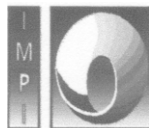


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MEXICAN INSTITUTE OF  
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WORLD INTELLECTUAL  
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INSTITUTE OF TECHNOLOGY AND  
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**INTERNATIONAL WORKSHOP ON  
MANAGEMENT AND COMMERCIALIZATION OF INVENTIONS  
AND TECHNOLOGY**

organized by  
the World Intellectual Property Organization (WIPO)  
in cooperation with  
the Mexican Institute of Industrial Property (IMPI)  
and  
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**PATENTING STRATEGIES AND THE PATENT COOPERATION TREATY (PCT)**

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## I. THE LAW REGIME AND DEVELOPMENT

- Throughout history, the prosperity of nations has been the consequence of the existence and enforcement of a Law Regime.
- Commercial and industrial activity has flourished in those nations that have guaranteed the security of property and the integrity of natural persons or legal entities with clear and fair laws in which the individual is the very *raison d'être* of the state.
- The driving factor in the inventiveness of the human being is the improvement of his or her material, intellectual and spiritual circumstances, possibly with the transfer of knowledge and material resources from generation to generation. Without the rule of laws such continuity stops, and society does not progress.

## II. THE LAW REGIME AND DEVELOPMENT

- The licensing of patents is one of the soundest and most widely used methods of transferring knowledge and technology in the world.
- The world patent system embodied in the PCT represents a legal tool of global character whereby individuals and institutions may gain protection for their scientific and creative work.
- Use of the patent system likewise enables individuals and institutions to be integrated in the world context, averts the pirating of knowledge and permits economic growth.

## III. CREATION OF TECHNOLOGY

- Business, university and individual inventors are the main creators of technology.

- In North America, 20% of patents were held by individual inventors (at the start of the twentieth century the figure was 80%).
- In countries like the United States of America, universities account for 49% of total research funds, industry 22% and State bodies 11% (1992, A.E. Muir, *Technology Transfer System* ).
- The main resource of the modern business is knowledge or “know-how,” after its human resources, machinery and equipment, its management and its financial capacity. The expansion of know-how (Research and Development) is the tool that ensures the long-term survival of businesses and institutions.
- Without a patent system, research and development expenditure (constituting progress) would not be profitable.

#### IV. PATENTS AND TECHNOLOGY TRANSFER

- Patenting is the fastest and surest way for businesses and individuals to transfer knowledge and profit by it (at either regional or world level), to derive revenue from it and to accumulate resources with which to continue research work and develop new knowledge.
- Not patenting entails keeping knowledge secret and running the risk of plagiarism.
- Patenting makes for interaction, in conditions of legal equality, between individuals and smaller businesses on the one hand and large businesses on the other.
- In order to obtain a patent the inventor has to study the state of the art, and thereby sharpens his awareness of the novelty and practical applicability of his invention.

## V. STRATEGIC CONSIDERATIONS IN TECHNOLOGY TRANSFER

- The industry technology cycle, like the circle of creation and launch of new goods, has progressed in recent years to the point at which goods and technology may come obsolete in years rather than decades.
- As a result, commercial potential has to be exploited more efficiently and rapidly than before.
- Companies that aim to create, produce and market a given product without resorting to alliances with other companies have to bear the whole weight of research, development, manufacture, marketing and other work.
- Strategic alliances make it possible to compensate for a lack of experience or competence in various corporate fields; this applies to major world companies as well as to small businesses.
- The future and the requirements of globalization are making strategic alliances more and more necessary. Now it is common to see alliances between small businesses and very big ones. Patents make for legal equality without regard to size or nationality.
- A company's potential know-how or technology client may be anywhere in the world. As far as patents are concerned, the PCT makes it possible to secure legal protection on a world scale that is readily accessible and reasonably priced.
- Use of the PCT makes it possible to protect knowledge while its commercial viability is ascertained, which results in a lowering of transfer costs.

## VI. CONSIDERATIONS ON THE LICENSING OF PATENTS AND TECHNOLOGY TRANSFER

- The intellectual property rights in a product whose sale calls for little marketing and advertising effort and investment are more valuable and those in goods that are very demanding in terms of advertising and marketing costs.
- The royalties payable for the sale or transfer of intellectual property have to reflect the industrial environment. The more innovative and unusual a patent, the less the cost of its legal backing would be and the greater the net revenue from it.
- The best-known method of exploiting the potential value of technology or a patent is called Discounted Cash Flow.
- The best-known way of licensing a patent consists of an advance or upfront payment, representing a small proportion of the potential transaction, plus a royalty (a percentage of gross sales).
- Without a granted patent, there should be no discussion of know-how or technology without a confidentiality agreement having first been signed.

## VII. CONSIDERATIONS ON ROYALTIES

The following has to be considered when a royalty is worked out:

- the rate of return on alternative forms of investment with comparable risks;
- the value of the intellectual property to be transferred (through licensing);
- the cost of complementary assets, both tangible and intangible, that will be necessary for marketing the intellectual property;

- therelativeriskinvolvedintheinvestmentofthetangibleandintangibleassets mentioned;
- theinvestmentrisksoftheintellectualpropertyinrelationtofactorssuchasrival technology,existingorunderdevelopment, thefinancialhealthofthebranchof theeconomyconcernedandgovernmentalandotherconstraints.

#### VIII. RECOMMENDED READING

- THETECHNOLOGYTRANSFERSYSTEM( *Inventions,Marketing,Licensing, Setting,Patenting,Practice,ManagementandPolicy* )Albert E.Muir,Latham BookPublishing.
- INTELLECTUALPROPERTY( *LicensingandJointVentureProfitStrategies* ) GordonV.Smith,RussellL.Parr,JohnWileyandSons.

## Industry Technology Cycle

**LOW**

### VALUE CONFIDENCE

**HIGH**

|         |                    |                   |                     |                         |           |                |                     |                       |
|---------|--------------------|-------------------|---------------------|-------------------------|-----------|----------------|---------------------|-----------------------|
| CONCEPT | REFINED<br>CONCEPT | BASIC<br>RESEARCH | APPLIED<br>RESEARCH | TARGETED<br>DEVELOPMENT | PROTOTYPE | PILOT<br>PLANT | EARLY<br>ACCEPTANCE | COMMERCIALI<br>ZATION |
|---------|--------------------|-------------------|---------------------|-------------------------|-----------|----------------|---------------------|-----------------------|

### REVENUE POTENTIAL

|         |                            |                                      |                                       |
|---------|----------------------------|--------------------------------------|---------------------------------------|
| UNKNOWN | MARKET CLARITY<br>EMERGING | MARKET AND PRICING<br>BECOMING CLEAR | CAPABLE OF BEING<br>CLOSELY ESTIMATED |
|---------|----------------------------|--------------------------------------|---------------------------------------|

### DEVELOPMENT COST AND TIME

|                          |                     |                                |       |
|--------------------------|---------------------|--------------------------------|-------|
| DIFFICULT TO<br>ESTIMATE | CAN BE APPROXIMATED | CAN BE REASONABLY<br>ESTIMATED | KNOWN |
|--------------------------|---------------------|--------------------------------|-------|

### INTERNATIONAL EXPLOITATION

|                             |         |             |                            |
|-----------------------------|---------|-------------|----------------------------|
| DIFFICULT<br>TIME-CONSUMING | LIMITED | MORE COMMON | UNLIMITED<br>POSSIBILITIES |
|-----------------------------|---------|-------------|----------------------------|

### INVESTMENT RISK

|           |            |          |   |
|-----------|------------|----------|---|
| VERY HIGH | QUITE HIGH | MODERATE | EQUAL TO BUSINESS AND<br>FINANCIAL RISK OF PRODUCT LINE |
|-----------|------------|----------|---|

### FORM OF TRANSFER PAYMENT

|   |  |                   |                                    |
|---|--|-------------------|------------------------------------|
| SERVICES, CONSULTING<br>SPONSORED RESEARCH<br>MATERIALS | GRANT BACKS<br>RESEARCH GRANTS<br>EQUITY OPTIONS | CASH<br>ROYALTIES | CASH<br>ROYALTIES<br>UP-FRONT FEES |
|---|--|-------------------|------------------------------------|

### OWNER CHARACTERISTICS

|  |  |             |             |
|--|--|-------------|-------------|
| UNIVERSITY FOUNDATION<br>GOVERNMENT<br>ENTREPRENEUR SEED CAPITAL | UNIVERSITY<br>CORPORATION<br>JOINT VENTURE | CORPORATION | CORPORATION |
|--|--|-------------|-------------|

### ROYALTY TERMS

|  |   |                                     |   |
|--|---|-------------------------------------|---|
| CONTINGENCIES<br>RENEGOTIATION CLAUSES<br>LESS PRECISE | ROYALTY ABATEMENTS<br>ROYALTY INCENTIVES<br>NON-EXCLUSIVE | EXCLUSIVE<br>SPECIFIC FIELDS OF USE | FIRM TERMS<br>KNOWN ROYALTY BASE<br>UP-FRONT FEES |
|--|---|-------------------------------------|---|

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