



Coway International TechTrans Co., Ltd.

Baltic Dynamics 2008

Technology Transfer in China: Opportunities & Challenges

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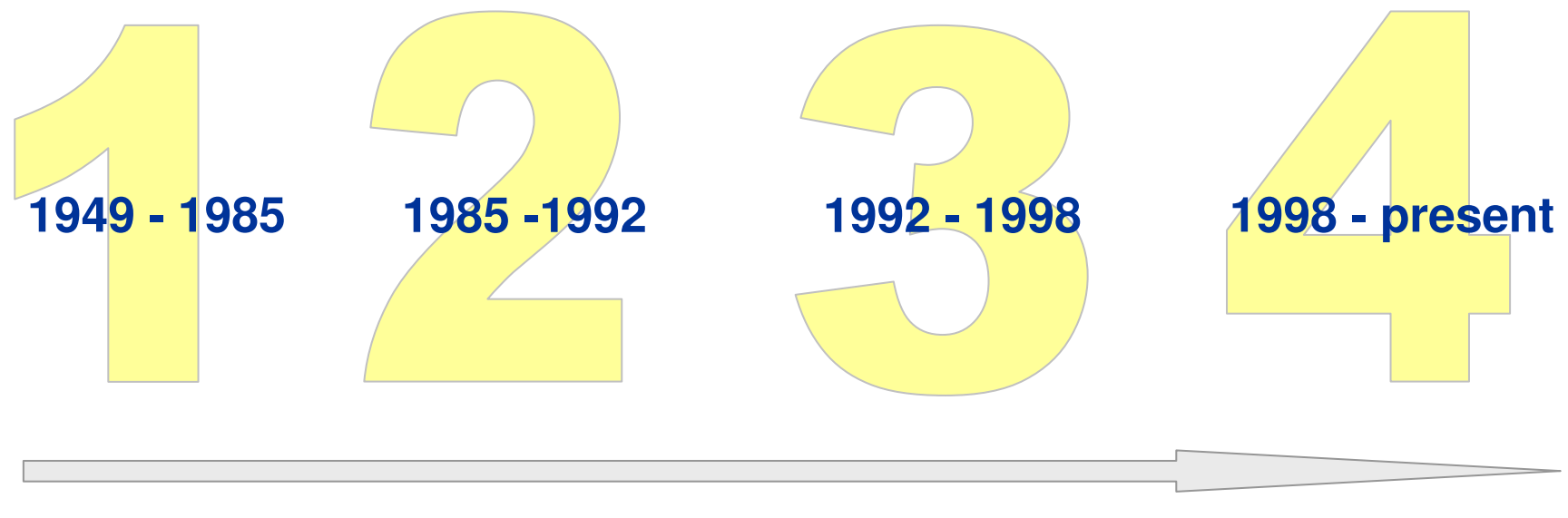
4 Sep. 2008, Tartu

Presentation Overview

- The development of Technology Transfer in China
- The technology market management and TT promotion system
- Challenges & Opportunities
- What We Do

The Development of Technology Transfer in China

Since the founding of the People's Republic of China, development of technology transfer in China can be divided into four phases:



The Development of Technology Transfer in China

The first phase: 1949 – 1985

- Complete equipment and technology import from foreign countries to facilitate economic growth.
- Technology source: former Soviet Union, East European countries, Japan, UK, USA and Germany etc.
- Technology import decision maker: government agencies (such as State Planning Commission etc.)
- Domestic technology transfer was weak and driven by the state project plan.
- Lack of specific laws and regulations to regulate technology transfer activities.

The Development of Technology Transfer in China

The second phase: 1985 – 1992

- Adaptation of imported technology
- The viewpoint of “technologies are commercial products” has been accepted by public gradually.
- Technology could be transferred with compensation according to market rules.
- Government issued Patent Law, Technology Contract Law and corresponding regulation for technology transfer activities.
- Technology transfer forms diversified, such as cooperation research, patent license, technology consulting and technology service.
- The transaction volume was increased year by year.

The Development of Technology Transfer in China

The third phase: 1992 - 1998

- Market economic system with Chinese characteristics was established across China.
- Technology market stepped to maturity and technology transaction became more and more active.
- Regulations related to technology transfer were gradually improved.
- Contract Law of the People's Republic of China was launched in 1997 in which chapter 18 was *Technology Contract*.
- Government policy: various tax allowances on technology transfer were provided by central and local governments. R & D institutions were encouraged to reform their systems to facilitate technology commercialization.
- Technology import forms were diversified.
- Technology transaction volume was continuously increased.

The Development of Technology Transfer in China

The fourth phase: 1998 - present

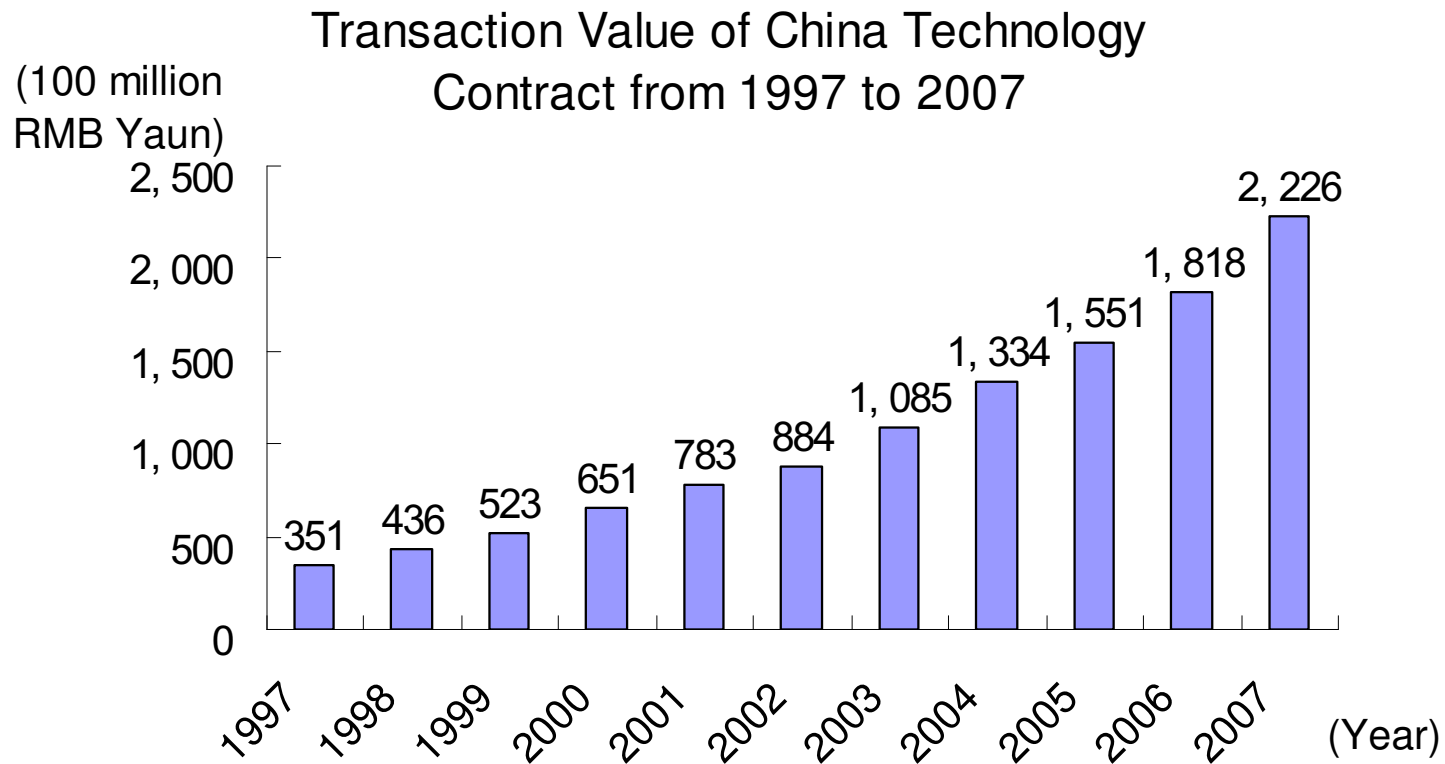
- In 2006, building “Innovative country” became China national strategy and the build-up of China national innovation system started.
- Technology innovation (original innovation, integrated Innovation and re-innovation after application and modification) and technology transfer have been attached unprecedented importance.
- IP protection status has been continuously improved.
- Technology transfer service organizations have been developed rapidly. Many universities, R & D institutions and local governments started to establish technology transfer centers (offices).
- International technology cooperation and international technology transfer have been growing up rapidly.
- Total volume of technology transaction has been keep rapid growth.

The Development of Technology Transfer in China

Current Status:

- 260, 000 technology contracts closed in 2005
- Total transaction volume reached 155.1 billion RMB Yuan (0.85% GDP) in 2005

The Development of Technology Transfer in China



Resource: MOST (Ministry of Science and Technology), China

The Development of Technology Transfer in China

Proportion of Transaction Value of Technology Contracts to GDP in Recent Years

	2001	2002	2003	2004	2005	2006	2007
GDP (100 million RMB)	109655	120333	135823	159878	182321	209407	246600
Transaction Value of Technology Contract (100 million RMB)	782.75	884.17	1084.67	1334.36	1551.36	1818.18	2226.51
Proportion of Transaction Value of Technology Contracts to GDP (%)	0.71	0.73	0.80	0.83	0.85	0.87	0.90

Conclusion: The proportion of transaction value of technology contracts to GDP has been growing, however, the total value is still low, which is smaller than 1% of GDP.

Resource: MOST (Ministry of Science and Technology), China

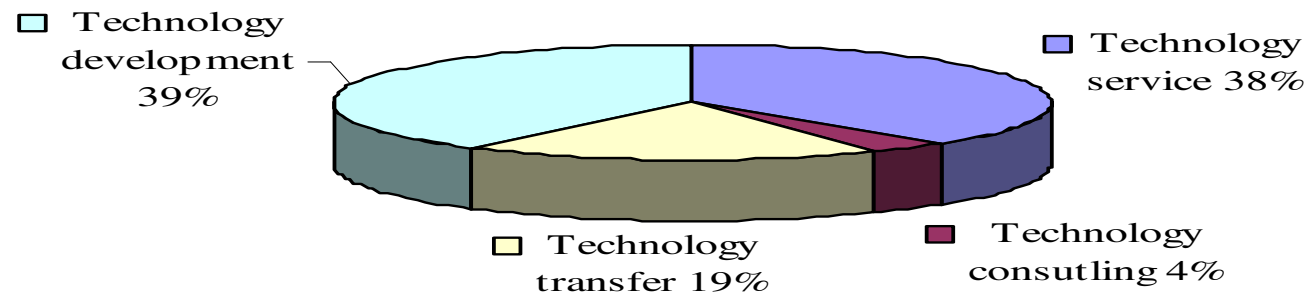
The Development of Technology Transfer in China

	Technology services	Technology consultancy	Technology Transfer	R&D Contract
Transaction value (100 million RMB)	840	90	420	876
Proportion to the total value	38%	4%	19%	39%

Resource: MOST (Ministry of Science and Technology), China

The Development of Technology Transfer in China

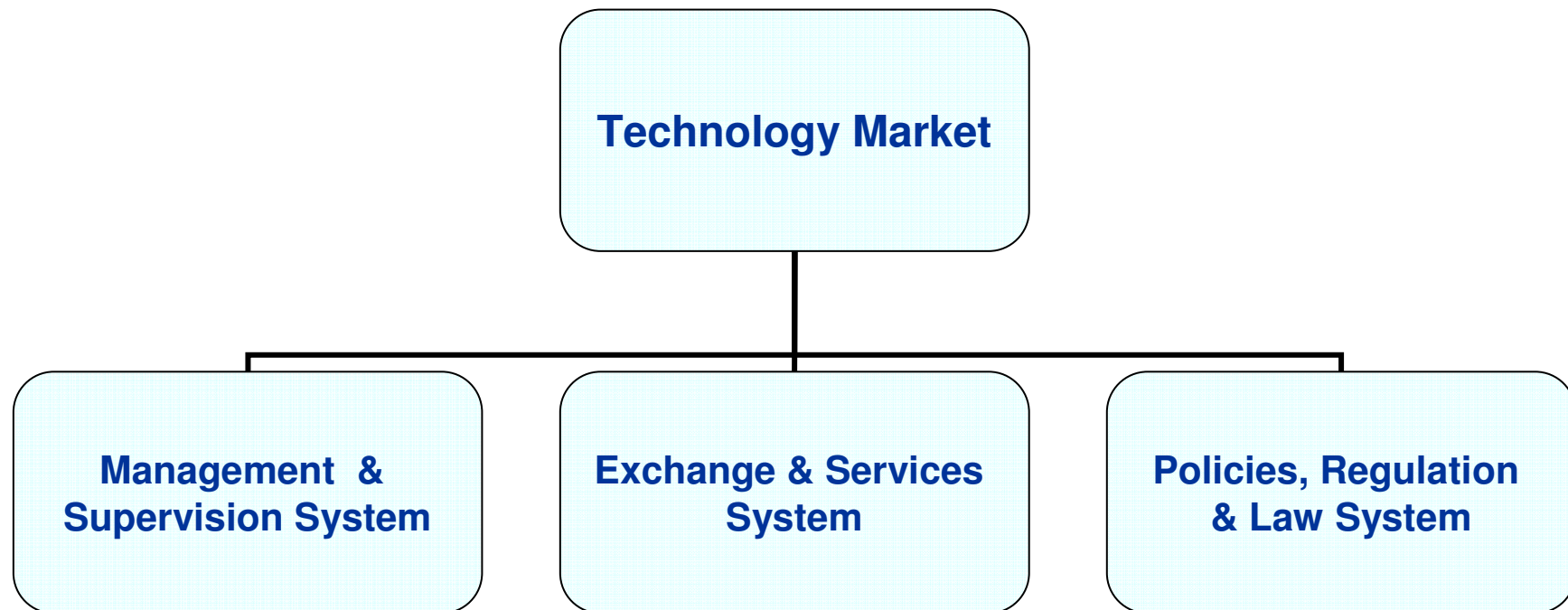
Composition of Technology Contracts in 2007



Resource: MOST (Ministry of Science and Technology), China

Technology market management & TT promotion system

Framework of China's Technology Market



Technology market management & TT promotion system

- Exchange and Service System
 - 335 Technology Exchange Market at various levels
 - 40 Technology Property Transaction Agencies
 - About 10,000 Technology Broker and consulting Agencies with 300,000 staff

Technology market management & TT promotion system

- Management and Supervision System
 - 1532 Local Technology Market Management Institutions
 - Responsible for policy implementation and overall administration
 - 1280 Technology Contract Registration Institutions
 - Responsible for technology contract ratification and registration

Opportunities & Challenges

- ◆ **Opportunities:** *A rapid growing economy and huge capacity of China's market, attract not only the big names but also the SMEs.*

In 2007, China:

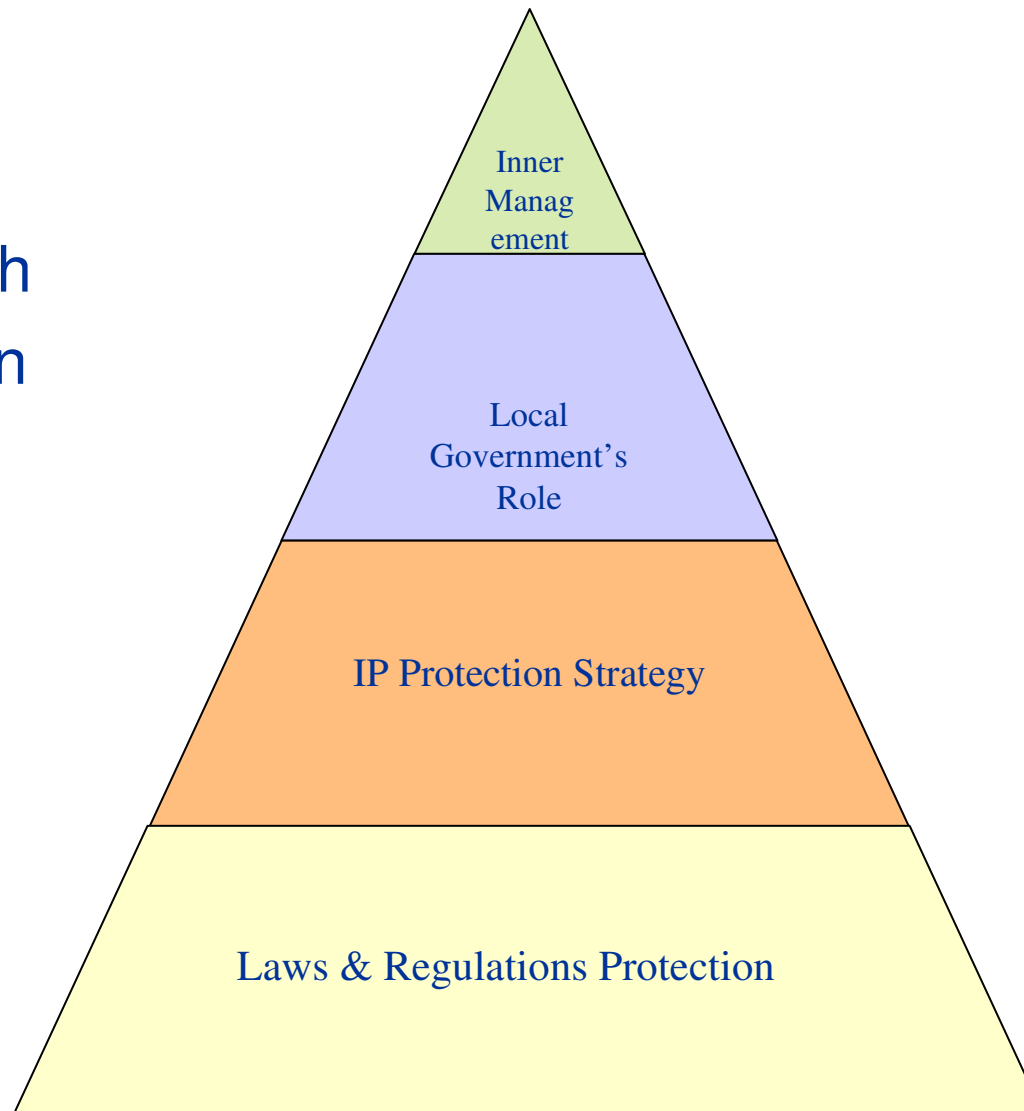
- ◆ Ranked 4th in the world with GDP 22.66 trillion RMB
- ◆ The total import & export reaches 2.17 trillion RMB
- ◆ The export of high-tech products reaches 347.8 Billion USD
- ◆ 490 of Fortune 500 set office in China, with 1160 R&D centers.

Challenges & Opportunities

- ◆ Challenges:
 - ◆ Unbalanced IPRs protection in China
 - ◆ Industrial Design & Styling Design: the most weak areas of IP thefts.
 - ◆ SMEs suffer even rigorous situation on IPRs protection than MNCs.
 - ◆ Less mature technology transfer market and historical reasons raised from a non-market economy over the past few decades.
 - ◆ Lack of high qualified technology transfer managers
 - ◆ Less developed services capability of technology transfer organizations

Challenges & Opportunities

A pyramid approach
to IP protection in
China



Challenges & Opportunities

- ◆ Laws & Regulations Protection
 - ◆ Patent Law of the People's Republic of China: Enacted in 1984 and amended in 1999 and 2000
 - ◆ The term for patent right shall be 20 years from the date on which the application for a patent is filed.
 - ◆ First to file v. first to invent

Challenges & Opportunities

- ◆ Develop IP Protection Strategy
 - ◆ Important & Complicated
 - ◆ Different Products, Markets & Competition Situation
 - ◆ Professional Agency for Advising

Challenges & Opportunities

- ◆ Local Government's Role
 - ◆ State Intellectual Property Office (SIPO)
 - ◆ SIPO's Branches in Provinces, cities and counties
 - ◆ Technology market management office

Challenges & Opportunities

- ◆ Inner Management : Confidential information protection measures
 - ◆ Take reasonable and effective management measures to store, use and transfer technical confidential documents (document retention policy)
 - ◆ Signing Confidentiality Agreement with employees
 - ◆ Signing Non-compete Agreement with employees

Challenges & Opportunities

- ◆ Inner Management : Secure manufacturing process
 - ◆ Access restriction to manufacturing process
 - ◆ Division of manufacturing process

Challenges & Opportunities

More solutions

- ◆ Licensing of Patent
 - ◆ Scope & Term of the license agreement
 - ◆ Patent improvement
 - ◆ Royalty and payment plan
 - ◆ Sublicense by the licensee and conditions
 - ◆ Confidential terms & Duration

What We Do

- Technology transfer between China and the rest of the world, including patent licensing.
- Consulting services to foreign companies entering China: consulting, joint investment, partner matching.
- Focus on energy, environment, biotech, chemical, new materials.





Coway International TechTrans Co., Ltd.

Thank you !

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