

The 7th APEC Investment Symposium in Vladivostok

**Strategies to Maximize the Benefits of Recent
Technological Development for SME in the APEC
Region**

September 4, 2002

Paul S. P. Hsu

**Senior Partner, Lee and Li Attorneys-at-Law
Chairman, The Asia Foundation in Taiwan
Professor of Law, National Taiwan University**

Chinese Taipei

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I. Preface

At the Thirteenth APEC Ministerial Meeting held in Shanghai in October 2001, Chinese Taipei proposed "*The Best Practice Guidelines for Entrepreneurship and Start-up Companies*" (Please refer to the attachment.) and expected the *Guidelines* to be adopted by the APEC member economies. In the Joint Statement of the Meeting, the Ministers welcomed the *Guidelines of Best Practices for Entrepreneurship and Start-up Companies* and encouraged all relevant APEC fora to apply such guidelines in their further work; the Ministers also encouraged APEC members to develop this *Guidelines* in e-APEC Strategy which becomes an attachment of the APEC Leaders' Declaration.

The surge of start-up companies played a crucial role in the American economy during the 1990's which provides millions of new job opportunities as well as new products and new businesses. In examination of several successful economies in the world today, it appears that they all share a favorable environment for encouraging innovation, entrepreneurship and start-up companies. It is also observed that new entrepreneur and start-up companies reflect the emergence of more SMEs. We have now entered the era of knowledge-based economy in which innovation, technology and entrepreneurship are considered to be the essential elements to foster a faster economic growth. Thus, technological development and modern management skill has become the engine of growth and intellectual properties ("IP") has become important and valuable assets that would boost profits and continuous growth of the SME.

II. IP Rights Have Become an Important Object in Global Trade

During the past decade, laws and regulations for protecting IP have been upgraded and streamlined to meet the international standards. Some nations even adopted laws with higher standards. Because the value of IP is significant, certain governments may intervene to resolve the IP protection issue. Disputes over IP rights are not simply between IP owners and infringers but an important subject for trade negotiations. On the other hand, many nations have been actively fostering the environment to encourage the commercialization of IP with the goal to realize the value of IP. IP, separated from product, has become an important object in global trade.

Therefore, it is important for APEC member economies to make necessary efforts to create a sound policy and legal framework to encourage innovation and make recent technological development available to SME in the APEC region. Such efforts include, but not limited to the followings.

1. Sound R&D Environment

In order to encourage innovation and foster better R&D environment, many nations have promulgated legislations to establish the science and technology policy and programs. In general, those legislations, among other things, provide that the government will continue to contribute to R&D, dedicate its efforts to encourage a stable nationwide increase of R&D funds, support basic research, establish open and fair qualification screening system to recruit desired technical talents, encourage the commercialization of R&D, and design incentive mechanisms for R&D activities.

2. R&D Consortium/Alliance and R&D Cooperation

Nowadays, R&D requires large amounts of financial commitments from industries. R&D consortium/alliance will provide collaboration and cost sharing for R&D projects while the government will provide incentives to encourage the formation of R&D alliance. R&D cooperation among industries, research institutions and academic institutions should be encouraged as well to assure that the direction of R&D will meet the needs of industries.

3. International Cooperation on R&D

For less developed nations, international cooperation on R&D will be an effective vehicle to obtain advanced technologies with the additional benefit of upgrading technology capability.

III. IP Protection

One of the viable ways for SME to develop their business is to acquire advanced technologies through technology transfer. It is vital to provide comprehensive protection of IP rights and to facilitate effective licensing programs for the IP licensors as well as licensees.

1. Foster Adequate IP Protection Environment

Protection of IP rights has always been a long outstanding issue for trade talks among nations. Fostering an adequate IP protection environment is the minimum requirement for attracting foreign investment and encouraging R&D. For instances, Trade Related Intellectual Property Agreements ("TRIPs") establish the minimum international standards for WTO members to comply with; by domestic legislation, a nation can provide more effective tools in dealing with IP protection issue. The US Economic Espionage Act (1996) allows the US Ministry of Justice to indict an infringer of trade secret whose act committed in or outside of the United States.

2. Enforcement of IP Laws Against Counterfeiting, Piracy and Infringement

Evidence shows that counterfeiting activities have increased in terms of size, scope and severity. The overall advancement of science and technology has greatly improved counterfeiting techniques. IP infringement causes innumerable economic losses to the public and the government. Most importantly, it damages the faith of the technology holders to value IP as an important asset. The APEC member economies have to pay closer attention to counterfeiting activities and develop enforcement techniques to effectively crack down IP infringement.

3. Reinforce the Cooperation Against Cross-Border IP Counterfeiting

and Infringement

A surge in counterfeit imports and exports has made counterfeit a trans-territorial and trans-regional problem. In the past, infringement acts may be limited within a certain territory. I believe that the cross-border counterfeiting activities will be a much greater concern in the APEC Region. Special coordinated efforts from customs authorities of different jurisdictions are suggested to be made to tackle these activities.

4. Establish Database of Relevant Laws of Different Nations to Avoid IP Disputes

Disputes over IP rights have become a popular topic for litigations or arbitrations. Precautionary actions, such as setting up a database of relevant IP laws and regulations of various nations to reduce possible IP disputes are important.

5. Establish Sound and Comprehensive Legal System for Handling IP Disputes

The APEC member economies should improve their legal system for enforcing IP rights and providing remedies and train more skilled law enforcement personnel including administrative officers, prosecutors and judges to handle IP disputes. The effectiveness of administrative actions as well as criminal and civil procedures should be constantly enhanced.

IV. IP Management (technology management)– make technology development available to the SME

1. R&D Strategy and Direction

The overall strategy for IP management should include a clear objective of R&D activities, which is before the IP creation stage. Other important matters in IP management area include: establish IP management system, educate R&D and other personnel, design and devise various guidelines, procedures and contracts regarding the use of IP, conduct patent development trend analysis, patent search and patent mapping to form strategy for technology

transfer and license, and monitor market situations, etc.

2. Compliance with IP Law Requirements

All the relevant laws and regulations, such as filing registrations, paying patent annuity, establishing trademark use evidence, maintaining reasonable efforts for keeping secrecy of trade secret/know how, etc., should be complied with.

3. Establish IP Portfolio/IP Strategy

Different intellectual properties have different natures and are protected by different laws. IP management requires different strategies when dealing with different categories of IP.

4. Professional IP Management Service Provider

IP management requires experienced professionals to render such services. The APEC member economies should train and educate more people to enter the management service provider industry. Incentive programs such as offering subsidy to an employer who retains in-house IP management staff member or engages outside IP management service provider may be considered.

Take agricultural technologies as example, in a nation without special advantages of its natural resources, packaging agricultural technologies of its unique products for license will help the nation to transform its business model in terms of agriculture sector and to maintain its niche and competitiveness.

Clearly, technology will become an important object of global trade in the future and I urge APEC to place priority attention to this trend.

V. IP Commercialization

Establishment of a technology center for SME to access to needed technology easily in the APEC region will help to incubate more SMEs and to enhance the growth of existing SMEs.

1. Setting up Technology Transfer (License) Center

To accelerate the commercialization of IP, the APEC member economies should encourage universities and research institutions to set up technology transfer (license) center, by means of providing subsidy to them for setting up such center and APEC may consider facilitating some guidance to achieve such goal.

2. IP Information Database/Technology Marketplace

For promoting technology transfer, the individual APEC member economy or APEC itself, representing 21 member economies, should establish platform(s) to release the available IP and technology for public's access and for facilitating technology transfer. Establishment of IP information database in the APEC economies will greatly facilitate the regional technology transfer activities, as well as foster the regional trade and investment. The technology marketplace may provide consulting services for technology transfer, consummate technology transfer transactions, assist in resolving technology transfer disputes and form strategic alliance with other technology transfer organizations.

3. Incubator

For the development of a knowledge-based economy, the APEC member economies can expand the scale and functions of incubators in collaboration with academic and research institutions. Incubators can form a network to provide technical services to industries within APEC region and help to accelerate technology diffusion.

4. Establishing Knowledge Service Provider Industry (IP Commercialization Service Provider)

Like the IP management, IP commercialization requires experienced professionals. In the past, there were insufficient skilled knowledge workers in this field. In order to foster a better IP commercialization environment, more education opportunities should be created to solve this issue. The APEC member economies should train and educate more people to enter the IP commercialization service provider industry. Incentive programs should be implemented. The service providers may provide services relating to licensing and trade of IP, IP appraisal, IP commercialization strategy, transaction negotiations, drafting business plan, seeking potential investors/venture capitalists, etc.

VI. Other IP Related Incentives

The followings are some important incentives relating to IP activities which the

APEC member economies may consider:

- (1) Offering Tax deductions for R&D expenditures
- (2) Offering Tax deductions for R&D personnel training
- (3) Creating a capital market for new strategic enterprises
- (4) Accepting IP as security interest (pledge) for the purpose of obtaining financing

VII. Conclusions:

Speaking of technology development of SME, IP protection and knowledge protection has become more important than ever. Since IP policy is also an integral part of industrial policy, each member economy in the APEC region should endeavor to establish a sound IP environment to enhance the IP concept and to cope with new technological development and economic interests. IP being a valuable asset, its management is a key to business success in the future.

IP protection may serve as one of many incentives for attracting technology transfer and for stimulating the economic development. Considering technology transfer and technology commercialization as two important goals for IP protection and economic development, providing comprehensive legal and regulatory infrastructure for IP protection will also be beneficial to the SME in the APEC region. By implementing the above-mentioned strategies, I believe that SME in the APEC region will definitely play an important role to strengthen regional economic competitiveness vis-à-vis other regional trade arrangements.