained very quickly and by 1962 they were conducting most classes, which were designed to give Japanese managers the training available in U.S. business schools. In 1965 the JPC opened the Academy of Management Development which aims toward the development of top management

....the development of top management men who will influence the directions of enterprise in the future and the cultivation of highly advanced experts....

Nine courses lasting from 10 months to one year are offered in four program areas and are taught by academicians and industrialists.

The JPC has about 30 management consultants on its staff. (Management consultants are also in each of the eight autonomous regional centers.) They concentrate on assisting small firms which might not normally be able to afford such a service. In addition, they train approximately 60 consultants-to-be annually in a one-year management consultant leaders training course; shorter courses and correspondence courses are offered for training consultants within firms.

In 1969 the JPC established a special department to meet industry's increasing demand for systems development. This department concentrates on three areas. First, it trains electronic data processing personnel, offering four courses: Basic Computer (150 hours), Systems Engineer (252 hours), On-Line Systems Engineer (216 hours), and Information Processing Study Meeting. Second, an office of systems development offers programs on management information systems development, systems development for large projects (e.g., regional development or distribution structures), and an EDP consulting service. Third, the computing office engages in software development and calculation on consignment by business, trade organizations, and labor unions.

The labor-management relations program, an integral part of the JPC's work, consists of courses, consultations, round-table meetings, and informal discussions. The Productivity Labor College offers courses for trade union leaders in economics, collective bargaining, and the joint consultation system. General education courses are also offered in a program for young workers.

In addition, to expedite the collective bargaining process, the JPC has begun a project which compiles data banks on such information as costs, wages, fringe benefits, prices, profits, and productivity for specific industries. When contract negotiations begin, these data are made available to both management and labor through computer terminals, eliminating the need for long recesses to assemble pertinent information. Because the JPC is considered a neutral party, its figures are accepted readily by both sides.

Few people in Japan knew what productivity meant when the movement began. Within a few years, however, the JPC's public awareness program, utilizing advertising, films, and publications made productivity a popular and well understood term. An ambitious publication and audio-visual program continues. The JPC prints over 40 titles each year, ranging from technical books for specialists and practical books for businessmen to "enlightening" books for the general public. The JPC film library contains about 1,000 films and filmstrips on productivity, and more are produced every year on a variety of subjects. These materials are for sale or rental, with the funds constituting a major portion of JPC's revenue.

Structure

The JPC is a private, nonprofit institution with a tripartite board of directors representing management, labor, and academia. Funds come from membership fees (7 percent), fees for services rendered or products sold (81 percent), fees for services performed for or products supplied to the government (7 percent), government subsidy (3 percent), and miscellaneous (2 percent). These private sources of income make the JPC independent, and also provide a test of the usefulness of their services and products since if the services and products did not meet client needs, the JPC would quickly run out of funds.

The JPC has 300 professional and administrative employees. In addition, 400 people are employed in eight completely autonomous regional centers. The JPC makes available its own products and services which the centers can, in turn, sell to the businesses, trade organizations, and labor unions in their region. The regional centers can also produce their own materials and perform services just as the JPC does.

ISRAEL

The Israel Institute of Productivity (IIP), formed in 1954, received initial funding from the United States but was self-supporting by 1960. Like the Japanese, the Israelis depended heavily on their ability to export goods in order to pay for the raw materials which they must import. Lacking capital, the Israelis realized that the productivity increases necessary to make their goods competitive would have to come from improved utilization of equipment, work organization, and plant management.

Major emphasis has been on seven areas: (1) improving managerial performance; (2) expanding the application of automation in administration and production; (3) expanding production constrained by manpower limitations; (4) improving the quality of products; (5) expanding the application of techniques of work study, work measurement, and incentive pay schemes; (6) improving marketing systems and customer service; and (7) streamlining government and public services.

Programs

The IIP operates in three fields: (1) training, (2) professional activities, and (3) dissemination of information. The Institute's training activities are directed toward improving the performance of managers, technicians, and workers' representatives, with courses offered in areas: (1) management and administration (seven courses); (2) management of service organizations (four courses); (3) financial management and business economics (three courses); (4) personnel management and labor relations (four courses); (5) automatic data processing (two courses); (6) organization and methods (four courses); (7) production management and industrial engineering (eight courses); (8) building and construction (two courses); (9) school for industrial technicians (four courses); (10) foremen's school (two courses); (11) and school for small plant management (one course).

In 1970-71, 7,885 managers; 1,865 foremen; 860 technicians, cost accountants, and systems analysts; and 600 workers' representatives participated in the various training programs of the IIP.

The Institute's professional activities, aimed toward applying advanced theories to economic realities, are broken down into nine major units: (1) industrial engineering; (2) quality engineering; (3) automation and process control; (4) marketing; (5) business economics; (6) manpower management; (7) incentive pay; (8) quantitative management and research; and (9) automation and management information systems.

Among its more noteworthy professional operations are construction of mathematical models for inventory control; simulation of production planning for a factory manufacturing to order; introduction of a total managerial approach to the development of business policies through the use of financial data, balance sheets, and costing data for managerial decisionmaking; developing work sampling techniques which enable management to locate work stations where the labor force is not properly utilized; consultancy and training in the utilization of digital control machinery; the establishment of human relations laboratories for executives in industry and public corporations, with special emphasis on intrafactory and intraoffice laboratories to assist management teams in improving the structure and organizations within the firm; and the development of incentive pay systems for salesmen and department store executives.

The IIP professional operations try to develop practical solutions for

problems uncovered in sector studies. These are performed under the supervision of committees composed of management and labor representatives from the respective sectors. Work has been done in textiles, footwear, diamonds, metal, woodwork, bakeries, laundries, dairies, canning, and cold storage.

In the service sector the IIP has concentrated on local government, banking and insurance, health, transportation, and personal services (e.g., communal dining halls). Finally, a special section of the IIP handles research, training, and information activities in the building sector.

The Institute's information activities have two aims: (1) develop public awareness of productivity and (2) disseminate information on ways and means to increase it. The IIP publishes three periodicals and occasional publications on specific subjects, such as production planning, accelerated training, and low-cost automation. The Institute also has a daily program Bemiktzav Yotzer (Creative Rhythm) on the state radio broadcasting service.

Structure

The IIP is a government agency with a tripartite board of directors made up of representatives from government, management, and labor. Originally financed entirely by the government, the Institute soon began to meet a sizeable portion of its expenditures from service and membership fees. The 1970-71 budget of about \$1.5 million came from membership fees and fees for services rendered to members and other private institutions (52 percent); fees for services rendered to government and public agencies (33 percent); and government subsidies (15 percent). Over 2,300 private institutions belong to the Institute and pay for membership on a sliding scale according to number of employees. For this members receive the Institute's publications and reduced fees for training and consultation services.

The IIP has a staff of about 400 full-time and 500 part-time employees, the largest group of which are involved in training programs. In addition, the Institute maintains four regional centers which serve as supplementary bases for training and consulting.

GERMANY

The Rationalisierungs-Kuratorium der Deutschen Wirtschaft (RKW), literally the Rationalization*/ Commission of the German Economy, was originally established in 1921. In 1951, when Germany's economy was still in a period of reconstruction and recovery, it was reorganized under the auspices

*Rationalization can be defined as the process of removing unreasonable, illogical, or irrational elements from an activity.

studies of management behavior. (Some of the teaching materials for this program are provided by the Harvard Business School.) Set up as a block system, the program is run for five days at intervals of a few weeks to enable the participants to return to their work and reflect.

The RKW has also developed an in-company training program, with courses tailored to the needs of the individual companies, most of which are medium-size and have no training facilities of their own. The in-company courses teach specialists and managers without removing them from the workplace.

The RKW research activities are also quite extensive. Studies are usually undertaken only after a need for them has been articulated by industry or discovered through RKW's application work. For example, in reporting on the electronic data processing experiences of a medium-size company, RKW provided a precise description, analysis, and evaluation of the conditions and steps necessary in order for data processing to be integrated into business functions.

The RKW has also initiated studies to provide the answers to such problems as how a medium-size enterprise determines optimal machinery layout, and how far production should be automated. These studies resulted in manuals which enable managers to know which data to assemble and how to assemble and use them.

Structure

A private, nonprofit institution, the RKW managing board, the 65-member Gesamtrorsstand, is elected by the 9,300 member firms. Chosen for their individual competence, some consideration is given to ensuring that they are from organizations representative of the German economy. A board of directors, made up of 10 industry, 5 labor, and 2 Federal Government representatives, also provides direction.

The staff is divided into two sections: scientific production is involved in project development, while dissemination handles training, publications, consultancy, public relations, and relations with foreign productivity and managerial organizations. However, a conscious attempt is made to keep these functions as integrated as possible with a continuing exchange of information and opinions.

One of the most important organizational aspects of the RKW is the heavy reliance on its 12 regional centers, which are especially important for the consultancy and training programs. As a rule, a program is first developed and tested by one regional center; after its success has been demonstrated, it is taken over by the other centers and adapted to their own needs. In 1972, RKW courses and seminars took place in 136 towns all over the Federal Republic. Thus the RKW is able to reach companies throughout the Federal Republic with a minimum expenditure of travel time and money. The regional centers employ 300 people, twice the staffing level of the main

of the U.S. Mission. As presently constituted, the RKW has a dual role -- productivity center and management association.

The objective of the RKW is to encourage

....rationalization work, coordinate and summarize this work as well as translate its results into practice, and support all governmental and administrative bodies as regards rationalization questions.

In recent years the RKW has concentrated on the second objective, translating theoretical rationalization work into practical applications.

Programs

The RKW carries out productivity and rationalization projects and disseminates the results widely to enterprises, associations, institutes, and the general public. General information on productivity questions is supplied and consultancy services and training courses are provided. The RKW publishes three periodicals: Rationalisierung (Rationalization), a monthly review containing suggestions for solving problems on increasing productivity; RKW-Kurznachrichten (RKW Brief News Items), a topical information service published every 10 days about ways of increasing productivity which have been successful in Germany and other countries; RKW Werkbrief (RKW Business Journal), a bimonthly magazine addressed to middle, commercial, and technical managers, which contains practical hints and stimulates cost-mindedness.

In addition, the RKW produces brief, concise, and inexpensive information sheets (Merkblätter), particularly for small- and medium-size enterprises. Topics covered range from financial planning for small firms to hints on personnel planning for small- and medium-size enterprises. Finally, it publishes over 50 brochures and books yearly as a result of its research projects on aspects of business administration, technology, and manpower in business.

The RKW's consultancy service has been heavily utilized in recent years. In 1971, almost 1,800 consultancy tasks consumed a total of 10,000 working days. Comprehensive consultancy surveys of small enterprises took the largest share of the RKW's time, but a large number of special consultancies were also carried out at larger firms. A 1971 study ordered by the German government cites the RKW's consultancy service as a catalyst and as an excellent means of providing companies with proven experience and approaches.

The RKW training courses attracted over 84,000 participants in 1972. The training program involves large numbers of participants in colloquia and conferences held for a few days on broad topical areas such as education and business. More precisely targeted training courses include a regional program which trains managers in modern management techniques through case

office.

The 1973 budget of the RKW was approximately \$8 million, 60 percent of which came from the Federal Government, 33 percent from membership fees and fees for services rendered and materials sold to members, and 8 percent from the state governments.

FRANCE

France's Centre National d'Information pour le Progres Economique (CNIPE) traces its history back through the early 1950s, but achieved its present form only in 1972. In the late 1960s the French undertook a reevaluation of their productivity program and abolished the organizations previously charged with promoting productivity improvement. In 1969, the Centre National d'Information pour la Productivite des Entreprises (also CNIPE) was formed to provide information on productivity improvement to businesses. Its initial studies led to a broadening of its task and the change to its present title.

CNIPE's new mission includes providing information to the entire French population instead of only to business enterprises. To define this charge more clearly and to make its work more acceptable to the public, the words "la Productivite des Entreprises" (Productivity of Enterprises) were replaced by "le Progres Economique" (Economic Progress). Thus the acronym, CNIPE, was maintained.

CNIPE's overall objectives are to make the French public more aware of the constraints and challenges of economic progress and to make the economic information produced by such governmental bodies as the national statistical office usable in micro situations. The first objective is to be achieved through disseminating information and contributions to recurrent education. (A 1970 law requires that companies pay 0.8 percent of payroll costs into a fund for educating and training personnel; contributions will rise to 2 percent within a few years.) The second objective is to be achieved by devoting a large portion (about 35 percent in 1972) of staff time to discovering the types of economic information needed and the forms in which such information would be most usable.

Programs

CNIPE's program can be divided into two major areas: (1) recurrent training and (2) economic information. Activities in the area of recurrent training take four major directions: (1) information for workers, (2) information for promoters of recurrent training, (3) training of these promoters, and (4) the development of innovation in training. CNIPE does not directly participate in recurrent training but acts as an information resource and innovator. As related to its function as a channel through which the government fosters trade union training, it distributed about

\$450,000 in 1973.

An economic information department produces educational source materials and informs the public at large as well as business enterprises. The department's guiding principle is to adapt all economic information to the needs of teachers, trainers, and journalists; to develop the means for support (e.g., films, courses, and publications); and identify and reach the different target groups (e.g., school children, trade union members, and shopkeepers). CNIPE sees economic information only in relationship with its utilization.

All information which enables one to assess where one is standing (strengths and weaknesses), to forecast (long and medium term), to open oneself up...., to develop oneself or to survive, to be effective and, of course, to take decisions, is truly information or economic information.

CNIPE's activities have included preparation of material for radio, TV, and newspaper journalists on a paying basis, for example, on specific branches of industry and trade; production of 12 films in 1973 on such subjects as population and employment; granting funds for a TV series called Discovering the Economy; and publication of books such as a looseleaf album to help senior management of smaller companies understand and use modern management methods and approaches. CNIPE also holds seminars on a wide range of economic subjects.

Structure

Although established outside the executive branch, CNIPE is in effect a government agency. It is governed by a tripartite council of representatives of all trade unions, important employers' groups, and relevant ministries. CNIPE's director also serves as an adviser to the planning minister. The deputy director is appointed after consulting the National Statistical Institute.

The staff of 60 professional and 15 administrative employees does not fit neatly into an organization chart. Rather than dividing the staff into two distinct groups--production and distribution--all staff are involved in both activities, and department heads and staff members work with and for different people at different times.

CNIPE has established six regional centers, primarily to insure adequate feedback on its products. It also provides funds for regional productivity centers which were established in the 1950s by its predecessors. However, funding is only provided for specific projects and products.

CNIPE's 1973 budget was about \$4 million: 70 percent came from a government subsidy (from the Planning Commissariate) 20 percent from the government for cofinanced projects and 10 percent from the sale of its products.

AUSTRALIA

Australia employs a unique institutional approach to productivity improvement. Instead of one institute or center to promote productivity, two parallel organizations were established: the Productivity Promotion Council of Australia (PPCA), an umbrella organization concerned with broad issues outside the plant, and the Productivity Groups Movement (PGM), a coordinating body for the numerous voluntary groups of firms which exchange practical know-how at the plant level.

Productivity Groups Movement

Begun in 1957, the PGM has grown from 4,800 firms in 1971 to a present level of 6,500. Each of Australia's five states has a Productivity Groups Advisory Council which serves as a forum for idea exchange among the groups. At the national level, a Productivity Groups National Committee holds conferences and coordinates activities among the five groups and with the PPCA.

A productivity group is a voluntary association of up to 30 industrial, commercial, or government undertakings. The representatives (usually middle managers but no labor representatives) meet to share their knowledge of and experience with productivity improvement methods and problems. According to the PPCA, this interchange in 1973 resulted in efficiency gains worth \$6.5 million.

Currently the PGM and PPCA are jointly addressing the problems of increasing productivity in physical distribution, a field in which the PPCA has actively assisted productivity groups, helping them to apply at the plant level the theoretical solutions it has developed from its studies. This cooperation is facilitated by representation of the groups on the PPCA's State Branch Committees which, in turn, are heavily represented on the National Committee.

Productivity Promotion Council of Australia

The PPCA was founded in 1969. At first, labor participation was negligible, but trade union involvement is growing rapidly. One of its three vice-presidents is the president of the Australian Confederation of Trade Unions; trade unionists are on each State Branch Committee, and five represent the state branches on the National Committee.

The Council's objectives are:

- ° to promote the improvement of productivity in all forms of industry and commerce and other economic activities of every description, both governmental and otherwise.

- to promote understanding by all sections of the community of the meaning and implications of productivity and the factors affecting its improvement.

Along with the traditional benefits from increased productivity--less inflation, more real income, and more leisure time--the PPCA stresses more productive use of natural resources as a goal of a wise productivity policy.

Programs

In developing its programs, the PPCA staff works with advisory panels of experts from four fields: education, technology, human resources, and physical distribution. The 1973-74 PPCA program focused on three areas: (1) increasing community understanding, (2) examining national productivity issues, and (3) promoting productivity improvement in individual firms.

In the first area, to which 26 percent of the budget is allocated, the PPCA produced the animated film *For Better Living*, showing how to be more productive and stressing the rewards of working more productively. It has been very effective in training courses for apprentices, operators, and supervisors. The PPCA has also developed a package (posters, pamphlets, and filmstrips), entitled *B for a Better Way*, addressed to school children and parents, which discusses productivity and its benefits in simple terms and encourages discussion.

In addition, it publishes Action, a bimonthly tabloid of productivity developments in Australia and other countries, and the PPCA News, a monthly newsletter. In 1972, the PPCA widely distributed a major Statement on Productivity Improvement, drawn up by its National Committee, to demonstrate the vital importance of productivity growth to Australia and the united effort being undertaken by management, labor, and government.

The PPCA spends 25 percent of its budget on examining national productivity issues. In 1973-74, three topics were selected for study: (1) hospitals, as a part of a broad review of the service sector; (2) technology; and (3) human resources. The hospital study, conducted by an expert in hospital administration, has received widespread publicity and was followed up by seminars in the industry along with the formation of a new hospital productivity group. The PPCA's national forum, where 30 papers were presented, focused on technology. As a follow-up, a committee is examining its three major conclusions: (1) smaller companies urgently need access to information on technology; (2) the potential exists for greater use of R & D facilities in universities as well as in industry, and (3) continuing education of professionals is needed. The Human Resources Advisory Committee is also examining issues related to the quality of work life, such as foreign experience with job redesign and ways to introduce such new concepts.

The PPCA spends 36 percent of its budget on promoting productivity improvement in individual undertakings, a goal pursued through disseminating

technical information through lectures, seminars, discussion groups, and workshops conducted through the five State Branch Committees. It also publishes monographs and how-to-do-it guides, sponsors an Employee Suggestion Awards Scheme with cash and merit awards for outstanding cost-saving ideas.

Structure

The PPCA is a nonprofit association of business firms, trade unions, professional societies, and government agencies which finance PPCA activities through subscriptions and donations. The Australian Department of Labor provides executive and administrative assistance.

The National Committee, which is the policymaking group, includes five representatives of employer organizations, three from unions, four from government departments, ten from the five state PPCA branches, and five prominent individuals from industry and commerce. The chairman is elected and for the past two years has come from the Australian Council of Employers' Federations.

The PPCA has a staff of 45, of whom 30 serve the Productivity Groups Movement. They are from the Civil Service on loan from government ministries, often without business experience but selected for creativity, entrepreneurship, and talent. Much of the research and reports are done by university consultants. The budget for 1973 was about \$86,500, exclusive of staff salaries which are paid by the government.

Chapter VI. SUMMARY AND EVALUATION

The impact of productivity centers and programs on a nation's performance is not measurable in precise terms, but it is generally agreed that on the whole they have had a positive and beneficial effect in improving industrial performance and contributing to the nation's economic health. While centers vary in effectiveness, it is not difficult to find successful activities in the programs of even the least effective centers.

First, the most successful centers have been those which have been willing to change with the times. In December 1974, Mr. Joji Arai, an official of the Japan Productivity Center, said in testimony before the U.S. Senate Government Operations Committee:

...It is imperative that we (the JPC) offer industry and labor our products--be it research, seminars, training courses, or consulting services--in which they will see either immediate or potential value for increasing productivity. In an environment where the free market principle prevails, we must constantly refine our products and introduce new ideas and methods....

The French were willing to scrap their old productivity center in 1968 and start afresh with a different structure and new objectives. As concern grows regarding saving energy and raw materials and the quality of the work environment, some centers are becoming more interested in these aspects of productivity. Flexibility and practicality appear to be necessary conditions for survival, but these must be blended with the centers' long-term, basic objectives.

Second, the centers have moved to fill gaps in the development of national business services. Specifically, they concentrated on training and consultancy, partly because of the virtual lack of business administration schools and management consulting firms. As these gaps were filled, they changed the emphasis of these programs so that such services are now provided primarily to small- and medium-size firms which ordinarily cannot afford to purchase them. There is a growing realization among centers that to be most effective, they need to be concerned, directly or indirectly, with a wide range of functions, including public awareness, training, consulting, sector studies, and research.

Third, the most successful centers rely heavily on regional offices, not just as distribution points, but also and perhaps more importantly as listening posts. This has allowed them to be able to tailor their services and products more precisely for the recipients. They have realized that the firms with ready access to the main productivity office are not always those most in need of their assistance.

Fourth, most of the centers belong to international productivity associations which enables them to exchange information and experience on a regular basis. The 17-member European Association of National Productivity Centers (EANPC) meets regularly and publishes monographs, newsletters, and annual reports to keep their members informed of developments in other centers. Members have benefited from seminars and conferences which deal with common problems and innovative program ideas. The EANPC also conducts study projects employing the staff or consultants from several member nations. Similar activities are organized by the 14-member Asian Productivity Organization. Such a free flow of information serves to advance the work of the individual centers.

Fifth and finally, the success of productivity centers may be attributable to labor-management cooperation. In his 1974 annual report, the Secretary-General of EANPC noted:

...the productivity center remains virtually the only body in society where discussions on issues of major future impact can be held in a dispassionate atmosphere.

As productivity centers succeed in becoming known as "quiet places for really working together at various hierarchical levels on the problems of present-day enterprises", the prospects of real labor-management cooperation for productivity improvement are greatly enhanced.

Conclusion

The centers discussed here have tried to meet the needs and demands of management, labor, and the governments they serve. They have developed gradually and have become permanent and widely accepted institutions because they have proven to be useful contributors to the process of productivity improvement and economic growth.

APPENDIX A

BRIEF DESCRIPTIONS OF SELECTED EUROPEAN CENTERS

Belgium: Office Belge pour l'Accroissement de la Productivite

The Office undertakes research, assists in industry modernization efforts, provides management education through university centers in collaboration with the Industry-University Foundation, helps to finance trade union training programs, and organizes symposia. The Office is placing increasing emphasis on social progress and values in order to prepare the "best possible solutions to human, social, and cultural problems which are raised within an advanced industrial society."

The Office was founded in 1951 as a bipartite body, but since 1960 representatives of the Ministry of Economic Affairs and other departments participate in meetings of the Managing Board as observers. The Managing Board consists of 15 employer representatives, 15 trade union representatives, and 8 university professors. A smaller group ensures that the Board's decisions are applied. Full-time management is carried out by the managing director, appointed with the consent of the employers federation, and two deputies, nominated by the Socialist and Christian trade union movements. The staff consists of some 50 persons.

Czechoslovakia: Service of Labor Economics, Federal Ministry of Labor and Social Affairs

The Czechoslovak Center is responsible for developing general concepts and recommendations for government productivity policy, with emphasis on the most efficient use of manpower.

The Czechoslovak Center was established in 1959 within the State Planning Commission, but transferred in 1968 to the newly created Federal Ministry of Labor and Social Affairs. To assure appreciation of productivity questions in national economic policymaking, the Czechoslovak Productivity Council was established in 1969 as an advisory board to the Minister of Labor and Social Affairs. Its members are representatives of the state agencies, enterprises, research institutes, trade unions, and other social organizations.

Denmark: The Danish Productivity Council for Industry, Handicrafts, and Commerce

The Council's activities include information; supporting training activities by employers and trade unions; educating consultants through a six-week course on economics, sociology, business, and labor conditions;

undertaking practical research applicable to small firms; improving administrative procedures within enterprises; assisting in government long-range planning; and studying human relations and efficiency.

The Danish Productivity Council was established in 1949. The Council's secretariat was incorporated into the Danish Trade Fund, a part of the Ministry of Commerce, on the creation of the latter in 1960. The Council is a tripartite body, chaired by the Permanent Under-Secretary of the Ministry. It has a staff of 20 people.

Greece: Greek Productivity Center

The Center concentrates on training, research, technical assistance to small firms, and public advertising and promotional activities.

The Center was set up in 1953 as an independent agency. It is directed by a 14-man Board of Directors, including representatives of the main economic interests of the country and university specialists. A smaller Executive Committee deals with ongoing problems. The Center has a staff of about 50 persons. Its budget is derived from a 50 percent government subsidy, 25 percent payment for services, and 25 percent from "reserves."

Hungary: The Institute of Industrial Economics of the Hungarian Academy of Sciences

The Institute focuses its attention on business economics and industrial policy. It undertakes research; reviews results of practical experiments at home and abroad; stimulates cooperation in research; disseminates information; and initiates the application of new methods and new types of research.

The Institute was established in 1961. The Academy of Sciences Committee of Industrial Economics serves as the Board of Directors. This committee includes representatives from government ministries, directors of large firms, university professors, and members of the Academy. The budget is provided basically by the Academy. The Institute employs about 15 full-time research workers, backed up by a greater number of part-time consultants.

Iceland: Iðnadarmalastofnun Islands (IMSI)

The purpose of IMSI is to strengthen collaboration between manufacturers, institutes and federations. IMCI acts in an advisory capacity to the Parliament and the Government on technical problems relating to industry. Although it provides industry with specific advice, it concentrates on industrywide research, the development of coherent government policies toward industry, methods for encouraging structural change of industry, means of promoting mergers, and makes available educational services for managers,

consultants, and supervisors. IMSI is also the national standardization institute.

Established in 1953, IMSI has helped in reaching a national agreement between employers and labor representatives on the use of work study in industry. The Managing Board consists of eight representatives from trade associations and labor unions, with a chairman appointed by the Minister of Industry. Its budget comes predominately from a state grant supplemented by small charges for services (about 3 percent of the total budget).

Ireland: Irish National Productivity Committee (I.N.P.C.)

The Committee concentrates on research on human relations in business and productivity; promoting greater awareness of the need for higher productivity; sponsoring work at the firm level through a network of seven regional Productivity Committees; providing firms employing less than 200 people with in-depth advice on their overall development or on particular problems; and publishing research projects.

The Committee was established in 1959 by the Department of Industry and Commerce and organized labor and management. It was formally incorporated in 1963. The Committee is chaired in rotation by trade union and employers' representatives. Most of its budget comes from a grant from the Department of Industry and Commerce, but it also receives funds from fees charged for advisory services and for conferences, seminars, etc.

Italy: Istituto Nazionale per l'Incremento della Produttività (INIP)

INIP concentrates on providing enterprises with information and training. These activities are considered of utmost importance for small- and medium-size firms. INIP has, for example, a library and documentation service, a technical information service, and technical films designed for use by individual firms. It also holds seminars and refresher courses covering production planning techniques, management methods, personnel administration, office work organization, and documentary systems. INIP research efforts are concentrated on developing techniques for measuring productivity, identifying productivity reserves and productivity techniques within firms, and developing of reports on productivity at the enterprise level.

INIP is a bipartite body founded in 1968. The General Assembly consists of representatives of the various members of the Institute, including the confederations of employers, business executives, labor representatives, the Italian Union of Chambers of Commerce, Industry and Agriculture, the National Farmer's Confederation, the National Agency for Handicraft and Small Industry, and the National Association of Engineers and Architects. The Executive Board provides close supervision of INIP activities and approves the program outlined by the General Assembly. INIP has a staff of about 20, but draws upon a group of some additional 30 outside consultants. The

government provides 60 percent of its budget; the remainder comes from services rendered.

Luxembourg: Office Luxembourgeois pour l'Accroissement de la Productivite
OLAP

The Office is concerned primarily with disseminating information. It organizes study days, conferences, and seminars for training management; broadcasts debates on radio dealing with macroeconomic problems; provides financial and staff support to training programs for the two main trade unions; and partly finances training periods abroad. Using outside consultants, the Office also provides aid to enterprises seeking technical assistance.

OLAP was set up in 1957 with the primary aim of channeling information stemming from the European Productivity Agency on to industry and commerce. The General Assembly is headed by an Administrative Council of six persons. Three senior civil servants are invited to meetings as observers. The office has a staff of three. Its budget comes from the government (about two-thirds) and from enrollment fees for training activities (about one-third).

The Netherlands: Commissie Opvoering Produktiviteit (C.O.P.)

The COP is a policy body for propagation, stimulation, and coordination. More specifically, it supports management training; research on structural changes; social science research; and studies of firm economics and organization with emphasis on automation, planning, marketing, quality and product control, and remuneration. It is concerned with developing adequate methods for efficiently transferring information, knowledge, and experience.

Established in 1950 by government, business, and labor, since 1962 the COP has been a unit of the Social and Economic Council, an independent advisory body to the Government. Consisting in equal parts of employers, trade unionists, and experts, the COP is governed by a Board of 25 members, made up of representatives of employers organizations, trade unions, trade organizations, and government representatives. For specific topics, subcommittees are set up. The costs of COP are covered by the budget of the Social and Economic Council (i.e., business), with the Ministry of Economic Affairs providing some support for specific projects.

Norway: Norsk Produktivietetsinstitutt (N.P.I.)

The NPI's main areas of interest include the promotion of close labor-management relations; development of better corporate planning functions; encouragement of interenterprise cooperation and mergers; dissemination of management techniques; introduction of computer technology; and study of

manpower resources. In addition, it emphasizes educational activities at all levels from secondary education through adult education. It also undertakes some macrolevel research.

The NPI was established in 1953. A foundation, it has a 23-member Council drawing on representatives from trade unions (one-third); associations of employers, industries, and professional bodies; and institutions of research and higher learning. An Executive Board of 10 is drawn from the Council. About 80 percent of its budget is met from a Government subsidy through the Ministry of Industry, with the remainder coming mainly from conference fees and services and a rundown on reserves.

Spain: Servicio de Productividad Industrial

The Service follows developments affecting productivity in Spain and abroad, prepares policy papers through research, promotes understanding of the various aspects of productivity, and assembles and disseminates information. It concentrates on productivity measurement and analysis, assistance in productivity techniques, and productivity promotion.

The National Commission for Industrial Productivity, established in 1952, was fully integrated in 1968 as the Industrial Productivity Service as part of the Ministry of Industry, which is the sole source of income.

Turkey: Milli Produktivite Merkezi (M.P.M.)

The MPM's activities include such efforts as analyzing industrial engineering, marketing, and research and development efforts; improving farm productivity and mechanization; analyzing productivity trends and economic data on the macrolevel; carrying out training activities; and providing information and publications.

MPM was established in 1953 and reconstituted in 1965. Its General Assembly consists of representatives of academic institutions, ministries and state-owned corporations, the Union of Chambers of Commerce and Industry, professional organizations, the Confederation of Employers, and the trade unions. Five advisory boards deal with productivity measurement, job evaluation, the effects of worker/employers relationships on productivity, legislation hampering productivity increase, and determination of new representatives to General Assembly. These boards report to a six-man Board of Directors. The organic law stipulates the amount to be paid to it by public corporations (a fixed sum plus 1 percent of net profits) and trade associations and trade unions (2 percent of the past year's income). The difference between this income and the amount needed to carry out its functions properly is met by the government.

Yugoslavia: Jugoslovenski Zavod Za Produktivnost Rada

The purpose of the Institute is to study the influence of social, economic, organizational, and technological factors on productivity, and the development of social relationships inside firms, and, in addition, to assist enterprises to implement scientific management and work techniques.

The Institute dates back to 1948, but it was only in 1961 that it acquired its present status as a semipublic organization, working on a remunerated contractual basis. The General Council is made up equally of representatives of administration and enterprises, experts, and the Institute's staff. The Managing Board is an elected body of employees responsible for policy execution. Total staff is 47; 30 are in scientific and 17 in administrative functions.

NATIONAL COMMISSION ON PRODUCTIVITY AND WORK QUALITY

Nelson A. Rockefeller, Chairman
Vice President of the United States

I. W. Abel, Vice Chairman
President
United Steelworkers of America

Donald C. Burnham, Vice Chairman
Director-Officer
Westinghouse Electric Corporation

F. E. Barnett
Chairman
Union Pacific Railroad

Thomas Bradley
Mayor
Los Angeles, California

Berkeley G. Burrell
President
National Business League

Catherine B. Cleary
President
First Wisconsin Trust Company

C. L. Dennis
President
Brotherhood of Railway, Airline and
Steamship Clerks, Freight Handlers,
Express and Station Employees

John T. Dunlop*
Secretary of Labor

Daniel J. Evans
Governor
State of Washington

Frank E. Fitzsimmons
President
International Brotherhood of Teamsters

Alan Greenspan
Chairman
Council of Economic Advisers

Wayne L. Horvitz
Chairman
Joint Labor-Management Committee
of the Retail Food Industry

R. Heath Larry
Vice Chairman
United States Steel Corporation

James T. Lynn
Director
Office of Management and Budget

John H. Lyons
President
International Association of
Bridge, Structural and
Ornamental Ironworkers

William H. McClelland
President
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