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INDUSTRIAL ESTATE PLANS AND PROJECTS IN SOME EUROPEAN

AND OTHER COUNTRIES

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## INDUSTRIAL ESTATE PLANS AND PROJECTS IN SOME EUROPEAN AND OTHER COUNTRIES

### I. GENERAL SURVEY

In 1964, the United Nations Secretariat sent a questionnaire on industrial estates to the Governments of those member and non-member States which, according to available information, had plans or projects in this field. The replies to the questionnaire, and information derived from other sources served as a basis for comparative surveys of international and regional scope<sup>1/</sup>. One of these surveys is contained in the present report; it reviews industrial estate plans and projects in some industrialized European countries - Belgium, Denmark, Finland, France, Italy, the Netherlands, Sweden, Switzerland and the United Kingdom - and in some European and other countries in the process of industrialization - Bulgaria, Cyprus, Greece, Ireland, Israel, Malta, Spain and Turkey.

The survey is concerned with different types of industrial clustering which, for the sake of uniformity and consistency, are referred to, as proposed in other United Nations documents<sup>2/</sup>, as "industrial estates" and "industrial areas". The main distinction between the two is that the latter offer only improved sites, while the former feature, in addition, standard factory buildings built in advance of demand and a variety of services.

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<sup>1/</sup> See Industrial Estates: Policies, Plans and Progress - A Comparative Analysis of International Experience, (United Nations publication, Sales No.: 66.II.B.16); Industrial Estate Plans and Projects in African Countries in Industrial Estates in Africa (Sales No.: 66.II.B.2). A similar survey relating to Latin American countries has been prepared by the Secretariat for submission to the Seminar on Small-scale Industries in Latin America, Quito, Ecuador, December 1966. Information on industrial estates in certain countries of Asia and the Far East is contained in Industrial Estates in Asia and the Far East (Sales No.: 62.II.B.5).

<sup>2/</sup> See, in particular, "Types of Industrial Estates", by P.C. Alexander.

This paper has been prepared by the Small-scale Industry Section, Centre for Industrial Development.

With one major exception, the industrial estate does not play any significant role in the development policies of the industrialized countries under review. In these countries, the industrial area is relied upon to further different policy objectives, which will be examined below. The exception is the United Kingdom, where the industrial estate not only originated but achieved, especially in the past thirty years, considerable development. In Belgium, Finland, the Netherlands and Sweden, a few small estates have been set up - in the latter three countries in the form of flatted factories - but the industrial area and the industrial zone remain, in these countries, the principal instrument of development. Of all the countries of this group, only Denmark has neither areas nor estates - assistance is provided only for the building of individual factories.

On the other hand, it is the industrial estate which is the prevailing form of industrial clustering in nearly all the developing countries under review, the number of projects, however, being small and some of them being currently at the planning or construction stage. Industrial estates are planned in Cyprus, Greece and Turkey and are functioning in Ireland, Israel and Malta. Cyprus, Malta and Turkey also have a few industrial areas. Spain is the only country of this group which has no industrial estates but is actively developing industrial areas.

In Bulgaria, as in other centrally-planned economies, there are no estates and areas of the types discussed here, that is, projects providing physical and other inducements to the location and establishment of private industrial concerns. In these economies, however, the economies and other advantages of industrial clustering are well recognized, and the underlying principles fully used in planning, zoning, locating and constructing industries, as part of the over-all planned distribution of productive forces, at the national, regional and local levels.

In the other regions surveyed by the United Nations Secretariat - Asia and the Far East, Africa and Latin America, the distinction between area and estate is highly significant. As a rule, an industrial area, in these regions, offers little besides a site with the necessary infra-structure. Few, if any, services or measures of assistance are an integral part of the project, and, where such services are obtainable, they have to be sought independently;

in particular, financial and other assistance for building factories is rarely directly or closely associated with the area project. Fiscal and other incentives usually exist in countries of these regions, but they are general promotion measures, frequently with a nationwide coverage. Where successful, the industrial areas in these regions have mainly attracted large-scale and medium-sized industries. On the other hand, the industrial estates in these regions provide, besides standard factories, various common service facilities, technical assistance and other forms of industrial extension, training and various incentives especially devised to promote small-scale and medium-sized industries.

In the advanced European countries under review, the distinction between area and estate is conceptually the same, but its economic and technical implications in regard to the attraction and promotion of industry are of much smaller importance. In all these countries, without exception, financial assistance at liberal conditions for factory construction and purchase of equipment is made available to the occupants of the areas by the sponsoring authority and/or by closely-associated financing institutions. In most cases, special tax incentives are devised for the relatively less developed regions where industrial areas are usually located. Engineering, management and efficiency services are widely available from commercial consulting organizations and many industries turn to them as a matter of course.

For obvious reasons, the more advanced the country or the region, the smaller the need for, and the scope and intensity of, the promotion and assistance efforts, and vice versa. In any country, the need for encouragement and support is greater in the case of small-scale industries than in that of large ones. In all the advanced countries under review, industrial areas are set up in relatively less industrialized or depressed regions, and special promotion programmes have been drawn up to attract industries and facilitate their establishment. However, the approach and the extent of the measures adopted varies greatly.

Although the economy and standard of living in Scotland, the North-East of England and Wales are higher than in the relatively advanced regions of many developing countries, the Government of the United Kingdom has carried out a policy of massive government action and assistance, on a scale and at a

cost comparable to, and often higher than, what has been done, in the field of industrialization, in many developing countries. Over the past thirty years, this has included large investments in infra-structure, physical industrial facilities, new towns, and substantial tax, financial and other concessions and subsidies. During this period, the focus of the Board of Trade's policy changed from rehabilitation of certain areas to nationwide regulatory distribution of industry, and to promotion of employment in districts with a high rate of unemployment. In part because of these policy changes, in part because of new developments in the war and post-war periods, and also because of the success achieved, the scope of government assistance was gradually narrowed down, but, while certain grants, special loans, rental rebates, tax concessions and preferential supply of scarce raw materials were abandoned, the provision of standard factories for rent on industrial estates, and of certain related services, remained a constant feature of all programmes. At the same time, assistance to individual enterprises on group sites or individual sites against a known demand was, and still is, provided.

In Italy, on the other hand, the development of the Mezzogiorno (southern Italy) was, until 1957, based principally on a comprehensive programme of tax, customs and financial incentives and on the construction of basic infra-structure works at the regional level, in the expectation that these measures would suffice to induce a large and growing inflow of industrial undertakings. It is only in the past ten years that, in addition to these measures, encouragement was given to the provision of physical industrial facilities in the form of industrial areas, large and small. Although the development laws permit construction of "advance" factories and provision of common services, none have so far been made available. In the view of some observers<sup>2/</sup>, the industrialization of the Mezzogiorno, if it is to be intensified and accelerated, calls for the provision of such facilities, in other words, for industrial estates and not only for industrial areas, as well as for technical assistance and other promotional services.

The French approach has, thus far, been similar to that of Italy, though the geographical scope of the promotion effort has been smaller and less

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<sup>2/</sup> See, for example, "The Role of Industrial Zones, Areas and Nuclei in Development Programmes with Special Reference to the Promotion of Small-scale Industries: The Experience of Italy", by C. Albaïque.



concentrated and the extent of measures narrower. To accelerate development in certain regions, the construction of factories for unknown future purchasers is now given consideration. In Belgium, the construction of premises for industries is authorized by the 1959 decree establishing development zones, but the industrial area rather than the industrial estate continues to be the norm.

As mentioned earlier, all the countries in the process of industrialization reviewed here, except Spain, have plans or projects of industrial estates featuring standard factories, common facilities and other services. All such projects are aimed at promoting small-scale and medium-sized industries, and, in most cases, are integrated, though to an unequal extent, in an over-all programme of development of this sector. The establishment of industrial estates is, in other words, a part of a programme including complementary measures of development such as financing, industrial extension, training, and so on. The need for such an integration, which has been stressed in several United Nations documents<sup>4/</sup>, is illustrated by many examples throughout the world of industrial estates remaining vacant, being slowly occupied or facing other difficulties if entrepreneurship is not stimulated, if financing is not readily available, and if technical assistance or training are not provided. The scope of these complementary measures may evidently vary with the degree of development of the country or the region, the educational level of prospective entrepreneurs and the skill of manpower, the extent of private financial resources, and other factors.

In Malta, the provision of standard factories of different sizes offered for rent at subsidized rates on two industrial estates, of a quality control laboratory providing free analyses, of grants and loans for plant and equipment and of tax and customs concessions, ensured, in four years, the occupancy of eleven factories on one estate and of three out of six factories on another estate.

In Ireland, the success of the Shannon Free Airport Industrial Estate - the only promotional estate in the country, the other two being private, profit-motivated ventures located at Dublin - is due, in part, to its location

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<sup>4/</sup> See, in particular, "The Role of Industrial Estates in Policies and Programmes for the Development of Small-scale Industries", by P.C. Alexander.

at the airport<sup>5/</sup>, to advance factories at low rent, tax concessions for the occupants, easy financing, and various services provided by the management.

In the other countries - Cyprus, Greece and Turkey - industrial estates are at the planning stage and, while policies are still being worked out, indications are that the programmes will be combined with other measures for the development of small-scale industries.

The preceding discussion already gives some indications on the objectives of industrial estate and industrial area programmes in the countries under consideration. These objectives fall into several main groups, and are usually combined, though with considerable differences in the emphasis placed on some of the policy components, and on the measures adopted for their implementation.

Regional development, especially of depressed and rural areas, is, in conjunction with decongestion of urban centres and town and country planning, the main objective in the industrial countries. In the industrializing countries, the objectives include one or several of the following: stimulation of local entrepreneurship and promotion of industrialization, especially of small-scale and medium-sized light industries; attraction of foreign enterprises; checking overcrowding in metropolitan centres and major cities, by promoting industrialization in suburban areas and smaller towns.

In most countries, the policies have their origin in decisions of the government, normally in the form of laws. Among the industrial countries, the United Kingdom is the only one where sponsorship, financing and management of industrial estates are entirely and exclusively in the hand of government agencies - the three Industrial Estate Management Corporations. In Belgium, France, Italy and the Netherlands, the organization pattern is characterized by the participation of local authorities - provinces, departments, communes and groups of communes - and of representative private organizations, such as chambers of commerce and industry, associated in semi-public corporations, consortia and non-profit industrial foundations, but a considerable part of the financing of infra-structure is done either directly by the state or through state-sponsored financial institutions.

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<sup>5/</sup> See, in this connexion, "Pre-project Planning of Industrial Estates", by P. Quigley.

In the countries in the process of industrialization, the state plays the major role in sponsoring and establishing industrial estates, either directly or through government corporations. In Israel, however, the government gives strong encouragement, in particular through special mortgage loans, to the establishment of industrial estates by private companies. In Turkey, the main pattern is similar to that of the advanced countries, most estates and areas being co-sponsored by municipalities and chambers of commerce; assistance is also given to the establishment of estates by private trade co-operative associations, through credit at liberal conditions out of a special industrial estate loan fund.

It is of interest to note that there are, in the group of countries under consideration, a certain number of private, profit-motivated industrial areas and estates. All of these are located in or near large industrial centres, where land for industrial use is scarce, where industries are eager to settle and are willing to pay relatively high prices not only for improved land but also for services provided by the developer. Private areas and estates exist in Belgium (Sint-Niklaas-Waas, near Antwerp), Ireland (Dublin), the Netherlands (Rotterdam) and the United Kingdom (London and Manchester). All were established before enactment of industrial decentralization legislation.

The above-mentioned private estates in Israel and Turkey are promotional, non-profit projects.

For evident reasons, industrial estates are normally of a smaller size than industrial areas. With the exception of the United Kingdom, where estates cover from 50 acres (20 hectares)<sup>6/</sup> to more than 700 acres (283 hectares), the size of the estates in most countries under review ranges from 5 to 12 hectares (12 to 30 acres); in Israel, the built-up area of flatted factory estates ranges from 0.4 to 4 hectares (1 to 10 acres); in Greece, 80 to 90 hectares of land are available for industrial development at Kavalla and 500 to 700 at Salonica, but it is probable that only part will be used for industrial estate construction. In Belgium, the size of the industrial areas ranges from 50 to 100 hectares (123 to 247 acres); in France, the average industrial area is of about 50 hectares (123 acres).

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<sup>6/</sup> One hectare = 2.471 acres; one acre = 0.40468 hectare.  
One square metre = 10.76 square feet; one square foot = 0.0929 square metre

The sizes of standard factories in some countries are as follows:

	<u>Square metres</u>	<u>Square feet</u>
Ireland:	465 to 4,185	5,000 to 45,000
Israel:	250, 750, 1,000, 2,000	2,690, 8,070, 10,760, 21,520
Malta:	1,060 to 11,160	11,400 to 120,000
United Kingdom:	139, and 465 to 4,650	1,500 and 5,000 to 50,000

Most of the estates and areas admit all types of industries except those prohibited by zoning regulations, such as those emitting smoke and noise. In practice, most industries are small and medium light manufacturing establishments. Specialized estates are established or planned in Israel (estates for, respectively, auto parts, wood and metal industries) and in Turkey (wood-working).

Most countries offer special fiscal inducements and liberal financing to industries establishing in industrial estates or areas and/or in so called development regions. Five-year exemption from land taxes is provided in Belgium. A capital investment grant of 20 per cent, assistance in retraining labour and tax relief are provided in France. Building grants and tax exemptions are available in Ireland. Rent subsidies are available in Israel, Malta and the United Kingdom. In Israel, exemption from municipal taxes and reduction in income taxes are also granted. The most comprehensive system of special inducements is found in southern Italy. The facilities available are: grants of up to 85 per cent of the infra-structure expenditure, up to 50 per cent of the cost of construction of buildings, up to 25 per cent of cost of plant and equipment for individual enterprises and exemption from customs duties, ten-year exemption from income tax, 50 per cent reduction in certain excise taxes, reduction in freight rates, preferential award of government contracts, etc. Malta makes grants toward capital costs and income tax holiday for ten years. Subsidization of the cost of plant sites and grants towards construction costs are made in the Netherlands. Besides subsidy in rent, training grants, training facilities and grants towards the cost of plant and machinery are made in the United Kingdom.

In their replies to the United Nations questionnaire, the competent authorities in France, Ireland, Israel, Italy, Malta and the United Kingdom stated that, on the whole, the programmes have been successful in meeting the objectives assigned to them. In France, industrial areas in the provinces have contributed to curbing concentration of industrial activity in the Paris region. The Shannon estate in Ireland has attracted foreign enterprises and has substantially contributed to the promotion of export trade. In Israel, immigrants have been attracted to manufacturing industries through ready availability of rented factory accommodation, and industry has been established in development areas. The industrialization of southern Italy has been stimulated by comprehensive measures of development, in which industrial areas are playing an increasing role. In Malta, both industrial estates have been rapidly occupied and need is felt for more projects of this type. In the United Kingdom, light industries have been attracted in large numbers to development areas, employment promoted and many new industries, including foreign enterprises, have been established.

In recent studies, expert panels of the European Economic Community have proposed to set up, especially in depressed and relatively less developed countries, large industrial centres where certain types of industries would be integrated. The idea, which is based on the "development pole" theory, is to develop, around large "complex-cycle" (or "multiple-cycle") industries such as mechanical and electrical engineering, electronics and advanced chemical industries (pharmaceuticals, farm chemicals, dyes, textiles, etc.) using elaborate manufacturing processes, a whole network of inter-industrial exchanges largely based on subcontracting with small-scale or medium-sized "single-cycle" (or "short-cycle") industries. This type of development is expected to exert on the local economy a much higher multiplier effect than the establishment of small-scale industries in scattered industrial estates<sup>1/</sup>.

A pilot scheme along these lines, involving the establishment of nine major mechanical engineering factories and of about thirty auxiliary, maintenance and sub-processing light engineering firms, is being developed in the Bari-Taranto industrial area in southern Italy. Industrial investment is

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<sup>1/</sup> The pros and cons of this policy are discussed in "Some Controversial Questions Concerning Industrial Estates", by A. Molinari, in Industrial Estates in Asia and the Far East (Sales No.: 62.II.B.5).

expected to amount to about 100 billion lire (\$166 million) and total new industrial employment, to about 10,000 workers. Construction of the complex will take four years and full operation is expected to be achieved by the end of 1970.

## II. COUNTRY DATA

### Belgium

The establishment of industrial areas in Belgium is primarily motivated by considerations of regional development; regional surveys have been undertaken and industrial areas are expected to be an integral part of a regional development plan. Secondly, the establishment of industrial areas is one of the measures for the development of depressed regions, where certain fiscal and financial incentives for industrialization are made available. Thirdly, their establishment is also influenced by the requirements of town planning legislation.

Sponsorship of industrial areas is by the state, the provinces, the communes and inter-communal bodies; these authorities may act alone or in co-operation with others. The first industrial areas in Malines and Bruges were established by communes. The development of two depressed regions, Borinage and Hageland-Sud-Campine, and of industrial areas in them (e.g. Ghlin-Baudour) was directly undertaken by the state. Only one industrial area has been privately sponsored at Sint-Niklaas-Waas, near Antwerp, by a foreign firm - Slough Estates Ltd. of United Kingdom - specializing in this type of development.

There are three types of industrial areas in Belgium: firstly, areas designed for large factories, often serving heavy industry, and with a considerable infra-structure of roads, canals and railways; secondly, areas designed for small and medium-sized processing industries, more clearly linked with the consumer markets and less dependent upon the infra-structure for heavy goods transport; and thirdly, small industrial areas designed for a few small undertakings meeting specific regional needs. Data from regional development plans and the economic expansion programme drawn up by the Bureau of Economic Programming are used for determining the types of industries suitable for a particular location.

The average size of industrial areas ranges from 50 to 100 hectares (125 to 247 acres).

The industrial areas generally provide improved plots of land with the necessary utilities (electric power, water, sewerage, steam, gas, and so on) and transport facilities (highway situation, canalside situation, quays, wet docks, roads, railway connexion). Sites and industrial premises are provided to investors by the public authorities through sales, leasing and other forms of disposal. The price of buildings is generally based on prime cost and land is generally available at a relatively low price.

Financing for the establishment and development of industrial areas is undertaken by the commune, an inter-commercial corporation and at times by a province or the state. The necessary infra-structure works are largely subsidized by the state and often wholly undertaken by it.

Five-year exemption from land taxes is provided for industries locating in the depressed areas.

Substantial assistance is provided by public authorities, with the help of specialized institutions or agencies, to help occupants of plots in industrial areas in obtaining low-interest loans, in constructing or leasing of premises, in hire-purchase, in solving manpower problems.

In its reply to the United Nations questionnaire on industrial estates, the Belgian Government assessed its experience as follows:

"It must be observed that considerable time - at least several years - is needed to obtain appreciable results from a policy of promotion of industrial areas. Work on the Ghlin-Baudour area, for instance, was begun in 1958, and the first factories went into operation in 1962. This part of Borinage is now undergoing an industrial revival which was un hoped for ten years ago. Likewise, very encouraging results have been achieved in such towns as Bruges and Malines, which were the first to have a policy of industrial areas, and in other regions of the country, such as Zuiderkempen and Limbourg. But these results were only achieved as a result of efforts carried on for many years.

"It is obviously difficult to say whether the positive achievements recorded after a certain time are due entirely to the effort expended or whether they are partly the result of the favourable conditions which have prevailed during recent years.

"The experience acquired also makes it possible to indicate the need to overcome a number of obstacles in the way of achieving the desired objectives, namely:

lack of co-operation of certain regions either with the central authorities or with development corporations;

regional rivalries or local conflicts at times causing dispersion or excessive overlapping of industrial areas, some of which must wait too long for development;

shortage of skilled labour, budget difficulties and relative government instability, prejudicial to continuity in the execution of development programmes;

shortage of engineers in the administration, causing delays in the execution of road and water projects;

the tendency to give priority to social expenditures rather than productive investment and, in time of budget difficulties, to reduce first the funds earmarked for large works;

the inevitable technical difficulties that arise because of the imponderables and risks inherent in such large engineering projects as the construction of dams and mains, sewers, river diversion and canal enlargement."

### Bulgaria

The planning of the development of economic regions and territorial distribution of productive forces in the country is effected by the State Planning Committee. On the basis of scientific methods, the State determines the most rational specialization and structural composition of industry in each economic region and district, consistent with the full utilization of the latter's resources in raw materials, manpower, and so on, and provides for the development of industry by allotting the necessary capital outlays.

The specialization of a region is considered to be rational when the production costs of the specialized branches are the lowest, that is, when a given product is produced with the minimum investment of labour and materials. A major objective is to narrow down the differences in the levels of economic development among all regions and districts, by accelerating the development of regions and districts that were economically stagnant before the war, and by slowing down the growth of the more advanced regions and districts. It is endeavoured to reduce and eliminate the substantial differences between the standards of living in rural and urban communities.

The location of industry and its planning throughout the country are carried out along these lines.



### Cyprus

Industrial areas are being established in Cyprus, as part of the country's five-year economic development plan (1962-1966). They are aimed at promoting small-scale and medium-sized light industries, and influencing industrial location. The areas are in suburban locations and will provide improved sites, with facilities of electricity, water, telephone, sewage and perhaps a canteen. The sites will be leased on a long-term basis and at low rentals. The construction of factory buildings and installation of plant can be financed by loans from the Cyprus Development Corporation.

The first industrial area at Nicosia is under establishment. The roads, drainage, water, electricity and other infra-structure works are expected to be completed by September 1966, and the first tenants will start construction of their buildings by the end of the year. Plans are under way for establishing the second industrial area at Limassol.

The Government has recently requested United Nations assistance for drawing up a programme of establishment of industrial estates with standard factories and common service facilities for small-scale and medium-sized industries, and of industrial areas for industries of all sizes.

### Denmark

In its reply to the United Nations questionnaire on industrial estates the Ministry of Commerce, which is responsible for industrial development in Denmark, made the following statement:

"Industrial estates in the sense of a complex of industrial enterprises on a basis of a planned scheme with regard to pre-built factory accommodation, financing, provision of joint facilities, etc. do not exist in Denmark and are not planned to come into existence.

"As an attempt to further regional development in depressed areas, the Government has recently embarked on a scheme according to which the Ministry of Commerce and local municipal authorities or local development societies working on a non-profit basis are authorized to finance the building of factories which can either be bought or hired by industrial enterprises. Such factory buildings are, however, only meant to contain one single enterprise as it is felt that the existence of several enterprises under one roof may complicate later extensions and render a change to private ownership difficult.

"It may be added that about ten years ago, a co-operative society, with financial aid from the Ministry of Commerce, started a so-called "Workshoptown" in Copenhagen consisting of blocks of buildings containing workshops or small factories on the same principle as semi-detached houses with joint facilities for heating and power supply but these buildings are mainly used by artisans and hardly fall under the scope of the questionnaire."

The "workshoptown" mentioned above is located at Valby, a suburb of Copenhagen <sup>8/</sup>. It consists of four buildings - three single-storeyed buildings and one three-storey building. The estate was sponsored by the National Association of Danish Enterprise (Lands Foreningen Dansk Arbejde). Each of the buildings is occupied by a co-operative society. One of the buildings has 12 tenants (members of the co-operative society) and two others 6 and 8 tenants, respectively. Each tenant firm employs on the average 10 persons each. One of the tenants in the fourth building (three-storeyed) has 70 employees. The main objective of this industrial estate is to provide better accommodation and working conditions to artisan and handicraft undertakings, and thereby increase their productivity.

The estate was financed by loans from Marshall Aid counterpart funds to the co-operative societies (15 per cent of the total cost), share capital of the co-operative societies, mortgage loans from banks and insurance companies; a mortgage on the site given by the municipality and a mortgage on the buildings by the contractor (10 per cent of the contract sum). The counterpart fund loan was to be repaid over a period of 20 years and other mortgage loans over a period of 40 years. The co-operative society is the owner of the estate, but the personal liability of the holders of co-operative shares is limited to the initial contribution.

The floor area of the estate is 17,500 square metres (about 186,000 square feet). There are 14 basic types of workshop units, ranging in floor area from 88 square metres (about 946 square feet) to 690 square metres (about 7,420 square feet). Besides production space, there are offices, toilets and cellars for storage. Central heating, canteens, street lighting and car parking space are provided. In the three-storey building, there is a central bookkeeping department.

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<sup>8/</sup> See Industrial Estates: A Study of the Experiences in Western Europe, Research Institute for Management Science, Delft, the Netherlands, 1958.

The total costs of operation are apportioned to the tenants in proportion to the space occupied. The charges (rent) initially are quite high, as large instalments have to be paid on the mortgages.

The National Association of Danish Enterprises felt that the co-operative arrangement was not very suitable for promotion of industrial estates. According to the Association:

"The basic difficulty of the co-operative system is the necessity to find the greater part of the co-operative share capital before building activities can be started. The co-operative share capital is so great, and the risk of building activities of this type so considerable that it is not possible to obtain building loans or start building until it has been secured that the full share capital will be paid before the buildings are completed and final mortgage arrangements are made. On the other hand, the subscription of the co-operative share capital is impeded by the fact that it is not always possible to say with certainty when the buildings will be completed and how great the final costs will be. It is not possible to determine these factors until all co-operative shares have been subscribed. Further, it is often difficult for the enterprises which likely would be interested in the matter to decide whether they will be interested in the premises at the supposed date of completion. Enterprises looking for new premises often need them promptly or within a short time."

### Finland

In Finland, a number of cities have reserved industrial zones where sites improved with basic facilities are offered to industrialists on 30 to 50 years' leases. In some cities - Helsinki, Tampere, Lahti, Kajaani, Joensuu, Valkeakoski and Kouvola - industrial buildings have been constructed by joint - stock companies, under the sponsorship of central organizations of small industry. The buildings vary from single-storey to six-storey, with cubic space of 12,000 to 56,000 cubic metres, floor units of 50 to 200 square metres and from 4 to 25 tenants per building.

### France

In France, industrial areas are considered a part of the economic infrastructure to be established for promoting regional activity. Regional development is promoted in regions having a surplus labour force, in regions suffering from depression in certain industries and in regions which are under-industrialized.

While regional development is the main objective in establishing industrial areas, there are other influences, both national and local. At the national level, studies of over-all requirements for industrial areas and their regional distribution are made and a programme is drawn up over a fifteen-year period, in the light of the need to ensure economic expansion and increased productivity of French industry, and to check the tendency towards concentration of industrial activity in the Paris region. At the local level, requirements of town planning, replacement demand for factory accommodation and demand for new factory accommodation (to create new employment opportunities) are taken into consideration.

The sponsorship of industrial areas is by local or regional communities, communes, groups of communes, depart ents or chambers of commerce. In general, the sponsoring agency establishes a semi-public corporation for developing industrial areas. The semi-public corporation is administered by a board of directors and comes under the control of a commissioner appointed by the government, who is attached to the corporation and has wide powers. The semi-public corporation enjoys considerable financial, administrative and tax advantages.

The Société centrale d'équipement du territoire (SCET), a subsidiary of the Caisse des dépôts et consignations, participates in the equity capital of the semi-public corporations, assists them in obtaining loans, and advises them on procedures and techniques of management. The Fonds national d'aménagement foncier et de l'urbanisme (FNAFU) provides short-term loans at low rates of interest (2.5 per cent) for an initial period of two years, which can be extended to four and six years, to public communities, chambers of commerce and industry and bodies acting on their behalf such as the semi-public corporations. The Caisse des dépôts et consignations and the Crédit foncier also participate in the financing of industrial areas.

As of 31 July 1963, there were in France 250 industrial areas covering a total of 11,000 hectares (about 27,000 acres). Of these 135 areas covering a total of 6,500 hectares were built with the assistance of FNAFU and 95 areas on 4,800 hectares were built by semi-public corporations with the assistance of SCET. The size of the area varies according to local or regional needs. It is usually estimated on the basis of an average employment

ratio of 50 to 70 workers per hectare (20 to 28 workers per acre), a ratio which takes into account a possible expansion of the undertakings. The industrial premises are usually built by the firms themselves. However, a commune or a semi-public corporation may build for sale or lease to firms. These premises are usually sold on hire-purchase. Consideration is being given to building, in some cases, factories in advance of demand.

The general rules that are usually followed for siting of industrial plants and which usually influence a firm in its decision to establish itself in an industrial area are:

- (i) there should be a balance between the size of the firm or firms and that of the receiving area and its resources (labour, urban facilities);
- (ii) care should be taken not to isolate the firm but, on the contrary, to encourage the establishment - simultaneously if possible - of several industrial plants with different products;
- (iii) the equipment in the area should be sufficient to meet the firm's needs;
- (iv) the new industry should complement existing activities;
- (v) the technical, financial and commercial level of the firm must also be taken into consideration.

There are no absolute and rigid criteria, however, for the siting of industrial plants.

Firms in an industrial area established in a development region which receives state aid for industrial development, are entitled to certain special inducements. These are: (i) a special capital investment grant up to a maximum of 20 per cent of the investment, (ii) assistance in retraining labour, (iii) direct state loans, (iv) loans from specialized credit institutions, and (v) tax relief.

In its reply to the United Nations questionnaire on industrial estates, the French Government stated:

"It is difficult to draw up any exact balance sheet of the action taken in regard to industrial areas in France, and still more difficult to reach any final judgement on the results achieved, both because this is the kind of activity that is closely related to the over-all development policy of regional expansion and urbanization and because, far from being near completion, the work undertaken is, on the contrary, still in progress. Moreover, the effects of the establishment of an industrial area are not visible immediately, but only after several years.

"The measures taken to further industrial decentralization and regional expansion have already had good effects; but although the objective of achieving a perfectly balanced distribution of activities throughout the country as a whole is still far from realization, it has at least been possible to curb severely the tendency to concentrate expansion almost exclusively for the profit of certain economically strong regions and particularly the Paris area.

"The establishment of industrial areas in many provinces has facilitated decentralization, but the undertakings which have been decentralized are not always situated in the industrial areas. Moreover, the enlargement of existing establishments, which plays a not inconsiderable part in economic expansion, is often effected on the spot, either within the factory itself or on adjoining lands already owned by the undertaking. Lastly, a large part of decentralization activities consisted of reoccupying existing premises.

"Nevertheless, there are grounds for thinking that the establishment of industrial areas or estates will exercise a growing influence; many local communities have become aware of the importance, often decisive, for their future of the establishment in sufficient numbers of undertakings and have taken the necessary steps to establish improved and developed areas likely to prove attractive to such undertakings.

"It is also to be noted that the industrial estate is a very important inducement, the improvement of which is quite rightly regarded by the public authorities as a decisive factor in determining the situation of industries.

"Nevertheless, in order to achieve maximum efficiency the various public or private measures which have been taken with regard to industrial areas and estates should be controlled and guided in accordance with the established plans so that achievements may be related to needs.

"In these questions it is essential to reconcile objectives and means and thus achieve close co-operation among all those having responsibility at different levels."

Greece

In accordance with the Government's policy of regional development and industrial decentralization, the Industrial Development Corporation carried out, at the end of 1962, feasibility studies for the location of industrial estates at Salonica, Volos, Patras, Kavalla, and Heraklion. These studies deal with the location, land requirements and organization of industrial estates. The major objective in selecting these centres is to provide additional employment, particularly to the under-employed agricultural population, by attracting industry to these regional centres, while preventing the migration of manpower towards the Athens region. A draft law concerning the operation of industrial estates is being drawn up. The Industrial Development Corporation has recently been transformed into the Hellenic Industrial Development Bank, which has taken over the industrial estate programme.

The industrial estates will be managed either by the Bank or by independent agencies in each town, under the Bank's control. Developed plots will be either sold on credit or leased to industrial enterprises. The price of land will be maintained at low levels. The size of the industrial estates may range from 80 to 90 hectares in Kavalla to 500 to 700 hectares in Salonica (about 198 to 222 acres and 1,235 to 1,730 acres). The common facilities to be established in industrial estates have not yet been worked out, but such facilities might include security, fire protection, medical service, mess rooms, parking and, possibly, an industrial training centre and a workers' shuttle service. Policies and procedures regarding size of plots, admission to the estate, terms of occupancy, inducements, and so on, have not yet been determined. Financing will be provided under the state investment programme and with participation of the Hellenic Industrial Development Bank.

Technical assistance for its industrial estate programme has recently been requested by the Greek Government from the United Nations.

## Ireland

Ireland has established three industrial estates, with the principal objective of providing inducement to industrial development and attraction of new industries, particularly from abroad. The principal estate has been established in 1959 in the Shannon Customs Free Airport area by the Shannon Free Airport Development Co., Ltd, which is a state-sponsored body. By 31 March 1964, this estate had 20 enterprises employing 2100 persons. The floor area occupied by the firms varies from 8,820 square feet to 99,000 square feet (820 square metres to 9,200 square metres). The estate was originally planned to develop air cargo at Shannon and to ensure that the port would continue to thrive. The other two estates with advance factories have been established at Dublin by private limited-liability companies, with a view to making a profit from the investment in real estate. One of the estates has a total area of 10 acres (4 hectares) and factories having plot areas of 8,000 to 42,000 square feet (740 to 3,900 square metres). The other estate, under construction, has a total area of 30 acres (12 hectares) and plot areas of 5,000 to 45,000 square feet (460 to 4,180 square metres).

All estates in Ireland are non-specialized and open to any type of industry, including warehousing operations and services. They offer standard factories on rent and also undertake to build factories to the customer's design. In the Shannon Free Airport Industrial Estate, a site may be leased on which the customer may build his own factory and for this purpose a building grant may be negotiated. In suitable cases, financial assistance towards the cost of plant and machinery and towards the cost of transporting and training workers is also available. Tax exemptions are also available to plants located at the Shannon estate.

Besides factories, the estate company has also built dwelling houses and flats, shops and a community centre in Drungeely Hills, a suburb adjacent to the industrial estate. It is proposed to provide technical training facilities in the estate for the use of all the firms.



## Israel

Since 1955 the Ministry of Commerce and Industry has been taking an active part in the planning of industrial estates by providing financing through development loans and other kinds of assistance. The Institute for Productivity and the Institute of Standards and Measures assist in the planning of the estates and of the operations of enterprises. The estates in Israel are mostly in the form of flatted factories. They are sponsored either by the Government (or government companies), or municipalities, or by private companies and contractors. Sometimes, both public and private authorities co-sponsor industrial estates.

The main objectives in establishing industrial estates are dispersal of population and prevention of urban congestion. However, industrial estates are also set up in urban areas, the objective being to remove industrial enterprises and workshops from unsanitary or unfit premises or from residential areas where they are a cause of public nuisance. Industrial estates are relied upon to achieve economies in the cost of buildings and services, and to increase efficiency by stimulating inter-firm co-operation.

Industrial estates are planned in advance of demand. In development areas, the characteristic type of estate consists of a number of flatted buildings whose size ranges from 250 to 1,000 square metres. In developed cities, the estates are many-floored, built on lots ranging from 4,000 square metres up to tens of thousands of square metres. Most of the estates provide roads, electricity, water supply and sewerage. In larger industrial estates, it is planned to have additional facilities, such as restaurants, offices, shops and parking area. Most of the industrial estates are non-specialized and the factory sizes are suited for small-scale enterprises. However, there are some industrial estates for production of auto spare parts and specialized estates for wood and metal industries are being planned. The principal restriction in the many-floored estates concerns enterprises having heavy equipment (over 1000 kilogrammes per square metre).

Standard factory sizes are 250, 500 and 750 square metres in development areas; in the cities, the buildings have three to four floors, each of which has 1000 to 2000 square metres in area. All factory spaces may be divided into smaller sizes, down to 60 square metres, wherever necessary. The

largest industrial estate, at Tel Aviv, has 40,000 square metres of net built-up area. As a rule, the built-up area covers 25 to 30 per cent of the space allotted. The investment per square metre (excluding plot and development) ranges from I£150 to I£200 for single-floored buildings and up to I£300 for many-floored ones (\$50, \$66, \$100).

In development areas there is one government company managing all industrial estates in the matter of subletting, caretaking and cleaning. The management of industrial estates built by privately-owned companies, which sell the buildings after construction, is undertaken by the occupants grouped in voluntary associations. In the case of the industrial estate at Tel Aviv, the company which built the estate established a subsidiary company - with which the holding company and the occupants are associated - for managing the services. Some companies both construct and manage the industrial estates.

Government loans are available to private building companies, as intermediate financing, to provide mortgages to buyers up to 50 per cent of the cost. In development areas government-owned companies build industrial estates and sublet factories. In other localities and towns where there is not enough private initiative, government and municipalities participate in the establishment of building companies and in their capital.

Factories in industrial estates in development areas are sublet at a rent of 7 to 8 per cent of the cost of the building, as compared to the normal rent of 12 to 15 per cent applicable in large cities. In development areas, the occupier of a factory has the option to buy it from the government company, in which case half the rent paid is deducted from the price of acquisition. Other incentives in development areas are: exemption from municipal taxes (which are usually about 30 per cent of the rent) and reduction of income taxes (25 per cent instead of 46 per cent).

Assistance in the field of technique and management is not part of the estates facilities, but is available from special government institutions.

In evaluating its experience in the establishment of industrial estates, the Ministry of Commerce and Industry of the Government of Israel has

stated, in reply to the United Nations questionnaire, that they have helped in:

(a) "improvement of production by means of modern buildings, (b) integration of immigrants from abroad thanks to the possibility of renting buildings in various centres, (c) bringing industries to development areas by means of establishment of industrial estates in advance of demand, and (d) elimination of public nuisance and removal of industries from bad conditions to satisfactory dwelling conditions."

According to the reply, the problems which require more study and experience are:

"(1) More efficient caretaking of the large industrial estates; (2) Problems of vertical and horizontal transport of working materials in many-floored buildings; (3) functional efficiency of industrial estates (of one branch) and (4) diversification of the technical and economic services to various industrial enterprises in large and many-floored industrial estates."

### Italy

In Italy, the industrial areas ("zone") of Naples was founded as early as 1904 by the municipality under a special state law; seven industrial areas were established between 1917 and 1949, in the industrially developed northern part of the country. It was only in 1963 that an area was opened in the under-developed southern part of the country - at Catania, in Sicily. In 1957 and 1959, the government passed two laws on the development of southern Italy which stressed the role of industrial areas and estates in the industrialization of that region and set forth uniform rules for their establishment. Under these laws, the government assists in the creation of large areas of industrial development as well as of industrial "nuclei" of narrower scope. "Industrial areas" are encouraged in larger geographical units comprising populations of at least 200,000; "industrial nuclei" are set up in centres consisting of one municipality or part of a municipality. Besides 13 industrial areas in northern Italy, 12 areas and 27 nuclei are being developed in southern Italy.

The industrial estate programme in the South is part of a comprehensive public investment programme. The central Government established in 1950 the

Cassa per il Mezzogiorno (Fund for southern Italy) to finance a public investment programme in irrigation, reclamation, reafforestation, road building and other overhead facilities. The law of 1957 made it possible for provincial and local authorities, chambers of commerce and industry and other interested bodies to form a consortium (public law association) for the establishment of industrial estates and for carrying out the necessary infra-structure investment. It is these consortia which promote the establishment of either larger industrial development areas or smaller industrial nuclei. The establishment of industrial areas and industrial nuclei and the formation of consortia are subject to the approval of the Committee of Ministers for the Mezzogiorno. The Cassa per il Mezzogiorno makes grants to consortia for site improvement, building costs, installation of machinery, etc. Complementary financial assistance is provided by three regional credit institutes - one for the mainland, one for Sicily and one for Sardinia.

The industrial areas and industrial nuclei in southern Italy have until now developed the land and the infra-structure and made available to industrialists developed plots at reasonable price. The law, however, provides for the consortia undertaking also construction of factory buildings and organizing common service facilities. This has not yet been undertaken by any of the consortia.

The special inducements offered for establishment of industrial areas and nuclei in southern Italy are comprehensive. Capital grants amounting up to 85 per cent of infra-structure expenditures for establishment of areas or estates, including compensation for land expropriated, and up to 50 per cent of cost of constructing factory buildings, are available to the consortia. For small-scale and medium-sized industries located in industrial estates, grants from 10 to 25 per cent are available for new plant and equipment. Tax incentives include exemption from customs duty for building materials and machinery, ten-year exemption from income tax, exemption from municipal taxes and 50 per cent reduction in excise taxes on electric power and building materials. The other incentives include participation in equity capital by credit institutions, reduction in freight rates, preferential award of contracts from public administrations and subsidizing (by the Cassa per il Mezzogiorno) of interest rates at which funds are lent by special credit institutes.

## Malta

The Government of Malta has established two industrial estates - the first at Marsa, consisting of eleven factories, which were constructed during the period 1957-1960 and the second at Msierah, consisting of six factories, and constructed during the period 1960-1963. Both estates are almost fully occupied and the Government proposes to construct further industrial estates during the second five-year plan, which commenced in 1964.

The industrial estate programme in Malta is integrated with the country's industrial development plans and admission to the estates is open to new and expanding undertakings, both local and overseas, which are assisted to set up or expand under the Government's aids to industries scheme. The Marsa industrial estate is sited midway between the main harbour and the airport, which are three miles apart. The Msierah estate is about five miles from both harbour and airport.

The industrial estates provide facilities of power, water, gas, sewage, access roads and fire protection, in addition to general purpose factory buildings constructed in advance of demand. Both construction and management are in the hands of different government departments, while over-all control is exercised by the Department of Industry.

The size of the Marsa estate is 22.28 acres and of Msierah 12.8 acres. Built-up factory accommodation ranges in size from 11,400 to 120,000 square feet, with an average size of 29,000 square feet in Marsa and 22,570 square feet in Msierah. Marsa provides employment to 658 persons and Msierah to 110.

Fully-serviced sites are leased for a period of 99 years at 10 sh. 6d per 1000 square feet. Standard factory buildings are leased at a rental of 2.18 per cent of the cost of construction which amounts to 9d per square foot per annum. The lease is for a period of 16 years with possibility of renewals for three further periods of 10 years each.

A quality control laboratory has been set up by the Department of Industry at Marsa Estate to service enterprises in both the estates. Laboratory analyses are carried out free of charge.

Special inducements provided to enterprises in the industrial estate include financial grants (normally 1/3 per cent of the capital costs of erecting premises and providing plant, machinery and equipment, 50 per cent

in very exceptional cases); loans for a period of ten years; income tax holidays for ten years; subsidized factory rentals; exemption from customs duties on imports of building material, plant, machinery and equipment; and exemption from or reduction in custom duties on materials/components.

In reply to the United Nations questionnaire on industrial estates, the Government of Malta has evaluated its experience of the industrial estates programme as follows:

"The main objective of the Malta Government industrial estates was to provide suitable premises where new and expanding undertakings, especially those attracted from abroad, could start operating with the least loss of time. It has been found that the most suitable building is the general-purpose type of factory though in some cases it may be necessary to provide purpose-made factories for particular industries. The smaller type of factory, that is, 10,000 to 12,000 square feet has been found more indicated for the light industries which form the greater part of the industries attracted to Malta. These are more easily disposed of than the larger factories provided, however, that suitable provision for eventual extension is made. When factories are built in advance there is the advantage of satisfying industrialists' requirements without much delay in view of the fact that the steel frames have to be procured from abroad."

A United Nations technical assistance expert reported in 1965 that Malta needs to establish one or more new industrial estates, catering especially for small-scale industries. Such estates should have standard factory accommodation of 2,000-7,000 square feet and should include establishment of common service facilities, such as tool and die-making, blueprinting, technical libraries, etc. The expert has recommended United Nations technical assistance for feasibility studies on location and planning of these new estates.

#### The Netherlands

The Government of the Netherlands provides subsidies and incentives for the establishment of industrial areas and of industrial enterprises in designated primary and secondary development regions (the rate of subsidy being lower for secondary regions), with a view to creating additional employment in less industrialized regions and relieving congestion in industrialized centres.

There are four different kinds of organizations engaged in developing and operating industrial areas in the Netherlands. These are (i) the municipality, (ii) the industrieschap (a joint body of two or more municipalities), (iii) the industrie stichting (a non-profit industrial foundation formed by collaboration of municipal authorities and private interests) and (iv) the limited liability company, either private, governmental or jointly owned. The industrial foundation is the most common form of management. About one hundred industrial areas have been set up by foundations and municipalities, many of them in the relatively less developed parts of the country.

The incentives provided by the Government are (1) 50 per cent subsidization of the price of plant sites in 44 development centres, provided that 20 per cent of the land bought is used in construction; (2) grants towards construction cost at differential rates for different locations, the amount of grant varying with the extent of floor space covered.

Besides industrial areas thus established in the development regions, the Netherlands has two flatted-type industrial estates in Rotterdam. These estates were constructed by the Government after the second world war to rehabilitate small-scale industries. This type of estate was adopted because of shortage of working-space as a result of the destruction of the city during the war. Facilities of gas, water, electricity, heating, etc. are provided in these buildings. The Government no longer encourages the construction of flatted-type factory buildings, as business and industry are not in favour of it.

### Spain

Seven cities situated in different parts of Spain, - La Coruna, Vigo, Burgos, Valladolid, Zaragoza, Huelva and Seville - have been designated industrial promotion and development centres under the current four-year development plan. Besides attractive plant sites to private industries willing to establish in these areas, the incentives of a five-year tax holiday, duty free equipment imports and easy credit facilities are offered.

These incentives have succeeded in attracting industries. For instance, Valladolid, a city with a population of 158,000, has attracted 70 companies, bringing in an investment of \$75 million and 8,200 new jobs.

### Sweden

In Sweden, besides reserved industrial zones in cities and towns, a number of industrial buildings have been erected either by municipalities or by co-operative societies or by joint stock companies. The buildings and workshop space are specifically designed separately for service and sales shops (for instance, watchmakers, jewelers), service and repair shops (painters, shoemakers, printers), bigger service and repair shops (auto repairing, carpentry, etc.) and manufacturers of own products or sub-contractors. The workshops are generally leased on a reasonable rent. Such buildings have been constructed in Stockholm, Norrköping, Örebro, Uppsala, Karlstad, Östersund, Västerås and Gäddede. In Stockholm the buildings are multi-storeyed and the biggest has a total floor area of 30,000 square metres. In Östersund there are 5 single-storeyed buildings of 600 square metres each. No special services are provided, but the state and the municipality give loans to individual small industrialists and to co-operatives for buildings and machinery through associations of industrialists.

### Switzerland

Special efforts have been made to establish industrial areas in the relatively under-industrialized canton Valais in Switzerland. A non-profit association - Société Valaisanne de recherches économiques et sociales - was founded in 1951 with the objective of attracting industry as a means of improving the standard of living. The Société set up (i) industrial committees for each commune, to carry out surveys and feasibility studies for industrial areas; (ii) a limited liability company for financing industries; and (iii) a co-operative marketing company. The Société was able to have a law passed which enabled the canton government to provide subsidies of 10 to 20 per cent to the municipalities to buy land for industrial zones and of 10 to 20 per cent to develop industrial estates.

The industrial estates established through the efforts of the Société are located on the main road to Italy, along the River Rhone and the Simplon railway. The land is acquired by the municipality and either leased free or sold on hire-purchase over a twenty-year period. Exemption from municipal



taxes is available over a period of ten years. The factory buildings are constructed by the industrialists themselves. The industrial estate near Sion covers 40 hectares of land and is zoned separately for large industries and small industries. A small industry is usually allotted 5,000 square metres of land. During the five years ending 1957, 29 new enterprises were attracted to Sion - which represents an annual rate of increase six times the average annual rate during the previous forty years.

### Turkey

The first Five-Year Development Plan (1963-1967) of Turkey envisages the establishment of industrial estates and investment in the requisite infra-structure as a means of developing industry. The objectives governing the establishment of industrial estates are:

- (a) to gather scattered small industries and workshops together, provide common installations and encourage complementarity, in order to provide a basis for their integration and development;
- (b) to select industrial locations with a view to increasing total productivity and promoting a balanced inter-regional development; and
- (c) to locate industrial areas in accordance with the requirements of town planning.

Industrial estate projects in Turkey are sponsored by the state, the chambers of commerce and industry, municipalities and trade co-operatives. While costs of infra-structure facilities and of development of industrial areas and industrial estates will be met by the state and the municipality, the institutions and establishments which are to occupy industrial areas and industrial estates will contribute to the expenses within their means.

No industrial estate has as yet been established under state sponsorship. However, intensive studies have been made to determine location of industrial estates through regional surveys conducted by the Regional Planning Bureau of the Ministry of Reconstruction and Development.

In the Gaziantep province, a comprehensive survey of economic development, resources, demographic growth, industrial structure, development of infrastructure and future growth possibilities has been carried out. As a result of this survey, a project was formulated, with United Nations assistance, to set up a pilot industrial estate at Gaziantep. It is envisaged that the provincial government will acquire an area of 50 hectares of land for developing an industrial estate and an adjoining industrial area. During the next five years, 60 standard factories of four different sizes would be built on 5 hectares of land in the industrial estate. After two or three years, an industrial area will be developed in 20 or 25 hectares of the land, where developed plots will be provided for large, medium and small industries.

The Government of Turkey has appropriated TL 10 million (\$1.11 million) in the 1964 budget and TL 15 million (\$1.66 million) in the 1965 budget for the industrial estate programme; these funds are deposited in the Halk Bank as an industrial estate loan fund. Allotments will be made to provincial governments, municipalities and co-operative associations for establishing industrial estates, after approval of the location, the site and building plans by an Evaluation Committee of the representatives of the Ministries of Finance, Commerce, Industry, Reconstruction and the Halk Bank. While the industrial estate loan fund and the industrial estate programme are administered by the Ministry of Industry, regional planning and determination of location of industrial zones are the function of the Ministry of Reconstruction.

Besides the pilot industrial estate project at Gaziantep, sponsored by the Government, a few other industrial estates sponsored by other agencies are under way in Turkey.

Chambers of Commerce and Industry have sponsored industrial estate projects for large and medium industries at Bursa and Manisa. A feasibility study for establishing an industrial district at Bursa was carried out in 1961 by a consulting firm for the United States Agency for International Development and the Government of Turkey. The industrial district at Bursa is sponsored by the Bursa Chamber of Commerce and Industry, and is under

establishment. A feasibility study for the Manisa Industrial District was carried out in 1964 by the Union of Chambers of Commerce, Industry and Commodity Exchanges of Turkey on behalf of the Manisa Chamber of Commerce and Industry, and steps are under way for establishing an industrial district near Manisa.

There is one example of an industrial estate successfully established by a co-operative association at Denizli. The estate was started by a co-operative formed by the owners of copper working, automobile repairing, blacksmithy, wood working and engineering shops, some 230 in all. From their own resources they raised TL 4 million, and have borrowed TL 2.7 million from the Workmen's Insurance Fund. With these sums they acquired about 5 hectares of land in a reasonably central location and have built on it 250 workplaces. The plans were prepared by the Secretary of the Chamber of Industry who is a professional architect. Six sizes of premises are provided, ranging from 50 to 200 square metres covered area. As at the middle of 1964, the buildings had been erected but not occupied. Water and electricity are provided by the municipality. Some more funds were required at that time for completing the draining and sanitation, and the service roads.

Some other industrial estates are being sponsored by industrial co-operatives which have applied for assistance from the industrial estate loan fund. In Antalya, an industrial co-operative has acquired 50 hectares of land for building an industrial estate. It is estimated that the estate will provide for 180 factory units, of three sizes - 50, 75 and 200 square metres, - and common facilities of 1000 square metres, and will cost TL 6.5 million. In Burdur, an industrial co-operative plans to establish an industrial estate for wood-working industry. The cost for 40 factory sheds of 75 square metres each and common facilities of 200 square metres is estimated at TL 1.6 million. Some factory sheds have been constructed at industrial estates in Isparta and Izmir, but the estates have not been completed yet.

A tentative allocation of the industrial estate loan fund of TL 10 million (of 1964 budget) indicated that there would be 14 industrial estates sponsored by municipalities, 7 by co-operatives and 3 by provincial governments.

United Kingdom

The United Kingdom, along with the United States of America, was the first country to establish industrial estates about eighty years ago. The earliest industrial estates established before the nineteen-thirties were private profit-motivated and commercially operated real estate ventures - Trafford Park, Manchester, and Slough, West of London. Since the thirties, the Government of the United Kingdom has promoted the establishment of industrial estates as one of the instruments for industrial development of depressed areas, under the Special Areas legislation of 1936 and 1937, the Distribution of Industry Acts of 1945 and 1950, the Town and Country Planning Acts of 1947 and 1954, and the Local Employment Act of 1960. The establishment of industrial estates has formed part of a comprehensive programme including investment in overhead facilities, grants and loans, temporary exemption from taxes and rates, subsidies on rent and restrictions on building construction in congested areas.

Before the war a principal objective of the industrial estate programme was to contribute to the creation of employment opportunities in specified depressed areas of England, Wales and Scotland. In the post-war period, a nationwide policy of distribution of industry was adopted. The Government assumed full location control under the Town and Country Planning legislation, with a view to avoiding congestion in heavily industrialized and populated areas, and inducing new industries to settle in the Development Areas, the Unemployment Areas, the New Towns and Northern Ireland. Under the Local Employment Act of 1960, which replaced earlier legislation on distribution of industry, government action is mainly directed towards the development of areas of unemployment. Promotion of industry is the principal tool of this policy, and the provision of industrial estates plays a significant role in the programme.

The policy objectives and the role of the Government in the establishment of industrial estates in the United Kingdom have thus changed over the last eighty years - from private profit-motivated real estate ventures in the beginning of this century, to aiding the rehabilitation of depressed areas in the nineteen-thirties, to regulatory distribution of industry over wider

areas of the country in the nineteen-fifties, and finally in the nineteen-sixties to maintaining a reasonable level of employment all over the country.

Although both privately-sponsored industrial estates and government-sponsored industrial estates exist in the United Kingdom, the major programme today is that of the government. In March 1964, there were 48 government-sponsored industrial estates: 23 in Scotland, 20 in England and 5 in Wales.

These estates are known as Board of Trade industrial estates,<sup>2/</sup> for there is in the United Kingdom a considerable degree of control by the Board of Trade on the construction and management of industrial estates. Until 1960, industrial estates were constructed and managed by "trading estates companies" established by the Commissioners of the Board of Trade. There were five such companies and their jurisdiction covered specified "Development Areas" in different regions. With the adoption of the Local Employment Act which covered the entire country, the estate companies were replaced by three Management Corporations - one each for England, Scotland and Wales. Each Management Corporation consists of a Chairman and four members, appointed by the Board of Trade, and must include one or more persons with experience in accounting, building or estate management, and also one industrialist and one trade unionist. These are part-time appointments, except in the Corporation for England where there is a full-time chairman, who carries out the duties of the general manager. The other two Corporations have separate full-time general managers. The general manager is the head of the permanent full-time staff and has general responsibility for the management of the estates and sites, including the construction of factory buildings. The Board of Trade issues directions to the Corporations on such matters as capital expenditures and the form of accounts. Apart from these major financial matters, guidance is also given on terms of lease, rent policy, staff salaries, and so on. The Corporations are empowered to make appointments and promotions to posts up to a certain level, but at higher levels, the approval of the Board is required. Further, the Board of Trade holds the freeholds of all land and properties and grants leasehold interest usually for a period of 99 years to the Management Corporation. Each capital project (factory building, development of land, etc.) is submitted by the Management Corporation concerned

<sup>2/</sup> In Northern Ireland, the Government of that region provides advance standard factories in industrial estates as well as on industrial sites. In 1960, there were 6 industrial estates already established and 2 being planned.

to the Board of Trade, which, after full consideration of the cost, employment and location, either rejects the application or grants a covering financial authority enabling the Corporation to proceed. From the receipt of such authority, the Management Corporation acts as a commercial developer would do, instructing architects, seeking tenders and entering into building contracts. The Management Corporation supervises the contracts and hands over the complete buildings to the tenants. A number of Estate Managers, under the control of the General Manager, operate area offices, each covering one large and a few smaller adjacent estates and group sites.

The Management Corporation does not control the organization and operation of the enterprises on the estate. Tenants on the estate commonly form associations through which common problems can be presented to the management.

In addition to the development of industrial estates, which vary in size from 50 to 750 acres, the Management Corporations, with the approval of and finance from the Board of Trade, also build factories on other sites, whether for rental or sale. These are known as group sites, which are miniature estates having two or three factories, and individual sites, where only one factory is located.

A survey of 55 industrial estates (45 government estates and 10 non-government estates) in 1959 indicated that 49 per cent of the estates were of 50 acres (20.25 hectares) or below, 15 per cent were of size 51 to 100 acres (20.65 to 40.5 hectares), 24 per cent were of size 101 to 500 acres (40.9 to 202.5 hectares) and 12 per cent were larger than 500 acres in size.

The size of an estate and its occupancy are influenced by the major consideration of employment needs of an area. Factories in industrial estates are let out to industrialists starting suitable new projects if the Board of Trade is satisfied that the amount of employment to be created justifies the expenditure involved. Factories of 5,000 to 50,000 square feet which are suitable for most types of medium and light industry are frequently built in advance of demand. Extensions to existing Board of Trade factories are provided in suitable cases and small factories of as little as 1,500 square feet are sometimes built on the estates to help new entrants to industry to get production under way. The facilities on the estates are however open equally to large and small firms.

The industrial estates provide general facilities, such as power, water, gas, sewerage, surfaced streets, transport and communications. Supply arrangements are usually made by the industrial estate management with the concerned agency in the town - electricity company or board, water department of a municipality, telephone company, etc. Postal, banking and railroad trucking facilities in or near the estate are also generally provided by the concerned agency, the estate management merely making available offices, land or siding to the agency. In a few big estates, however, internal rail or truck transport are provided by the estate management.

The Slough Trading Estate Ltd., which is the largest private estate, has a well-known health service, hospital and occupational hygiene centre. A government operated training centre has been functioning in the estate since 1927 and provides training in a number of trades. The estate also provides a trouble-shooting technical service to assist industrial managers in solving specific problems on request.

As regards sales and lease policies, the general policy in the United Kingdom - both in the government estates and the private estates - is only to lease land and buildings. In government estates, the Board of Trade hold the freeholds of all land and properties, the Management Corporation is granted a lease-hold interest for a period of 99 years (in a few cases 999 years) and the Management Corporation normally enters into a lease with an approved tenant for a period of 21 years (20 years in Scotland). The lease to the tenant is at a current market value rental as assessed by the government's District Valuer.

Several leases embody a mutual break clause, permitting the rent to be revised, but apart from this the rent is unchanged for the duration of the lease. Therefore, although the average current market value of rental now being charged on new leases (and renewals of leases) is about 4 shillings a square foot in England (and less in Scotland and Wales), the general level of rents under existing leases is very much lower. Rents are based on current market values assessed in the light of local conditions, with the consequence that the poorer the local conditions are, the lower the rent is. A subsidy to the poorer areas results. An industrialist desiring a factory different from the standard design is asked to pay the difference in cost either in cash or in instalments, or in the form of an increased annual rental.

The Board of Trade has sometimes sold land or factories on the perimeter of estates and sometimes leased factories on a 99-year lease. In Scotland, there is a preference for owning factories and the Board of Trade has in the past sold several large factories on amortization over a period of 20 years, but these factories were located on individual sites and not in an industrial estate. In the New Towns developed by the Board of Trade in co-operation with the New Town Corporations, industrial sites are either leased for 99 years and 999 years, or sold on the condition that a factory is built within a specified period.

The Slough Estate, Ltd. does not sell land or factories. All factories on the estate are rented to tenants. Rents are based on amortized building costs plus a fixed percentage for operating costs and a margin of profit.

As regards special inducements, it has been pointed out above that there is an element of subsidy in the rents charged by the Industrial Estates Management Corporation. In addition, training grants, training facilities and grants toward the cost of plant and machinery are offered to firms establishing themselves on an estate or an individual site. Moreover factories are built in a range of sizes in advance of demand and to specific requirements.

In evaluating the experience of industrial estates in the United Kingdom, the Board of Trade stated in March 1964:

"The Board of Trade's industrial estates have been developed on the basis of public responsibility. They have made a positive contribution towards the objective of reducing structural unemployment in the older industrial areas by attracting modern light industries. Had it not been for the facilities offered by the industrial estates many new firms and new industries would not today exist in Scotland, South Wales and North-East England. This is probably true for example of many of the 40 American firms who have set up in Scotland since 1965. The undoubted success of many firms on the estates has been a potent factor in inducing other concerns to follow their example and today in Scotland it is particularly hoped that the motor car vehicle industry will create yet another growth nucleus around which many expanding companies will gather.

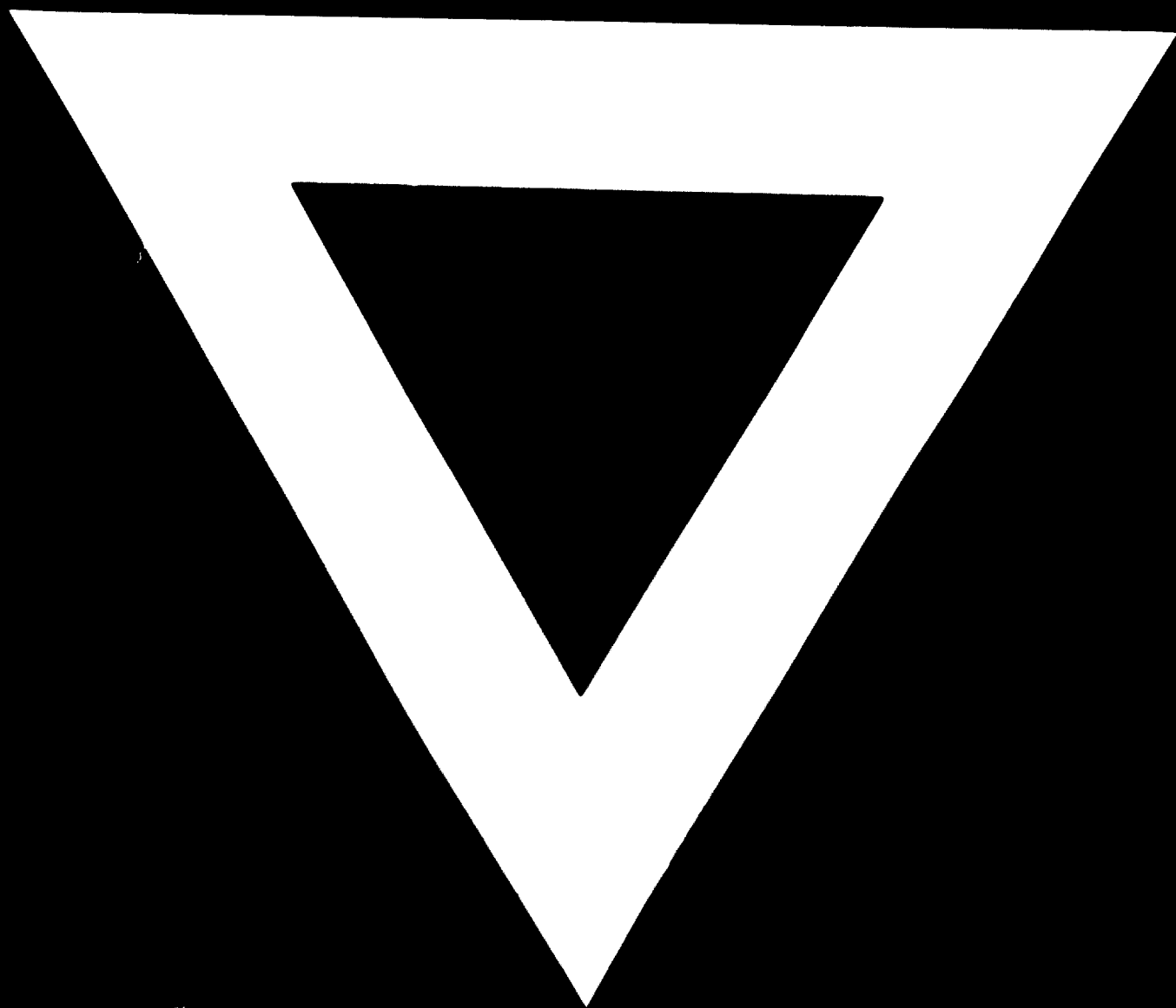


"The staff of the Management Corporations represent a wealth of experience in the development of industrial estates. Experience has shown the value of planning an estate at an early stage, especially in relation to the estates road system and the allowance made for extensions to factories. As an example the Master Plan for Tean Valley was laid down 25 years ago and its principal feature was a centre avenue running almost due North-South for 1.6 miles. Factories built were provided with sufficient land to double their floor space. The success of this estate owes much to this plan which has been faithfully followed. The new estate in North East England at Tee-side is to be planned on a similar basis.

"The success of the estates has also been due to the wide range of facilities and assistance offered to industrialists. Among the inducements offered to firms establishing themselves on an estate or individual site in a development district are training grants, training facilities and grants towards the cost of plant and machinery grants. Moreover factories are built in a range of sizes in advance of demand and to specific requirements. The availability of these inducements in addition to the accepted advantages of being on an estate, for example a rented factory enables capital resources to be devoted to the development to the business, make the industrial estate an attractive proposition for many firms.

"The Board of Trade's industrial estates have aimed at certain high standards of planning, building and estate management which have been of considerable interest to other countries contemplating similar enterprises."





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