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China-Norway Science Day Held in Beijing

At the invitation of the Ministry of Science and Technology, Ms. Iselin Nybø, Minister of Research and Higher Education of Norway, led a large delegation to China on April 16-21, 2018, to implement the consensus reached at the meeting of the leaders of both countries and further China-Norway STI cooperation. As the first event between the two sides in China, the Ministry of Science and Technology of China and the Ministry of Research and Higher Education of Norway jointly celebrated a China-Norway Science Day in Beijing on April 17, which was attended by more than 300 representatives from governments, research institutes and enterprises of both counties. Minister of Science and Technology Wang Zhigang and Minister Iselin Nybø respectively made keynote speeches at the meeting.

Minister Wang Zhigang said that this year marks the 10th anniversary of the signing of the China-Norway Inter-governmental Agreement on Science and Technology Cooperation and the China-Norway Science Day is held at an opportune time to exchange views on innovation policies, share the achievements of innovation and development and cooperate in priority research areas. In line with the trend of the times of mutual trust, mutual benefit and equal cooperation, the event will bring the bilateral STI cooperation to a new high. Minister Wang Zhigang pointed out that the 19th National Congress of the Communist Party of China ushered in a new journey to build China into a modernized socialist country. China will continue to push forward the building of a community of common destiny and adhere to the principle of open cooperation and proactively develop global partnerships. As for future STI cooperation, Minister Wang Zhigang made three suggestions: 1. seize strategic opportunities and carry out practical cooperation in priority areas; 2. strengthen top-level design and create unique name cards for bilateral cooperation; 3. establish platforms for cooperation in innovation and entrepreneurship in line with the “people-first” principle.

Minister Nybø highly appreciated the STI achievements made by China and spoke highly of the important role of STI cooperation in the overall relationship between the two countries. She expressed the wish of the Norwegian side to engage in various forms of cooperation including personnel exchange, joint research, S&T outcome transformation and pilot applications in the key fields of environment, climate change, renewable energy, polar research, marine science, aquaculture and life science, strengthen mutually beneficial and win-win cooperation in research innovation and education under new circumstances and work together for sustainable economic and social development.

At the China-Norway Science Day, representatives from governments, universities and research institutes engaged in fruitful discussions on such topics as partnering in priority areas, exchange of STI policies and cooperation for sustainable development and looked into the prospects and opportunities for future cooperation.

(Source: MOST, April 24, 2018)

Minister Wang Zhigang meets with WEF Executive Chairman

On April 16, 2018, Wang Zhigang, Minister of Science and Technology, met with a delegation led by Professor Schwab, Executive Chairman of the World Economic Forum (WEF). The two sides exchanged in-depth views on the close integration of science and technology with economic and social development, the Fourth Industrial Revolution and Annual Meeting of the New Champions etc.

Wang Zhigang briefed Professor Schwab on the new plans formulated at the 19th CPC National Congress for building China into an innovative country in the new era and accelerating implementation of an innovation-driven development strategy and on the institutional and functional adjustments at the Ministry of Science and Technology. He pointed out that China now puts STI higher on its agenda and treats innovation as the primary driving force to lead development, a strategic underpinning for development of the modern economic system and an important factor for the Chinese economy to shift from high-speed to high-quality growth. Wang highlighted the importance of international cooperation to STI development. He said that the 19th CPC National Congress called for further open cooperation in innovation capabilities, which is a strategy for China to carry out international S&T cooperation in the new era.

Professor Schwab once again congratulated Minister Wang on assuming office as the Minister and said that Minister Wang's comprehensive introduction will help WEF to strengthen cooperation with the Ministry of Science and Technology at a higher level. Professor Schwab introduced the relevant progress at WEF and its Fourth Industrial Revolution Center newly established in San Francisco, and cordially invited Minister Wang to the 2018 Annual Meeting of the New Champions ("Summer Davos" Forum) to be held in Tianjin. Minister Wang expressed his appreciation of the work done by WEF and said that science and technology will inevitably play a leading role in the Fourth Industrial Revolution. He also suggested that issues like how to meet social challenges through innovation and innovative talent issues in innovation ecosystem building should be taken into account when preparing the topics for the "Summer Davos" Forum, so as to facilitate in-depth discussions involving government officials and business leaders.

(Source: MOST, April 23, 2018)

Minister Wang Zhigang meets with Indonesian Minister of Research, Technology and Higher Education

On April 12, 2018, Minister Wang Zhigang met with Indonesian Minister of Research, Technology and Higher Education Muhammad Nasir, who was invited for the opening ceremony of 2018 China-ASEAN Year of Innovation and China-ASEAN Forum of Innovation. The two sides have exchanged in-depth views on and reached agreements in advancing STI cooperation.

Minister Wang said that China-Indonesia STI cooperation, which is an important component of bilateral comprehensive strategic partnership, has made tangible progress in recent years. At present, the two sides are conducting pragmatic cooperation in young scientist exchange, building of joint labs and technology transfer and reached an agreement on science park cooperation. The STI cooperation has covered the four items in the Belt and Road STI Action Plan. He hoped that the two sides implement the agreements of cooperation and conduct pragmatic cooperation in priority areas of common concern, including high-temperature gas-cooled reactor, hi-speed rail and marine science, so as to make due contributions to steady development of bilateral relations and improvement of people's livelihood.

Minister Nasir agreed on the views of Minister Wang. Nasir said that Indonesia gives great prominence to STI development and stands ready to build upon past progress for closer cooperation in hi-tech, science park and technology transfer. He hoped that China could help produce more scientists and engineers in Indonesia, enhance the level of economic development and realize the Indonesian dream.

(Source: MOST, April 23, 2018)

2018-2025 National Agricultural Science Park Development Plan Released

To accelerate the innovative development of national agricultural science park, the Ministry of Science and Technology, Ministry of Agriculture, Ministry of Water Resources and National Forestry Administration (now part of Ministry of Natural Resources), Chinese Academy of Sciences and Agricultural Bank of China jointly formulated the *2018-2025 National Agricultural Science Park Development Plan* (hereinafter referred to as the Plan).

The Plan is designed to pool innovation resources, develop new engines for agricultural and rural growth, advance rural innovation and entrepreneurship, facilitate demonstration of outcomes, promote transformation of S&T achievements and hold training sessions for professional farmers. We will strengthen the innovation chain, support industrial chain, activate talent chain, improve value chain, share interest chain, work to build the parks into pioneering zones of agricultural innovation-driven development, pilot zones of agricultural supply-side structural reform and clusters of agricultural high- and new-technologies, and build up demonstration zones of agricultural indigenous innovation with Chinese characteristics.

The Plan sets up four basic principles:

1. Uphold the role of innovation as the leading driver
2. Strengthen categorized guidance
3. Enhance demonstration
4. Give play to the role of government and market

The Plan puts forward the following development goals:

By 2020, we build an agricultural science park system featuring tiered layout, complementary functions, specialized missions and innovative development, where national-level agricultural science parks serve as the leading force and provincial-level agricultural science parks the foundation.

---- Optimize the layout. Set up 300 national-level agricultural science parks and 3,000 provincial-level agricultural science parks, which will basically cover the major agricultural function zones and advantageous belt of agricultural products and industries.

---- Enhance capacity in the transfer and transformation of technology outcomes. Promote and apply a total of 4,000 new agricultural technologies and over 6,000 new varieties and authorize over 1,000 invention patents.

---- Markedly strengthen the cluster of high- and new-tech industries. Develop 20 parks with an output

value of over 10 billion yuan and 30 parks with an output value of over 5 billion yuan, 3,000 agricultural hi- and new-tech enterprises and 10,000 demonstration and promotion bases of agricultural technologies.

---- Achieve notable progress in mass entrepreneurship and innovation. Build a total of 500 rural makers' spaces, sustain the vitality for innovative and entrepreneurial activities and create a sound atmosphere for innovation and entrepreneurship.

----Remarkably enhance the role of targeted poverty alleviation in capacity building. Train a total of more than 10 million farmers, increase farmers' income by over 20% and build the parks into important carriers of S&T poverty reduction and targeted poverty alleviation.

By 2025, we build the parks into innovative highland of agricultural S&T outcome development, transfer and transformation, core carriers of agricultural high- and new-tech industries and tertiary industries, important bases of mass entrepreneurship and innovation in rural areas and role models in integration between industries, cities, towns and villages and rural comprehensive reform.

The Plan deploys the following major missions:

First is to deepen system reform in a comprehensive manner and explore on institutional innovation. With system reform and institutional innovation as the fundamental approaches, we should conduct explorations on agricultural pattern transformation, structural adjustment and reform advancement, facilitate agricultural transformation and upgrading, push forward transfer and transformation of agricultural high and new technologies, and enhance land yield, resource utilization and labor productivity.

Second is to pool advantageous science and education resources and boost the capacity in providing innovation services. We should guide the pooling of innovation resources of S&T, information, talent and funding in the parks. Efforts should be made to pool science and education resources like agricultural research institutes and universities, develop market-oriented new-type industry incubators for agricultural technology R&D and transformation of S&T achievements, and set up centers for transformation of agricultural S&T outcomes, entrepreneurial centers for scientists and engineers and industrial incubation bases for high and new technologies.

Third is to foster major STI players and develop the capacity of mass entrepreneurship and innovation. We should put in place innovation and entrepreneurship carriers like S&T start-up nurseries, enterprises' incubators, rural makers' spaces and modern agricultural industry STI centers, set up a batch of tech-based enterprises featuring advanced technologies and huge growth potential, realize standardized production, regional layout, brand-based operation and value-added development, and work for building industrial clusters of high and new technologies with huge impact and distinct features.

Fourth is to optimize the environment for innovation and entrepreneurship and enhance the capacity in mass entrepreneurship and innovation. We should build up an innovation system oriented to government-industry-academia-research-user synergy, science financing and S&T services, and increase innovation

efficiency. Efforts should be made to establish farmers' training bases with regional characteristics, enhance farmers' professional skills, optimize the structure of rural workers and produce new farmers in line with modern agricultural development.

Fifth is to encourage differentiated development and improve the model for park development. We should push forward the construction of national agricultural science parks, guide the parks in demonstration & promotion and industrial innovation based on their S&T strengths, and cultivate distinct clusters with strong competitiveness. In line with the principle of "one park one dominant industry", we should create industrial high and new technology industry clusters with brand strengths, and enhance agricultural industry competitiveness.

Sixth is to build beautiful and livable countryside and facilitate integrated park development. In line with the new-type urbanization initiative with Chinese characteristics, efforts should be made to explore on new models of urban-rural integrated development, including park-city integration, park-township integration and park-countryside integration. We should work harder on resource saving, environmental friendliness, output efficiency and production safety. Priorities should also be given to efficient utilization of agricultural resources, agricultural total factor productivity and circular ecological agriculture.

The Plan identifies the following safeguards:

First is to strengthen leadership. We should put in place a work coordination mechanism where MOST serves as the leading agency, MOA, MWR, former SFA, CAS and ABC serve as the coordinators, provincial S&T authorities serve as business guides and municipal governments serve as specific boosts. We will set up a new model of national agencies and local departments jointly supporting innovative development of the parks, and establish an operation mechanism featuring scientific management, efficient operation, inter-departmental coordination and ministry-province coordination.

Second is to strengthen policy support. In line with the reform of central-budgeted S&T programs (funds and projects), technology innovation guidance fund and S&T personnel support program for remote and poor regions, ethnic border regions and old revolutionary base areas, we will support the parks in transformation, demonstration, innovation and entrepreneurship concerning agricultural technologies. We will also summarize and promote new examples, models and mechanisms out of the process of innovation-driven development in a timely manner, and offer greater bonus to organizations and individuals performing outstandingly.

Third is to strengthen coordinated development. We will transform the functions of government, increase efficiency in providing services, explore on innovation and promote coordinated innovation in terms of investment & financing, technology innovation, transformation of S&T outcomes, talent management and land transfer. Efforts will be made to set up an integrated network of platforms of information, transaction, outcomes and experts and enhance inter-connectivity. We will also further accelerate transformation of

agricultural S&T outcomes, strengthen vocational farmer training and promote precision poverty alleviation and elimination.

Fourth is to conduct monitoring and evaluation. We will implement the national innovation survey system, enhance monitoring and evaluation research into innovation capacity, focus more on economy development quality and efficiency, highlight assessment and evaluation on STI, industrial development, enterprises fostering, impact enhancement and poverty alleviation. We will strengthen dynamic management, set up exit mechanism, conduct regular assessment over the approved parks and give priority support to outstanding parks. For those failing to reach the requirements, we will order them to make improvement in a limited time and may cancel their qualification as national agricultural science parks if still failed to meet the standards after adjustment.

(Source: MOST, February 2, 2018)

An introduction to national hi-tech zones

Recently, the State Council approved the founding of many national high- and new-technology industry development zones (hereinafter referred to as hi-tech zones). Up till now, China has a total of 168 such zones.

In 1988 the first hi-tech zone was established.

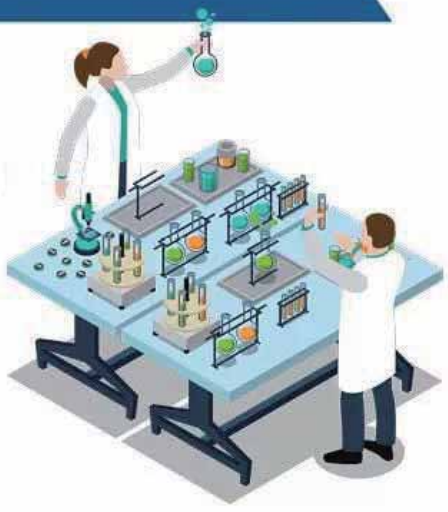
Since the inception of Torch Program in 1988, the first hi-tech zone was set up, namely the Zhongguancun Science Park.

Hi-tech zones have produced a great number of well-known companies.

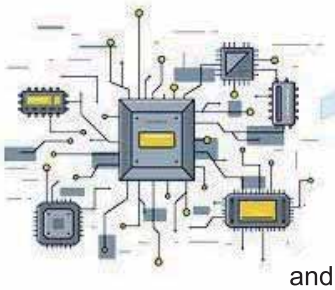
Enterprises with world impact like MI phone, Huawei, Alibaba were all born in the zones.

What are the high- and new-technology industries in the zones?

With high- and new-technologies as the bases, the high- and new-technology industries are devoted to one or multiple high- and new-technologies and R&D, production and technology services. They are featured by extraordinary economic and social benefit.



11 approved high- and new technologies



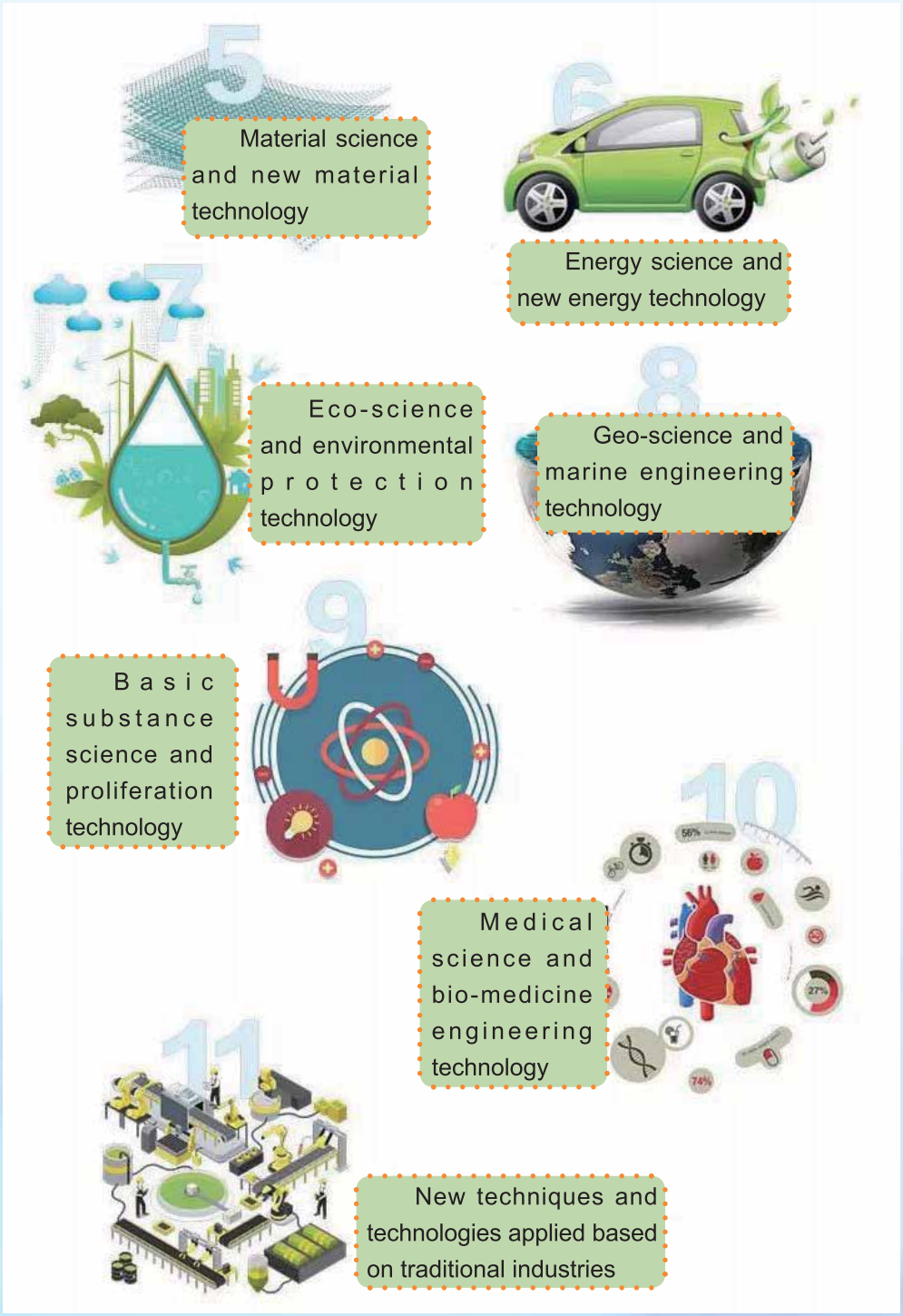
1 Micro-electronics and electric IT

2 Space science and aeronautics technologies

3 Photoelectron and optical, mechanical and electronic integration technologies

4 Life sciences and bio-engineering technologies

[Important Plans] >>>



How strong is the innovation capacity of hi-tech zones?

By the end of 2016, the 146 hi-tech zones and Suzhou Industrial Park have

GDP **8.98** trillion yuan

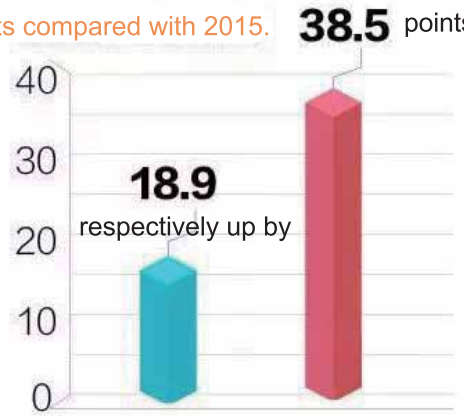
of the GDP of the country

The general index of the innovation capacity reached

199.1 points

internationalization of innovative activities reached

285.4 points



points compared with 2015. **38.5** points and **18.9** respectively up by

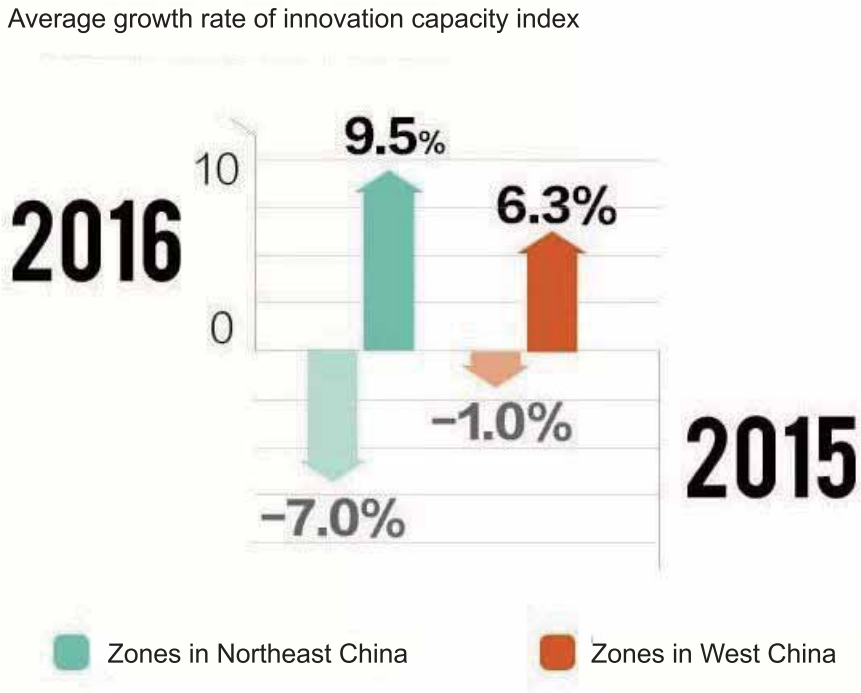
General index of innovation capacity

Index of innovation and entrepreneurship environment

Explanation

These figures show that the zones have made remarkable progress in recent years. Moreover, in the context of the Belt and Road Initiative and all-round openness, the zones are quickening their pace in open innovation and integration into global innovation network.

Innovation capacity index of different regions



The innovation capacity index of hi-tech zones in middle China in 2016 reached an average growth rate of 11.0%.

Development history of the zones

1988

The state Council approved the founding of the first hi-tech zones in China-Zhongguancun Science Park.

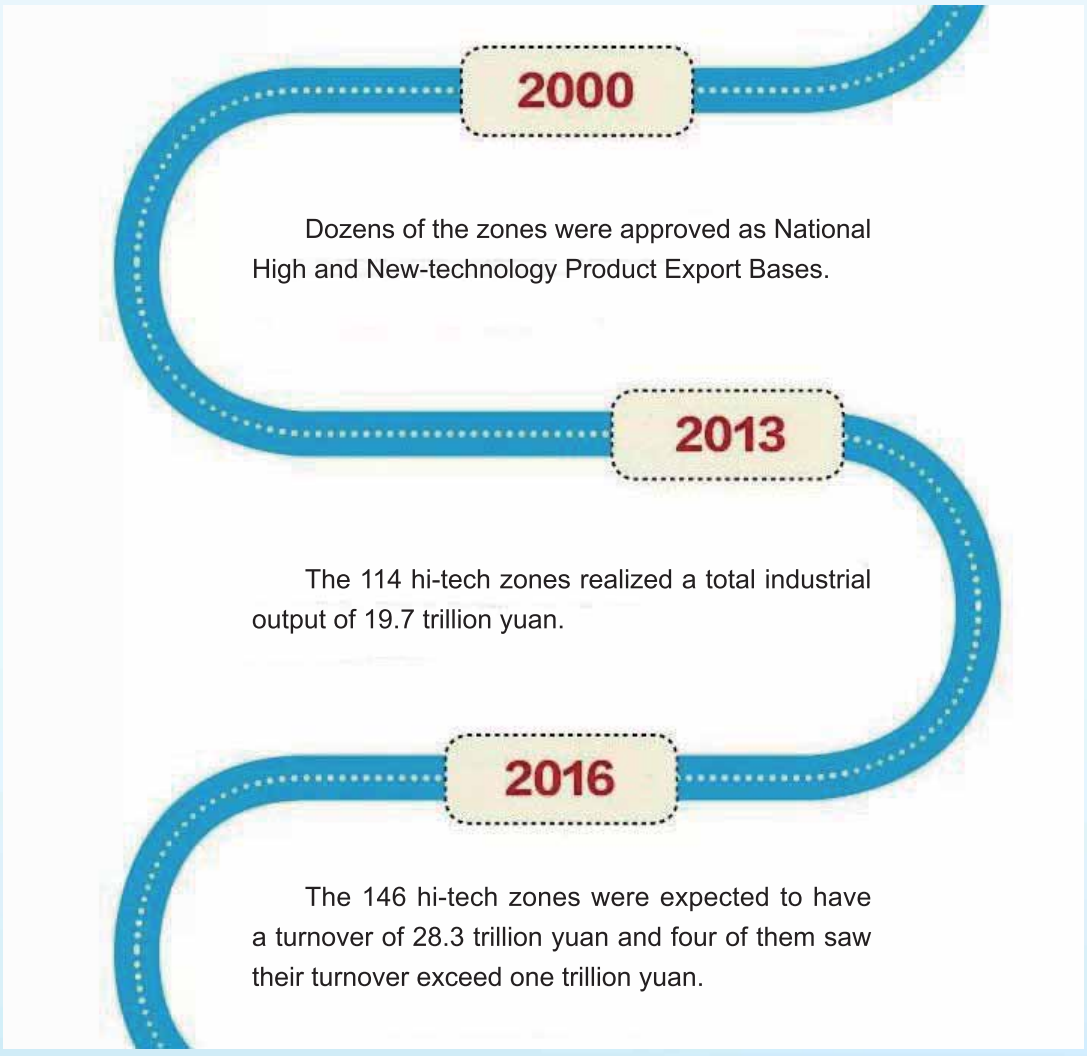
1995

Built National Torch Program Software Industry Base with the reliance on national hi-tech zones

1997

Approved part of the hi-tech zones to open S&T industry parks to APEC members

[Important Plans] >>>



[Important Plans] >>>

2017

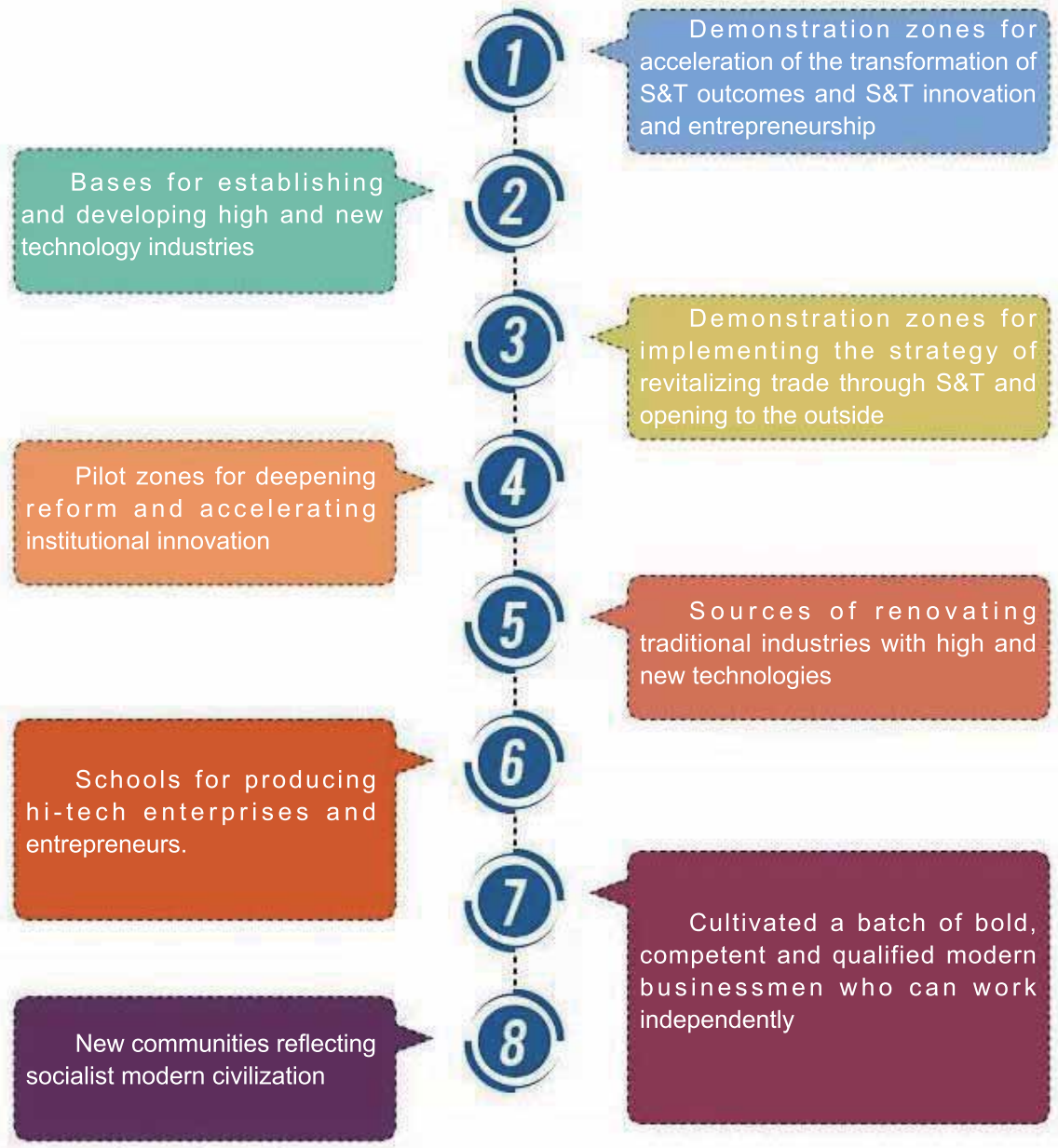
There were a total of 157 hi-tech zones. Lenovo, Founder, Haier, Changhong, Huawei and BOARD were all born in the zones.

2025

A batch of national agricultural high and new technology industry demonstration zones will be built and high technologies can emerge out of farm field.

[Important Plans] >>>

Eight goals



Characteristics of the zones

Guangzhou High and New Technology Industry Development Zone

Approved in 1991

It has formed main industrial chains of optoelectrons, bio-medicine, special steel, auto, precision chemical industry, electronics and electric appliances making, machine manufacturing and packaging materials.

Tianjin Binhai High and New technology Industry Development Zone

Approved in 1991

Modern service industry is an advantageous industry of major focus in the development pattern of Binhai high-tech zone, including headquarters economy, S&T service industry and science financing.

Chongqing High and New Technology Industry Development Zone

Approved in 1991

It focuses on pillar industries, especially e-information. In 2011, it became the first National High and New Technology Industry Standardized Demonstration Zone in Southwest China.

[Important Plans] >>>

Shenzhen High and New Technology Industry Development Zone

Approved in 1996

It is one of the six pilot parks to build the world's first-class hi-tech zones, forming industrial clusters of network equipment communications, computers, software and medical devices.

Shanghai Zizhu High and New Technology Industry Development Zone

Approved in 2011

The dominant industries are IC and software, new energy, aerospace, digital content, new material and life sciences.

Chongqing Rongchang High and New Technology Industry Development Zone

Approved in 2018

It is the country's first hi-tech zone with agriculture and husbandry as the characteristics.

(Source: Xinhua Net, March 24, 2018)