

KOREA TECHNOLOGY FINANCE CORPORATION

2015 ANNUAL REPORT



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CEO MESSAGE

Last year marked the global economy's lowest recorded growth since the global financial crisis. This had a significant impact on the economic growth and domestic consumption of South Korea. However, amidst this difficult situation, Korean venture businesses made a significant leap in development. The total number of ventures exceeded 30,000, of which 460 delivered over KRW 100 billion in revenue.

Of those KRW 100 billion ventures, 393 received support from KOTEC in their early or developing stages. KOTEC has played a proactive role as the supporting financial institution for tech-SMEs. As of the end of 2015, KOTEC recorded a total guarantee provision of KRW 20.7 trillion, the highest since its establishment. This demonstrates KOTEC's dedication to reinvigorating the national economy and creating jobs by focusing on tech-startups and new growth engine industries as well as R&D.

KOTEC has fine-tuned its technology appraisal system which includes an investment-oriented technology appraisal model for investments. It has facilitated technology transfers from national and government-backed public research institutions to SMEs, and has helped SMEs in their technology commercialization processes, ultimately enhancing their technological competency.

Since KOTEC first began its work in technology appraisal in 1997, it has evaluated approximately 508,000 cases as of 2015. Over these past two decades, it has increasingly conducted specialized technology appraisal which requires high levels of expertise and objectivity and which have consequently contributed to the advancement of the Korean technology appraisal market and to the financial growth of the technology sector in Korea. In addition, KOTEC has developed and implemented excellent risk management systems and has actively worked to minimize default cases, decreasing the default rate to 4.1%, its lowest recorded rate in the last 10 years.

In addition to its guarantee support, KOTEC has provided guarantee-linked investments to promising companies so that they are able to develop and advance their competitiveness in the direct financing market. KOTEC has also provided additional supports, such as comprehensive management consulting, venture business certification systems and inno-biz enterprise certification to tech-SMEs, enabling them to improve their market competitiveness and adaptation.

Last year, 19 Centers for Creative Economy and Innovation were established to drive the creative economy. KOTEC formed a strong cooperation network with the government-sponsored innovation centers and worked to improve the customized financing support system for companies to readily employ.

Most notably, KOTEC made a radical reform in the joint guarantee system for SME owners. Its the efforts began last year and finally bore fruit in early 2016. The most significant change is the complete elimination of the joint guarantee clause, lifting this responsibility from SME owners during their first 5 years under KOTEC's guarantee support system. Because entrepreneurs no longer have to manage this burden, KOTEC expects to see a growth in the establishment of new businesses.

KOTEC will continue to dedicate itself to improving its work efficiency and client supports to exceed pubic expectations as the nation's leading technology financing institution.

We appreciate your support and dedication, and ask for your continued devotion to KOTEC. Thank you.

April 2016

Chairman & President Hanchul Kim ひきえ







Economic Trends

KOTEC has been the driving force behind the technology financial market in Korea for the past 27 years, dating to a time when few even knew the phrase "technology finance." At a time when intangible asset-based technology finance is just beginning to emerge as a buzz word both at home and abroad, we at KOTEC have been already made great developments in penetrating the global market with our proprietary technology finance system, allowing us to become the leading player in the Creative Economy.

Section 1. Economic Trends Section 2. Global Economy Section 3. Domestic Economy Section 4. Economic Outlook

Economic Trends

The performance of the global economy was heavily divided between the developing and developed worlds in 2015 which saw its lowest growth rate of 3% since the global financial crisis. While advanced economies, particularly the US and the Eurozone, maintained mild recovery trends, emerging countries were heavily affected by low oil prices and the slowing Chinese economy. Oil prices (Dubai Crude) plummeted to the low USD 30s as the Iran Nuclear Deal was finalized, posing higher risks to natural resource-dependent countries.

The South Korean economy was also stunted by the US interest rate, the sluggish Chinese economy and the unstable emerging markets as well as the slowing domestic consumption rate. The weakened growth of the Chinese economy along with the higher self-supply rate and lasting JPY weakness also served to limit Korean exports and investments. Decreasing demands and increasing uncertainties at home and abroad further cut back the operating ratios of the manufacturing sector and the domestic consumption growth. After the government implemented a short-term stimulus package as well as a supplementary budgeting policy to encourage consumption, the economy showed a slight sign of improvement in the second half. Even so, the Korean growth rate dropped to as low as 2.6% in 2015, down from 3.3% in the year before.



Influence of Economic Uncertainties on Businesses

Global Economy



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The global economy saw itself facing a downward slope in 2015 following the trends of 2014. While advanced nations generally showed signs of improvement as a result of the increasing US economic growth, the quantitative easing (QE) of the European Central Bank (ECB) and the depreciating Euro, emerging economies were hindered by the prevalent expectations of US interest hikes, the impact of falling oil prices and the sluggish Chinese economy. Japan also saw mild levels of recovery, whereas China's economy slowed down significantly largely because of the tanking exports of the manufacturing sector.

	Global Economic Outlook									
	2015	2016	2017							
Global Economic Growth Rate	3.0	3.2	3.4							
US	2.4	2.4	2.3							
EU	1.5	1.7	1.8							
Japan	0.6	1.0	0.7							
China	6.9	6.6	6.4							
International Trade Growth Rate	2.7	3.1	3.6							
Inflation Rate of Other Commodities	-17.5	-7.5	2.0							

Source: Bank of Korea (BOK) (January 2016. Economic Outlook Report)

(Unit: %, yoy)





The ECB's proactive financial policies, including the QE and the interest rate cuts, drove economic recovery, delivering a mid-1% growth rate. The low interest rates and the weak Euro encouraged consumption and export, which led to increasing corporate loans and investments. The EU economic growth rate temporarily decreased in the third quarter as a result of the financial instability of emerging countries, but improved in Q4 thanks to the QE. France, Italy and Portugal delivered improved economic growth rates over the previous year whereas Greece's economic growth rate decreased as a result of the 3rd bailout among other reasons. The overall unemployment rate continued to decrease from 12% in 2013 and the recorded 10.5% in November, the lowest since the Sovereign Debt Crisis of the EU. The consumer price inflation rate fell far short of the target 2.0% primarily because of falling energy prices. Nevertheless, the mounting conflict over the Syrian refugee crisis and Brexit situation have increased the number of uncertainties in the system, likely increasing the financial risk in the economy.

China experienced a decrease in exports for the first time since the global financial crisis as it focused on domestic consumptiondriven growth and because it was affected by weakening overseas demand. Its GDP growth rate was 6.9%, short of its target 7.0%. The low growth was in part a result of government policies which tightened regulations on processing trade to improve the environment and which restructured industries to handle excess investment problems. The capital investment continued to decline from 13.5% in Q1 to 10.0% in Q4. As the operating ratio decreased, the manufacturing sector recorded -4.6% in net income in October 2015. However, import rates plummeted even further than the export rates, expanding Chinese trade surplus. Regardless of the slowing economic growth, service supply and demand both grew at healthy rates. Taking into consideration Manufacturing 2025 and the 13th 5-year Plan from the Chinese government with respect to economic stimulus, the economy is expected to deliver mid-6% growth in the future.



After a mild recovery in Q1 2015, the Japanese economy showed a weak sign of -0.1% growth in the second quarter as affected by low rate of exports to the Asian region. The business sector began to rebound on the back of Abenomics, which resulted in a 0.6% increase in annual economic growth. Expanding corporate investments, particularly in service and capital investments, drove economic growth while the weak Japanese Yen (JPY) and low oil prices led to the growth of corporate profits. The Japanese unemployment rate has continued to decline since the surge in 2009, and reached just 3.3% in 2005, down by 0.3% from the previous year. Consumer price inflation stayed near 0% as the effects of the consumption tax rate hike tapered off in April. Despite corporate profit improvements and the low inflation rate, actual wages increased just barely over 0%, failing to boost private consumption. International trade recorded a surplus of JPY 140.3 billion as a result of increasing exports to the US and ASEAN and as a result of falling oil prices.

The US economy was buoyed by its prolonged low-interest rate and improving housing investment, and maintained a healthy growth rate of over 2%. After the GDP growth rate plunged to 0.6% (annualized) year-overyear in the first quarter, it jumped to 3.9% as a result of strong private consumption, ultimately resulting in a 2.4% growth for the year. However, the strong US dollar pushed down demand for capital goods and consequently exports. The pressure for increased wages also negatively affected corporate profits, leading to real wage increases and weaker growth in the second half. With respect to investment, housing investment rose to 8.7% year-over-year in 2015, while capital investment contracted by 1.5%. With mounting expectations of interest rate hikes by the Federal Reserve, the US Dollar (USD) appreciated, which in turn aggravated the current account deficit (compared to the GDP) to 2.7% in Q3. It is also expected that exports and manufacturing would be weakened as a result of the interest rate hike and the slowing growth momentum of emerging countries.

Resource-dependent emerging economies were hit particularly hard by the falling oil prices and the Chinese economic slowdown. Brazil, for example, saw its fiscal deficit snowball to 8% of its GDP as a result of the ever-slipping commodity prices. Russia also suffered from low oil prices on top of the economic sanctions placed by the Western world after the Ukraine crisis, delivering a negative mid-3% economic growth. In contrast, India's growth rate improved drastically by over 7% as the low oil price stabilized overall prices and as the government deregulated foreign investments. This growth trend is expected to last for a while. Concerns are growing over the possibility that the strong USD, low commodity prices and US interest hike might spark an investment exodus from emerging countries and may trigger financial instabilities among those with large foreign debts.

Domestic Economy

01 Overview

The Korean economy was greatly affected by the US and Chinese risks in 2015. Its exports decreased and its domestic consumption was stunted. After being smashed by the Middle East Respiratory Syndrome (MERS) crisis in the spring, the economy began to recover in the second half of the year, with signs of improvement in both consumption and construction investment. However, growing uncertainties at home and abroad, including prolonged low oil prices and unstable emerging economies, might pose a risk to the contracting domestic demands and export.

Korean Economic Outlook by Major Institution

	Bank of Korea (Jan. 2016)			KDI (Dec. 2015)		ic Research Dec. 2015)	Ministry of Strategy and Finance (Dec. 2015)	
	2015	2016	2015	2016	2015	2016	2015	2016
Economic Growth Rate	2.6	3.0	2.6	3.0	2.6	2.5	2.7	3.1
Consumer Price Index (CPI)	0.7	1.4	0.7	1.4	0.7	1.2	0.7	1.5
Current Account Balance	1,075	980	1,110	1,050	1,089	1,064	1,120	980
Unemployment Rate	3.6	3.5	3.7	3.6	3.6	3.7	3.6	3.5

Source: () indicates the release date of the economic forecast

02 Key Indicators

Private Consumption

The Consumer Survey Index plunged to 98 after the MERS crisis in May 2015, devastating the already-slowing domestic tourism and retail sectors. In addition, concerns over excessive household debts and interest rate hikes contracted consumption, and structural problems, such as job insecurity and unemployment, also served to drag down consumption. Aging and low expectations for economic growth further discouraged private consumption. Accordingly, the Average Propensity to Consume (APC) dropped to a record low of 71.5% in Q3. Consumption slightly recovered in the second half as a result of consumption stimulus policies, such as the consumption tax cut and the government-led Korea Black Friday promotion. The Retail Sales Index grew 3.5% as the sale of durable goods (e.g. cars) and nondurable goods (e.g. fuel) increased although sales of semi-durable goods (e.g. clothes) decreased. Low oil prices also helped boost consumption as it increased the real-term purchasing power of households.

(Unit: %, USD 100 million)

Export and Import

Exports decreased by 7.9% in 2015 from the previous year as it was hit by the slowing Chinese economy and the weak JPY. In addition, decreased demand for semiconductors, decreased ship exports as a result of the base effect, and a 36.4% drop in petrochemical products due to low oil prices significantly slashed export rates. The unit prices of exports fell by some 10% as a result of the low oil prices, and international trade rates were also sluggish. As a result, the total exports in 2015 was USD 43.9bn with a daily average of USD 1.93bn. The current account balance was recorded at USD 9.4bn in surplus in November but the surplus scale was slightly lower than that of the previous month.

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(Unit: KRW/USD)

FX Rate

After hovering around KRW1,100/USD, the KRW/USD exchange rate began to slowly rise in the second quarter as a result of growing expectations of US interest rate hikes and capital outflows triggered by Chinese financial instability. After the Chinese financial market stabilized and the Federal government changed interest rates to meet public expectations, the exchange rate decreased. The KRW to Chinese Yen (CNY) exchange rate which started at KRW 177.36/CNY in 2015 fluctuated across the year and closed at 179.11 as of the end of December 2015. The KRW remained strong against the JPY as low oil prices, etc., encouraged movement to safe assets.

		2013	2014	2015	2016(Jan)	2016(Feb)
KRW/USD -	FX Rate	1,055.4	1,099.3	1,172.5	1,199.1	1,236.7
	Appreciation Rate (%)	1.4	-4.0	-6.2	-2.2	-5.2
	FX Rate	105.3	120.4	120.4	120.5	112.9
JPY/USD	Appreciation Rate (%)	-17.9	-12.5	0.0	-0.1	6.6
	FX Rate	1,002.3	913.0	974.1	995.1	1,095.4
KRW/JPY100	Appreciation Rate (%)	23.5	9.8	-6.3	-2.1	-11.1

FX Rate Changes by Currency

Source: The Ministry of Strategy and Finance (FX Statistics by Currency)

Note: The appreciate rate is calculated based on the year-end FX rate, and the FX rate is based on the

closing price of the Seoul Money Brokerage (SMB) (as of 15:00, as of 16:00 for the period before February 2005,

and 16:30 for the period before 2003)

Capital Investment

The capital investment index increased by 4.7% year-over-year in Q3 2015 but sank by 6.0% in November, particularly in the general machinery and transportation equipment sectors. The in-stock ratio of the manufacturing sector grew steadily to a record high since the global financial crisis as both exports and domestic demands slowed, and the average operating ratio remained low, further discouraging capital investment. In particular, the average operating ratios of the major manufacturing industries, including electronics, steel and shipbuilding, all decreased collectively, contracting new investment. Domestic market interest rates which increased as a result of the US interest rate hike posed greater financial burdens to companies, and the increasing market fluctuations caused by unstable emerging economies also strapped investment.

Construction Investment

Construction investment in the national account maintained its momentum, riding on policies which boosted the real estate market, including policies which deregulated the pre-sale price cap on real estate, suspended of returns on excess profits from re-development, and eased housing ownership for redevelopment union members. Accordingly, demand for apartment purchases and redevelopment increased, and a budget of KRW 26.3 trillion spent on SOC projects fueled the growth in construction investments. The growth rates of both the construction and civil engineering sectors continued to rise in 2015 after a negative growth rate in 2014. However, as the number of days with precipitation in November reached 14.9, almost double the average, the value of construction completed decreased slightly by 0.8% compared to the previously.

04

Economic Outlook

The global economy is deemed to be on a downward trajectory since the previous year and this trend is expected to last for a while. As the Federal government has been hinting at movements to normalize the US interest rate, the global economy which has largely relied on expansionary monetary policies is likely to remain on the decline. The US economy, despite its good economic cycle, will not be able to buttress global economic growth as it is expected to experience decreasing productivity, employment and consumption. China, which is under ongoing restructuring, will be witnessing lower growth rates than before. This, in conjunction with the increasing volatility in the global financial market, will further agitate the financial markets of emerging economies. As a result, concerns over economic slowdowns are expected to continue. International oil prices will remain low as Iran resumes its oil exports and as demand from emerging economies remains low.

The Korean economy will continue to experience weak export rates as a result of the slowing global economy as well as the weakening currencies of the major economies. As the impact of the consumption encouragement policies, such as the consumption tax cut and the Korean Black Friday, tapers off, and domestic market interests are likely to increase as a result of the US interest rate hikes. Furthermore, the recovery of the domestic demands is expected to be slow. In addition, traditional service industries, like wholesale, retail, food and beverage and hospitality, will deliver much lower growth in employment rates due to over-competition and low profits. In 2016, demands will remain lower than supply capacity and the CPI inflation rate will also stay low, maintaining the low inflation trend.







SME and Venture Business Trends

Despite concerns over persistently weak growth since 2012, along with external uncertainties, the Korean economy has sustained a moderate recovery, backed by an upturn in exports and stable prices. KOTEC has played a pivotal role as a leading technology financing institution with its focus on tech-innovation companies (such as ventures, inno-biz, and tech-startups) to create new growth engines, continuously increasing technology appraisal guarantees, and proactively discovering and cultivating innovative SMEs.

Section 1. SME Section 2. Venture Business Section 3. Inno-Biz

Small and Medium Enterprises (SMEs)

The Manufacturing SME Production Index which has been on the rise since 2009, saw high levels of fluctuation from Q1 to Q4 of this year, starting at 102.4 and ending at 108.8 before closing at 105.1 at the end of 2015, lower than the 106.4 it closed at in the previous year. Both the operating rate and the inventory index of SMEs declined as they were hit by the slowing economy and decreasing domestic demands as well as the increase in risk in the Chinese economy. The number of newly established corporations in 2015 reached 93,768, up by 9,071 from 84,697 in 2014, a record high since 2000. The SME financing situation did not see many issues in early 2015 as it was supported by low interest rates. However, this changed in June as a result of the China Inside phenomenon and the prolonged weakness of the JPY.

The capital investment in SMEs was not as strong expected as a result of the operating ratios which were on a steady decline. With falling operating ratios and increasing inventory, investment also decreased. Unless the operating ratio rebounds and the existing inventory begins to sell at a higher rate in the market, SME capital investment is not expected to grow.





Source: IBK Economic Research Institute, Bok Note: Annual average, Unit: (Left) %, (Right) Benchmark=100

As both domestic demand and export have decreased continuously since 2011, it has become increasingly difficult for SMEs to self-finance by operation (or internal financing). External financing was previously not difficult to secure until early last year. However, the situation changed in the second half of 2015. As the market interest rate slowly increases and the financial sector begins to improve its risk management system, the financial supply will decrease, further aggravating the SME financing situation. In particular, as external conditions, such as the China Inside (in which China's competitiveness is improving) situation and the weakening JPY, continue to limit SMEs growth in revenue and profit, internal financing will also remain difficult to secure.

Source: Statistics Korea Note: 2010=100, Unit: Index

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Venture Business

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As per the Act on Special Measures for the Promotion of Venture Businesses, the government has certified companies with proven technology competitiveness and strong growth potential as venture businesses, and has provided tangible and intangible benefits, including funding, technology, human resources, and business location, in order to promote the development of growth engines. Since the introduction of the venture business certification system in 1998, the number of certified ventures exceeded 10,000 in July 2001 for the first time. In April 2004, the government established various venture promotion policies and in June 2006, it made several reforms in the venture businesse such as KOTEC, the Small & Medium Business Corporation (SBC), and the Korean Venture Capital Association (KVCA). As a result of these actions, the number of certified ventures in the market grew to 15,000 in 2008.

In April 2010, the Korean government eliminated the requirements for technology appraisal guarantees from financially sound firms. Under the new system, such firms are allowed to apply for venture certification based solely on the estimated amount of technology guarantees to be given, instead of the actual guarantee provisions. With this revision, the number of certified ventures continued to grow, reaching 31,260 at the end of 2015, after hitting 20,000 in May 2010.

Despite the domestic economic downturn in the midst of a series of turbulent events, including the Eurozone crisis and the sluggish growth of major economies following the global financial crisis, ventures continued to proliferate with the support from KOTEC which worked to provide guarantees centered on technological competence. Such efforts contributed to the growth in SME capability in technological innovation and promoted demand for certification which would allow the SMEs to apply for government support, including policy funding for companies applying for appraisal guarantees.

Annual Growth of Venture Businesses										
2008 2009 2010 2011 2012 2013 2014 2015										
No. of Businesses	15,401	18,893	24,645	26,148	28,193	29,135	29,910	31,260		

Source: Venture-In

From among the venture firms, 70.4% belong to the manufacturing sector and 16.6% to S/W.



Source: Venture-In, as of 2015 year-end



In terms of regional distribution, 57.5% of venture businesses are based in the Seoul metropolitan area (Seoul, Gyeonggi, and Incheon), showing that companies with strong technological competence are still concentrated in the area.

	Regional Distribution of Venture Businesses											
	Gyeonggi	Seoul	Daegu/ Gyeong- buk	Busan/ Ulsan	Daejeon/ Chung- nam	Gyeong- nam	Incheon	Gwangju /Jeon- nam	Others	Total		
No. of Busi- nesses	9,656 (30.9%)	7,000 (22.4%)	3,138 (10%)	2,554 (8.1%)	2,280 (7.3%)	1,650 (5.3%)	1,452 (4.6%)	1,321 (4.2%)	2,209 (7.2%)	31,260 (100%)		

Source: Venture-In, as of 2015 year-end

Venture firms grew not only in quantity but also in quality. Despite the global pandemic resulting from the economic downturn, 460 venture firms delivered over KRW 100 billion in sales in 2015 (based on the 2014 financial closing), up 1.3% (6 firms) from the previous year.

	Growth of KRW 100 Billion Venture Firms										
Year (Fiscal year)	2008 (2007)	2009 (2008)	2010 (2009)	2011 (2010)	2012 (2011)	2013 (2012)	2014 (2013)	2015 (2014)			
No. of Businesses	152	202	242	315	381	416	454	460			

Source: Venture-In

Of the 460 venture firms with over KRW 100 billion in sales as of 2015 (according to the SMBA), KOTEC provided 393 ventures with KRW 2,524.2 billion in new guarantees, with 318 entities (80.9%) already having graduated from the guarantee program and 75 (19.1%) maintaining KRW 172.0 billion in guarantee balances.

	Guarantee Support for KRW 100 Billion Venture Firms										
Graduated from Guarantee Businesses under Guarantee Total											
	No. of Businesses	New Guarantee Provided	No. of Businesses	New Guarantee Provided	No. of Businesses	New Guarantee Provided					
Guarantee (%)	318 (80.9%)	18,406 (73%)	75 (19.1%)	6,836 (27%)	393 (100%)	25,242 (100%)					

(Unit: No. of businesses, KRW 100 million)

Of the KOTEC-guaranteed firms, 205 are publicly listed: 31 had already been listed at the time of initial guarantee provision, 144 went public during the guarantee period, and 30 went IPO after the guarantee was cleared. This is a clear picture of the impact of the KOTEC guarantees on the growth and maturity of venture firms.

31,260

Inno-Biz

One of the most imminent challenges at hand is the task of fostering tech-oriented and innovative SMEs which are able to lead the national economy and help it to proactively cope with rapidly-changing technological trends in the era of globalization. In 2001, the government established its "Plan for Identifying and Cultivating Innovative SMEs" under the SME Technology Innovation Promotion Act and implemented supplementary policies to designate SMEs with strong technological capabilities and growth potential as Inno-Biz enterprises. This was done to provide these SMEs with comprehensive support through technological funding and marketing, with the hopes of transforming the SMEs into competitive global players.

With strong backing from the government and relevant institutions, 17,472 Korean SMEs have been certified as Inno-Biz enterprises through KOTEC's technology appraisal system as of the end of 2015.

Annual Trends in Inno-Biz. Certification										
2008 2009 2010 2011 2012 2013 2014 2015										
No. of Inno-biz	14,626	15,939	16,243	16,944	17,298	17,080	16,878	17,472		

Source: SMBA

Breakdown of Business Categories Electronics & S/W Machinery Chemical Others Total Electricity No. of 4,682 3,373 1,278 1,078 1,213 5,848 17,472 Inno-Biz (%) (26.8%)(19.3%)(7.3%)(6.2%) (6.9%) (33.5%) (100%)

Source: SMBA, as of 2015 year-end



	Gyeonggi	Seoul	Daegu/ Gyeong- buk	Busan/ Ulsan	Daejeon/ Chung- nam	Gyeong- nam	Incheon	Gwangju /Jeon- nam	Others	Total
No. of	5,793	3,165	1,735	1,188	1,184	1,258	1,019	775	1,345	17,472
Firms (%)	(33.2%)	(18.1%)	(9.9%)	(6.8%)	(6.8%)	(7.2%)	(5.8%)	(4.4%)	(7.8%)	(100%)

Regional Distribution

Seoul Others 3,165 1.345 Incheon Gyeonggi 1,019 5,793 Daejeon/Chungnam Daegu/Gyeongbuk 1,184 1,735 Gyeongnam 1,258 Busan/Ulsan 1,188 Gwangju/Jeonnam 775 55

2015 Inno-Biz Total 17,472

Source: SMBA, as of 2015 year-end



KOTEC's Business Model

KOTEC leads the technology finance industry with its robust technology appraisal system and top-notch expertise. We have constantly developed and grown our technology appraisal organization in order to proactively respond to the rapid and extensive technology evolution and convergence. We have worked passionately to identify and support technology startups and SMEs that do not have sufficient collateral or credit records to benefit from primary financial institutions. As the most reliable partner in the industry, we strive to broaden the paths where technology startups and venture businesses secure investments and realize their dreams.

Section 1. Overview Section 2. General Information Section 3. Implementation of Major Operations

Overview

01 Roles and Responsibilities

Since its founding in 1989, KOTEC has played a pivotal role in providing over KRW 280 trillion in technology guarantees. These guarantees have been dedicated to tech-oriented SMEs identified has having significant business potential but lacking sufficient financial capacity. KOTEC has built a comprehensive financing platform for technology startups, ventures, and Inno-Biz enterprises in an effort to enhance the technological competitiveness of SMEs, and has extended its service coverage to technology and management consulting as well as equity investment in conjunction with technology appraisal.

KOTEC has primarily focused on companies that are technologically competent as deemed by KOTEC's futureoriented evaluation criteria defined in its technology appraisal system. This system has helped KOTEC to effectively support promising tech startups and boost their growth momentum and job creation abilities. In particular, KOTEC has increased financing for R&D and commercialization activities, launched its KOTEC Technology Matching System (KTMS) to link technology supply and demand, and participated in the Tech Credit Bureau (TCB) as the sole representing member from the public sector. All of these efforts have contributed to the creation and development of a new growth engine behind the national economy and to the advancement of the technological competitiveness of Korean SMEs.

Moving forward, KOTEC will continue to back tech-oriented SMEs to help them grow into competitive players in the global market by sharpening, deepening, and broadening its platform to support SMEs at different growth stages. It will also expand its dynamic demand-driven services so that its technology assessment data is widely utilized by both the public and private sectors. It further aims to build the growth momentum driving the creative economy.

- ① To facilitate the financing of new tech businesses and further contribute to the development of the national economy by stabilizing and developing the technology credit guarantee system. <Korea Technology Finance Corporation Act Article 1>
- ② To provide debt guarantees to companies lacking the financial foundation to afford the collateral to facilitate financing. <Korea Technology Finance Corporation Act Article 12>

1990	Apr. 1989 Mar. 1997 Feb.1999	Korea Technology Finance Corporation Act (KOTEC) was founded (The fund was first established in December, 1986) Opened the Technology Appraisal Center (the first of its kind in Korea) Implemented the technology appraisal system
2000	Jul. 2005	Developed the new KOTEC Technology Rating System (KTRS)
2000	Jun. 2006	Designated the authority to certify venture businesses
	Jan. 2007	Integrated guarantee process to be based on technology appraisal
2010	May. 2011	Relocated Headquarters to Munhyeon International Financial Complex in Busan
LOTO	Jun. 2012	Legislated guarantee-linked equity investment as a proprietary business
	Jan. 2015	Established the technology transfer and commercialization support system (Technology Convergence Center, KTMS operation)
	Dec. 2015	Achieved KRW 280 trillion in total guarantee provided, KRW 20.7 trillion in guarantee balance and 70,000 firms in guarantees provided

02 Purpose of Establishment

03 Major Milestones

04 Vision and Strategy



General Information

O1 Capital Funds and Leverage Ratio

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KOTEC is a special-purpose financial institution specialized in technology financing. The institution was established to help create a growth engine for the national economy by providing financial support primarily in the form of credit guarantees based on technology appraisals for new technology businesses that have little or no collateral to provide. KOTEC's capital funds can be characterized as reserves for subrogation and primarily come from the government and financial institutions.

Article 13 (Acquisition of Fundamental Property) of the Korea Technology Finance Corporation Act ① The fundamental property of the Fund shall be derived from

- 1. Contributions from financial companies
- 2. Contributions from the government, and
- 3. Contributions from the ones other than those prescribed in subparagraphs 1 and 2

The contributions from the government are transferred from the government's General Account to KOTEC to facilitate KOTEC's supply fund for technologically innovative SMEs with insufficient collateral capabilities. The contributions are provided to KOTEC every year directly from the government's fiscal budget (KRW 60 billion in 2013, 50 billion in 2014 and 40 billion in 2015) in the form of public goods assigned to protect and foster technology startups and SMEs.

The contributions received from financial companies can be characterized as part of a quasi-tax. KOTEC's technology guarantee system reduces the time and costs, particularly related to loan loss, which would otherwise be required to research technology information. The system also eliminates the risks that are associated with supplying such funds. As such, the financial companies provide contributions to pay for benefits and to support SMEs simultaneously. Financial companies contribute an amount calculated by $1.35 \pm$ differential rates (0.02) over 1,000 of the average monthly balance of their corporate loans, and new technology financing companies contribute 3/1000 of the average quarterly balance. Financial companies under special agreements with KOTEC designed to intensify the benefit principle make special contributions.

Capital funds are used to meet guarantee demands and ensure continuous provision of guarantee supports. These funds do so by securing public credibility and supporting timely response to the needs of subrogation. It is stated that the capital funds raised by contributions and profits made through guarantee fees, penalties, and interest must first be spent to make subrogation payments and operate KOTEC, while the remaining funds are to be deposited into financial institutions; used to purchase state, local government bonds, or other bonds guaranteed by the central government, local governments, or financial institutions; used to purchase stocks, debentures or other securities; or otherwise used in similar processes necessary to achieve KOTEC's purposes. <Article 44 of the Korea Technology Finance Corporation Act>

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In 2015, KOTEC was able to manage the overall default rate by implementing a proactive risk management system and by securing an additional special contribution of KRW 40.3 billion. It also sold its investment shares and realized KRW 62.6 billion in profit from the share disposal. As a result, its revenue for the year significantly increased. In addition, as the provision accumulations for the guarantee balances required by the newly implemented regulations on guarantee accounting were completed in 2014, the subrogation expenses (e.g. losses from indemnity receivables and subrogation reserves) dropped significantly. Accordingly, capital funds increased to KRW 2,295.1 billion, up 37.1 billion from the previous year.

The ratio of guarantee utilization is calculated by dividing the technology guarantee volume by the fundamental property at a given point and is used as the main indicator for measuring the company's ability to cope with requests for subrogation and the guarantee supply capability to meet government policy requirements and the demand for guarantees. The ratio changes dynamically in accordance with the guarantee balance, default rate, subrogation, and fluctuations in contributions from the government and financial institutions. The ratio of guarantee utilization plays a role in controlling the soundness of the guaranteed institution by setting guarantee limits, as well as in reflecting the multiplier effect, which is the greatest advantage of the guarantee system. Article 23 of the Enforcement Decree of the KOTEC Act limits the ratio of guarantee utilization to up to 20 times the sum of the fundamental property and retained earnings. KOTEC maintained the ratio at a level of 9.0 times in 2015.





Accumulated Contributions over the Last Decade

(Unit: KRW 100 million)



⁽Unit: KRW 100 million, Multiples)

Within its Head Office, KOTEC merged its guarantee planning department with guarantee operation office. Also divided IT department to IT development office and IT management department to strengthen its technology financing efficiency.

To reinforce on-site management of technology financing, KOTEC split its Daegu and Busan Business Headquarters, and also established the Masan and Gyeongsan Technology Appraisal Centers.



As of the end of 2015, KOTEC consists of a head office (10 departments and 2 offices) and its branch network (1 Central Technology Appraisal Institute, 4 Technology Convergence Centers, 6 Business Headquarters, and 54 Technology Appraisal Centers) and its staff which is comprised of 1,126 people, including 7 executives and 85 special service officer members under separate contracts.

Personnel Composition								
Category Executives 1st Officer 2nd Officer 3rd Officer 4th Officer 5th Clerk Special Service Officers Tota								Total
Headcount	7	19	82	226	439	268	85	1,126

O2 Organization and Human Resources

03 Major Operations

The major services are comprised of KOTEC's core services, i.e. technology guarantees, technology appraisals, guarantee-linked equity investments, and right to indemnity management; and supplementary services, i.e. business consulting and technology innovation support. The detailed description of these services is as follows.

			Major Operations				
(Category		Description				
		 Guarantees for loans borrowed by technology-based SMEs, including new technology b nesses, from financial institutions to start their businesses and develop and/or commerce their technology * New guarantees are no longer provided to companies that do not fall under the categor new technology businesses (as of Aug. 2004) 					
	Technology	Technology Startup Guarantee	Guarantees for technology startups less than five years old				
	Guarantee	Technology Innovation Guarantee	Guarantees for SMEs with excellent technologies such as venture and Inno- biz enterprises, green and knowledge-based service industries, 10 next- generation growth engine industries, and promising industries for future growth (6T)				
		Technology Appraisal Guarantee	Guarantees for companies with excellent technologies based on the tech- nology appraisal of intangible technologies and knowledge that the com- pany retains				
Core Services	Technology Appraisal		Appraisal of values that are being realized or can be realized in the future by the corresponding technology Appraisal of technological competence and feasibility of the corresponding business when a company is commercializing a specific technology or idea				
		Comprehensive Technology Appraisal	or expanding investment into current technology business Comprehensive appraisal of all technologies that the company re- tains in connection with the company's mission; technologies in- clude the management environment and business prospects				
	Guarantee- linked Inv.	stage technology firm	r investment in conjunction with a credit guarantee program for early- ns with distinguished business competency n Stocks, Preferred Stocks, CB, BW				
	Indem- nity Mgt.	is incurred until the ir - Pursuing legal proce	ntractual right to indemnity against credit guarantee debtor when default ndemnity right is duly expired. edures (auctions and lawsuits) and encouraging induced redemptions. ort into helping credit recovery and re-start for honorable failure busi-				
Supplementary Services	Management Consulting and Technol- ogy Advisory	- Business and techno	chnology consulting to improve efficiency and competitiveness ology diagnosis and consulting, startup education and training, sales nt, mentoring, restructuring and M&A, etc.				
y Services	Technology Innovation Support	 Certification of Ventu Certification of Green 	res & Inno-Biz I Technology & Green Enterprise				

KOTEC provides guarantees preferentially for innovative technology enterprises with technology leadership and growth potential; and specifically designates venture and Inno-Biz enterprises, technology startup enterprises, and excellent technology enterprises producing new growth engines to provide them with preferential technology financing. KOTEC also establishes specific goals (quota) for different categories to support technology startups, new growth engine businesses and R&D invigoration to further drive future economic growth.

Key Clients

- Venture businesses with high risks and high returns, unlike traditional SMEs
- Inno-Biz enterprises with competitive strengths based on their technological edge
- Technology startups with the capacity to create jobs and expand growth potential
- R&D enterprises with excellent technologies and goals of pursuing commercialization
 - Enterprises retaining excellent technologies such as new growth engine industries including green technology and advanced convergence industries, promising future industries (6T), and the knowledge-based service industry

Venture Business

- Technology-intensive SMEs seeking business opportunities with new and advanced technologies and ideas
- Types of Venture Enterprises
- Technology appraisal guarantee enterprises or technology appraisal financing enterprises
- R&D enterprises
- Enterprises receiving investment from venture capitals

Inno-Biz Enterprise

- Inno-Biz is a term derived from "Innovation" and "Business," and refers to a company that retains competitive strengths based on their technological edge
- Conditions for qualification as an Inno-biz enterprise:
- Enterprises that have been in operation for no less than three years, have obtained at least 700 points in the technology innovation system evaluation, and have achieved a grade of B or higher in their business evaluation

03

Implementation of Major Operations

01 Overview

The global economy in 2015 struggled under prolonged uncertainties resulting from the slowing economies of emerging countries and the Fed's normalizing interest rate. The domestic economy also slowed as a result of weakening exports and demands. Under this difficult situation, KOTEC worked to fulfill its responsibilities as a specialized technology financing vehicle to create jobs and new growth engine, with the goal of invigorating the slowing economy. In particular, KOTEC expanded its role despite its limited guarantee resources by focusing on enhancing the technological competitiveness of SMEs and by providing intensive support for the expansion of future growth engines. It also encouraged credit loans and investment in technology firms by advancing its technology appraisal infrastructure and appraisal specialties and techniques, and tightened its risk management practices and systematically exercised indemnity rights to solidify its business fundamentals.

A. Technology Guarantee

KOTEC pushed forward with structural improvements for marginal businesses and enterprises that received longterm guarantees in large amounts in order to prevent the deterioration of guarantees and to efficiently distribute guarantee resources while intensifying guarantee support for technology startups and new growth engine industries. The volume of total guarantees provided amounted to KRW 20.7 trillion in 2014, a KRW 550 billion increase from the previous year.



Year	2011	2012	2013	2014	2015
Guarantee balance	173,154	181,595	197,284	201,559	207,096
Guarantees offered	169,173	180,775	196,591	200,781	209,804
New guarantees	41,396	52,354	60,184	53,489	58,046

Unit: KRW 100 million

In addition, KOTEC identified three key areas with the greatest potential for job creation technology startups, new growth engine industries, and R&D financing and concentrated its guarantee support on these areas.



	2013	2014	2015			
	2010	2014	Plan	Actual		
Technology Startups	57,742	91,928	78,000	103,333		
New Growth Engine Industries	24,022	61,046	56,000	70,812		
R&D Financing	16,340	29,515	30,000	34,257		

Unit: KRW 100 million

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B. Technology Appraisal

Technology appraisal process involves the comprehensive review of the prospects of a technology, its marketability, and its business with regard to intangible technologies. The results of the review are expressed in amounts, grades, points, and opinions.

Since its first technology appraisal, conducted in March 1997, the number of appraisal cases by KOTEC have steadily increased every year to a total of 508,773 in 2015, with the accumulated appraisal fees amounting to KRW 276.1 billion. KOTEC's technology rating system (KTRS) has served as a tool to assess the potential value, the technological strengths and growth potential, feasibility of commercialization, and intangible asset values of technology. The goal of this system is to effectively support the government's SME technology innovation policy.







	2011	2012	2013	2014	2015
Technology Appraisal Cases (Cumulative)	40,702	45,702	45,414	46,941	54,676
	316,040	361,742	407,156	454,097	508,773
Technology	235	283	242	252	269
Appraisal Fees (Cumulative)	1,715	1,998	2,240	2,492	2,761

Unit: Cases, KRW 100 million



C. Default and Indemnity Rights Management

KOTEC manages the rate of insolvency-driven default via ongoing monitoring, restructuring and failure prevention programs. As a result of this work, the rate has been on the decline since its peak in 2006, closing at 4.1% in 2015.

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Incremental default amount	6,791	6,050	7,679	7,420	8,184	8,715	9,026	7,551	8,802	8,457
Default rate	6.1	5.4	6.1	4.3	4.7	5.0	5.0	4.0	4.4	4.1

Incremental Default Amount & Default Rate

Unit: KRW 100 million, %

Accommodating a new government policy for startups, KOTEC strengthened its default prevention and rehabilitation programs. As the environment for indemnity recovery is decaying as a result of increasing liability exemptions, such as petitions for bankruptcy and reductions in joint surety systems, KOTEC has pursued improvements in indemnity recovery by intensifying its efforts to discover new resources for indemnity recovery, executing collectability strategies differentiated by debtors, using information held by public institutions, and tapping into available legal procedures. It also sold long-delinquent receivables to the Korea Asset Management Corporation in order to improve the efficiency of receivable management.



Year	2011	2012	2013	2014	2015
Indemnity Rights Balance	18,042	19,641	18,594	19,076	19,719
Indemnity Rights Collected	3,222	3,150	2,416	2,113	2,294

Unit: KRW 100 million

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02 Technology Guarantee

A. Technology Guarantee Support

Total Technology Guarantee Support

KOTEC provided stable support for technology financing to SMEs to fulfill its role as a public guarantee institution specializing in technology enterprises. KOTEC also worked to help technology-innovative SMEs effectively secure strong economic competitiveness to prepare for current economic uncertainties and to thrive in the future. With a focus on new growth engine industries and technology startups. KOTEC provided KRW 20.980 trillion in guarantees to satisfy the financial needs of SMEs. Its guarantee balance amounted to 20.710 trillion, up 553.7 billion from the previous year.

In order to boost the economy and create jobs, KOTEC concentrated its support on SMEs with strong job creation capabilities, innovative technology enterprises capable of creating new growth engines, and export-oriented SMEs. KOTEC support for these businesses accounted for 96.1%, up 0.8% from 2014, of the total guarantees provided in 2015. KOTEC issued P-CBOs worth KRW 116.9 billion to divert SME loans from the indirect financing market to the direct financing market.

Improving the guarantee support system for technology startups and venture enterprises

KOTEC has concentrated its guarantee support capabilities on technology startups and venture enterprises, both expected to drive the future growth engine of the national economy and to have a significant impact on job creation, based on the principle of selective focus. Its guarantee volume for startups and new growth engine industries is continuously increasing.

Annual Guarantee Support									
2013 (%) 2014 (%) 2015 (%									
Total Guarantee Supply	193,539	100.0	196,032	100.0	209,804	100.0			
Tech Innovative SMEs	183,727	94.9	186,756	95.3	200,447	95.5			
Venture Businesses	115,860	59.9	111,718	57.0	119,368	56.9			
Inno-Biz	78,123	40.4	70,867	36.2	67,359	32.1			
Startups	87,142	45.0	91,928	46.9	103,333	49.3			
Tech Appraisal Guarantee	184,625	95.4	188,832	96.3	202,802	96.7			
Knowledge & Culture Industry	30,843	15.9	31,519	16.1	34,190	16.3			
Job-Creating SMEs	44,887	23.2	41,827	21.3	50,043	24.0			
New Growth Engine	57,742	29.8	61,046	31.1	70,812	23.9			
P-CBO Guarantee	3,052	1.6	4,749	2.4	1,169	33.8			
Total Guarantee Balance	197,284	-	201,559	-	207,096	-			

Unit: KRW 100 million, %

- Guarantees for Technology-Innovative Enterprises

To actively support government policy, guarantees for tech-innovative firms increased to KRW 20.864 trillion in 2015, up by KRW 1.260 trillion from 2013, and its share of the total guarantees provided also expanded to 96.1%, up 0.8%p from the previous year.

- Guarantees for Startups

KOTEC continued to provide guarantees for startups, no more than five years old, in order to enhance the vitality of the national economy and to create more jobs. KOTEC gradually expanded the share provided from 7.624 to 8.714 trillion won (45.0%) in 2013, to 9.193 trillion won (46.9%) in 2014 and then to 10.333 trillion (49.5%) in 2015.

- Technology Appraisal Guarantee

As a key player in technology financing, KOTEC established a robust technology appraisal system optimized for financing innovative technology enterprises, and increasingly utilized this system in providing KRW 20.280 trillion (97.2%) in technology appraisal guarantees, up KRW 1.397 trillion from the previous year's value of KRW 18.883 trillion (96.3%).

Selecting and Focusing on Pillars of Growth to Promote Creative Economy Initiatives

KOTEC is leading efforts to provide technology financing based on technology competency and growth potential to successfully back creative economy initiatives and efficiently distribute limited resources. In particular, KOTEC focuses on 4 pillars of high-growth potential sectors (excellent technology enterprise, green growth enterprise, export SME and venture startups) and high-risk new-growth areas that require policy support (i.e. Creative Economy Support Guarantee). KOTEC continues to expand guarantee support for technology SMEs in these aforementioned categories.



Unit: KRW trillion
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- B. Accelerating the Creative Economy in cooperation with Center for Creative Economy and Innovation
- Introducing the Preferential System for Enterprises Recommended the Center for Creative Economy and Innovation

As part of the creative economy initiatives of the government, innovations centers (collectively known as Center for Creative Economy and Innovation) were launched in each region of the country since 2014. Center for Creative Economy and Innovation(CCEI) serves as a startup hub that provide one-stop services, including support for commercialization of business ideas, incorporation preparation, feasibility studies, incorporation and bridging investment. It also serves as an incubator for foster startups and SMEs in each region in cooperation with relevant institutions. As operation of the CCEI requires multi-dimensional support, KOTEC signed an MOU with it for the first time with various other financial institutions, and has provided preferential guarantee support for those (whether incorporated entities or pre-startups with excellent ideas) located in the CCEI or those recommended by the Creative Economy Town (February 2015). In addition, KOTEC signed a trilateral MOU with the Industrial Bank of Korea (IBK) and CCEI (September 2015) and expanded its preferential guarantee support to 19 CCEI centers across the country. It also managed to secure special and regular contributions from financial institutions to provide a total of KRW 89.6 billion in preferential guarantees.

Enhancing Support Region-specific Sectors in cooperation with CCEI, Large Corporations and local Governments

Regional CCEI centers seek to maximize the capabilities of startups identified to have high potential by the CCEI. They provide support to these startups at each growth stage by engaging large corporations. As part of this support system, KOTEC signed MOUs with large corporations, CCEI and local governments to secure special contributions from large corporations and to provide customized financial support for region-specific businesses (February 2015). Thus far, several large corporations (LG, Naver, Hyundai Motors, KT, Doosan and Hanjin) have signed MOUs with CCEI in Chungbuk, Gangwon, Gwangju, Gyeonggi, Gyeongnam and Incheon, and have provided KRW 17.1 billion in guarantees.

C. Creating Jobs and Startup-friendly Environments through Technology Finance

Increasing Job-creation Guarantees and Support for Job-creating Companies

KOTEC identified several companies with high job-creation potential as job-creating companies, providing them with KRW 5 trillion in guarantees in 2015 alone, providing them with preferential fees and a simplified assessment process. KOTEC also tightened the renewal conditions set for companies in order to focus benefits on companies with actual job creation records. It provided KRW 498.5 billion in guarantees as working capital for new jobs through the Preferential Guarantee for for Job Creation in 2015, and extended coverage to part-time employees. As a proactive move to address youth unemployment, KOTEC implemented a Youth Employment Financial Support Program designed to specifically helps startups launched by young people. (In October 2010)

Expanding Startup Guarantee Support to Create Startup-friendly Environments

As it becomes increasingly important to explore and nurture tech-oriented startups to build the foundation for future growth and to tackle growth without employment, KOTEC has been expanding guarantee support for tech-oriented startups in their first five years since their foundation.

The Customized Startup Growth Program was created for startups falling in one of seven designated categories, including green growth startups, knowledge and culture startups, engineering startups, high-tech & core industry startups, one-man startups, startups established by people in their 40s & 50s, and intellectual property-based (IP-based) startups, to provide more focused support. Under this program, a total of KRW 2.748 trillion was provided to 11,506 startups.

In particular, guarantee support was expanded for early-stage startups, younger generation startups, and those with no sales records. Under these various programs, KRW 3.241 trillion (55.8% of the total new guarantees of KRW 5.80 trillion) was provided to 13,122 startups.

Establishing a Startup Safety Network to Encourage Startup Growth

To promote business startups and maintain economic resilience, the joint guarantee system was reformed. For individual business, only the actual owner/co-owner on the business registration is held responsible for a joint guarantee, if any. For institutions, the principle was formed to hold only the representative (i.e CEO or largest shareholder, etc.) liable. With this system in place, the average number of joint guarantee holders of new guarantees has continuously declined, and the market has decreased by 0.05 for individual businesses and by 1.02 for institutions in 2015. In addition, KOTEC expanded a special measure for liability exemption that was previously available only for excellent startups (with a technology rating of AAA) to include excellent technology companies (with technology rating of A).

In addition, KOTEC reevaluated discriminative components against former obligers whose legal liabilities expired or completed, and changed the terms and conditions for providing guarantee for companies that paid off their subrogate debts in order to ease burdens and encourage commercialization of creative ideas.

Category	2011	2012	2013	2014	2015
Individual Business	0.27	0.17	0.09	0.06	0.05
Corporation	1.55	1.14	1.07	1.03	1.02

Number of Average Joint Guarantee Holders for New Guarantees

Unit: persons

Holders in 2011

Number of Average Joint Guarantee

Individual Business 0.27 Corporation 1.55



Number of Average Joint Guarantee Holders in 2015



Individual Business 0.05 Corporation 1.02

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D. Incubating a High-growth, High Value-added Knowledge and Culture Industry as the Main Engine behind the Creative Economy

Consolidating the Growth Base for the Knowledge and Culture Industry

With the economic paradigm shifting towards an era of knowledge and information, KOTEC selectively designated the knowledge service and cultural content sector as a post-manufacturing growth engine and focused on developing its long-term road map. Under this plan, KOTE will expand new guarantee provisions for the industry to KRW 400 billion by 2019.

In 2015, guarantee coverage for the industry reached 16.4% (exceeding the planned 15.0%), as KOTEC expanded its proactive system to accommodate the knowledge and culture sector in the targeted subject of technology financing. KOTEC also sought to increase the volume of guarantees for the aforementioned sector.

Stepping Up Efforts and Support for the Knowledge and Cultural Industry

KOTEC continued to run its guarantee for high value-added service project, introduced in August 2013, to increase support for the knowledge services and cultural content industry. This program helps close the gap between funding demands and actual payment, which has long been a problem in the contract of such businesses. It aims to provide an environment which can foster the development of high-quality projects. KOTECT also the simplified guarantee renewal process to improve work efficiency and customer satisfaction (August 2015) and provided a total of KRW 114.4 billion in new guarantees.

Expanding Funding for Cultural Content Production by Introducing the Cultural Content Completion Guarantee

In September 2009, KOTEC implemented a cultural industry completion guarantee program for the cultural content development of games, dramas, animations, and movies to facilitate cultural content development and encourage investment. It accordingly increased its support limits to KRW 5 billion for high value-added content (games, dramas, animations, convergence CGs, etc.) and export content (so-called "Hallyu" or "Korean Wave" content) in order to invigorate the system by improving consumer access. KOTEC also introduced "Achievement Sharing Completion Guarantees" to exempt content developers with strong business cases from early repayment and to share their achievements more widely. Since its first implementation, the program has extended KRW 60.1 billion to prominent cultural content projects, including Six Flying Dragons (SBS Drama, 2015), Gone with the Wind (Musical, 2015) and the Cho Yong Pil Concert (2015).

E. Developing Customer-Oriented Technology Financing Infrastructures

• Simplifying Work Processes to Enhance Customer Satisfaction

KOTEC made further improvements in speeding up the work process and development of excellent IT systems to enhance customer satisfaction. It streamlined the guarantee renewal process; significantly eased the overall renewal and assessment process for existing customers with good credit ratings; simplified the procedures to change loan banks or convert individual businesses into institutions; eliminated inefficient steps in the guarantee assessment process; and integrated a post-guarantee provision management process.

KOTEC actively promoted the "Non-visit Period Extension System" that allows customers to extend their guarantees without the need to physically visit KOTEC's offices or branches. 58.5% of customers were found to have made use of the system. This significantly reduced the amount of time and effort spent by customers on document preparation and travel, enhancing both customer satisfaction and work efficiency of KOTEC.

Monitoring of guaranteed loan interest rates and mitigation of guarantee fee charges

To establish the institutional framework to lower SME loan rates, KOTEC renewed the terms and conditions for guaranteed loans, prohibiting banks from arbitrarily imposing additional rates. KOTEC also built an interest rate notification system that allows users to check the guaranteed loan rates over the last three months and compare their rates with those of others.

Furthermore, KOTEC defined the threshold for high interest rates and reinforced the monitoring system to discourage financial institutions from imposing excessive rates on guaranteed loans. For high-interest guarantee loans, KOTEC made it mandatory for lending banks to provide prima facie evidence of the reasoning behind the high rate and to submit it to the Financial Supervisory Service (FSS) for review. With stronger monitoring efforts, KOTEC managed to reduce financing cost by KRW 2.5 billion (0.71%p down in average lending rate from the previous year).



Enhancement of the regular monitoring system on guaranteed loan interest rates

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03 Technology Appraisal

A. Technology Appraisal Overview

Concept

Technology appraisal involves in-depth evaluation of the technological competence, business feasibility, marketability, and so forth of an intangible technology, with a focus on potential value. The evaluation results are then expressed in amounts, grades, points, or opinions.



Types of Technology Appraisal

Technology appraisals are categorized into technology valuation, business feasibility assessment, and comprehensive technology assessment, in accordance with the purpose and objectives of each appraisal.

	Types of Technology Appraisal							
Category	Definition							
Technology Valuation	Appraises the value of the technology currently being manifested or to be manifested in the future, and expresses the results of the appraisal in a monetary value							
Technology Business Feasibility Appraisal	Evaluates the value and feasibility of a certain technology and expresses it in a rating, in the case of an enterprise hoping to commercialize a specific technology or idea, or to expand the investment to currently promoting technology businesses							
Comprehensive Technology Appraisal	Comprehensively appraises all technologies the enterprise has in connection with the nature of the enterprise, such as the management environment and business prospects							

B. Operation of the Technology Appraisal Business

Progress

Since first introducing the Technology Appraisal Center and launching its technology appraisal system in Korea in February 1997, KOTEC has served as the leading appraisal institution which provides technology appraisal based guarantees, develops new technology appraisal systems (KTRS), and serves as the institution to issue venture certificates and green certificates.

1990	Mar. 1997 May. 1997 Oct. 1997 Aug. 1998 Nov. 1998 Feb. 1999	Opened technology appraisal center Designated as an agency for the appraisal of the technological value and business feasibility of patent technology (Invention Promotion Act) Designated as an appraisal agency for evaluating the industrial properties of venture enterprises as investment in-kind (Act on the Special Measures for the Promotion of Venture Businesses) Designated as an appraisal agency for identifying venture enterprises (Act on the Special Measures for the Promotion of Venture Businesses) Designated as a technology appraisal agency for the industrial properties of foreigners as investment in-kind (Foreign Investment Promotion Act) Implementation of technology appraisal guarantee system
2000	Apr. 2001	Designated as a professional agency specializing in technology appraisal, transfer
	Jul. 2001	of technologies and commercialization (Technology Transfer Promotion Act) Designated as a technology appraisal agency for the reference of venture enterprises' listed on the KOSDAQ (Korea Securities and Dealers Association)
	Aug. 2001	Designated as a technology appraisal agency for the selection of INNO-BIZ enterprises (technology-innovative SME) (Small and Medium Business Association)
	Sept. 2004	Launched a technology appraisal certification system (for internal use)
	Jul. 2005	Implemented the new KIBO (KOTEC) Technology Rating System (KTRS)
	Apr. 2007	KTRS acquired domestic BM patent
	Apr. 2008	Applied a patent registration for the international patent (PCT) for the technology appraisal system (KTRS) in other countries (Japan, China, and Singapore)
	Oct. 2009	Acquired a Korean patent for a technology appraisal model (KTRS-Startup) for use by venture businesses
2010	Apr. 2010	Designated as the appraisal agency for green certification by the government
_010	Oct. 2010	KTRS feedback system acquired domestic patent (two cases)
	Jan. 2011	Applied and implemented the research results for the advancement of KTRS (KTRS-V2.0)
	Nov. 2012	Developed a Green Technology Rating Model (GTRS) for improved assessment of Green Technology and related industries
	Dec. 2013	Improved the KTRS models and redefined system processes (by applying the results of commissioned research)
	Jun. 2014	Designated as a Tech Credit Bureau (TCB) institute
	Jul. 2014	Developed the Pre-Startup Appraisal Model
	Jul. 2015 Dec. 2015	Applied for BM patents (2 cases) on technology appraisal methods and know-how Developed the Investment-oriented Technology Appraisal Model

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Technology appraisal organization and manpower

To meet growing the demands for appraisal and to secure a sustainable financial sales network, KOTEC consolidated its technology appraisal business into one central technology appraisal institute, with 4 technology convergence centers and 54 technology appraisal centers as of the end of 2015.



* Ph.D Degree holders(Unit: persons)



KOTEC continues to nurture highly-competent, dedicated technology appraisal experts*, providing opportunities to learn new theories and increase knowledge on technology appraisals in general, and to gain actual field experience in appraisals.

Headcount	2010	2011	2012	2013	2014	2015
Total Employees	1,072	1,068	1,066	1,085	1,102	1,126
Dedicated Technology appraisal experts	578	559	532	578	552	592
Ph.D Degree holders (or equivalent)	126	131	134	147	154	168

% Dedicated technology appraisal experts: Ph.D Degree holders (or equivalent), those designated as professionals, members of the Technology Appraisal Department/Central Technology Appraisal Institute/Technology Appraisal Team, or those certified for Technology Appraiser Grade 2 or above

To overcome the limitations of in-house appraisal resources and to enhance in-house appraisal expertise, KOTEC established a pool of external advisors from the industry, academia, and research fields to perform swift and reliable technology appraisals.

Mechanical	ICT	Electronics & Electricity	Materials & Metals	Chemical	Textile	Total
173	129	132	89	83	13	
Biology	Environment	Financial Accounting	Patent/Law	Cultural Contents	Others	1,074
97	36	156	48	52	66	

Technology Appraisal System

KOTEC developed and operates its proprietary technology appraisal system, the KOTEC Technology Rating System (KTRS), to assess and grade intangible technologies and knowledge on the grounds of technological competence, business feasibility, and marketability, which have been difficult to evaluate with a finance-based credit rating system.

Optimized for technology financing, KTRS takes into account the future potential and risks of a technology-based business. Since its introduction in July 2005, it has proven its ability to forecasting incident rates and risks with continuous verification and improvements.



KOTEC has also developed a variety of technology appraisal models to meet different appraisal purposes and diverse consumer demands.

All companies	≻	KTRS (7 industries)	<u>, </u>	General manufacturing Biology	Environment	SW	Web-based	Design	Converge
- Startups within five years from establishment	-	KTRS-SM (7 industries)		General manufacturing Biology	Biology	SW	Web-based	Design	Converge
Firms over five years from establishment and with revenues no greater than KRW 1 billion	≻	KTRS-BM (7 industries)		General Biology	Biology	SW	Web-based	Design	Converge
Policy-purpose Model									
Finance support for mock-up creation after completion of R&D	>	R&D appraisal module (two areas)		For R&D compar		For R&D task appraisal			
Younger generation (founders aged 20 to 39) startups – (within three years from establishment) with a KOTE(guarantee of no greater than KRW 200 million		Younger generation startup appraisal module	All industries						
One-man business satisfying industry conditions and with a guarantee of no greater than KRW 300 million	≻	One-man creative business appraisal module (two areas)		Technology-based	d companie	es l	knowledge-l	based cor	npanies
Business satisfying industry conditions and with a guarantee of no greater than KRW 300 million	>	Innovative Knowledge Service Appraisal Module (six areas for startup/non-startup)		Startup R&D (engineering) Non- startup R&D (engineering)	R&D (liberal		Weiopment	ecurity system ecurity system	medical edu medical edu
- Cultural content firms	>	Cultural content appraisal module (11 genres)		Theater film drama character development other gam	online ga	ames mot		other other	musica performar music
Green growth industry businesses	≻	Green technology appraisal module (three areas)		Energy support technology	/ High-e	efficiency tec	chnology E	co-friendly pro	oduction ar g technolog
- Would-be entrepreneurs	\rightarrow	Pre-startup Rating Model	All business category						

KTRS Series Model

Technology Appraisal Performance

Since the launch of its technology appraisal business in February 1997, KOTEC has completed a total of 500,000 cases as of the end of 2015, securing KOTEC's status as the leading technology appraisal institution in Korea.



Technology appraisals for the government or public sector and technology appraisals for the private sector with fees higher than KRW 2 million are more challenging than other types of technology appraisals. They require more sophisticated expertise and objectiveness and greatly contribute to the expansion of the domestic market for technology appraisal and to the promotion of technology financing.



KOTEC was designated as a TCB (Technology Credit Bureau) institute in July 2014 by the government. It was given the responsibility of building a TCB system and the goal of supporting the growth of tech financing in cooperation with banks and private sector TCBs. From August 2014 to the end of 2015, KOTEC developed and implemented a temporary version of the Partial Interest Support System for TCB-linked credit loans in order to promote the settlement of the TCB system and alleviate user interest burdens.

TCB-linked Support Provided in 2014								
TCBs Provi	ded (Cases)	Partial Interest Sup	oport (KRW million)					
2014 (2nd Half)	2015	2014 (2nd Half)	2015					
4,360	9,639	933	2,050					

% For new loans provided to the excellent technology enterprises, KOTEC covers 1-3% of the interest depending on the enterprise's technology level.

C. Major Progress and Achievements of Technology Appraisal in 2015

• Serving as a frontier for the Korean intellectual property (IP) financing

Equipped with the best technology appraisal infrastructure in the country, KOTEC stands at the heart of driving IP finance. KOTEC introduced advanced financing programs, such as IP Technology Value Appraisal Guarantees and Technology Value-linked Guarantees, in 2016 for the first time in Korea. It restructured these programs into the IP-based Guarantee System which allowed for greater coverage in August 2013 so as to provide differentiated guarantee services for technology SMEs based on their IP value.

As the IP-based Guarantee System involves technology value appraisal on top of the general technology appraisal process, it requires much more sophisticated technology and expertise as well as higher costs. As such, it has not been used extensively. However, KOTEC has signed MOUs with relevant institutions, including Korea Intellectual Property Office (KIPO), several commercial banks and the Foundation for Cooperation between Large Corporation and SMEs, to reduce financing costs for technology SMEs and to proactively drive the IP guarantee services.



% Differentiated in-depth appraisal procedure for Technology Value Appraisal

Types of IP Guarantees										
Туре	IP Valuation Guarantee	IP Acquisition Guarantee	IP Investment Guarantee							
Eligible Applicants	Companies that have completed IP development and plan to commercialize the IP (including exclusive licensees)	Companies that plan to acquire (e.g. purchase, license, etc.) IPs for commercialization	Companies that have completed IP development and plan to commercialize the IP (including exclusive licensees)							
Eligible Loans	Loans for working capital required for the commercialization of the applied IP	Loans for capital investment or working capital required for the acquisition and commercialization of the IP	Bonds (convertible bonds or bonds with warranty) issued by companies holding excellent IPs							

IP Guarantee Support Offered											
Types	20	12	2013		2014		2015				
турез	cases	amount	cases	amount	cases	amount	cases	amount			
Total IP Guarantee	1,110	2,002	1,138	2,105	1,579	2,952	2,250	4,349			
IP Valuation Guarantee	995	1,794	1,020	1,915	1,313	2,602	1,794	3,811			
IP Acquisition Guarantee	115	208	118	190	266	350	455	535			
IP Investment Guarantee	-	-	-	-	-	-	1	3			

IP Guarantee Support Offered

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• Enhancing SME commercialization capabilities through R&D guarantee

KOTEC introduced its R&D Guarantee Support program in 2008 to identify high-potential R&D projects and provide support for the entire lifecycle of the projects in order to provide financial support and facilitate technology development and commercialization.

Entire R&D Lifecycle Guarantee System										
Stage	Plan	ning or Development	Prototype		Commercialization or Production					
Development										
Pre-commercialization		•								
Commercialization										
Eligible Fund		R&D costs for the technology applied	Cost needed for prototype after R&D completion	сар	or capital investment or working ital for commercialization and duction after R&D completion					
Appraisal Meth	od	Business feasibility test an	nd economic value analysis		Business feasibility test					
Appraisal Mod	lel	R&D Appra	isal Model	KTRS / KTRS—SM						

KOTEC introduced Technology and Industry Convergence Guarantees to offer preferential treatment, such as the reduction of guarantee fees and ease of screening processes, to better support convergence between and across technologies and industries. This move is expected to create new industries and markets in combination with human imagination and creativity, and the program is currently supporting innovative SMEs that are developing, utilizing, or commercializing convergence technology.

Technology Convergence Guarantee System										
Convergence Stage	Convergenc	e underway	Commercial production after convergence completed							
Convergence Stage	Technology adoption stage	R&D stage	Commercialization/production stage							
Guarantee type	Technology converge	ence R&D guarantee	Technology convergence business guarantee							
Funding Purpose	Funding for technology introduction etc.	Funding for R&D Funding for pilot product creation	Funding for R&D commercialization Funding for production							

R&D Guarantee Support Offered

Туре	2012		2013		2014		2015	
туре	cases	amount	cases	amount	cases	amount	cases	amount
Total R&D Guarantee Offered	4,696	16,340	6,713	24,022	8,543	29,515	10,853	34,257
Development	1,693	2,883	2,650	4,506	3,601	5,987	5,023	8,103
Pre-commercialization	671	1,232	687	1,208	687	1,139	731	1,210
Commercialization	2,332	12,225	3,376	18,308	4,255	22,389	5,099	24,944
Total Technology Convergence Guarantee Offered	-	-	910	4,145	1,841	6,804	2,302	9,513
Development	-	-	45	54	205	281	277	511
Commercialization	-	-	865	4,091	1,636	6,523	2,025	9,002

Unit: cases, KRW million

Supporting for technology transfer and commercialization

KOTEC launched its technology transfer and commercialization program in January 2014 to drive creative economy initiatives. This program focuses on transferring and commercializing national R&D performance in order to provide open innovation of SMEs and create jobs. KOTEC implemented Tech Bridge, the online platform for this program, in September 2014, and as of the end of December 2015, its database has accumulated 288,161 cases of technology support data and 2,645 cases of technology demand information.

KOTEC's technology transfer and commercialization platform organically incorporates the online platform (Tech-Bridge) and the dedicated team (Technology Convergence Center). It provides a demand-oriented technology transaction infrastructure and a platform for cooperation with technology information providers (104 institutions as of December-end 2015) in order to boost national R&D performance and incubate high-potential technology innovation companies.

Technology Transfer and Commercialization Support Process

Aggregation of Technology Information Exploration of Technology-company matching Financial and demander companies consulting support Categoriza-Collection of Technology Demand study technology tion of Technology Investmentand provision of Business and information from technology Tech Fair relevance guarantee technology apability test management public research Transferability and database support information consultina institutions, etc. building

% Implementing on-offline integrated support system for technology transfer and commercialization



Technology Transfer and Commercialization Support Performance

% Technology transfer and commercialization performance jumped after implementation of the Tech-Bridge Platform

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Laying the foundation for technology finance

As the sole public member of the TCB, KOTEC signed an MOU with 7 commercial banks on "TCB Rating-based 1+1 Finance Support for Excellent Technology Companies" and launched the "1+1 Agreement Guarantee" in order to provide technology financing for innovative tech-based SMEs.

The "1+1 Agreement Guarantee" is a structured finance product where KOTEC provides a guarantee certificate and a TCB certificate report to one of the collaborating banks, and the bank provides both TCB-based guaranteed loans and credit loans.

This new product enables tech SMEs to secure financing for their business operations, and take advantage of preferred interest rates from the collaborating banks. They may also receive guarantee fee supports (0.6% for up to 3 years), guarantee fee exemptions and preferred guarantee ratios from KOTEC.

1+1 Agreement Guarantee Provided (Sep to Dec 2015)						
Collaborating Banks	Support Cases	Guarantee Amount	Tech-based Credit Loan			
IBK, Shinhan, KB, Woori, KEB Hana, Busan and Kyungnam	2,382 cases	KRW 517.5 billion	over KRW 52 billion			

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In addition, KOTEC operated online and offline education programs to cultivate the development of technology finance specialists in an effort to support the government initiative, "TCB Loan Development Roadmap". The education programs focused on practical knowledge and training, such as technology and market details of each industry, to improve the expertise of technology financing staff of commercial banks and venture capitals, and to provided them with networking opportunities to exchange relevant information.

Specialized Training Program for Technology Financing

Curriculum	Understanding of Technology Financing	Specialist Course
Details	4 weeks, online	9 weeks, in-class
Participants	3,300 people	100 people

In 2016, KOTEC will launch its internal "Technology Appraiser" system to the public and a "Technology Credit Appraiser" certificate to cultivate technology finance specialists and to provide more online and offline education programs. Once applicants pass the exam, KOTEC will operate practical training programs for each level.



※ 1+1 Agreement Guarantee Provided (Sep to Dec 2015)

Invigorating technology-oriented venture capital markets

KOTEC implemented the Preferential IPO for Tech SMEs system in cooperation with Korea Exchange in order to facilitate the technology-oriented venture capital market. The system enabled tech SMEs to go IPO to KOSDAQ or KONEX based on their technology appraisal results even though they were not able to meet the financial requirements.

	Preferential IPO for Tech SMEs						
	Details						
Requirements	Companies that received technology appraisal ratings of BBB from 2 or more from specialized appraisal institutions and A from one or more						
	2013 2014 2015						
Performance	Appraised 4 5 12						
	Listed	1	2	2			

In addition, KOTEC developed and distributed a Investment-oriented Technology Appraisal Model, which identifies appraisal benchmarks for growth potential and investment returns. The model will be used for the Industrial Technology Commercialization Project Fund of the Ministry of Trade, Industry and Energy, and the Technology-oriented Venture Capital Incubation Program of the Financial Services Commission (FSC).

	TCB Model vs. Investment-oriented model					
	TCB Model Investment-oriented Appraisal Model					
Focus	Stability and default risk	Technology-based growth potential				
Feature	Focusing on returns on principal (of the banks etc.)	 ① Focusing on investor (e.g. VC) metrics ② Specified by growth stage (pre-commercialization, post-commercialization, and thereafter) 				
Key Metrics	Technology level, technology innovation level and commercialization capability etc.	Technology security, entrepreneurship, business-driving capability etc.				
Usage	Technology credit loan (loan)	VC, angel investment assessment (investment)				

Meanwhile, KOTEC provided 626 Investment-oriented Technology Appraisal Certificates to the Growth Ladder Fund and New Growth Engine Fund in 2015. These certificates were used in the VC investment assessment. KOTEC also signed MOUs on the Investment Facilitation for Technology Value Fund with 7 technology value fund operators and TCBs to drive investment in SMEs and venture businesses.



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Cultivating a financial Korean Wave by globalizing technology appraisal

KOTEC has improved its global awareness and standing by implementing global exchanges and technology appraisal system transfers. These efforts finally paid off in 2015.



Technology Appraisal Globalization Strategy

Technology Appraisal System Transfer to Overseas

Recipient	State Agency for Technology Innovation (SATI)	TCG
Details	Establishment of Vietnam Technology Rating System (VTRS)	Establishment of Thai Technology Rating System (TTRS)

To be specific, KOTEC helped environmental tech companies such as WIPO GREEN, an international intellectual property organization under UN, enter the international market. This was the result of a request by the UN to facilitate wastewater treatment technology transfer to 3 South East Asian countries. KOTEC also conducted a technology business feasibility study on Korean startups as requested by a Swiss investor. The investor put approximately USD 10 million in FDI into the Korean market, which led to a USD 100,000 in technology appraisal fee income for KOTEC.





04

Guarantee-linked Investment

(1) Guarantee-linked Investment

A. Overview

KOTEC has operated a guarantee-linked investment program since 2005 to expand direct financing and to improve financial restructuring for innovative tech SMEs. The program was stipulated as a unique responsibility of KOTEC in June 2012 by the amendments made to the Korea Technology Finance Corporation Act. In particular, the program aims to promote policy directions for investment-oriented financing in the new government and to preemptively absorb market risks, leaving loan-centered financing practices and excessive risk-aversive attitudes behind.

B. Investment Type

The applicable investment method is the acquisition of stocks, convertible bonds (CBs), and bonds with warranties (BWs).

C. Investment Subjects

SMEs meeting all the following conditions are eligible for this investment.

- ① Leading firms in technology innovation in their first five years of establishment,
 - * If needed, firms in new growth engine or green growth industries, as well as R&D firms, may be exempt from this requirement.
- ② Firms that are under a guarantee as of the investment assessment date (or under an approved guarantee),
- ③ Firms with technology appraisal grades of BB or higher, and
- * However, in the case that the investment amount exceeds KRW 1 billion or the integrated amount of investment and guarantees exceeds KRW 5 billion, the technology appraisal grade must be BBB or higher.
- ④ Venture firms by law (or Inno-Biz firms).

D. Investment Limit on Individual Enterprises

An investment in an individual firm shall be capped at KRW 3 billion, and the integrated limit (guarantee + investment) at KRW 10 billion, provided that the investment amount shall not exceed the guarantee amount for the corresponding firm.

Technology Appraisal Grade	BB or higher	BBB or higher
Investment Limit on Individual Company	KRW 1 billion	KRW 3 billion
Integrated Limit on Individual Company (Guarantee+Investment)	KRW 5 billion	KRW 10 billion
Investment Limit on Related Party	KRW 3 billion	KRW 3 billion

※ Investment Limit: KOTEC investment amount

% Integrated Limit: A gross amount of the guarantee and investment provided by KOTEC, KODIT, and KOREG

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E. Investment Process

KOTEC comprehensively evaluates investments, taking into account technology competence, marketability, business feasibility, credit ratings, and ROI, based on well-established technology appraisal procedures.

Identification of Investment, Application and Pre-screening	Credit Evaluation and Technology Appraisal (Due Diligence)	Valuation and Negotiations on Terms and Conditions	Investment Valuation Committee	Investment Contract and Execution	Post- management and IPO Support	Collection of Investment (Sales/ Redemption)
Branch Investment Team	Branch Investment Team	Investment Team	Investment Team	Investment Team	Investment Team IPO Support Team	IPO Support Team (Sales Commit- tee Investment)

F. Operating Performance

Since its first investments in 2005, KOTEC has invested KRW 174.1 billion in 150 companies, and posted an accumulated earning rate of 8.4%. The following table details the operating performance by year.



(Unit: No. of companies, KRW 100 million)



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(2) Guarantee with Investment Options

A. Overview

This program, implemented in April 2014, provides guarantees with an option that allows KOTEC to convert the corresponding guaranteed loan into an investment before the maturity of the guarantee (from a given point on) after it has provided seed money (in the form of a guaranteed loan) for a startup with excellent technology. Its coverage, eligibility and guarantee limit were extended in February 2016 to provide access to more companies.

B. Eligible Companies

Any leading tech-innovative company within the first five years of its establishment and with a technology appraisal grade of BB or higher

C. Eligible Loans

Any working capital loan from financial institutions, including NH Nonghyup and Suhyup, on the condition of lumpsum payment on maturity

D. Guarantee Limit and Period

Up to KRW 1 billion per company and up to five years from loan acquisition

E. Guarantee Process



F. Preferential Conditions

Full guarantee (100%) and fixed guarantee fee rate (0.5%)

05 Enterprise Support



A. Venture Startups Class

For Pre-startups in their infant stage, KOTEC offers 5-day specialized and intensive courses to promote the development of a venture boom with the goal of encouraging the growth of business startups and job creation, ultimately contributing to regional economic development.

2015 Venture Startup Class Graduates						
Region Seoul(1st) Seoul(2nd) Total						
Graduates 104 90 194						

Unit: persons

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B. Successful Business Startup Class for CEOs of Sprout Enterprises

To help sprout enterprises (tech-oriented startups within two years of establishment and with less than KRW 100 million in new guarantees) establish stable business grounds and succeed in their business, KOTEC provides the CEOs of such enterprises with free classes on best practices, funding, accounting, taxation, and marketing. By providing various types of learning venues required for early-stage startups and by enabling sharing of best practices, KOTEC has helped these businesses successfully take root at an early stage, explore new business areas, and form partnerships and human networks through exchanges with other sprout enterprises.

2015 Sprout Entrepreneurship CEO Class Graduates							
Session 21st 22nd 23rd 24th Total							
Graduates 80 88 89 90 347							

Unit: persons

C. Specialized Class for CEOs of Growing Enterprises

This program is offered free of charge for the CEOs of KOTEC client companies in their third to fifth years of business experience, displaying excellent technology and growth potential. Implemented in 2014, the three-day program aims to improve CEO capabilities to promote growth in their business.

2015 Growing Enterprise CEO Class Graduates						
Session 3rd 4th Total						
Graduates 53 48 101						

Unit: persons

D. Technology & Management Consulting

KOTEC operates a technology and management consulting program for the entire cycle of a business and provides a business diagnosis for management improvement and failure prevention, in order to help SMEs mitigate their risk via management systems. In particular, KOTEC provides free consulting services for pre-startups and early-stage startups in order to help them successfully launch and settle a new business. It seeks to guides startups onto the right path for a successful business based on KOTEC's insightful business analysis and various enterprise support systems.

Since 2012, KOTEC has operated the SME Health Management System on behalf of SMBS, and has successfully established a system which provides diagnosis, prescription, and customized treatment to help SMEs solve problems and prevent management crises. These measures ultimately support the sound growth and development of SMEs. In 2015, KOTEC began business diagnosis consulting by tapping into its own resources and tools to normalize businesses that have technology and business potential but are under duress.

In the second half of 2014, KOTEC launched a professional consulting business for each growth stage, ranging from startups to growing enterprises to rehabilitation businesses, completing a business life cycle framework for consulting.

Framework of Technology & Management Consulting

Tranework of Teenhology & Management Consulting					
Pre-startup Stage	Startup Stage	Growth/ Maturation Stage	Crisis/ Rehabilitation Stage		
Startup Mentoring Program (Pre-startups, Start within one year of establishment) Diagnosis Consulting	Diagnosis Consulting (Graduates of Sprout Entrepreneurship CEO Successful Business Startup class,3MDs)	Specialized(in-depth) consulting (Companies in growth, emerging and rehabilit stage, etc., 4MDs or more) Diagnosis Consu (Companies under dure or in need of restruct			
(Venture startup class graduates, 1MD)		E Health Management System ness improvement companies			

% MD: Man-Day (A consulting work unit conducted by one professional per day (8 hours))

	2013 recimology and Management consuling Support						
Consulting Type	Startup Mentoring Program	Startup Consulting	Diagnosis Consulting	Specialized Consulting	SME Health Management System	Total	
No. of support	1,096	40	174	99	1,525	2,934	

2015 Technology and Management Consulting Support

E. Support for Venture and Inno-Biz Firms

To create sustainable growth momentum in the national economy, KOTEC has increased its support for Venture and Inno-Biz firms to KRW 13.464 trillion in guarantees, 65.2% of the total guarantees provided.

Venture & Inno-Biz Guarantee Support								
	2008	2009	2010	2011	2012	2013	2014	2015
Venture	76,444	118,128	109,967	109,895	111,459	115,860	111,718	119,368
Inno-Biz	66,783	95,746	89,697	85,102	83,730	78,123	70,867	67,359
Total*	93,204	140,220	132,619	128,650	131,778	135,258	130,858	134,635

※ Excluding duplicate data for ventures and Inno-Biz (excluding re-guarantees)

Unit: KRW 100 million

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F. Venture-In (Venture Confirmation and Disclosure System, www.venturein.or.kr)

KOTEC launched its Venture-In web platform to identify and nurture venturers, allowing them to grow into their role as the core future growth engine. The platform also facilitates interactive exchange between investors and companies, thereby promoting venture investment. The effort was aimed at managing venture data more systematically and enhancing the transparency and credibility of the data. KOTEC further opened a call center dedicated to Venture-in (1544-1120) to provide 1:1 customized services in an effort to increase customer satisfaction and convenience.

G. Business Support System by Growth Stage

1. Pre-Startup Stage					
Support Program	Description				
Pre-Guarantee for Pre-startups	Set a support limit (amount) for pre-startups and provide the support immediately after starting a business				
Younger Generation Startups Preferential Guarantee	Support startups in the first five years of their foundation, and established and run by young owners (aged 17-39)				
Growth Program Customized for Startups	Support qualifying* startups in the first five years of their foundation * Qualifications: one-person creative firm, green business, knowledge and culture business, high- tech core industry, startups by science and engineer majors, or firms established by those in their 40s and 50s				
Patent Startups Preferential Guarantee	Support startups in the first five years of their foundation and commercializing IPs (including patents)				
R&D Guarantee	Provide systematic R&D finance for the entire R&D cycle (development, preparation for commer- cialization, and commercialization) through R&D finance matching processes				
Successful Business Class for Sprout Entrepreneurship CEO	Provide education opportunities (taxes, accounting, marketing strategy, and best practices) for startups in the first two years of their foundation and on KOTEC guarantees of no greater than KRW 100 million				
Venture Startup Class	Provide practical training on business (e.g., funding strategies, HR, law, and IP management) for to- be and infant-startup entrepreneurs				

2. Growth Stage

Support Program	Description
Guarantee for High Value- added Service Projects	Provide guarantees for the entire project cycle of a contract, such as IT solution development, SI service outsourcing, and cultural content creation
Preferential Guarantee to Foster Star Venture Firms	Develop excellent ventures at their growth stage into major pillars of the Korean economy
Guarantee for Technology & Industry Convergence	Provide guarantees for firms working on or utilizing technology & industry convergence
IP Finance Support	Provide funding support for the future value of IP and commercialization of IP
Support for Job-creating Firms	Provide preferential guarantees for firms with large job creation potential and funding for recruiting new employees
Cultural Industry Completion Guarantee	Support firms creating cultural content (movie, game, cartoon, animation, digital content, music, and broadcasting)
Guarantee-linked Investment	Invest in association with guarantees to improve SME financial conditions and in increase direct financing for SMEs

Venture & INNO-BIZ Certification	Assess and confirm Ventures (technology appraisal guarantee firms, R&D firms, and to-be venture firms) and Inno-Biz firms governed by the SMBA
Technology Value Appraisal (Technology Transfer/ Transaction)	Appraise technology for transfer or sale to objectively evaluate the value
Technology Appraisal Certification (Reference for Investments/Loans)	Furnish technology appraisal certifications that include a grade and consulting to financial institu- tions to promote investment and loan financing
Specialized Class for Growing Enterprises	Operate specialized training program (including management strategy simulation) for CEOs of growing enterprises (with high growth potential and excellent technology, three to five years)

3. Maturation Stage

Support Program	Description
Guarantee based on INNO-BIZ Financial Support	Provide preferential support for Inno-Biz firms through financial support agreements with banks * 15 banks: KDB, IBK, Woori, Hana, KB, etc.
Guarantee Based on Special Contributions by Financial Institutions	Financial institutions raise funding resources through special contributions and KOTEC provides partial guarantees and fee support
Share-growth Guarantee	Provide guarantees to SMEs recommended by large corporations so that large corporations will pay matching contributions or special contributions
Preferential Guarantee for Equipment Loan	Provide CAPEX financing after preferential guarantee evaluation to encourage capital investment
Preferential Guarantee for Export SMEs	Provide export financing to SMEs for channel diversification, etc.
P-CBO	Acquire SME-issued corporate bonds to provide them with direct financing opportunities and improve their financial conditions
Technology Transfer and M&A Intermediary	Provide intermediary services to promote technology adoption for competitiveness and to restruc- ture businesses for stable operation
Green Certification Appraisal	Verify and certify green technologies and businesses to support the green industry
R&D Project Feasibility Test	Test the technological and economic feasibilities of R&D or tech projects

4. Crisis/Rehabilitation Stage

Support Program	Description
Urgent Management Stabilization Guarantee	Provide prompt and adequate guarantees for firms in urgent need of funding
Management Improvement Support Guarantee	Help the normalization of guaranteed firms that have technology and potential but are experiencing difficulties
Fast-Track Liquidity Guarantee	Provide liquidity in a timely manner for SMEs facing temporary liquidity stress
Guarantee for Co-workout firms	Provide guarantees for firms for which creditor banks have already established a normalization plan as per the Corporate Restructuring Promotion Act and bank agreement
Re-start Business Revival Support Guarantee	Provide support for credit rehabilitation and the restart of failed SMEs to prevent the loss of tech- nology and experience, and help with their rehabilitation
Rehabilitation Guarantee for Re-starting Business Owners	Provide both rehabilitation support guarantees and new guarantees for SME owners with promis- ing restart potential
SME Health Management Program	Provide health checks and treatment (diagnosis prescription treatment) for SMEs in cooperation with other institutions (like SMBA)

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06

Indemnity Rights Management & Rehabilitation Support

A. Establishment of a Recovery Ecosystem

As a public promotional institution, KOTEC's goal is to foster a paradigm shift in the guarantee support system in order to fulfill its social responsibilities and create a sound culture for rehabilitation. To this end, KOTEC operates the "Re-start Business Revival Support Guarantee" through the Credit Counseling & Recovery Service (CCRS) on top of its own existing resources.

With this new program, KOTEC will lay a cornerstone for entrepreneurs with previously failed businesses to restart, pursuing a balance between debt collection and support for the obligers.



B. Efficiency Enhancement of Default and Indemnity Rights Management

KOTEC has launched enterprise-wide efforts to improve default and indemnity rights management so as to improve KOTEC's financial soundness, guarantee resources, and recovery support.

Default Management

KOTEC calculates the risk rates of each branch center and allocates an estimated annual risk amount to each according to their risk rate. This is a new framework that enables personalized management of stable risk rates for each center.

Category	Net Increas	Gap	
Galegury	Forecasted	Actual	Gap
Amount	KRW 936.0 billion	KRW 838.0 billion	KRW 98 billion ↓
Default Rate	4.8%	4.2%	0.6%p↓

Note: excluding companies included in ABSs

Default and subrogation trends by year

Despite the global economic slowdown and the slow growth in Chinese demand, the prolonged low interest rates have helped KOTEC manage a stable trend in default and subrogation rates. In addition, debt collection conditions have become more difficult as a result of exemptions, the elimination of joint guarantees, and the debt forgiving efforts of the government. KOTEC has, nonetheless, been able to maintain the actual collection rate at 75% since 2013 and is working to improve the quality thereof.



Efficient management via sale of special receivables

KOTEC has sold special receivables, resulting in sales of KRW 6431.1 billion as of the end of December 2015 since the first disposition in 2011. This has improved efficiency by eliminating the existence of uncollectable receivables and by removing limits on the rehabilitation procedure which prohibited write-offs. After discussion with the Financial Services Commission (FSC) in July 2014, KOTEC received permission to sell "indemnity rights that have passed a year or more since subrogation." In 2015, KOTEC sold non-performing loans amounting to KRW 503.5 billion to the Korea Asset Management Corporation (KAMCO).

• Efficient management of indemnity rights by establishing the Turnaround Management Center

KOTEC established 8 Turnaround Management Centers in major cities across South Korea between July 2014 and January 2015. These centers manage the work of 49 branches across the country to improve productivity and accumulate management know-how. Although this new system has increased the workload per person, e.g. accountable companies per staff, the collection amount per staff has also increased, resulting in overall higher productivity.

Efforts to Support the Restart of Earnest-failure Business Owners

KOTEC provided rehabilitation opportunities and "Specialized Lectures for Restarting CEOs" for earnest-failure business owners, in addition to guarantee support and management consulting, to help in their restart attempts. KOTEC has proactively responded to increasing demands for rehabilitation support guarantees and expanded its coverage and support amount since the implementation of the Rehabilitation Support Guarantee Program in April 2012, fully serving its public responsibility.



• Simplification of the process for rehabilitation support guarantees

To meet the increasing demands for rehabilitation support guarantees, KOTEC simplified the support procedures (e.g. delegating more authority to heads of branch centers and waiving the mandatory participation of technology appraisal advisers for qualified applicants), and prepared a "Program to Encourage Business Re-start" with the FSC in October 2015 to further ease demand on the system.

Proactive management support for business restarts

KOTEC opened a series of specialized lectures for restarting CEOs in May 2014 as part of a support program to complement guarantee support. With these lectures, KOTEC completed a comprehensive support ecosystem including "identification of earnest-failure business owners provision of rehabilitation support guarantees post management and support activities (management consulting, specialized lectures for restarting CEOs) restarts for success."

- [Specialized Lectures for Restarting CEOs]
- Period: May 21-22, 2015 (2 days)
- Venue: KOTEC HRD Center
- Participants: 36 rehabilitating business owners
- Key subjects: practical subjects (such as taxes, accounting and labor relations), best practices, and special lecture (self-management etc.)

In addition, KOTEC proactively identified and promoted the success cases from these rehabilitation efforts to raise social awareness of restarts and facilitate the successful growth of the program.

07

Recruitment and Personnel Development

A. Recruitment

Based on the mid-to-long term management plan, KOTEC investigated the staffing gap to assess needs and implemented a recruitment plan to take the lead in the government's job creation policy. This is part of KOTEC's goal of growing into a comprehensive technology support agency and supporting government efforts to address the problem of youth unemployment. KOTEC hired new employees based on the National Competency Standards (NCS) to nurture a merit-based culture.

By launching several new business projects (such as the TCB and cultural contents businesses) and creating new positions, KOTEC was able to hire 22 new full-time employees in 2015. In addition, it also hired 40 new staff members using its own resources. In solidarity with government policies to increase employment rates and provide more opportunities to the underprivileged, KOTEC hired 39 new employees all under 34 years old, including 3 recent high school graduates as part-time workers in order to give them more time to prepare themselves for further education.

KOTEC particularly values the importance of technological talents. As such, it promoted and settled technology financing options and adopted an NCS-based recruiting process. In 2015, KOTEC hired 8 new doctoral degree holders (20%), 16 science and engineering majors (40%), and 16 local talents (40%), representing a high share of doctoral, science/engineering, and local talents.

In addition, KOTEC established a quota (35%) for female talents in recruitment and internships, and assigned female interviewers to encourage female employment. As a result, women accounted for over 37.5% (15 people) of the 40 newcomers in 2015, and over 60% (35, 67.5%) of the 52 interns. Furthermore, KOTEC transferred 10 female temporary workers (who had been working for KOTEC for one year or longer) into permanent contracting positions in an attempt to improve their overall job security and decrease the number of non-regular workers.

New Full-time Employees in 2015								
	Total	Employment Support	Intern	Local	Female	Engineers	High-school Graduates	
New Employees	40	3	9	16	15	16	3	

Unit: persons

Intern Employment Record									
Year	Total	Disabled	Local	Female	Engineers	High-school Graduates			
2015	52	7	28	35	9	8			
2014	47	4	24	37	9	3			
Total	99	11	52	72	18	11			



<New Full-time Employees in 2015>

16

High-school Graduates

Employment Support

15

Total : 40

Intern

Unit: persons

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B. Personnel Development

KOTEC believes that competent and creative talents capable of developing future value through imaginative thinking are the most precious of assets. Therefore, it has implemented various programs for employees to help them to become the best in their fields.

For efficient resource development, KOTEC established a Resource Development Team dedicated to HRD at the KOTEC headquarters and an in-house training center for HRD training in Yongin, Gyeonggi Province.

KOTEC's HRD system is built around an expert pool of in-house lecturers, the Cyber HRD Center, and the Cyber Cultural Center. It focuses on three categories of basic competencies for all employees: leadership, job skill, and the corresponding credit earning systems. For each category, the system is composed of basic courses, professional courses, and advanced courses to provide a training road map tailored to the position and job responsibilities of each employee.

To better meet the needs of the digital era, to minimize the gap from off-site trainings, and to ensure that selfinitiated learning throughout the year takes root, the Cyber HRD Center has been established to put many of the courses online and keep business running efficiently.

The 2015 resources were developed based on the resources management and development plan in conjunction with the mid-to-long term management plan. A comprehensive education training plan for 2015 was built upon feedback from the training and education programs of the previous year.

KOTEC focused particularly hard on establishing training courses for practical work skills in 2015. It added the Technology Appraiser Advanced Class and the Management Advanced Class, among other classes, to the basic curriculum for the supplementary technology appraiser program and created a professional consulting program by establishing a consulting training course. To create a friendly corporate culture and to expand family-friendly education, KOTEC provided a wide range of training programs, including the Family Love Camp (2nd, 209 participants, in January), cultural experience training by region (Yeoju and Hapcheon, in May, 282 participants), reinvigoration training for long-term employees (58 participants who have been working for KOTEC for 20 or more years, in August), technology and cultural experience training (perennial, 60 participants), and labor-management unification training (101 participants, in September.) It also operated a leadership program for each level to improve their innovation and foster remarkable talents.



2012 2014 2015 Type 2013 In-House Off-Site Training 1,370 1,711 2.948 2.937 External Off-Site Training 535 535 699 799 3,078 3,410 Cyber Training 3,351 4,158 **Overseas Training** 58 60 58 61 5,314 Total 6,464 6,783 7.207

2015 Human Resource Training Result

Unit: Persons	Unit:	Persons
---------------	-------	---------

08 Customer Satisfaction

A. Overview

KOTEC's customer satisfaction (CS) initiatives in 2015 included more customer-centered services, better CS capabilities for frontline employees, and intensive management in poor-service areas. As a result, it received a score of 88.3 out of 100 in the Public CSI, as surveyed by the Ministry of Strategy and Finance.

B. Key Initiatives

- Improve customer-centered services
- Improve frontline employees' CS capabilities
- Identify poor-service areas and implement intensive remedial action
- Drive customer satisfaction based on VOC

C. CS Activities

Customer Greeting/Guide Services at branches

Launched Customer Greeting & Guide Services at branches to address any possible inconvenience

CS Leaders Workshop

Provided CS on-site workshops to 63 CS leaders from all branches to help them initiate CS activities and have them serve as the leads in CS management

CS off-site training for interns

Provide CS off-site training for 44 branch interns based on the Kibo CS Manual, including training on basic manners and phone etiquette

CS Clinic

Provided customized training for branches (26 branches respectively in the first and second half) that scored low in the CSI and mailed CS surveys to improve CS services

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• CS education through CS Plaza

Provided educational material on poor CS areas and best CS practices from other institutions to encourage customer service-oriented thinking and CS practices

Branch managers gathering direct feedback

Branch managers called 750 customers (or contacted in another way) to listen to their voices (VOC) to improve future service

Focus Group Interview (FGI)

Conducted FGI and sought opinions from 17 customers (8 in the first half and 9 in the second half) who expressed low satisfaction at the FGI to improve the system

• VOC-based CS activities

Systematically analyze and managed VOCs received through various channels to improve the CS framework

CS evaluation and reward

- Identified and rewarded 12 CS Big Heroes of the Month
- Identified and rewarded 2 Best CS Branches every quarter
- Identified and rewarded the 3 Best CRM Employees (at call centers)

D. CS Survey Results

Year	2012		2013		2014		2015	
i eai	1H	2H	1H	2H	1H	2H	1H	2H
Self-surveyed CS	88.4	89.2	89.1	88.1	88.1	88.7	88.6	90.5
PCSI	89.4		89.7		89.9		88.3	

Unit: points

09 **Ethical Management**

A. Direction of Ethical Management

- Improve the ethical management framework to become an ethical public corporation.
- Strengthen the ethical management infrastructure through cooperation between internal and external consulting bodies.

	Body Operation		R&Rs	Performance
Ethics Compliance Department		- The first ever dedicated compliance department within public corporations; comprised of 31 members	 Planning and integrating compliance work Ongoing monitoring and supervision 	 Executing clean policies 2nd in the "Agency of Excellence" in public agency transparency assessment
	Ethical Management Committee	- 25 members including executives and heads of departments - Regularly meeting	- Deliberation and decision making on clean policies	 Resolved to introduce anony- mous reporting system, etc.
Internal	Anti-corruption Committee	 20 working-level members from the Head Office Regularly meeting 	- Working group composed of the Ethical Management Committee	- Improved 14 unfair or unreason- able systems
	Integrity Mentor	- 67 members from branches; autonomous - Ongoing operation	 Leading ethical management activities at business fields Counselling the code of conduct and encouraging best practices 	- Improved external clean score by 0.47 and the internal score by 0.04
External	Clean Partnership	- 8 organizations, including Military Mutual Aid Associa- tion (MMDA) - Ongoing operation	- Sharing best practices for clean institution cases	 Sharied 11 best practices and adopted best practices, includ- ing "stricter rules on reporting and managing external lec- tures", etc.
mal	Clean Ombudsman	- External lawyers - Ongoing operation	- Monitoring and evaluating corruption externally	 Monitored 68 contracts and executed 2 correction recom- mendations regarding the code of conduct

B. Ethical Management Progress

Preventive ethical management activities by amending policies etc.

- ① Enacting policies to report corruption and to protect whistleblowers
 - (Expanding the scope of eligible whistleblowers) Anyone, regardless of their status as KOTEC employees or external individuals, can report violations in the Code of Conduct by KOTEC executives or employees. (Increasing Protection and Rewards) Incentives (like promotion or no punishments for reporting), monetary rewards for external whistleblowers, and disciplinary actions on violators, etc.
- (2) Preventing the source of corruption by establishing a Clean Technology Appraisal Process through client participation and by establishing a compliance system

	Before Appraisal	During Appraisal		After Appraisal	
Stage	Potential client	Consulting and engagement	Due Diligence	Contract and Issuance	Survey
Actor	Ethics & Compliance Department	Client and Sales representative	Field appraiser	Heads of branches	Ethic & Compliance Department, Audit Office
Key Activities	Ethical management activities and PR	Signing of Clean Agreement	Introducing of anti-corruption reporting center	Explanation of the Clean System and corruption activities	100% sample test for clean practices and customer satisfaction, etc,

Encourage clients to participate in Ethical Management Practice
 Sign a Clean Agreement, checking sanctions against undue engagement of brokers, and clarifying the requirements to observe the funding purpose as described by the credit guarantee certificate

- Compliance audit for every stage: The compliance team will inspect every branch, vulnerable practices and other necessary tasks.



		Targets	Key Details	
	By Life Cycle	New hires, working level and executives etc. (335 people)	Ethical code, key clean management issues etc.	
_	Ву Торіс	All employees (twice)	Whistleblower Protection System, Code of Conduct	
Customized Education	By Job Type	Staff in charge of asset and contract management, compliance and anti-corruption activities etc., call center outsourcing staff etc. (62)	Case-based Clean Education, etc.	
	Field Staff	All branch field staff (264)	Education by executives on ethical dilemma of branches	
Feedback	Survey	Survey of satisfaction with the ethics education program		
	Internal/External Evaluation	Incorporating the education in the following year's plan after testing effects		

3 Enhancing ethical management practices through well-established education programs

• Sharing and promoting best practices of Ethical Management

 Exporting best practice to other institutions: 8 institutions including Military Mutual Aid Association (MMDA) and Korea Broadcast Advertising Corporation (KOBACO)

② Promoting best practices

Category	Best Practice	PR Tool	Target
	Anti-corruption/Clean actions (133 cases)	Policy sharing board of the CRC website, KOTEC website,	Public corporations and the general public
External PR	Private contracts, audit results, violators etc. (537cases)	KOTEC website	General public
	Customer-engagement policies such as clean agree- ments (12 cases)	Clean Echo (Online PR activities)	Guarantee customers
	Building a clean process through compliance activities	System consulting	Public corporations
Internal PR	Code of Conduct, etc (12 cases)	Clean Alert (E-mail or SMS)	All employees

C. Ethical Management Performance



- Designated as a "Good Agency" in the 2015 Public Transparency Assessment by the Anti-corruption and Civil Rights Commission (ACRC)
- ① Recognized as grade in the Public Transparency Assessment (2nd out of 27 public institutions)
- ② Recognized for best practices by the ACRC in the anti-corruption Infrastructure Implementation area for two consecutive years (90.8/100 in 2014 \Rightarrow 95.5/100 in 2015)

10 Risk Management

To fulfill its purpose as a policy institution, KOTEC is required to introduce timely guarantee products. After launching new products in 2015, it implemented a new product risk management and monitoring system, and launched the Fraud Transaction Warning System to handle potential risks from the elimination of the joint guarantee requirement for startups. The new system is expected to run in the first half of 2016. In addition, KOTEC managed the total risk volumes within the target, notwithstanding the over-achievement of guarantee targets, establishing a foundation for sustainable growth.

A. Risk Management Framework Against Liquidity Crises

To establish a truly comprehensive risk management framework under the growing economic uncertainties at home and abroad, KOTEC performed a liquidity stress simulation. It also established Contingency Plans utilizing integrated RCR and asset under management (AUM) for each risk stage. This allowed it to strengthen its liquidity risk management system.

Operation of a Contingency Plan for each Crisis Stage					
Risk Stage	Green ———	> Yellow	Orange		
Limit	Integrated RCR \geq 110% or AUM \geq KRW 2 trillion	$100\% \leq$ Integrated RCR <110% or 1.7tn \leq AUM <2tn	$90\% \leq$ Integrated RCR <100% or 1.4 tn \leq AUM <1.7 tn	Integrated RCR <90% or AUM <1.4tn	
Response	Carry out usual risk-management activities	Conduct a scenario analysis on the assumption of a crisis	Explore response measures with working-level meetings, etc.	Operate a Contingency Committee etc.	

B. Preemptive Risk Management to Enhance the Quality of Technology Financing

By focusing on policy guarantees that have greater growth potential and larger economic repercussions, KOTEC sought to develop strong strategic and preemptive risk management solutions. These efforts resulted in KOTEC over-achieving on its guarantee provisions target. KOTEC also implemented a sophisticated risk management practice for branches, including differentiated risk management according to risk level and strategic portfolio operation.



% Expanded KRW 0.5 trillion by the fiscal reinforcement policy

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1 IT Operations and Management

A. Re-building the IT Disaster Recovery System (DRS)

KOTEC transferred its main IT center's disaster recovery system (DRS) from Gumi, Gyeongsangbuk-do to Ganseogu, Busan. It then rebuilt the system to improve the efficiency and security of the system, particularly in times of crisis.

The relocation reduced the distance between the main center and the backup centers, and reduced the recovery time by one hour from the previous three hours to two. KOTEC also doubled its bandwidth to minimize the potential data loss incurred by data traffic increase.

	Before	After	Expected Effect
Shorter Distance	Gumi (120km away)	Gangseo-gu Busan (18km away)	Reduced conversion time
IT Center Expansion	16.5m ²	29.7m ²	Increased space for equipment
Wider Bandwidth	100Mbps	200Mbps	Improved data duplication stability
Outsourcing	Large corporation	SME	Increased SME participation

Before and After of DRS Rebuilding

B. Replacing the external storage and backup equipment

KOTEC replaced its external storage and backup equipment with advanced systems to improve work speed and system stability.

Outdated, slow hard disks were replaced by high-speed memory storages which increased response speed by 55%, and made it possible to produce statistical data 3 hours faster than possible with the previous set up. KOTEC also introduced a high-speed data backup system for faster backup and recovery in order to prevent possible data loss and work interruption.



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C. Reinforcing readiness against cyber attack

KOTEC significantly revamped its major infrastructure in 2014 in order to improve network security. In 2015 it focused on enhancing the IT security management system to eliminate security blind spots by employing more effective IT policies.

To ensure the success of these operations, KOTEC promoted its Chief Information Security Officer (CISO) to Standing Director, tightened its performance evaluation criteria to facilitate policy execution, and restructured its IT organization to be more security-oriented.

To prevent information leakages which had previously led to several scandals across numerous industries in Korea, KOTEC conducted a Personal Information Impact Test, and improved its personal information protection system.

KOTEC also regularly evaluates vulnerabilities in its IT system to ensure the safety and efficacy of the system. In addition, KOTEC employs cyber terrorism response training.

As a result of these efforts, KOTEC has received high marks in external evaluations and inspections on its IT security and personal information protection, conducted by government-related institutions, including the National Intelligence Service (NIS), the FSC and the Ministry of the Interior. KOTEC regularly proves its excellence and the safety of its cyber security system.

D. Establishing an Internal IT Audit Review Board for an IT System Implementation Project

KOTEC introduced its IT Audit Review Board to internal improve the quality of its IT system.

Working in conjunction with the IT system implementation required by the Enforcement Decree of the Electronic Government Act, the scope of the IT audit review was extended to any job that could have material impact on the internal and external work affairs of KOTEC, such as customer services.

The IT Audit Review Board is comprised of experts, including doctoral degree holders in IT and the heads of relevant teams.

Since the implementation of the system, the Board has already made significant contributions to improving the safety and efficiency of the IT system. It has reviewed the entire process of the Tech-Bridge Enhancement Project and the Legal Expense Payment Automation System, and has identified and worked to improved weaknesses in the two.

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A. Overview

KOTEC shares social responsibilities between and among all executives and employees, and fulfills its social responsibilities by supporting underprivileged and socially vulnerable people. KOTEC leads the way in socially responsible management practice and builds sustainable management grounds by implementing socially responsible management activities.

B. Performance Summary

KOTEC's 2015 social contribution activities focused on social programs developed in line with its foundation goals and business model. Its activities also focused on regional communities by increasing cooperation with relevant local institutions. In addition, KOTEC developed and improved existing CSR programs, and encourage employee participation, growing the number of volunteers and volunteer hours.



C. Major Activities

Customized support for SME CEOs and employees based on KOTEC's core competencies

- Education donations to SME CEOs tailored to each growth stage

Stage	Pre-startup	Startup	Growth	Rehabilitation
Programs	Workshop for college students on successful startup development	Venture Startup Class, Sprout Entrepreneurship Class,	Growing Enterprise Class	Restart Business Class
Details and Performance	Specialized class, including IPR, technology trends, taxes and accounting; classes are free of charge (11 programs in 2015, 26 courses, 778 completed)			

- Cultural experiences for low-income SME employees and their families



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Greater contributions to local communities based on cooperation with relevant institutions and exchanges with local residents

- Introducing financial education program for local students in cooperation with institutions in the Financial Complex

Program	Busan Financial Museum Road Program
MOU Cooperation to grow education donations (March 2015)	
Participants	7 Institutions (including KOTEC, Korea Exchange, BoK, Busan Bank, Busan Metropolitan City)
Performance	1,198 students (from preschool to university)

- CSR for local communities, including special lectures, seminars and free admissions to technology exhibitions

Program	Special Lectures and Seminars	Free Rental	Free Admissions	Volunteer Activity with Banks
Details	Educational lectures	Rent the auditorium	Science and technology experience	Winter supplies
Beneficiary	Local residents	Local residents and client companies	Local residents	Low income families
Performance	 Humanities lectures College admissions seminars 	 14 sessions/year, including BIFC financial lectures at elementary schools, etc. 	- 9,222 visitors/year (14% † yoy)	- High-need families in Nam-gu, Busan (Nov.2015)

• Developing and improving CSR programs to advance the program quality

- Eliminating inefficiency to deliver more effective programs

Туре	Soup Kitchen	Volunteering in farming/fishing villages	
Before	- To every visitor	- One farming/fishing village	
Monitoring Result	 Mobility-impaired senior citizens were not benefitting from this program Any visiting senior citizens benefited from the program 	 Fishing villages are sensitive to weather, and sometimes volunteers only help clean when weather is good 	
Improvement	 Deliver lunch boxes to mobility impaired senior citizens Designating beneficiaries by recommendations from local representatives → Improving cost-effectiveness → Increasing participating departments: 14 (2014) → 16 (2015) 	 Designating more villages that require diverse supports (e. g. harvesting and packaging) → Increasing work and engagement and increasing number of participants: 390 (2014) → 468 (2015) 	

- Employees donate the last 3 digits of their monthly salary (less than KRW 5,000) to create funding for disaster recovery, CSR projects and regular sponsorship (sistership)

* Donation participants: 1,013 employees (2014) → 1,055 (2015, ↑ 42)
13 Global Exchange and Cooperation

KOTEC has proactively promoted the globalization of technology financing utilizing its excellent KTRS and strong relationships with advanced financial institutions.

KOTEC has transferred its proprietary technology appraisal system, KTRS, to Vietnam, Thailand and Singapore, among others, and has made exchanges with relevant overseas institutions, contributing to the creation of a "Korean Wave" (known also as Hallyu) in financing.

It will continue to broaden and deepen its work in international exchanges and cooperation to become a true Global Technology Financing Leader.

A. Major Achievements



KTRS training for Singapore's delegates to KOTEC



Participating in the WIPO GREEN-led technology transfer to the Philippines



Developing the Thai Technology Rating System (TTRS) (part of the Knowledge Sharing Program, KSP)



Pilot testing the Vietnam Technology Rating System (VTRS) (part of KSP)



Knowledge exchange workshop with Japan Finance Corporation (JFC)



Signing MOUs with FOGAPI and ALIGA in Peru

B. Global Exchange Activities

• Overseas institutions that have visited KOTEC during the year

Month	Institution	Exchange Details
Jan	The Mongolian Credit Guarantee Fund (MCGF)	Introduction and discussion on future cooperation
Mar	Aar Fondo de Garantia para Prestamos a la Pequena Industria Introduction and discussion on future coope (FOGAPI)	
Apr	The Ministry of Trade and Industry of Singapore	Introduction of KOTEC's role in supporting tech-SMEs and KTRS
дμ	Myanmar Institute of Banking, etc.	Introduction of technology financing system and relevant institutions
May	ay The Ministry for National Economy of Hungary Sharing of experiences in support for innovative	
	Singapore SPRING, etc.	Training for technology appraisal and technology finance system
Sep	Agency for Enterprise Development of Vietnam, etc.	Introduction of innovative SME support policies, including KTRS
	RVO of the Netherlands, etc.	Discussion on the use of international technology appraisal certificate and KTMS
Nov	Thailand Credit Guarantee Corporation, etc. (TCG)	Working level training for KTRS

• KOTEC participation in international conferences and other events

Month	Conferences and Events	Exchange Details
Apr	Technology Transfer Pilot Project of WIPO GREEN	Facilitating technology transfer from Korean SMEs to overseas companies
May	Asia Development Bank (ADB) Annual Conference	Expanding exchanges between Asian financial institutions
iviay	JFC Workshop	Sharing knowledge and systems for SME support
Jun	Annual Conference of AECM	Expanding exchanges with European guarantee institutions
Sep The 25th ACSIC Training Program Working-level r		Working-level meeting between Asian credit guarantee insti- tutions
Oct	Annual Conference of IMF-WB Increasing exchanges with global financial institution	
	The 28th ACSIC Conference	Increasing exchanges between Asian financial institutions
Nov	Forum invitation from FEALAC of Columbia	Introducing technology finance and KTRS
	Convention invitation from SBF	Supporting SMEs through KTRS
Dec	Annual Conference of WIPO GREEN	Expanding exchanges with global institutions engaging in technology transfer

Appendix

- Section 1. Financial Statements
- Section 2. Executive Director / Non-Executive Director
- Section 3. Management Committee
- Section 4. 2015 Highlights
- Section 5. Business Network

(1) Summary of Statement of Financial Status 2015

As of December 31, 2015

Assets	
Item	Amount
I . Current Assets	2,119,297
Cash and Cash Equivalents	12,010
Short-term Financial Instruments	1,065,832
Short-term Investment Securities	930,950
Others current assets	110,505
II. Investment Assets	710,255
Long-term Financial Instruments	164,000
Long-term Investment Securities	397,644
Other Investment assets	148,611
III . Tangible Properties	131,491
Land	41,289
Buildings	80,658
Machinery	2,955
Transportation equipment, etc.	6,589
IV. Intangible Properties	12
Industrial Property Rights	12
V. Other Non-Current Asset	442,774
Indemnity Rights	367,822
Preservation Rights	339
Deposits and others	74,613
Total Assets	3,403,829

Unit: KRW million

Liabilities and Net Assets			
ltem	Amount		
I . Current Liabilities	151,500		
Deferred Revenue	135,104		
Other	16,396		
.Long-term Liabilities	956,233		
Reserves for Subrogation	899,504		
Reserves for P-CBO Guarantee Subrogation	32,346		
Accrued Liability for Retirement Allowance	21,044		
Reserves for Litigations	3,339		
III . Other Non-Current Liabilities	999		
Total Liabilities	1,108,732		
I . Basic Net Assets	10,360,891		
Basic Fund at the Time of Foundation	21,768		
Contributions	10,339,123		
. Accumulated Reserves and Surpluses	(8,161,404)		
Retained Earning Carried Over from the Previous Year	(8,227,874)		
Other Changes in Net Assets	40,000		
Financial Operation Results	26,470		
III . Net Asset Adjustment	95,610		
Gain and Loss on Investment Valuation	95,610		
Total Net Assets	2,295,097		
Total Liabilities and Net Assets	3,403,829		

Unit: KRW million

(2) Summary of Statement of Financial Operations 2015

From January 1 to December 31, 2015

li sur	Amount			
Item	Total Cost	Income	Net Cost	
. Program Net Cost	814,124	(290,017)	524,107	
Industrial Financial Support	814,124	(290,017)	524,107	
. Management Cost			46,728	
Labor Cost			23,510	
Expenses, other			23,218	
III. Non Allocated Expenses			43,950	
Asset Impairment Loss and others			43,950	
IV. Non Allocated Income			123,677	
Asset Operation Income and other			123,677	
V. Net Operation Cost			491,108	
(= + + − ∨)				
VI. Non Exchange Revenue			517,578	
Contribution Revenue			477,347	
Other Sourcing and Transfer			40,231	
Operation Result (= V-VI)			(26,470)	

(3) Summary of 2015 Statement of Changes in Net Assets

From January 1 to December 31, 2015 Unit: KRW millio				
	Amount			
ltem	Net Asset	Accumulated Reserve and Surplus	Net Asset Adjustment	Total
I . Basic Net Asset	10,360,891	(8,227,874)	125,006	2,258,023
Reported Amount	10,360,891	(8,227,874)	125,006	2,258,023
. Statement of Operation	-	(26,470)	-	(26,470)
III . Adjustment Accounts	-	40,000	(29,396)	10,604
Gain and Loss on Investment Securities Valuation	-	-	(29,395)	(29,395)
Gain on Asset Revaluation	-	-	(1)	(1)
Other Gain and Loss on Net Asset	-	40,000	-	40,000
IV. Ending Balance of Net Asset (= - +)	10,360,891	(8,161,404)	95,610	2,295,097

EXECUTIVE DIRECTOR



|Executive Director Kwag Young-cheol |

| Executive Director Park Ki-pyo |

| Executive Vice President Kang Rack-kyu |

| Chairman & President Kim Han-chul |

NON-EXECUTIVE DIRECTOR







Yang Hee-gwan



Bae Byung-il



| Chief Audit Executive Choi Sung-soo |

| Executive Director Hwang Dae-hyun |

| Executive Director Yoo Ki-hyeon |



Lee Jong-woo



Kim Man-doo



Song Kyung-soo



Han Hyun-ok

Members of KOTEC BOP

* Steering Committee established based on the Korea Technology Finance Corporation Act. Article 17

December 2015

Category		Committee Member			
Chair		KOTEC Chairman & President			
	Appointed by the FSC (1)	FSC	Director General, Financial Policy Bureau	Sohn, Byeong-doo	
	Appinted by the Strategy & Finance Minister (1)	MOSF	Director General, Economic Budget Review Bureau	Cho, Gyu-hong	
Members appointed (5)	Appointed by the administrator of SMBA (1)	SMBA	Director General, Micro Enterprise Policy Bureau	Baek, Woon-man	
(0)	Appointed by the President of IBK (1)	IBK	Senior Vice President	Park, Choon-hong	
	Appointed by the President of KB (1)	KB	Senior Vice President	Lee, Yong-deok	
	Commissioned by the FSC among executives of financial institution or executive management (3)	Shinhan Bank	Executive Vice President	Choi, Byeong-hwa	
		Busan Bank	Executive Vice President	Kim, Seung-mo	
		KEBHana Bank	Executive Vice President	Kim, Jeong-ki	
	Commissioned by the KORACHAM Chairperson (1)	KORCHAM	Executive Vice Chairman	Lee, Dong-gen	
Commissioned members (7)	Commissioned by the KBIZ Chairperson (1)	KBIZ	Executive Vice Chairman	Song, Jae-hee	
	Commissioned by the KFS with consultation by the Minister of Science, ICT & Future Planning and technology-related experts (2)	ΚΟΙΤΑ	Vice President	Kim, Eui-whan	
		Commercializations Promotion Agency for R&D Outcomes	President	Kang, Hoon	

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4. 2015 Highlights

Date	Key Activities
Feb. 02	Held the 1st Management Strategy Workshop
Feb. 24	Implemented the Preferential Guarantee for Enterprises recommended by the Center for Creative Economy and Innovation
Mar. 04	Launched the Technology Finance Task Force
Mar. 04	Signed an MOU regarding Busan Financial Museum Road
Mar. 17	Designated as an "Agency of Excellence" in the public sector management assessment
Mar. 31	Held the 22nd Sprout Entrepreneurship Class (Mar. 31 to Apr. 1)
Apr. 01	Held the 26th anniversary ceremony
Apr. 08	Discussed cooperation on technology appraisal methods with the Singapore MoM Delegation
Apr. 15	Held the 3rd Specialized Class for Growing Enterprise CEOs (Apr. 15 to 17)
May 14	Signed an MOU with the WIPO Arbitration and Mediation Center
May 22	Implemented the Preferential Guarantee Program for Fintech Businesses
Jun. 04	Signed an MOU on "Support for Technology Transfer and Technology Finance" with the National Research Council of Science and Technology
Jun. 15	Implemented a Special Guarantee Program for SMEs affected by MERS
Jul. 07	Registered patents for the Technology Value Appraisal Method and Technology Transfer Method
Jul. 10	Won the Presidential Award on World Population Day in 2015
Jul. 21	Opened Daegu and Busan Technology Convergence Centers
Jul. 30	Held the 2nd Management Strategy Workshop
Aug. 25	Held Sprout Entrepreneurship Class (Aug. 25 to 26)
Aug. 31	Implemented the KOTEC Clean Campaign
Sep. 07	Provided training on technology appraisal and technology finance systems for SPRING, etc.
Sep. 14	Opened Masan Technology Appraisal Center
Sep. 15	Designated as an excellent agency for retiree employment (by the Ministry of Employment and Labor)
Oct. 12	Opened Gyeongsan Technology Appraisal Center
Nov. 02	Obtained the KOTEC Technology Transfer Matching System (KTMS) patent
Nov. 06	Held a Technology Appraisal Seminar
Nov. 11	Hired 40 new employees
Dec. 09	Designated as a "Good Agency" in the 2015 Public Transparency Assessment

Business Network

Center	Address	Tel
Gyeonggi Business Headquarter	6th Fl., Suwon Regional Office of National Pension Service, B/D, 19, Hyowon-ro 307beon-gil, Paldal-gu, Suwon-si, Gyeonggi-do	031)8006-1500
Daegu Business Headquarter	10th Fl., S-Cube B/D, 2598 Dalgubeol Blvd., Suseong-gu, Daegu	053)251-5600
Busan Business Headquarter	7th Fl., KOTEC B/D, 33, Munhyeongeumyung-ro, Nam-gu, Busan	051)606-7433
Seoul Business Headquarter	41st Fl., Korea Life Insurance 63 B/D, 63-ro, Yeongdeungpo-gu, Seoul	02)3215-5971
Incheon Business Headquarter	10th Fl., Songdocentroad B B/D, 323, Incheontower-dero, Yeonsu-gu, Incheon	032)830-5600
Chungcheong-Honam Business Headquarter	2nd Fl., KOTEC B/D, 141, Dunsanseo-ro, Seo-gu, Daejeon	042)610-2232
Central Technology Appraisal Institute	11th Fl., Living Tower of Highbrand B/D, 16, Maeheon-ro, Seocho-gu, Seoul	02)2155-3770
Gasan Technology Appraisal Center	Rm. 1906, STX-V Tower, 128, Gasan Digital-1-ro, Geumcheon-gu, Seoul	02)818-4300
Gangnam Technology Appraisal Center	5th Fl., Dongwoo B/D, 328, Teheran-ro, Gangnam-gu, Seoul	02)2016-1300
Gangneung Technology Appraisal Center	8th Fl., Donga B/D, 2110, Gyeonggang-ro, Gangreung-si, Gangwon-do	033)640-8700
Gyeongsan Technology Appraisal Center	1st FI, Gyeongbuk Techno Park HQ building, 27 Sampoong-ro, Gyeongsan-si, Gyeongsangbuk-do	053)859-9000
Gwangju Technology Appraisal Center	6th Fl., Mudeungsantower, 80, Jukbong Blvd., Seo-gu, Gwangju	062)360-4600
Gwangju-Seo Technology Appraisal Center	3rd Fl., Industrial Bank of Korea B/D, 240, Mujin Blvd., Gangsan-gu, Gwangju	062)970-9200
Guro Technology Appraisal Center	Rm. 1801, JNK Digital tower, Digital-ro 26gil 111, Guro-gu, Seoul	02)6124-6400
Gumi Technology Appraisal Center	3rd Fl., Industrial Bank of Korea, 124, Suchul Blvd., Gumi-si, Gyeongsangbuk-do	054)440-0730
Gimpo Technology Appraisal Center	8th Shinhan Plaza, 113, Gimpohangang-4-ro, Gimpo-si, Gyeonggi-do	031)980-8600
Gimhae Technology Appraisal Center	4th Fl., Industrial Bank of Korea B/D, 55, Naeoejungang-ro, Gimhae-si, Gyeongsangnam-do	055)330-2100
Noksan Technology Appraisal Center	3rd Fl., Exchange Bank of Korea B/D, 20, Noksansandan-335-ro, Gangseo-gu, Busan	051)970-0600
Daegu Technology Appraisal Center	10th Fl., S-Cube B/D, 2598 Dalgubeol Blvd., Suseong-gu, Daegu	053)251-5600
Daegu-Buk Technology Appraisal Center	5th Fl., LH B/D, 130, Won Blvd., Buk-gu, Daegu	053)350-9500
Daegu-Seo Technology Appraisal Center	12th Fl, Grand M Tower, 141 Yongsan-ro, Dalseo-gu, Daegu	053)550-1400
Daejeon Technology Appraisal Center	1st FI., KOTEC B/D, 141, Dunsanseo-ro, Seo-gu, Daejeon	042)610-2201
Daejeon-Dong Technology Appraisal Center	2nd Fl., Dongyang Finance and Securities, 540, Daejong-ro, Jung-gu, Daejeon	042)250-0700
Dongnae Technology Appraisal Center	10th Fl., Geumjeong Tower, 1925, Jungang Blvd., Geumjeong-gu, Busan	051)510-6900
Masan Technology Appraisal Center	2nd Fl., Industrial Bank of Korea B/D, 323 Haeandae-ro, Masanhappo-gu, Changwon-si, Gyeongsangnam-do	055)249-9799
Mokpo Technology Appraisal Center	2nd Fl., Industrial Bank of Korea B/D, 25, Ogam-ro, Mokpo-si, Jeollanam-do	061)288-1500
Busan Technology Appraisal Center	3rd Fl., KOTEC B/D, 33, Munhyeongeumyung-ro, Nam-gu, Busan	051)606-7686
Bucheon Technology Appraisal Center	#301-102, Bucheon Technopark, 345 Seokcheon-ro, Ojeong-gu, Bucheon-si, Gyeonggi-do	032)620-8800
Bupyeong Technology Appraisal Center	#A-303, Woorim Lions Valley, 283, Bupyeong Blvd., Bupyeong-gu, Incheon	032)509-1700
Sasang Technology Appraisal Center	2nd Fl., Hana Bank B/D, 271, Hakgam Blvd., Sasang-gu, Busan	051)320-3400
Saha Technology Appraisal Center	3rd Fl., Cius B/D, 336, Hasinjungang-ro, Saha-gu, Busan	051)250-7808
Seoul Technology Appraisal Center	41st Fl., Korea Life Insurance 63 B/D, 50, 63-ro, Yeongdeungpo-gu, Seoul	02)3215-5900
Seocho Technology Appraisal Center	4th Fl., Danwoo B/D, 181, Banggae-ro, Seocho-gu, Seoul	02)3476-7265
Seongnam Technology Appraisal Center	6th Fl., Gaon Media B/D, 884-3, Seongnam Blvd., Bundang-gu, Seongnam-si, Gyeonggi-do	031)750-4800

Center	Address	Tel
Songpa Technology Appraisal Center	Rm. 601, IT Venter Tower East B/D, 135, Jung Blvd., Songpa-gu, Seoul	02)3400-7900
Suwon Technology Appraisal Center	6th Fl., Suwon Regional Office of National Pension Service, B/D, 19, Hyowon-ro 307beon-gil, Paldal-gu, Suwon-si, Gyeonggi-do	031)8006-1500
Suncheon Technology Appraisal Center	6th Fl., Industrial Bank of Korea B/D, 152, Chunghyo-ro, Suncheon-si, Jeollanam-do	061)729-9333
Sihwa Technology Appraisal Center	3rd Fl., KT&G Ansan Branch, 361, Okgugongwon-ro, Siheung-si, Gyeonggi-do	031)496-5911
Asan Technology Appraisal Center	3rd Fl., Jangho B/D, 25, Baebang-ro, Baebang-eup, Asan-si, Chungcheongnam-do	041)538-5900
Ansan Technology Appraisal Center	9th Fl., Kyobo B/D, 366, Hwarang-ro, Danwon-gu, Ansan-si, Gyeonggi-do	031)8084-5300
Anyang Technology Appraisal Center	2nd Fl., National Health Insurance B/D, 182, Gwanpyeong-ro, Dongan-gu, Anyang-si, Gyeonggi-do	031)450-1600
Yangsan Technology Appraisal Center	3rd Fl., Industrial Bank of Korea B/D, 216, Jungang-ro, Yangsan-si, Gyeongsangnam-do	055)370-4700
Yongin Technology Appraisal Center	2nd Fl., 1349, Jungbu Blvd, Cheoin-gu, Yongin-si, Gyeonggi-do	031)8020-4000
Ulsan Technology Appraisal Center	2nd Fl., Ulsan Economic Promotion Agency B/D, 915, Saneop-ro, Buk-gu, Ulsan	052)220-7900
Wonju Technology Appraisal Center	2nd Fl., Wonju City Hall, 1, Sicheong-ro, Wonju-si, Gangwon-do	033)730-8300
Uijeongbu Technology Appraisal Center	4th Fl., Seokcheon B/D, 44, Uigeong-ro, Uijeongbu-si, Gyeonggi-do	031)820-0300
Iksan Technology Appraisal Center	7th Fl., SK B/D, 39, Iksan Blvd. 16gil, Iksan-si, Jeollabuk-do	063)840-3100
Incheon Technology Appraisal Center	10th Fl., Songdocentroad B B/D, 323, Incheontower Blvd., Yeonsu-gu, Incheon	032)830-5600
Incheon-central Technology Appraisal Center	1st Fl., 30, Yesul-ro 152gil, Namdong-gu, Incheon	032)420-3500
Ilsan Technology Appraisal Center	15th Fl., M-City Tower, 195, Baekma-ro, Ilsandong-gu, Goyang-si, Gyeonggi-do	031)931-7200
Jeonju Technology Appraisal Center	11th Fl., Jeonbuk B/D, 566, Baekje Blvd., Deokjin-gu, Jeonju-si, Jeollabuk-do	063)270-9800
Jongno Technology Appraisal Center	22nd Fl., Samil B/D, 85, Cheonggyecheon-ro, Jongno-gu, Seoul	02)2280-4800
Jinju Technology Appraisal Center	4th Fl., Industrial Bank of Korea B/D, 310, Daesin-ro, Jinju-si, Gyeongsangnam-do	055)750-1111
Changwon Technology Appraisal Center	3rd Fl., Industrial Bank of Korea B/D, 38, Yongji-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do	055)210-4099
Cheonan Technology Appraisal Center	Rm. 802, 215, Gwangjang-ro, Seobuk-gu, Cheonan-si, Chungcheongnam-do	041)629-5913
Cheongju Technology Appraisal Center	6th Fl., Intem Plaza, 76, Sannam-ro, Heungdeok-gu,Cheongju-si, Chungcheongbuk-do	043)290-9513
Chuncheon Technology Appraisal Center	5th Fl., Industrial Bank of Korea B/D, 45, Geumgang-ro, Chuncheon-si, Gangwon-do	033)240-2800
Chungju Technology Appraisal Center	3rd Fl., Hyundai Motors B/D, 10, Aehyang-ro, Chungju-si, Chungcheongbuk-do	043)849-8600
Pyeongtaek Technology Appraisal Center	3rd Fl., Vision Plaza, 48, Pyeongtake-1-ro, Pyeongtaek-si, Gyeonggi-do	031)659-8700
Pohang Technology Appraisal Center	3rd Fl., Industrial Bank of Korea B/D, 369, POSCO Blvd., Buk-gu, Pohang-si, Gyeongsangbuk-do	054)271-4900
Hwaseong Technology Appraisal Center	#C-207, Urideul Distribution Town, 934-4, Sicheong-ro, Paltan-myeon, Hwaseong-si, Gyeonggi-do	031)299-8200
Daegu Technology Convergence Center	12th FI, Grand M Tower, 141 Yongsan-ro, Dalseo-gu, Daegu	053)550-1450
Busan Technology Convergence Center	3rd FL, 33, Munhyeongeumyung-ro, Nam-gu, Busan	051)606-7323
Daejeon Technology Convergence Center	3rd FL, 141, Dunsanseo-ro, Seo-gu, Daejeon	042)610-2279
Seoul Technology Convergence Center	11th Fl., Living Tower of Highbrand B/D, 16, Maeheon-ro, Seocho-gu, Seoul	02)2155-3652
Gunsan Technology Appraisal Office	2nd Fl., Kyobo B/D, 35, Daehak-ro, Gunsan-si, Jellabuk-do	063)460-2800
Ochang Technology Appraisal Office	Rm 301, Future Convergence Technology Tower of Chungbuk Technopark, 76, Research Complex Road, Cheongwon- gu, Cheongju-si, Chungcheonggbuk-do	043)251-1500
Pangyo Technology Appraisal Office	2nd Fl., 182, Pangyoyeok-ro, Bundang-gu, Seongnam-si, Gyeonggi-do	031)725-7800
Osan Technology Appraisal Office	2nd Fl., 84, Seongho-daero, Osan-si, Gyeonggi-do	032)369-5500
Jeju Technology Appraisal Office	3rd FL, Small and Medium Business Support Center, 473, Yeonsam-ro Jeju	064)727-0271

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KOREA TECHNOLOGY FINANCE CORPORATION

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