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TECHNOLOGY TRANSFER - MALAYSIA'S EXPERIENCE*

by

Wong Hiong Chin**

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** Principal Assistant Director - Ministry of Trade and Industry, Industries Division, Kuala Lumpur, Malaysia.

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Technology Policy In Malaysia

1. The Government of Malaysia considers technology to be a vital factor in the development of the industrial sector of the country. It recognises that the existing domestic technological capabilities is not sufficient to fulfill the needs and to meet the demands of the industrial sector which is expected to play a prominent role in the economic development of the country. Thus the Government places great emphasis on the acquisition of technology from abroad to accelerate the process of industrialisation and to optimise production.

2. It has always been the Government's policies to encourage and promote the inflow of appropriate technology to complement her development efforts particularly in the industrial sector. The technology policy of Malaysia is in fact an integral part of the Industrial Policy which in turn is framed with the context of Malaysia's Development Plans. The Industrial Policy, representing also the extension of the New Economic Policy (NEP) is aimed at accelerated industrial development, primarily through the private sector, with growth taking place concurrent with planned redistribution of ownership, control and employment both in terms of Malaysians and non Malaysians as well as among Malaysians to reflect racial composition.

3. The two legislations within which the Industrial Policy operates are the Investment Incentives Act 1968, and its amendments and the Industrial Coordination Act 1975 and its amendments. The Investment Incentives Act makes provision for encouraging by way of relief from income tax the establishment and development in Malaysia of industrial and other commercial enterprises as well as for the promotion of exports. The Industrial Coordination Act on the other hand provides for the coordination and orderly development of manufacturing activities in Malaysia. The two legislations endorsed the Government's commitment to promote investments, both foreign and local and in the process also to regulate and monitor technology transfer in the country; the issues of technology transfer being closely linked with the issues of foreign investment.

Description of Regulatory System

4. The present regulatory system operates within the framework of both legislative provisions and administrative procedures. A manufacturing licence is required under the Industrial Coordinating Act before any manufacturing activities is carried out. Whether or not the licence will be issued with specific incentives will be considered in the context of the Investment Incentives Act. By virtue of one of the conditions imposed on the manufacturing licence all agreements entered into between the local and foreign parties will have to be approved by the Ministry of Trade and Industry prior to their signatory. The condition reads as follows :-

" The company shall not enter into any agreement particularly for starting-up operations, technical know-how and assistance, services (including employment of expatriate personnel) management, purchasing, marketing, payment of royalty, patent and trade-marks, without the prior written approval of the Ministry of Trade and Industry.

The above condition shall not apply in respect of purchases of machinery requiring the services of technical personnel from the machinery manufacturers to oversee the installation or starting-upoperation of the machines concerned."

The policy of screening and approving agreements dates back as early as 1968 with the enforcement of the Investment Incentives Act. Evaluation of the agreements was based on certain drawn guidelines evolved over the years. Agreements are screened by the Technical Agreement Unit of the Industries Division of the Ministry of Trade and Industry and then submitted to the Licensing Officer, (he is also the Secretary General of the Ministry) to be approved or otherwise.

Guidelines For Selection, Evaluation and Negotiation of
Technology Transfer Arrangements

5. In Malaysia, the selection, evaluation and actual negotiation of the technology transfer arrangements are the responsibility of the local entrepreneurs themselves, since investments are made by private companies in a free enterprise economy. The Government, through the Ministry of Trade and Industry plays a coordinating, advisory and monitoring role where transfer of technology is concerned. This role of the Government has been translated in the form of drawn guidelines to be complied with by all foreign investors so as to ensure fair and equitable terms in the licensing agreements. Broadly, the two areas of importance to the Ministry are as follows:

I. Guidelines for the selection of technology
and the technology supplier

(i) Selection of Technology

- (a) It should be determined that the technology has been commercially proven and yet is not obsolete;
- (b) Alternative technologies that may be available should be evaluated comparatively viz the following :-
 - cost of obtaining such technologies;
 - principal inputs required and their local availability;
 - estimated manufacturing costs and profitability;
- (c) Where the technology has to be obtained from a particular country because of some constraints, a comparative evaluation should still be made, to the extent possible, as in (b) above, for purposes of negotiation.

(ii) Selection of Foreign Licensor

- (a) Evaluate the position of the licensor vis-a-vis other foreign parties from whom the same or alternative technology can be obtained;
- (b) Assess the licensors experience and capability of providing the technical assistance required;
- (c) Obtain information on the size of operations and nature of product mix, where the licensor is a manufacturer;
- (d) Ascertain the licensor's past licensing experience.

II. Guidelines On The Provisions In The Licensing Agreements

(i) Definitions

The technological content and the principle features of the technology or process being acquired; the anticipated production to be achieved and the quality and specification of products must be defined in detail. In addition, particulars of technical assistance and services to be rendered by the technology supplier and the manner in which the technology and technical services should be provided, must also be clearly specified.

(ii) Access to improvements

The technology to be supplied should incorporate

the latest development known to the technology supplier and in the event improvements, innovations or break-through in technology are effected during the agreement period, including new patents applied for or registered, the technology-buyer must be informed and must be given full access.

(iii) Remuneration for Technology

- (a) Payment for technology can be in the form of 'fixed lump sum fee' or 'a running royalty' or the 'combination' of lump sum fee and running royalty for a period of time. Lump sum payments are usually allowed in cases where the know-how can be fully and completely transferred and absorbed. The method of payment that is preferable is the running royalty based on net sales.
- (b) The rate of royalty payment is normally imputed in relation to the level of technology and the principal elements of transfer. A rate of 1% - 5% of net sales can be considered where 'net sale' is to be defined as gross sales less sales discounts or returns, transport costs (including freight), insurance, duties, taxes and any other charges.
- (c) The practice by some suppliers of technology to itemize the services under separate agreements in which fees are charged is not allowed.
- (d) Capitalisation of know-how fees or royalty

over and above the foreign tangible financial participation has never been encouraged by the Ministry as this would mean that payment for technology is made in advance even before technology is transferred.

(iv) Duration and Renewal

- (a) The guideline on the duration of agreement is the adequacy of period for full absorption of the acquired technology by the local company. The life of any patents relating to the technology is also taken into account.
- (b) As a rule the Ministry normally approves an initial period of 5 years and any renewal thereafter is subject to prior approval of the Ministry. This is to enable the Ministry to review and evaluate the extent in which the local company has acquired and benefitted from the transfer of technology during the period of the agreement; whether the fees paid commensurate with the technology transferred and also whether the technology transferred during the first five years is conducive to the country's industrial development.
- (c) The period of five years is considered to be sufficiently long for certain less sophisticated technology to be acquired though in the case of highly sophisticated technology the period may not be adequate, in which case the Ministry may approve an extension of such agreement.

(v) Training

The provision for adequate training in the technology supplier's plant and in-plant training in the local plant should be clearly specified. In the case of the former, the number of personnel to be trained, the areas of training and its duration as well as the facilities to be made available should also be defined.

(vi) Patents and Trade Marks

Patents and trade marks may come as one of the components of the whole technology package. In the case of patent, it is of utmost important that those patents involved in any process know-how be explicitly defined in the agreements and the local company is granted the user rights over all such patents. Where the life of the patent extends beyond the duration of agreements, an arrangement should be made for continued use of the patents after the expiry of the agreement.

(vii) Confidentiality/Secrecy

A clause relating to confidentiality of information and data is normally incorporated in the agreements. The Ministry generally does not allow the local company to be held responsible for information divulged by their personnel or through other means. However, if the imposition of such a clause is beneficial to both the contracting parties, it should be confined to the duration of the agreement only.

(viii) Guarantee/Warranty

A technology must, in the ultimate, perform in the manner expected by the technology buyer. Though

the type and form of guarantees will vary with the nature of the projects, the agreement should at least define guarantee with respect to the production capacity, product quality and specifications and other features of the manufacturing process.

(ix) Taxes

A tax of 15% is levied on payments made to foreign supplier of technology and this tax has to be borne by the recipient.

(x) Governing Laws and Arbitration

The governing laws should be Malaysian laws and arbitration proceedings must be conducted in Malaysia in accordance with the Malaysian laws or the UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules at the AALCC Regional Centre for Commercial Arbitration, Kuala Lumpur.

Organisation of The Technology Transfer Unit In The Ministry.

6. The Government department responsible for screening technology transfer arrangements is the Technical Agreement Unit in the Industries Division of the Ministry of Trade and Industry. The Technical Agreement Unit's function can be briefly described as follows :-

- (i) processing of all types of agreements (technical knowhow, management, joint-venture, engineering etc) to be signed by companies licensed under the Industrial Coordination Act 1975 and its amendments thereafter.
- (ii) processing of all types of agreements of companies undergoing restructuring, amalgamation, merger, etc. approved by the Foreign Investment Committee, Prime Minister's Department.

- (iii) study and processing of Investment Guarantee Agreements; and
- (iv) participation and involvement at the international level (UNCTAD, UNIDO, ESCAP etc) on matters relating to technology transfer.

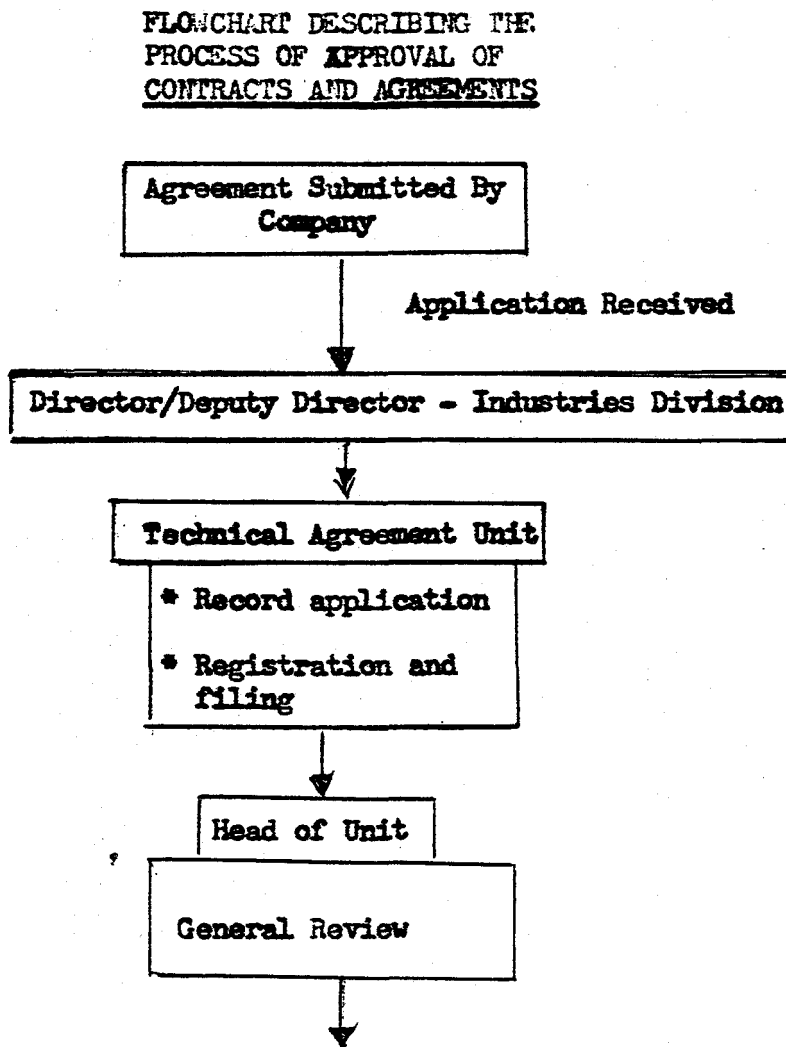
In carrying out the above functions, the Technical Agreement Unit would:-

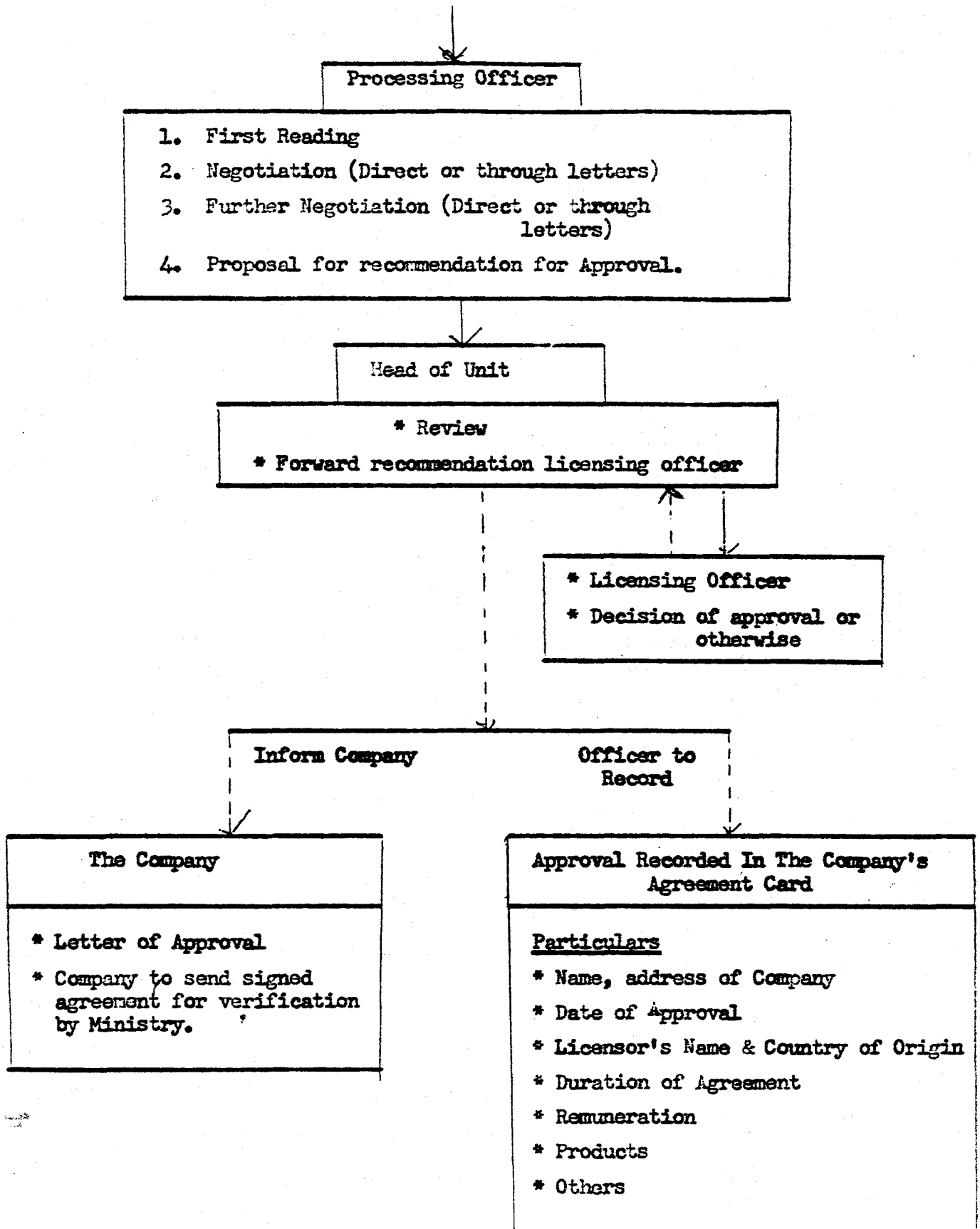
- (i) Advise local companies on the guidelines and requirements of technology transfer agreements. In this connection, handouts on guidelines and model agreements are made available to the companies concerned;
- (ii) Assist local companies in their negotiations with foreign licensors, including direct negotiation with the foreign licensors in the presence of the local companies.
- (iii) Participate actively in international forums relating to matters on transfer of technology.

7. The Technical Agreement Unit has a total staff of five officers with one officer heading the Unit and the other four officers being in charge of agreements of different industry groups. A company in submitting an application for a manufacturing licence has also to submit 3 sets of the draft agreements to be signed. The application for a manufacturing licence is reviewed by the Action Committee On Incentives while the draft agreements are processed by the Technical Agreement Unit. In processing the agreements, the officers concerned will study the project application and the evaluation put up by MIDA (Malaysia Industrial Development Authority) to have a clear picture of the project - its viability and its contribution to the country's economy. After the necessary considerations, the agreement is then screened

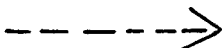
in relation to the policy guidelines of the Ministry on technology transfer. In cases of big projects involving substantial capital investments and where direct negotiations is being undertaken between the local and foreign partners an officer from the Technical Agreement Unit will be represented in such negotiations.

8. The staffing, responsibilities as well as the procedures from the submission of an agreement till its approval is shown in the flowchart below :-





Flow of Agreement Before Approval



Flow of Agreement After Approval

9. The above flowchart shows the process by which an agreement is evaluated and finally approved. In cases where the terms of the agreement are not in line with the Ministry's guide-lines or where certain conditions are considered as unfavourable to local companies, the Ministry can approve the agreements with the condition that the terms and provisions be amended or the Ministry may even approve an agreement with a lower royalty rate than that agreed upon by the two parties to the agreement. If a company feels that the conditions imposed by the Ministry are unacceptable, then the company can put up an appeal with detail writeout supporting the appeal. The agreement will then be reviewed again in the light of the appeal and reference to the licensing officer will be made for a final decision.

Overview of The Technology Agreements Approved and Registered With The Ministry 1975-1980

10. The Ministry has approved a total of 429 agreements between 1975-1980. The tables below indicate the particulars of the agreements approved.

Table I - Types of Agreements

Types of Agreements	1975	1976	1977	1978	1979	1980	Total
1. Technical and Knowhow	27	30	21	48	55	61	242
2. Management	12	7	7	11	13	32	82
3. Joint Venture	6	6	4	7	8	16	47
4. Service	12	5	1	12	8	-	38
5. Trade Mark	1	5	-	4	4	2	16
6. Basic Engineering	-	-	-	-	-	4	4
7. Total	58	53	33	82	88	115	429

Table II - Agreements By Countries

Name of Countries	1975	1976	1977	1978	1979	1980	Total
1. Japan	22	21	7	32	21	29	132
2. United Kingdom	10	6	4	13	11	19	63
3. United States of America	6	4	1	9	8	11	39
4. India	3	5	8	7	5	5	33
5. West Germany	-	1	4	6	11	9	31
6. Australia	3	2	1	-	4	12	22
7. Hong Kong	1	-	3	3	2	9	18
8. Singapore	3	2	2	1	2	5	15
9. France	2	4	-	-	2	1	9
10. Italy	1	1	-	1	1	2	6
11. Panama	-	-	3	-	1	1	5
12. Switzerland	-	-	-	2	1	1	4
13. Norway	-	-	-	-	1	1	2
14. Others *	7	7	-	8	18	10	50
Total	58	53	33	82	88	115	429

* Others include also agreements signed with Malaysian companies.

Table III - Agreements By Industry Group

Industry Group	1975	1976	1977	1978	1979	1980	Total
1. Electronic and Electrical	17	9	5	21	16	22	90
2. Fabricated Metal	8	3	5	7	16	15	54
3. Chemical	3	-	4	19	8	12	46
4. Motor Vehicles	5	4	-	5	7	11	32
5. Food	4	7	2	2	8	8	31
6. Textiles	6	7	2	4	-	8	27
7. Basic Metal	-	5	3	3	5	7	23
8. Scientific & Optical Equipment	2	6	1	5	4	4	22
9. Pulp, Paper, Printing and Publishing	4	1	6	5	4	2	22
10. Rubber and Leather	6	-	1	2	5	8	22
11. Non Metallic	1	6	1	1	7	5	21
12. Palm Oil Products	1	-	-	8	3	6	18
13. Hotel	-	5	1	-	2	3	11
14. Plastic & Petroleum-based	1	-	2	-	3	4	10
Total	58	53	33	82	88	115	429

The following can be noted from the tables above :-

- (i) A total of 429 agreements was registered and approved by the Ministry;
- (ii) Japan topped the list in terms of the greatest number of agreements signed with a foreign country representing 31% of the total agreements signed;
- (iii) By industry group, the electronic and electrical group had the highest number of agreement signed;
- (iv) More than half (242 agreements or 56%) of the total agreements were of the technical and knowhow type followed by management agreements.

Conclusion

11. The regulatory machinery for registering and approving technology agreements has in fact evolved from one of ad-hoc measures in the 1960s to the present organised and systematic approach. The role of the registry could be further extended to provide more elaborate services to local entrepreneurs especially in the pre project stage by disseminating adequate and useful information on technology suppliers. The scope of the registry could also be further expanded to monitor the implementation of technology agreements as well as to evaluate the effectiveness of technology transfer in various sectors.

12. The role of technology regulatory agency in Malaysia has potential for further expansion in the light of accelerated industrial growth. As can be seen from the tables presented, the number of technology agreements registered and approved has been increasing over the years and is anticipated to increase further in the coming years. However at the present moment, the

regulatory system will suffice and like all other government agencies, the system enforced is not a static system but will be changed or adapted to meet the demands of the changing circumstances.