

**BINASIA NATIONAL WORKSHOP
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**Asian and Pacific Centre for
Transfer of Technology (APCTT)**

SCIENCE & TECHNOLOGY

Science: Knowledge of the laws of nature.

Technology: Technique + Technologie

- **Technique:** a body of methodical processes based on scientific knowledge that is used in production
- **Technologie:** a study of technique, tools, machines and materials.

**CHARACTERISTICS OF
TECHNOLOGY**

UTILIZATION

- Industrial technology (for physical production): can be patented under certain conditions
- Non-industrial technology (for the supply of services): cannot be patented but may be protected by copyright (e.g. Software, financed technology).

**CHARACTERISTICS OF
TECHNOLOGY**

GENERALITY/SPECIFICITY

- General sectoral technology: technical information common to enterprises in the same industry.
- System-specific technology: knowledge developed by a firm in tackling certain problems, mainly product or process technology.
- Firm specific technology: the skills a firm has developed through its activities or acquired through experience.

**VEHICLES FOR
TECHNOLOGY FLOWS**

- Capital embodied technology: machines, equipment and products.
- Human-embodied technology: people
- Disembodied technology: written documents, audio-visual or other media.

**INTERNATIONAL TECHNOLOGY
FLOWS**

VEHICLE	INTERNATIONAL FLOW	COMMERCIAL AND CONTRACTUAL TRANSACTIONS (Combined Flows)
I. PEOPLE	1. Education and training	Official technical cooperation (1,2,4,6,7) Technical assistance agreements between enterprises (2,5,7,8,9,10) Contracts with companies and engineering consultancies (8,9,10 and possibly 11, 12)
	2. Personal contacts	
	3. Professional mobility	
	4. Technical cooperation	
	5. Technical assistance between enterprises	
II. DOCUMENTS Disclosed technology Appropriated and/or secret technology	6. Congresses, seminars, conferences	Patent licences (5,7,8, 9, 10) Equipment sales and purchase (5, 11) Direct investment in subsidiaries/joint ventures (1,2,3, 5, 8, 9, 10, 11)
	7. Technical literature: patents, periodicals & documentation	
	8. Pre-feasibility and feasibility studies and projects	
	9. Drawings, plans	
	10. Detailed engineering drawings: rules and operating procedures.	
III. EQUIPMENT & PRODUCTS	11. Machines, equipment, tools	
	12. Turnkey plants	

FORMS OF INTERNATIONAL TRANSFER OF TECHNOLOGY

- A licensing agreement supplemented by the supply of technical assistance, the sale of equipment or engineering studies and training.
- An agreement on know-how.

WHY TECHNOLOGY TRANSFER ?

USA: 40 % of global R&D expenditure

Japan: 15 %

Germany, UK, France: around 3-5 %

Korea: 2.5 %

TECHNOLOGY IS FREE? BUT WHAT ABOUT CHOCOLATE ?

One high technology costs more than a billion USD

A superstar in Samsung receives:

1 million USD annual salary + 2.3 million worth house and best Korean made car + First Class overseas travel

Role: Develops new high techs, future techs

METHODS OF TECHNOLOGY SOURCING IN A COMPANY

Technology trade : Direct, intermediaries

Recruitment of very skilled, knowledgeable employees

Mergers and acquisition

Reverse engineering

Publication : Research reports, proceedings, newspapers

PREREQUISITE FOR NEW TECHNOLOGY INTRODUCTION IN A COMPANY

Absorption and assimilation ability, mind and corporate culture

Sound downstream technologies

Eligible manpower

APCTT Initiatives

TECH-MART

- Regional and country specific technology transfer web-portal
- Technology transfer transaction
 - Tech offer
 - Tech request
 - Technology database
 - Search engine

TECH-MART PORTALS

- New technologies and market news
 - New technologies
 - Hi-technology products
 - Market news
- Science and technology events
- Science and technology information
- Technology transfer web-portals in member countries such as India, China, Korea, Malaysia, etc will be interconnected into Tech-Mart
- See <http://www.technology4sme.net>

BUSINESS-ASIA

- A nation specific web-portal
- Laws and regulations for business management and business start-up in member countries
- Business support provisions: grants, subsidies, tax reduction, employment, consultancy service, etc.
- FDI and joint venture policies
- E-commerce

BUSINESS-ASIA

- Proficient management of SMEs
- Basic knowledge and current trend of business management
- Articles on business management
- Case studies on success and failure in business.
- “Business-asia” web-portals of the member countries interconnected to promote joint ventures, inward and outward investment in the region.
- See <http://www.business-asia.net>

NATIONAL INNOVATION SYSTEM

NIS Project in APCTT

- Project Goal: Establish on-line, off-line NIS networks in the Asia Pacific region.
- Entities: Policy makers, R&D institutions, universities, industries.
- Duration: 1.5 years.

NATIONAL INNOVATION SYSTEM

NIS Project in APCTT

Purpose:

- To enhance NIS in member countries.
- To promote good NIS policies and practices

Method:

- Seminars, workshops and fora on NIS organized to share good NIS policy frameworks and practices.
- Establish an on-line network on the APCTT website.

NATIONAL INNOVATION SYSTEM

NIS Project in APCTT

Proposed schedule of meetings:

Asia Pacific Meeting of High-Level Policy Makers

April 2005 - India

National Workshops on NIS Focusing on Knowledge Flow and Partnerships

September 2005 - Thailand
October 2005 - Sri Lanka
December 2006 - Islamic Republic of Iran
March 2006 - Philippines
April 2006 - Viet Nam

NIS POLICY FRAMEWORK

Major elements of the NIS framework

- Promotion of national strategic R&D
- Manpower development
- Creation of linkages between government supported research institutions, academia and industry
- Commercialization of R&D results
- Promotion of venture business
- Establishment of business parks and business clusters
- Science and technology awareness
- Promotion of women entrepreneurship
- Introduction of a sound S&T infrastructure
- Introduction of a new institution and/or reformation existing institutions

NIS POLICY FRAMEWORK

Strategic analysis during policy framework development

- Economic and social demands and opportunities
- Cost-benefit analysis
- Internal capacity and ability analysis
- Resource analysis
- External threats and opportunities, internal strengths and weaknesses.

NIS POLICY FRAMEWORK

Implementation

- Introduction of new policies and initiation of new programmes
- Re-orientation of on-going programmes
- Re-direction of on-going strategies and management

Our Special Networks

BIOTECHNOLOGY INFORMATION NETWORK FOR ASIA (BINASIA)

- To promote cooperation in R&D and information sharing in the area of biotechnology.
- Initiated in 2003 by the Ministry of Science and Technology of the Government of the Republic of Korea and APCTT.
- Participating Countries (13) : Bangladesh, India, Indonesia, Iran (Islamic Republic of), Republic of Korea, Malaysia, Mongolia, Nepal, Pakistan, Philippines, Sri Lanka, Thailand and Viet Nam.
- See <http://www.binasia.net>

**ASIA-PACIFIC TRADITIONAL
MEDICINE & HERBAL TECHNOLOGY
NETWORK (APTMNET)**

- On-line network for R&D institutions, higher education institutions and private companies.
- Developed by the Ministry of Science and Technology, Government of China & APCTT in 2002
- Participating Countries (14) : Bangladesh, China, India, Indonesia, Iran (Islamic Republic of), Republic of Korea, Malaysia, Mongolia, Nepal, Pakistan, Philippines, Sri Lanka, Thailand and Viet Nam
- See <http://www.apctt-tm.net>

Thank you

Reach us at:

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