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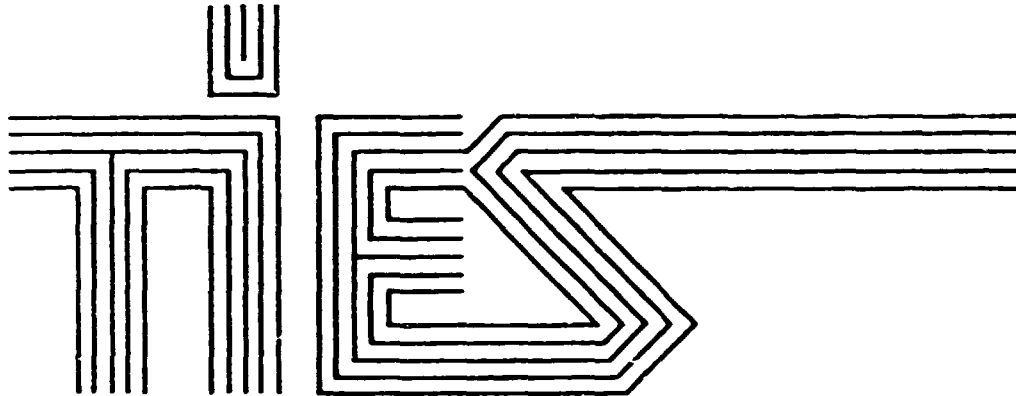
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# NEWSLETTER

Technological  
Information  
Exchange  
System

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1992

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Compiled by the Industrial Technology Promotion Division, Department for Industrial Promotion, Consultations and Technology, UNIDO, P.O. Box 300, A-1400 Vienna, Austria.

Dear Reader.

As the year 1992 comes to a close, we look back at the highlights of our work in the context of our mission, i.e., that of stimulating and facilitating the flow of technology to developing countries.

Several noteworthy achievements may be mentioned.

A major boost was given to the UNIDO programme on Build-Operate-Transfer (BOT). Research on the BOT scheme as an alternative arrangement for implementing large industrial and infrastructural projects was embarked on and contacts established with both national and international organizations involved with such projects. A programme of action has been installed, which will lead to increasing awareness and tapping of the full potential of the BOT scheme as a mechanism for transfer of technology and strengthening national competence. On 7 - 10 December, a group of experts representing financial, legal and project management and consultancy companies was convened by UNIDO in Vienna to start work leading to the preparation of a set of guidelines on the development, negotiation and contracting of BOT projects.

The year also saw a further strengthening of the relationship between UNIDO and the Licensing Executives Society (LES), as manifested in the highly visible participation of UNIDO in the LES International Conference in Barcelona (Spain) in June 1992; the high-level LES delegation visit to the UNIDO headquarters also in June; and the resulting agreement to cooperate in certain programmes involving common interests. One of these relates to the creation of a joint UNIDO-LES committee to review the draft *Manual on Technology Transfer Negotiations*. To date, LES has formed an *ad-hoc* LES Committee, which has in fact started its review of the *Manual*. This joint effort is expected to lead to consensual views, particularly between developing and developed country practitioners, on the issues surrounding technology transfer and licensing. Furthermore, such cooperative undertakings consequently give a wider acceptance to the UNIDO programmes in the field of technology transfer and enhances the perspectives of UNIDO technical cooperation with the private sector.

There has been a steady response to the demand for UNIDO training programmes on technology transfer negotiations. Three workshops were organized during the year in Brno, Czechoslovakia; in Zanzibar, United Republic of Tanzania; and in Kathmandu, Nepal. In addition, workshop modules and advisory services on technology contracting were provided to the UNIDO Techmarts in Bulawayo, Zimbabwe and in New Delhi, India.

Intensity and innovation are two important factors in our search for ways of serving our mission and we hope our approach is recognised and given the necessary support to achieve positive results.

Technology Acquisition and Negotiation Section  
Technology Development and Promotion Division

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### PRESS RELEASE

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# UNIDO NEWS

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## UNIDO REORGANIZES ITS TECHNOLOGY PROGRAMME

**W**ith effect from 1 July 1992, certain organizational changes took place in the UNIDO Secretariat, in line with the continuing efforts to rationalize the structure, streamline operations and improve internal coordination.

Among the changes was the merger of the Industrial Technology Promotion Division and the Industrial Technology Development Division into a single entity, henceforth known as the Technology Development and Promotion Division.

This Division has the responsibility of promoting the development, transfer and application of industrial technology through its various promotional services, which are oriented to the following objectives:

- increasing the flow of industrial and technological information to developing countries;
- heightening awareness on new technologies and strengthening long-term technological capability in developing countries, particularly by contributing to the creation of international and regional centres sponsored and managed by UNIDO;
- mobilizing international cooperation on the part of the scientific and industrial communities;
- assisting developing countries in strengthening their capabilities for technology acquisition and export, as well as for technology management and technology policy formulation.

The Division consists of the Office of the Director, the Industrial and Technological Information Section, the Technology Promotion Branch and the Technology Acquisition and Negotiation Section. At the helm of the Division is Mr. K. Venkataraman, Director and concurrently Head of the Technology Promotion Branch. Mr. V. Podshibyakin and Mr. J. M. de Caldas-Lima are Chiefs of the Industrial and Technological Information Section and the Technology Acquisition and Negotiation Section, respectively.

## TECHMART '92 IN NEW DELHI

**U**NIDO, from 17 November to 20 November organized Techmart '92 in New Delhi, in cooperation with the Indian Ministry of Industries and the National Small Industries Corp. Ltd. of India.

Techmart is a forum for bringing together potential technology suppliers and recipients from developed and developing countries at a venue conducive to establishing business contacts and deals. Through exhibitions of sample products, product catalogues and process flow diagrams, Techmart allows a number of technology offers to be placed before participating companies and enterprises and consequently for one-on-one meetings, possibly negotiations, to take place on the spot. In such events, Techmart makes available a facility whereby legal advice may be rendered to parties able to take-off on their commercial negotiations.

Techmart '92 covered such sectors as chemical engineering, light industrial machinery, metal forming and treatment, electrical equipment, computers and electronics. Participants included private companies, research institutes, manufacturers associations, technology transfer agencies, trade associations and chambers of commerce. A Techmart '92 catalogue has been produced containing descriptions of hundreds of technologies available for transfer.

Included in the programme of Techmart '92 are seminars on business and technology transfer laws and regulations in India; the UNIDO technology programme; South-South technology transfer, constraints and prospects; and North-South technology transfer.

## UNIDO ORGANIZES WORKSHOP ON JOINT VENTURES IN NEPAL

**T**he Technology Acquisition and Negotiation Section of UNIDO organized a workshop on joint ventures in Kathmandu, Nepal from 11 to 13 November 1992.

The workshop was preparatory to the Investment Promotion Forum in Nepal, likewise organized by UNIDO through its Industrial Investment Division and held from 30 November to 4 December 1992. The workshop provided participants to the Forum with necessary background material and some useful tools

for business prospecting, especially when negotiations take-off for possible joint ventures or technology transfer transactions.

Among the topics covered by the workshop were: negotiating joint ventures with foreign investors; issues in negotiating joint venture agreements; technology

transfer environment; choice of technology; types of technology agreements; selected contractual issues; payments in technology transfer transactions; financial aspects of joint ventures; and negotiating an agreement.

The workshop was attended by some fifty (50) Nepalese government officials and project promoters.

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## REGISTRY NEWS

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### **NIGERIA:**

#### **TECHNOLOGY DEVELOPMENT SERVICE (TDS) TRAINING FOR NOTAP STAFF**

Four officers of the National Office for Technology Acquisition and Promotion (NOTAP) of Nigeria were in New Delhi (India) during September and October to attend a three-week training course at the Shriram Institute for Industrial Research (SRI).

The training was aimed at exposing NOTAP officers to technology development oriented activities and the various methodologies and approaches practiced in other countries. This is in line with a UNIDO-executed project of assistance for the creation in NOTAP of the capability to perform TDS services primarily through a referral role that will promote and assist research institutions to provide services relevant to the needs of industry. Through the TDS service, NOTAP should be able to promote the adaptation/absorption of imported technology; promote the development/commercialization of indigenous technologies; advise and apprise key research institutions on the technology needs of industry; and link enterprises and industries/associations with research institutions on a sectoral basis.

The Shriram Institute for Industrial Research was founded in 1947 as an independent, non-profit, self-supporting contract research organization. With 70 scientists, 90 technicians and 80 administrative staff, SRI is involved in serving over 2,000 organizations through applied, sponsored and contract research. Its areas of focus include: materials sciences, analytical chemistry, environment protection, toxicology and radiation technology.

Participating in the training course were Mr. D. A. Enwereuzoh, Chief Analyst; Mr. O. E. Essien, Chief Analyst; Mr. E. S. Adewara, Analyst; and Mr. A. A.

Ayasal, Analyst. The training was coordinated by UNIDO with the Director of SRI, Dr. Jai K. Nigam.

#### **TECHNOLOGY INVENTORY IN AFRICA**

A survey and inventory of technologies indigenously developed in Africa has been initiated under the African-TIES project. This follows an observation made by institutions participating in the African-TIES programme of UNIDO that there is a wealth of locally developed or adapted technologies in Africa that could be suitable for sharing and exchange, but an inventory of these technologies and a mechanism for technology sharing and exchange would be needed.

The survey will be initially focussed on specific sub-sectors: tentatively, food processing, agricultural machinery and small farm implements and water resource technology. The inventory will cover information such as description, degree of development, process flow chart, equipment/machinery specifications, raw materials and other inputs, production capacity, project cost, terms of transfer and services offered.

The survey is being conducted by UNIDO with the assistance of national experts, initially from Cameroon, Ghana, Kenya, Nigeria and the United Republic of Tanzania. A concept including the mechanics of technology sharing and exchange will be drawn up by an international expert on technology exchange and thereafter presented to the African-TIES countries in the African-TIES meeting scheduled for 1993.

#### **SENEGALESE OFFICIALS VISIT VIENNA**

A delegation of Senegalese officials visited UNIDO from 2 to 6 November 1992 under a project of assistance to Senegal in the area of capability building in technology acquisition and transfer. The project aims to build up self-sufficient advisory and training

capabilities in Senegal in the field of technology transfer operations, not only to serve national needs, but also to be utilized at the sub-regional level.

The study tour discussed and agreed on a detailed work programme and the substantive aspects related to the implementation of the project. At the same time, it provided an opportunity to present the facilities, services and expertise available at UNIDO Headquarters, which can be utilized to assist national institutions to extend advisory services to its entrepreneurs, i.e. the Industrial and Technological Information Service and the Industrial Investment Programme.

The delegation was composed of Mr. Amadou Moutar Dieng, Chief of Service for Industrial Property and Technology, Ministry of Industry, Commerce and Handicrafts; Mr. Madiagne Diakhate, Chief of the Division for Technical Studies and Architecture of SONEPI (the National Society of Studies in Industrial Promotion); Mr. Thierno Gueye, Legal Adviser on Industrial Property; and Mr. Abdoulaye Ndiaye, Professor/Consultant of CESAG (the African Centre for Higher Management Studies).

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## TECHNOLOGY ACQUISITION

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### TECHNOLOGY TRANSFER TRENDS: AN OVERVIEW OF STRATEGIC PARTNERING

by Professor Lynn Mytelka, Carlton University  
L'AREA CEREM, Université de Paris X, 92001  
Nanterre, France

(Third of a series)

#### CHAPTER IV

#### CASE STUDIES IN STRATEGIC PARTNERING THROUGH PUBLIC SEC- TOR INITIATED PROGRAMMES

During the 1980s a wide variety of different programmes designed to promote strategic partnerships were initiated in Europe and North America. In this section we will examine three of these: the European Communities' ESPRIT Programme whose first projects were launched in 1983; the 19 Country EUREKA initiative inaugurated in 1985 and the EC's Specific Projects for Intra-Community Innovation Transfers, a new line of activity within the SPRINT programme initiated in 1989. For each, the focus will be on the following key characteristics: scope and orientation, programme management, programme and project financing, participation and results where these have begun to emerge.

#### 1. The European Strategic Programme for Research and Development on Information Technologies (ESPRIT)

In 1980, aware of the difficulties facing European firms, inspired by the Japanese experience with inter-firm research consortia and empowered by Article 235 of the Rome Treaty to promote the competitiveness of European industry, Etienne Davignon, then Commissioner of Industry in the European Community, invited Europe's 12 largest information technology firms to draw up a work programme for their industry. The European Strategic Programme for Research and Development in Information Technology (ESPRIT) which resulted, has three objectives:

- to promote intra-European industrial co-operation in R&D in five main information technology areas;
- to furnish European industry with the basic technologies it needs to bolster its competitiveness through the 1990s, and
- to develop European standards.

ESPRIT I began with a pilot year in 1983 and ran until 1987. It was renewed as ESPRIT II for an additional four-year period in 1988. By 1992 a total of 561 projects were underway or had been completed. Nearly 800 firms and 500 research laboratories in universities and research institutes across the EC's 12 countries had participated in the ESPRIT programme.

ESPRIT Projects are User Oriented

## 1. Scope and Orientation

Both the overall objectives and the yearly work programmes elaborated by the ESPRIT Secretariat, result from consultations with European firms. Initially this involved only the 12 companies, but increasingly small- and medium-sized companies have been active in the various consultative groups that structure the work programme and participate in the project selection process each year. In this sense the ESPRIT programme has a user orientation and initiative is shared between the public and private sectors.

Initially, concerned that the move towards inter-firm collaboration would be interpreted as a step towards the creation of an European oligopoly of "national champions" subsidised by the Community, the European Commission tended to stress the pre-competitive nature of the R&D activities to be undertaken through ESPRIT. As Figure 4.1 illustrates, the vast bulk of the ESPRIT I projects, 64.4 per cent, were "research-oriented" and "technology-driven". Only 23.6 per cent of the 225 ESPRIT I projects were more market-oriented "application specific" development projects, that is, projects designed to produce prototypes and/or software tools and programmes. A further 12 per cent were standards-related projects (Mytelka: 1991, pp. 189). Standardization has become an important element in a firm's competitive strategy, particularly in Europe, where it helps to overcome the disadvantages associated with the relatively smaller size of European firms as compared to their American and Japanese rivals.

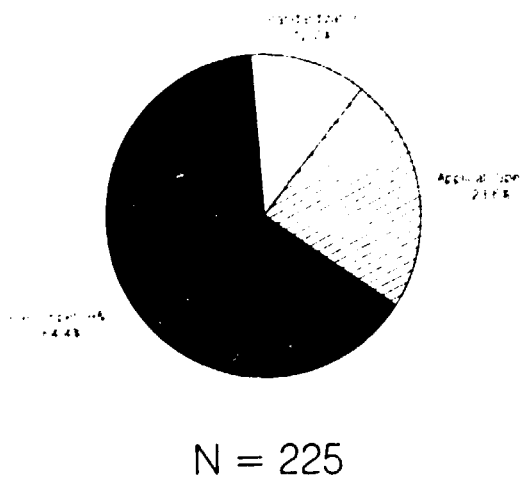


Figure 4.1: Distribution of ESPRIT I Projects by Function. (Source: Mytelka data set: 1992)

Mid-way through ESPRIT I, European decision-makers became less concerned about the potential for anti-competitive behavior within ESPRIT and more concerned with the competitiveness of European enterprises. The EUREKA programme, which was

aimed at joint development with a view to producing products for the market, had already been put into place and criticisms were being raised with regard to the utility of a programme that did not directly contribute to improving the competitiveness of European companies.

### From a Pre-competitive Research Programme ESPRIT has Moved Closer to the Market in the Course of Time

ESPRIT I responded to such criticism by moving somewhat closer to the market, but ESPRIT II made the move definitive by consciously selecting projects for their commercial potential (Commission: 1990b). The result has been to raise the number of market oriented "application specific" projects in ESPRIT II to 48.6 per cent of the total, while precompetitive R&D projects fell 64.4 per cent in ESPRIT I to only 37.1 per cent in ESPRIT II (Figure 4.2). The shift to a more market-driven approach also led to shorter project terms. Thus the share of projects having a five-year term fell from 30 per cent in ESPRIT I to 17 per cent in ESPRIT II, while the share of projects with a three-year term rose from 26 to 44 per cent.

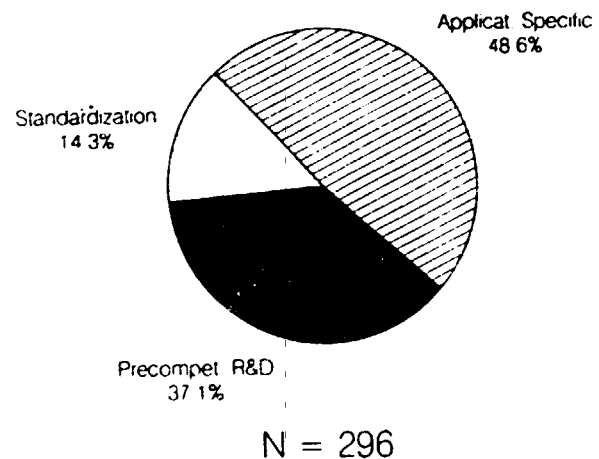


Figure 4.2: Distribution of ESPRIT II Projects by Function. (Source: Mytelka data set: 1992)

Other changes also intervened to bring ESPRIT closer to the market. Although ESPRIT is focussed on the information technologies, this sector includes a vast array of different technologies and applications giving rise to considerable incoherence amongst the projects. Towards the end of ESPRIT I this problem became evident and efforts were increasingly made to develop integrated project clusters. These are sets of projects that share a number of partners in common and undertook different aspects of a related technological problem. Perhaps the most well-known integrated project cluster within ESPRIT is the PCTE (Portable Common Tool Environment), which has spawned over fifteen applications and extension projects, including a num-



ber of projects within the EUREKA programme. Follow-up projects are another means of ensuring that work done in ESPRIT finds its way to the market. SUPERNODE I was a three-year project initiated in December 1985 with the objective of developing a high-performance, multiprocessor with a flexible architecture suitable for a wide range of scientific and engineering problems. It produced both hardware, the basic component (the T800 version of the INMOS Transputer), and the Supernode computer and software. SUPERNODE II, with three of the same partners and a number of new ones, will carry these results further by designing and developing appropriate operating systems and environments for general-purpose parallel computers based on the existing parallel computer architecture. Supernode, developed in the first project. SUPERNODE II, which began in March 1989 will run for four years (ESPRIT:1990b, Vol.3, 148-9; Vol.4:96-7).

## 2. Programme Management and Financing

ESPRIT is a highly structured programme in which project selection, financing and monitoring are organized by the ESPRIT Secretariat located within DG XIII of the European Commission in Brussels and staffed by "Eurocrats" and by secondments from industry and national governments on a rotational basis. The programme's budget is part of the overall Community budget and project costs are shared equally between the EC and the project's participants. For this purpose a total of ECU 750 million were committed by the EC to ESPRIT I. In 1988, the ESPRIT programme was renewed for another four years and the financial commitment by the EC was increased to ECU 1600 million.

ESPRIT offices in the 12 Member countries serve mainly to provide information on ESPRIT and to promote and facilitate participation in ESPRIT by firms and research institutions from that country. In the case of France, this has been particularly important and accounts for the very large participation of French firms and research institutions in ESPRIT.

## 3. Participation

ESPRIT involves open calls for R&D projects at periodic intervals. Usually these have been once a year until the funding envelope has been exhausted. ESPRIT I consisted of a pilot phase in 1983 during which 30 projects were initiated. This was followed by a first, second and third open call for projects in 1984, 1985 and 1986 respectively. By the end of ESPRIT I, 225 projects were underway or had been completed. In 1989 and 1990 calls for projects under ESPRIT II were made and a further 336 projects were underway by 1992.

**Special Efforts have been made to Encourage Participation by Small- and Medium-Sized Enterprises in the ESPRIT Programme.**

ESPRIT's rules of operation require that each project associate a minimum of two firms located in at

least two different EC countries. Although there is no obligation to include universities or research organizations (ROs) as partners, of the 225 ESPRIT I projects, 71 per cent included at least one university laboratory or a research institute, among its participants, some as partners and others as sub-contractors. A majority of the participants, however, are firms and of these, 44.6 per cent were small- and medium-sized enterprises (SMEs) (Table 4.1).

Table 4.1: Size and Type of Organizations Participating in ESPRIT

Participating Organizations of which at the end of:	ESPRIT I 1988	ESPRIT II 1989
Companies with less than 50 employees	62	
Companies with 50 to 500 employees	84	
TOTAL SMEs;	146	386
Companies with more than 500 employees	181	292
Universities, research institutions and others	199	293

Source: Commission, 1989, p.3 and 1990, p.4)

## 4. Results

Participation in the ESPRIT programme has been intense with the number of projects received, considerably exceeding those that have been accepted. But it was not always so. Stimulating firms to think about partnering and inducing them to find partners and design research projects has taken time and considerable energy on the part of both the national governments and the European Commission. Although well over 50 per cent of the ESPRIT projects have SME participation, in the final year of ESPRIT II forty-three exploratory actions were initiated to further increase the involvement of SMEs.

With recessionary conditions in much of Europe over the past few years, diffusion of microelectronics has slowed down, reducing the stimulus that comes from buoyant demand. Under the current phase of ESPRIT, covered by the third framework programme for Community R&D activities (1990-94), it was therefore decided to combine the need to stimulate demand for semiconductors and the need to involve SMEs more fully in the ESPRIT programme, and to create a special action programme to promote SME usage of ASIC

technology. In addition, since many SMEs are located in southern Europe, a special regional action was launched in Greece, Portugal and Spain to accelerate the diffusion of microelectronic technology there (Commission: 1991, 7).

**Participants in ESPRIT are now Beginning to Commercialize Products and Processes Resulting from their Collaboration**

Marketable products and processes have only recently begun to emerge from the ESPRIT programme. Two factors account for this. First, ESPRIT's initial precompetitive orientation and the 4-5 year terms of many of the projects approved during the first few years of ESPRIT I meant that four years after start-up only 37 projects had been completed. Second, the elapsed time between project approval and project start-up, which ranged from one to 24 months during the early phase of ESPRIT I. In time, a greater efficiency in managing the ESPRIT programme, i.e. more experience in dealing with intellectual property rights, the use of model contracts, consortia whose members had more experience with R&D collaboration, has shortened the period of planning and negotiation.

By 1989 when the first call for projects under ESPRIT II was held, only 40 per cent of the ESPRIT I projects had ended, but data furnished by the ESPRIT secretariat showed that ESPRIT had already produced 313 major results, of which 152 contributed directly to products or services, 118 consisted of tools and methods used outside ESPRIT and 43 were contributions to international standards (Commission: 1990a, 2). Eighteen months later, the total number of results had risen to 495, of which 270 contributed directly to marketable products or services, 167 consisted of tools and methods and 58 established international standards (Commission: 1991, 8).

From the perspective of the firm, particularly the small- and medium-sized enterprises covered in two recent surveys (Delapierre, Lemette, Mytelka, Zimmermann and Vavakova:1988; Mytelka:1990), the impact of ESPRIT has also been remarkable in a number of other ways. ESPRIT, for example, assures partners of access to all research results from within their own project and it provides for the dissemination of information across projects on a privileged basis for ESPRIT partner firms and research organizations. For many of the small- and medium-sized firms this access to research results has created a multiplier effect considerably enlarging the impact of their own R&D effort and expenditure. A list of other positive points to emerge from these interviews is presented in Box 4.1.

More broadly still, as these surveys revealed, ESPRIT has contributed to the preservation of declining sectors, notably the European semiconductor industry has boosted sectors where Europe had a technological edge, such as in the production of software, fostered regional development and by involving users from different industries in a number of its

**Box 4.1: Benefits derived by SMEs from the ESPRIT Programme**

- Enabled SMEs to increase or maintain R&D levels
- Enhanced knowledge accumulation by SMEs, thereby increasing their resistance to takeovers
- Enabled subsidiaries to remain active in R&D by complementing the R&D decentralization strategies of parent firms
- Encouraged networking through which supplier-client linkages were established, and
- Led to the commercialization of new products and processes

application projects, accelerated the process of technology diffusion across industrial sectors.

Despite the number of benefits ESPRIT has brought to individual participants, there remain questions about its ability to contribute to the overall competitiveness of the information sector, and this notwithstanding efforts to sharpen the focus of the ESPRIT programme and to ensure greater coherence through integrated project clusters and follow-up projects. During the current phase of ESPRIT, which began in July 1991, therefore, a number of large-scale targeted projects designed (i) to increase productivity in the development of software by concentrating on production methods and tools; (ii) to strengthen European manufacturing capabilities through computer integrated manufacturing technologies; (iii) to develop new design and manufacturing technologies for standard integrated circuits and for ASICs; (iv) to develop flat panel display technology for telecommunications and HDTV; and (v) to further develop their current advance in parallel processing will be launched. As in the shift away from pre-competitive R&D and towards more market-oriented projects, the development of large-scale targeted projects in ESPRIT owes much to the demonstration effect exercised by the EUREKA programme.

## 2. The EUREKA programme

Initiated by President Francois Mitterand of France as a response to the American Strategic Defense Initiative, EUREKA now includes 19 Member countries from across Europe, plus the European Communities, represented by the Commission. Like ESPRIT, the aim of EUREKA is to stimulate cross-border R&D collaboration as a means of strengthening the competitiveness of European industry. Beyond that, however, the contrasts with ESPRIT are considerable.

From the Hannover Ministerial Meeting in November 1985 to the Rome meeting in June 1990, nearly 400 projects were approved. A year later, a further 112 projects received the EUREKA label at the Hague (EUREKA: 1991a, 5; EUREKA: 1992, 1). Within six years EUREKA thus had 500 on-going projects. It should, however, be remembered that firms and re-

search institutions already had been stimulated to engage in trans-European partnering activity through the ESPRIT programme.

**EUREKA was Designed from the Outset to be Market-oriented**

### 1. Scope and Orientation

EUREKA's projects were, from the outset, more market-oriented than those of ESPRIT. Nonetheless, and like ESPRIT I, many of these were long-term projects. Of the 386 projects accepted between 1985 and 1990, 48 per cent, for example, have terms ranging from two to four years, 38 per cent have terms of over four years and a further 29 projects have terms in excess of six years (EUREKA: 1991a, pp. 4-5 and 22-3).

EUREKA pursues a "bottom up" approach with respect to the selection of themes for research. Thus, unlike ESPRIT, there are no pre-selected themes under which prospective consortia must place themselves. Instead, participants have full responsibility for defining the scope of their collaboration. The result, however, is that EUREKA tends to be even less focussed than ESPRIT.

To compensate, EUREKA has from the outset favoured large targeted projects. These tend to have terms of four years or longer and cost upwards of ECU 20 million. Twenty per cent of EUREKA's projects fall into this category and they account for 36 per cent of the total costs expended through the EUREKA programme from 1985-90 (EUREKA: 1991a, pp. 22-23). A number of the better known large-scale projects are listed in Box 4.2.

EUREKA also has a number of umbrella projects. These are groups of related projects covering "well-defined technology areas which governments and industries consider to be of strategic importance for the competitive position of Europe" (EUREKA: 1991b, 25). Umbrellas, however, have become the subject of considerable debate within EUREKA, because of the tendency for such projects to be organized from above, rather than being generated from below (EUREKA: 1992, 25-26). The exception is FAMOS, the EUREKA umbrella project on robotics. Over the period 1985-90 a total of 29 projects involving different applications of robot technology to manufacturing, components for robotics used in manufacturing and related software, were approved for a total of ECU 291 million. Because of its many industrial partners, FAMOS is a market driven umbrella. More recent umbrellas, such as EUROCARE and EUROENVIRON, both of which have an environmental focus, were set up mainly by government and research bodies and are still looking for industry partners.

**The EUREKA Programme Covers all Scientific and Technological Fields**

In sum, although EUREKA's scope extends to all scientific and technological fields, five technologies, in particular, have accounted for 68 per cent of the 386 projects that were underway at the end of 1990. These included robotics with 84 projects, biotechnology with

**Box 4.2: Major EUREKA Projects**

**HDTV (EU95)** designed to develop a new high definition television system: ECU 625 million over 66 months.

**JESSI (EU127)**, the Joint European Submicron Silicon Initiative, aimed at moving the European semiconductor industry rapidly to the frontier in semiconductor technology: ECU 550 million over 96 months.

**AMADEUS (EU328)** to develop an easy-to-use European-based global computerized reservations, ticketing and payments system: ECU 350 million over 54 months.

**PROMETHEUS (EU45)** a programme to develop a European traffic system with highest efficiency, unprecedented safety and reduced impact on the environment using onboard pilots and computerized traffic systems: ECU 304 million over 102 months.

**EAU CLAIRE (EU53)** aimed at developing new techniques for purifying water from industrial activities: ECU 96 million over 45 months.

**CARMAT (EU13)** intended to develop processes and design fabrication techniques for the use of new materials in car bodies: ECU 60 million over 72 months.

64, information technology with 60, new materials with 33 and communications, including HDTV with 27 (EUREKA: 1991b, 4).

### 2. Programme Management and Financing

EUREKA is a flexible, decentralized network in which the small EUREKA Secretariat located in Brussels plays no operational role. Instead, it serves as support unit whose main responsibilities are to gather and distribute information on projects, facilitate the search for partners through its EUROBASE service and promote the EUREKA concept.

EUREKA's 19 Members finance the EUREKA programme. They contribute to the maintenance of the Secretariat in Brussels and support the national project coordinators and their staff, who may or may not be public servants.

National Project Coordinators and their staff are the principal operational units and the sole interlocutor with project partners. It is they who advise and assist in the preparation of projects and organize the selection and financing of projects. The mechanisms through which the latter two tasks are performed differ from country to country. For example, in France the govern-

ment gives an annual budget of Francs 900 million to finance EUREKA projects. This sum is distributed to five different agencies - the Ministère de la Recherche et de la Technologie, le Ministère de l'Industrie et de l'Aménagement du Territoire, France Télécom, l'AFME (énergie et environnement), and l'ANVAR, which is the government department directly responsible for EUREKA - who directly finance the French participants in those projects in which they are interested.

Lastly, it is the National Project Coordinators and their staff who are responsible for project monitoring although there is a tendency to minimize such monitoring activities within EUREKA. National Project Coordinators are in personal touch with each other and they meet several times a year.

#### **EUREKA'S Management is Decentralized and Project Initiation is a Bottom-up Process**

A "High-Level Group" made up of representatives appointed by the Member governments formulates general EUREKA policy for approval by the Ministerial Conference. It also monitors the implementation of ministerial decisions. The High-Level Group is composed of the heads of those agencies directly responsible for the EUREKA National Project Coordination Office. These include such diverse bodies as Finland's Technology Development Centre, the EUREKA Unit within the UK's Department of Trade and Industry, EOLAS, the Irish Science and Technology Agency, the Centro para el Desarrollo Tecnológico Industrial in Spain and the Bundesministerium für Forschung und Technologie (BMFT) in Germany. The High-Level Group meets three to four times a year.

The Ministerial Conference is the principal decision-making body of EUREKA. It is composed of Ministers from the 19 Member countries and a representative of the European Commission. Initially it met twice a year. This has since been reduced to an annual meeting during which projects that receive the EUREKA label are announced. To enable project financing to begin before these meetings make the EUREKA status official, the High-Level Group has been empowered to approve projects put before it by the national commissions.

Unlike ESPRIT, there are no organized calls for projects in EUREKA. Interested firms and research organizations at their own pace find partners, prepare a proposal, negotiate a cooperation agreement amongst themselves and organize the financing of their project. Once the consortium is in place, each of the participants submits the proposal to its national project coordinating body. Acceptance or rejection takes place at this level. So too do decisions concerning project financing.

The decentralized nature of EUREKA permits the percentage of total costs for individual partners born by EUREKA to vary from country to country, from project to project and within projects in function of the type of participant. This variability has given rise to conflicts among the partners, particularly when some countries are in arrears in making payments, thus creating difficulties

for national participants to shoulder their share of the joint research. It has also contributed to delays in obtaining approval and securing project funding. Even then, the maximum financing, normally 30 per cent of eligible costs for a given partner, falls well below ESPRIT's 50 per cent of eligible costs. Nonetheless, because of the number of large projects in EUREKA, total costs of the 386 projects approved between 1985 and the Rome meeting in June 1990 amounted to ECU 7,533 million.

### **3. Participation**

Because of its "bottom up" approach, EUREKA initially had more problems in attracting SMEs than ESPRIT. Roughly 30 per cent of the EUREKA projects have SME participation, compared to over 50 per cent in ESPRIT. The relatively low participation rate of SME's in EUREKA was particularly notable in France, where only 19.5 per cent of the industrial participants were SMEs as compared with 23.8 per cent in Germany, 27.6 per cent in the UK and over 35 per cent in smaller countries like Norway, Switzerland and the Netherlands. Two years ago, therefore, the French government shifted responsibility for EUREKA from IFRAMER, a public sector marine research institute to ANVAR, the National Agency to promote Research, which has regional antennae throughout France and which normally provides financial support to the SME sector. Within ANVAR, a fund to aid European Technological Partnerships was set up to subsidize an SME's search for partners and the definition phase of its participation in a trans-European R&D project. Other countries have also begun to recognize the need to provide additional financial support for SMEs and have created special funds to do so.

#### **A Few Non-European Firms Have Joined Eureka Projects**

In contrast to ESPRIT, EUREKA has opened its projects to a few non-European country participants. Canadian participants are, for example, involved in four EUREKA projects - EU5 dealing with membranes for micro filtration, EU20 in informatics, EU26, a laser project and EU417 a marine-related environment project (EUREKA: 1991a, 27). An Argentine firm, Vilmax, with 30 years of experience in organic dyestuffs and an important patent involving an original way to derive dyes and then to copolymerize them into homogeneous tridimensional polymers, has joined with IBF Biotechnics, a subsidiary of the French firm Rhône Poulenc, SmithKline Biologicals and the University of Patras in EU384, a project designed to study dyes and dye sorbents for purification of biologicals. Vilmax's participation in this EUREKA project, it should be pointed out, was a result of previous collaboration in R&D between IBF and Vilmax.

Among EUREKA's other innovations is the 45-day period after EUREKA status is granted, during which information concerning new EUREKA projects is circulated to the Member countries for the purpose of providing other firms and research institutions with an opportunity to join the project. Existing project mem-

bers, however, have the right to veto such requests. The situation in EUREKA thus contrasts markedly with ESPRIT, where the ESPRIT secretariat has on occasion engineered mergers between related projects or induced existing partners to accept new members, particularly from the southern European countries. Company interviews, moreover, have shown that some firms prefer the greater freedom they have within EUREKA to choose their own partners and restrict the sharing of new knowledge through negotiated agreements among the project's partners. It is unclear, therefore, whether this 45-day information period has led to a high rate of acceptance of new members into existing consortia.

#### 4. Results

Five years after start-up only ten projects had been successfully completed and had led to the commercialization of new products. Three other projects had successfully completed the research phase, but had not yet launched any products (EUREKA: 1991b: 38). In large part this is due to the relatively long terms of a large proportion of EUREKA's projects. Thus only 12 per cent of the large firms and 7 per cent of the SMEs anticipated any commercial applications within two years of beginning a project. Over 50 per cent, however, expected some results within two to five years. In 1992-3, therefore, a significant increase in results should take place, particularly in the large-scale targeted projects such as HDTV or the FAMOS umbrella group.

#### 3. EC/SPRINT: Specific Projects for Intra-Community Innovation Transfer

Specific projects for intra-community innovation transfer are a new line of activity established within the Strategic Programme for Innovation and Technology (SPRINT) of the European Community in 1989. The first phase of this programme will run until 1993.

**SPRINT-Specific Projects do Not Aim to Generate Entirely New Products and Processes, but to Create Strategic Partnerships that Facilitate the Transfer of New Technologies from One Sector or Region to Another**

#### 1. Scope and Orientation

Unlike the ESPRIT and EUREKA programmes discussed above or PRECARN and VISION 2000 examined in Chapter 5, all of which focus on research and development with a view to generating entirely new products and processes, specific projects involve a transfer of new technologies already applied in one sector or region to another sector or region in the Community where those technologies are not yet used (CEE/Sprint: 1990). Both the new application and the process of adapting the technology to its new context constitute innovations that raise productivity and build the capabilities to innovate further in the future. Projects of this sort, therefore, may be of particular interest to Latin America where productivity gains can be realized through the diffusion of new technologies

from outside the region. Disparities between countries, sectors and enterprises across Latin America in the adoption of new technologies provides yet another opportunity for projects of this sort to be undertaken within the region.

SPRINT's Specific Projects for Intra-Community Innovation Transfers may involve any industrial sector and any technology which has recently become available. However, in evaluating the projects for funding, preference is given to generic technologies such as biotechnology, information technologies, manufacturing or assembling technologies, which have a broad spectrum of applications, to technology transfers to traditional industrial sectors, textiles and clothing, food processing, metallurgy, or to sectors with "high social utility", such as those affecting the environment or health.

#### 2. Management and Financing

Specific Projects for Intra-Community Innovation Transfers are managed by the Commission's SPRINT programme with the aid of sector or technology specialists.

Fifty per cent of the total eligible costs of "Specific Projects" are born by the Community up to a total of ECU 1.5 million per project. Unlike the ESPRIT programme, however, eligible costs for "Specific Projects" include the project definition, as well as the implementation and dissemination phases. To encourage the small- and medium-sized enterprises that were expected to play a larger role in such a programme, the Commission is willing to pay up to 75 per cent of the eligible costs of carrying out the definition phase up to a total of ECU 100,000.

Projects are thus accepted first for a four to six-month definitional phase. The purpose of the definitional phase is to enable the partners to demonstrate the project's organizational, managerial, technical and legal feasibility and its economic and financial viability. In addition, it is expected that the partners will develop a detailed plan for the implementation and dissemination phases. For firms that have not engaged in strategic partnerships before, the definitional phase is thus a useful period of apprenticeship and one whose costs and risks are significantly reduced by the availability of Community funding.

#### 3. Participation

As in other EC programmes, partners in specific projects must come from independent organizations in at least two Member states and they must include industrial companies that are committed both to take part in the project and to apply the results. Given the scope of this programme, however, a wider range of partners could be envisaged than would be found in a programme that focuses more narrowly on a particular sector. Thus, if the project involved the introduction of new technologies to manage urban utilities networks, it might involve changes in the work of local officials,

design offices, public works firms, water, electricity and gas utilities, the police and safety bodies, and in the interfaces between them. In such cases, spreading innovations more widely and adapting technologies calls for experiments involving all parties concerned (CEE/SPRINT: 1990, 4).

#### 4. Results

During the first call for projects, 25 proposals were selected for the definitional phase. After evaluation, 11 have moved on to the implementation phase. These include: the transfer of water jet cutting techniques to the foundry industry; the adaptation of biologically bred insects - developed to attack the eggs of corn borers - to other agricultural pests; the development of a CAD/CAM system for packaging engineering destined for small- and medium-sized enterprises that compete in fast changing product markets; the application of ceramic filter technology to fish processing; and the development of a comprehensive database on tile designs for Europe's traditional ceramic tile industry.

*(Chapter V will follow in the next issue of the TIES Newsletter)*

## TRANSFER OF HIGH TECHNOLOGIES TO DEVELOPING COUNTRIES

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*(This paper was prepared for the 4th International Seminar on Technology Transfer held in Rio de Janeiro, Brazil, from 4 to 9 October 1992)*

### 1. Changing trends in international technology transfer

It is a well-established and accepted fact that transfer of technology plays a dominant role in the technological and industrial development of developing countries, and because of this, technology transfer issues have been a matter of intensive discussions and debate in various international fora for the last twenty years.

In the seventies, many developing countries created legal and institutional mechanisms aimed at improving the conditions for acquisition of technology by their national firms, not only with the purpose of reducing licensing costs, but also to allow for the assimilation, adaptation and diffusion of the imported technologies in the recipient countries. Still in the seventies, important international discussions were initiated under the auspices of the UN System with a view to establishing an international regulatory framework conducive to fair and equitable conditions in international technology transfer transactions.

That was a time when developing countries, encouraged by the success of the OPEC cartel, expected that the establishment of a New International Economic Order would become a reality and that, through an International Code of Conduct for Transfer of Technology, it would be possible to reduce the dependency on foreign technology suppliers and stimulate the development of indigenous technology.

The situation regarding the policies and practices for transfer of technology has changed dramatically in the eighties and is still changing. There are a number of reasons for such a change.

First of all, the world economic slump that began in the late seventies and worsened in the early eighties led many countries, developed and developing, to reconsider their interests regarding technology transfer operations. For many developing countries, the debt crisis restricted their access to financial resources. Scarcity of financial resources in the international money market resulted in a decline in foreign direct investment, which is an important vehicle for transfer of technology. In order to attract foreign investors, many developing countries started revising their policies and practices concerning transfer of technology, in a clear trend towards increasing deregulation and liberalization. An early example in this direction was given by Argentina in 1981. In 1987 the Andean Pact member countries eliminated Decision 24, which contained the basis for a common restrictive policy and replaced it by the Decision 220 which allows each member country to adopt whatever foreign investment regime it prefers. More recently, Mexico and Brazil introduced substantial relaxation in their long time stiff regulations on transfer of technology.

### 2. New and high technologies and technology transfer

Another element which has played a decisive role concerning the changing trends in transfer of technology is the emergence of new and high technologies in such fields as biotechnology, microelectronics and computer-related technology, telecommunications, fibre optics, etc., with deep implications in the attitudes of the various interested parties, be it governments, industrialists and technology development institutions.

High technologies have become an important element for the competitive strength of its owners. The technologies are changing very fast and the product life cycles are getting shorter and shorter. In the field of computer related technologies, for example, what is today the state-of-the-art may become obsolescent tomorrow. This fact is well illustrated by the developments in the field of personal computers where there has been a rapid development from the AT version based on the 80282 chip to the 386 version and then to the 486.

In this context, one of the major concerns from the suppliers' side has been the control of the market and minimizing the risk of competition. Therefore, in the field of high technologies some visible trends have been noticed: there is an increased tendency for technology

transfer linked to direct investment, i.e., via subsidiaries rather than through straight licensing; there are less high technologies available for licensing; the licensors are demanding much higher licensing fees and tougher restrictive conditions in the licensing agreements.

At the same time, technology owners and governments of industrialized countries are placing a great emphasis on the protection of intellectual property rights. Many developing countries have rather relaxed intellectual property laws and practices in order to facilitate the "free" use of foreign technologies by their domestic enterprises. The patentability of some products, e.g. pharmaceuticals, has not even been accepted in many jurisdictions. Nowadays, industrialized countries, led by the United States, have been exerting increasing pressure and deploying a number of actions, such as through bilateral agreements, trade sanctions and the GATT negotiations, in order to reinforce the standards for intellectual property protection worldwide.

### **3. Measures to enhance technology transfer to developing countries**

The acquisition of high and new technologies by developing countries, as well as the endogenous development and adaptation of such technologies, is not an easy task, as explained in the previous sections.

But significant potential for development in these areas exist, due to the science-intensive nature of some high technologies and the role of R&D institutions and university laboratories. These are non-negligible assets available in developing countries, which, in any case, have to be supported by appropriate policies and programmes on technology planning, industrial research and application and linkages with industry, as well as modernization of intellectual property legislation and other regulatory measures in order to ensure that developing countries are able to acquire high technologies thus benefitting from global and technological developments in critical technological sectors.

As a rule, enterprises of developing countries are seldom capable of maintaining a sustainable technological innovation and of bearing risks and burdens associated with technology development with their own financial and technical manpower resources alone. They also need substantial support if the acquisition and adaptation of foreign technology is to produce innovative and competitive products.

In the light of the many constraints that enterprises of developing countries are confronted with, the role of the state in setting up long term policy actions and channelling industrial and technological development in suitable directions will continue to be a vital necessity in most developing countries.

Among the many aspects that have to be taken into account in the development of high technologies in developing countries, reference can be made to the following:

#### **3.1. SMEs of industrialized countries as possible sources of technology**

Small and medium enterprises represent an indispensable element of the modern industrial tissue, both in industrialized and developing countries. In the industrialized countries, small and medium enterprises have proved to be very effective in creating new and high technologies and have significantly contributed to increased national competitiveness.

For the developing countries, small and medium enterprises of industrialized countries have a number of advantages as sources of technology.

As a matter of fact, many small and medium enterprises that have created new technologies have regarded licensing as the only viable way of generating income to continue their R&D activities. In many cases they license technologies to larger corporations, but the experience is not always as positive as expected, in view of the disparities of strategic interests, bargaining power and corporate culture barriers. In many cases, the relationship between the SME technology developer and its large corporate licensor ends with the acquisition of the former by the latter.

The licensing among small firms represents a promising form of technology transfer to developing countries. Technology transfer between partners with comparative dimensions and business philosophies would represent a more fertile ground for mutually beneficial deals; small and medium enterprises are likely to have technologies that are more appropriate, more adaptable and more suitable for blending with traditional techniques; licensing activities would allow for small firms of industrialized countries to extend their operations abroad and obtain experience and stimulus for growth in internationally oriented operations.

UNIDO has acquired a considerable experience in promoting the transfer of technology among small and medium enterprises and found that SMEs from industrialized countries are much more flexible and less inclined to restrictive practices than the transnational corporations.

But it is not easy for small and medium enterprises from industrialized countries to enter the international technology market and embark on licensing activities. In most cases they do not have the necessary knowledge of the foreign markets and are unable to identify suitable counterparts; they lack resources to invest in the costly, lengthy and hazardous process of developing and conducting the negotiation process until the co-operation agreement materializes; they may not have sufficient manpower to grant the licensee the technical assistance needed for the successful transfer of technology. These facts suggest that support from governments and international organizations is needed to promote technology transfer transactions and partnerships at the level of small and medium enterprises.

### **3.2. Human resources development**

With the rapid pace of technological change and new applications of scientific and technological inventions to manufacturing activities, new categories of technical personnel will have to be trained or reassigned in such areas as computer science, systems design, micro-electronics, microbiology, biotechnology, etc. The demand for new categories of skilled personnel at the various levels must be effectively met and would necessitate considerable reorientation in educational and training facilities and curricula.

Educational and training activities should also include entrepreneurship development and technology management. Absorption and adaptation of latest management techniques is essential, e.g. in the use of automated office equipment and in the coordination of flexible manufacturing techniques, just-in-time production operations and achievement of optimum production standards.

### **3.3. New role of R&D institutions and access to technology**

Due to the very high costs involved in R&D activities in the field of high technologies, research institutions and universities can play an important role in the generation and diffusion of innovation. Since R&D institutions in developing countries can hardly compete with the high investments made in developed countries, specially in the last ten years in the area of high technologies, they can nevertheless contribute to monitoring scientific and technological development, assist small and medium enterprises in the adaptation of imported technologies and establish networking arrangements with similar institutions in other developing countries, allowing the access to R&D results in viable licensing conditions.

R&D institutions can link the endogenous research to local technological applications through blending and also to concentrate on technological developments directly related to local needs. It is also necessary to provide major incentives for enterprise-level research, by TNC affiliates as well, in new technologies and applications.

### **3.4. Technological information**

The importance of access to technological information cannot be over-emphasized. Institutions and enterprises in developing countries should have the knowledge regarding alternative technologies and sources in various fields, together with experience of operations of such technologies. For certain categories of new technologies, such as production of computers and peripheral equipment, technology can be obtained from several alternative sources and information on such sources would be valuable for negotiations and the acquisition of such technologies. A national technological information system should be developed for priority sectors that would have linkages with external databases and sources for information on alternative

technologies. Information on technology costs and contractual conditions are more difficult to obtain, but organizations such as UNIDO have been compiling and have available considerable experience and knowledge that can be tapped by developing countries.

### **3.5. Financing**

In the context of the current highly competitive international market, substantial financial resources are necessary in the areas of R&D, market and distribution, and also to promote technology transfer operations between small and medium enterprises from industrialized countries and small and medium enterprises in developing countries. For small and medium enterprises in developing countries, the constraints related to financing R&D may be rather significant.

As mentioned before, this process requires considerable support from governments and international organizations if the technology development and transfer process in the developing countries is to reach a meaningful scale.

### **3.6. Environment for foreign investment and technology inflows**

An essential element in any technology development policy in the field of new and high technologies is the access to technologies from foreign sources. With a close relationship between foreign investment and technology inflow in certain fields, particularly those involving new technological developments, policies on foreign investment also assume considerable relevance, since it is possible that such inflow may also take place through TNC subsidiaries or foreign-controlled affiliates, or through joint ventures with minority foreign holdings. In the case of new technologies, particularly microelectronics and biotechnology, the access to technology and the contractual conditions may prove difficult to negotiate due to increased protective measures and highly restricted conditions imposed by technology owners and also governments of industrialized countries.

With the need for increased technology inflow, it is necessary for developing countries to review the institutional arrangements for screening foreign technology contracts and be more flexible concerning the guidelines prescribed by regulatory agencies. As pointed out earlier, existing trends in technology transfer policies are towards greater liberalization and flexibility. This is largely because of the increased privatization with respect to new technologies through intellectual property rights.

Here the governments of developing countries will be persuaded to adapt their regulatory instruments to the international business practice. On the other hand, the governmental functions of control and promotion of technology transfer should be more and more of a selective and strategic nature, and closely related with their macro-economic policies.



### 3.7. International technological co-operation

International programmes designed to promote technological development in developing countries can take various forms of intercountry co-operation between developing and developed countries and among developing countries. Such co-operation can range from greater exchange of information, experience and assessment regarding alternative technologies to commercial arrangements for equity participation and increased technology transfer between institutions and enterprises in different countries.

It is necessary that south-south co-operation be maximized with respect to technology exchange and transfer. Closer linkages need to be established between universities and research institutions in developing countries with respect to technological research and applications. There is also substantial scope for increased commercial relationship between universities and research institutions on the one hand and production enterprises on the other hand through technology transfer contracts.

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## LEGISLATION

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### MEXICO:

#### LAW FOR THE PROMOTION AND PROTECTION OF INDUSTRIAL PROPERTY (Part 2)

(Translation of the Spanish original published in the Official Federal Journal of 27 June 1991, and effective as of 28 June 1991)

The authorized changes will be published in the Gazette.

#### CHAPTER VI:

##### *Licenses and Assignments of Rights*

**Article 62:** All or part of the rights to a patent or registration may be assigned in the terms and following the formalities established in the common legislation. In order for the assignment of rights to be enforceable against third parties, such assignment must be recorded with the Ministry.

**Article 63:** The holder of a patent or registration may grant by means of an agreement, a license to practice the same. The license must be recorded with the Ministry in order to be enforceable against third parties.

**Article 64:** To record an assignment of a patent, a registration or a license with the Ministry, it will suffice to prepare the respective petition in the terms established in the Regulations of this Law.

**Article 65:** The recording of a license may be canceled in any of the following cases:

1. When requested jointly by the holder of the patent or registration and the licensee;
2. As a result of the nullity or lapsing of the patent or registration;
3. In the case of the licenses referred to in Article 23 of this Law, when the circumstances established in Section V of the said article occur;
4. By a court order.

**Article 66:** No license shall be recorded if the patent or registration has lapsed or if its duration is longer than the term of the patent or registration. The license also shall not be recorded when the applicability of this Law is expressly excluded from the respective agreement, without detriment to the fact that the parties may submit to international arbitration in the case of controversy.

**Article 67:** The grant of a license shall not exclude the possibility, on the part of the holder of the patent or registration, of granting other licenses or simultaneously carrying out the exploitation of the same by himself, unless otherwise agreed upon.

**Article 68:** The person who has been granted a license that is recorded with the Ministry will be entitled to exercise legal actions to protect the patent rights, as if he himself were the holder, unless otherwise agreed upon.

**Article 69:** The working of a patent by the person to whom a license that is recorded with the Ministry has been granted will be deemed to be worked by its holder, except in the case of compulsory licenses.

**Article 70:** Regarding inventions, after three years from the date of granting of the patent, or four years from the filing date of the application, whichever is later, any person may apply to the Ministry for the grant of a compulsory license to work the invention, when it has not been worked, unless there are justified technical or economical reasons.

There will be no granting of a compulsory license when the holder of the patent or the person to whom a contractual license has been granted has been carrying out the import of the patented product or the product obtained by the patented process.

**Article 71:** Whoever applies for a compulsory license shall have the technical and economical capacity to efficiently work the patented invention.

**Article 72:** Before the granting of the first compulsory license, the Ministry will provide the holder of the patent license with the opportunity of working it within a term of one year from the date of personal notification given to him.

Following a hearing with the parties, the Ministry will decide on the granting of a compulsory license, and if the Ministry decides to grant it, it will set forth its duration, conditions, field of application and amount of royalties that correspond to the holder of the patent.

If a compulsory license is applied for and there is another license, the person who has the earlier license shall be notified and given the opportunity to be heard.

**Article 73:** The Ministry may administratively declare the lapsing of a patent, if after a term of two years from the date of granting of the first compulsory license the holder of the patent does not prove its

working or the existence of a justified reason, in the opinion of the Ministry.

Royalty payments under a compulsory license will cease when the patent lapses, in the case provided for in the preceding paragraph, or for any other cause established in this Law.

**Article 74:** At the request of the holder of the patent or of the person to whom a compulsory license has been granted, the conditions of such license has been granted by the Ministry, when supervenient causes so justify and, particularly, when the holder of the patent is granted contractual licenses more favourable than the compulsory license. The Ministry shall decide on the amendment of the conditions of the compulsory license after a hearing with the parties.

**Article 75:** The person to whom a compulsory license has been granted shall begin working of the patent within two years from the date of granting thereof. Failure to comply with this obligation, unless justified reasons exist in the opinion of the Ministry, will lead to the revocation of the license *ex officio* or at the request of the holder of the patent.

**Article 76:** A compulsory license will not be exclusive. The person to whom it is granted may assign it only with the Ministry's authorization and provided he assigns it together with the part of the business in which the licensed patent is worked.

**Article 77:** Due to reasons of emergency or national security, and during the time such situations or cases subsist, the Ministry, through a declaration to be published in the Official Journal, will determine that certain patents may be worked through the granting of public utility licenses, in cases where, were it otherwise, the production, supply or distribution of basic commodities for the people would be impeded, rendered more difficult or expensive.

For the granting of these license, the terms of the second paragraph of Article 72 will apply, and such licenses may not be exclusive or assignable.

## CHAPTER VII:

### *Nullity and Lapsing of Patents and Registrations*

**Article 78:** Patents or registrations will be null and void in the following cases:

1. When they have been granted against the provisions on requirements and conditions for the grant of patents or utility model or industrial design registrations. For the purposes of the provisions of this section, the requirements are those established in Articles 15, 19, 20, Section II, 27 and 31;

2. When the grant is made against the provisions of Article 43 of this Law. In this case, the patent or registration will be valid in respect to the first claim related to the invention, the invention the first utility model or the first industrial design, as the case may be, and any subsequent ones shall be null and void;

3. When the application is abandoned during its prosecution; and

4. When the grant had been made despite nullity grounds resulting from serious error or inadvertence.

Nullity actions arising out of this article may be exercised within a term of five years starting from the effective date of the publication of the patent or registration in the Gazette.

**Article 79:** A declaration of nullity will be made in an administrative manner by the Ministry, *ex officio* or at the request of a party or of the Federal Prosecutor when the Federation has an interest in the matter, in the terms of this Law. The declaration of nullity will destroy, retroactively to the filing date of the application, the effects of the respective patent or registration.

**Article 80:** Patents or registrations will lapse and the rights thereon will fall into the public domain in the following cases:

1. At the expiration of their term;
2. If the government fees payable thereon remain unpaid during the term established by the respective law, or during the subsequent six-month grace period;
3. In the case established in Article 73 of this Law;

**Article 81:** The reinstatement of a patent or registration that has lapsed as a result of the failure to timely pay the government fees may be requested, provided the respective petition is filed within six months following the grace period referred to in Section II of the preceding article, and the respective government fees plus surcharges are paid.

## TRADE SECRETS

**Article 82:** Considered as a trade secret is all information having industrial application kept confidentially by an individual or corporate entity, which means obtaining or keeping a competitive or economical advantage over third parties in the course of economic activities and respect to which sufficient means or systems to preserve its confidentiality and the restricted access thereto have been adopted. The information of a trade secret shall necessarily refer to the nature, the characteristics or purposes of the products; to the production methods or processes; or to the means or manners of distribution or of trade with products or rendering of services.

Not considered as a trade secret will be information which is in the public domain, which is obvious to a person with technical knowledge in the field, or which has to be disclosed under a legal provision or by a court order. The information submitted to any authority by a person possessing the same as a trade secret will not be considered as falling into the public domain or being disclosed under a legal provision, when it is submitted for the purpose of obtaining licenses, permits, authorizations, registrations or other acts of authority.

**Article 83:** The information referred to in the preceding article will be in documents, electronic or magnetic media, optical disks, microfilms, films or any other similar instruments.

**Article 84:** The person holding a trade secret may transmit it or authorize a third party to use it. The authorized user shall not disclose the trade secret by any means.

Agreements under which technical knowledge, technical assistance, or the supply of basic or detailed engineering are transmitted, may contain confidentiality clauses to protect the trade secrets they contemplate, which shall set forth the aspects they comprise as confidential.

**Article 85:** Anyone who, in connection with his work, employment, duty, position, professional activity or business relationship has access to a trade secret, the secrecy of which has been informed to him, shall refrain from disclosing it without cause and without the consent of the person holding such secret, or of the authorized user.

**Article 86:** The individual or corporate entity hiring a worker who is working or has worked, or a professional, advisor or consultant who renders or has rendered his services for another person, for the purpose of obtaining trade secrets from him, will be responsible for the payment of the damages caused to the said person.

The individual or corporate entity who, by any illegal means obtains information that comprises a trade secret, shall also be responsible for the payment of damages.

## MARKS, SLOGANS AND TRADE NAMES

### CHAPTER I:

#### MARKS

**Article 87:** Industrialists, merchants or purveyors of services may use a mark in industry, commerce or in the services they render. Nevertheless, the right to its exclusive use is obtained by registering it with the Ministry.

**Article 88.** Understood as a mark is every visible sign that distinguishes products or services from others of their same kind or class in the market.

**Article 89.** The following signs may constitute a mark:

1. Visible, sufficiently distinctive names and figures, capable of identifying the products or services to which they are applied or attempted to be applied, against other products or services of the same kind or class;

2. Tridimensional forms;

3. Trade names and denominations or corporate names, provided they do not fall in the following article; and

4. An individual's own name, provided there is no homonym already registered as a mark.

**Article 90.** The following will not be registered as marks:

1. Animated or changing denominations, figures or tridimensional forms expressed dynamically, even though they are visible;

2. Technical or commonly used names of products or services intended to be protected by a mark, as well as such words which, in everyday language or in commercial practice, have become the normal or generic designation thereof;

3. Tridimensional forms that are a part of the public domain or have become of common use, and those that lack sufficient originality to easily distinguish them, as well as the normal and ordinary form of products or that imposed by their nature or industrial function;

4. Denominational figures or tridimensional forms which, considering the composite of their characteristics, are descriptive of the products or services they purport to protect as a mark. Included in such assumption are words that describe or indicate the species, quality, quantity, and use, value, place of origin of the products or the era of their production;

5. Isolated letters, numbers or colours, unless they are combined with or accompanied by elements such as signs, designs or denominations giving them a distinctive character;

6. The translation into other languages, the capricious spelling variation of the artificial construction of unregistrable words;

7. Those that reproduce or imitate, without authorization, heralds, flags or emblems of any country, state, municipality, or similar political divisions, as well as denominations and initials of

international, government and non-government organizations or of any other officially recognized organization, as well as the verbal designation thereof;

8. Those that reproduce or imitate official control and guarantee signs or seals, adopted by a state, without the authorization of the competent authorities, or currencies, bank notes, commemorative coins or any official national or foreign payment medium;

9. Those that reproduce or imitate names or the graphic representation of decorations, medals or other awards obtained in officially recognized exhibitions, fairs, conventions, cultural or sports events;

10. Geographic denominations, proper or common, and maps as well as gentile nouns and adjectives, when they indicate the origin of products or services and can cause confusion or error as to their origin;

11. Names of population centres or places that are characterized by the manufacture of certain products, to protect such products, except the names of privately owned places, when they are special and leave no room for confusion and provided the owner consents thereto;

12. Names, pseudonyms, signatures and pictures of persons, without the consent of the interested parties or, if such persons are deceased, of their spouse, blood relatives in the closest degree or adopted relatives;

13. Titles of literary, artistic or scientific works and their fictitious or symbolic characters, except with the author's consent and provided the author maintains his rights in effect in accordance with the corresponding law; as well as human characters, unless they agree thereto;

14. Denominations, figures or tridimensional forms that could deceive the public or lead to error; understood as such as those that constitute false indications about the nature, components or qualities of the products or services they purport to protect;

15. Denominations, figures or tridimensional forms, equal or similar to a mark which the Ministry considers as well-known in Mexico, to be applied to any products or services;

16. A mark that is identical or confusingly similar to another one already registered and in effect, applied to the same or similar products or services. A mark identical to another one already registered may, however be registered if the application is filed by the same holder, to be applied to similar products or services;

17. A mark that is identical or confusingly similar to a trade name applied to a company or an industrial, commercial service establishment, whose primary activity is the production or sale of the products or the supply of the services purported to be protected with the mark, and provided the trade name has been used prior to the filing date of the application for registration of the mark or the declared date of first use thereof. The foregoing will not apply when the application is filed by the user of the trade name, provided there is no other published, identical trade name.

**Article 91.** A previously registered mark may not be used in the denomination or corporate name nor may it form a part thereof, in any corporate entity engaged in the production, importation or trade with products or services equal or similar to those to which the registered mark is applied, unless there is the express consent in writing of the holder of the registration of the mark or of the person to whom a licence has been granted by the holder.

The infringement of this provision will lead to the application of the sanctions referred to in this Law, besides the fact that a lawsuit may be brought to delete the mark from the respective denomination or corporate name and the payment of damages.

**Article 92.** The registration of a mark will have no effects against:

1. A third party who, in good faith, used in the national territory the same or a confusingly similar mark, for the same or similar products or services, uninterruptedly, prior to the filing date of the application for registration or the declared date of first use thereof. The third party will have the right to apply for the registration of the mark during the year following the date the registration was published, and in such case he shall previously prosecute and obtain the nullity thereof; and

2. Any person trading with, distributing, acquiring or using the product to which the registered mark is applied, after said product had been legally introduced into the market by the holder of the registered mark or by the person to whom a license had been granted.

Included in this assumption is the importation of the products to which the mark is applied, made by any person for use, distribution or trade in Mexico, in the terms and conditions set forth in the Regulations of this Law.

Carrying out any activity contemplated by this article will not constitute an administrative infringement or a criminal offense in the terms of this Law.

**Article 93.** Marks will be registered in connection with particular products or services, or classes or products or services, according to the classification established in the Regulations of this Law. Any doubt

with respect to the class to which a product or service corresponds will be finally resolved by the Ministry.

**Article 94.** Once a mark has been registered, the number of products or services it protects may not be increased, even though they pertain to the same class, but it may be limited to particular products or services as many times as requested. A new registration will have to be obtained to protect at a later time a different product or service with a mark already registered.

**Article 95.** A registration for a mark will be effective for ten years from the filing date of the application, and may be renewed for equal periods of time.

## CHAPTER II:

### COLLECTIVE MARKS

**Article 96.** Legally incorporated associations or producers, manufacturers, merchants or purveyors of services may apply for the registration of a collective mark to distinguish in the market the products or services of their members from products or services of such persons who are not members of said associations.

**Article 97.** Together with the application for the collective mark, it will be necessary to submit a list of the associates and the rules for use of the mark. Once the registration of the collective mark has been obtained, the association shall notify the Ministry of any changes that occur in the list of associates.

**Article 98.** The collective mark may not be assigned to third parties, and its use is reserved to the members of the association.

Collective marks will be governed, in the absence of a special provision, by the provisions of this Law relating to marks.

## CHAPTER III:

### SLOGANS

**Article 99.** The exclusive right to use a slogan will be obtained through a registration with the Ministry.

**Article 100.** Deemed to be slogans are the phrases or sentences whose purpose is to advertise to the public establishments or commercial, industrial or service businesses, products or services to easily distinguish them from others of their kind.

**Article 101.** If the purpose of a slogan is to advertise products or services, they shall be clearly recited in the application for registration.

**Article 102.** If the purpose of the slogan is to advertise any type of establishment or business, it will be deemed to be included in a special class, one that supplements the classification established in the Regulations of this Law. In such cases, the registration

will not cover products or services, even if they are related to the establishment or business.

**Article 103.** The registration of a slogan will be effective for ten years from the filing date of the application, and it may be renewed for equal periods of time.

**Article 104.** In the absence of a special provision, slogans will be governed by the provisions contained in this Law for marks.

*(To be continued in the next issue of the TIES Newsletter)*

## PHILIPPINES:

### LEGISLATION ON BUILD-OPERATE-TRANSFER (BOT)

*Republic of the Philippines, Congress of the Philippines, Metro Manila*

#### Third Regular Session

Begun and held in Metro Manila, on Monday, the twenty-fourth of July, nineteen hundred and eighty-nine.

#### REPUBLIC ACT NO. 6957

#### AN ACT AUTHORIZING THE FINANCING, CONSTRUCTION, OPERATION AND MAINTENANCE OF INFRASTRUCTURE PROJECTS BY THE PRIVATE SECTOR, AND FOR OTHER PURPOSES

Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

**SECTION 1. Declaration of Policy** - It is the declared policy of the State to recognize the indispensable role of the private sector as the main engine for national growth and development and provide the most appropriate favourable incentives to mobilize private resources for the purpose.

**SECTION 2. Definition of Terms** - The following terms used in this Act shall have the meanings stated below:

(a) **Build-operate-and-transfer scheme** - A contractual arrangement whereby the contractor undertakes the construction, including financing, of a given infrastructure facility, and the operation and maintenance thereof. The contractor operates the facility over a fixed term during which it is allowed to charge facility users appropriate tolls, fees, rentals, and charges sufficient to enable the contractor to recover its operating and maintenance expenses and its investment in the project plus a reasonable rate of return thereon.

The contractor transfers the facility to the government agency or local government unit concerned at the end of the fixed term which shall not exceed fifty (50) years. For the construction stage, the contractor may obtain financing from foreign and/or domestic sources and/or engage the services of a foreign and/or Filipino constructor: **Provided**, That the ownership structure of the contractor of an infrastructure facility whose operation requires a public utility franchise must be in accordance with the Constitution: **Provided, however**, That, in the case of corporate investors in the build-operate-and-transfer corporation, the citizenship of each stockholder in the corporate investors shall be the basis for the computation of Filipino equity in the said corporation: **Provided, further**, That, in the case of foreign constructors, Filipino labour shall be employed or hired in the different phases of the construction where Filipino skills are available: **Provided, furthermore**, That the financing of a foreign or foreign-controlled contractor from the Philippine government financing institutions shall not exceed twenty per cent (20%) of the total cost of the infrastructure facility or project: **Provided, finally**, That financing from foreign sources shall not require a guarantee by the Government or by government-owned or controlled corporations. The build-operate-and-transfer scheme shall include a supply-and-operate situation which is a contractual arrangement whereby the supplier of equipment and machinery for a given infrastructure facility, if the interest of the Government so requires, operates the facility providing in the process technology transfer and training to Filipino nationals.

(b) **Build-and-transfer scheme** - A contractual arrangement whereby the contractor undertakes the construction, including financing, of a given infrastructure facility, and its turnover after completion to the government agency or local government unit concerned which shall pay the contractor its total investment expended on the projects, plus a reasonable rate of return thereon. This arrangement may be employed in the construction of any infrastructure project including critical facilities which, for security or strategic reasons, must be operated directly by the Government.

**SECTION 3. Private Initiative in Infrastructure** - All government infrastructure agencies, including government-owned and controlled corporations and local government units, are hereby authorized to enter into contract with any duly prequalified private contractor for the financing, construction, operation and maintenance of any financially viable infrastructure facilities through the build-operate-and-transfer or build-and-transfer scheme, subject to the terms and conditions hereinafter set forth.

**SECTION 4. Priority Projects** - All concerned infrastructure agencies, including government-owned and controlled corporations and local government units, shall include in their infrastructure programmes those priority projects that may be financed, constructed, operated and maintained by the private sector under the provisions of this Act. It shall be the duty of all concerned infrastructure agencies to give wide

publicity to all projects eligible for financing under this Act, including publication in national newspapers of general circulation once every six (6) months and official notification of contractors registered with them. The lists of all such national projects must be part of the medium-term infrastructure programmes of the agencies concerned and must be duly approved by Congress. Local projects funded and implemented by the local government units concerned shall be submitted to the local development councils for confirmation or approval.

**SECTION 5. Public Bidding of Projects** - Upon approval of the projects mentioned in Section 4 of this Act, the concerned head of the infrastructure agency or local government unit shall forthwith cause to be published, once every week for three (3) consecutive weeks, in at least two (2) newspapers of general circulation and in at least one (1) local newspaper which is circulated in the region, province, city or municipality in which the project is to be constructed a notice inviting all duly prequalified infrastructure contractors to participate in a public bidding for the projects so approved. In the case of a build-operate-and-transfer arrangement, the contract shall be awarded to the lowest complying bidder based on the present value of its proposed tolls, fees, rentals, and charges over a fixed term for the facility to be constructed, operated, and maintained according to the prescribed minimum design and performance standards, plans, and specifications. For this purpose, the winning contractor shall be automatically granted by the infrastructure agency or local government unit the franchise to operate and maintain the facility, including the collection of tolls, fees, rentals and charges in accordance with Section 6 hereof.

In the case of build-operate-and-transfer arrangement, the contract shall be awarded to the lowest complying bidder based on the present value of its proposed schedule of amortization payments for the facility to be constructed according to the prescribed minimum design and performance standards, plans and specifications: **Provided, however,** That a Filipino constructor who submits an equally advantageous bid shall be given preference.

A copy of each build-operate-and-transfer or build-and-transfer contract shall forthwith be submitted to Congress for its information.

**SECTION 6. Repayment Scheme** - for the financing, construction, operation, and maintenance of any infrastructure project undertaken pursuant to the provisions of this Act, the contractor shall be entitled to a reasonable return of its investment and operating and maintenance costs in accordance with its bid proposal as accepted by the concerned contracting infrastructure agency or local government unit and incorporated in the contract's terms and conditions. In the case of a build-operate-and-transfer arrangement, this repayment scheme is to be effected by authorizing the contractor to charge and collect reasonable tolls, fees, rentals, and charges for the use of the project facility not exceeding those proposed in the bid and

incorporated in the contract: **Provided,** That the government infrastructure agency or local government unit concerned shall approve the fairness and equity of the tolls, fees, rentals and charges except in case of tolls for national highways, roads, bridges and public thoroughfares which shall be approved by the Toll Regulatory Board: **Provided, further,** That the imposition and collection of tolls, fees, rentals and charges shall be for a fixed term as proposed in the bid and incorporated in the contract but in no case shall this term exceed fifty (50) years: **Provided, finally,** That during the lifetime of the franchise, the contractor shall undertake the necessary maintenance and repair of the facility in accordance with standards prescribed in the bidding documents and in the contract. In the case of a build-and-transfer arrangement, the repayment scheme is to be effected through amortization payments by the government infrastructure agency or local government unit concerned to the contractor according to the scheme proposed in the bid and incorporated in the contract.

In the case of land reclamation or the building of industrial estates, the repayment scheme may consist of the grant or a portion of percentage of the reclaimed land or industrial estate built, subject to the constitutional requirements with respect to the ownership of lands.

**SECTION 7. Contract Termination and Adjustment** - In the event that a project is revoked, cancelled or terminated by the Government through no fault of the contractor or by mutual agreement, the Government shall compensate the said contractor for its actual expenses incurred in the project plus a reasonable rate of return thereon not exceeding that stated in the bidding documents and in the contract as of the date of such revocation, cancellation or termination: **Provided,** That the interest of the Government in these instances shall be duly insured with the Government Service Insurance System or any other insurance entity duly accredited by the Office of the Insurance Commissioner: **Provided, finally,** That the cost of insurance coverage shall be included in the terms and conditions of the bidding referred to above. The tolls, fees, rentals and charges on the facility are subject to adjustment according to a formula related to official government price indices which shall be defined before the bidding, through the bidding documents, and incorporated in the contract.

**SECTION 8. Toll Regulatory Board** - The Toll Regulatory Board is hereby attached to the Department of Public Works and Highways with the Secretary of Public Works and Highways as Chairman.

**SECTION 9. Project Supervision** - Every infrastructure project undertaken under the provisions of this Act shall be constructed, operated and maintained by the contractor concerned in accordance with the plans, specifications, standards, and costs approved by the concerned government infrastructure agency and under the technical supervision of the said agency.

#### SECTION 10. Implementing Rules and Regulations

A committee composed of representatives from the Department of Public Works and Highways, the Department of Finance, the Department of Local Government, the National Economic and Development Authority, and duly accredited organizations representing the private Philippine construction industry shall formulate and prescribe, after public hearing and publication as required by law, the implementing rules and regulations, including, among others, the criteria and guidelines for evaluation of bid proposals, provisions to subject the facility collections to audit by the Commission on Audit, and conditions for the cancellation of contracts, in order to carry out the provisions of this Act.

**SECTION 11. Repealing Clause** – All laws or parts of any law inconsistent with the provisions of this Act are hereby repealed or modified accordingly.

**SECTION 12. Separability Clause** – If any provision of this Act is held invalid, the other provisions not affected thereby shall continue in operation.

**SECTION 13. Effectivity** – This act shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation.

Approved

*(There follows the signatures of the President of the Senate and the Speaker of the House of Representatives)*

This Act which is a consolidation of House Bill No. 10440 and Senate Bill No. 1285 was finally passed by the House of Representatives and Senate on June 7, 1990.

*(There follows the signatures of the Secretary of the Senate and the Secretary of the House of Representatives)*

Approved: July 9, 1990

*(Signature of the President of the Philippines)*

## SRI LANKA:

### POLICY STATEMENT RELATING TO BUILD-OPERATE-TRANSFER (BOT)

(Adopted by the Council of Ministers of the Government of Sri Lanka on 22 July 1992)

#### PRIVATE SECTOR PARTICIPATION IN INFRASTRUCTURE DEVELOPMENT

#### POLICY STATEMENT

1. The Government recognises that in order to attract the higher levels of investment needed for generating employment, alleviating poverty and raising the income levels of the people, the improvement of the country's infrastructure facilities to match international

standards is a matter of high priority. However, the Government notes that its capacity to bring about the desired improvements in the short term is constrained by the numerous demands competing for the limited resources available at its disposal.

2. Hence, the Government seeks the participation of private sector investment in the development of the country's infrastructural facilities. Private investors, both local and foreign, will be invited to build infrastructure facilities using equity and loan funds raised by them and operate the ventures on a commercial basis charging the users for the services subject to performance conditions and guidelines laid down by the Government. At the end of the agreed period of operation, during which the investors would have the benefit of certain incentives and concessions, the facility may either be transferred to the Government free of charge or the investors may be allowed to operate the facility for a further period on mutually agreed terms.

3. There are many variants of this strategy which may be adopted, depending on the circumstances of each case, but the commonly adopted forms are:

- (i) Build, Own and Operate the facility (BOO)
- (ii) Build and Operate the facility for sometime and transfer it to the Government (BOT)
- (iii) Modernise a facility, Operate it for sometime and Transfer it to the Government (MOT)

It is generally referred to as the BOO/BOT strategy.

4. The main advantage of the strategy is that it would enable the development of facilities which may otherwise not materialise for want of resources. It would also relieve the Government of the financial and debt burdens and risks which are associated with Government sponsored projects, facilitate the transfer of new technology into the country, upgrade the standards of operational efficiency and, more importantly, stimulate economic activity with all the attendant benefits to the country. BOO/BOT strategy has been adopted with considerable success in several other countries e.g. China, Malaysia, Pakistan, Philippines, Thailand, and the United Kingdom.

5. Some of the infrastructure facilities which have the potential for development on a BOO/BOT basis in this country are power generation (power to be sold to the national grid), water supply and waste disposal schemes (the product or service to be sold to the users), toll roads/ports/car parks (the users to be charged for the facility) and the development of telecommunication network and services (the users to be charged for the facility).

6. The Secretariat for Infrastructure Development and Investment (SIDI), which is being established within the Ministry of Policy Planning and Implementation will serve as the focal point for the entire programme. It will work in close coordination with the



line Ministries, Agencies concerned and be responsible for overseeing and monitoring the programme. A Sub-Committee of the Industrialisation Commission will direct and oversee the work of SIDI.

7. A set of Programme Guidelines, which set out the principles and procedures of the BOO/BOT Programme, would be released shortly and copies may be had on request from the Director, SIDI at the Ministry of Policy Planning and Implementation, Seth-

siripaya, Battaramulla. Once projects are identified for execution on a BOO/BOT basis, and the project profiles are developed, competitive bids will be invited through public advertisement. SIDI will also consider proposals developed on the initiative of private investors for developing other infrastructure facilities on a BOO/BOT basis. The procedures to be followed in the case of such unsolicited proposals are set out in the Programme Guidelines.

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## PRESS RELEASE

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Date: 9 September 1992

### CHINA PUBLISHES FIRST COLLECTION OF PATENT CASES

The liberalization of China's economic policy has led to a boom in foreign investment and trade in China. However, the regulatory system has not developed at the same pace as the economy. China's current patent legislation has long been considered a mine-field for foreign enterprises. The written statutes are one thing, but the interpretation, application and enforcement of the law can be quite another. The process is complex, and the reasoning behind the decisions of the patent authorities is not widely understood by foreign companies or legal practitioners in the intellectual property field. In the PRC, the consequences of not understanding the legal culture properly can be dire.

Since China initiated its patent system in 1985, there have been over 200,000 filings. 36,000 of these have been from foreign companies, with a majority from USA, Germany and Japan. However, until now, there has not been any readily available information on how the Patent Law is actually applied in practice in PRC's uncertain legal environment.

Now, a new book seeks to fill this void. **China Patent Cases** reports on 45 decisions of the Patent Re-examination Board of the PRC, and sheds valuable light on the handling of patent applications, the reasoning used by examiners and the legal basis for decisions in the PRC.

This is the very first time that official information of this kind has been made available outside China. The publisher, Hong Kong-based Asia Law & Practice Ltd., was specially appointed by the Patent Re-examination Board of the PRC Patent Office to publish **China Patent Cases**, and the result is a comprehensive collec-

tion of cases covering all aspects of the application of the Patent Law.

The 45 decisions are divided into four major sections; Inventiveness, Novelty, Disclosure and Patentability. Each section contains a selection of cases which illustrate the major issues that arise when patenting an invention in China. For instance, a Belgian company's industrial design patent, which had been submitted for international deposit, was invalidated on the basis of prior disclosure. The reason for invalidation was the fact that a Chinese delegation had obtained a set of catalogues for the patented product at a conference in The Netherlands and ordered 1,000 pieces (in unassembled parts) of the product. The PRC Patent Office claimed a loss of novelty because the product had been publicly distributed and disclosed before the date of filing in China.

In another case, an Italian food manufacturer was successful in patenting the design of its food products, and the ruling spells out the patentability of food in PRC, as well as the distinction between the substance of food and food design.

**China Patent Cases** is systematically structured with indexes and easy-to-find references. The publisher has selected the cases with relevance to foreign readers in mind, and the reports are edited in a concise, practical and readable manner. In short, **China Patent Cases** provides IP professionals with a rare and useful insight into the actual workings of China's fledgling Patent Law.

*(Further information on China Patent Cases can be obtained from Asia Law & Practice Ltd., 2/F, 29 Hollywood Road, Central, Hongkong. Fax: (852) 543 7617. Tel: (852) 544 9918.)*

