



# Scientific & Technological Innovations in Beijing

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April 21<sup>st</sup>, 2014, Mexican City



# Agenda



## **A Overview of Beijing**



Scientific & Technological Innovations & Development Strategy in Beijing



International Collaborations in Science & Technology



# Beijing, Capital of China, Host City of 2008 Olympics



16 districts, 16,800 km<sup>2</sup>

Permanent residents: 21,148,000 ( 2013 )

GDP: ~ USD 318,319 millions ( 2013 )

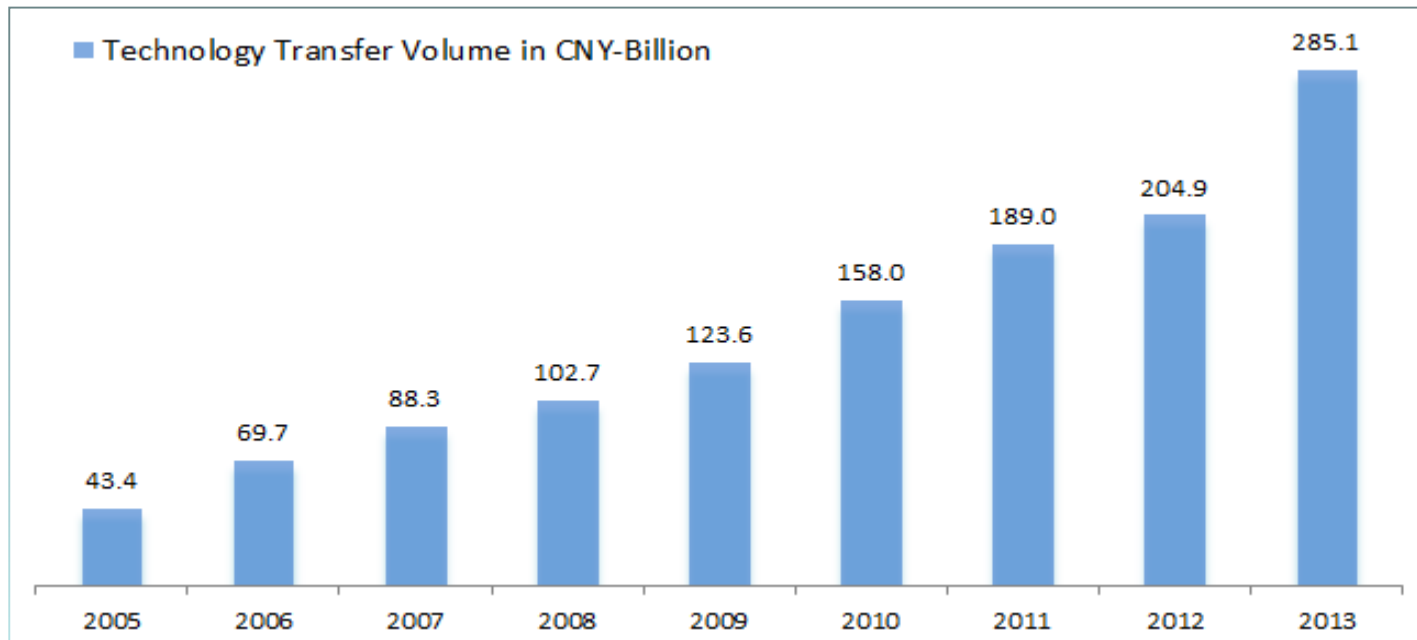
GDP per capita: USD ~15,000





## Beijing, Innovation Center of China

- 30.5% scientific & technological award winners in China come from Beijing in 2013
- 40% technology transfer contracts of China are signed in Beijing
  - 40% of which spillover to other provinces
  - 30% of which contribute to technology exports



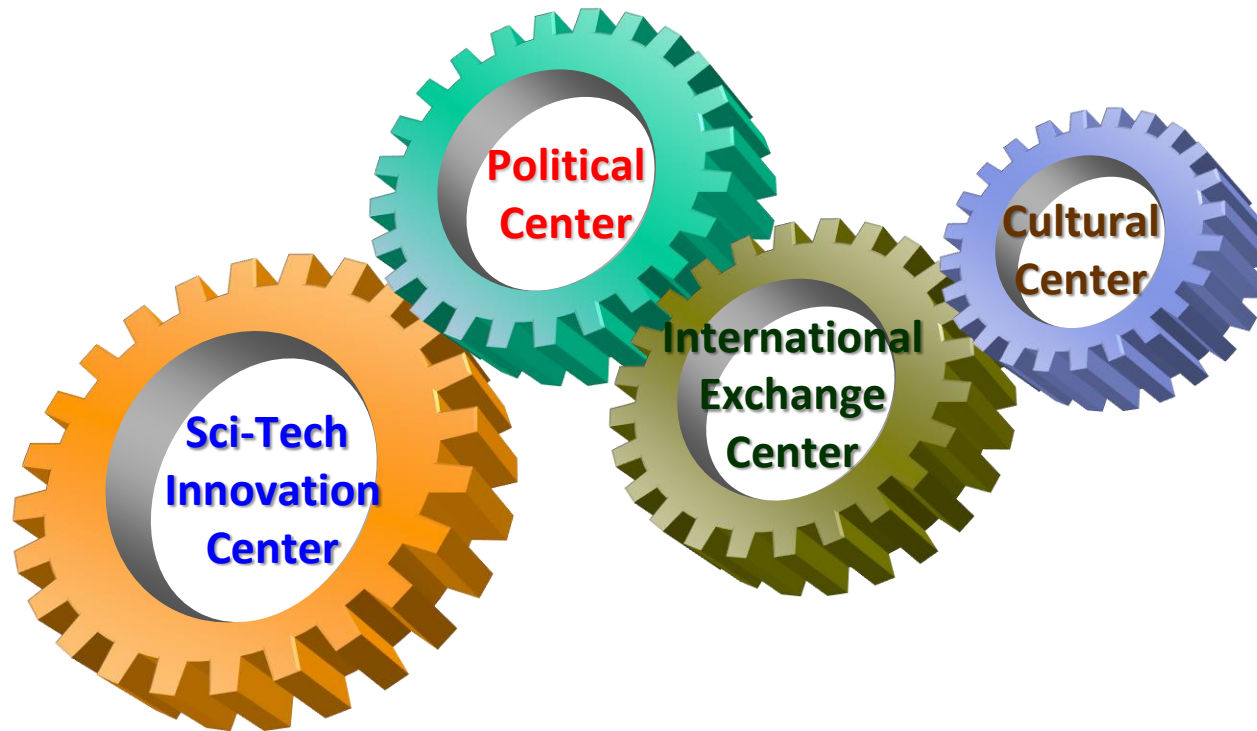


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-  A Overview of Beijing
-  **Scientific & Technological Innovations and Development Strategy in Beijing**
-  International Collaborations in Science & Technology






## Beijing: Strategic Positioning

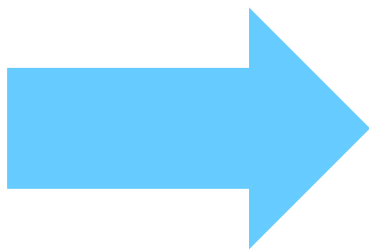


*Innovations Drive Development.....*



## Beijing: Harmonious and Livable World City

-  Environment-Friendly Beijing
-  Culture-Enriched Beijing
-  Technology-Empowered Beijing



*A Leader of Science & Technology*

*A Model of Eco-city & Smart City*

*A Source of Ancient + Modern Cultures*

*A Choice of Entrepreneurship*

*A Motor of High-end Industries*



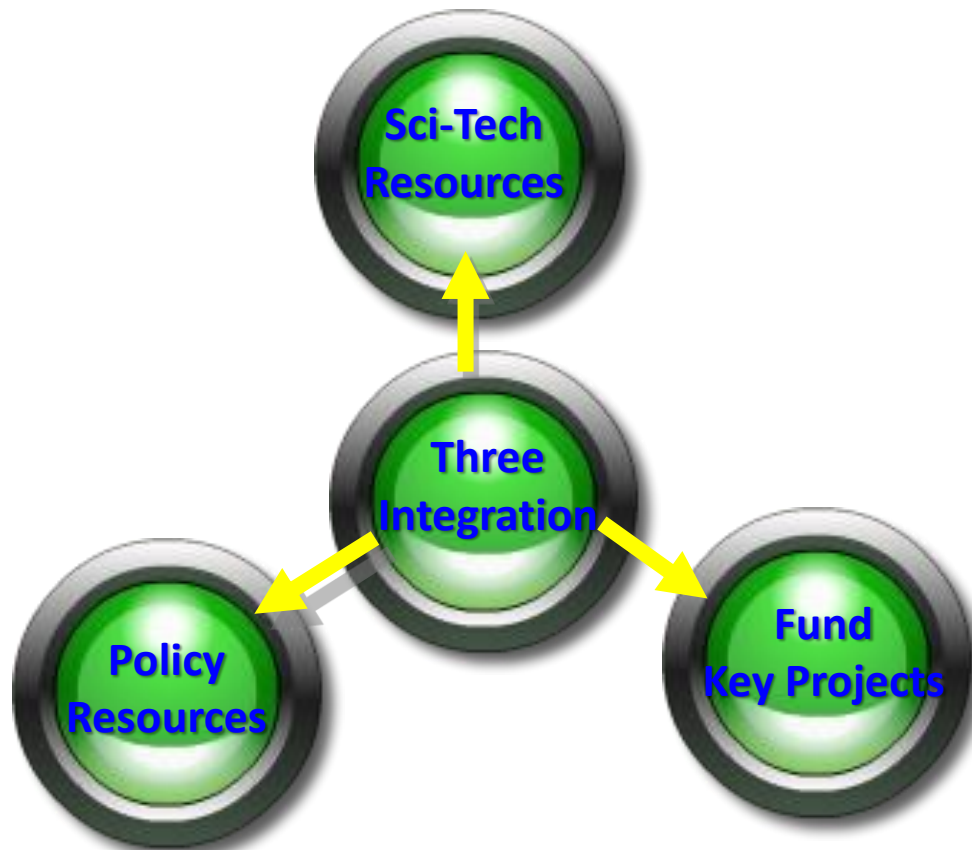
## Scientific & Technological Beijing





## Innovation Strategies: From Government

✚ Enhancing Synergy between Scientific & Technological Components





# Innovation Strategies: From Business Community



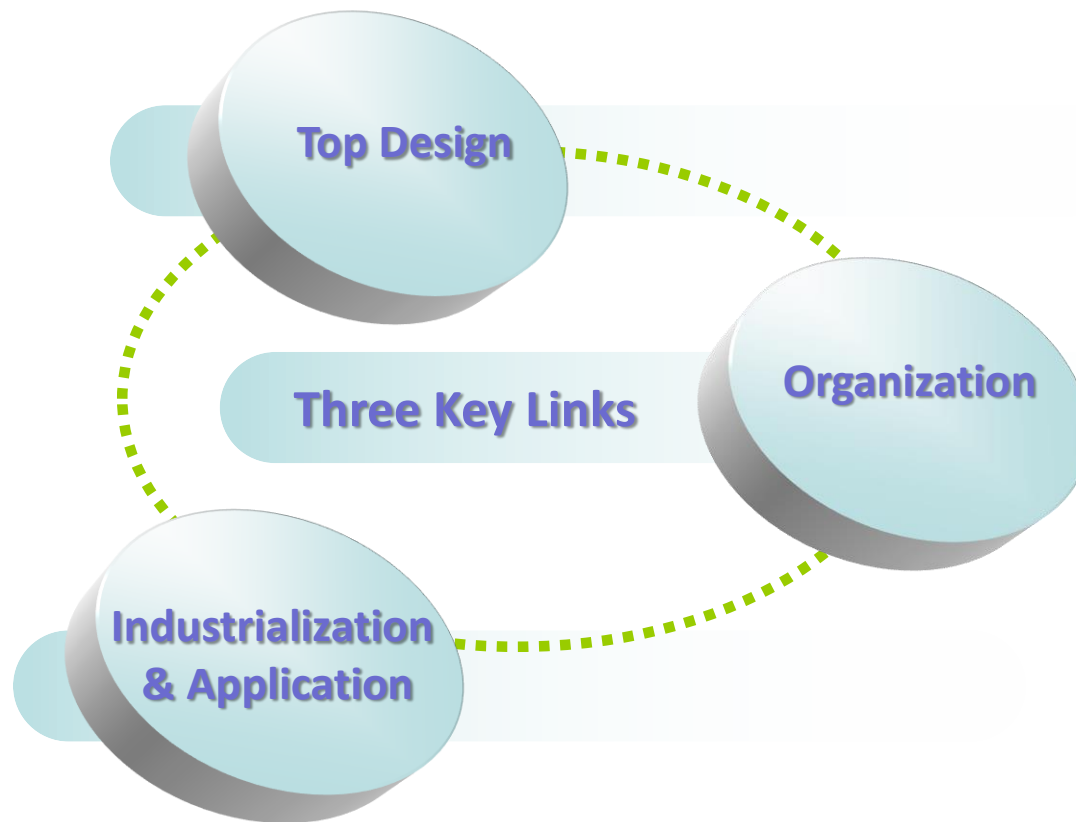
Inspiring Innovation Motivations of the Whole Society





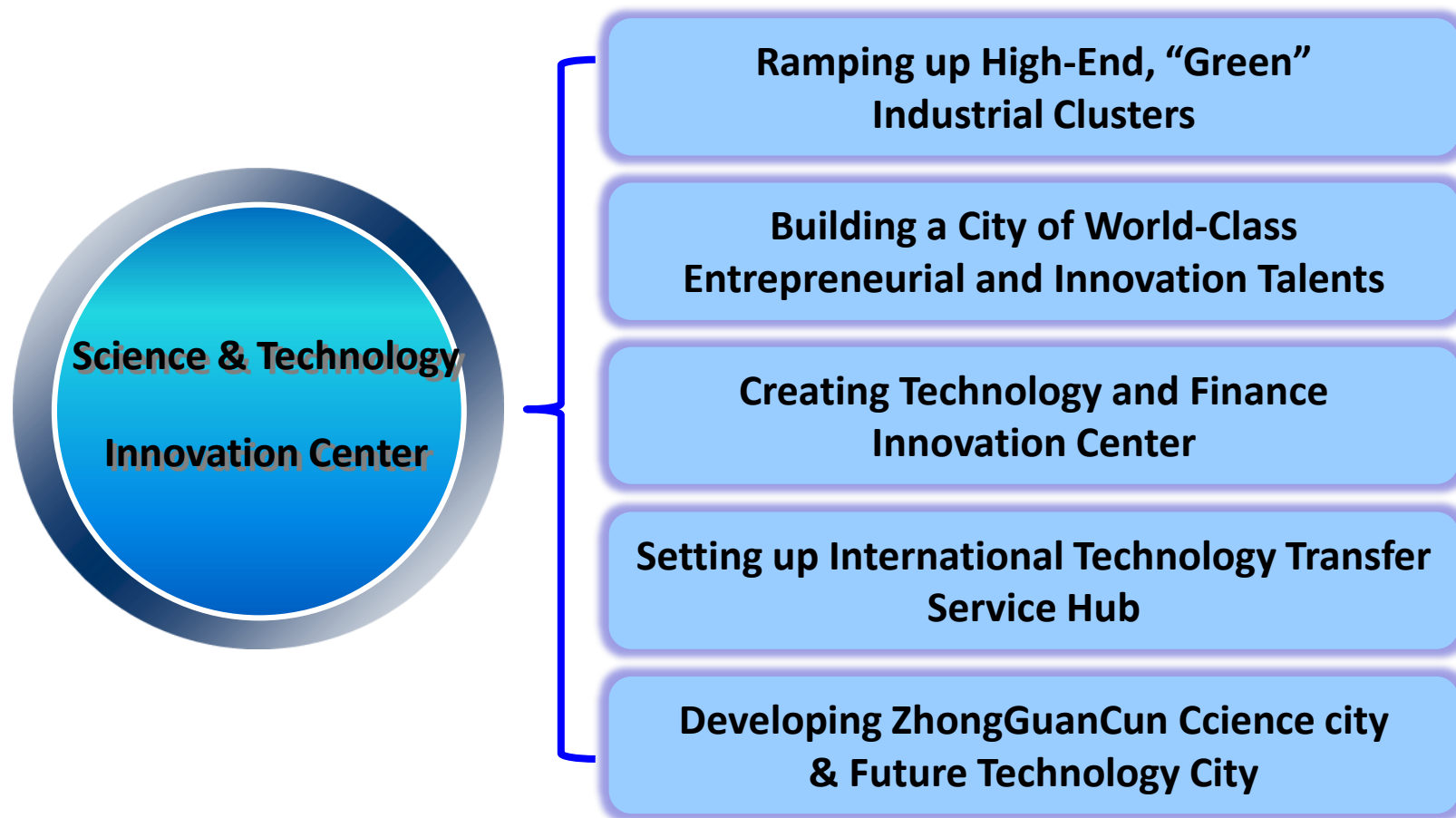
# Innovation Strategies: From Working Process

✚ Linking all processes in “Innovations Drive Development”





## Innovation Actions





## Priorities in Innovations

-  Strategically Emerging Industries
-  Modern Technological & Finance Service Industries
-  Modern Agricultural Science and Technology
-  International Exchange and collaboration





## Developing Strategically Emerging Industries

1. Next-generation IT
2. Biomedicine
3. New energy
4. Energy saving and environmental protection
5. New energy vehicle
6. New materials
7. High-end equipment manufacturing
8. Aerospace
9. Food safety and health care

- Internet of Things
- Cloud Computing
- Next-G of mobile communication
- Next-generation Digital TV
- Ultra Large Scale Integrated Circuit

### 4G

- Join 3Gpp standards definition
- Develop & produce RF, base band, terminal processors and chipsets
- Enrich 4G applications
- Drive TD-LTE and LTE+ development



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- Enhancement of Bioengineering
- R&D of Innovative Medicine
- Breakthrough in Pharmaceutical Manufacturing
- Development of Incubators and Clusters

### G20

- Give priority to R&D of medicines and devices against 10 most dangerous diseases (hepatitis, AIDS, TB, bird flu and other emerging infectious diseases, cardiovascular disease, diabetes, cervical and breast cancer, depression, CKD, spondylodysnia and osteoarthritis).



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- Core equipment and technology for manufacturing of solar cell, such as PECVD
- Production and application of large-size and high-efficiency thin film solar cells
- Integration of wind power equipment manufacturing system
- Manufacturing and application technologies of power storage system, including dynamic capacity expansion and monitoring of EHV transmission line



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- Energy-efficient equipment, including rare earth motors and high-efficiency pumps, fans, heat exchangers and LEDs
- R&D of flat-plate solar collectors and BIPV
- Manufacturing of environmental protection equipment, such as MBR for treatment of water pollution



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- R&D of batteries, motors and other key components
- R&D and commercialization of BEV (battery electric vehicles)
- R&D of charging facilities and piloting of EV



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- Research of electronic materials and core equipment, e.g. MOCVD
- Research of UV ink, water-based ink and other green printing materials and core equipment commercialization
- Research and commercialization of LiFePO<sub>4</sub> cathode material and other high-performance metal materials



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- 3D “printing”
- Large, high-performance equipment for engineering construction
- High-speed rail equipment
- Medium-to-low-speed maglev trains
- Urban rail transit
- Emergency response equipment



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- Rapid prototyping of large titanium alloy parts
- Composite resin system for the aviation market
- System control, turbine blade of aircraft engine and generic aircraft
- Aerospace IT industrial park




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- Detecting food additives, food contact material and non-edible substances
- Quick food safety test vehicle, field toxic substance detecting box, detectors and reagents against a variety of pathogenic microbes and toxic & hazardous medical substances
- Regulate and standardize prevention, diagnosis, treatment and recovery of major diseases, including virus hepatitis, AIDS, cardiovascular disease and diabetes
- Prevention and treatment of childhood diseases and promotion of child care.



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## Strengthening International Exchange and Collaboration

1. Improving services for technology transfer

2. Building high-level collaboration platform

3. Utilizing multinational human resources

4. Fostering international collaboration base

- Establishing demand-oriented service network for international technology transfer
- Establishing partnership with international and domestic technology transfer institutions and providing better services
- Promoting introduction of key technologies and commercialization collaboration
- Facilitating the landing of international projects in Beijing



## Strengthening International Exchange and Collaboration

1. Improving services for technology transfer
2. Building high-level collaboration platform
3. Utilizing multinational human resources
4. Fostering international collaboration base

- Mapping global innovation resources, and promoting sharing of resources
- Hosting high-level forums and international S&T symposiums in Beijing, and bringing Chinese enterprises & service providers
- Attracting overseas talents and advanced technologies
- Matchmaking between enterprises and institutes



## Strengthening International Exchange and Collaboration

1. Improving services for technology transfer

2. Building high-level collaboration platform

3. Utilizing multinational human resources

4. Fostering international collaboration base

- Inviting foreign experts, overseas Chinese experts in particular, to work for S&T projects in Beijing
- Policy incentives for foreign experts working in Beijing
- Providing convenience to foreign experts, and ensuring long-term mechanism to introduce multinational human resources



## Strengthening International Exchange and Collaboration

1. Improving services for technology transfer

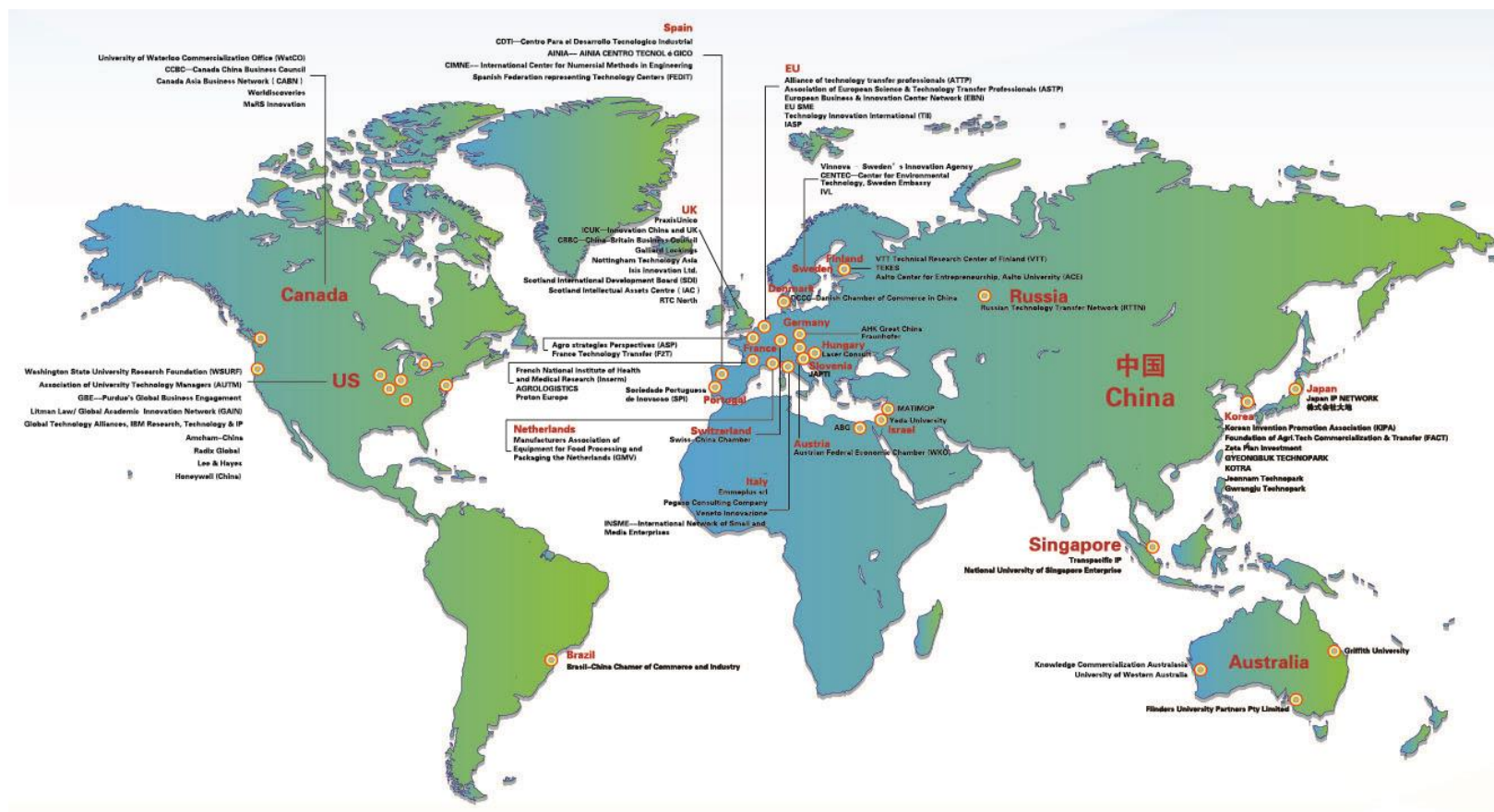
2. Building high-level collaboration platform

3. Utilizing multinational human resources

4. Fostering international collaboration base

- Encouraging industrial parks and enterprises to dock with global innovation resources
- Encouraging domestic enterprises to “go international”, improving their capacity to undertake international and outsourcing projects, and attracting transnational R&D centers to Beijing
- Creating a sound start-up ecosystem

# ITTN - International Technology Transfer Network



Partnering with >100 International Technology Transfer Institutions in >15 countries

# China (BJ) International Technology Transfer Convention

Hosted by:



**People's Government of  
Beijing Municipality**

Organized by:

北京市科学技术委员会  
Beijing Municipal Commission of Science and Technology



## ITTC 2011



## ITTC 2012



## ITTC 2013

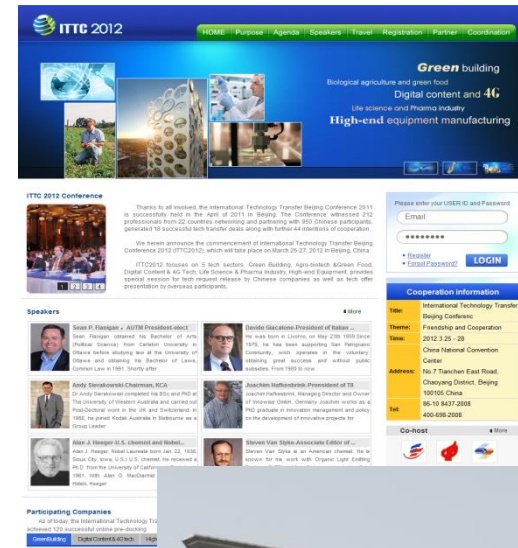


## ITTC 2014 (April 15<sup>th</sup> ~ 17<sup>th</sup>)



## ITTC On-Line March-Making

The screenshot shows the ITTC 2012 member center. At the top, there's a navigation bar with links like 'Hello partner@test.com', 'Messages', 'My Company', 'Reset Password', and 'Logout'. Below this is a 'Back To ITTC 2012' button. A 'Navigation' bar lists categories: Green Building, Agro&Green food, Digital content & 4G, Life-Science&Pharma, High-end equipment, and VCPE. The main content area is titled 'Welcome to your member center, you can use rights as following:'. It includes an attention warning: 'Attention: You must complete your company detailed information. Otherwise, you will not have following rights.' Below this are four icons with descriptions: 1. Search function to find transfer technology. 2. Examine and verify request meeting information. 3. Send invite to conference participants. 4. View the whole matchmaking process. There are two search forms: one for 'Technology Field' and 'Country/Region', and another for 'Application industry' and 'Keyword'. A 'Search Now' button is at the bottom. On the right, a 'Co-host' section lists logos for BSTC, Torch Hi-tech, CISTC, Aginnovazione, KCA, Australia, CITTC, AUTM, USA, and TIU\_EU.



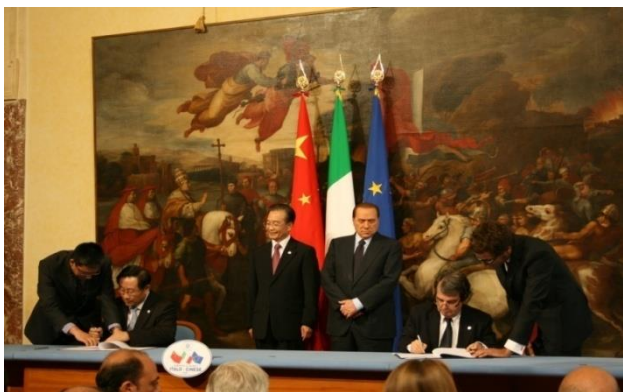
## ITTC Service Cluster

- West ZhongGuanCun
- 95 hectares, 2.5 mil. m<sup>2</sup>
- Supported by 68 universities & 213 research institutes.





## China-Italy Technology Transfer Center



October 2010, Chinese Premier Wen Jiabao issued, jointly with the Italian Prime Minister Berlusconi, China-Italy Three-year Action Plan on Deepening Economic Cooperation.



Based on this plan, China-Italy Technology Transfer Center (CITTC) was established and operated jointly by Beijing Municipal Commission of Science and Technology and Italian Agency for the Promotion of Technologies for Innovation.

On April 25, 2011, Chinese Minister of Science and Technology, Wan Gang and Italian Minister of Public Administration and Innovation, Renato Brunetta jointly unveiled CITTC.

# China-Italy Technology Transfer Center

ITTC 2012: China-Italy Session in Beijing



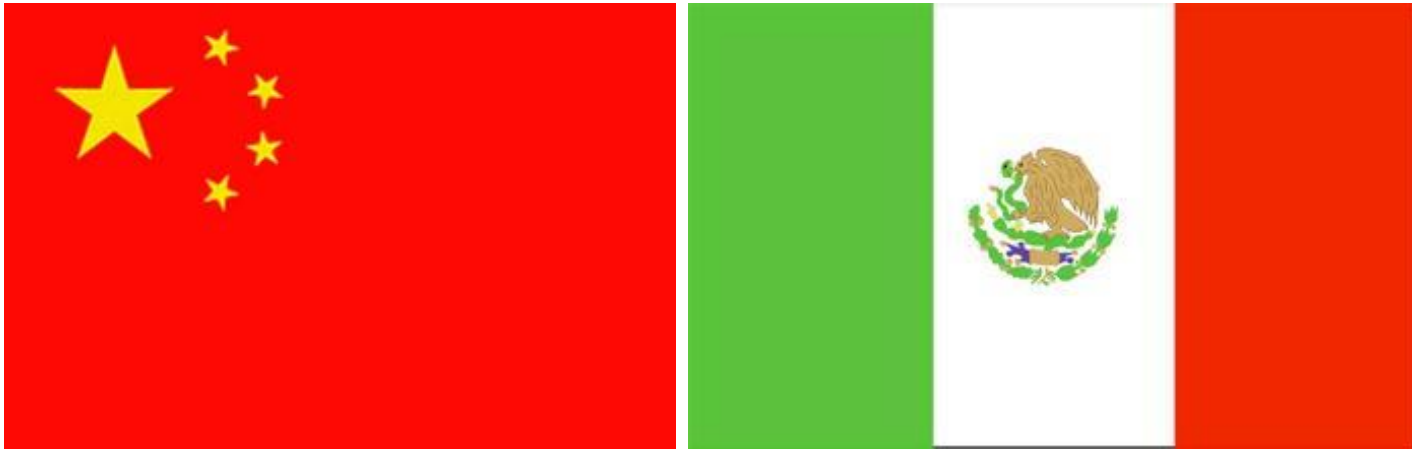
140 Chinese and Italian companies  
200 cooperation intentions

# China-Italy Technology Transfer Center

✚ China-Italy Innovation Forum in Nov. 2012 Naples, Italy



50 Chinese companies  
160 Italian companies



*What shall we do next?*

***Thank you!***