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D00227



Distr.
LIMITED

ID/WG.41/24
CD/PME(69)30

25 November 1969

ENGLISH

United Nations Industrial Development Organization
Organisation for Economic Co-operation and Development -
Development Centre

Expert Group Meeting on the Role and Promotion
of Subcontracting in Industrial Development

Paris, France, 6-11 October 1969

SUB-CONTRACTING IN INDUSTRIAL ESTATES ✓

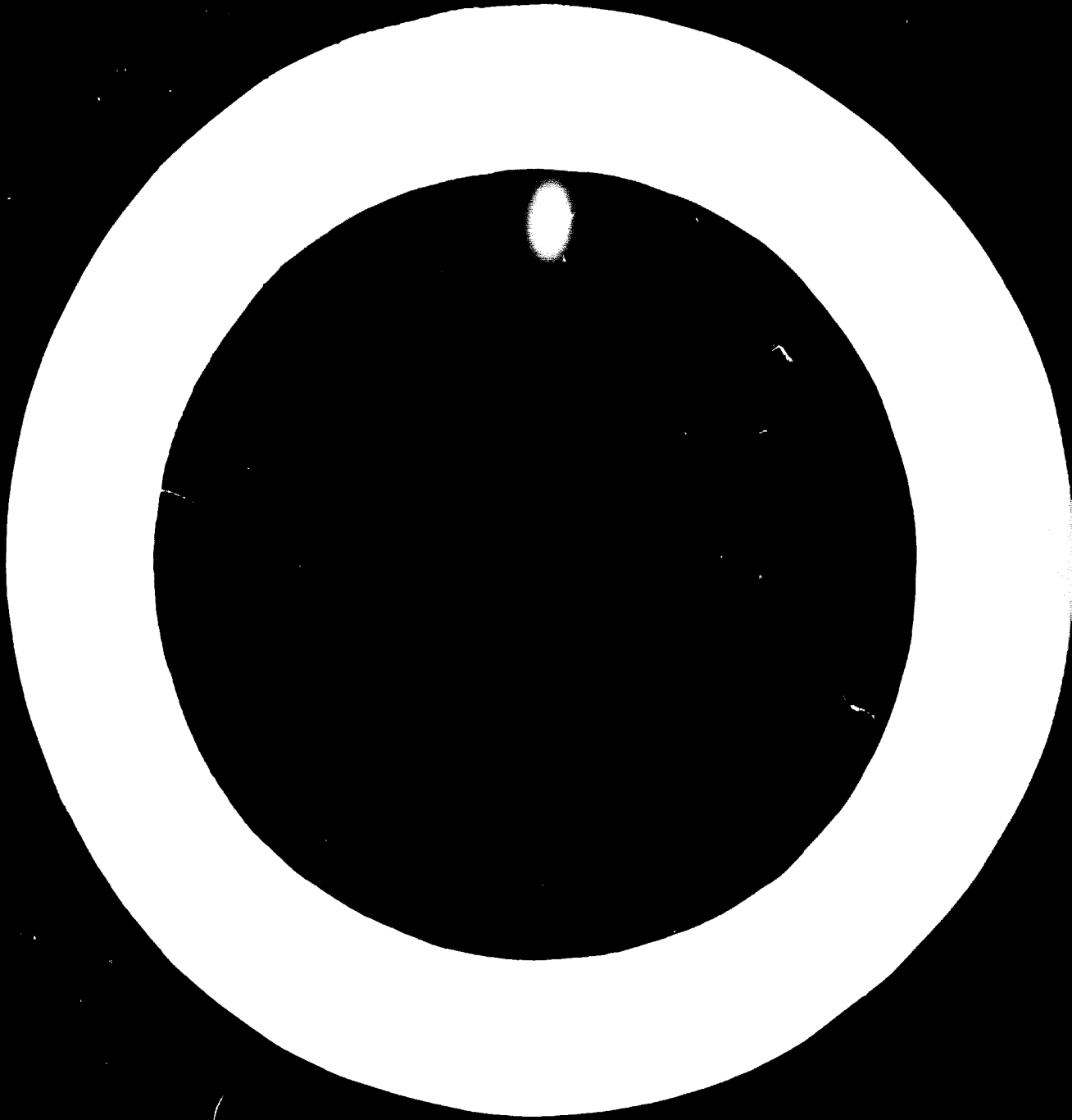
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id.69-6066

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SUB-CONTRACTING IN INDUSTRIAL ESTATES
 A pertinent aspect:
INDUSTRIAL ESTATES CONSIDERED TO FAVOR
DEVELOPMENT OF SUB-CONTRACTING ACTIVITIES

by
 Xavier Pommeret

SOURCES AND REFERENCES

The ideas expressed in this memorandum derive from the examination of:

- Documentation distributed by the U.N.C.
- Studies made by the French Government (DATAR Conseil Economique et Sociale)
- Reports covering French and international experiments
- SERI studies in France and foreign countries

and in particular:

- The "La Guisanda" industrial estate experiment, at Valencia (Venezuela), realized by Dr. Roggiero and the Engineer Jean Delmas for the account of the Ministry of "Petróleo"; experiment analyzed later on by Mr. Compas, Coop. Technique Française, and Messrs. X. Pommeret and L. Bach (SERI).
- The study of an industrial estate at Managua (NICARAGUA) by Messrs. J. Delmas, X. Pommeret and L. Bach of Seri Renault Engineering.
- This memorandum analyzes the experiments conducted in the field of industrial estates for small industries of diverse vocations, installed in urban areas of heavy industrial concentration (big and medium industry). These experiments are examined from a sub-contracting point of view and consequently, the concept of industrial estates has not been considered from all angles.

1. The Concept of Industrial Estates

1.1. Prophylactic Aspect:

- Clear urban centers of industrial activities considered as dangerous, dirty, encumbering, noisy.
- Free centrally located lands of great speculative value and devote them to housing or the services sector.

1.2. Dynamic Aspect:

- To favor the expansion of an industrial establishment it should be located on land which meets various requirements (price of the m², distance from markets and workers' dwellings, supply facilities, cost of public services).
- The concentration of industrialists in an estate, generates a phenomenon of auto-development of that estate starting from a critical point - mutatis

mutandis the theory of "grow points" applies to industrial concentration on an urban scale.

- The urban organic aspects of industrial estates are retained in this dynamic perspective and constitute the secondary effects of the choice of land most suitable to the industrial development considered as the objective of these estates.

2. Nursery Type Industrial Estate

2.1. Basic Axioms:

- All urban concentrations (150 000 inhabitants v.v.) secrete a large number of small "wildcat" industries. Their positive characteristics are frequently dynamic and technical ingenuity. Their handicaps can be:
 - Premises not adapted to their purpose, location by chronology of purchases and not by manufacturing line.
 - inadequate financial means
 - incompetence or lacunae in management and administration
 - technological gaps (or lag)

2.2. Utilization of this small-industry seed.

- Utilization to supply products in all countries
- Frequent utilization for sub-contracting in the industrial countries (automobile, aviation electronic)
- Utilization for sub-contracting in developing countries is slowed by several factors
- Sub-contracting is the purchase of work; the calculation of the price, the standards of acceptance, delivery and quality are complex. Confidence is an important factor in the choice of the supplier. The subjective elements are of prime importance. The installation of the small industrialist is therefore a determining factor for the selection by the purchaser.

2.3. Study of the feasibility of a small-industry industrial estate, prospecting and motivation campaign.

- Analysis of local statistics (patent, consumption of electricity, social security...) enables determination of the number of industrialists likely to profit by a relocation operation.
- Inquiry on the spot permits establishing contact with those who wish to relocate (active desire which frequently takes the concrete form of plans of the future plant).

- Selection of those to be relocated, investigation of their financial (bank) and technical (clientele) situation.
- Bringing together of those selected, elaboration by the industrialists themselves of the specifications covering the road network and the buildings, under the guidance of experts.
- Choice of the land, study of the common services (drainage, roads, water, electricity, telephone), study of parcelling.
- At this stage, the experts must be chosen with great care in order to persuade the industrialists to accept the standardized building which will be proposed to them by the expert, when, in the beginning, each of them wants "his" building.

2.4. Lands, bulidings and expansion.

- It is often claimed that one builds for eternity by providing each industrialist with possibilities for expansion on the basis of a multiplier coefficient of 3 or 4. One thus increases the percentage m² over covered m². the price of the lots, and with a rate of interest of 7% per year over a period of 10 years, any increase has a double incidence on the monthly installments. One also notes that the cost of the industrial buildings is higher when they are built on bigger plots of land (psychological considerations which cannot be calculated).
- We consider that to forecast identical future expansion for all the industrialists constitutes an absence of forecasting resulting from pseudo-reasoning, and that it can compromise their economic balance in a short time.
- At Valencia, after 5 years of operation, 20% of the industrialists have tripled or quadrupled their production and personnel. Their transfer to a medium-industry industrial estate is perfectly justified. It is the sole rational solution to their development; it is also more economical for the collectivity.

2.5 Valencia, a few facts and figures.

- 1964, 80 industrialists are relocated in buildings of 600 and 300 m² of covered surface, coupled two by two, thus providing four possible surfaces. Buildings designed to permit internal expansion (mezzanines).

1 m² of covered surface for 2.03 m² urbanized.

1650 000 spent on town planning

1205 000 for construction of modern buildings

Selling price: 122 000 per industrial building, without initial outlay, interest rate 6% and then 7%, included.

- 1965: 422 persons employed
- 1966: 574
- 1968: 810
- 1969: construction of a third lot of 40 low-cost industrial buildings.
Added value per employee: + 7% per year.
- 1968: 14 firms have reached the stage of medium industries.

2.6.

Cumana:

- The success of La Guizanda has caused certain authorities to forget the elements which were responsible for that success and this has led to technical "perfectionism".
- If one takes 100 as a basis, which is what was done at Valencia, one finds the following indexes at Cumana:
 - Surface urbanized for 1 m² of covered surface: 192
 - Cost of town planning per m² : 150
 - Cost of construction : 173
 - Cost price of the industrial building : 216
- The Cumana industrial buildings were not solid; they had to be sold at a loss or given to the industrialists, which is not necessarily a factor of expansion for those industrialists to the extent that this would divert them from the effort, the responsibility and the economic rationality. In the end, temporary laxity renders considerable efforts necessary (this is the case of protected industries in Latin America and in France).

3. Organisations for the Industrial Estate and Sub-Contracting

- An association of members of the estate, created right from the industrial estate conception stage, participating in its definition, the choice of the industrialists to be relocated and capable of managing or animating the following services:
 - Insurance contract enabling the industrialists to collectively negotiate with the companies.
 - Furnishing of services (compressed air, etc...).
 - Advertising and public relations operations (particularly important for sub-contracting).
 - Mutual Guarantee Company (for the purchase of materials or the sale of products or services).

- Assistance in collaboration with a government organization or a center of productivity in the fields of accounting and management, as well as in the technical fields (sub-contracting standards and guarantee).
- It seems to us that in the developing countries the excessive integration of big firms is partially due to their misappreciation of small industries as well as their lack of confidence with regard to small industrialists. As an example, is it not a fact that at Cuautlajala (Mexico) it is considered that the artisan founders only work to make enough money "to go on a spree"?

4. Sub-Contracting at Valencia

- Valencia (Carabobo), 300 000 inhabitants, is the capital of the Venezuelan automobile industry. It is therefore a privileged sub-contracting sector.
- 25% of the La Guizana firms derive their income exclusively or mainly from sub-contracting (automobile saddlery, chroming, of bumpers, etc...).
- The sub-contracting contagion was very extensive at La Guizana, but it is impossible to calculate.
- On the other hand, one can calculate the advantage for La Guizana of the industrialists whose vocation is sub-contracting.
- The 40 industrial buildings of the third lot were purchased:
 - 24% by industrialists, 100% of whose income is derived from sub-contracting (automobile, radio).
 - 19% by industrialists considering sub-contracting as a necessary activity (around 50% of their workload).
 - 25% by industrialists who are engaged in or are envisaging the possibility of sub-contracting.
- The growth of sub-contracting has therefore been considerable and the possession of an industrial building at La Guizana has become a sub-contracting sales guarantee.

5. Conclusion

The big Valencia industrialists cannot ignore La Guizana, that complex of 120 workshops (mass effect) installed simply but

in functional buildings; they were able to count on the responsibility of the La Quizanda firms (rationality effect of the installations); their confidence aroused the interest of other La Quizanda firms in sub-contracting (contagion effect), at the same time that this reservoir of sub-contracting would acquire a name for itself that would enable the big firms to envisage sub-contracting (priming effect). The priming of this circuit was rapid since as of the very first year, La Quizanda counted 80 industrialists.

The objective of the C.E.C.D. - C.R.U.D.I. symposia is to reveal to other nations the methods employed by the C.E.C.D. countries. The non utilization of sub-contracting and its corollary costly inter-rates come within this framework. We believe that the reticence on the part of big industrialists stems from technological difficulties (c.f. Mr. Sicard), but that it is also due to psychological obstacles which industrial estates conceived in the spirit of Valencia can help to dispel.





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