STI Park --- Functions and Experiences

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- An Entrepreneur. Venture United (2003), Tianzuo (2015), WIIN(2017), AMI new material(2017), Carbon Power green tech(2022)
- A Scholar. The First Ph.D Paper on Business Incubation in China (1997), Professor of School of Economy and Business Administration, Beijing Normal University. Entrepreneurial Ecology, Master/Doctor Students on Business Incubation
- A Promoter. President of BBIA; Adviser of China Association of Technological Entrepreneur; Member of ST Service Industry Standard Commission, MIIT, China
- Used to be: Sales man, Government Official, Congress Man, Director of IASP China office

The Technical Notes

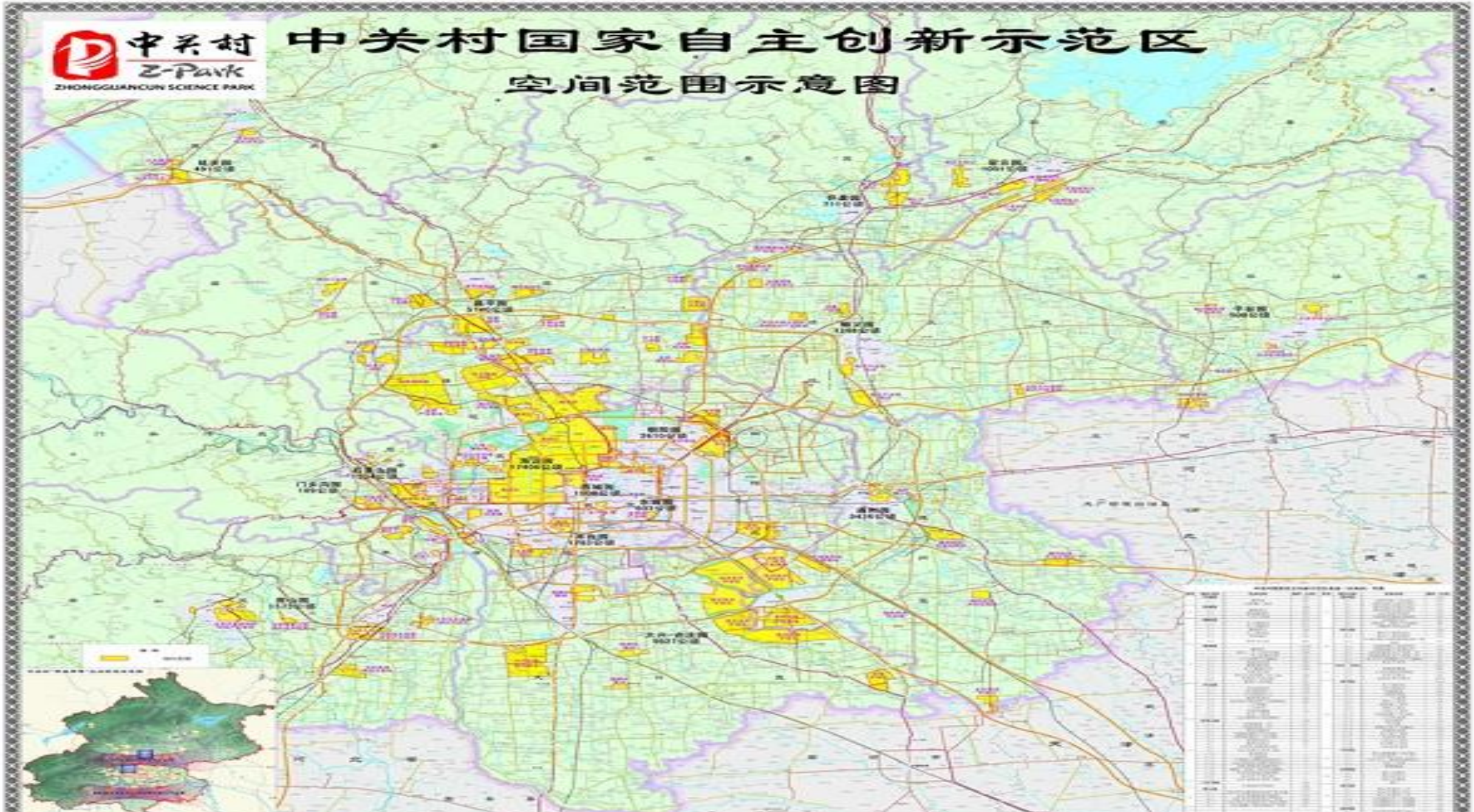
- Strengthening science, technology and innovation parks in national innovation systems of developing countries
- Situation, Case Study, Entrepreneurial Eco-System, Experiences, Challenges, Recommendations
- Thoughtful, Inspiring, Guiding

STI Parks in China

- There are 178 national-level STI Parks, among 3000+ in China.
- With 0.1% of the country's land area, they contribute
- 14.3% of China's GDP (19.3 trillion yuan)
- Gathered 70% of the national manufacturing innovation centers,
- 80% of the national key laboratories

STI Parks in China--Strategy and Functions

- National Strategy
- Building high-new-tech industrial development zones
- (science and technology parks) in China is a national strategy.
- The reform of the science and technology system began in 1985.
- Approved by the State Council, the Torch Program was launched in 1988, proposed by Dr, Song Jian. Deng Xiaoping put forward the guideline: 'Develop high and new technologies and realize their industrialization’
- The Zhongguancun Science and Technology Park (Z-Park)


中关村
Z-Park
ZHONGGUANCUN SCIENCE PARK
中关村国家自主创新示范区
空间范围示意图

STI Parks in China--Strategy and Functions

- **Special Optimized Environment**
- One of the functions of STI parks is to provide a localized optimized environment during the transition of the economic system.
- Starting the reform and opening up from 1978, China shifted from the planned economic system to a market economy system.
- The nationwide and comprehensive transformation was slow. Instead, new mechanisms were adopted in special environments, and after conditions matured, they were promoted nationwide, which became a successful experience in China.
- Special Economic Zones (Shenzhen), Free Trade Pilot Zones, etc.

STI Parks in China--Strategy and Functions

- **Cultural Value of STI Parks**
- Cultivating and spreading innovation and entrepreneurship culture, as well as the spirit of entrepreneurs, including daring to take risks and tolerating failure.
- Its impacts on technological commercialization, starting enterprises, social psychology, and policy-making

STI Parks in China--Strategy and Functions

- **Engine of Endogenous Economy.**
- Since the 1980s, China has introduced a large number of technologies, products, and multinational corporations.
- Science and technology parks influence endogenous variables, such as indigenous entrepreneurship, technology transfer, and emerging industries.

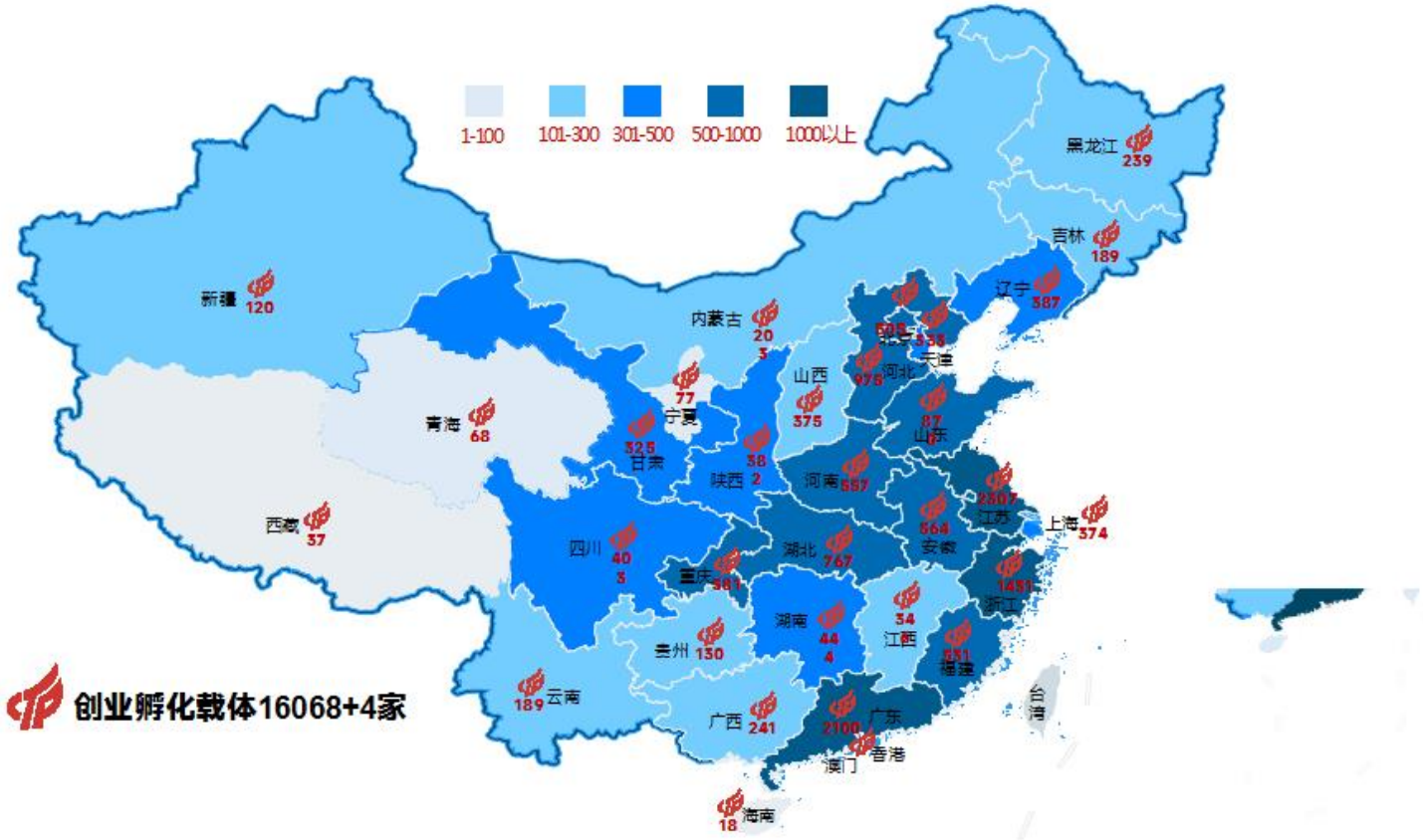
Factors Contributing to the Success of China’ s STI Parks

- **Incubators are a standard feature of sti parks.**
- At the initial implementation of the Torch Program, the Ministry of Science and Technology required that each park must establish an incubator.
- STI parks have clusters of incubators now.
- There are more than 200 incubators within Z-Park

Nation wide Network

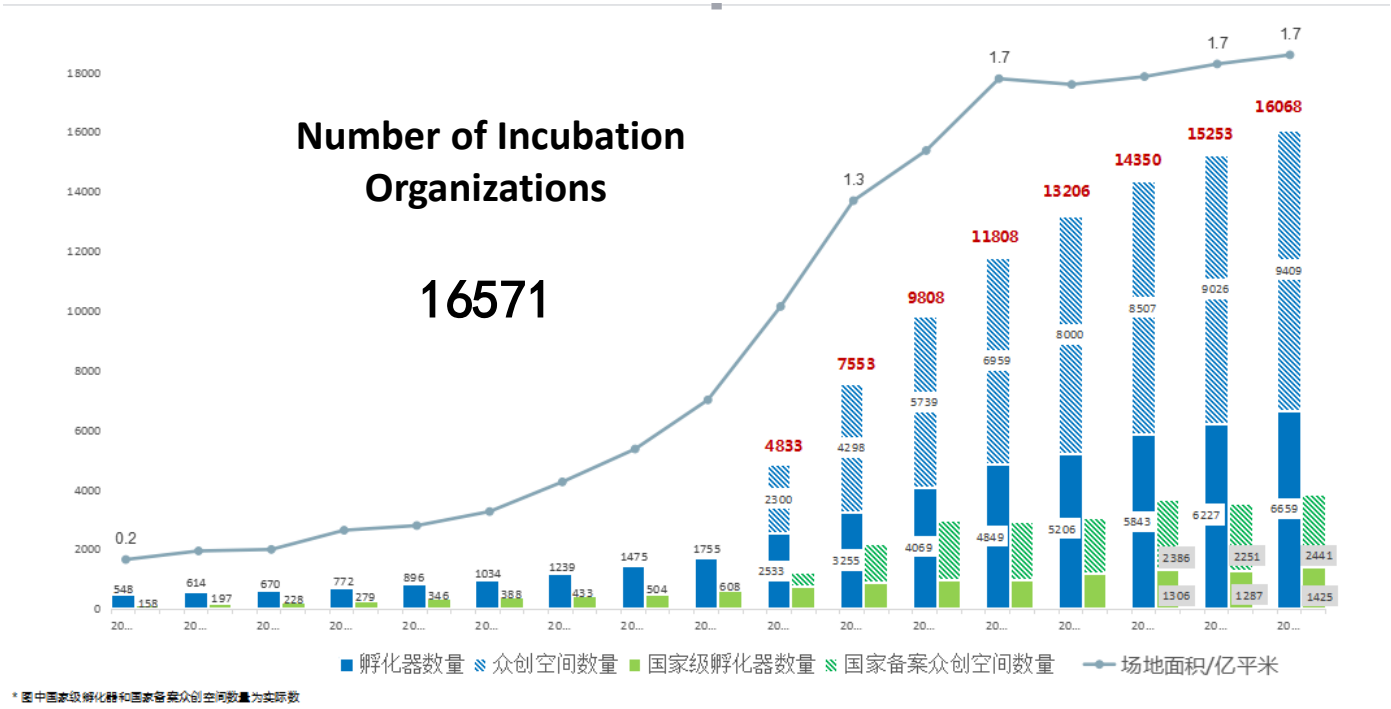
- 1600 Incubation organizations, in the end of 2024
- Covered:
- Every provincial areas
- 95%+ Counties (2844)

TORCH



38 Years Development

- 70%+, Private. 139 National university science parks
- 30%, Targeted Technology Incubator
- 800 thousand incubatees
- Totally graduated
  238 thousand companies,
  500+ are stock market listed



The Trends of Business Incubation Industry

Industrial Incubation + **Intelligent Incubation**

Factors Contributing to the Success of China’ s STI Parks

- Science and technology parks are designed for people.
- Work facilities and living facilities are balanced.
- The spatial environment makes people feel comfortable.
- Dongsheng Science Park

Factors Contributing to the Success of China’ s STI Parks

Factors Contributing to the Success of China’ s STI Parks

- A city’s STI park has fiscal powers equal to those of the city, ensuring investment in infrastructure and ecological system construction.
- Enterprises within the park enjoy tax benefits, a policy that has lasted for about 30 years.
- The management level of science and technology parks is relatively high; the director of the Management Committee is normally a vice mayor, which facilitates resource coordination compared to other regions.

Factors Contributing to the Success of China’ s STI Parks

- International Cooperation. Suzhou Industrial Park, a cooperation project between the governments of China and Singapore, approved by the State Council in 1994.
- With an administrative area of 278 square kilometers, including an 80-square-kilometer China-Singapore Cooperation Zone, the permanent population in the region exceeds 1.37 million.
- In 2024, the park achieved a regional gross product of 400.24 billion yuan, a year-on-year increase of 7.0% calculated at constant prices.

Factors Contributing to the Success of China’ s STI Parks

- Science and Technology Resources Concentrated.
- The First Incubator Established in Wuhan,1988.
- The First STI Park, Zhongguancun, Beijing

488 square kilometers, 41 universities,

206 scientific research institutes,

67 national key laboratories,

27 national engineering research centers, 28 national engineering and technology research centers

Energy Valley--Beijing

Core Area of Energy Valley

南方电网北方总部即将入驻

"Energy Valley" of Future Science City

In the 10 square - kilometer core area of the "Energy Valley", 116 branches under 14 central enterprises have gathered. A total of more than 60 national and Beijing municipal key laboratories and engineering technology centers have been built, nearly 20,000 scientific research talents have been gathered, and 20 public service platforms supporting collaborative innovation and serving scientific research talents have been established. An innovation chain covering the whole cycle of scientific research and development, technical services, and achievement transformation has been formed. Especially in the field of advanced energy, 6 segmented directions and more than 20 key technologies supporting the realization of the national "30·60" carbon peak and carbon neutrality strategic goals have been cultivated, contributing to the national energy transformation and development.

- 15 Central SOE
- 116 Central SOE branches
- 60+ National and Beijing municipal key laboratories
- 20000+ Scientific research talents
- 15 Universities
- 20+ Collaborative innovation centers

Carbon Power

- **Mission**: Promote the development of China's green and low - carbon industry.
- **Vision**: Green technology benefits mankind.
- **Positioning**: A digital dual - carbon industry accelerator driven by application scenarios.

- ✓ Application scenario - driven
- ✓ Transfer and transformation of scientific and technological achievements
- ✓ Investment and financing
- ✓ Industry integrator
- ✓ Organizer of the industrial chain
- ✓ International industrial resource connection

Factors Contributing to the Success of China’ s STI Parks

- Legal System.
- National Science and Technology Progress Law, National Law on the Transformation of Achievements of Scientific and Technological Research
- Local governments have specific laws on STI Park. Regulations on the Zhongguancun National Autonomous Innovation Demonstration Zone, Regulations on the Shenzhen High-Tech Industrial Development Zone.

Cooperation in the future

- Tech Note: network of STI park experts is being formed through the UNCTAD project Science, Technology and Innovation Parks for Sustainable Development: This network will bring together experts from different continents, notably those that have participated in the activities under the UNCTAD project
- Network of park managers is also needed
- Network of Flagship STI Parks in Developing Countries

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