

● G.2 Continued Success

Corresponding material topic:
Investment recruitment \ Indirect Economic Impact



Policy/strategy

HSPB is innovation-oriented, promoting industrial transformation through Support Hardware with Software, renovating HSP, focusing on industry and talents, R&D and innovation, land and factories, new southward policy and advocacy, etc., strengthening bonds with international innovative technology, capital and talents, building a quality investment environment, maintaining stable operation without being affected by the global economic downturn and critical industrial and economic conditions, so as to promote sustainable operation and development.

Targets and goals

Construct a high-performance industrial development environment, promote interest in investment and maintain the competency in sustainability of Taiwan hi-tech industries.

Management evaluation system

- ▶ Business Division regularly compiles information on the park's revenue and the number of employees.
- ▶ Investment Division compiles monthly statistics on investment approvals and capital increase cases.
- ▶ Every year, NSTC assigns the three science park bureaus to take turns in conducting survey and analysis on the satisfaction level.
- ▶ Conduct regular science park review meetings with NSTC for new investment projects.

Performance and adjustments

The actual number of investment cases introduced in 2021 was 49 with an additional investment cases of 38 per year. The actual number of investment cases introduced in 2022 was 30 with an additional investment cases of 63 per year, which are in line with the expected target.

Preventive or corrective measures

- ▶ Investment Division promotes and attracts investment to the park and continues to cooperate with city and county governments as well as neighboring academic and research institutions to hold seminars and related activities.
- ▶ Actively organize job fairs and recruitment events with various counties and cities.

G.2.1 Major Infrastructure Construction

Hsinchu Science Park

Most of the existing standard plants in Hsinchu Science Park have been in use since 1982 and most of them have been built for more than 30 years. Plus, the intensity of land use is low and there is an urgent need for renewal and redevelopment to facilitate the revitalization and efficient use of land. HSPB has proposed a number of projects for the reconstruction and expansion of new plants, including the Hsinchu Science Park (Baoshan Site) Phase II Expansion Project, Hsinchu Science Park X-Site Project, Hsinchu Science Park Phase III to V Standard Plant Renewal Project and Hsinchu Biomedical Park Phase III Biotechnology Building Construction Project, in the hope of improving the internal infrastructure and thus eliminating worries.

■ New Phase II Standard Plants

After decades of development, the buildings in HSP have been built one after another since its establishment. Although the initial standard plants meet the needs of industrial use, the land was not effectively utilized. In order to meet the demand for continuous expansion of high-tech industries in Taiwan and support their continuous yet rapid development as well as create job opportunities, the renewal plan of standard plants is carried out.

As a result of the evaluation and study conducted by HSPB, the New Phase II Standard Plant, a three-story underground and eight-story above-ground steel structure, is built in the street surrounded by Chuangxin 3rd Road and Yanfa 2nd Road in the Phase I Development Area of Hsinchu Science Park, with a base area of about 1.86 hectares and a total floor area of 18,900m², providing 16 factory units. The space is designed as square and flexible units with good lighting conditions. Each floor is equipped with independent support facilities for electricity, telecommunication, air-conditioning and shaft to create maximum space utilization efficiency. A comfortable social space and intelligent visitor guidance system are also planned to provide a friendly working environment for incoming manufacturers and employees. The construction of the new standard plants in Phase II began in April 2019 and completed by the end of 2020. In 2021, after the license acquisition and verification processes, the new factory has been available for lease.



New Phase II standard factory building

The original tenants of standard plants A and B of Phase III have already moved in. Soon, HSPB is going to demolish the old plants A and B construct a new building of Phase III on the site, ongoingly promoting the renewal plan of standard factory buildings in aforementioned park.

■ Phase III, IV and V standard plant renewal project

The third, fourth and fifth phases of the standard factory buildings in HSP were completed from 1982 to 1985. Their facilities and layout are old and not in line with the needs of high-tech industries. In order to promote the renewal of the old plants and effective land utilization, increase the total floor area of the factory buildings available for use as well as improve the competitiveness and production efficiency of the technology industry in the park, HSPB has started to plan the renewal plan of the three batches of old standard factory buildings (Phases III to V) in the park since 2020. After approval by the Executive Yuan on April 9, 2021, and integration of 10 old standard plants in those three phases, they were dismantled and renewed into 9 standard factory buildings. The number of factory units increased from 88 to 196 with total floor area growing from 53,702 square meters to 366,004 square meters. The total cost is about NTD 27,256.7 million and the project period is from 2021 to 2035.

From April 2021 to October 2022, HSPB has completed the first batch (2 buildings) of the old plant renewal project (i.e., the construction of new standard factory in Phase III), including the selection of architects, planning and design of the project content, tendering and bid awarding, etc. It is expected that after the construction and completion of operation from 2023 to 2026, a total of 42 units (about 190 pings per unit) of standard factory buildings will be available for lease. The second and third batches will be renewed (i.e., new standard factory buildings in the fourth and fifth phases) in accordance with the renewal plan approved by the Executive Yuan.



New Phase III standard factory

■ Baoshan Site Expansion Project

In 2020, HSPB initiated the expansion plan after receiving approval from Executive Yuan to achieve the goal of maintaining the world leading position in semiconductor industry and to meet the land demand for construction of three to four 2nm mass production plants around the Hsinchu Science Park. The project is located in the Specific Area of Hsinchu Science Park - Hsinchu County (Baoshan Township) and near the border of Baoshan Urban Plan Area. The land acquisition process has completed in 2021, with 48.18 hectares of industrial land and 3.34 hectares of residential land, totaling 91.02 hectares.

For the purpose of providing the owners of land and land improvements with a full understanding of the procedures of purchase agreement and land acquisition as well as the agreed price (compensation fee) and incentive, HSPB held several public hearings and explanatory meetings besides conducting one-on-one purchase agreement with the owners, as well as visited the owners, local organizations and public representatives for communication and coordination.

With all the efforts, the rate of land acquisition by agreement with landowners at market price has reached over 90%, significantly reducing the number of compulsory acquisition methods. Several public hearings and explanatory meetings have been conducted, as well as one-on-one purchase by agreement with all owners, visiting all owners, local organizations and public representatives for communication and coordination. In order to minimize the loss of private property, HSPB not only handled all kinds of compensation and relief for the land and ground property in accordance with the regulations, but also encouraged land purchase by agreement with an additional incentive payment, which was recognized as lenient and favorable within law to protect the rights of all owners. In addition, the bureau has designated community land for residential placement and settlement, changed the relocation site of the Baosheng Temple to a religious specialized area and provided subsidies to the Baoshan Township Office for the construction of columbarium facilities at the Shuangxi Cemetery. Also, HSPB coordinated with the Ministry of the Interior and Hsinchu County Government to conduct a comprehensive review of the urban plan of surrounding areas for manufacturers' industrial land use and other resettlement measures in order to take care of both public and private interests.



Diagram of Baoshan Phase II Expansion Project

Hsinchu Science Park X-Site

HSPB drives the comprehensive development of the information and communication industry cluster, in which the vertical integration efficiency of the semiconductor upstream, midstream and downstream industrial chains has long been an international benchmark. The integration of software applications through advantages of hardware has prompted the industry to upgrade again. Consequently, HSPB promotes the Innovation Industrial Park – Hsinchu Science Park X-Site Project and continues to bring in software and hardware-software integration companies to join science park.

The X-Site of Hsinchu Science Park covers an area of about 3.76 hectares and is located within the 36-hectare X-Plan technology corridor on the Gongdao 5th Road launched by the Hsinchu City Government. The Executive Yuan approved the plan in July 2020 and is an important base to promote integration of software and hardware. The first building has been completed and opened in mid-2024 while the second and third buildings are expected to be completed and opened in December 2027. The companies to be stationed in are mainly industries related to R&D design, information software and services, software and hardware integration and smart applications. HSP also anticipates that the central and local governments will jointly develop Innovative Science Park and International New Innovation Demonstration Base to assist high-tech companies in combining academic and research resources and thus give full play to high-performance R&D energy, cultivate outstanding technological talents as well as stimulate local innovative R&D strengths. This can create a cluster that can incorporate regional advantages and development conditions, laying the foundation of future industrial development for the next generation.



Hsinchu Science Park X-Site

Hsinchu Biomedical Park

■ The third biotechnology building

In response to the fact that several companies have made appointments to move into the second biotechnology building during the construction period, HSPB has started planning for the construction of the third biotechnology building from 2019. The construction plan has been approved by the Executive Yuan in the letter No. 1090007977 dated March 27, 2020, and the construction contract was filed on January 27, 2021. The construction is scheduled to be completed on November 25, 2023, providing 50 units of biotech standard factory (including 12 units of 100 pings, 28 units of 200 pings and 10 units of 300 pings) for lease by manufacturers.



Third biotechnology building

Yilan Science Park

Park due to the restrictions of the EIA, which has resulted in a lower occupancy rate compared to other parks. In order to revitalize the park and promote the development of local industries, HSPB has actively communicated with the Yilan County Government and promised to appropriately open up the production of factories under the condition that the total amount of pollutant emission remains unchanged, in order to promote the upgrading of local industries and increase employment opportunities.

The Yilan Science Park has strived to pass the Environmental Impact Statement of the Yilan Science Park (reopened EIA) in January 2020, and opened up to industries such as precision machinery, biotechnology, green energy, communication and optoelectronic component systems. After the start of mass production, the land demand has also increased significantly due to the higher number of inquiries from related industries. By the end of March, the occupancy rate of standard factory buildings has reached 93% and the scheduled land occupancy rate is over 49%. The occupancy rate of land has reached 50% by the end of 2020 and there are still a number of companies applying to move into the park.

The Yilan Science Park is located in the center of the Lanyang Plain and is connected to the Taipei Metropolitan Area via the Hsuehshan Tunnel, making Yilan not only livable, but also a business-friendly city. To meet the high demand for factory buildings, the Science and Technology Bureau has started construction of the second phase of standard factory buildings in October 2019, which can provide 32 factory units and will be completed in December 2021. There are already a number of companies applying for booking.

HSPB and the Yilan County Government continue to cooperate to build a quality investment environment and make Yilan Science Park a new choice for investment in Northern Taiwan, so as to become a new intelligent and quality park that integrates the strengths of local industries.



Phase II standard factory building at Yilan Science Park

Tongluo Science Park

In order to increase the companies' interest to move in and create a win-win strategy for both industrial development and environmental protection, HSPB has applied for a turnkey project to upgrade the function of the conductivity treatment facilities at the wastewater treatment plant, constructing a high-conductivity wastewater treatment facility with an average daily treatment capacity of 4,500CMD and an external high conductivity wastewater transmission and collection pipeline. It is anticipated that the project will treat the high conductivity wastewater generated in the park through public investment to meet the irrigation water quality standards, enabling investors to work on industrial upgrading and create high yield value. The turnkey project has started in January 2021 and is expected to be completed in August 2023.



Image of the brine room of sewage treatment plant in Tongluo Park

Longtan Science Park

After land acquisition of the second phase in 2019, HSPB started to handle the development work of the site. The bureau completed the submission and approval of soil and water conservation plan for Phase II site in October 2020, and the design, contracting and construction of the new soil and water conservation facilities in September 2022. Besides, the design and contracting of the Circle 2 Parking Lot, Distribution Pool and Sports Center Complex Building Project took time from December 2020 to February 2023. The construction will be carried out from February 2023 to December 2025, and is expected to be opened in June 2026.

G.2.2 Benchmark Factory Expansion

1. Polaris Pharmaceuticals sets up factory in Yilan Science Park

Polaris Biopharmaceuticals, Inc. will be established in Yilan Science Park with an investment of NTD 2 billion to serve as a new cancer drug production plant and to develop biopharmaceutical OEM business, including nanotein culture medium and mRNA biopharmaceuticals or vaccines, which is expected to increase 222 job opportunities.



2. Powerchip Semiconductor Manufacturing Corporation (PSMC) expands its factory in Tongluo Science Park

Invest NTD 278 billion to build two 12-inch wafer fabs and held the groundbreaking ceremony on March 25, 2021. The initial mass production is expected to begin in 2023 and the capacity will continue to expand, adding 3,000 vacancies and reaching an annual production value of over NTD60 billion.

3. Hon Young Semiconductor Corporation builds plant at HSP

Invest NTD 3.76 billion in silicon carbide power components (SiC), microelectromechanical sensors (MEMS) and silicon related products (ultra-high voltage and power management ICs, etc.) to accelerate the formation of compound semiconductor industrial chain in Taiwan, which is expected to create 344 jobs.



4. Shin-Ho Instruments Co., Ltd. builds factory at Tongluo Science Park

Invest more than NTD 400 million to build a new sterilization plant in Tongluo Science Park and hold a groundbreaking ceremony on July 30, 2021, introducing Belgian's IBA photon and electronic irradiation sterilization systems to develop effective irradiation and sterilization technologies.



5. Groundbreaking for E Ink Holdings Incorporated office buildings in HSP

Invested NTD 1.912 billion in a new factory building at the existing site and held a groundbreaking ceremony on December 6, 2021. Aiming to integrate upstream and downstream R&D resources of e-paper technology and to keep advanced R&D technology in Taiwan.

6. Groundbreaking of Innodisk Corporation at Yilan Science Park Phase II

Invested NTD 580 million in a new factory in Yilan Science Park. The groundbreaking ceremony was held on February 19, 2022. Invest in development and manufacturing of flash memory, 5G global network and servers. It is expected to complete and start mass production in the fourth quarter of 2023, creating approximately 190 job opportunities.



7. Super Energy Materials, Inc. new plant at Longtan Science Park

Invested NTD 1 billion to build a new plant in Longtan Park. The groundbreaking ceremony was held on March 10, 2022. Going to start the production of electronic grade silicon nitride (SiN) powder, which is expected to be completed by the end of 2023.

8. Groundbreaking of Ardentec Technology Inc. new factory at Longtan Science Park

Invested NTD 1.6 billion to build a new factory in Longtan Science Park. The groundbreaking ceremony was held on June 30, 2022, providing testing technology and services for system-level packaging products, which is expected to be completed by the end of 2024 and will open about 700 job vacancies.



9. PharmaEssentia Corporation set up new plant at Jhubei

Invested NTD 5.1 billion in the construction of a new plant in Hsinchu Biomedical Park. The groundbreaking ceremony was held on October 20, 2022, for the bio-production of long-acting interferon Ropoginterferonalfa-2b (Ropog, P1101). The project is expected to be completed in 2025.

G.2.3 Launching of New Plant

1. Launching of VisEra Technology Co., Ltd. new plant at Longtan Science Park

In response to the market demand for image sensors, 3D optical components and optical fingerprint sensors, VisEra has invested NTD 15 billion in a new factory in Longtan Park. The plant has been launched on June 29, 2022, and provides advanced image sensor and micro-optical component manufacturing technologies and sufficient production capacity, thus creating another peak of semiconductor industry in HSP.



2. Launching of Fox Automation Technology Inc. new factory

In order to expand the production capacity of semiconductor equipment, machine modules and key spare parts, Fox Automation Technology Inc. invested NTD 2.4 billion in setting up a new factory in the Jhunan Science Park. The new plant has been launched on October 6, 2022, and will continue to expand production capacity and revenue in response to strong market demands for advanced processes such as 5G, AI, high-performance computing and electric vehicle applications, while at the same time strengthening the supply chain of upstream and downstream manufacturers in the semiconductor industry, as well as enhancing the global competitiveness of our semiconductor industry cluster.



G