



Industrial R&D Policy in South Korea



2007. 10.

ITEP

(Korea Institute of Industrial Technology Evaluation & Planning)

Contents

I

Overview of National R&D

II

Overview of Industrial R&D
Policy

III

Overview of ITEP and
International R&D Program

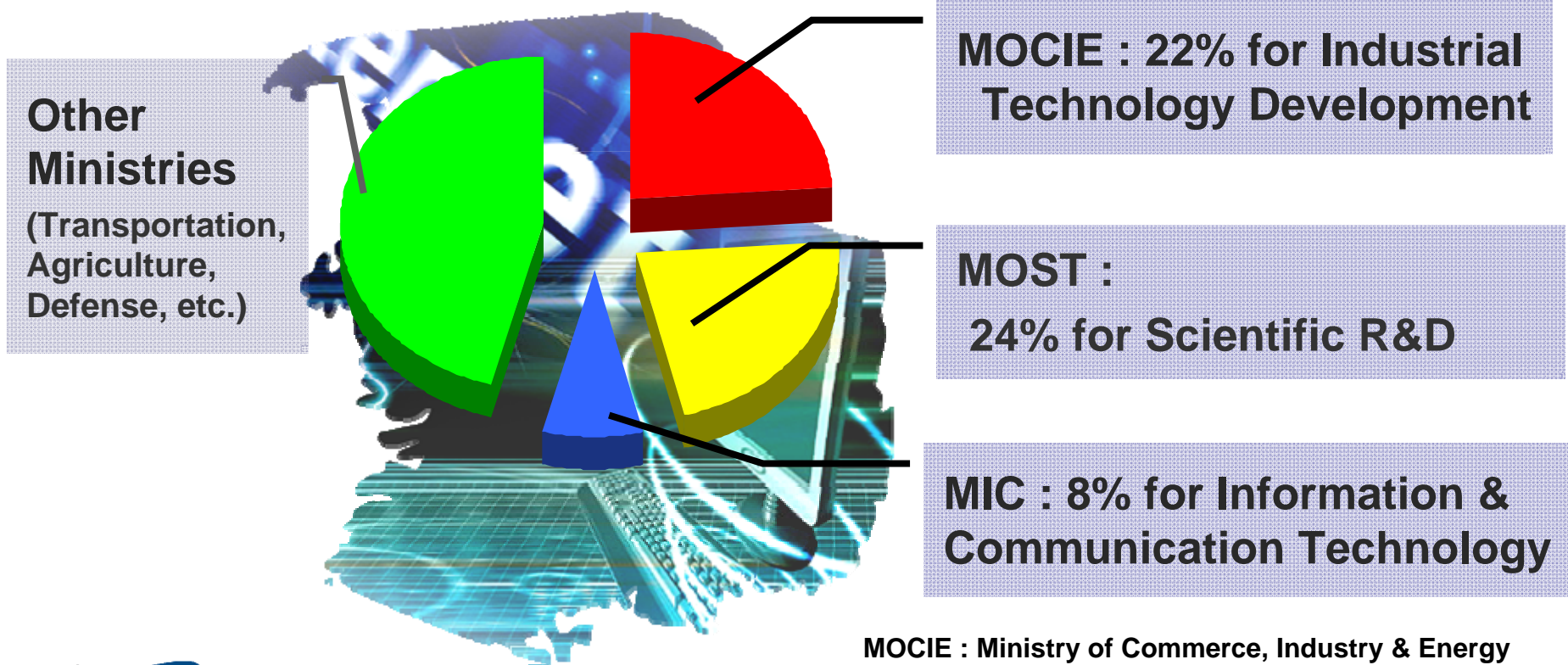
R&D Policies in a chronological order

Chronological Order	R&D Policies	
1960~1970	<ul style="list-style-type: none"> • Imitation of advanced technologies • Establishment of government affiliated research institutes 	
1980~1990	<ul style="list-style-type: none"> • Start of national R&D project • Localization of parts, materials, and machinery • Transfer and Improvement of advanced technologies 	
Mid 1990~2003	<ul style="list-style-type: none"> • Promotion of technology innovation and infrastructure • Drastic expansion of R&D investment 	
2004 ~	<ul style="list-style-type: none"> • Establishment of national technology innovation system 	



Government R&D Budget

('07) : \$ 9.8 B → ('08) : \$ 11.8 B



Korea Institute of Industrial Technology Evaluation & Planning

MOCIE : Ministry of Commerce, Industry & Energy
MOST : Ministry of Science & Technology
MIC : Ministry of Information & Communication
OSTI : Office of Science and Technology Innovation

R&D Management Agencies

Ministry of	R&D Mgmt Agency	Areas	Start year of R&D Programs
Commerce, Industry and Energy (MOCIE)	ITEP	Industrial technologies	1989
Science and Technology (MOST)	KISTEP	Various areas	1982
	KOSEF	Target-oriented basic research	1987
Information and Communication (MIC)	IITA	Information and communication technologies	1991



Korea Institute of Industrial Technology
Evaluation & Planning

Contents

I Overview of National R&D

II

**Overview of Industrial R&D
Policy**

III

**Overview of ITEP and
International R&D Program**

Policy directions of industrial R&D

1. Promote development of national strategic industrial technologies to obtain core basic technologies
2. Promote technology development and industrial policies that affect quality of life
3. Strengthen technical innovation in small & medium companies and region
4. Run R&D project operating system to improve efficiency of R&D investment



1. Development of National Strategic Industrial Technologies

Change “follower of application technologies”
to “front-runner in core basic technologies”

Reorganize industrial R&D into strategic technologies

Investment
according to
a priority in
national plans

Concentration of
core basic
technology

Package-type
support

Thorough
planning &
evaluation

15 strategic technology fields



Institute of Industrial Technology
Evaluation & Planning

1. Development of National Strategic Industrial Technologies

15 Strategic Technologies

Classification	Strategic Technologies
Major Industries	Semiconductor, Automobile, Shipbuilding Textile & Clothing, Chemical Process & Materials Metal Materials, Manufacturing system
Next-Generation Industries	Biotechnology, Robotics, Digital Convergence, Medical Instrument
Infrastructure Industries	Nano, Manufacturing, Clean Technology, Knowledge Service



2. Promotion of fields related with quality of life

- Expand R&D investment
 - Invest intensively in fields related with quality of life such as next-generation medical instruments
 - Expand R&D budget in technology development for old and handicapped people
- Expand technology infrastructure related with quality of life
 - Support certification and standardization of product and technology
 - Grant incentives to commercialization



3. Innovation of SMEs and Regions

- **SMEs**
- Offer customized R&D support to companies
 - Have innovative companies participate in long terms and large projects to obtain core basic technologies
 - Have medium companies participate in short terms and small projects to expand innovative capability
 - Have small companies have a partnership with research & supporting institutes to solve their bottle-neck technologies



3. Innovation of SMEs and Regions

- Provide small and medium companies with more chances to take part in 15 strategic industries
 - Supply small and medium companies with more chances to participate in planning R&D of 15 strategic technologies
- **Region**
 - Expand regions' R&D capability
 - Strengthen development of long terms and large projects associated with clusters of regional industries
 - Expand R&D investment



4. Efficiency of R&D investment

- Plan preliminary planning of R&D thoroughly
 - Implement preliminary planning for at least 6 months through the technical committee of each strategic technology field
- Strengthen responsibility and specialization of evaluation and management
 - Stop or cut funding of projects with lack of research achievement and commercialization through strengthening of progress check and stage evaluation



4. Efficiency of R&D investment

- Establish achievement-centered R&D system
 - Distribute budget according to the evaluation results
 - Perform analysis of economics and evaluation through full cycle stage of long terms and large projects
 - Establish a following-up monitoring system



Contents

I Overview of National R&D

II Overview of Industrial R&D Policy

III Overview of ITEP and International R&D Program

Overview of ITEP

◆ ITEP (Korea Institute of Industrial Technology Evaluation & Planning)

- Government funded agency (by MOCIE*)
- Goal to enhance the national competitiveness of industry
- Dedicated to planning, evaluation and management of national
 - Industrial R&D Program
 - Industrial Infrastructure Program
 - Regional Innovation Program

*MOCIE: Ministry of Commerce, Industry and Energy



Korea Institute of Industrial Technology
Evaluation & Planning

Overview of ITEP (Con't)

Major Activities

Area	Summary of programs
Industrial R&D Program	<ul style="list-style-type: none"><input type="checkbox"/> Promoting industrial technology competitiveness<input type="checkbox"/> Providing R&D grants to companies, universities and research institutes<ul style="list-style-type: none">- less than 75% of the project expense
Infrastructure Building Program	<ul style="list-style-type: none"><input type="checkbox"/> Building infrastructure to promote industrial technology innovation,<ul style="list-style-type: none">- such as establishing research facilities, training, information exchange and international cooperation
Regional Innovation Program	<ul style="list-style-type: none"><input type="checkbox"/> Balanced development of Korea by promoting regional industries and innovation clusters to enhance competitiveness

Overview of ITEP (Con't)

Major Activities (Con't)

Area	Summary of programs
Strategic Planning	<ul style="list-style-type: none"><input type="checkbox"/> Planning for industrial technology development<input type="checkbox"/> Analysis of industrial technology policies<input type="checkbox"/> Survey on technical demand and forecast
Follow-Up Program Management	<ul style="list-style-type: none"><input type="checkbox"/> Analysis of evaluation systems<input type="checkbox"/> Establishment of performance analysis systems<input type="checkbox"/> Economic impact studies



International R&D Program

Strategic Goals

- Pursue multi-faceted cooperation
 - Joint development of technology policy and R&D evaluation
 - Exchange of information on R&D programs and national R&D systems

- Expand International R&D Partners
 - Establishing a network with peer agencies

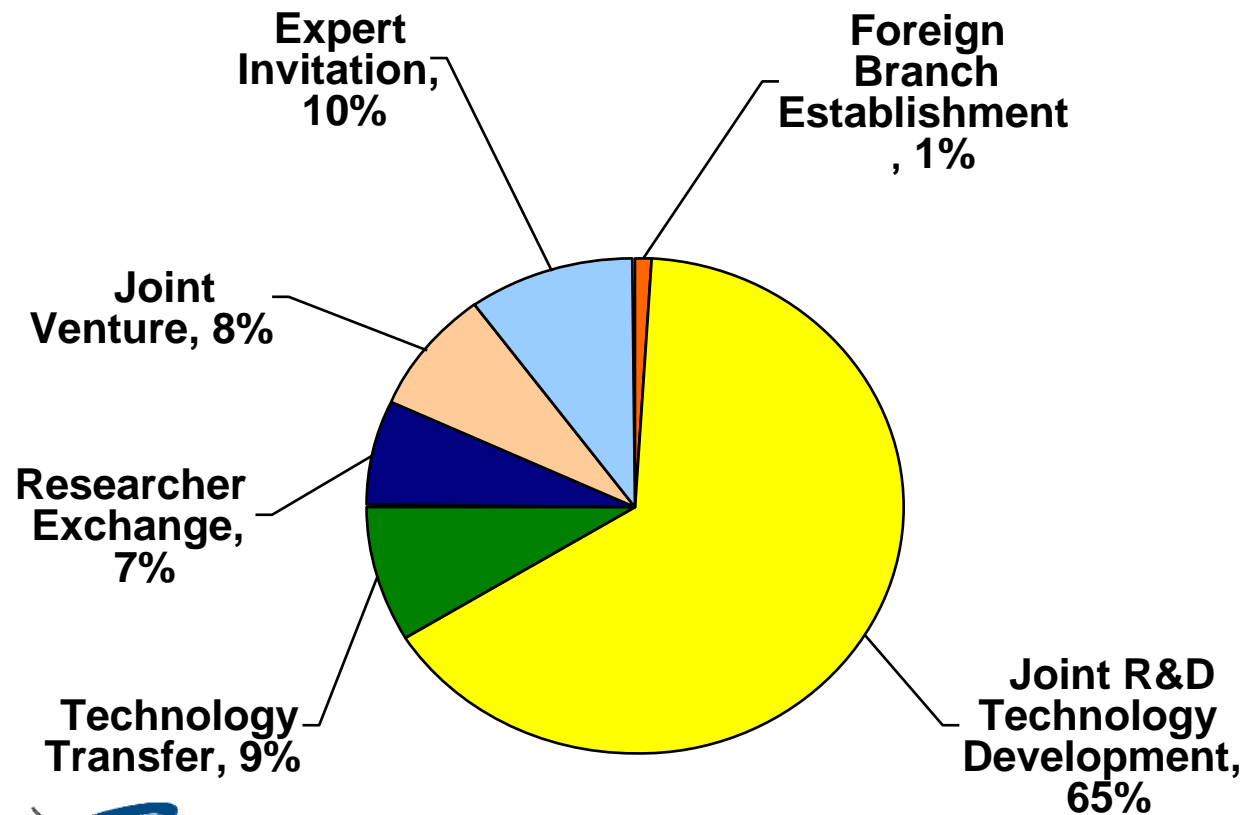
- Provide more opportunities for matchmaking
 - Promotion and advertisement of events



International R&D Program (Con't)

Results of International Technology Cooperation Survey

International Technology Cooperation Method

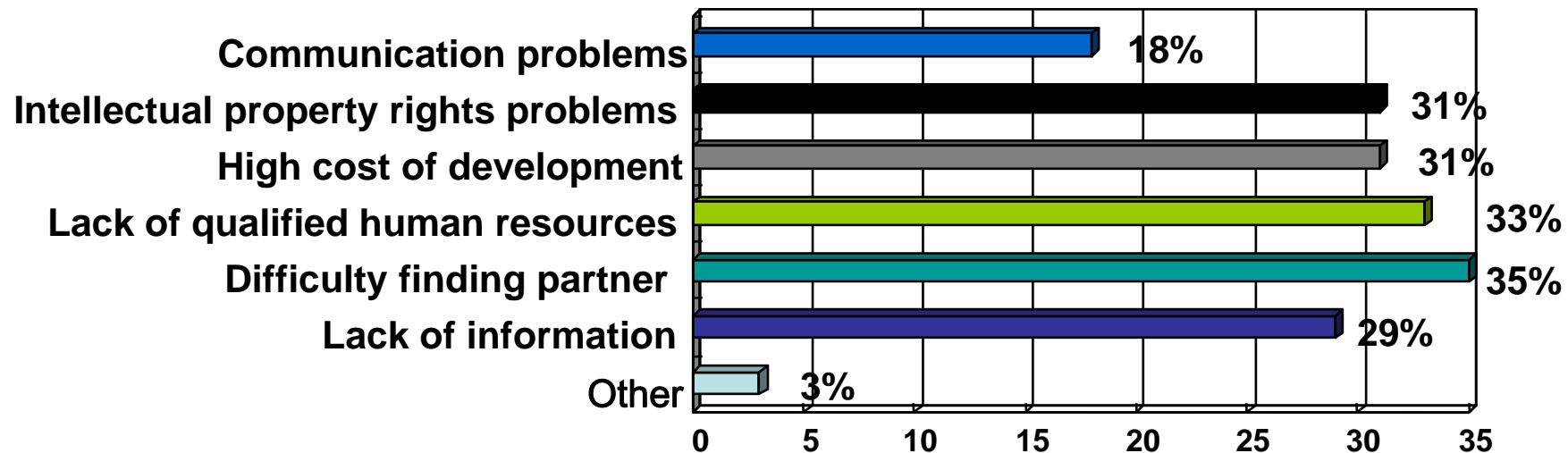


Korea Institute of Industrial Technology
Evaluation & Planning

International R&D Program (Con't)

Results of International Technology Cooperation Survey

Main Factors Preventing International Technology Cooperation



Difficulty in finding a partner is the main factor preventing more international technology cooperation

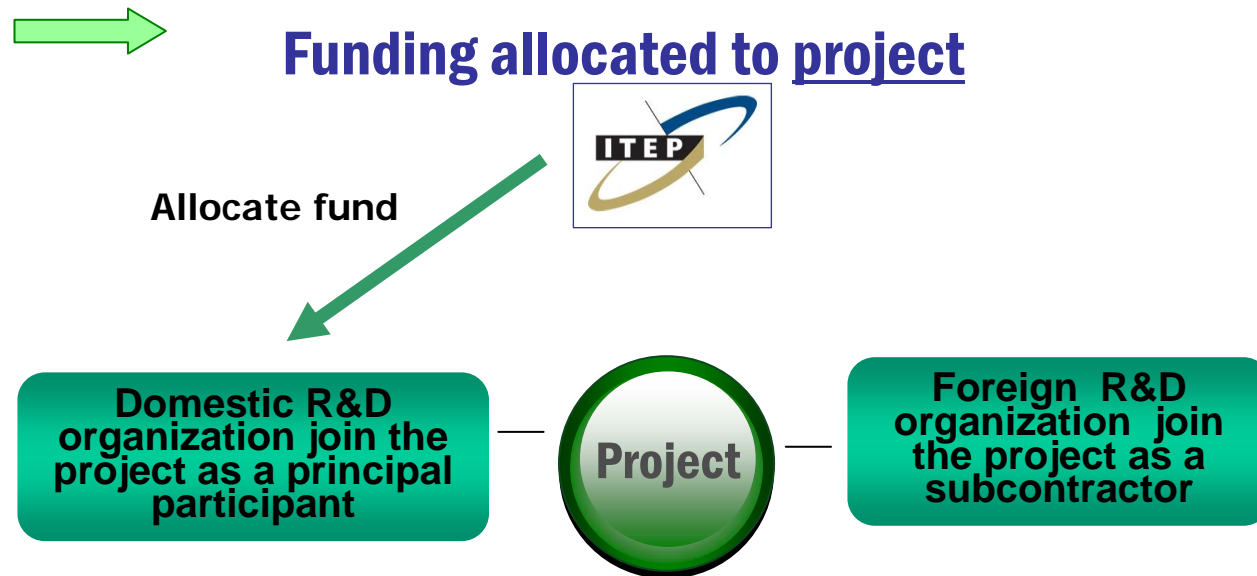


Korea Institute of Industrial Technology
Evaluation & Planning

International R&D Program (Con't)

Promotion Strategies

Existing approach to allocation



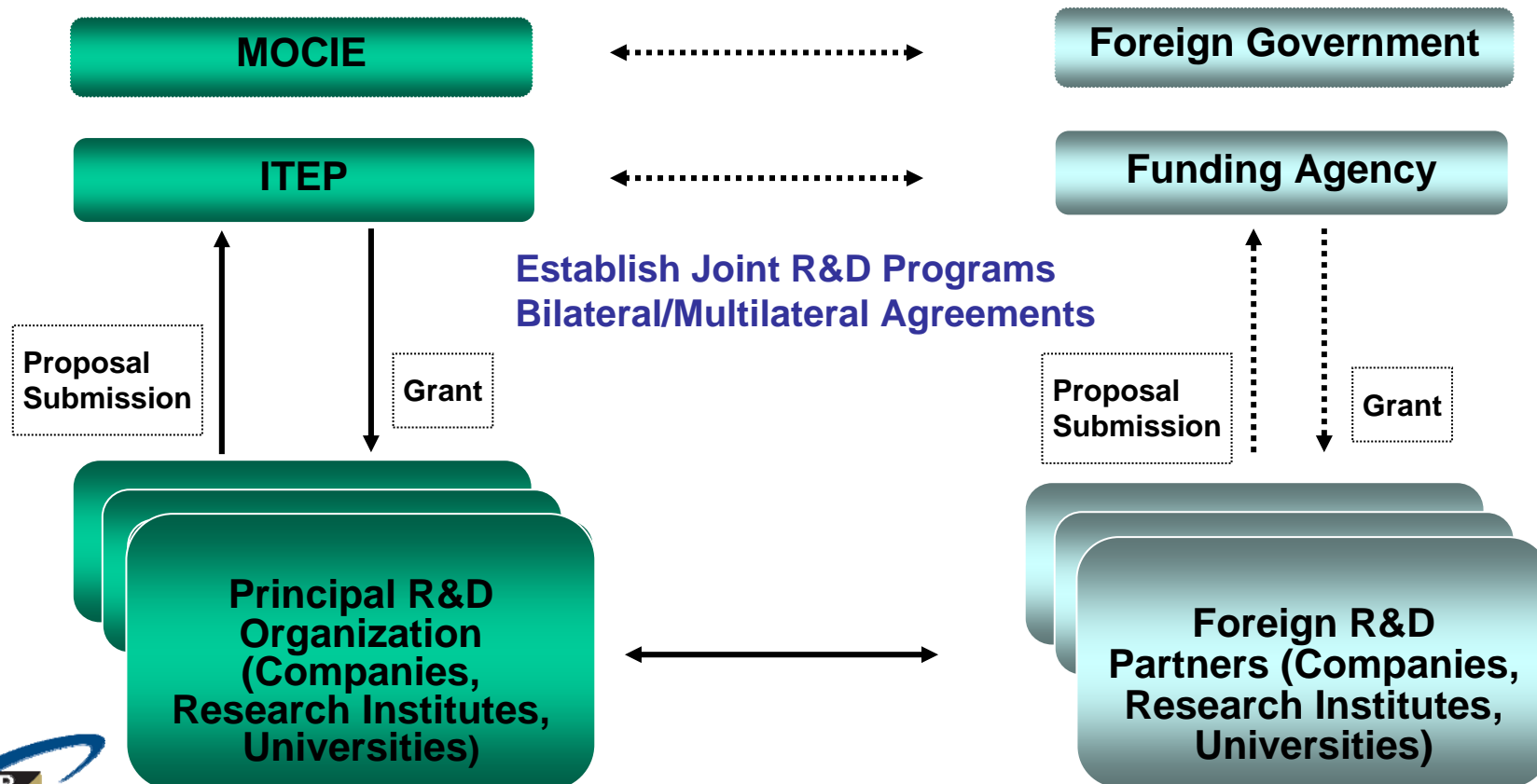
Survey Results = New approach to allocation



Korea Institute of Industrial Technology
Evaluation & Planning

International R&D Program (Con't)

New approach to allocation



Korea Institute of Industrial Technology
Evaluation & Planning *

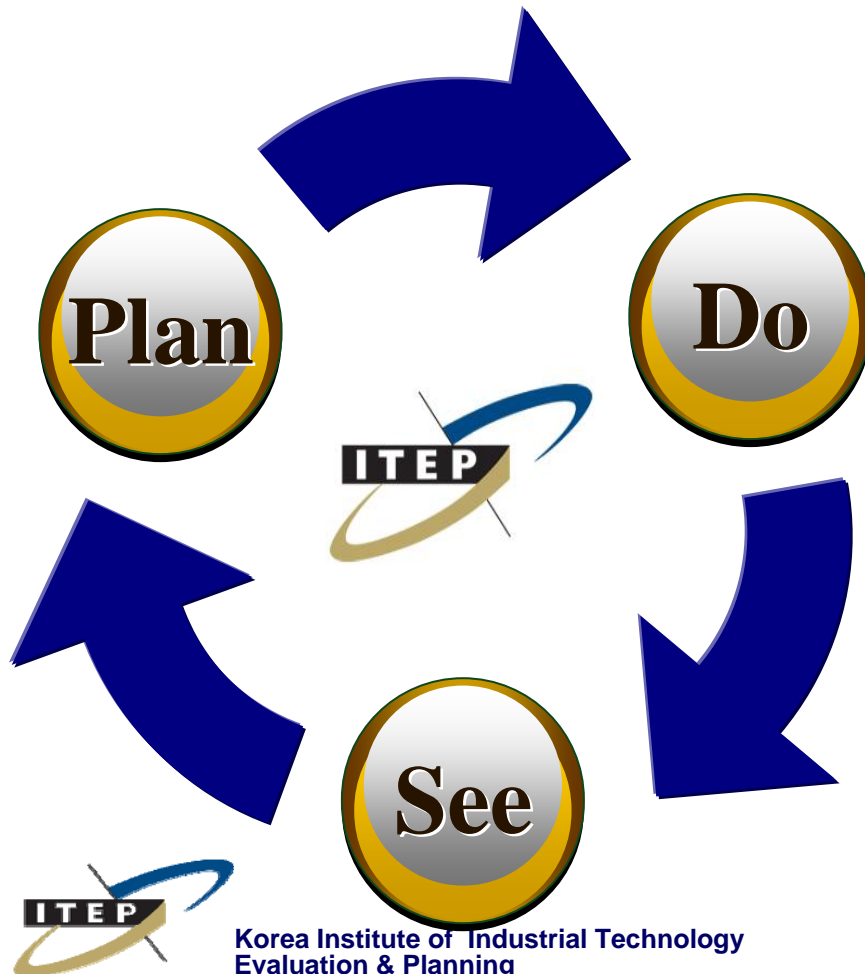
Each country may follow its own policies and regulations

International R&D Program (Con't)

Promotion Strategies



Promotion strategy for the new approach to allocation



Plan: Identification of Joint R&D Projects

➔ Conducted through matchmaking events sponsored by ITEP and foreign peer organization

Do: Implementation of Joint R&D project

➔ Carried out by principal R&D entity- Companies, Universities, Institutes

See: Evaluation of Project
➔ Conducted by ITEP

Results of the Evaluation are used by ITEP for Planning

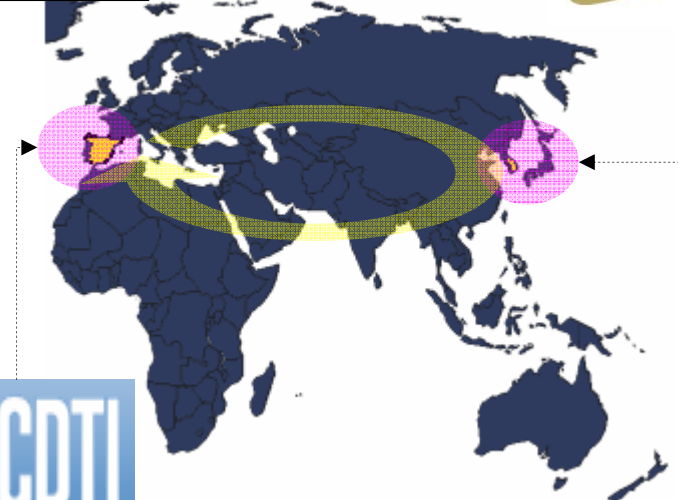
International R&D Program (Con't)



**Cooperation Agreement between
ITEP and CDTI**

February 14, 2007

Spain Case KSI(Korea-Spain Innovating)



**Korea Institute of Industrial Technology
Evaluation & Planning**

International R&D Program (Con't)

Promotion Strategies (Con't)

Results of New Approach:

Identification Survey for Korea-Spain
R&D Projects



54 proposals submitted to the ITEP



19 proposals attracted a Spanish
Partner



6 companies traveled to Spain to
meet Spanish partner



All 6 projects induced; Remaining
13 projects have high potential



KSI seals were assigned to 2 projects;
2 projects will be financed



Korea Institute of Invention
Evaluation & Planning

A blue-tinted background featuring a globe with a grid overlay and a close-up of a microscope lens on the right side.

**Think Global
Act Local**

A blue-tinted background featuring a globe with a grid overlay. In the foreground, there are silhouettes of four people in business attire on the left and a close-up of a scientist wearing a mask and safety glasses on the right.

**Thank you for your
attention**