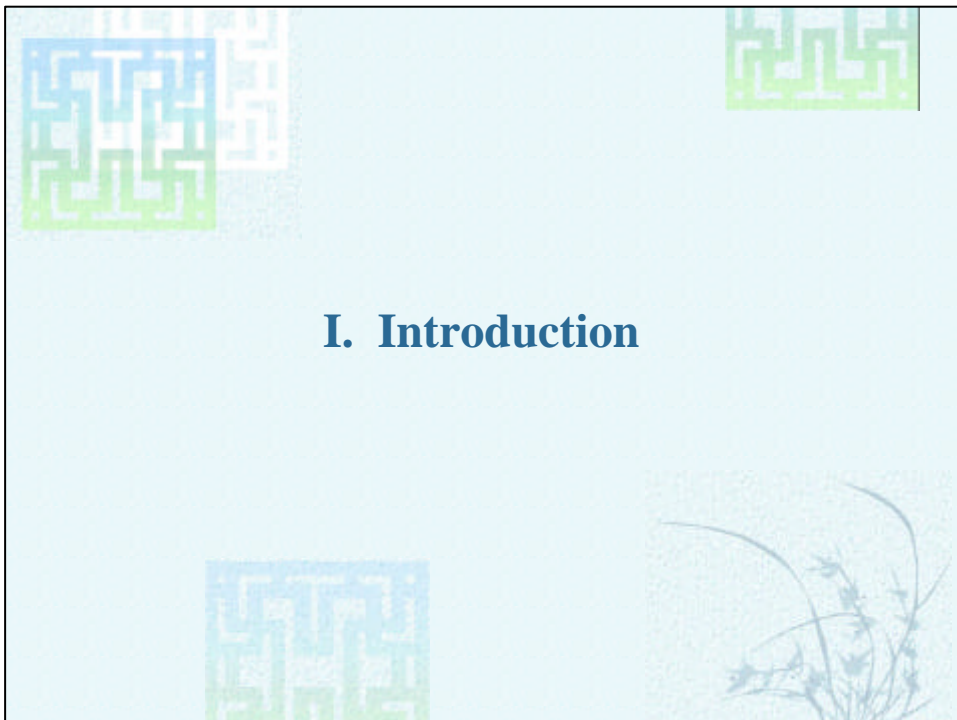




## I. Introduction

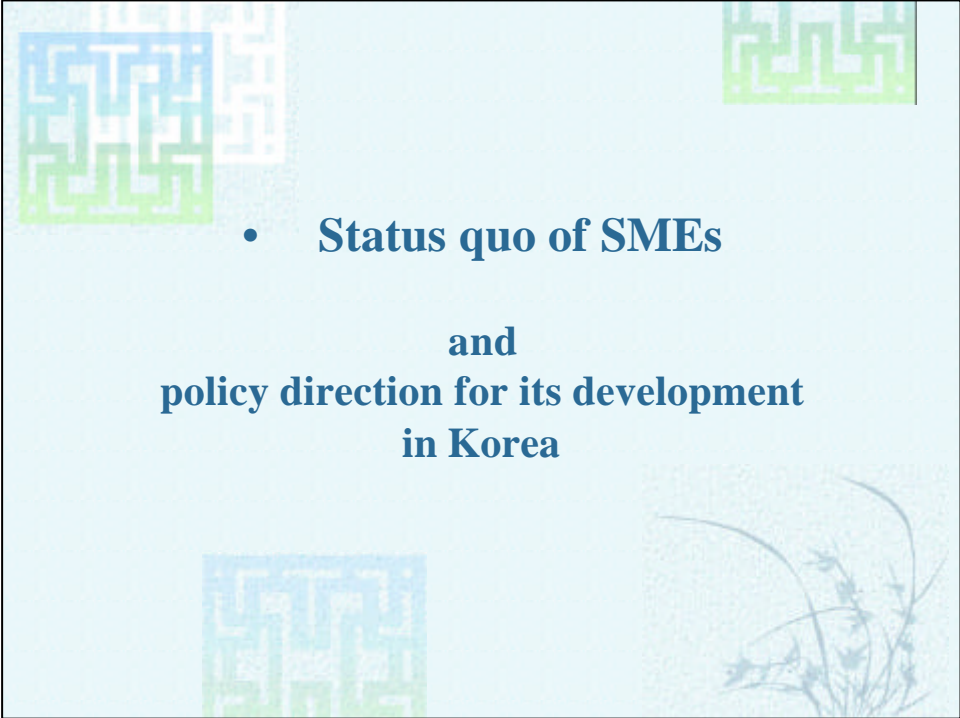


## Knowledge-based society of the 21<sup>st</sup> century

- f* **Digital, IT, Bio revolution progress based on IT**
  - Shift of added-value creation source
    - . Labor/capital      knowledge/information
- f* **IPRs as key elements in creating national and individual competition**
  - change of IPR function
    - . Beyond protective function, being utilized as key element in pursuing strategic development by state and companies
  - required efforts to graft IPRs upon economic activities
    - . Ranging from IPR creation to commercialization

## Need to raise SMEs

- f* **SME's roles more suited for global economy**
  - increasing role in new economy represented by knowledge economy, digital economy
  - quick and flexible response to rapid change of
    - . global economic environment
    - . hi-technologies such as IT, BT, NT, ET
  - to achieve sustainable development in economy
    - . need to reinforce infrastructure for nurturing SMEs and start-ups

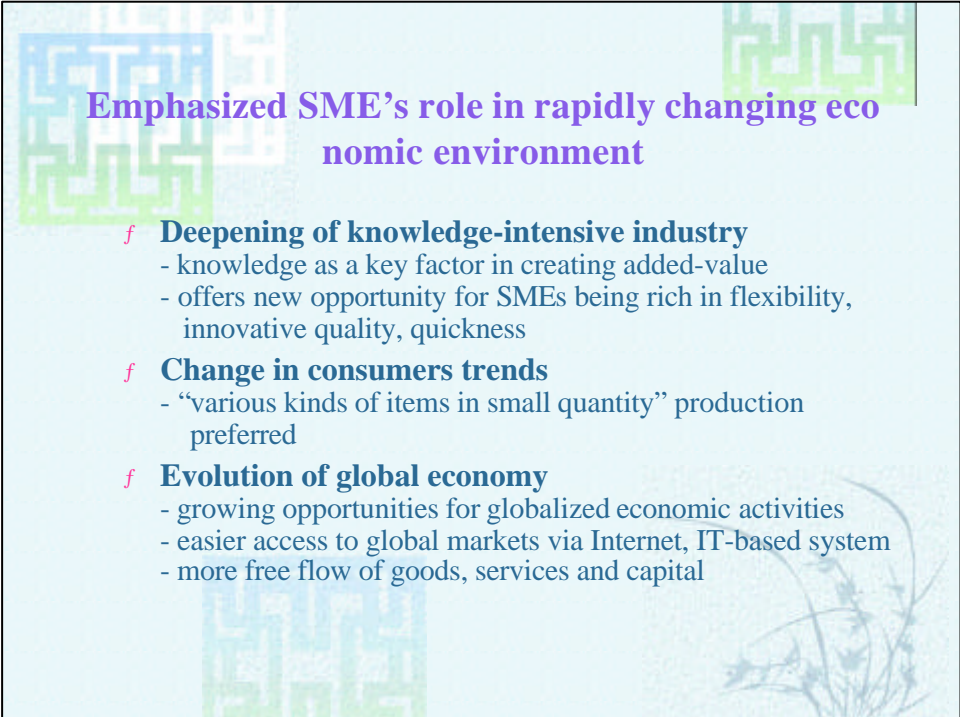


- **Status quo of SMEs**

**and**

**policy direction for its development**

**in Korea**



**Emphasized SME's role in rapidly changing economic environment**

- f* **Deepening of knowledge-intensive industry**
  - knowledge as a key factor in creating added-value
  - offers new opportunity for SMEs being rich in flexibility, innovative quality, quickness
- f* **Change in consumers trends**
  - “various kinds of items in small quantity” production preferred
- f* **Evolution of global economy**
  - growing opportunities for globalized economic activities
  - easier access to global markets via Internet, IT-based system
  - more free flow of goods, services and capital

## Current Status of SMEs in Korea

- f* **Serving as main engines for national economy**
  - number of SMEs
    - . 99.7% of whole industrial companies ('99)
  - employees
    - . 81.9% of total employees ('99)
  - share of export
    - . 31%('98)    41.3%(2001)
  
- f* **Share of SMEs in economic activities expected to increase**

## Role of SMEs in Korea

- f* **Driving force for economic reinvigoration**
  - sharp increase of IT, BT-related venture start-ups
  - leading to industrial structure from traditional industrial renewed promising industry
  
- f* **Contributing to job-creation and expansion of middle-class people**
  
- f* **Playing a leading role in advancing hi-tech**
  - technical innovation in IT and S/W etc.
  - knowledge-intensive industry more dependent on SMEs

## Organization and Policy for Nurturing SMEs

### *f* Reorganization

- Establishment of "Small and Medium Business Administration (SMBA)" under Ministry of Commerce Industry and Energy (MOCIE) in Feb. 1996
- Setting up of "Presidential Commission on Small and Medium Business"
- Other related agencies : **KIPO**, MOCIE, Ministry of Science and Technology, SMEs' Promotion Corporation, etc.

### *f* SME's policy

- government slogans
  - . "The 21st century is the SME era"
  - . "SMEs are the engines of economic development"
- direction
  - . strengthening of global competition
  - . achieving "self-supportive and technology power" in knowledge age

- **Plan for Promoting Optimal use of IPRs in fostering SMEs**

## Importance of IPR's Acquisition by SMEs

### *f* SMEs form fundamental of national economy and lead economic development

- Optimal entity for development of high value-added technologies
- Leading to creation of employment due to spreading of downsizing, outsourcing
- Playing a central role in expanding export by taking seizure of neglected overseas market through production of "various kinds of goods in small quantity"

### *f* R&D activities and technology power of SMEs are weak

- Structural weakness compared to big companies in money, market dominance, marketing
- R&D ratio('97): 12.3% of entire national investment
- Number of SMEs('97) doing R&D investment: 8% of whole SMEs

## Importance of IPR's Acquisition by SMEs

### *f* IPR act as a key weapon to secure technological edge in mega-competition world of 21<sup>st</sup> century

- Leading to incessant technological innovation by providing stimulus for reinvestment of R&D
- Means for paying-off investment cost for R&D
- Key assets of business management
  - . Exclusive rights, royalty income

## How many IPRs are owned by SMEs in Korea

### *f* Ownership ratio by SMEs(including individual) (‘99.6)

- 14.8% of entire IPRs
  - . Patents, utility models : 17.7%
  - . Trademarks, designs : 82.3%
- 2.4% of whole companies having IPRs

## Why the ownership ratio by SMEs is low?

### *f* Lack of professional

- Weak in prior-art search skill, information collection
- Short of understanding about IPR's acquisition procedure
  - \* establishment of "IPR-exclusive management department"  
(‘98.6)
  - . 614 companies of whole SMEs(91,324): 0.7%

### *f* Cost burden

### *f* Shortage of top manager's recognition of IPRs

- Passive attitude toward intangible assets
- Biased view on effectiveness of IPRs

*f* **Insufficient infrastructure to support creation and use of IPRs**

- Difficult to get finance by putting IPR on security
- Hard to occupy a market share
  - . Deficiency of marketing skill
  - . Difficult to build independent brand power

*f* **Patented technology transaction market underdeveloped**

\* 63.4% of total patents and utility models are in dormant state (June, '98)

**Launch of SME's IPR Acquisition Movement**

KIPO has been implementing omni-directional policies for supporting SMEs through the Movement since Sept., 1999.

*f* **Need/background**

- facilitate right-creation of R&D results
- attract SMEs to knowledge intensive industry
- spread importance of IPRs into SME sector
- reinforcing of incentive system about acquirement of IPRs

raise competitiveness of SMEs  
strengthen technological power of SMEs



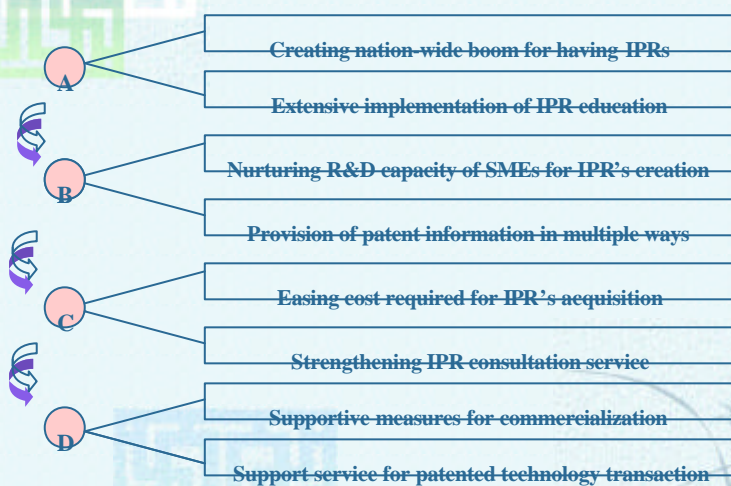
*f* **Goal**

- Induce all SMEs with more than 5 employees to have a single patent and utility model

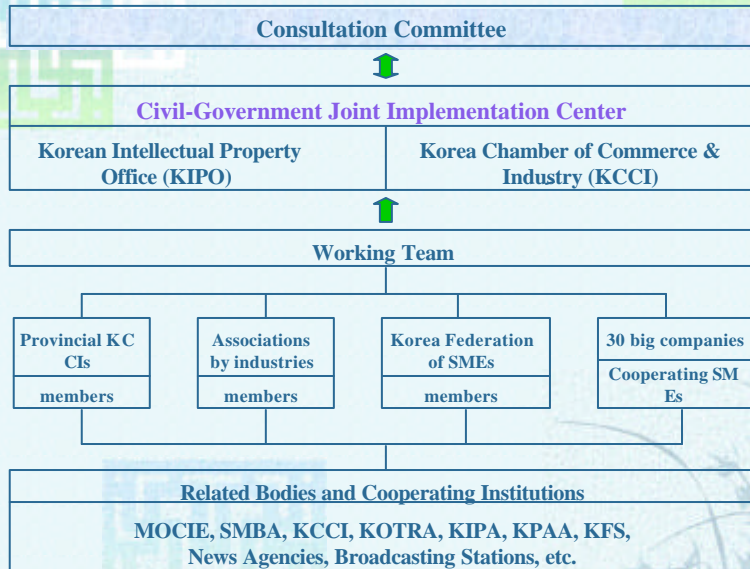
*f* **Basic direction**

- Activity for enhancing awareness of IPRs
  - . Education, spreading of best practices, public relations
- Linkage to all kinds of government support measures for IPRs
  - . R&D, right-creation, commercialization

**Implementation Direction of the Movement**



## Implementation Framework for the Movement



- **Efforts to Spread Awareness of IPRs by SMEs**

## (1) Creating nationwide boom for SMEs to acquire IPRs

- f* **Holding “Resolution Convention” for the Movement**
  - Organizers : KIPO, KCCI
  - Participants : members of the movement-related bodies
- f* **Organizing Seminars**
  - Jointly organized with relevant newspaper companies
  - Topic : IPR usage strategy and best practices by SMEs
- f* **Nationwide-circulation explanatory meeting**
  - target : top managers, executives, IPR-related staff, officials, etc.
  - topic : support program in creation and utilization of IPRs, best practices, etc.
- f* **Increasing awards for SMEs**
  - On the occasion of various patent or invention-related exhibitions

## (2) Expanding Education Opportunity

- f* **Including IPR subject in training programs of SME-related institutes**
  - SME training institute, SME development institute, Korea standards association, KOTRA etc.
  - Providing free lectures by KIPO’s staff, IPR-related materials
- f* **Inducing 30 big companies to provide IPR training for their cooperating SMEs**
- f* **Increasing IPR training programs for SMEs at International Intellectual Property Training Institute (IIPTI) of KIPO**
  - Introductory course, course on use of IPR information, etc
  - On-the-spot training course, other course subject to demands of SMEs

- 
- **Linkage of R&D Activities of SMEs to IPR's Creation**



### **(3) Nurturing R&D Capacity for IPR's Creation**



#### **Providing various R&D funds in connection with IPRs**





- o Linking technology development projects by government/public institutes to creation of IPRs

funding total expenses for application and registration  
providing patent technology trend/analysis data  
using IPC in deliberation of qualified research project



### Provision of PM(patent map)

- o PM
    - Sorting out, processing, analyzing patented technology
    - Showing technology development trend used in establishing R&D strategy, forming industrial technology policy
  
  - o Holding seminars on PM
    - Development and distribution of PMs on 24 areas of technology
- 
- 

- 
- 
- o Encouraging in-house invention
    - Holding consultation gathering of IPR managers of SMEs
    - Spreading guidelines and best practices on reward system for in-house inventions
  
  - o Assisting R&D human resources development
    - Development of training programs on R&D, patent management
    - Cultivating lecturers
      - o Sending programs and lecturers to related training programs by SMEs
- 
- 

#### (4) Provision of Patent Information in Multiple Ways

##### **Forming sistership between 1 examiner and 1 company**

- o Guiding direction of patent management
- o providing prior art service

##### **Expanding patent-technology information service**

- o Free provision via Internet
- o Intensifying function of provincial patent data retrieval

##### **Holding consultation meeting by industry**

- o Joined by examiners
- o Mutual exchange of patent related information

##### **Supporting the development of brands**

- o Teaching techniques on brand naming
- o Assistance for developing joint brands among several SMEs
  - consulting / organizing seminars on brand-naming strategy
- o Providing search system and legal advice for applications



- **Promotion of Conveniences Regarding Patent Procedures**



**(5) Easing Cost Required for IPR's Acquisition**

**Exemption or reduction of fees**

- o Medium-size enterprise state-run institute, university  
50% for the first application
- o Small enterprise and individual  
70% for the first application

**Offering of patent attorney service**

- o Free service for first-filed application

**Financial support for overseas application**

- o Funding assistance to individuals and SMEs
- o Opening consultation corner for overseas applications at trade-related bodies

## **(6) Strengthening IPR Consultation Service**

### **Establishing information service team at “civil affair consultation room” of KIPO**

- o Exclusively dealing with IPR matters of SMEs

### **Furthering IPR consultation service at provincial SMB A**

- o Open exclusive line (call, fax) with KIPO

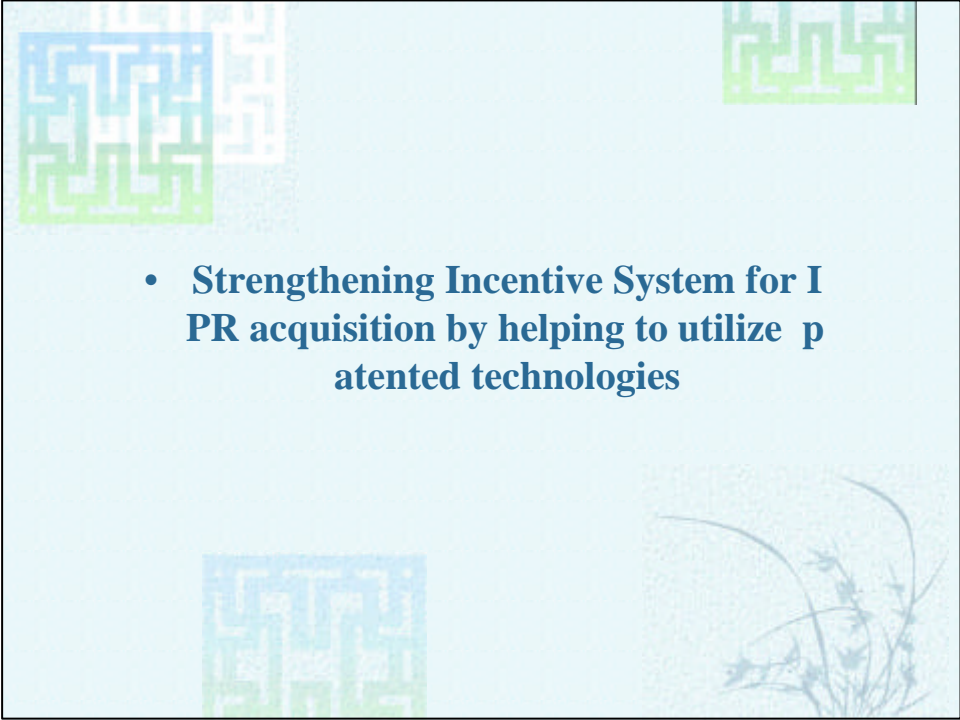
### **Designating patent attorney office for free service in each province**

- o Designated office by KIPO provides free service

### **Inducing SMEs to set up “patent management department”**

- o Training experts in Korea Invention Promotion Association (KIPA) and sending to SMEs
- o Offering special management service for SMEs



- 
- **Strengthening Incentive System for IPR acquisition by helping to utilize patented technologies**

#### **(7) Supportive Measures for Commercialization**

##### **Assistance for trial product of patented technology**

- o Increasing funding money and recipient companies  
- 60 companies, 30 million Won (2001)

##### **Enhancement of security value of patent technology**

- o Reflection of results of evaluation of technology in deciding security value  
- cooperating with MOCIE, Industrial Technology Evaluation Institute
- o Expansion of assistance for patent technology evaluation project
- o Continued development of evaluation techniques

### **Expansion of fund assistance for facilitating commercialization**

- o Close cooperation with MOCIE, KIPO, SMBA
  - Set-up of consultation committee on commercialization
    - . Discussion on better ways to provide various related funds
  - Providing of fund assistance for R&D, start-ups, facility investment
    - . 37.7 billion Won (2001)
- o Match-making between right holder and patent angel
- o Induce banks to loan based on patent security
  - SME Bank, Korea Industrial Bank, etc.

### **Tax Break**

- o Deduction a certain ration of investment money from subject of corporate tax
- o Reduction of income tax in assignment or lease of patent, utility model
- o Reduction of corporate tax in licensing IPRs to foreigners

### **Increasing Marketing Opportunity**

- o Accord preferential treatment to SMEs holding patent rights
  - in opening patented-invention exhibition corner at exclusive shopping mall for SMEs
- o Opening “big market for patented product” via live TV broadcasting
- o Preferentially including patented products in overseas marketing-support items of KOTRA



## **Support Service for Patented Technology Transaction**



### **(8) Service for Marketing Patented Technology**

#### **Opening Patent Technology mart, IP-Mart (Internet)**

- o Connecting between right holders and capital holders
- o Launch of IP-Mart (Jan., 2000)

building D/B on patented technology hoping for transaction

## Support Service by Phase

Pre-application phase



- IPR Diagnosis
- PM
- Free service of patent information via Internet
- Sister ship between examiner & SMEs

Application phase



- Free patent attorney service
- Reduction of application fee
- Assistance for overseas application

Examination phase



- Issuing certificate confirming quality of examined technology - needed for getting fund assistance as venture company

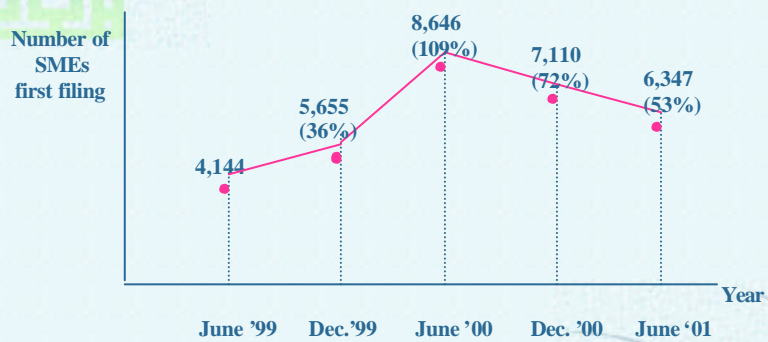
Registration or after it



- Confirmation of venture company
- Fund assistance for Commercialization
- Support for patent technology evaluation
- Support for trial product of patented technology
- Open of patented technology market

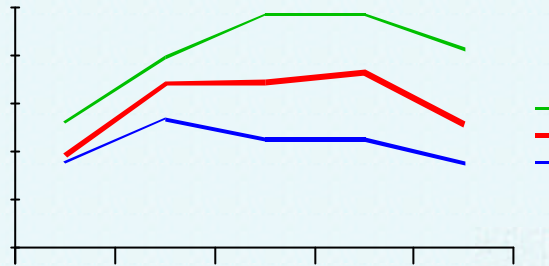
- **Performance of the Movement**

### Statistics of first-filing SMEs



\* Since the start of the movement in 2nd half of 1999, 27,758 applications of patents and utility models have been first filed by SMEs

## Application Trends of SMEs



\* Application by SMEs is on the increase

\* Application by big companies is on the decrease

## V. Conclusion

## Considered Points for Developing SMEs Assistance Programs

### **Approach of support strategy in the framework of national R&D Policy**

- o IPO is required to play a central role in promoting use of IP for SMEs
- o IPO needs to organize close cooperation with associated Ministries and Agencies
  - Seek ways to attach IPR aspects to allocation of various R&D funds controlled by them and tax break
- o Encourage government sector to use IP as key tool to stimulate nationwide R&D activities
  - Need to raise awareness of the importance of IPRs among government officials

### **Aggressive exploration of ways to assist SMEs within the capacity of IPO**

- o Attract SMEs to the benefits of the use of IP in business strategy
  - Strengthen human resources development targeting SMEs (training programs, seminars, explanatory meetings)
  - Wide-ranging consultation programs
- o Ensure cheaper and easier IPR acquisition
  - Reduction of fees, provision of application consultation service, etc.

- o Enhance easier access to IP information  
(PM project, cyber IP office, computerization,  
digitalization of IP information, network between  
IPO and users, etc)
- o Build up continued IP service system even after  
registration
  - commercialization, trial product, IP-mart, patent  
evaluation service, etc
- o Improve IPR system favorable to R&D activities
  - Adoption of pre-registration system in utility models
  - Placing examination guidelines in order to support  
R&D activities of venture companies

## Conclusion

### Supporting SME's through using IPR-means ensures:

sustainable advancement R&D in industrial sectors  
strengthening national competitiveness  
contributing to economic development

### In this perspective,

#### <National Level>

- o KIPO plans to continually explore available resources  
and expand necessary infra. so that SMEs can fully  
enjoy benefits of IPRs in their businesses.



*<International Level>*

- o KIPO desires to cooperate with developing countries, especially through WIPO programs in this field.
  - A joint research project on “impact of IPRs on the development of technology in Korea” with WIPO is ongoing
  - Its result is expected to underlie the developing of model SME policy for developing countries
- o International cooperation is needed especially in following fields:
  - Exchange of best practices for promoting applications of SMEs
  - Commercialization, evaluation of patent rights, operation of IP-mart

*THANK YOU*