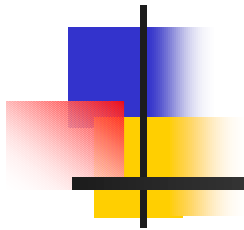


# Technology foresight and crucial Technology focus in China



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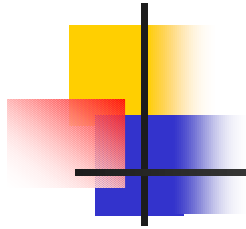
**National Research center for Science and Technology for Development**



## 1. China's Technological forecasting in early stage

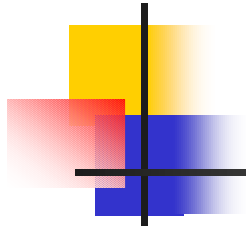
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The application of forecasting technique in strategic decision-making was started through some special topics such as population, energy resources, transportation and industrial economy, and then is gradually developed into the field of perspective for science and technology.



Before 1978, China drew up two science and technology development plans :

- (1) “National long-ranged science and technology prospective program in 1956--1967”
- (2) “1963—1972 Year the science and technology plan in 1963--1972”



The 12 year Science and technology plan is the first government S&T plan of China

13 territories

57 research missions

12 crucial research missions



## The 12 crucial research missions

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1. Nuclear energy technique
2. Electronics (semi-conductor technology, computer technology, long distance control technology)
3. Jet technique
4. Automation and precise instrument
5. The petroleum and mineral resources survey and explore
6. New metallurgy technique
7. Fuel synthesizes exploitation
8. New motive machine and large machine
9. The yellow river, Yangtze River synthesizes exploration
10. Modern agriculture technique
11. Paroxysm prevention and cure
12. Basic research in science



## The government S&T development plans after 1978

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1. “National science and technology development plan in 1978—1985”,
2. “National science and technology development plan in 1986—2000”,
3. “The long-term science and technology development sketch (1990—2000—2020)”
4. “National 5year plan for science an technology in 2001—2005”.



## 2. Technological Forecasting Research in China

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The independent forecasting research in China started in 1970's and chiefly in the social development fields.

The first important forecast research was on population problem.

The forecast research association was established in 1979.



## “China in 2000” — A big forecasting research

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The final report —— “China in 2000” was published in 1985.

12 other subject reports were also published which refers to :

Population and occupation, People consume, Economy, Energy resources, Communications, Transportation, Agriculture, Education, Ecology environment, Natural resources, Science and technology, International environment and so on.





### **3.The National crucial Technology Focus Research**

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Two projects which has great influence in technology foresight fields in China :

1. National crucial techniques for economy development in 1990's ---- the State Plan Commission
2. The State crucial technology focus Research ----- the State Science and Technology Commission



## **4. The new technological foresight research in China**

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The concept of technology foresight was introduced into China at the end of last century.

Local government technology foresight activities

The first China's technology foresight conference was held in Shanghai in December of last year.

Now technology foresight is a significant component part of national innovation system of China.



## A national technology foresight project in 2002-2003

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It refers to three fields:

(1) Information and communication

(2) life science and engineering

(3) new materials technology



## The Targets

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- (1) To fix some strategic crucial technique groups in the focal high and new technology territories;
- (2) To Achieve the prefer S&T stress that can be leaping over;
- (3) To serve for making the national science and technology development plan in 2006-2010;
- (4) To Supply science and technology development tendency message in the interest of the community public;
- (5) To gradually take shape democratic decision making system for science and technology.



## The Main missions

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- (1) China's Economic and social development demands analysis
- (2) The study for high technology development in 10 years
- (3) The crucial technology focus Research



# Research method and Organization

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The basic research schedule:

- two rounds Delphi investigation and experts conference
- the scenery analysis for economy and society development
- some necessary desk work and international comparative study

The two parts research organization:

- consultation expert system
- foresight investigation system



## Expert network

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- (1) General research group (15 experts)
- (2) and three high-tech territories survey groups(60 experts)
- (3) Each high-tech territory consists of 200-250 experts



## **Working schedule for 2002.7 - 2003.12**

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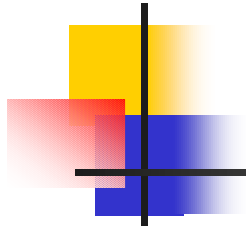
(1) first stage work (7 – 12, 2002) :

Establishment of technology foresight research groups and  
the consultant expert system,

Delphi questionnaire Design,

Desk investigation in each high-tech field

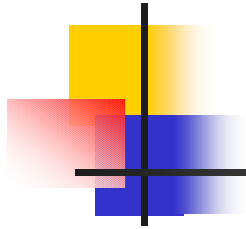




(2) The second stage (1 – 7, 2003) :

Implement investigation is started in last month

The research group in every territory is launched the technological foresight survey.



(3) The third stage (8—12, 2003) :

Crucial technology focus and Synthesized analysis will be fulfilled in the end of year 2003.

National key technique selection will be Combined with the making process of “National five year plan for science and technology (2006-2010)”.

A final report will be finished in December and published with the national five year plan in 2005.

