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Special Issue:Progress in Development of China's National High-tech Zones

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New Focuses on Hi-tech Development in 2014

The Annual Meeting on National High-tech Development and Industrialization convened in Nanchang, Jiangxi province on March 16, 2014. Cao Jianlin, Vice Minister of Science and Technology of China, attended the meeting.

The meeting reviewed the progress made in developing China's high-tech undertakings over the past year, and recognized the achievements scored in carrying out key projects, growing strategic emerging industries, making technological breakthroughs, enhancing core industrial competiveness, innovating relevant systems and institutions, as well as improving the development environment. Vice Minister Cao highlighted in his remarks that China's future high-tech development should intensify strategic research, improve top-level planning, strengthen the ability of technological innovation, strive to serve the tertiary industry, and open the technological sector wider to the world.

China's high-tech development in 2014 will focus more on advancing key and generic technologies, promoting technological and industrial open-up, speeding up structural adjustment, improving management of research projects and funds, increasing the market's role in gathering resources and innovative elements and so on.

The representatives from administrative bodies of science and technology in Tianjin, Jiangsu province, Jiangxi province and Chongqing municipality also shared in the meeting their practices and experience in pushing forward high-tech and its industrialization.

(Source: Science and Technology Daily, March 17, 2014)

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Latest Progress in Development of China's National High-tech Zones

According to the information released by the Torch High-tech Industry Development Center of MOST in April 2014, the total business revenue of the 114 national High-tech Industry Development Zones (high-tech zones) in 2013 was 20.3 trillion yuan, among which 55 reached 100 billion yuan in revenue. The total added value was 5.8 trillion yuan, contributing more than 10% of national GDP.

Among the 114 high-tech zones, 2 achieved more than 1 trillion yuan in revenue, 6 achieved over 500 billion yuan in revenue, 31 over 200 billion yuan and 55 over 100 billion yuan. Zhongguancun Science Park was the only one with the revenue of over 3 trillion yuan.

With two decades' development, national high-tech zones have become a main player in the shift of mode of economic growth. They have been playing a unique role in combining science, technology and economy, the market role and government functions, and the government policies and local actions, accelerating regional innovation. The emerging industries with strategic importance such as energy conservation and environment protection, next-generation IT, biotechnology, high-end equipment manufacturing, new energy, new materials and new-energy vehicles are becoming dominant ones in these zones.

Within these high-tech zones, a total of 78,000 enterprises with 14 million employees report their earnings of 2013, more than 21,500 or 36.5 percent of which are registered as high-tech enterprises with 6.98 million employees, accouting for 48 percent of the total. With their good performance in total revenue, net profit, tax payment, and export volume, which make up over 45 percent of the parks' total, the high-tech enterprises have become major contributors to the zones.

(Source: Science and Technology Daily, April 4, 2014)

An overview on High-tech Zone Policies

China started establishing high-tech zones nationwide in late 1980s. Now the 114 national-level high-tech zones are becoming the places with booming emerging industries and flourishing innovation and entrepreneurial activities.

During 2009-2011, the State Council approved respectively the building of national innovation demonstration zones in Zhongguancun of Beijing, Wuhan East Lake region of Hubei province and Zhangjiang of Shanghai, as pilot areas for equity incentives and the reform of the financing system for science and technology. At the end of 2010, the State Council agreed to carry out "one-plus-six" policy in Zhongguancun, meaning one regional platform for innovation and six pilot measures to support the demonstration zones. The reform fall on research management outcomes and income right, equity incentives, tax deductions for R&D expenditures and researchers'equity income, research projects and funding management, identification of high-tech enterprises, and the development of a national over-the-counter trading

market under unified supervision.

The 12th Five-year Plan for National High-tech Zones issued by MOST in January 2013 puts forward the following goals:

1. Strengthening innovation capacity. The high-tech zones will further pool the resources and supportive elements for innovation to set up a batch of world-class R&D bases, train a large number of innovative talents and entrepreneurs, and bring in over 3,000 high-caliber professionals from overseas. Internationally recognized R&D results will be achieved in key technologies.

2. Improving industrial competitiveness. The emerging industries with strategic importance will become dominant industries in the high-tech zones. Modern service sector will have a big share, and traditional industries will be upgraded. A lot of innovative industrial clusters will take shape. The aim is to develop around 15 internationally competitive clusters, each with an output value of more than 100 billion yuan.

3. Enhancing the role of high-tech zones in guiding and demonstrating regional development. High-tech zones create a favorable environment for innovation and entrepreneurship, which helps pool talent, capital and technology. The zones thus become pioneers in technological innovation, the development of emerging industries of strategic importance, the shift of growth mode, and the adjustment of economic structure. The flourishing innovation activities supported by the industrial organizations, the growing industrial technology alliances and all kinds of intermediary service agencies within the zones will greatly spur the economic development in the surrounding area.

4. Increasing international influence. By pooling premium resources at home and abroad, high-tech zones will become world-class places where industries' international competitiveness is increased, a number of world-famous brands and international enterprises are generated, a group of industrial clusters with global influence are fostered, and internationalized environments are built up with sound cultural living and working conditions.

In March 2013, MOST issued *the Action Plan on implementation of Innovation-driven Development Strategy in High-tech Zones*. It pointed out that efforts should be made to build high-tech zones into innovation hubs by 2020, so as to accelerate the development of strategically important emerging industries, promote the transformation of economic growth mode and adjustment of industrial structure, and realize regional development on a basis of innovation-driven policy and scientific support, serving the national goal of building China into an innovative country. The document will guide the development of high-tech zones in the coming decade. By implementing some action plans, including *the Innovative Industrial Cluster Project and Innovative Torch Program for S&T Service System*, the high-tech zones will substantially boost industries' core competence, capacity for innovation, and economic performance, spurring sustainable economic and social development.

According to the requirement of the State Council on May 6 2013, the pilot measures adopted in Zhongguancun Science Park would be expanded to Wuhan East Lake region, Shanghai Zhangjiang Demonstration Zone and a pilot for indigenous innovation in Anhui province.

The above-mentioned policies, measures and incentives have unleashed regional innovation activities, mobilized the enthusiasm of researchers and boosted the enterprises' core competence and capacity for innovation, and accelerated the commercialization of research achievements. They have also promoted the combination of science, technology and economy, and facilitated the innovation collaboration between governments and stakeholders.

Examples of High-tech Zones in Main Areas

1. Beijing Zhongguancun Innovation Demonstration Zone

Zhongguancun Demonstration Zone originates from "Zhongguancun Electronics Street" in the early 1980s. In May 1988, after approval by the State Council, Beijing Hi-tech Industry Development Pilot Zone (the predecessor of Zhongguancun Science Park) was established, which was the very first of its kind in China. In March 2009, the State Council approved the construction of Zhongguancun Innovation Demonstration Zone (IDZ), aiming to build it into a globally influential center of technological innovation. In January 2011, the State Council gave go-ahead to the Outline of the Development Plan for Zhongguancun Innovation Demonstration Zone (2011-2020). In October 2012, after approval by the State Council, Zhongguancun Demonstration Zone adjusted its overall layout and tuned into an industry cluster which consists of 16 parks.

Currently, there are nearly 20,000 hi-tech enterprises in Zhongguancun IDZ, creating an industry cluster which features six industries including new generation Internet, mobile communication, satellite application, biomedicine, energy conservation and environment protection as well as rail transportation. As a result of such a cluster effect, numerous enterprises have been flourishing in emerging sectors such as integrated circuit, new materials, high-end equipment, general aviation, new energy and new energy vehicle. Meanwhile the modern service industry has also been greatly boosted. As Zhongguancun IDZ has grown into a leading functional zone featuring high-end industries, a batch of Chinese enterprises represented by Lenovo and Baidu have also thrived to gain international reputation.

Zhongguancun boasts 41 higher education institutions including Peking University and Tsinghua University; 206 national (municipal) research institutes such as the Chinese Academy of Sciences and the Chinese Academy of Engineering; 67 state-level laboratories; 55 national engineering research centers and technology research centers; 29 university science parks, and 34 overseas student pioneer parks. In recent years more than 6000 enterprises are started by some 20, 000 overseas returnees. Overseas top talents in this single area account for 21 percent of the nation's total. So far the number of listed companies in Zhongguancun adds up to 229, among which 145 companies are listed at home and 84 overseas. The 62 companies have been going public on the Chinese Growth Enterprise Market (GEM), becoming an unique "Zhongguancun Market" inside the GEM.

The gross revenue in Zhongguancun Demonstration Zone exceeded 3 trillion yuan in 2013, an increase of more than 20 percent year on year. The added value created by hi-tech enterprises went above 410 billion yuan, taking up more than 20 percent of Beijing's GDP. Taxes and fees paid by enterprises were over 150 billion yuan. Export reached 33.6 billion US dollar, up 28.5 percent over the previous year and accounting for around 40 percent of Beijing's total export.

With the aim to set an example in innovation for the whole country and open wider to the world, Zhongguancun Demonstration Zone will keep evolving, and strive to make itself a globally influential center of technological innovation by 2020 while serving well Beijing's ambition to become a global city.

(Source: http://www.zgc.gov.cn/)

2. Shanghai Zhangjiang Hi-tech Industry Development Zone

Shanghai Zhangjiang Hi-tech Industry Development Zone is evolved from Shanghai Hi-tech Industry Development Zone set up in the 1980s. In 1999, Shanghai implemented a new strategy which identified Zhangjiang as the core base for stimulating innovation. In March 2006, after the approval by the State Council, Shanghai Hi-tech Industry Development Zone was renamed Shanghai Zhangjiang Hi-tech Industry Development Zone ("Zhangjiang Hi-tech Zone" for short). At the beginning of 2011, the State Council officially approved the construction of Zhangjiang Innovation Demonstration Zone (including one area and 12 parks) in an extended area of 75.9 square kilometers. As the Zone continues to grow, more parks will be added and the area be expanded.

Now there are some 30, 000 tech-based companies, 1000 R&D institutes, and 43 colleges and universities in zhangjiang IDZ. According to statistics, its gross revenue in 2012 was over 420 billion yuan, an increase of 13.5 percent year on year, and tax revenue exceeded 20 billion yuan. As is shown by the Comprehensive Evaluation on Development Zones in Shanghai in 2012, Zhangjiang Hi-tech Zone ranked first for the second consecutive year, and also won the first place measured by innovation and investment environment.

After two decades' development, industry clusters of biomedicine and integrated circuit have been formed in the zone. Now it boasts a pile of state-level industry bases involving such industries as biomedicine, information, software, integrated circuit, semiconductor lighting, online games and animation. In respect of technological innovation, the Zone embraces multiple types of incubators, tech-company pioneer parks and overseas student pioneer parks, which have greatly benefited the leap-forward development of new businesses.

(Source: http://www.zjpark.com/Second aspx?infoitem_id=65&infoitem_pid=5)

3. Wuhan East Lake High-tech Industry Development Zone, Hubei Province

Situated in southeast Wuhan, Wuhan East Lake High-tech Industry Development Zone was established in October 1988 covering an area of 50 square kilometers. It consists of two industrial parks, a university science park, Huazhong Software Park, Wuhan National Agricultural Science Park. As one of the hubs breeding highly knowledge -intensive industries in China, the Zone has around itself 18 higher education institutions, 56 national research institutes like Wuhan Branch of Chinese Academy of Sciences and Wuhan Research Institute of Posts and Telecommunications, 10 national laboratories, 7 national engineering research centers and more than 250, 000 professionals from various sectors.

Wuhan East Lake Hi-tech Zone was approved by the State Council as a National Hi-tech Industry Development Zone in March 1991. In 2000, after approval by the Ministry of Science and Technology as well as the Ministry of Foreign Affairs, it joined the APEC Network of Hi-tech Industry Parks. In 2001, after winning approval of the National Development and Reform Commission (the former State Planning Commission) and the Ministry of Science and Technology, the Zone became a national optoelectronics industry base which was later called "Wuhan• Optics Valley of China". In December 2009, the State Council approved the establishment of East Lake National

Independent Innovation Demonstration Zone, signifying a new stage of development for it in 2010.

After years of efforts, the Zone now harbors around 2000 hi-tech companies in emerging industries like electronic information, energy conservation and environment protection, bioengineering and biomedicine, mechanical and electrical integration, and hi-tech agriculture. As the "Optics Valley of China", it has grown into such an area labeled as "the three largest bases": the largest production base of optical fiber and cable as well as optoelectronic devices; the largest research base of optical communication technologies; and the largest laser industry base. Its production scale of optical fiber and cable is the second largest in the world, with the domestic market share reaching 50 percent and international market share 12 percent. As the domestic market share of optoelectronic devices and laser products also hits 40 percent, the Zone has also won its place in the global market.

In 2011, the East Lake Hi-tech Zone registered gross revenue of 381 billion yuan, up more than 30 percent over the previous year. Total industrial output value created by enterprises above designated size reached 289.8 billion yuan, a year-on-year increase of 27 percent. Fixed asset investment was 35.5 billion yuan, increasing by 13 percent compared with the pervious year. Total fiscal revenue exceeded 13.3 billion yuan, up 37 percent over the year before. In the first six months of 2012, the gross revenue surged by 29 percent to reach 223.6 billion yuan, keeping the momentum of constant growth. Patent filings in 2012 passed 10,000 for the first time to stand at 10,365, up 44 percent over 2011 and accounting for 43 percent of the total patent filings (24105) of Wuhan. The number of granted patents was 6,662, up 31 percent year on year.

In terms of management, in order to encourage innovation and support the growth of enterprises, the local government has implemented an array of policies involving investment and financing, tax preference, equity incentive, the commercialization of research results, attracting professionals, as well as patent protection and application.

(Source: http://baike.so.com/doc/5351667.html)

(Editor's Note: All news in the issue are translated from Chinese texts for your reference. They are subject to checks and changes against official release of original Chinese or English texts.)