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POLICY ON TRANSFER OF TECHNOLOGY ^{1/}

- A case of Portugal -

(IS/POR/77/001)

Mission Findings and Recommendations

by

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for the

United Nations Industrial Development Organization

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Among other specific objectives of the mission undertaken between 3 and 16 July 1977 was to work, inter alia, with the commission established by the Ministry of Planning and Co-ordination as well as other bodies and institutions, on preparations towards the introduction of a new legislation, regulating the inflow of foreign technology into the country.

In the course of these tasks the following officials and persons were met and interviewed:

1. Mr. Alcantara de Melo - Director, Department of Planning, Ministry of Industry and Technology
2. Mr. José Emanuel Rolo - Sociceis
3. Mr. Eujonio Leitao - Junta Nacional de Investigaçãe Científica e Tecnológica.
4. Mrs. Maria Elsa Luisa Ferreira - Ministry of Planning

This report reflects to a degree their thinking concerning the technology transfer policy in Portugal, however, the resulting recommendations and findings are those of the author. The author wishes to acknowledge the assistance of the Government of Portugal in carrying out this task and arranging meetings with various officials and business executives concerned.

TECHNOLOGY TRANSFER INTO PORTUGAL

At present no detailed data on the volume, sources of origin, sectors, etc. exist in Portugal as far as it concerns the over-all importation of technology. The pre-revolutionary Government arranged for compulsory registration of all contracts for technology transfer as from 1973 and this system prevailed until early 1976.

During the said period 1973 - 1976 some 800 contracts have been registered by the Bank of Portugal.

These contracts, before registration, used to forego a certain "evaluation", which as far as it was possible to ascertain was rather superficial and formal.

No in-depth analysis and evaluation of agreements were done, nor any conclusions drawn both as regards terms and conditions of agreements and level of imported technology and degree of its utilization by local licensees.

Moreover, it is even now impossible to say what were the annual values of the total importation of technology by Portugal in the above mentioned period.

Before the 1973 regulation, all contracts for technology transfer were treated exclusively as enterprise to enterprise transactions and were left entirely for handling by the companies themselves.

In April 1976 a new Code of Foreign Investment has been introduced with one small chapter (Chapter V) which attempts to regulate somehow the flow of technology. The full text of said Chapter V. is reproduced as Annex I. to the present report.

As may be seen, an attempt has been made to establish some criteria for conditions under which the technology may be imported to the country as well as reference is made as to the necessity of contracts being submitted to the relevant Government Department for authorization.

Unfortunately, these provisions have not yet been fully implemented, namely no Government body has been given the authority of scrutinizing such contracts as per the Code of Foreign Investment.

Discussions revealed that only early 1977 a commission under the Ministry of Planning and Co-ordination has been established to work out organization and function of the Institute of Foreign Investment which will handle as well contracts for technology transfer. The same commission is actually revising Chapter V. of the Code, which will become a special law on technology transfer only.

The establishment of the Institute as well as the revised version of Chapter V will be commented in detail in the next chapter of the present report.

Of Chapter V, Article 28 is of particular importance, as this spells out which conditions in technology transfer are not permitted. The analysis made by Economist Mr. Rolo (covering only some 320 agreements) revealed that the following percentage of contracts from the 1973-1976 were violating above mentioned provisions of Article 28:

(a) tie-in provisions	-	ca. 47%
(b) grant-back provisions	-	50%
(c) limitation on production	-	58%
(d) restriction on markets	-	80%
(e) limitation on sales and distribution channels	-	51%
(f) fixing the prices	-	24%

The analysis of the above mentioned data shows quite clearly the generally unfair and unequitable terms under which technology is being brought into the country. This impression has been further strengthened by discussions with individual companies as to specific licensing agreements where conditions are unparalleled in today's Europe and often are similar to those prevailing in the early 1970ies in some Latin American countries.

Furthermore, it seems that most of the technology (ca. 60-70%) comes from only one country (France), the rest being distributed between USA, West Germany, Great Britain and Japan, as well as a dozen or so other countries. This is another interesting phenomenon of the situation in Portugal.

Unfortunately, apart from the study by Mr. Rolo mentioned earlier, no major effort has been made by the Government to analyze the current situation and to draw basic conclusions for long-term policy directives.

Since April 1976 no registration of contracts has been carried out neither by the Bank of Portugal nor by any other body.

On the basis of discussions held, it seems that the total purchase of technology (or direct payments for technology) in 1972 has been between 18 and 40 million US\$. The real figure in my mind is closer to 40 million US\$ and at present should be probably much lower. The total for the years 1972-1976 should be in the range of 150 - 180 million US\$.

CURRENT DEVELOPMENT IN GOVERNMENT ROLE IN TECHNOLOGY IMPORTATIONS

As mentioned earlier, the Government started certain action early 1977 in order to establish a specialized office to handle, scrutinize and approve all contracts for technology transfer, simultaneously revising Chapter V. of the current Code of Foreign Investment.

The task has been assigned to the commission at the Ministry of Planning and Co-ordination and at present is nearly completed.

The revised Chapter V. in a form of a decree/law is reproduced as Annex II to the present report.

The analysis of the draft law as well as discussions with officials revealed that said tasks had been undertaken in a total isolation of the

current situation in Portugal, that is without the necessary and due attention to the 800 contracts registered by the Bank of Portugal in the period of 1973-1976.

It seems that one of the reasons for not taking into consideration said material, was a refusal of the Bank of Portugal to co-operate with the commission from the Ministry of Planning, which in my view is totally unreasonable and should be eliminated without further delay.

Secondly, that draft decree, as it appears, is based to a degree on similar legislation enacted earlier in Mexico, Spain or Brazil as well as on certain UNCTAD works.

It should be, however, stressed here again that in those countries the preparation of legislative framework has been preceded by extensive evaluation of the country's situation and its needs, and furthermore, the formulation of a national technological (or technology transfer) policy which is not the case of Portugal.

Thirdly, as much as can be ascertained, the commission working on the revision of the legislation is not consulting its work with the Ministry of Industry and Technology, although this Ministry is supposed to develop and implement a long-term industrialization policy of which an important element is or could be policy on technology transfer.

In this light it is only naturally that, whatever suggestions or recommendations may be worked out by the task force of the Ministry of Planning, these would not fully reflect the true and real needs of the country in terms of technology and technology transfer.

As to more specific comments on the draft law these are as follows:

1. The decree as such should be viewed only as executive instrument oriented towards certain improvements of the commercial terms under which foreign technology is being imported into a country.

2. The decree does not stipulate from what point of time contracts are to be submitted for authorization, nor it states whether contracts entered into force prior to the decree are subject matter of the decree or not (talks with officials revealed that all contracts (with the exception of those registered by the Bank of Portugal) are subject matter of the new decree).
3. The decree does not specify whether technology payments by fully or partially foreign owned companies are subject matter of the decree.
4. It seems from Article 1 that the Institute of Foreign Investment is supposed to play a rather limited role. One would like to see it as the central policy making and policy executing agency of the Government.
5. In the whole decree there is no mention whatsoever as to what the relations between the Institute and the Ministry of Industry are supposed to be.

It seems only natural that the Ministry of Industry and Technology should be given the over-all responsibility for the development and implementation of national technological policies and if this is the case, the Institute should be placed under the Ministry of Industry. From the decree, however, it looks as if the Ministry of Planning would supervise the Institute - with its limited role - and with some sort of rather loose co-operation with the Ministry of Industry (see Articles 1 and 6).

A structure like this will definitely decrease the effectiveness of the implementation of the decree as well as limit the function of the Institute itself.

6. The formulation of Article 7, part (e), is unclear in a sense that patented improvements should also be included if desirable. The only exception should be made in the case of technical break-throughs.

7. Request as per Article 8, par (g) is unreasonable and should be omitted.
8. Application - if any - of part 2 of Article 8 should be preceded in each case by very extensive evaluation and explanation by licensor.
9. Article 9, part 1 - it will be desirable to add that payment authorization by the Bank of Portugal should be done automatically, but not later than 7 days after the date of receipt of the Institute's decision. Same applies to provision of part 1 of Article 11.
10. The decree, as mentioned earlier, does not fully reflect the actual and real needs of a country in terms of technology transfer, although it definitely represents a major step forward, in comparison with the Code of Foreign Investment and decrees dating back to 1973 registrations.
11. As such the decree will definitely play a useful but limited role, unless an over-all clarification as to the formulation of a national policy on technology is effected, which will encompass not only technology transfer but also indigenous technological development.

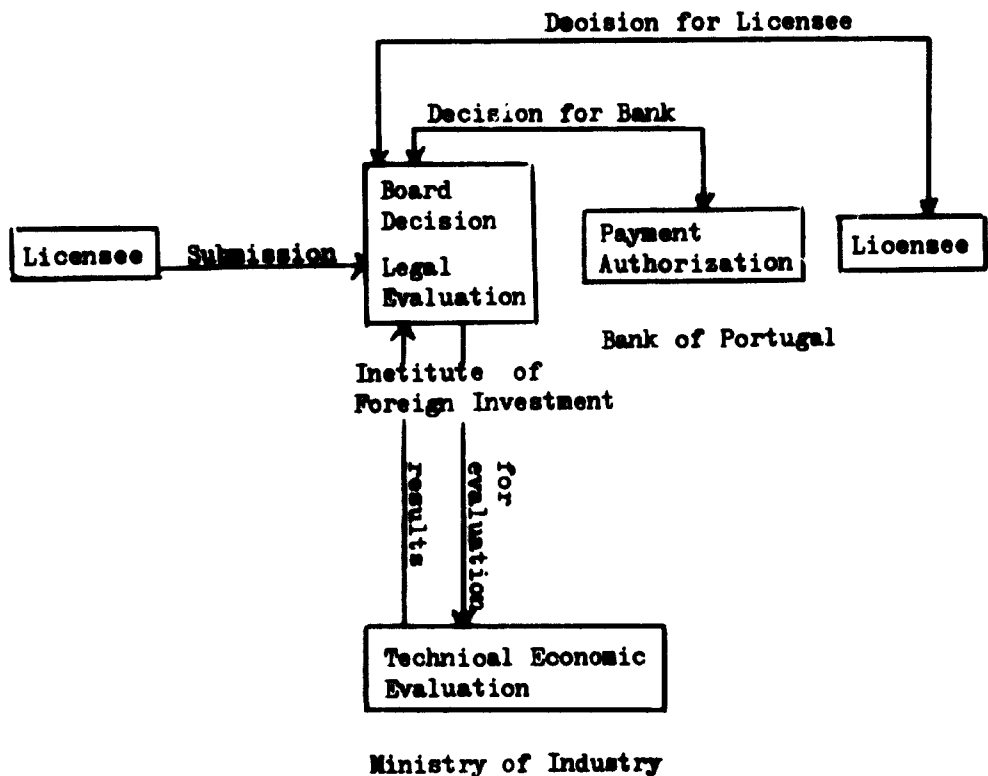
During the discussions I was also informed about the organization of the future Institute of Foreign Investment in which a part of a department will be held responsible for evaluating and approving activities.

As far as it was possible to find out, the evaluation will be carried out on legal, economic/financial and technical issues by a team of 6 professionals. I have also been informed that the technical and economic/financial evaluation is to be done outside the Institute, probably by staff of the Ministry of Industry.

For illustrative purpose the following diagramme shows the evaluation process as per current draft proposals:

Diagram No. 1

Evaluation and Approval Proposal as per the Ministry of Planning and Co-ordination



As may be clearly seen, although a deadline of 90 days has been set up for issuance of decisions, two major obstacles/or bottlenecks are likely to appear:

1. evaluating activities at the Ministry of Industry and Technology;
2. payment authorization by the Bank of Portugal.

Furthermore, it may be well advisable to authorize licensors for submission of contracts and not only licensees, as in many instances it is the licensor who may have greater interest and experience in pushing through the decision. Also it may often be easier for the Institute to

deal directly with the licensor on questions related to contract conditions instead of, as it is proposed at present, dealing only with the licensee who is supposed to transmit the opinion of the Institute to his licensor partner.

Such broadening of the functions will definitely require a substantive increase of the staff from proposed 6 to at least 15 if not more, taking also into consideration a backlog of contracts already signed between 1976 and now.

The last but not least issue is whether the contracts submitted for evaluation are to be submitted in the original language or to be translated into Portuguese. Although it is a minor point, it may lead into considerable difficulties because of lack of qualified professional translators, of lack of staff with a thorough knowledge of languages.

RECOMMENDATIONS

1. It is necessary to formulate first of all long and short term objectives of a national policy on technology which should be based on the evaluation of present and future needs of industry and economy and should be preferably formulated by the Ministry of Industry and Technology (A basic outline for policy formulation and its objectives is put forward in Annex No.III.).
2. It seems that the logical solution will be to subordinate the Institute of Foreign Technology as regards the evaluation of technology transfer agreements to the Ministry of Industry and Technology as element of measures to be taken for implementation of the technological policy.
3. A survey of contracts evaluated by the Bank of Portugal should be carried out as a basis for certain policy conclusions as well as

improvement of the legislative framework of Government regulations of technology imports. (A suggested outline of the survey is spelled out in Annex IV.).

4. There is definitely a need of training officials of the future office for technology transfer, and here UNIDO may offer:

- A Fellowship programme under which they will be able to visit other offices like the ones in Mexico, Spain or Brazil.

- A special training programme to be organized in Portugal for staff of the office on evaluating procedures and methodologies.

5. As there seems to be generally a need of improving the negotiating skills of Government officials dealing with technology transfer, UNIDO may assist in organizing one or more intensive training programmes in this field. A suggested detailed outline is spelled out in Annex V. to the present report.

6. The organization and function of the office of technology transfer do not seem to be fully considered (see earlier remarks). A paper on this subject has been prepared by the author of the present report (ID/WG.228/3).

ANNEX I

Chapter V of the Code of Foreign Investment

Transfer of Technology

Art. 25. Agreements between national and foreign companies, as well as contracts to import technology will depend on previous authorization by the relevant department.

Art. 26. Considered as "Transfer of Technology":

- a) Attribution of rights to use patents or any other forms of industrial property;
- b) Transfer of non-patented know-how such as plans, projects, computer data, specifications and instructions, and generally, all manufacturing techniques belonging to companies controlling them;
- c) Engineering, construction, working, management, reparation maintenance services of industrial units;
- d) Any consulting services;
- e) Professional training and education;
- f) Any other type of technical assistance.

Contracts of agreements for technical assistance will be registered by the relevant department.

Art. 28. In contracts for technological imports, particularly in those regulating the relations between foreign companies and their branches in the country, the following clauses will not be generally permitted:

- a) Those clauses that make dependable the technological application, on acquirement from certain part of the investment goods, intermediate products, and other techniques;
- b) Those that obligate the buyer of technology transfer to the origin, new devices or improvements achieved by using such technology;
- c) Those that contain restrictions to production structure and volume;
- d) Those that directly or indirectly restrain markets to which the importer of technology might have access, except when the reason is considered acceptable by the relevant department;
- e) Those that limit distribution channels, if the limitation is harmful to the buyer of technology or to economic and commercial policies;
- f) Those that reserve to the company who sells technology the right of fixing prices of products using the respective technology;
- g) Those that impose predominance of foreign languages in contracts or agreements, for interpretation reasons.

ANNEX II

Rough translation of
Ruling Decree No...../77
ofof.....

Taking into account the decisions about contracts of transfer of technology in articles 25 through 28 of the Decree-Law No. 239/76 of 6 April with the reduction given by article 1 of the Decree-Law No...../77 of...of... together with the determined decisions in article 4 of this last Decree.

The Government Decrees, in line with paragraph (c) of article 202 of the Constitution are as follows:

- Article 1: The Institute of Foreign Investment, hereinafter called Institute, in the fulfilment of its functions and in close co-operation with sectoral departments and other specialized departments in this subject, should:

- a) Contribute to the formulation of a national policy of technological development;
- b) Collect and process the information required for the fulfilment of its functions;
- c) Assure the representation of the Government either in meetings of specialized commissions of international organizations or in international conferences which have as subject the transfer of technology;
- d) Give opinion on projects or conventions or international agreements concerning the transfer of technology;
- e) Emit information periodically, which could contribute to form a clearer idea about the market situation concerning the transfer of technology.

- Article 2: The realization of contracts of transfer of technology between residents in Portugal and residents abroad as well as their changes or extensions will depend, in all cases, on a previous and special authorization given by the Institute.

- Article 3:

1. The decisions of this Decree are to be applied to all contracts of transfer of technology involving or not either in the respective contracts, intervene private or public entities and international organizations or be effectuated separately or associated with direct foreign investment.

2. Will be enclosed by the dispositions of this Decree the transfer of technology in which intervene as receiver branches, succursals or any other form of representation of foreign firms.

- Article 4: Under the designation of contracts of transfer of technology are enclosed all the acts or transactions concerning:

- (a) Contracts having as object the cession of or the licence for using patents, brands, models, designs or inventions as well as the transfer of other not patented knowledge;
- (b) Contracts of technical assistance to the management of firms and to the production or marketing of any goods and services which supposed namely expenses with advising or visiting of experts and elaboration of plans, manufactured controls or qualification of manpower;
- (c) Contracts with specialized firms for the construction and maintenance of plants, roads, bridges and ports.

- Article 5:

1. The contracts of transfer of technology as well as the changes will only have legal authorization as for payments after they are evaluated and registered by the Institute.

2. The complete text of the projects of contracts of transfer of technology should be sent in triplicate to the Institute, which may ask for the explanations required as to its evaluation and will issue its decision in 90 days thereafter. Extensions may occur only once and for the same period by order of the Minister of the Plan and Economic Co-ordination.

- Article 6:

1. In the evaluation of transfer of technology the following will be taken into account above all: both the possible effects on the national economy and the scientific and technological capacity available in the country, namely the internal availability of cabinets, centres, institutes or enterprises, public or private, and engineering companies.

2. By joint order of the Minister of Plan and Economic Co-ordination and the Minister of Tutelage, evaluation may be fixed on a sectoral basis, by branch of activity or a determined product, specific orientations and criteria of estimation and sanction that must be taken into account by the Institute.

3. The National Board for Scientific and Technological Investigation will inform the Institute regularly about the cabinets, centres, institutes or enterprises in the country, the activities of which have as their purpose the investigation and application of technologies.

- Article 7:

1. The contracts of transfer of technology must contain compulsorily:

- (a) Detailed description of the transfer and the concrete form in which it will be effected, as well as the types, forms and amounts of the due payments.
- (b) Indication of the period of validity.
- (c) Guarantee that the licensee will be kept informed of all the improvements introduced in the technology, object of the transfer, during the validity of the contract, except if those improvements may be patented or are inventions.

- (d) Indication of the guarantee of supply, and its conditions, of components, spare material and services connected with technology, when required by the licensee.
- (e) Explanation that the sales-prices of goods and services will be established at prices not superior to those in force on the international market, whenever transactions of those goods and services between the licensor and the licensee are foreseen.

2. Whenever the transfer of technology includes rights protected in the licensee's country, by means of patents, trade marks, models, drawings or other legal forms of industrial property, these must be expressly included in the contract :

- (a) The detailed enumeration of the titles of industrial property effectively considered.
- (b) The indication of the period of utilisation of the rights granted by the titles referred to in this number.

3. The contracts of transfer of technology must include, whenever possible, adequate programmes of professional training.

- Article 8 :

1. In contracts for technological imports, particularly in those regulating the relations between foreign companies and their branches in the country, the following clauses will not be generally permitted :

- (a) Those clauses that make dependable the technological application, on acquirement from certain parts of the investment goods, intermediate products and other techniques.
- (b) Those that obligate the buyer of technology to transfer to the origin, new devices or improvements achieved by using such technology.
- (c) Those that contain restrictions as to production, structure and volume.

- (d) Those that directly or indirectly retain markets to which the importer of technology might have access, except when the reason is considered acceptable by the relevant department.
- (e) Those that limit distribution channels, if the limitation is harmful to the licensee or to economic and commercial policies.
- (f) Those that reserve to the licensor company the right of fixing prices of products using the respective technology.
- (g) Those that impose predominance of foreign languages in contracts or agreements for interpretation reasons.

2. When the transfer of technology seems of special interest for the national economy, contracts, that include one or some of the clauses enumerated under no 1 of the present article, may be approved.

- Article 9 :

Whenever, before the end of the period of validity of a contract of transfer of technology, one of the contracting parties renounces from the contract, the contracting party resident in Portugal must immediately inform the Institute of that fact, referring to the reasons why the decision has been taken by it or the other contracting party.

- Article 10 :

1. The transfer petitions, related to payments resulting from the performance of contracts of transfer of technology, duly authorized and registered by the Institute, must be sent to the Bank of Portugal, the granting of the relative sanctions being one of its attributions.

2. The Institute will give to the Bank of Portugal all the informations about contracts of transfer of technology, their alterations, renewals or cancellations, connected with the due payments.

3. The Bank of Portugal, on the other hand, will send monthly to the Institute, according to the indications received from this, the statistics and other elements of information about payments that are made under the authorizations granted under the terms of paragraph 1 of the present article.

- Article 11 :

1. The Bank of Portugal, under the competence of its attributions according to the organic law, will transmit to other financial institutions, allowed to handle with exchange, the technical instructions considered essential for the fulfilment of contracts of transfer of technology.

2. The financial institutions, authorized to handle with exchange, will not be allowed to carry out any of the mentioned exchange operations, before the obtaining of the corresponding authorisation under the terms of paragraph 1 of the present article.

- Article 12 :

1. The amounts of the exchange operations to which the preceding article refers, shall correspond to the payments resulting from the expiring of the above contracts, but free of taxes due in Portugal for non-resident contracting parties.

2. In the case in which, according to the terms of the contracts, the taxes constitute charges of the contracting parties resident in Portugal, these must present proofs of the payments of these taxes.

- Article 13 :

The provisions of the present decree come into force at the date of its publication.

ANNEX III

CONSIDERATIONS CONCERNING DEVELOPMENT AND IMPLEMENTATION
OF TECHNOLOGICAL POLICY AT THE NATIONAL LEVEL

Background

At present (since April 1976) all agreements in the field of technology transfer are being subject matter of the regulations as stipulated in the Code of Foreign Investment and particularly in its chapter V (articles 25 through 28).

According to the Code, the Institute for Foreign Investment is supposed to scrutinize those agreements.

Before the Code was adopted, that is before 1976, the Bank of Portugal scrutinized the contracts according to its own rules.

During the period of 1973-1976 some 800 contracts have been scrutinized by the Bank of Portugal, however without any consequent methodology.

It is even unknown at present, what are the total Portugal annual payments for foreign technology, not to mention detailed analysis of scrutinized agreements, both from technological as well as financial and economical side.

After the Code has been adopted in April 1976, the Bank of Portugal ceased its scrutinizing operations, however till today (July 1977) the Institute of Foreign Investment has not yet been established by the Ministry of Planning. The discussions with officials of commission for creation of the Institute of Foreign Investment revealed that one of the departments of the Institute will be in charge of evaluation and approval of foreign investment projects and, as well, with the evaluation and approval of technology transfer agreements.

A revised version of the chapter V of the Code related to transfer of technology is currently being prepared stipulating in details the system of evaluation as well as basic conditions for approval. The decree foresees to scrutinize all contracts signed after April 1976 as well as prior to 1973.

As much as can be ascertained current revision is made on the basis of experience of other countries (Spain, Mexico, Brasil) and UN organisations,

unfortunately however, without necessary regard to specific Portuguese situation and thought of development policy in this field.

Need for Technology Policy in Portugal

Portugal has achieved at present relatively high level of technological development of its industry, although it should be clearly kept in mind that the country is at present technologically dependent on foreign inputs.

Although it is not possible to foresee total independence of a country in the field of technology, yet the technological policy should be quickly developed, its objective being subordinated to long-term development objectives and strategy of the Government.

In principal key objectives of national technological policy may be inter alia :

- A - Gradual lowering of the country's dependence on foreign technology
- B - Gradual and steady increase of indigenous technological capabilities in particular of industry and industrial R&D institutions
- C - Broadening of alternative sources of new technology imported from abroad
- D - Rapid improvement of terms and conditions under which technology is imported into the country
- E - Improvement of negotiating skills of industry in the process of acquiring technology
- F - Better use and full absorption of imported technology
- G - Channeling of new technology into preferential sectors of industry and economy

Such outlined technological policy may and should be only developed by the Ministry of Industry and Technology, possibly in some degree of cooperation with other Ministries concerned and in particular with the Ministry of Planning

and Economic Coordination, Ministry of Finance and Ministry of Commerce.

Institutional Arrangements

In order to implement such policy, the Ministry of Industry and Technology should take over and create specialized department to deal with a variety of technological problems as outlined above.

This specialized department for technology will in principle deal with :

- Evaluation and final approval of all contracts related to transfer of technology
- Coordination of all technological inputs into national industrialization plans and strategies
- Promotion of new technological policy both among Portuguese and foreign entrepreneurs

The first, extremely important step towards formulating the technological policy should be, carrying out the survey of contracts approved by the Bank of Portugal 1973-1976, which will give sound and objective basis for whatever policy, legislative or administrative measures may be taken in the field of technology transfer and development. (Draft terms of reference of the survey are enclosed).

Secondly, after survey conclusions are considered final revisions of chapter V of Code of Foreign Investment should only be effected, with simultaneous creation of a department for technology at the Ministry of Industry and Technology. For the efficient work of such department its head should be given full responsibility of approval or denial of transfer of technology transactions (possibly after prior consultations with other Governmental bodiss) and furthermore should report to the Minister of Industry directly.

This way, not only efficient implementation of evaluation and approving functions can be secured but also, which is even more important

full implementation of long-term policy in the field of technology.

It should be stressed in the context of the present memorandum, that current position, which leads into a situation where one Ministry (of Planning) is responsible for evaluation and approval of technology transfer agreements without due considerations and development of any specific policy in this field, which the other Ministry (of Industry) is supposed to elaborate and implement long and short-term industrial development policy, may and definitely will lead into grave inconsistencies and inefficiency in dealing with problems of technology, and technology transfer in particular, with potential losses to the national economy, which particularly today requires utmost serious attention and thoroughness.

ANNEX IV

TERMS OF REFERENCE OF THE SURVEY OF 800 CONTRACTS REVISED

BY THE BANK OF PORTUGAL

Overall Objectives and Purpose

The Government of Portugal is actually revising its Code of Foreign Investments which includes also the variety of transfer of technology agreements. However, as much it can be proved, this revision as well as the Code of 1976 in its part concerning technology transfer are not based on the in-depth study of the specific situation in the country. Proposed survey will fill this gap and will enable to draw policy conclusions related to the regulation of technology importation and preparation of suitable, flexible evaluating mechanism.

Furthermore, the survey will obtain information as to :

- Amount and volumes of importation of technology by Portuguese companies
- Sources and destination of technology purchases
- Conditions under which technology is being imported

In addition, results of such survey will assist very much in the work of the central evaluating and approving agency for transfer of technology contracts, which will be established hopefully in the fall of 1977.

Finally, information contained in said survey might be used as reference material for further studies and exchange material with similar agencies in other countries (Spain, Brazil or Mexico).

Scope of the Survey

The survey should cover - if possible - all 800 contracts revised by the Bank of Portugal in the period of 1973 -1976.

In order, however, to obtain quickly preliminary results, it is suggested in the first instance to concentrate on more important agreements payments of which the total exceeds some 200,000 US\$.

Furthermore, the survey in its initial phase should be limited to patent-licence and know-how licence agreements. Other contracts like trade-marks, technical assistance etc. should be dealt with at the later phase. If within said sample of 800 contracts are also included joint-venture contracts, they should be dealt with separately.

Methodology

After selection of contracts for initial and later phases they will be surveyed as to following :

- countries of origin
- industrial sectors
- nature and mode of payments
- range of royalties applied
- duration of agreements
- territorial restrictions and limitations
- tied deliveries of raw materials, components etc
- tied prices
- grant back provisions
- expected volume of production
- export potential (anticipated and real)
- scope of utilization and absorption of technology
- size of importing company (employees, sales, fixed capital)
- R&D expenditure prior and after importation of technology

A suitable matrix may be developed for simultaneous analysis of some of above-mentioned elements.

Resources Required and Duration

One full-time professional and one or two research assistants will be required to prepare complete survey in ca 4 to maximum 8 weeks time.

INTENSIVE 4-WEEK COURSE ON "SELECTION AND TRANSFER OF TECHNOLOGY"

PROGRAMME

Part I : BASICS OF TECHNOLOGY SELECTION AND TRANSFER

1. General Considerations and Definitions

1.1 Definition of technology transfer; origin; necessities of transfer; world situation in technology transfer; major exporting and importing countries; channels of technology transfer; technology transfer and economy

1.2 Technology transfer and industrial property; patents; trademarks; utility models; know-how

1.3 Modes of technology transfer :

- licence agreements of various types
- know-how agreements
- technical information supply agreements
- consulting and engineering contracts
- management and administrative contracts
- turn-key and equipment delivery agreements
- franchising agreements

1.4 Joint venture operations and their place in technology transfer process

1.5 Types of joint venture agreements

2. Selection of Technology and its Adaptation

2.1 Appropriateness of technology and its basic criteria

2.2 Product, process evaluation from the point of view of enterprise

2.3 Use of local R&D institutions in selection and adaptation of technology

2.4 Problems of adaptation and absorption of technology at the enterprise level

3. Know-how about Transfer of Technology Arrangements

- 3.1 Unpackaging of technology package at the enterprise level
- 3.2 Financial considerations in technology transfer agreements
- 3.3 Technical considerations in technology transfer agreements
- 3.4 Legal considerations in technology transfer agreements
- 3.5 Training issues in technology transfer agreements
- 3.6 Information needs in the process of technology selection and transfer
- 3.7 Selected marketing problems in transfer of technology agreements

4. Selected Policy Issues in Transfer of Technology

- 4.1 Portuguese legislative framework of treatment of technology inflow and existing administrative systems :
- 4.2 Treatment of foreign capital in Portugal - overview and current situation
- 4.3 EEC and US antitrust legislation and its implication on transfer of technology agreements
- 4.4 Restrictive business practices in licensing operations
- 4.5 Selected issues of the role of government regulation of technology transfer

Part II : CASE STUDY ANALYSIS AND EXERCISES

- 1.1 Preparations to selection of technology and licensor at the company level
- 1.2 Preparation of inquiries

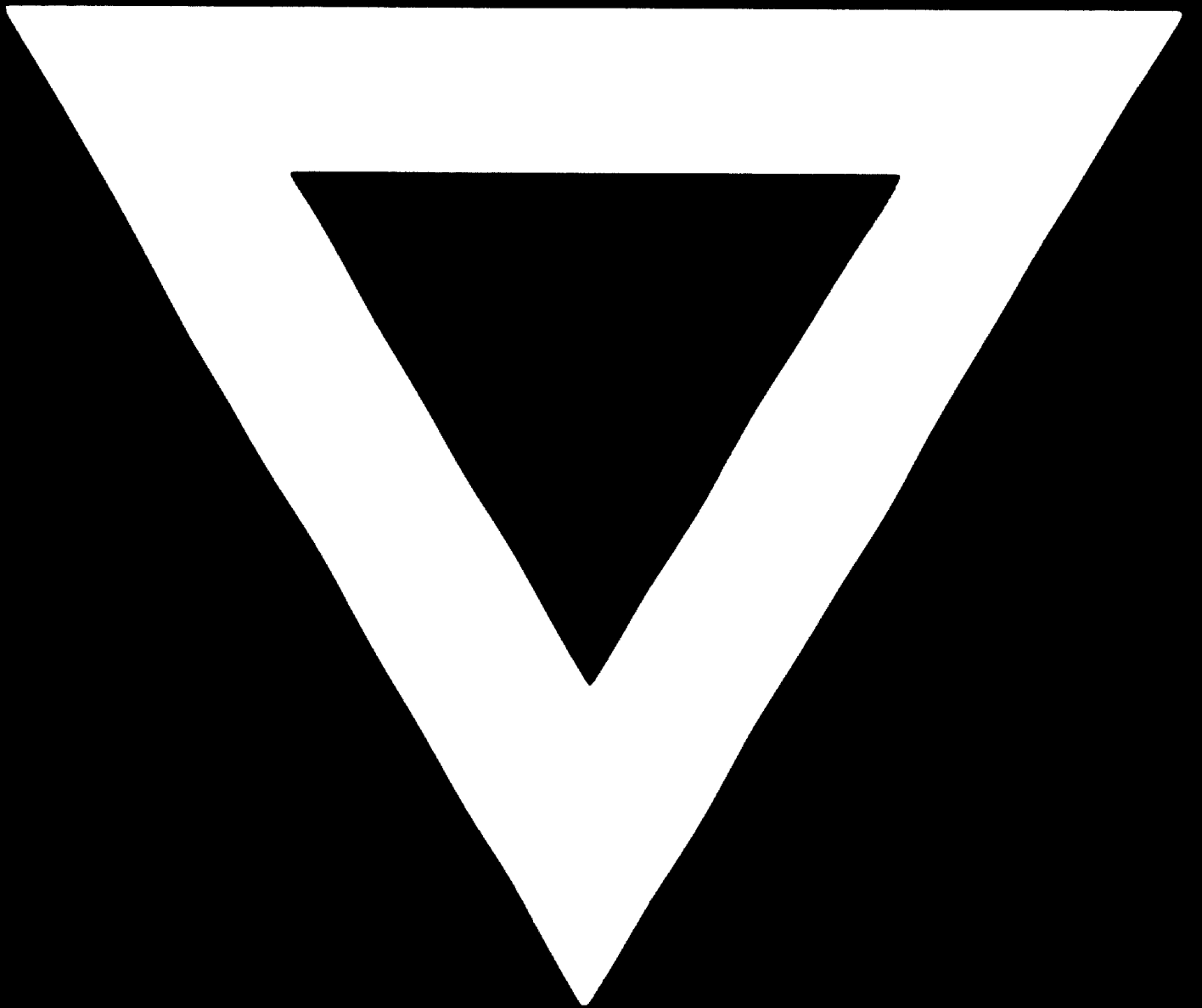
- 1.3 Evaluation of offers
- 1.4 Preparation of draft agreements :
 - patent licensing contracts
 - know-how and trademark agreements
 - joint-venture agreements
 - consulting and engineering contract
 - turn-key contract
- 1.5 Evaluation of licensing and joint-venture agreements :
 - legal evaluations
 - technical evaluations
 - financial evaluations
- 1.6 Restrictive business practises in technology transfer agreements
- 1.7 Unpackaging technology package in licensor offer
- 1.8 Simulated negotiations of :
 - licensing and trade-mark contract
 - equity participation agreements
 - turnkey contracts

Part III : FINAL PANEL DISCUSSIONS

- 1.1 Selected contractual issues of transfer of technology agreements
- 1.2 Selected issues of specific demands and possibilities of Portugal in terms of technology transfer
- 1.3 Concluding remarks



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