**Venture Business** Korea's Choice for the 21st Century

# A New Industrial Paradigm for the New Millennium

The world increasingly is a single market. Product life cycles are shorter due to ceaseless technological developments, and consumer demands are more diverse. Accordingly, industrial structures are switching from being mass production and labor-intensive to being flexible and information-intensive, allowing multi-product, small-run productions.

In response to the currency crisis of 1997, the Korean economy has been subject to fundamental, radical structural reform, focusing on "dismantling and reconvening" the chaebol-centered economic structure and creating new opportunities for the nascent companies of the venture sector.

The role of venture businesses in the revitalization of the American economy presents an optimal solution for Korea to the problems of unemployment and weak industrial competitiveness as well a pathway to balanced development.

# Korea's Choice for the 21st Century

Korea began an economic recovery in 1999 and the country's sovereign credit rating has been continuously adjusted upwards. However, the Korean government is dedicated to implementing policies to achieve a second industrial take-off.

The Special Measures Act for the Promotion of Venture Business was enacted in August 1997 to allow private funds to be invested in venture businesses. Liberalizations in KOSDAQ registration and the acquisition of venture business stocks by foreigners, plus the formation of venture towns have served to open doors for foreign investment in venture business.

The government has a goal of having 20,000 new venture businesses created by 2002 to create a more advanced industrial organization. The government will also encourage the development of high-tech industry to prepare for the knowledge-information society of the 21st century, thereby further revitalizing the economy. Increased venture businesses will expand the economic arena and create additional employment opportunities.

# **Korea's Venture Option**

The Special Measure Act for the Promotion of Venture Business parallels overseas legislation made to give a legal definition to venture business in order to support and nurture it. The law allows benefits to venture businesses with respect to funding, personnel, factory location and taxation.

# Venture Defining Business

Korea's government-oriented concept of venture business is different from other countries, whose such businesses are niche market-based, technology driven and vanguard productled, or benefit from venture capital investment.

Туре	Classification Criteria
Venture capital investment company	• Start-up company with new technology, or if 10% of equity (more than 20% including stocks, and convertible bonds) is investment by the Korea Venture Investment Association.
R & D investment business	<ul> <li>●R&amp;D expenditures exceed 5% of total sales of most recent fiscal year.</li> <li>- includes businesses started prior to July of that year.</li> </ul>
Patent technology (new technology) development business	<ul> <li>Patent rights and technology development sales exceed 50% of total sales, or exports exceed 25% of the same.</li> </ul>
Top ranking venture business	•A firm ranked highly for its technological/operational abilities by the Venture Business Rating Agency (Start-ups, firms developing independent technology, or, not satisfying the above criteria).

Korean venture businesses are classified into venture capital investment companies, R & D investment businesses, new technology development businesses, and high ranking start-up businesses. As of the end of April, 2,901 firms were registered as venture businesses.

# ■ N ew Technology Development Businesses

Firms whose sales from patent rights, practical new device patent rights, government-supported new technologies and sophisticated technologies introduced from overseas constitute 50 percent, and exports 25 percent of total sales. They number 1,147, 41 percent of all venture businesses.

#### ■ R&D Investment Firms

Those companies where R&D exceeds 5 percent of total sales; they number 886 (29 percent). Many have roots in SI firms or research institutes. Small in size, they await their chance to enter the market while focusing on the development of new products. Generally unrecognized for their technological or commercial abilities.

#### ■ Venture Capital Investment Firms

Firms where over 10 percent of equity is from investment by start-up investment companies or new technology financing companies; over 20 percent, including convertible bonds. They number 567, 20 percent of the total.

# ■ Top-ranking Venture Businesses

Includes recently established superior-level start up firms distinguished by excellence in technological ability and entrepreneurship; number 301 or 10 percent of total firms. Includes, too, SMEs holding or in the process of developing independent technology, particularly patent technology and new technology firms that don't yet meet venture business criteria.

# **Creating New Opportunity**

Korean venture businesses have proven competitiveness despite unfavorable conditions. Venture businesses are largely responsible for the high export performance of the high-tech SME sector, despite the general slump in exports.

Venture businesses emerged as a definite type in the United States' Silicon Valley in the 1950s and increased following the opening of NASDAQ in the 1970s. Spin-off from NASA research and the defense field provided the foundation for the venture sector which most studies say is responsible for the American economic recovery.

# Gaining Momentum

Korean venture businesses proliferated with the appearance of new technology financing companies in the early 1980s, the start-up investment companies later in the decade, and after the over-the-counter KOSDAQ market opened in 1987. Following Qnix Computers in 1982, the information, telecommunications and software industries has spawned many venture companies.

Venture businesses grew steadily in the early 1990s despite a shrinking capital market and countless SME bankruptcies. In 1997 discussion focused on venture, especially high-tech, businesses being supported by government to escape the chaebol high-cost/low-efficiency industrial structure and gain competitiveness. This resulted the Special Measure Act for Promotion of Venture Business of Aug. 28th 1997

## Venture Sector Overview

As of April 1999, some 2,900 SMEs were registered as venture businesses. Their 1997 sales stood at 64,527 billion won. With growth in sales of 21.9 percent, sales profits, 19.4 percent, and an R&D investment ratio of 24.1 percent, they significantly outperformed the rest of the business sector. While only one-thirtieth the number of ordinary enterprises, venture businesses account for one-quarter of their total sales.

Most, 891 firms (or 31 percent), are in the electronics and information industry; 854 (29.3 percent) in machinery and metals; 442 (15.2 percent)in electrical equipment and household appliances related companies; 365 (12.6 percent) in the field of textiles and chemicals; 189 (6.5 percent) in the medical instruments and precision machinery field; and 160 (5.5 percent) in other areas.

Business Sectors	No. of Venture Businesses	%
Total	3,205	100.00
Food and Beverages, Textiles, Lumber, Printing	157	4.90
Petrochemicals	244	7.61
Non-metal and Metal Product Manufacturing	287	8.95
Machinery Manufacturing	539	16.82
Electrical Equipment and Apparatus	445	13.88
Movie, Sound, and Communications Equipment Manufacturing	345	10.76
Medical, Precision Machinery, Optical Instruments	167	5.21
Furniture and Other Manufacturing	115	3.59
Information Processing and Computers	715	22.31
Others	191	5.9

#### **Korean Venture Business Profile**

Type	Venture capital invested businesses	R & D investment businesses	Patent technology (new technology) development businesses	New technology developmen t businesses	High appreciat- ion venture businesses	Other	Total
No. of Firms	599	912	871	320	503	10	3,215
%	18.63	28.37	27.09	9.95	15.65	.31	100

The greatest number, 1390 firms, were established prior to 1992; 795 from 1993 to 1995, 380 in 1996-97. The remaining 336 firms were established after 1998.

# Number of Venture Businesses Established per Year

Type	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total
No. of Firms	136	150	181	232	268	333	454	427	114	3,205

Average capitalization stands at 1.2 billion won; there are 113 firms with over 5 billion won, 424 with 1 to 5 billion, 480 with 0.5 to 1 billion, 1132 firms with 100 to 500 million, and

418 firms with under 100 million in capital.

Firms with sales of 0.5 to 1 billion won were the greatest in number (969), followed by 888 firms with sales of 1 to 5 billion, 435 firms with sales over 10 billion won, and 281 with sales of less than 0.5 billion.

By the background of principals, the largest number, 1,413 (48.7 percent) were from SMEs, 931 (32.1 percent) from large companies, 264 (9.1 percent) were researchers, and 58 (2.0 percent) were academics. The figures show that many venture business principals have branched out from large companies or SMEs rather than starting businesses fresh out of college.

The average age of a principal is 43.7; there are 1,245 in their 40s, 630 in their 30s, 798 in their 50s, 203 are over 60, and 30 are in their 20s.

Korean venture firms have sales growth rates three times that of ordinary enterprises. Operational profit rates are five times, and R&D expenses more than 84 times, that of ordinary firms. However, the ratio of owner capital remains at 24 percent, close to that of ordinary enterprises at 20.5 percent.

# **Venture Policy**

The government's venture business support policy is all-inclusive. It covers the inauguration, funding, and growth of venture businesses. Foreign venture regard Korean venture business policy as extremely advanced.

Rather than the venture business system being free market-based, the government has different support systems which private institutions and firms must follow, in a manner similar to the government-led economic strategy of the early stages of Korean development.

## Market-oriented Growth Strategy

However, it is notable that while the government supports venture businesses with respect to technology and funding, it emphasizes them securing markets where they may sell the goods produced.

The Measure for the Promotion of Venture Business is designed to ease restrictions on venture companies. As creativity and entrepreneurial spirit are crucial to the success of venture companies, the main focus of the special law is on deregulation in order to provide a fertile business climate.

## ■ The Easy Approach to Establishing a Venture Business

Research collaboration between business, academia and research institutes means the Korean economy now has a virtually unlimited range of technical and human resources.

A government start-up program accelerates collaboration in research between companies and research organizations. Researchers and academics can establish start-up companies in university or research institute laboratories so fostering links between industry and academia as a means to promote technical innovation and long-term growth.

# ■ Minimum Share Capital Requirements

The minimum issued and fully paid-in share capital requirement for a stock corporation is 50 million won. The 1997 venture business law, however, requires a venture company to have a minimum issued and paid up capital of 20 million won. The aim is to enable an academic, a laboratory worker or a engineer, say, to easily establish a venture company.

#### Ensuring Adequate Financing

Pension funds, investment trust companies and insurance companies previously had to obtain government approval before investing in unlisted companies. The government has now reversed its stand to encourage the flow of capital to venture companies in recognition that venture companies offer the opportunity to realize exceptional returns.

Also, foreign investors can now participate in venture capital financing in Korea, on condition they submit a report to the relevant authorities after the fact. Previously, advance approval was required.

While foreign investors were prohibited from acquiring stocks of unlisted companies and faced specific ceilings on ownership of stocks of listed companies, there are now no limits on foreign stock ownership in a venture company.

#### Expanding Public Funding

The governments will provide 100 billion won in matching funds for start-up investment companies to enable them to invest in suitable target companies. Another initiative is the public "Korea Venture Fund" which has a projected capitalization of 250 billion won.

# Providing Incentives to Investors

Individual investors will receive a 20 percent reduction on income tax on investments in venture companies. Venture capital used in launching business start-ups will not be subject to investigation to determine its source, and dividends paid on venture capital investments will be taxed separately and exempted from comprehensive tax provisions.

A so-called "Angel" capital program is designed to provide a channel for individuals to invest in newly started venture companies.

## • Facilitating the Supply of Plant Sites

Government venture policy in this area has two objectives: first, to provide incentives for venture companies to gather in high-tech "clusters" thereby providing opportunities for synergy benefits through the exchange of technical information and business experiences; and second, to step up deregulation, thereby creating circumstances where viable venture companies can more easily acquire plant sites.

#### Venture Net

To and create a marketing and resource base for the venture sector and foster its growth, the government in June launched Venture Net (http://venture.smba.go.kr), modelled on ACE Net of the United States. The site allows venture businesses quick access to information vital to management and technological development such as on investment, recruitment, venture business start up, and domestic and overseas marketing.

The government has opted to sponsor the network on the grounds in order to provide a fast-track approach to problem-solving for venture businesses which are short on human resources.

# The Venture Support Network

Government support has acted as a spur to the establishment of venture businesses. Meanwhile, government policy also involves providing suitable locations for individual businesses through the construction of venture towns and specialized complexes.

Venture business site support policy aims to provide a support framework to nurture venture businesses in their early stages; and provide infrastructure to serve venture businesses in areas where they have concentrated. Venture business promotion districts provide comprehensive support to venture businesses where they have chosen to cluster. They include Seoul's Poi-valley, home to over 2,500 venture companies, and Techno Park, a venture-only compound on the lines of Silicon Valley.

The support framework for venture business comprises five major localized organizations: the Technology Business Incubator (TBI); the Business Incubator (BI); the Software Start-up Support Center; the High-Tech Commercialization Center; and the Information and Telecommunications Start-up Support Institute.

Technology Business Incubator (TBI)

Run by the Korea Institute of Industrial Technology Evaluation and Planning (KITECH) under the auspices of the Ministry of Commerce, Industry, and Energy (MOCIE), the TBI Centers were launched in 1994. Forty designated centers now operate in government-sponsored research institutions in universities, KITECH, and the Korea Atomic Energy Research Institute. TBI Center are geared to providing practical funding, plus technological and management expertise.

Business Incubator (BI)

Under the jurisdiction of the Small and Medium Business Administration (SMBA), 33 BI centers have been designated in the major district headquarters of the Small & Medium Industry Promotion Corporation (SMIPC), universities, and government-sponsored research institutes.

BIs provide support by contributing seed money and furnishing joint facilities. However, as of this year, SMBA-hired field-specific BI experts now focus on resolving problems specific to individual centers.

Software Start-Up Support Centers

The government uses its exiting facilities such as regional post offices to operate Software Start-Up Support Centers for companies specializing in software. There are presently seven such centers in the major cities of Seoul, Pusan, Inchon, Kwangju, Taejon, Taegu and Chunju, each center operating 17 sub-centers or support offices.

High-Tech Commercialization Centers (HTC)

The major Korean think tank, the Korea Advanced Institute of Science & Technology (KAIST), launched the New Technology Start-Up Support Group to encourage the

establishment of venture businesses in the pure sciences. There are currently 38 venture businesses operating under the aegis of the HTCs, with 30 more under consideration for sponsorship.

Information and Telecommunications Start-up Support Centers

The government provides joint facilities such as PCs and communications equipment in universities via the Information and Telecommunications Start-up Support Centers. As of April, 25 such centers were operational in 25 universities nationwide including five women's universities.

# The Korean Venture Experience

# ■Short History, High Potential

The venture capital industry in Korea started in 1986 with the establishment of the Small Business Investment Co. as a promotional pilot project.

A venture investment company finances and assumes the entrepreneurial risk associated with a venture businesses. Venture investment companies in Korea focus on equity investment in small scale businesses of histories shorter than 14 years, and receive government support in the form of low-interest loans, equity funding, and tax incentives.

The original 11 venture investment companies established in 1986 have since mushroomed into the current 67.

# Creating Wealth

Venture capital investment stood at 770 billion won level by the end of 1998.It has since rocketed to 3.2 trillion won in 2,000 companies. The number of KOSDAQ-listed companies has increased steadily. The venture capital market is expected to further expand in response to the government's venture business support initiatives.

Since their first appearance in 1986, venture capital companies have experienced problems of garnering funds and maintaining liquidity. Many venture capital companies folded as a result, causing many to doubt their viability. However, due to the boom in the stock and OTC markets, the value of some companies' stock has risen from 5,000 won par value by more than 3,000 percent to exceed 150,000 won.

# **Creating Investment Opportunity**

There are broadly two types of Korean venture investment company: the 71 venture capital companies; and the four new technology investment financing companies.

Although their functions are similar, venture capital companies focus on equity underwriting and convertible bond issuance, and new technology financing companies meeting the capital needs of technology-intensive businesses,

Tax incentives are offered on investments in venture businesses to tap idle funds, no questions being asked about their source. More than 20 venture capital companies have been established since 1996, powerful evidence of the efficacy government policy in this area.

#### The Rise of Venture Capital

Venture capital funds have increased five-fold from 0.77 trillion won in 1993 to 3.7 trillion won as of March 1999. They are primarily procured by issuing capital stock overseas and via funds raised by investment associations.

# Aggregate Fund Raising by Venture Capital Companies

Unit: billion won

Year	93	94	95	96	97	98
Amount	774	868	1,180	1,838	3,014	3,715

# Fund Composition of Venture Capital Companies

Unit: billion won

	Limited Partnership	O/s Dept Financing	Capital	Others	Total
Amount	900	1,501	1,009	305	3,715

Funds from overseas loans make up 10.7 percent of the total, limited partnerships (LPs), 41.7 percent, and capital stock 47.4 percent. Investments via partnerships are likely to grow with government support, including further tax incentives.

Some 97 LPs were formed by the end of March 1999, a direct encouragement to the revitalization of the KOSDAQ. Out of a total LP capitalization of 861.3 billion won, 275.3 billion won (32 percent) was raised overseas and 289.1 billion (35 percent) from domestic ordinary enterprises. Totals of 112.5 billion won (13 percent) and 69.8 billion won (8.1 percent) were invested, respectively, by venture capitalists and financial institutions. Venture capitals should become even more prominent as investments by financial institutions, pension funds, and investment funds are liberalized and broader tax incentives are offered to individual investors.

#### Limited Partnerships by Category (as of March 1999)

unit: 100 million won

	Individuals	Corporate	Institutional investments	Investmen t companies	Governme nt	Foreign	Total
Amount of Investment	482.32	2,891.23	697.50	1,125.08	663.25	2,753.70	8,613.08

Trends in Limited Partnership Formation unit: billion won

	92	93	94	95	96	97	98
No. of LPs	36	41	47	66	71	79	92
Amount	194	226	349	685	719	831	900

Most LP formation has been dominated by manufacturing companies or financial institutions, but venture fund composition by individuals has recently been on the increase.

# The KOSDAQ Market (Korea Securities Dealers Automated Quotation System)

The Window of Investment Opportunity for SMEs and Venture Companies

The KOSDAQ was established to provide venture businesses with access to liquid investment funding. It is the primary securities market through which venture businesses procure direct financing since it is difficult for them to access the Korea Securities Exchange (KSE) because of its strict listing requirements.

The government is reorganizing the KOSDAQ to be a entity separate from the KSE. Like the NASDAQ in the U.S., the new KOSDAQ market will eventually help SMEs and venture companies acquire direct financing.

As of June 1999, over 340 firms were registered on the KOSDAQ for a total valuation of 13.3 trillion won. Considering that its total market value stood at 7 trillion won as of the end of 1998, the following six months represent an explosive increase in growth. During the same period, the KOSDAQ venture index increased 262 percent.

# Promotional Policy for the KOSDAQ Market

The government's radical package of measures announced in 1999 is designed to nurture the KOSDAQ into becoming a high-tech venture business capital market. The government judges its development as a precondition for the takeoff not only of the venture sector, but also for a second takeoff of the Korean economy in order to transform the national economic structure to one based on high-potential/growth SMEs.

Among the measures is provision in the "Special Law on Promoting Venture Businesses" designed to ensure KOSDAQ securities "receive the same treatment [from capital markets] as those of listed companies on floor markets."

It is expected that the new measures will boost their liquidity on the KOSDAQ and ease the procurement of funds by venture businesses through the issuance of stocks, convertible bonds, bonds with warrants and non-guaranteed bonds.

Also, tax incentives will be granted to KOSDAQ companies and registration requirements will be greatly relaxed, prompting almost daily announcements of registration plans by Korea's 750 most financially secure high-tech firms. Enhancing the liquidity of high-tech venture companies shares that do not yet satisfy registration requirements is another priority of government. Possible solutions: opening an OTC market, a third stock market to complement the KSE, or the KOSDAQ market.

Many KOSDAQ-listed venture firms have witnessed the volume of their transactions and stock prices rise over 1,000 percent this year. Because of this performance, interest by institutional and individual investors in the market has never been higher.

#### **KOSDAQ** Market Promotion Measures

- Relaxation of KOSDAQ registration requirements
- Tax incentives
  - To encourage the building of reserves for business losses by allowing up to 50% of income to be included as loss
- Encourage the 750 high-tech blue-chip venture businesses to register on KOSDAQ
  - To optimize direct financing opportunities for small and medium-sized venture businesses
- Promote public offerings of new securities
- To eliminate regulations requiring selection of a single managing underwriter and encourage diversification of ownership
   Restrict sales by majority shareholders for a period of six months after subscription of
- - To protect investors from loss due to a fall in stock price

<Major KOSDAQ Market Statistics>

		Listings		Da!J !	Charre	Total	Trading v	olume	Trading value		
Year	New	Cancelled	Total	Paid-in capital (bil, won)	Shares issued (no. of shares)	Total market value (bil. won)	Total (no. of shares)	Daily avg. (no. of shares	Total (bil. won)	Daily avg (mil. won)	
1988	12	4	27	32.4	6,312	57.6	486	1.7	4.3	14	
1989	24	4	47	105.6	20,671	215.3	1,624	5.6	13.5	50	
1990	22	3	66	203.3	39,655	426.1	1,216	4.2	11.7	40	
1991	21	10	77	857.7	169,668	1,340.1	911	3.1	8.8	30	
1992	55	6	126	1,470.1	291,681	2,212.2	14,627	50	101.5	350	
1993	89	6	209	2,771.1	536,059	3,580.0	20,743	70	140.6	480	
1994	118	17	310	3,308.1	651,992	7,958.0	23,525	79	332.0	1,120	
1995	48	18	340	3,885.0	757,923	7,338.2	32,173	110	377.4	2,290	
1996	31	40	339	3,101.8	613,753	7,606.1	35,418	121	535.1	1,830	
1997	83	55	359	3,494.7	719,475	7,068.5	47,191	162	1,166.2	3,990	
1998	8	36	331	5,407.8	1,167,115	7,892.2	205,653	704	1,607.2	5,504	

# Listing Requirements

Listing requirements are as strict for the KOSDAQ as the floor markets. KOSDAQ listed businesses can be divided into venture businesses, ordinary enterprises, and mutual funds. Ordinary enterprises must select one of the two listing requirements as shown below, but venture businesses are exempt from filing ceratin information, such as paid-in capital and capital conditions.

# <KOSDAQ Market Listing Requirements >

Requirements	Venture companies	Ordinary companies			
		Selection 1	Selection 2		
Operating History	-	-	3 years or more		
Paid in Capital	-	Equity capital of 10 billion won or more	500 million won or more		
Total Assets	-	50 billion won or more	-		
Public Float (shares)	20% or more of total outstanding shares and more than 100 minority shareholders through public offering, or  More than 20% or 500,000 shares and more than 300 minority shareholders	Same as at left	Same as at left		
Debt Ratio	-	Less than the average debt ratio of the same industry	Less than 1.5 times the average debt ratio of the same industry		
Profit	-	-	Ordinary income for the latest fiscal year		
Accumulated Profit	-	Accumulated profit	Same as at left		
Capital Condition	-	No capital impairment	Same as at left		
Auditor's Opinion	External auditor's comment reservations	t must be qualified or qu	nalified with		

#### Korea's Venture Business Success Stories

#### **Mirae Corporation**

Year of Establishment	1990. 12. 26
Sales	79.25 billion won (end of 98)
No. of Employees	275
Product Profile	Test Handler, SMD Placement System, LCD Test System, Lead Frame Magazine

Semiconductor equipment company Mirae Corp. is one of Korea's foremost venture businesses. It not only has a proven edge in a high growth field, it is also a blue chip firm once rated as of the best managed among domestic listed companies.

In 1992 Mirae localized production of the "test handler" which classifies completed semiconductor chips after they are transported to electrical test equipment and installed. Its technological and price competitiveness on world markets plus superlative after/service has boosted its market share in the domestic the market for this product to over 30 percent.

Sales of test handlers, the firm's main product, increased an incredible 75 percent annually from 1993 to 1997 with the rise in the domestic semiconductor market and the expansion of new facilities investment. However, the firm suffered in last year's downturn in the semiconductor industry.

Mirae went into the red as sales slumped by over 70 percent year-to-year. Still, the firmed remained financially viable because of profits accumulated during its boom years.

Operational losses were covered by raising a non-operational profit of 14 billion won based on current assets of over 90 billion won. Meanwhile, Mirae continued to invest in the development of new products.

Last year, it paved its entry into electronic trading by taking over Soft Forum which holds Internet authorization system technology, a move reinforced by a partnership with Lycos Korea in June.

Sales fell to 17 billion won in 1998, a drop of over 72 percent compared to the previous year because the recession stymied plans for new facilities

investments and forced a 31 percent cut in the price of test handlers to domestic semiconductor companies. Furthermore, operating profits turned to losses of 4.2 billion won. Current profit and net profit, recorded 5.7 billion won and 5.3 billion won, respectively, because of the 14 billion won of non-operating profit.

However, sales are up with the recovery of the semiconductor industry and it is expected the company will follow suit this year. The firm's export target for SMD mounters is \$30 million.

The company's asset ratio, the difference between operating sales profit rate and financial costs and an indicator of stability, stands at 27.1 percent and is the highest among all listed companies. Last year Mirae's debt ratio was only 4.5 percent.

# Locus The most outstanding domestic venture business in the computer and telephone integrated market

Year of Establishment	1990.
Sales	30 billion won (end of 1998, estimated)
No. of Employees	200
Product Profile	Intelligent Telecom Solutions, Call Center Solutions, Switching Equipment

<sup>&</sup>quot;A venture businessman has achieved a miracle by boosting the value of his company to 60 billion won almost nine years after he began with 10 million."

So ran a typical press story on Hyungsoon Aim, president of Locus, when he sold 34 percent of its equity for \$16 million to British Jardine Fleming Electra in early 1999.

Locus is the top company in Korea in the field of intelligent telecom SI in which the computer lends intelligence to the telephone network it operates on. Even Lucent Technologies has proposed a technological alliance.

Over the last three years its annual increase in sales and net profit were 131 percent and 221 percent, respectively. Sales rocketed from 30 million won at its start in 1991, to 5 billion won in 1996 and 18.2 billion won in 1997. In the crisis year of 1998 they continued to rise, reaching 30 billion won. Its goal for 1999 is 80 billion won.

Jardin Fleming created surprise in its buy-in of Locus by paying 130,000 won per share, 26-fold its face value of 5,000 won. Some 58 percent of its 200 employees work directly in technology, and at least 10 percent of revenues are reinvested in R&D.

Locus' strong point lies in alignment of its technological and marketing ability. Its operations and technology personnel always attend the specialist seminars and conferences the other party attends and exchange knowledge on technology and operations.

Locus believes strongly in developing its human resources. It now operates the credit earning "Locus University" and has 54 ATI technology employees, more than any regular company. Locus will gain by involvement in the government sponsored BIN-IP R&D project to develop next-generation Advanced Intelligent Network equipment.

The aim of the project is to build CTI technology at the aerial network stage instead of applying it on private telephone networks for individual firms, so popularizing the use of intelligence network equipment.

Not content to be the best in the domestic arena, Mr. Kim wants to boost exports to China and Southeast Asia. He harbors greater dreams. "In the future we'll move our base to the United States to compete internationally. In 2000 we'll list on the domestic securities market and in 2001 we we'll have grown enough to be listed on NASDAQ."

Turbo Tek	
Year of	1988.
Establishment	
Sales	18.1 billion won (end of 1998, estimated)
No. of	200
Employees	200
Products	CC Controller, CAD/CAM, 3D 가 CAM,

Turbo Tek was established in Chungkae-chun by five KAIST graduates in 1988. It is credited with beginning the domestic production of CNC equipment. It is a high growth venture business providing total core control device solutions for capital goods.

In 1995 it broke the monopoly of imports by beginning home production of CNC controllers. In 1997, it developed its own AN-PC next-generation CNC controller system. It plans to market a CNC controller for consumers and currently exports capital goods.

Its CAD/CAM software tops the domestic education market after overtaking imports in 1995, and its CNC simulation software has received accolades at home and abroad for its educational attributes. With a capitalization of only 6730 million won???????????, it maintains an annual growth of 80 percent, a prototype of the venture business that will define the future of Korean industry.

In fact, company president Clang, Hung-soon, is widely regarded as the venture leader of the coming generation by his peers because of his success in the previously weakly established mechatronics industry, a field outside the usual parameters of the computer/information-oriented venture sector

Mr. Clang established Turbo Tek with a capital of 50 million won after receiving a Ph.D. from KAIST at the age of 28. He raised a further 6.73 billion won to generate sales of 18.1 billion won. Even when Korea entered the IMF fiscal control program he doubled profits on the year previous. The sales target for 1999 is double last year's level total of 34.3 billion won.

Last year he was designated one of the "100 Next-generation Leaders for 1999" at the World Economic Forum's convention held in Davos, Switzerland, the first time that the WFF included a Korean venture businessman in its rankings of the leaders of the future.

In addition to various control devices for industrial electronics use and applied software, Turbo Tek is developing an Internet education project based on CNC controllers and will be the first domestic site to offer technological education.

# BIT Computer -

ΑP	ioneer	of	the	Korean	V	enture	Sector
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Year of Establishment	1983.
Sales	11.4 billion won (end of 1998, estimated)
No. of Employees	105
Products	Medical Information Software

BIT Computer was launched with a capital of 4.5 million won and two employees in a hotel guest room by third year college students in 1983.

It is currently one of Korea's most successful venture businesses, recording an 11 percent growth in sales last year to 11.3 billion won and increasing its number of employees despite the currency crisis and the attendant recession.

The KOSDAQ-listed BIT Computer is the market leader in the domestic medical information market, servicing over 170 hospitals and 3,700 clinics.

When BIT Computer was first established even the term "software" was not in regular use. The founders were convinced of our their success because their chosen field was medical software, which they judged they would be able to sell at a reasonable price if leading physicians could be convinced of its value.

BIT Computer's first product was a insurance reimbursement program. One of the first domestic PC programs, the software proved extremely popular among medical practitioners who had, up till then, had request forms for medical insurance payments processed by hand.

After its initial success, BIT Computer became responsible for computerizing the medical records of general hospitals nationwide plus those of several thousand clinics. It went on to develop an order communication system as well as the LACS (Picture Archiving and Communication) system.

BIT Computer achieved national and international attention during the 1988 Seoul Olympics for its handling of such high profile early computerization projects as the televised broadcast of the Olympic sacred torch relay and the operations of the Culture and Arts Festival?????????????. The torch relay system was operated via graphic-based multimedia software showing the faces and playing the voices of the runners, a significant advance for the PC environment at the time, which then generally only capable of supporting text material.

Company president, Rho, Hymn-chung, became a celebrity in the foreign press. The Wall Street Journal published a front page on Mr. Rho as the one of the "three rising stars" of the Korean computer industry.

BIT Computer is now broadening the scope of its operations by looking to the international market. It has already exported its Dr. PSs plastic surgery simulation software package and a hospital pharmacy automation solution to Japan, Taiwan, and Singapore, and is now focusing on the U.S. and European markets. Its growth plans include a Y2K solution in 1999, a medicine specialization package in 2000, plus a pharmaceutical products and medical supplies Internet trading system and a remote diagnosis solution after 2000.

Mr. Rho is establishing a Silicon Valley-based joint venture called Dr. Bit in order to enter the U.S. medical information market, the world's largest. The aim is that within five years the company will become the world's top specialist medical information company.

# **Korea's Venture Capital Companies**

Company	Tel	FAX
Aju Capital Corp.	82-2-3475-9594	82-2-3475-9595
Asia Venture Capital Co., Ltd.	82-2-544-8244	82-2-544-8242
Astech Venture Capital Co., Ltd.	82-2-775-0677/8	82-2-775-0679
Bokwang Investment Corp.	82-2-558-2092	82-2-567-1672
CDC MBC	82-2-318-5200	82-2-318-5204
Central Venture Capital Co., Ltd.	82-431-272-1651	82-431-272-1653
Chungbuk Venture Capital Co., Ltd.	82-431-273-3366	82-431-273-3369
COMMIT Investment Finance Corp.	82-62-941-2181	82-62-941-2181
Cowell Investment Capital Co., Ltd.	82-2-3487-5100	82-2-3487-5102
Creation, Knowledge & Development	82-42-621-7474	82-42-621-7476
Creative Capital Investment Corp.	82-2-761-9524/5	82-2-761-9526
Daebang Venture Capital co., Ltd.	82-653-857-2266	82-653-857-2269
Taegu Investment Corp.	82-53-551-7981	82-53-551-7980
Daejoo Investment Venture Co., Ltd.	82-2-780-2566	82-2-780-2567
Daeshin Development & Finance Corp.	82-2-769-3725/6	82-2-769-2812
Daewoo Venture Capital Co., Ltd.	82-2-757-1291	82-2-757-1297
Dainong Investment Co., Ltd.	82-2-717-9400	82-2-702-0389
Dong-A Venture Investment Co., Ltd.	82-2-569-1446	82-2-569-1447
Dongbu Venture Capital Corp.	82-2-784-8250/4	82-2-784-8350
Dongwon Venture Capital Co., Ltd.	82-2-768-5959	82-2-768-5970
Hallim Investment Corp.	82-2-511-6010	82-2-511-6108
Hanbyuck Investment Co., Ltd.	82-2-521-7141/2	82-2-521-7144
Hanmi Technology Investment Co., Ltd.	82-2-569-3900	82-2-569-2028
Hanmi Venture Capital Corp.	82-331-38-1761	82-331-36-1637
Hansol Investment Inc.	82-2-3474-1080	82-2-3474-6152
HIT Venture Partners Inc.	82-2-3452-9494/1	82-2-3453-9493
Hyundai Capital Corp.	82-2-259-9370	82-2-259-9398
Hyundai Venture Capital Co., Ltd.	82-418-44-6546	82-418-44-6548
I&D Venture Capital Co., Ltd.	82-2-3476-6160	82-2-3476-6166
IBK Capital Co.	82-2-554-3131	82-2-568-3533
Iljin Venture Capital Co. Ltd.	82-2-707-9288	82-2-707-9036
Ilshin Investment Co., Ltd.	82-62-510-5121	82-62-510-5105
JEEWOO Venture Capital Co., Ltd.	82-2-421-7611	82-2-421-7625
KLB Investment Co., Ltd.	82-2-508-2677	82-2-508-2678
Kookmin Venture Capital	82-2-736-0190	82-2-730-3401
Korea First Venture Capital Co.	82-2-775-7302/4	82-2-775-7305
Korea Industrial Investment Corp.	82-2-730-1661	82-2-730-1665
Korea Investment Corp.	82-2-785-6414/5	82-2-780-8645
Korea Technology Investment Corp.	82-2-538-3111	82-2-538-3113
Korea Venture Capital Co., Ltd.	82-2-761-9420	82-2-761-1754
Kukje Investment Co., Ltd.	82-654-42-5141	82-654-42-5141
Kumchang Venture Investment Co., Ltd.	82-2-501-7055/7	82-2-501-4412

Company	Tel	FAX
Kwangeun Venture Capital Co., Ltd.	82-62-226-6055	82-62-226-6058
Kyoungnam Investment Co., Ltd.	82-551-45-8871	82-551-45-8876
LG Investment Inc.	82-2-3459-4100	82-2-3459-4399
Mirae Venture Capital Co., Ltd.	82-62-943-5070	82-2-540-2454
Naeil Venture Capital Co., Ltd.	82-2-734-8357/8	82-2-734-8359
Postech Venture Capital Corp.	82-562-279-8483	82-562-279-8489
Pusan Investment Corp.	82-51-633-7001	82-51-633-7001
Saehan Venture Capital Co., Ltd.	82-2-565-4111	82-2-565-2018
SAM Capital Ltd.	82-2-558-6150/3	82-2-558-6156
Sambu Venture Capital Corporation	82-51-636-7800	82-51-636-6618
Samyoung Venture Capital Co., Ltd.	82-551-98-9778	82-551-98-8482
Sejong Capital Co., Ltd.	82-2-399-5900	82-2-399-5924
Seoul Venture Investment Co.	82-2-782-5470	82-2-782-5477
SHINHAN Venture Capital	82-2-769-1972/5	82-2-769-1976
Shinjin Venture Capital Corp.	82-53-429-6011	82-53-429-6014
Shinseki Venture Capital Co., Ltd.	82-2-784-0677	82-2-784-0673
Shinwon Venture Capital Co., Ltd.	82-42-621-1893	82-42-621-1793
Shinyoung Venture Capital Corp.	82-2-780-2317/8	82-2-782-0397
SIGMA Investment Co., Ltd.	82-2-560-9030	82-2-560-9090
Sinbo Investment Corp.	82-2-783-4784/9	82-2-783-2549
Sindo Venture Capital Corp.	82-2-3488-9300	82-2-588-9300
SungShin Investment Corp.	82-551-85-7261	82-551-87-5961
Sungwon Venture Investment Corp.	82-2-554-6900	82-2-554-0095
Terasouce Venture Capital Co.	82-2-553-0981	82-2-501-7743
Tongyang Venture Capital Corp.	82-2-773-7114	82-2-773-7113
Heesung Venture Capital Corp.	82-2-3484-7205	82-2-3484-7215
UTC Venture Co., Ltd.	82-2-782-5336	82-2-782-5337
Wooree Technology Investment Co., Ltd.	82-42-861-1540	82-2-508-6515
Wooshin Development Finance Corp.	82-2-538-5906/9	82-2-567-3184

# Major Contact Points in the Korean Venture Sector

# • Korea Investment Service Center (KISC)

•URL : http://www.kisc.org/

■TEL: 82-2-3460-7545 ■FAX: 82-2-3460-7946/7

# Ministry of Commerce, Industry and Energy (MOCIE)

•URL: http://www.mocie.go.kr/

■TEL: 82-2-500-2539 ■FAX: 82-2-503-4261

# ● Small & Medium Business Administration (SMBA)

•URL: http://www.smba.go.kr/

■TEL: 82-42-481-4352 ■FAX: 82-42-472-3261

# •Small & Medium Industry Promotion Corporation (SMIPC)

•URL: http://www.smipc.or.kr/

■TEL: 82-2-769-6691 ■FAX: 82-2-769-6656

#### ●Korea Venture Business Association (KOVA)

•URL: http://www.kova.or.kr/

■TEL: 82-2-562-5914 ■FAX: 82-2-562-5922

# ● Korea Venture Capital Association (KVCA)

•URL: http://venture.smba.go.kr/~capital/asso/index.html

■TEL: 82-2-785-0602/4 ■FAX: 82-2-785-0605

#### ●Venture Net

•URL: http://venture.smba.go.kr/

•Venture-Net is a free-based listing service that allows foreign investors as well as Korean venture capital companies, institutional and individual investors to locate Korean venture entrepreneurs through the Entrepreneur Resource Database.