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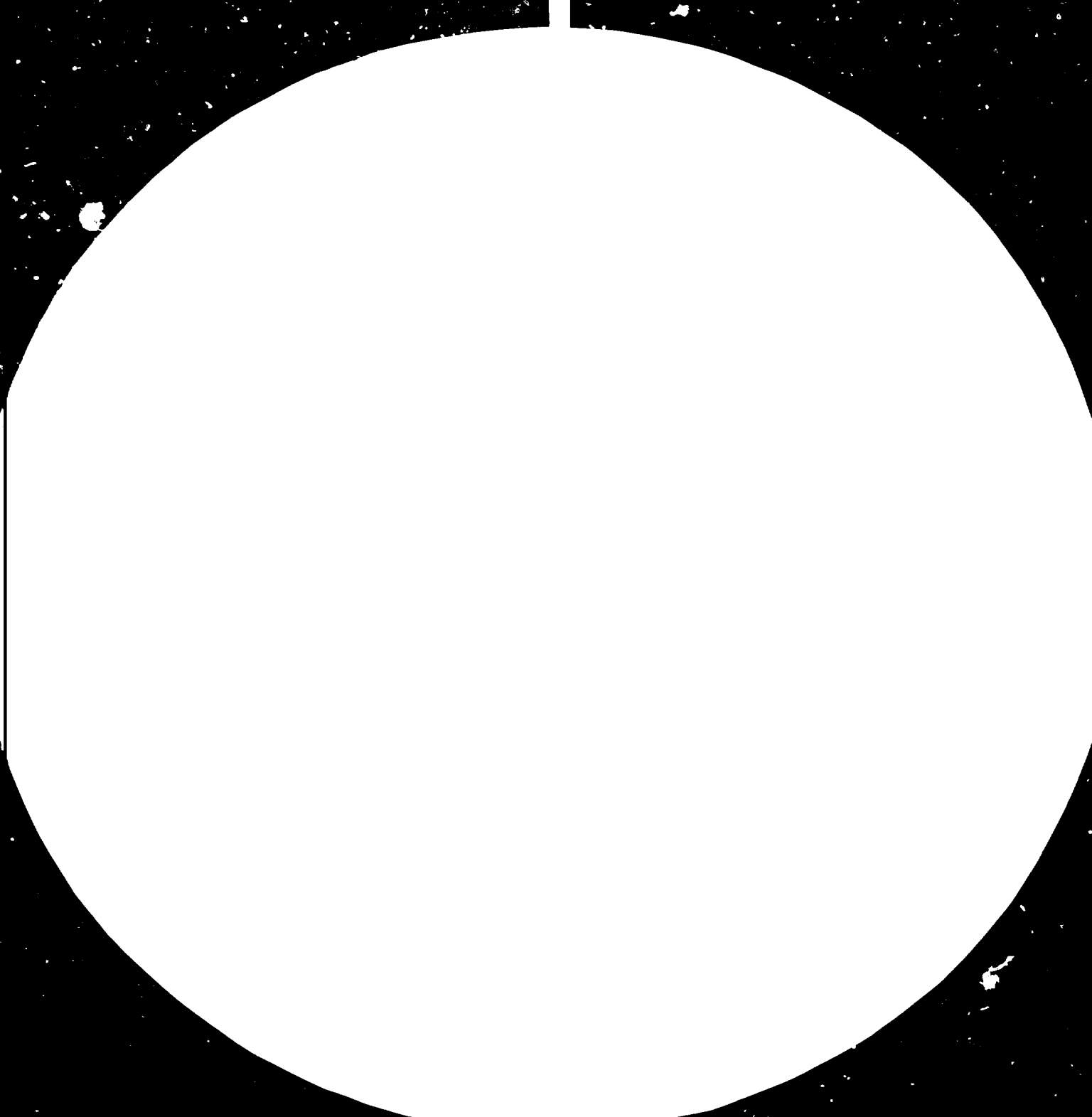
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Seventh Meeting of Heads of Technology  
Transfer Registries

New Delhi, India, 7 - 10 December 1982

TECHNOLOGICAL INFORMATION EXCHANGE SYSTEM (TIES)

Draft Guidelines for Annual TIES review  
on trends in Technology Transfer\*

Prepared by the Secretariat of UNIDO

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## Introduction

The co-operative spirit amongst TIES member countries is principally based on the exchange of information on technology contracts, which is generally confidential.

However, over the years, the TIES secretariat has collected information of a non-confidential nature on the individual TIES countries. Some of this information has been published in various issues of the TIES Newsletter and in one UNIDO document, namely IS/253 "Review of Systems for Regulating Technology Inflows in Selected Developing Countries".

The present draft guidelines for an Annual TIES Review on Trends in Technology Transfer represents the intention of the TIES secretariat to systemize and harmonize the available information in such a manner that it will reflect an up-to-date status of the trends in technology transfer.

It is proposed that such a review be subdivided into two sections. One section to be concerned with country profiles, which will deal with legislative and organizational matters concerning technology transfer and statistical information of technology flows. The second sector will be with an analysis of the trends observed at the country, regional and global level.

The country profiles are to be prepared jointly by the TIES member organizations and the TIES secretariat according to a standard format. The annual analysis of trends will be based on the country profiles and will be discussed at the yearly TIES meeting, before becoming part of the official TIES publication.

## Country Profiles

A. Legislation: Generally speaking, three closely interrelated aspects of the import of technology can be distinguished in the laws and regulations of developing countries:

- industrial property regulations
- foreign investment laws
- technology transfer laws

Since industrial property regulations per se do not influence particular contracts concerning the inflow of technology, as they merely create an operational framework, only foreign investment and technology transfer will be dealt with in this chapter. Foreign investment laws govern the inflow of technology through direct foreign investment, while technology transfer regulations have become increasingly important with respect to technology licensing associated with service agreements. A suggested format for the presentation of this chapter follows, taking Portugal as an example:

- Country : Portugal
1. Foreign Investment : Decree Law No. 348/77 (1977): Foreign Investment Code; Decree No. 51/77 (1977): regulations governing authorization procedure for direct foreign investment
- Registration : The authorization of direct foreign investment projects shall be formalised in an official document which will incorporate specific conditions in each case and which will imply the approval of all Government departments concerned and of the Bank of Portugal.
- Scope : Direct foreign investment is considered to consist of all foreign contributions for the establishment of proper economic ties with companies existing or to be formed in Portugal.
2. Technology Transfer : Decree Law No. 348/77: Foreign Investment Code Decree 53/77; Regulations governing Transfer of Technology

- Regulation : Agreements deemed legal, especially for payment purposes, only when duly appraised, authorized and registered by the competent authority
- Scope : i. Licences of patent, trade names or marks, models, drawings or inventions as well as transfer of non-patented knowhow  
ii. Service Agreements
- Restrictive Practices : The following provisions are prohibited (with exception possible):
- TIE in
  - Grant back
  - Restrictive volume and structure of production
  - Restrictive markets
  - Limitation of distribution channels
  - Price fixing
  - Foreign language predominance for interpretation purposes

B. Institutional Arrangements: A key position within the government machinery established for the acquisition and utilization of foreign technology is usually occupied by national offices for the transfer of technology.

This part of the country profile is therefore concerned with the descriptions of the institutional framework.

A suggested format, again taking Portugal as an example, would read:

Country : Portugal  
Competent Approval Authority : Foreign Investment Institute  
Address : Av. da Liberdade 258/4  
City : 1200 Lisbon  
Telephone : 576944  
Telex : 14712 JFJPOR P  
Director : Mr. Alexander Vaz Pinto

Staff: Management : (number of persons)  
Contract evaluation : (number of persons)  
Information processing : (number of persons)

Competence and coordination with other institutes : The Institute of Foreign Investment is the competent authority for appraisal, authorization and registration for joint agreements for the transfer of technology. Appeals against decisions may be made to the Minister of Planning and Economic Coordination. The Institute works closely with the Bank of Portugal which is responsible for control of exchange operations. All State Organizations are required to give an opinion about projects under consideration.

Evaluation : The appraisal shall take into account, primarily, not only the possible effect on the national economy, but also scientific and technological capacities already available in Portugal. Specific guidelines or criteria for appraisal and authorization purpose may be established for certain sectors.

C. Technology Flows: A yearly review of trends and characteristics for contractual inflows would be based on the data supplied by the TIES members. At present TIES I data is exchanged giving information on technology flows in the following manner:

- Number of contracts by collaboration type by Sector (ISIC 4 digit)
- Number of contracts by supplier country by sector (ISIC 4 digit)
- Number of contracts by level of foreign holdings by sector (ISIC 4 digit)
- Number of contracts by duration by sector (ISIC 4 digit)
- Number of contracts by payment type by sector (ISIC 4 digit)



- Number of contracts by royalty rate by sector (ISIC 4 digit)

This information may not be suitable for publication as the sectoral division (4 digit) is too detailed. For the purpose of the annual review the one digit ISIC classification is suggested except for manufacturing industries. For this sector a two digit classification is proposed.

A minimum information on technology flows for each country would therefore be six tables, which correlate the industry sector with collaboration type, supplier country, foreign holdings, duration, payment type and royalty rate. An example of one of these correlations is annexed. This example has taken as a basis the information supplied by Portugal. In addition to the six correlations previously mentioned, an indication of the financial flows by sector is proposed. This information is not yet exchanged through TIES.

For each sector information would be collected on number of contracts registered and their financial consequences, taking into consideration the different forms of payment for licence and service agreements. Furthermore the total value of the approved contracts or actual authorised payments of the year under consideration would be included.

Analysis of Trends of Technology Transfer Flows

Based on the updated information contained in the country profiles an analysis will be prepared on the legislative, organizational and statistical components of technology transfer at a national, regional and global level. In particular, correlation will be sought between changes in legislation and the technology transfer statistics.

This chapter is therefore proposed to include the following sections:

- (a) Analysis of recent changes introduced in Technology Transfer Legislation
- (b) Analysis of recent changes introduced in the Institutional Arrangements
- (c) Analysis of technology transfer flows in correlation with:

- national and global economic indicators
- changes in national legislation

Recommended Modus Operandi for the Preparation of the Annual TIES Review:

- Based on information available to UNIDO, the TIES secretariat will prepare a draft country profile for all TIES member and observer countries. (January - March)
- TIES secretariat will send draft country profiles to its members with request to verify and complete if necessary and to return to UNIDO (April - May). If possible, we would like to receive data starting from 1979.
- TIES secretariat will prepare an analysis of the country profiles and prepare draft report
- Draft report will be discussed at the yearly TIES meeting (October - November)
- Report will be published and circulated (November)

Special Observation

The Annual TIES Review can only be prepared if the TIES members and observers are co-operating in providing the information as specified before.

Country Portugal

## ANNEX I

Period 1980

No. of contracts: 496

Sector	ISIC	licences	know-how	trade-mark	patent	technical assistance	basic engineering	detailed engineering	management adm. service	training total	Total
Agriculture	1	-	2	-	-	2			3	1	9
Extraction Industries	2										0
Food Industries	31		12	13		8			7	7	47
Textile, Leather Clothing	32		20	6	2	15			2	3	48
Wood processing	33		4	3	1	4			1	4	17
Paper, paper products, printing	34		3	1		3			1	2	10
Chemical Industry	35	2	54	31	5	23	7	2	11	15	149
Non-metallic mineral products	36		4	1		2				3	10
Basic Metal Industry	37		5	2	3	3			2	5	20
Metal products and machinery	38	1	44	25	13	26		1	6	19	135
Other manufacturing goods	39		8	6		1				1	16
Water Gas Electricity	4										
Construction	5		2			2			1	2	7
Whole sale, retail, restaurants, hotels	6	1		1					13		20
Transport, Storage, Communication	7										
Finance, Insurance, Real Estate	8	4	4						7	3	18
Communal social services	9					2			2	2	6

