

Beijing's Haidian Science Park has its high-tech firms, universities, R&D centers — and ambitious plans to become a global technology and innovation center.



Aerial view of the heart of Zhongguancun

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Haidian Science Park – more than just a park

Editor's note:

Over the past 20 years, the Haidian Science Park (HSP), which is at the core of the Zhongguancun National Innovation Demonstration Zone, in Beijing, has made a great deal of progress in its innovation and technological and management breakthroughs. It has become one of China's most dynamic centers of creativity, a pilot for high-tech industrial development, and a force in Beijing's economy.

In building itself into a national innovation center, Zhongguancun has had clear support in the form of State Council policies that draw in more talented people, in building its science town, drawing up plans for the core area's future development, and in encouraging the "one plus six" innovative work system (a creativity center and six pilot policies). The HSP is on its way to becoming a high-tech zone with global influence.

Park officials, various experts, and entrepreneurs are attending the Davos forum, they have shared their opinions and experiences for this very special report, Sept 14 to 16.

NUMBERS

By ZHANG ZHAO

705
billion yuan

in revenues for HSP last year, or nearly twice the 2005 figure.

23.2
percent

annual increase in revenues of HSP under the 11th Five-Year Plan (2006-2010).

20
percent

in average growth for the park's new energy and eco-protection sector over the past five years.

88

HSP companies had gone public and 107 companies have had annual output values above 1 billion yuan each, by the end of 2010, more than doubling the 2005 figure.

40
percent

of Zhongguancun's companies are based in HPS.

40

of Fortune 500 companies and prominent multinationals have offices, headquarters or R&D centers in HSP, including Microsoft, AMD, Sony and Hitachi.

437
billion yuan

in income for IT companies, a traditional industry in HSP, in the 2006 to 2010 period.

The Zhongguancun Haidian Science Park (HSP), in the Beijing district of the same name, is one of China's top science and technology development centers and, in the eyes of its administrators, a strong, farsighted leader for members of its peer group, and is marching steadily forward.

Zhongguancun had a humble beginning as an electronic products market back in the early 1980s, in the early years of China's opening-up and reforms, but it has grown into something quite different — a national leader in technology and both a hub and a center for innovation.

HSP sits at the core part of the Zhongguancun National Innovation Demonstration Zone, and had revenues of above 705 billion yuan (\$110.5 billion), last year. That is nearly twice the figure for 2005. Under the 11th Five-Year Plan (2006-2010), it had an average annual increase in revenues of 23.2 percent.

IT is one of the HSP's traditional industries and generated an income of around 437 billion yuan over the past five years, accounting for 5.6 percent of the nation's total.

Of that, software and information services contributed 226 billion yuan,



The logo of Zhongguancun, which is known as China's Silicon Valley.

while computer equipment manufacturing contributed 158.1 billion yuan. Both had an average annual increase of around 20 percent.

Emerging sectors in HSP have also had robust growth, with new energy and eco-protection averaging at least 20-percent growth in the past five years.

By the end of last year, 88 HSP companies had gone public and 107 had an annual output value above 1 billion yuan each, or more than double the 2005 figures.

The zone has been the source of some global leaders in innovation, including the Dawning supercomputer, Shenzhou VII spaceship, Change moon orbiter, and the world's first H1N1 flu vaccine.

HSP is also the birthplace of China's CPU, 3D cell phone chips, and smartphone operating systems.

The zone's companies helped set 66 international standards and more than 590 national standards. The TD-SCDMA, which is one of three standard global systems for 3G cell phones, is in commercial use in China, and a number of overseas countries.

Functional zones

Local authorities have said they plan to make better use of Haidian's resources and are planning a research and service area in the north, and a high-tech industries cluster in the middle. Then there will be a business service and creative industries area in the south, and one for recreation and tourism in the northwest.

The northern area, with its superior environment, aims to attract a number of world-leading R&D centers and service facilities. It will be turned into a software services, new materials, new energy, telecommunications and biomedicine base.

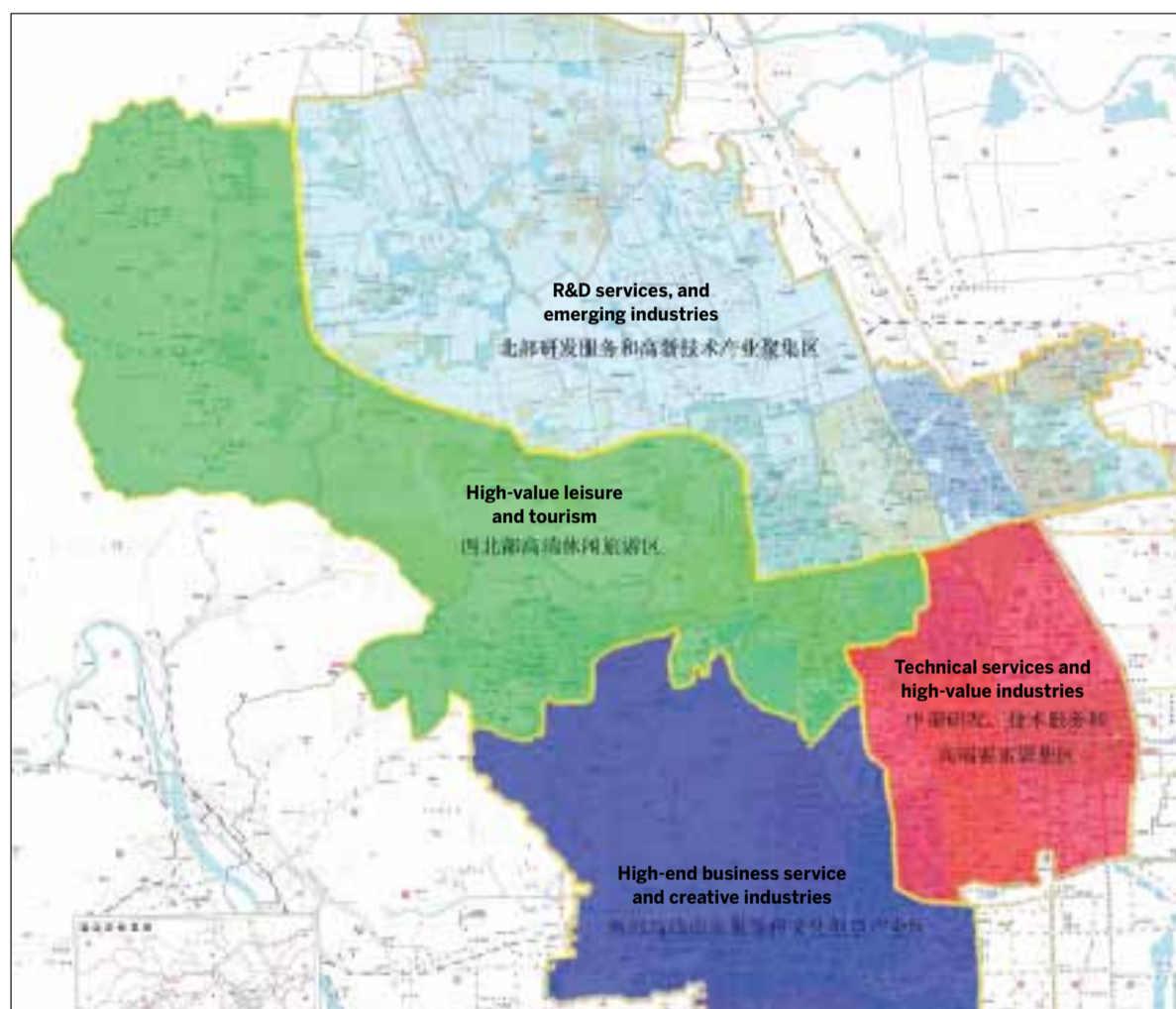
And the middle zone, also known as the Zhongguancun science town, is regarded as an important economic driving engine. Around 50 national research organizations, more than 60 national labs, and 27 universities are based in that area.

The science town covers 75 square kilometers, and holds around 40 percent of Zhongguancun's companies, including a number of high-tech giants such as Microsoft and China Datang Corp, and around 8,000 smaller companies. Life sciences, new energy vehicles, cloud computing, and aerospace will be the focus of this area.

Each of the two areas is expecting 1 trillion yuan in output value by 2020.

Financing technology

The science town now has nearly 1,000 technology financing companies and venture capital organizations and at least 170 equity investment firms have funds worth more than 100 bil-



Blueprint of Haidian's various zones.

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lion yuan.

Meanwhile, the Haidian government has a more ambitious plan to build a technology-finance zone in the western part of the district over the next five years.

They plan to get accountant firms, law firms, talent-seekers, and technology and property trading centers, while trying to attract investment, talented personnel, and improved services.

Green industries

The local authorities have planned a series of key industries for HSP in the future. Besides IT, aerospace, new materials and bio-industry, the new energy development and environmental protection are among those that are believed to have great potential.

Companies will focus on the development of wind, solar and nuclear power, the treatment of water and air pollution, and recycle of wastes. They will also upgrade the lighting facilities and electricity network to make them more efficient and reliable.

This sector is aimed to generate a total income of 140 billion yuan by 2015.

A new energy industries cluster is planned in the science town. Companies will cooperate with the research organizations such as Tsinghua University, Beijing Institute of Technology, China University of Mining and Technology and the Chinese Academy of Sciences, to carry out a series of major projects and technology commercialization.

Attracting talent

The management of HSP have taken a series of steps to introduce, and keep, top personnel.

They have built a database of some innovation leaders and are improving the credit management system that is

useful for international exchanges with talented people.

They have preferential policies to help talented people with overseas educations in getting settled, in social security, and in schooling for their children.

The authorities are encouraging partnerships between companies and universities to nurture talent. And they have founded many post-doctoral research centers and labs. Many universities now teach courses on how to start a business themselves.

They have also established overseas offices to organize campaigns to attract talented people. Officials went to Europe in May to promote Zhongguancun and seek talented personnel. Around 150 students in the fields of finance, automotive engineering and IT were attracted to Zhongguancun companies.

Growing with the world

Under the 11th Five-Year Plan, the HSP has had an international strategy that encourages local companies to use global resources. And, by the end of last year, nearly 6,200 of the people

working in the zone had higher education degrees from overseas.

The park has become a major R&D networking hub, with more than 40 of the Fortune 500 companies and major multinationals opening offices, headquarters, or R&D centers, including Microsoft, AMD, Sony and Hitachi.

Chinese companies are also getting involved, using the global resources to grow and attract venture capital, go public, set up production bases or mergers overseas.

A number of privately owned companies, including UFIDIA Software and Red Flag Software, are working with prominent multinationals to establish R&D businesses.

Some have even opened technology centers in California's Silicon Valley, such as the Vimicro Corp and Innofidei.

And, more than 40 local companies are listed overseas, including Baidu.com and VanceInfo.

The zone's high-tech outsourcing moves, such as digital TV networks and large-scale container shipping systems, have seen robust growth.

"ONE PLUS SIX" SYSTEM

The Zhongguancun administration has a method that encourages innovation among its companies and research institutes, commonly known as the "one plus six" system.

As part of the State Council's effort to speed up innovation in management of Zhongguancun administration, the "one plus six" system consists of a technical innovation and commercialization center that integrates all of Beijing's technical resources along with six pilot policies.

The policies cover stockholder's rights, tax cuts, the rights of research institutes as concerns research results, recognition given to high-tech companies, research fund management, and a national over-the-counter sales market. With the innovative system, Zhongguancun works hard to integrate local resources, and promote commercialization of the technical research results.