

# Technology & Know-How Transfer in China and Its Experiences

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# Personal Briefing

Retired from the post of chairman of China General Consulting & Investment Co. in 2014,

Served as Vice President of China National Technical Imp & Exp Corp from 2001 to 2007.

Served as Vice President of China National Machinery Imp & Exp Corp

Till 2001. Involved in many governmental giant projects with technology & know-How transfer ever since 1980's such as the Three Gorge Project , Gas Turbine Technology Transfer, Localization of Nuclear Power Technology, Qinhai to Tibet Railway Project and all High Speed Trains Series and awarded as National Model Worker



## My Topics of Today

1. Few words about China & its Economy
2. Scope of Tech & Know-How Transfer
3. Patterns of Technology Transfer and Their Basic Terms & Conditions
4. Lessons We learned in the Past
5. My Personal Advices

# 1. Few words about China & its Economy

Its history、 geographic location、 natural conditions and economy

# China National Condition

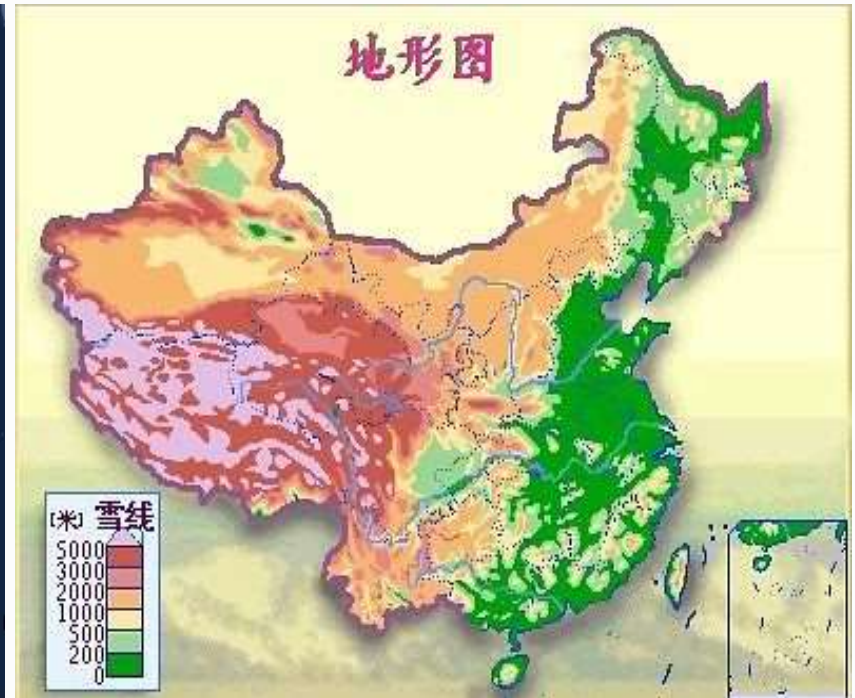




# Location



# Topography Map of China



China has a varied topography , slopes from west to east.

# The Growth of China's Economy:

1. At the time of the founding of the PRC

The GDP: 46.6 bi. Yuan

2. At the time of beginning of reform & opening-up

The GDP : 364.5 bi. Yuan

3. In the year of 2015

The GDP: 67.67 tr. Yuan

4. In the year of 2016

The GDP : 74.4 tr. Yuan



# The Growth of China's Foreign Trade

1. Total Import & Export Amount in year of 1950: **\$1.13 billion**
2. In year of 1978: **\$20.6 billion**
3. In year of 2014: **\$4.303 trillion**







China's GDP Volume overtook France in year of 2005, UK in year of 2006, Germany in year of 2007 and Japan in year of 2009.

When China is going to overtake the US in GDP volume?

By year of 2020, China's GDP is to double that of year 2010 (82 trillion Yuan).

# 1) At the time of the founding of the P.R.China

Almost no industry in China, all industrial goods were called under the name of “FOREIGN” such as iron nails, soap, match, gasoline , lighter...

# Few Comparative Figures

Output	Year 1949	Year 1978	Year 2015
Iron & Steel	158,000tons	31.78mi tons	800mi tons
Coal	66,490 tons	618 mi tons	3300mi tons
Electricity Generated	72.6 mkw	256.6 gkw	4227.8 gkw
All Kinds of Vehicles	No.	149,000 units	more than 10 million
Life Expectancy:	35y.old	69y.old	76y.old

## 2) Two Important Phases of China's Industrialization:

### (1) Starting from 1950s

Implementation of a package of “156” Projects supported by former Soviet Unions and other Eastern European Countries

In the field of heavy-duty machinery and equipment manufacturing industry, such as FAW, and many “First”



## (2) Starting from door-opening and reforming

China imported more than several thousand Know-How and Technology mainly from the Western countries ranging from food processing, light industrial goods to telecom, power generation, machinery making and ship building...

[国家重大项目运作示意图.doc](#)

## 2. Scope of Tech. & Know-How Transfer

- 1) In fields, starting from daily necessities to heavy duty equipment and mega projects
- 2) The contents: from designing, engineering ,manufacturing to installation and maintenance and repairing
- 3) hardware, software and training...

# 3. Patterns of Technology Transfer and Their Basic Terms & Conditions

1) The Patterns applied should be in full considerations of local conditions

(1) Buying Know-How & Technology

(2) Combination of trading with tech. transfer

(3) Know-How Transfer in exchange for  
Market and Sales

(4) Joint Ventures

## (5) Other Patterns:

Co-production,

Manufacturing as per samples & drawings

Technical Assistance

Technical Training

Joint Bidding both at home & aboard

FDI, ODI

M & A...

## 2) Main Terms & Conditions:

- (1) the scope of tech.& know-how transfer  
---completeness, correctness and state  
of art and **how to verify**
- (2) legitimacy without any infringement of  
IPR internationally
- (3) How to ensure the completion of the  
project in time, to meet quality  
requirements and budget in the deal.

## 2) Main Terms & Conditions:

(4) how to ensure my staff are well trained and they are capable of performing the duty after the departure of the Licensor

(5) how to share further any tech.

innovation or improvement of the tech.  
& know-how

(6) How to guarantee in future

--- tech & management assistance

--- supply of raw materials & sale

# 4. Lessons We Learned

The guiding principles for China's industrialization based on its own conditions:

1. Independence & self-reliance to build the industrial system
2. Always open to learn from others on the basis of mutual respect & benefit
3. Establishing long-term business relation
4. Reaching win-win solution with partners

# 4. Lessons We Learned

1) A strong and decisive governmental Agency is HIGHLY necessary

to help:

- (1) building contacts & facilitating the deal
- (2) coordinating both sides
- (3) monitoring the process
- (4) providing necessary assistance



In China, we have NDRC and Mofcom as well others incl. in provincial level to do the followings:

- Planning in accordance with the state development
- Providing guiding line as well policies
- Offering assistance and services
- Promoting overall development

.....

2) Comprehensive planning in consideration of the following :

---how to meet the actual needs

---how to make the best use of the resources

---how to ensure the proper return of investment

3) Focus not only to high tech. & know-how, but also to management skill, the overall picture of the project.

- 4) Always take the full consideration of building your own industrial system, otherwise the sustainability of the project would be a problem
- from the point of industrial chain, supply chain
  - from the point of marketing and service
  - from the point of human resources
  - from the point of upgrading, R&D development

## 5) Always rely on your own strength

- strategic planning in long run
- competent team and experts of your own who understand the technology, skilled in operation and maintenance and ready for innovation
- availability of the supply of raw materials and marketing the final products
- duplicating the project in your own land

- 6) Finding reliable partners for real long term cooperation not only in your own country but in other areas.
- 7) Upgrading cooperation, the scope ,areas and the pattern
- 8) Building your own industrial system
  - Keep learning and keeping contacts
  - Setting up R&D center

9) Pay great attention to the issue of cross culture and conduct Non-violent Communication with partners.

---cultural difference and poor communication are the major causes of failed business

--- My CUTC concept

--- Respect and Revere are very highly appreciated

## 5. My Personal Advices:

1) Do a good DD before any decision

2) Find a partner for long term business

---in consideration of factors politically,  
economically, technically, social and  
environmentally, their CSR & business  
ETHICS... **Respect & Revere**

3) Forming a competent team with experts in  
different fields.

4) Chinese companies have learned a lot both sweet and bitter in the past more than six decades in technology and know-how transfer and our industrialization, we wish to work with our partners for mutual benefit.



# 110 Chinese Enterprises Listed among the Top 500



# Question & Answer

# 提问解答