

## Investment & Approval

In 2003, 34 enterprises were set up with a total approved investment of 177.9 million USD. So far altogether 127 enterprises have been accepted with a total investment of 37.8 billion USD including 31 optoelectronics firms, 31 precision machinery manufacturers, 25 biotechnology companies, 22 semiconductors, 14 telecommunications enterprises, two producing computer

peripherals and two others. Industrial clusters are forming to give competitive edge to its components. Of the corporations admitted, 55 have begun mass production and 19 are under construction.

Total turnover have grown dramatically from 3.2 million USD in 1998 to 4.6 billion USD in 2003. The growth rate in 2003 was 50.63%.

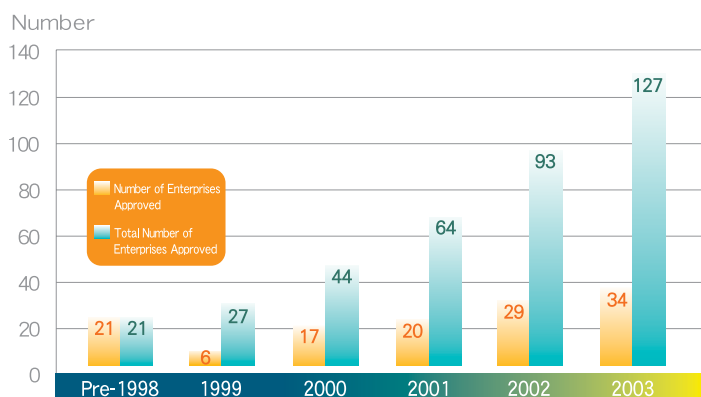


Figure 5-1-1 Number of Enterprises Approved Each Year

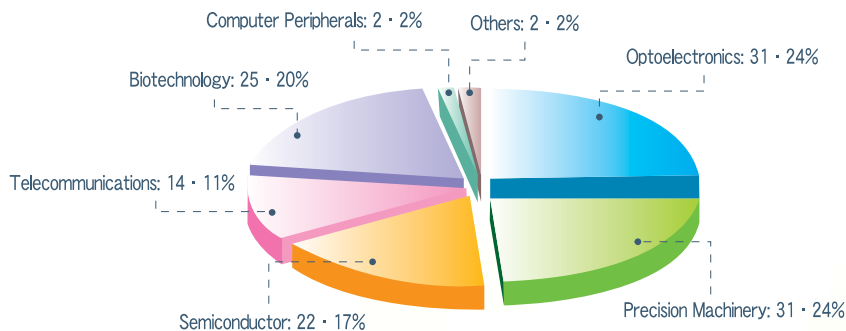


Figure 5-1-2 Total Number of Enterprises Approved by Industry

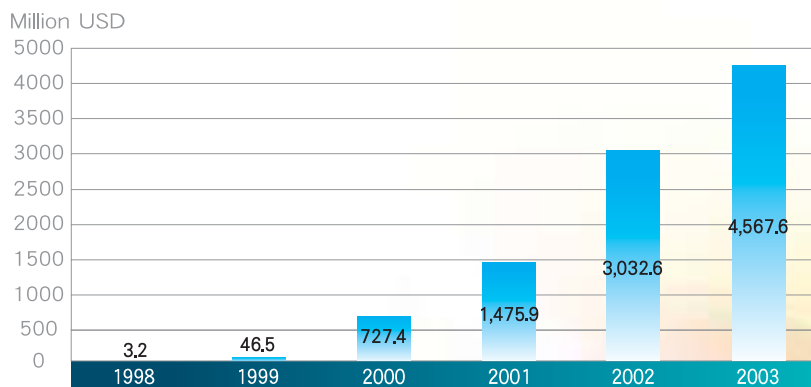


Figure 5-1-3 Turnover of the Resident Enterprises Each Year

The number of employees has grown significantly each year. The economy was slow in 2001, but 2,561 (or 37%) more staff were recruited that year. In 2002, 5,604 people were taken on, and in 2003, 6,303 to reach a total of 21,374. Over the last two years the number of employees on average has grown by 50% each year.

The optoelectronics industry accounted for 58.8% of the employees, and the semiconductor industry came in second with 29.4%.

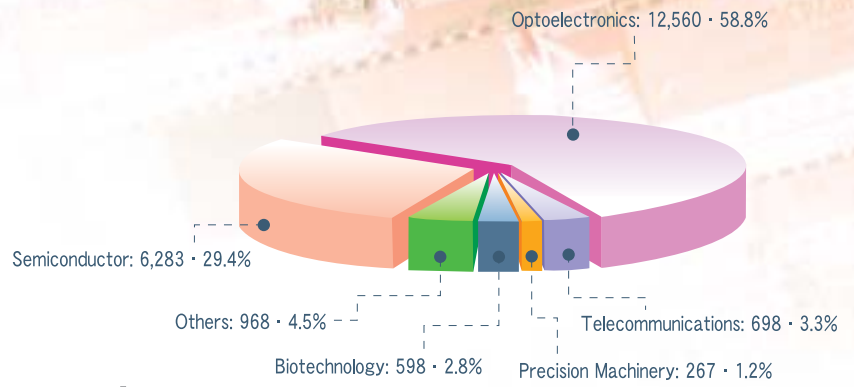


Figure 5-1-5 Number of Employees by Industry

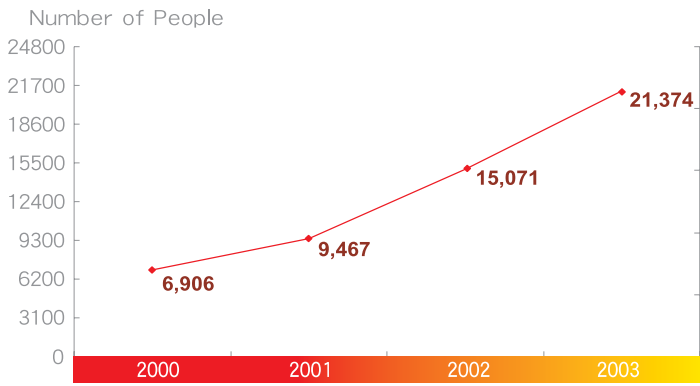


Figure 5-1-4 Number of Employees Hired Each Year

## Innovation and R&D Subsidies

R&D and innovation determine the competitive edge of the high-tech industry. To encourage technological R&D and innovation, the STSP Administration began to set aside subsidies in 2001 to give park enterprises the incentive to engage in R&D. 618 thousand USD, 706 thousand USD and 706 thousand USD were prepared and 8, 7 and 10 cases were approved for 2001, 2002 and 2003 respectively. R&D subsidies have resulted in 11 patented inventions, and the sales the newly developed products brought in came to a total of 27.4 million USD.

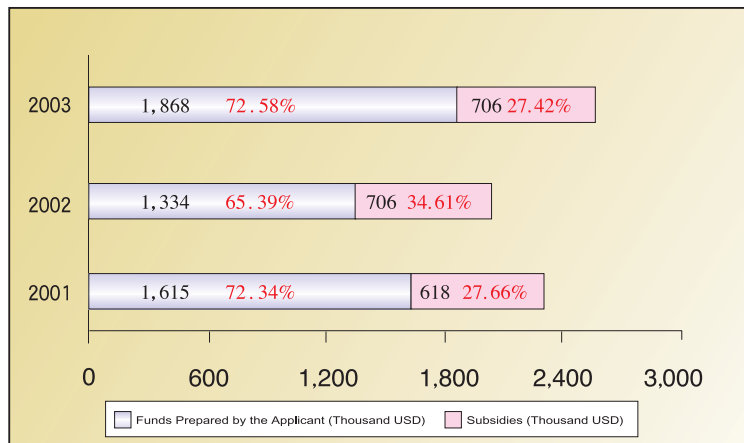


Figure 5-1-6 Innovation and R&D Subsidies Each Year

# Power

## Industrial Clusters

### Semiconductor Cluster

Up to 2003, 22 semiconductor manufacturers had been admitted, including IC design, IC manufacturing, IC packaging/testing and semiconductor equipment. A complete supply chain for the semiconductor industry has been established. Taiwan Semiconductor Manufacturing Company (TSMC) has completed two 12-inch chip foundrys. The first one is being equipped for operation, and the second one is under construction. The 12-inch chip foundry

of United Microelectronics Corp. (UMC) has begun mass production. The company will also set up its central R&D center in Tainan Science Park, which is expected to lead other science parks in processing technology and in the density of 12-inch chip foundrys.

The turnover of the semiconductor industry were 1,791 million USD in 2003, up by 56.46% from 2002.

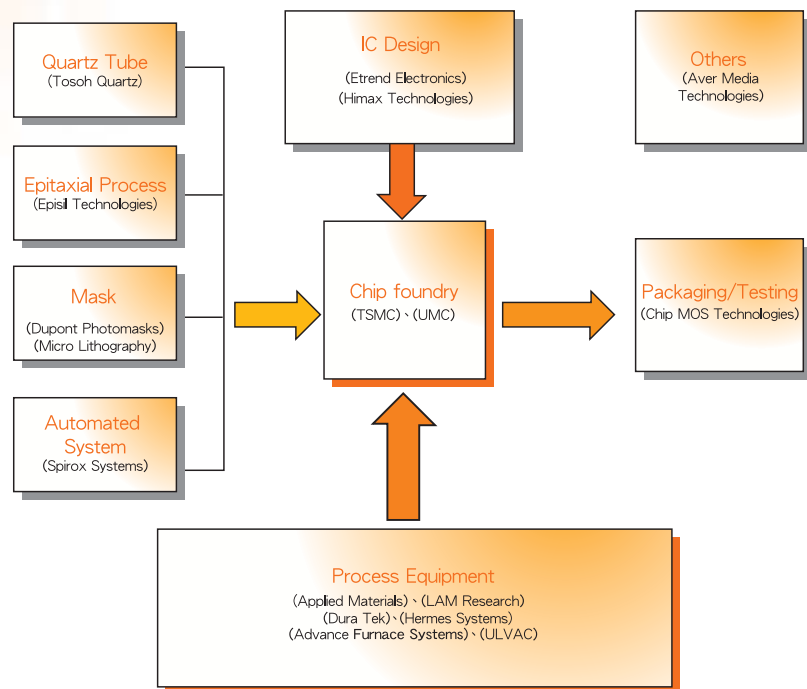


Figure 5-1-7 Semiconductor Industry Cluster

### Optoelectronics Cluster

The TFT-LCD industry of STSP enjoys unparallel vertical integration. Altogether there are 31 park enterprises, ranging from crucial upstream elements, such as glass substrate, color filter, CCFL, polarizer, back light module and IC driver, panel of the midstream sector, to LCD-TV of the downstream sector. Both Chi Mei Optoelectronics (CMO) and HannStar Display have begun mass production. The fact that the two have leased 492 acres of land for building sixth or seventh-generation LCD fabrications indicates STSP is becoming one of the world leaders in manufacturing surface monitors.

The turnover of the optoelectronics industry were 2,639 million USD in 2003, up 71.43% from 2002.

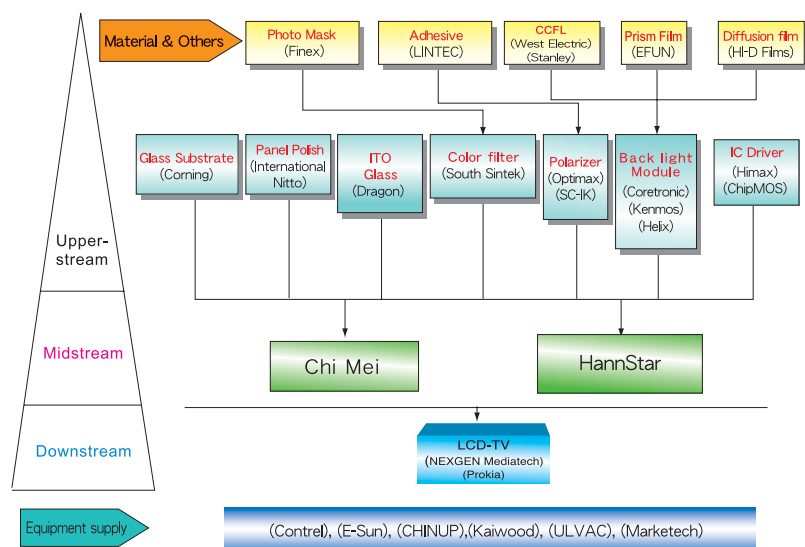


Figure 5-1-8 Optoelectronics Industry Cluster

# Human Resources Training & Academia-Industry Cooperation

## Biotechnology Cluster

To welcome the arrival of the biotechnology era, the STSP Administration has incorporated the R&D resources of industrial enterprises, Agricultural Council's Livestock Research Institute, Academia Sinica's Biotech Experiment Center, universities of southern Taiwan and Asian Vegetable Research and Development Center. Along the High Speed Rail it has set aside a 111-acre biotech zone and built a standard cGMP plant so that STSP will become a strategic base for the biotechnology industry. Up to 2003, 25 biotech enterprises have been attracted to the establishment.

The turnover of the biotechnology industry were 15.6 million USD in 2003, up 116.38% from 2002.

To assist park enterprises with professional education and on-job training for the enhancement of R&D capacity, the STSP Administration in 2003 began to offer optoelectronics, semiconductor, biotechnology and telecommunications courses. 864 participants took part in 16 training programs. In 2003 we assisted the Academia-Industry Consortium for STSP in setting up four promotional committees on biotechnology, semiconductor, optoelectronics and telecommunications respectively. The main purpose of these committees is to encourage exchanges of talents and technologies between academic institutes and park enterprises.

To integrate R&D resources and provide a more diversified incubational environment, the Ministry of Economic Affairs' Small and Medium Enterprise Administration has established the Incubation Center, a 3.7-acre facility



Figure 5-1-9 Incubation Center within STSP

with 3,960 square meters of software and hardware equipments, in Tainan Science Park. It was officially opened on November 16, 2003 to serve as an incubational platform for industry, government agencies and academic/research institutes.

Following the establishment of NDJ, NCHC, CIC and ITRI's branch, in 2003 the R&D centers of both National Cheng Kung University and National Chung Cheng University were approved to provide technological consultation services and further the cause of resource sharing. The R&D center of National Chung Cheng University was officially unveiled on November 16, 2003.

Table 5-1-1 Biotechnology Industry Cluster

Industries	Flagship Entity	Clustering Effect
Biotechnology	ScinoPharm	<p><b>Four Vaccines:</b> Tuck More Biotechnology、GenMont Biotech Inc.、G&amp;E Herbal Biotechnology、TaiMont Biotech</p> <p><b>Six Inspection &amp; Test Chips:</b> Tanasia Pharma、Asia Gen、Oncoprobe Biotech、As. Pire Bioresearch、Gongin Precision、Long Term Bioresearch</p> <p><b>Seven Bio-Pharms:</b> Scino Pharm、RNA Biotechnology、Scino Pharm Biotech、Safe Protecta Technology、Char Sire Biotechnology、Anaspec International、Gene Ferm Biotechnology</p> <p><b>One Genetic Data:</b> VITA Genomics</p> <p><b>One Medical Supplier:</b> Sun Max Biotechnology</p> <p><b>Four Herbal products:</b> Universal Biotech、Jojia Bio-Tec、Kaiser Biological Science、Green Health Biotechnology</p>



Figure 5-1-10 Opening Ceremony for National Chung Cheng University's R&D Center

## Enterprises Recruitment

In 2003 the STSP Administration planned to participate in numerous international exhibition and enterprises recruitment activities to introduce STSP to the world.

### International Enterprises Recruitment

In 2003 the STSP Administration went to Japan, Europe and America (Los Angeles, Houston, Chicago and San Francisco) to hold enterprises recruitment activities and received much attention. The trip to Europe resulted in a visit from the biotech delegation from Netherlands to STSP in October 2003. About 25 local media agencies reported this enterprises recruitment activities. The STSP Administration also signed cooperation memorandums with some local enterprises of U.S.A..

### Domestic Enterprises Recruitment

In 2003 the STSP Administration held two local enterprises recruitment presentations, one in the Splendor (Hotel) - Taichung and one in the Ambassador Hotel - Kaohsiung, attracting the participation of more than 300 corporate representatives. About 20 of the companies represented have talked to us about their investment projects in the future.



Figure 5-1-11 Dutch Representative with Kaohsiung County Magistrate, Tainan County Magistrate and Director-general Tai of the STSP Administration



Figure 5-1-13 A Biotechnology Delegation from Netherlands Visited Tainan Science Park



Figure 5-1-12 Signing a MOU with AOI of Chicago

## Participation in Domestic Exhibitions

We participated in the Taiwan Biotech Exhibition in May 2003 and "Bio 2003" Biotech Exhibition in July 2003, working with the Park' biotech enterprises in the planning of STSP Biotech Exhibition Hall to demonstrate

the potential of STSP in biotech development. We also held the biotech forum.



Figure 5-1-14 Bio 2003 Exhibition

During the participation in 2003 Taiwan Business Alliance Conference, the STSP Administration employed a concept that highlights the rapid development of STSP in recent years, as well as the design of the East Gate of Tainan Science Park, to show how STSP has played an instrumental role in the recent economic recovery. Many people stopped to speak with us.



Figure 5-1-15 2003 Taiwan Business Alliance Conference

## Investment Promotion

The Product Exhibition Room was completed In 2003 to introduce visitors to the industrial development of STSP. Introductory literature, tapes and discs have been renewed, and a commemorative stamp collection set named "The Beauty of the Southern Taiwan Science Park" has also been completed.

In 2003 the China Post (reporting on STSP in English), Nikke Magazine (reporting on STSP's optoelectronics cluster in Japanese) and Sinorama Magazine (reporting on STSP in Chinese, English, Japanese and French) were invited to write special reports for STSP. During the 2003 Taiwan Business Alliance Conference, media from France, Germany, Holland, Italy, Brazil, Japan and U.S.A. were invited to visit the STSP and report on it.

## Domestic & International Visitors

The number of visitors dropped abruptly between April to June of 2003 because of the SARS outbreak, but there were still 3,597 visitors that year.

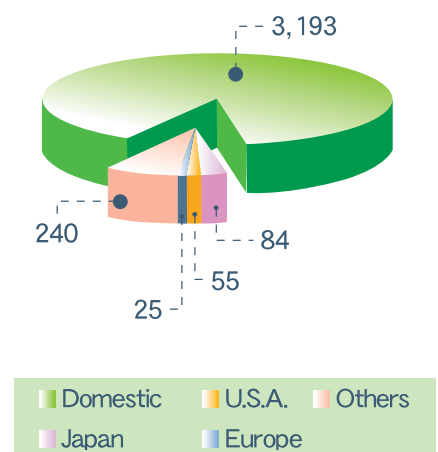


Figure 5-1-16 Statistics of Visitors