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KOTEC Annual Report 2013 +

Korea Technology  
Finance Corporation  
Annual Report 2013

# KOREA TECHNOLOGY

# FINANCE CORPORATION

Turn Technology into reality with KOTEC!

Creativity, innovation and passion in one,  
KOTEC builds the foothold for Korea's technological takeoff.







## Annual Report 2013

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# CEO MESSAGE





I appreciate everyone from SMEs, the government, the National Assembly, the media, and other relevant organizations for your unwavering support for KOTEC.

As you know, the Korean economy had a turbulent time last year. Outside of Korea, the tapering of quantitative easing (QE) in the United States agitated international financial markets. At home, recovery of the main street economy failed to meet expectations, due to domestic consumption and capital expenditure shrank, which resulted in a particularly strong blow to cash-strapped tech-SMEs.

Responding to these circumstances, KOTEC provided a record-high KRW 19.7 trillion in guarantees to support the economic recovery and to facilitate financing for tech-SMEs. In particular, we designated 3 key areas for job creation and creative economy: tech-startups, new growth engine industries and R&D financing; and concentrated our guarantee support on these areas. Furthermore, we implemented various support systems for export companies, shipbuilding facility companies and companies in Gaesung industrial complex, to allow SMEs to overcome exceptionally hard times and steer themselves back towards growth.

To lead the government's policy of promoting a creative economy, we also established a Pre-Guarantee for To-Be-Founders to provide funding for would-be entrepreneurs, and a Special Guarantee for technology & industry convergence to provide customized guarantees in accordance with the technology convergence level for SMEs and extended the intellectual property (IP) guarantees to facilitate funding for IP, a core asset of creative economies.

This year will not be easy for our primary customers, i.e., tech-SMEs, considering the unstable financial market due to stagnant domestic consumption and the delay in economy recovery of major countries.

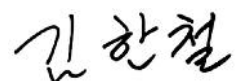
Accordingly, we will increase our annual guarantees to KRW 18.7 trillion in 2014. In addition, we will provide KRW 2 trillion for high-risk new-growth areas, including a Pre-Guarantee for To-Be-Founders and IP guarantees; and will facilitate the TB business that furnishes customized technology appraisal information to lead the creative economy as well as a technology finance market. Furthermore, we will work on failure prevention and rehabilitation to ensure that a future crash does not result in permanent failure.

To be a reliable public financial institution, we will continue to take the initiative in ethical and transparent management by strengthening the integrity and ethics of both our employees and clients, and by expanding the social contribution activities.

Again, I would like to thank all of you for your support and ask for your continued support and encouragement in the future.

March 2014

**Hanchul Kim, Chairman & President**



# 01

ECONOMIC TRENDS

# ECONOMIC TRENDS





## Global Economy

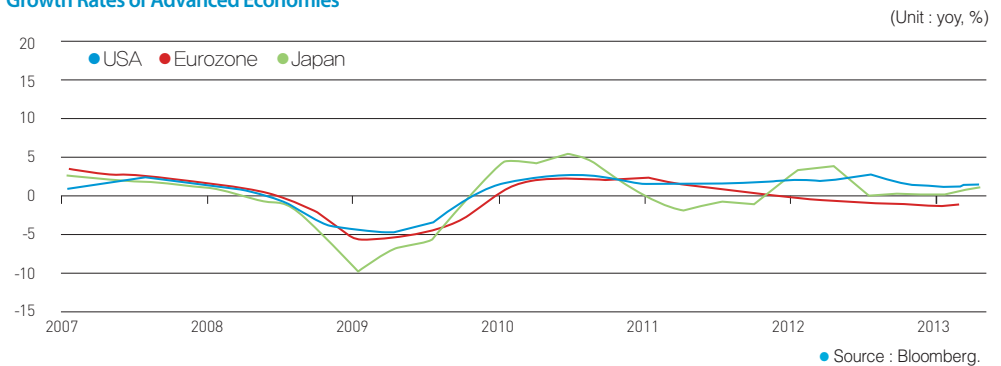
### Overview

The global economy showed signs of recovery from mid-2013 after a long slump over the last few years. The growth rate was lower than 3% in the first half of 2013 due to negative growth in the Eurozone and weak growth in emerging economies, but steadily began rising in the second half of the year as advanced economies began to rebound.

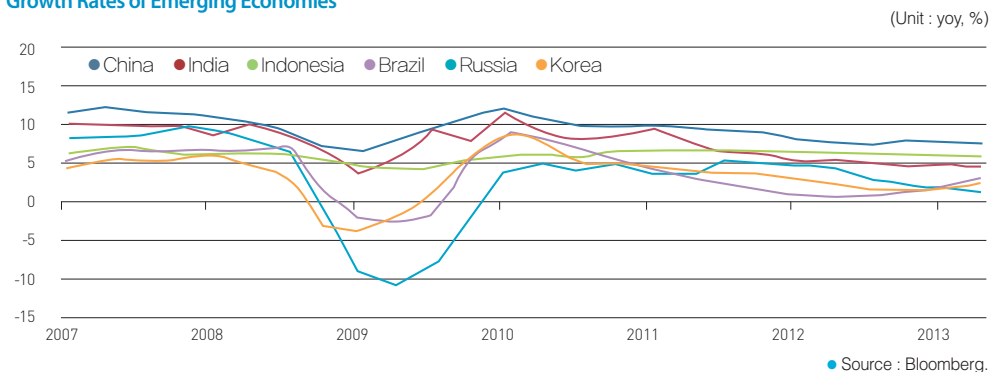
On the other hand, the growth of emerging countries, such as China, Brazil, India, and Russia, has slowed down.

In particular, market concerns mounted over growing debt ratios and current account deficits for emerging countries after China turned the focus of its growth policy from quantity to quality and the US Federal Reserve Bank began to pursue an exit strategy.

#### Growth Rates of Advanced Economies



#### Growth Rates of Emerging Economies



## Dynamics of Major Economies

Eurozone

China

Japan

### Eurozone



#### ● Eurozone

The Eurozone economy emerged from a 6-quarter-long recession and posted positive growth rates for 2 consecutive quarters from 2Q 2013; and its PMI exceeded the 50 mark in July (50.3) for the first time since August 2011 and rose to 52.7 in December, marking a 21-month high. Along with the steady recovery, indicators representing economic sentiments and confidence are also improving.

### Japan



#### ● Japan

The Japanese economy is on the path to moderate recovery as Abenomics helped in restoring domestic consumption and export. In particular, household spending increased by 1.0% in 1Q, 1.4% in 2Q, and 1.8% in 3Q; and capital investment also turned positive to 1.5% in 3Q (from -3.8% in 1Q) on the back of growing consumption and export. Consumer prices went up by 0.7% in 2Q, breaking out of a long deflation.



USA

## USA



## ● USA

The US economy maintains a moderate pace of recovery primarily backed by private

consumption. With the help of years-long low interest rates and massive quantitative easing (QE), the economy posted a growth rate of 3.2% (yoy) in 4Q 2013. The housing market that plummeted by some 30% immediately after the global financial crisis began to rebound in 2013 and asset value is also on the path of recovery. All these have led the Fed to QE tapering. The unemployment rate continuously went down and stood at 7% in November; and the economy grew as much as 4.1% in 3Q, even greater than the potential growth rate of 3.6%. Both consumption and investment are also on the rise.

## China



## ● China

The Chinese economy maintains a stable recovery. Consumption, investment, and growth

rebounded altogether from the second half of 2013 and the economy delivered a growth rate of 7.8% in 3Q, following a rate of 7.5% in 2Q. In October, its industrial production grew by over 10%, in keeping with the recovery pace. However, external demands remain volatile. The country's exports surged to as high as 18.9% in 1Q, but plunged to 4.1% in 2Q and 3.9% in 3Q; consumer prices increased by 3.2% in October, fueling inflation concerns, whereas deflation in producer prices has been persistent for six consecutive quarters, since 2Q 2012.

## ● Emerging Countries

Brazil's economy, which was in a deep recession in 2012, slightly turned things around, whereas

India, Russia, and the ASEAN5 became more sluggish. Despite weak consumption, Brazil posted a 2.5% growth rate, thanks to investment in construction for the 2016 Olympic Games. On the other hand, Russia recorded a mere mid-1% growth rate because of shrinking exports to the Eurozone and stagnant investment; and India hit a record low rate of high-3%, the lowest since 2003 (4.0%), due to languid domestic consumption and weaker competitiveness as a result of rising wages. Growth rates for the ASEAN5, excluding the Philippines, went down because of the unsteady financial market in Indonesia since May, slowing domestic consumption in Malaysia and Thailand, and dashed public confidence in Vietnam, hit hard by reform actions. Meanwhile, despite damage from a serious typhoon (Haiyan) in 4Q, the Philippines delivered a high-6% growth rate, similar to the level of the previous year, driven by moderate domestic consumption.

## Outlook

The growth rate of the global economy has been declining since it reached 5.2% in 2010, but is expected to steadily go up in 2014, buoyed by the recovery of the US and Eurozone economies. Despite improving exports to advanced countries, however, emerging markets (particularly those with large current account deficits) are likely to suffer from persistent financial instability and weak investment, and their growth rates are likely to fall, compared to in boom years, further dragged down by smaller Chinese investment. Major research institutes forecasted global economic growth rates for 2014 somewhere between 3.4% and 3.7%, slightly higher than the 3.1% rate of 2013.

Considering the downward risks, notably from QE tapering, the slower pace of Europe's economic recovery, dwindling effects of Abenomics, slowing growth rates in the Chinese economy, and mounting uncertainty in the financial markets of emerging countries, however, the possibility that the global economy should fail to meet these expectations cannot be ruled out.

### Growth Rates of Major Economies

(Unit : %)

Category	2012	2013	2014(e)	2015(e)
Global	3.1	3.0	3.7	3.9
Developed World	1.4	1.3	2.2	2.3
USA	2.8	1.9	2.8	3.0
Eurozone	-0.7	-0.4	1.0	1.4
Japan	1.4	1.7	1.7	1.0
Emerging Countries	4.9	4.7	5.1	5.4
ASEAN5	6.2	5.0	5.1	5.6
China	7.7	7.7	7.5	7.3

● Source : IMF (World Economic Outlook January 2014)





## Domestic Economy



### Overview

Departing from the lowest growth rate since the global financial crisis in 2012, the Korean economy showed a moderate recovery in 2013, backed by employment growth, subdued inflation, and a continued current account surplus, despite unstable external conditions.

Domestic consumption stalled due primarily to excessive household debt and soaring housing rent prices, and export growth was not significant as the global economy was still struggling. However, the current account maintained a large surplus as a result of a large amount of contracted imports.

### Trend of Expenditure Growth Rates

(Unit : qoq, %)

Category	2012					2013		
	1/4	2/4	3/4	4/4	Yearly	1/4	2/4	3/4
GDP (qoq)	2.8 (0.8)	2.4 (0.3)	1.6 (0.0)	1.5 (0.3)	2.0	1.5 (0.8)	2.3 (1.1)	3.3 (1.1)
Gross domestic consumption	2.1	1.6	2.1	2.8	2.2	1.4	2.3	2.3
Private consumption	1.3	1.0	1.7	2.7	1.7	1.5	1.8	2.1
Government expenditure	4.9	3.6	3.5	3.5	3.9	1.3	3.8	3.1
Gross fixed capital formation	3.7	△2.6	△2.5	△4.2	△1.7	△3.8	2.9	5.9
Construction investment	△0.4	△3.1	△0.3	△4.2	△2.2	2.4	7.2	8.6
Capital investment	8.8	△3.5	△6.9	△5.2	△1.9	△11.9	△4.6	1.5
Total exports	5.7	3.5	3.2	4.4	4.2	3.4	5.7	2.4
Total imports	4.7	0.5	1.4	3.5	2.5	1.8	4.7	2.3
GDI	1.8	2.0	2.8	2.4	2.3	3.6	5.0	4.2

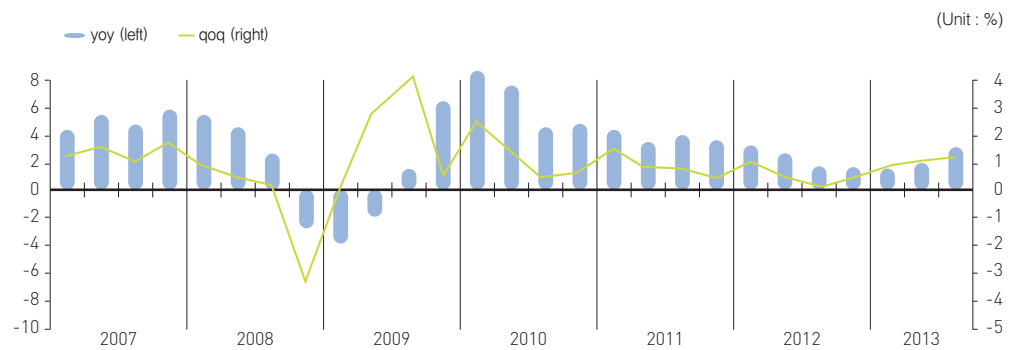
● Source : Bank of Korea

## Dynamics of Key Indicators

### ● Economic Growth

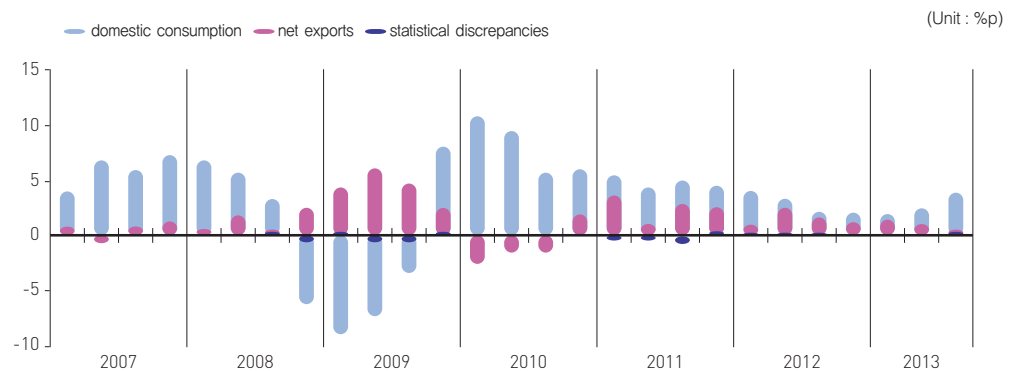
The economy turned around after bottoming out in 1Q, but the growth rate elevated only to the mid-2% level, much lower than the potential growth rate of 3.8%. Looking into the breakdown by industry, manufacturing grew by 1.5% yoy primarily driven by electronic/electric devices and petrochemicals, and the construction industry grew by 1.2% thanks to public works. GDP growth in the third quarter was mostly led by domestic consumption with its contribution of 3.3%p, while net exports accounted for 0.2%p.

#### Trend of Economic Growth Rate



● Source : Bank of Korea

#### Trend of Growth Contribution



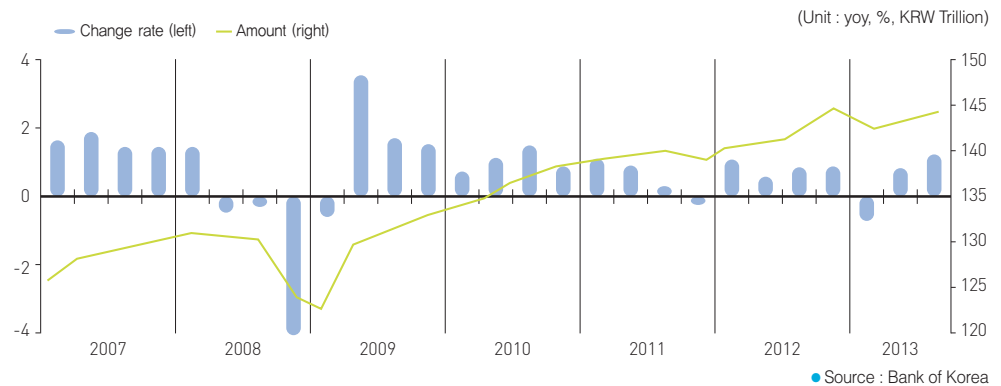
● Source : Bank of Korea



## ● Private Consumption

Private consumption increased by 2.1% yoy in 3Q 2013, mostly from food and beverage (manufacturing), medical, restaurant and accommodation (services). Despite the sales increase (6.2%) of passenger cars, durable good sales decreased by 1.5% yoy because of a big drop in IT and computer sales (-15.4%). On the other hand, semi-durables increased by 2.2% on the back of shoes and bags, and non-durables went up by 1.2% mostly because of food and cosmetics sales.

### Private Consumption Trend



## ● Capital Investment

Capital investment (according to the BoK) grew by 1.5% in 3Q 2013, indicating positive growth for the first time in six quarters, primarily driven by transportation equipment such as industrial transport machines and vehicles. On the other hand, the capital investment index (published by Statistics Korea) went down by 4.7% due to poor investment in machinery, electronic and electric equipment, and precision equipment, despite some increases in cars.

## ● Employment

The annual employment rate for 2013 stood at 59.5% (25.066 million employees in total), 0.1%p higher than for the previous year. While the number of employees diminished in the wholesale and retail sectors, as well as construction, it was elevated in health care and social welfare services, as well as manufacturing, accommodation, and restaurant sectors, resulting in a 386,000-job increase for the year, with 186,000 males (1.3% yoy) and 200,000 females (1.9% yoy) gaining employment.

### Employees and Employment Rate

(Unit : Thousand people, %, %p, yoy)

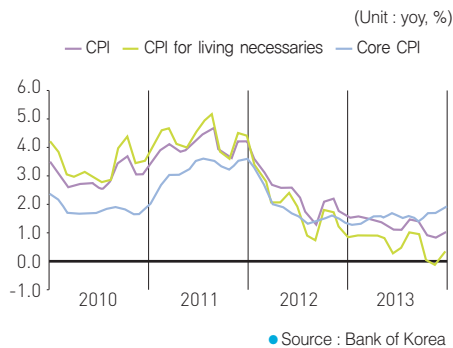
Category	2011	2012			2013		
		Change	(%)		Change	(%)	
Employees	24,244	24,681	437	1.8	25,066	386	1.6
Male	14,153	14,387	234	1.7	14,573	186	1.3
Female	10,091	10,294	203	2.0	10,494	200	1.9
Employment Rate	59.1	59.4	0.3p	-	59.5	0.1p	-
Male	70.5	70.8	0.3p	-	70.8	0.0p	-
Female	48.1	48.4	0.3p	-	48.8	0.4p	-

● Source : Statistics Korea

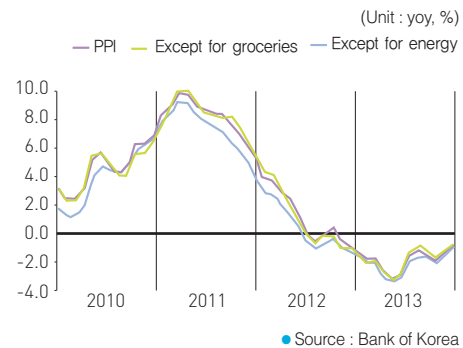
## ● Inflation

The CPI, as of 3Q 2013, had increased by only 1.2% as inflation pressures from both the demand and supply sides subdued. In particular, the prices of agricultural and fisheries produce led to low CPI growth as they fell by 0.5% in 3Q alone due to larger supplies and maintained the downward trend (down by 5.4% and 3.7% in October and November, respectively). The PPI has also been on the decline since 3Q 2012 as a result of falling international commodity prices and agricultural/fisheries produce prices.

CPI Growth Trend



PPI Growth Trend

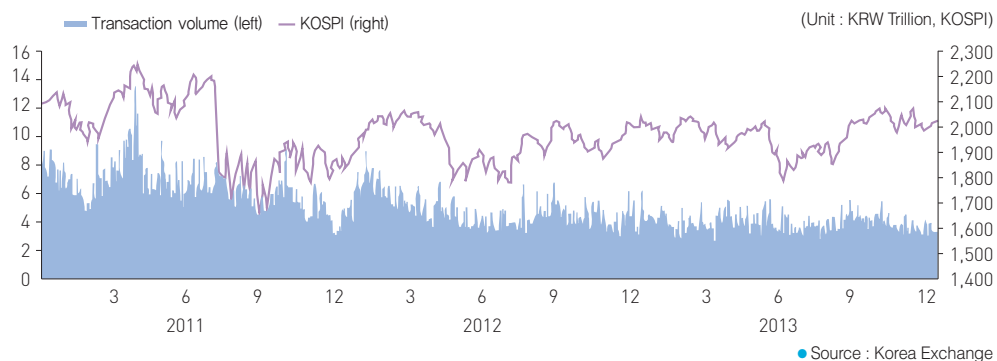


## ● Financial Market

Riding on the economic recovery at home and abroad, the stability of the financial market improved in 2013. There were temporary shocks and fluctuations triggered by the federal budget sequestration crisis in the US, nuclear risks and threats from North Korea, and interest rate cuts by the BoK in the first half, and discussions over US QE tapering and the credit crunch by the TongYang Group in the second half.

Key interest rates in the short-term financing market have remained stable since May when they fell altogether with the BoK rate cuts. The interest of 3-year government bonds slipped to as low as 2.4% in May, but turned around in response to possible QE tapering and finished the year at 2.8%. The stock market plummeted in June and July when the EU sovereign debt crisis intensified, but soon rebounded with incoming foreign investment and rosy economic prospects. The KOSPI closed the year with 2,011p, slightly better (0.7%) than for the previous year (1,997p).

Stock Price and Transaction Volume





## Outlook



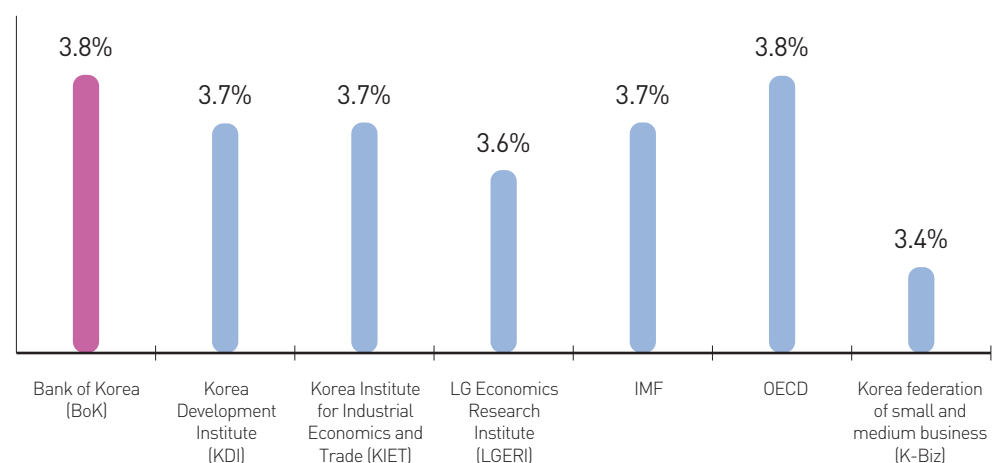
The Korean economy is expected to be more vibrant in 2014, backed by the global economic recovery, and consumption and investment growth. Nevertheless, risks are still out there, including the Fed's exit strategy, soft growth in the Chinese economy, and unstable financial markets in emerging countries.

However, uncertainties are expected to be mitigated to some extent in 2014, which will encourage consumer sentiment. In addition, consumers in advanced economies are expected to resume their purchases of durable goods after having suspended it for a while in the course of debt reduction. This will create more demand for imports from advanced nations, which may increase Korean exports.

Increasing consumption and investment may prop up domestic consumption, though not by a large amount. Given prolonged weak domestic consumption, excessive household debt and delays in housing market normalization, however, the economy is still expected to grow, but more slowly than in previous recovery periods. The government and major research institutes predict growth rates of about 3%.

With the improvement of major indicators, the Korean economy is showing signs of recovery after the 2-year-long stagnant growth. To solidify the recovery, consistent efforts and risk management will be necessary to deal with the FX and financial market volatility.

### 2014 Economic Growth Rate Forecast by Major Institutions



## 02

TRENDS IN SMES AND  
VENTURE BUSINESSESTREND IN SMES  
& VENTURE  
BUSINESSES

Despite concerns over persistently weak growth since 2012 and 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.

## SMEs

The production index and average operation rates delivered strong growth as the production index of manufacturing SMEs began to turn around in late 2009 thanks to a rapid recovery. However, it has recently stepped back a bit due to unfavorable macroeconomic circumstances, such as the Eurozone's sovereign debt crisis, and the economic slowdown of major economies, although it has stayed above the pre-crisis level.

In particular, the number of corporations newly established for the year marked a record high of 75,578 (as of the end of 2013) since 2000, growing 1.9% (1,412) from the previous year (74,162). This reflects the positive sentiment and expectations from the business sector for economic recovery. Meanwhile, the number of bankrupt firms has been on the decline since 2009 after it soared in 2008 in the aftermath of the global financial crisis.

### Key SME Indexes

Category	2006	2007	2008	2009	2010	2011	2012	2013
Production Index (%)	87.8	91.8	92.1	87.3	100.0	104.2	103.9	105.4
Average Operating Rate (%)	70.4	71.0	64.1	70.9	72.0	72.1	70.3	72.3
New Corporations Opened (Monthly Average)	50,512 (4,209)	53,483 (4,457)	50,855 (4,238)	56,830 (4,736)	60,312 (5,026)	65,110 (5,426)	74,162 (6,180)	75,578 (6,298)
No. of Bankruptcies (Monthly Average)	2,529 (210)	2,301 (191)	2,735 (228)	1,998 (166)	1,570 (131)	1,359 (113)	1,228 (102)	1,001 (83)
Note Default (%)	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.02
SME Exports (USD 100 million) (yoy growth rate %)	1,037 (12.6)	1,135 (9.5)	1,305 (15.0)	768 (△41.1)	986 (28.4)	1,016 (3.0)	1,029 (1.3)	-

● The production index is calculated based on 2010 as a base year of 100

● Source : SMBA, BOK, K-Biz, Statistics Korea

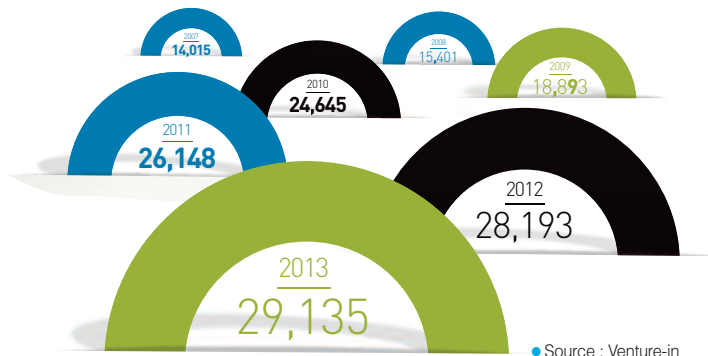


## Venture Businesses

The number of certified ventures exceeded 10,000 in July 2001 for the first time since the number was first counted in 1998 (2,042 ventures in the year), and then decreased after 2002, with the bust of the IT bubble in Korea. Driven by the government's venture promotion policy in April 2004 and reforms in the venture business certification system in June 2006, the main content of which included the addition of KOTEC's Technology Appraisal Guarantee beneficiaries and provided more market friendly institutions, 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, they are allowed to apply for venture certification based only on the estimated amount of technology guarantees to be given, instead of the actual guarantee provisions. With this revision, the number continued to grow to reach 29,135 at the end of 2013, after hitting 20,000 in May 2010.

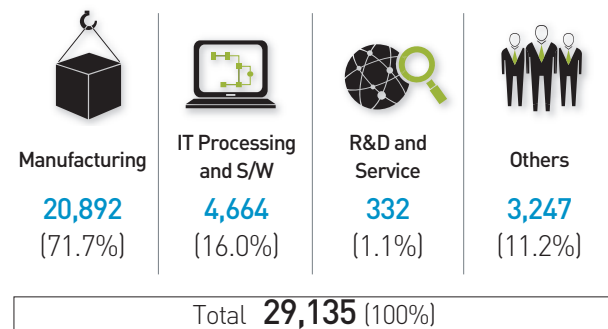
### Annual Growth of Ventures Businesses



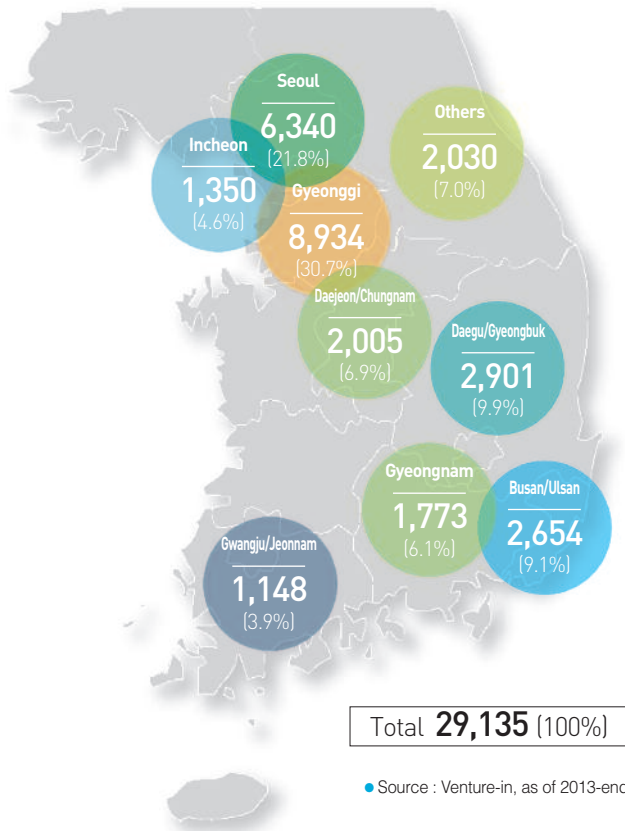
Despite the domestic economic downturn in the midst of a series of turbulent events, including the Eurozone crisis and sluggish major economies following the global financial crisis, ventures continued to proliferate on the back of KOTEC's efforts to provide guarantees based on technological competence. Such efforts contributed to enhancing SMEs' capabilities in technology innovation and encouraged demands for certification with which they can apply for government support, such as policy funds for companies applying for the appraisal guarantee.

Among the venture Businesses, 71.7% belong to the manufacturing sector and 16.0% to S/W.

### Breakdown of Venture Businesses

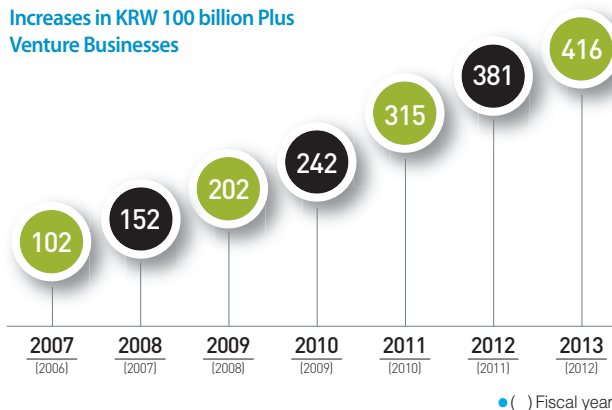


In terms of regional distribution, 57.1% of venture businesses are based in the Seoul metropolitan area (Seoul, Gyeonggi, and Incheon), demonstrating that companies with strong technological competence are still concentrated in the Seoul metropolitan area.



Venture businesses grew not only in quantity but also in quality. Despite the global pandemic of economic downturn, 416 venture businesses delivered KRW 100 billion plus in sales in 2013 (based on the 2012 financial closing), up by 9.2% from the previous year (35 businesses).

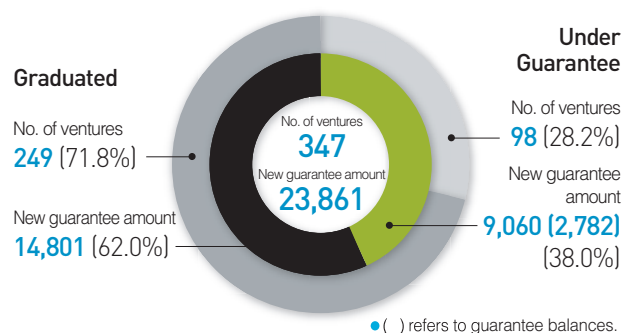
#### Increases in KRW 100 billion Plus Venture Businesses



Among the 416 venture businesses with KRW 100 billion plus in sales (according to the SMBA), KOTEC provided 347 ventures with KRW 2.386 trillion in new guarantees, with 249 (71.8%) already having graduated from the guarantee program and 98 businesses (28.2%) maintaining KRW 278.2 billion in guarantee balances. Among the KOTEC-guaranteed businesses, 177 are publicly listed: 26 had already been listed at the time of initial guarantee provision, 128 went public during the guarantee period, and 23 went IPO after the guarantee was cleared. This is a clear picture of how much KOTEC guarantees contribute to the growth and maturity of venture businesses.

#### Guarantee Support for KRW 100 billion Plus Venture Businesses

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



KOTEC will do its utmost to provide technology financing to identify and cultivate new ventures with the potential to be part of the new growth engine of the economy and to ensure their sustainable growth.

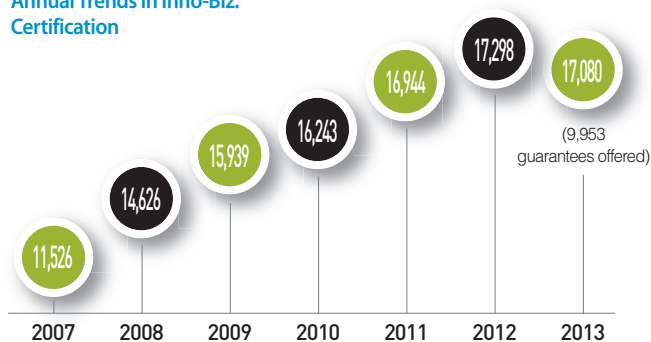
## Inno-Biz Enterprises



Emerging as an imminent challenge is the task of fostering tech-oriented and innovative SMEs that will lead the national economy and help it to proactively cope with rapidly-changing technology trends in the era of globalization. In 2001, the government established “the Plan for Identifying and Cultivating Innovative SMEs” under the SME Technology Innovation Promotion Act and implemented supplementary policies to designate SMEs equipped with strong technological capabilities and growth potential as Inno-Biz enterprises, and provide them with comprehensive support through technology funding and marketing in order to turn them into competitive global players.

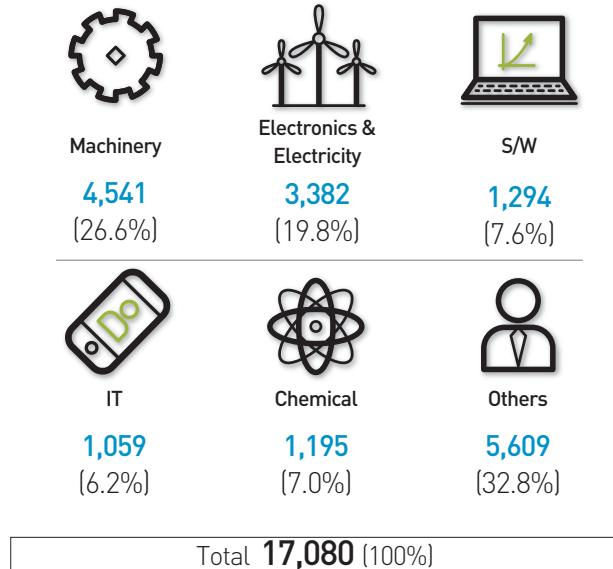
As a result, 17,080 Korean SMEs have been certified as Inno-Biz enterprises through KOTEC's technology appraisal (as of the end of 2012) and that number is continuously increasing with the consistent support and attention of the government and relevant agencies.

### Annual Trends in Inno-Biz Certification



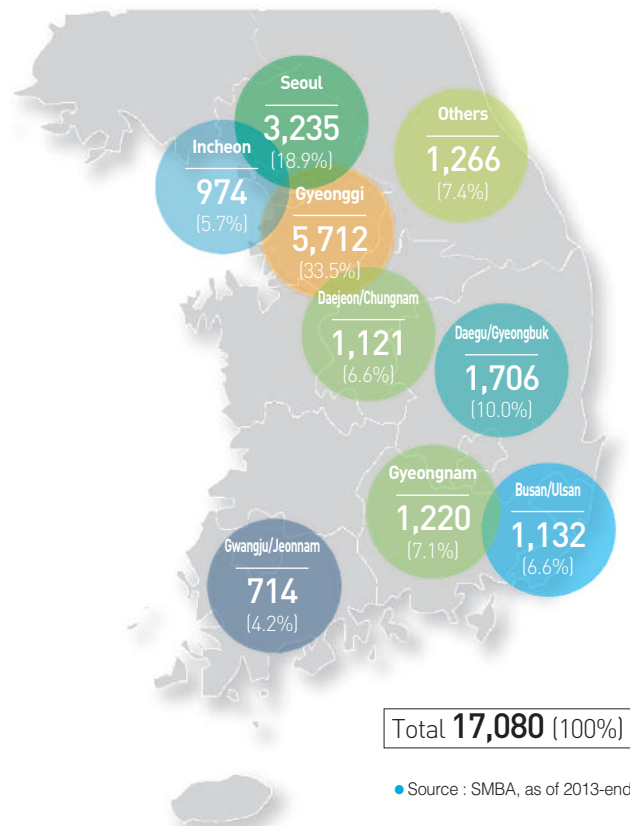
Source : SMBA

### Breakdown of Business Categories



Source : SMBA, as of 2013-end

### Regional Distribution



Source : SMBA, as of 2013-end





# 03

## KOTEC'S BUSINESS

# KOTEC'S BUSINESS

Projected sales of main products in 2013





## Overview

### ● Roles and Responsibilities

Since being founded in 1989, KOTEC has played a pivotal role for about 25 years in providing more than KRW 230 trillion (cumulative) in technology guarantees for tech-oriented SMEs with significant business potential but lacking sufficient financial capacities. 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 extended its service coverage to technology and management consulting as well as equity investment in conjunction with technology appraisal.

Furthermore, KOTEC has focused on companies that are technologically competent but financially vulnerable by incorporating future-oriented evaluation criteria in the technology appraisal system. The system has helped KOTEC to effectively support promising tech startups and boost their growth momentum and job creation abilities.

In particular, KOTEC increased financing for R&D and commercialization activities, proactively unearthed excellent technology SMEs to facilitate industrial transformation oriented to technology and innovation, implemented Pre-guarantees for to-be-founders (which provides funding for a startup right after its opening) and Special guarantees for technology & industry convergence, and reformed and expanded the IP guarantee program to encourage the establishment of excellent IP firms. All of these efforts contributed to creating and enhancing the new growth engine of the national economy and advancing the technological competitiveness of Korean SMEs.

Going forward, KOTEC will continue to back tech-oriented SMEs to 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 provide demand-driven customized services so that its technology evaluation information is widely utilized by both the public and private sectors, and lay the groundwork for a creative economy by stepping up its financial support for high-risk new-growth areas.

### ● Purpose of Establishment

- ① To facilitate the financing of new technology business and further contribute to the development of the national economy by stabilizing and developing the technology credit guarantee system. <[The Korea Technology Credit Guarantee Fund Act Article 1](#)>
- ② To provide debt guarantees for companies that are not financially strong enough to afford the collateral to facilitate financing. <[The Korea Technology Credit Guarantee Fund Act Article 12](#)>

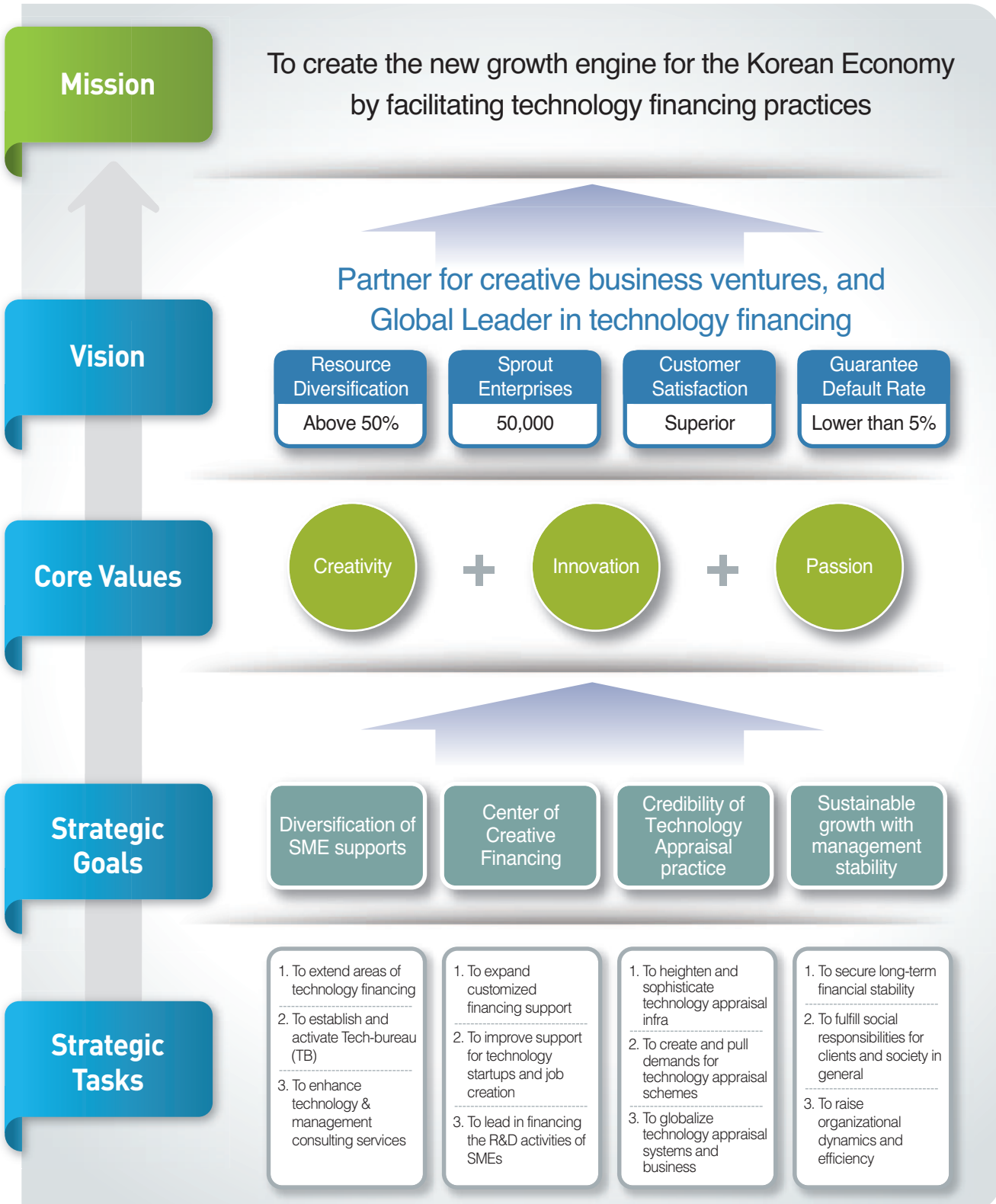
### ● Major History

- 1989. 4. Korea Technology Finance Corporation (KOTEC) was founded (The fund was first established in December, 1986)
- 1994. 2. Implemented Technology-preferred guarantee system
- 1997. 3. Opened Technology Appraisal Center (the first in Korea)
- 1998. 11. Awarded with the 1998 Presidential Award for supporting Ventures
- 1999. 2. Technology appraisal system implemented
- 2002. 8. Legislating Technological Appraisal practice and technology business consulting guide to be due parts of KOTEC's primary business
- 2004. 8. Hit KRW 100 trillion in total guarantee support offered
- 2005. 4. Opened Central Technological Appraisal Center
- 2005. 7. Developed KOTEC Technology Rating System (KTRS)
- 2006. 5. Established "NEW CI"
- 2006. 6. Designated as an institution to certify venture firms
- 2006. 10. Awarded with the 2006 President's Venture Award
- 2007. 1. Integrated guarantee process to be based on technology appraisal
- 2007. 4. Patented KTRS (Kibo Technology Rating System) in Korea (patent pending abroad)
- 2007. 6. Ranked No.1 in public sector assessment
- 2008. 1. Transformed all branches into technology appraisal centers
- 2011. 5. Relocated the Headquarters to Munhyeon International Financial Complex in Busan
- 2011. 12. Hit KRW 200 trillion in total guarantees provided
- 2012. 06. Legislating guarantee-linked equity investment as a proprietary business
- 2013. 10. Awarded a Presidential Commendation for shared development at the 2013 New and Renewable Energy Awards
- 2013. 12. Designated as an "Agency of Excellence" in the public agency transparency assessment for 8 consecutive years
- 2013. 12. Hit KRW 230 trillion in total guarantees provided, KRW 19 trillion in guarantee balances and 60,000 firms in guarantees provided



## Vision and Strategy

### ● Mid-to-long Term Vision and Management Strategy



## General Information

### Capital Funds and Leverage Ratio

KOTEC is a special-purpose financial institution specialized in technology financing. The institution was established with an aim to help create the growth engine for the national economy by supplementing financing primarily in the form of credit guarantees based on technology appraisals for new technology businesses that have little or no collateral to provide. Its capital funds can be characterized as reserves for subrogation and come primarily from financial institutions. Funding sporadically comes from the government, when necessary, and other entities may chip in to meet their various purposes.

#### Article 13 (Acquisition of Fundamental Property) of the Korea Technology Credit Guarantee Fund Act

The fundamental property of the Fund shall be derived from

1. Contributions from finance companies, etc
2. Contributions from the Government, and
3. Contributions from persons other than those referred to in subparagraphs 1 and 2

The contributions from the government are provided to enable KOTEC to smoothly supply funds to technology-innovative SMEs with weak collateral capabilities. The contributions are provided to KOTEC every year from the government's fiscal budget (KRW 150 billion transfer-out to General Account of the government in 2012 and KRW 60 billion transfer-in in 2013) as a type of public goods assigned to protect and foster technology startups and SMEs.

Financial institutions are providing their contributions to save on the costs required to investigate the technology information and credit status of technology-innovative SMEs, eliminate the risks accompanied with supplying funds, and secure the collection of debts by using the technology guarantee system. It is a type of price for using guarantees based on the benefit principle and a sort of share of the expenses they provide as the direct

beneficiary of the technology guarantees entitled to the principal and interest of the loan KOTEC provides in subrogation in case the technology-innovative SMEs become unable to repay their debt. Financial institutions contribute the amount calculated by  $1.35 \pm$  differential rates 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, and financial institutions under special agreements with KOTEC intensifying the benefit principle make special contributions.

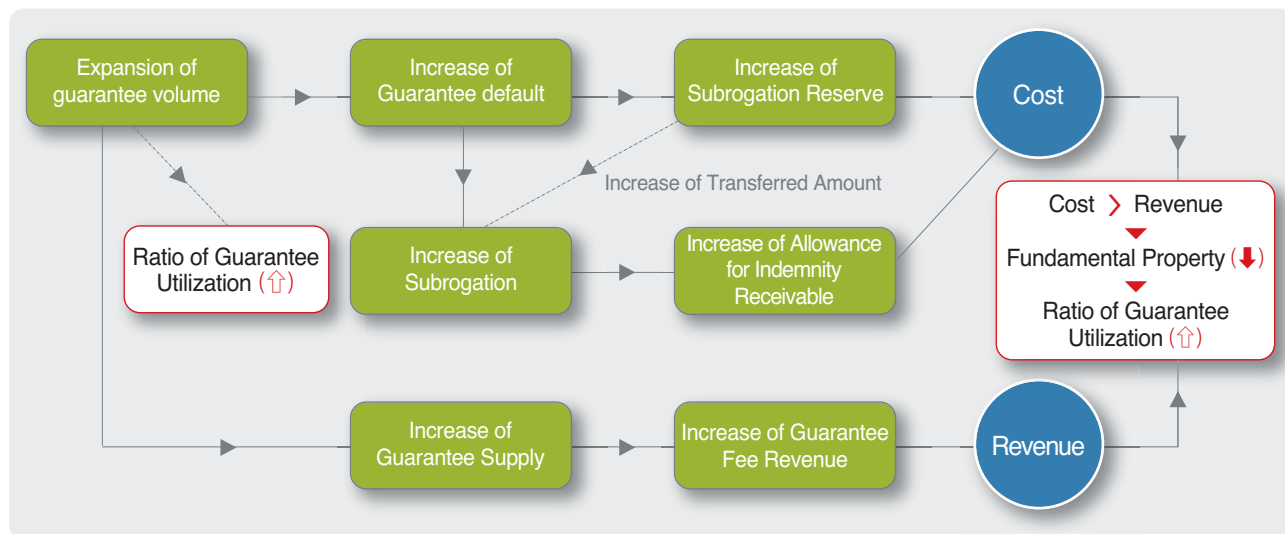
The capital funds are for ensuring guarantee capabilities to meet guarantee demands and secure capabilities to provide continuous guarantee support by securing public credibility that implicates timely response to the needs of subrogation. It is stated that the capital funds raised by contributions and profits made through guarantee fees, penalties, and interest should first be spent to make subrogation payments and operate KOTEC, while the rest should be managed by means of a deposit with financial institutions, purchase of state bonds, local government bonds, or other bonds guaranteed by the central government, local government, or financial institutions, stocks (including investment certificates), debentures or other securities, and by other manners necessary to achieve the KOTEC's purposes.

[<Article 44 of the Korea Technology Credit Guarantee Fund Act>](#)

In 2013, KOTEC managed to maintain financial soundness thanks to decreasing subrogation cases with the overall default rate declining, in addition to contributions from the private sector. However, the capital funds decreased to KRW 2378.4 billion, down by 165.3 billion from the previous year, because KOTEC has gradually accumulated guarantee provisions for the entire guarantee balances since 2011 as required by newly-enacted and implemented regulations on guarantee accounting.

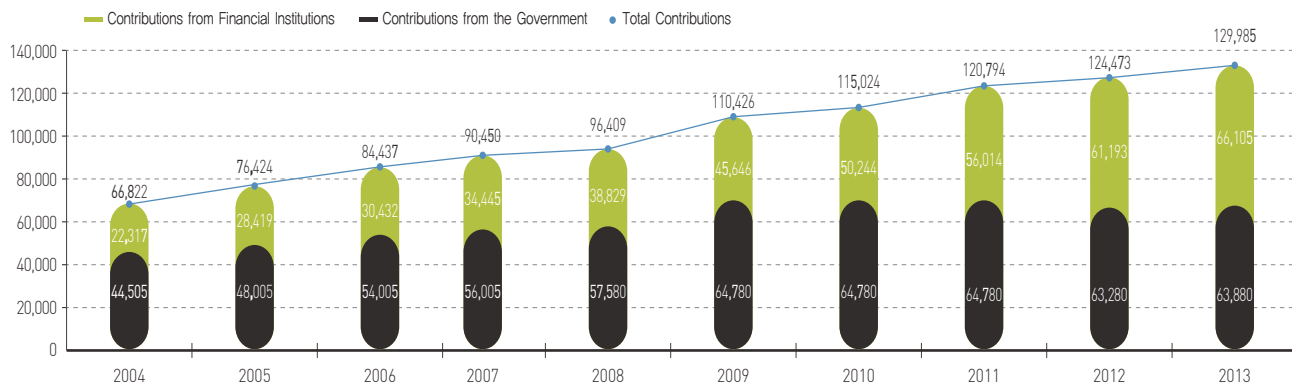
The ratio of guarantee utilization is calculated by dividing the technology guarantee volume by the fundamental property at a certain point and is used as the main indicator for measuring the capability to cope with the request for subrogation and the guarantee supply capability to cope with government policy and the demand for guarantees. It changes according to the guarantee balance, default rate, subrogation, and fluctuations in contributions from the government and financial institutions. Also, the ratio of guarantee utilization plays the role of controlling the soundness of the guaranteed institution by setting guarantee limits, as well as reflecting the multiplier effect which is the greatest advantage of the guarantee system. Article 23 of the Enforcement Decree of the Korea Technology Credit Guarantee Fund Act limits the ratio of guarantee utilization to up to twenty times the sum of fundamental property and retained earnings, and KOTEC maintained the ratio at the level of 8.3 times in 2013.

## ● Changes in Fundamental Property and Ratio of Guarantee Utilization following Increased Guarantee Volume



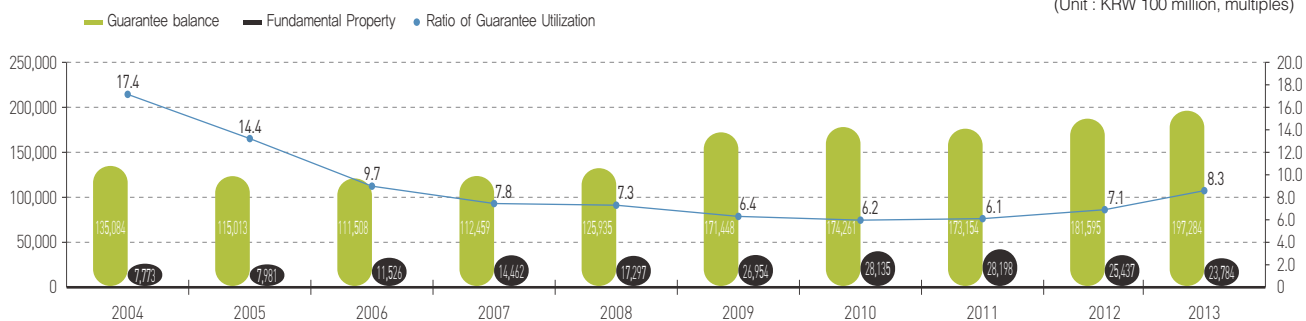
## Accumulated Contributions over the Last Decade

(Unit : KRW 100 million)



## Key Operating Figures of the Last Decade

(Unit : KRW 100 million, multiples)





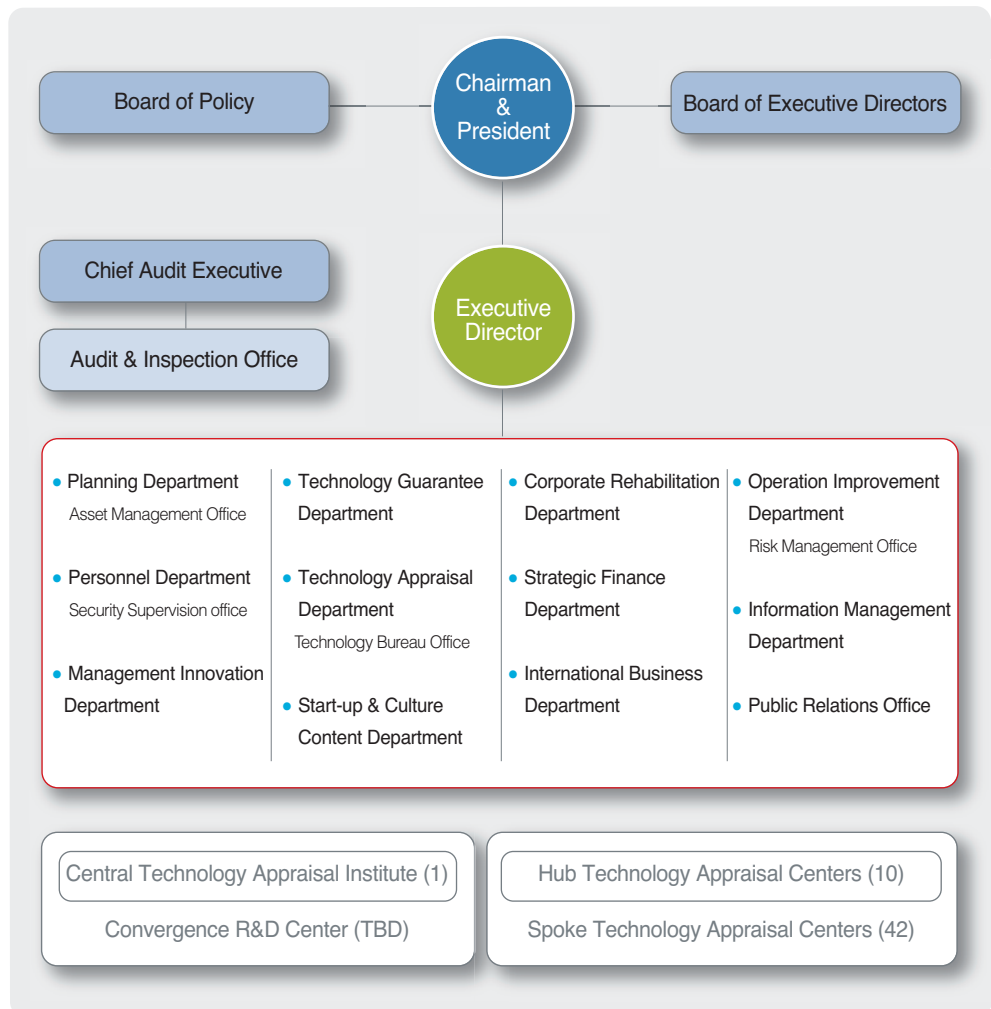
## Organization and Human Resources

KOTEC reorganized its head office to strengthen its functional adequacy to be in line with the strategic directions of leading initiatives in a creative economy as well as enhancing efficiency and reinforcing customized support for startups.

Head Office reorganization : 7 Departments, 3 Offices, and 2 sub-offices in 2012  
→ 11 Departments, 2 Offices, and 4 sub-offices and in 2013

To increase support for R&D and business startups, KOTEC operates a Central Technology Appraisal Institute, 10 Hub Technology Appraisal Centers, and 42 Spoke Technology Appraisal Centers where the jurisdiction of the hub is broadened.

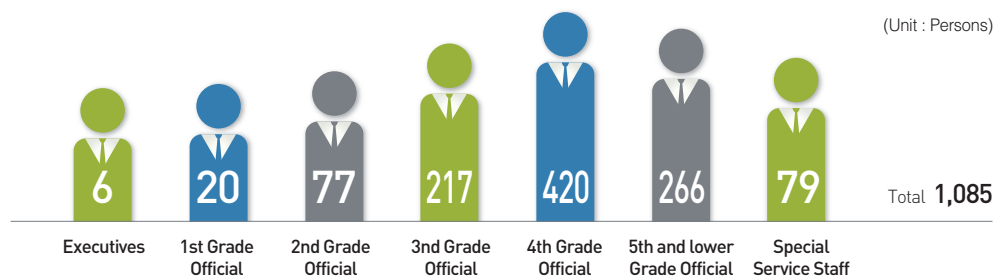
### ● Organizational Chart





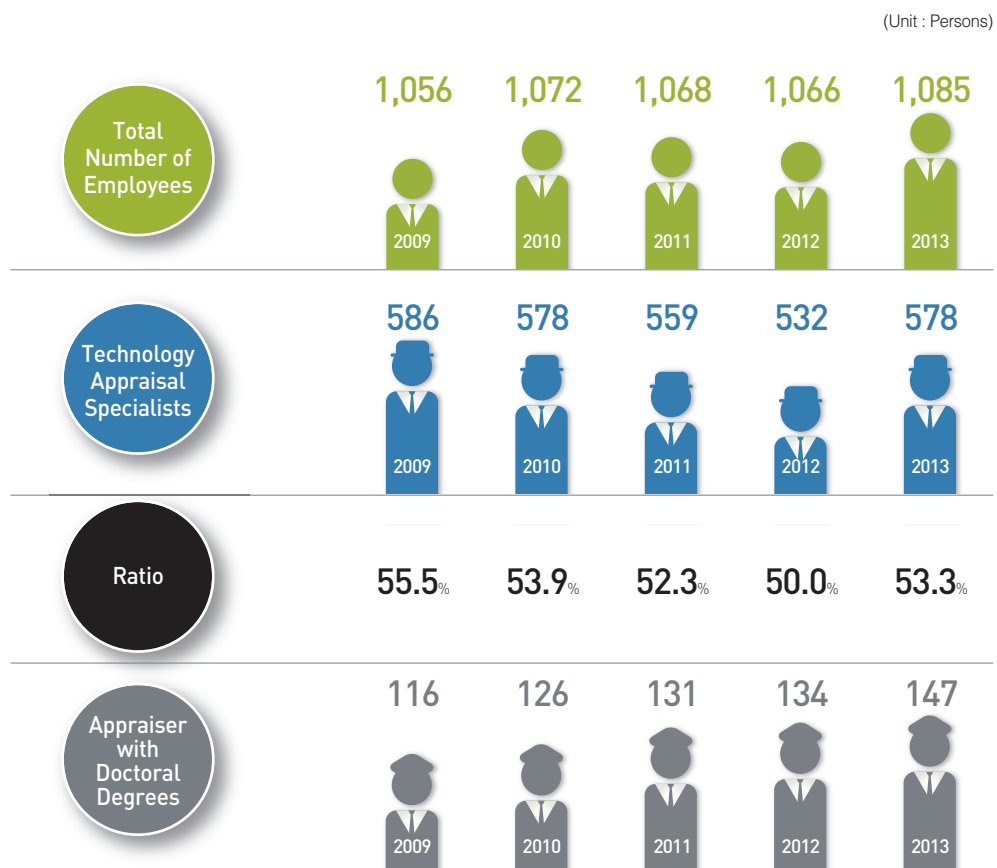
As of 2013 year-end, KOTEC consists of its head office (11 departments and 2 offices) and branch network (1 Central Technology Appraisal Institute, 10 Hub Technology Appraisal Centers and 42 Spoke Technology Appraisal Centers) and its manpower is comprised of 1,085 people, including 6 executives and 79 special service staff members under separate contracts.

### ● Personnel Composition



In particular, in order to secure reliable technology appraisal capabilities, KOTEC operates with 578 technology appraisal specialists (147 with doctoral degrees) including internally certified technology appraisal practitioners. KOTEC is also continuously recruiting technology appraisers and appraisers with doctoral degrees or equivalent.

### ● Personnel Changes Related with Technology Appraisal



● (Note) Appraiser with Doctoral Degrees includes Class 1 Technology Appraisal Engineers.

## Major Operations, etc.

The major services are comprised of core services, i.e., technology guarantees, technology appraisals, guarantee-linked equity investment, and right to indemnity management; and supplementary services, i.e., business consultation and business consulting and technology innovation support; and the details are as follows.

### ● Major Operations

#### Major Operations

##### Technology Guarantee

Guarantees for loans that technology-based SMEs, including new technology businesses, borrow from financial institutions to start their business and develop and/or commercialize technology

\* New guarantees are no longer provided to companies that do not fall under the category of new technology businesses (from Aug 2004)

##### Technology Startup Guarantee

Guarantees for technology startups less than 5 years old

##### Technology Innovation Guarantee

Guarantees for SMEs with excellent technologies such as venture and Inno-biz enterprises, green and knowledge-based service industry, 10 next-generation growth engine industries, and promising industries for future growth (6T)

##### Technology Appraisal Guarantee

Guarantees for companies with excellent technologies based on technology appraisal of intangible technology and knowledge that the company retains

##### Technology Appraisal

Appraises future values of the technology that a company retains, such as technological competency, marketability and business values, and use the appraisal results for various purposes of technology financing support

##### Technology Value Appraisal

Appraisal of values that are being realized or can be realized in the future by the corresponding technology

##### Technology Business Feasibility Test

Appraisal of technological competence and feasibility of the corresponding business when a company is commercializing a specific technology or idea or expanding investment into current technology business

##### Comprehensive Technology Appraisal

Comprehensive appraisal of all the technologies that the company retains in connection with the company's nature such as the management environment and business prospects

##### Guarantee-linked Inv.

Provides direct equity investment in conjunction with credit guarantee program for early-stage technology firms with distinguished business competency

- Purchase of Common Stocks, Preferred Stocks, CB, BW

##### Indemnity Mgt.

Exercises right to indemnity against credit guarantee debtor

- Recovery of indemnity right (including asset investigations), indemnity right protection measures (auctions, lawsuits, and induced redemptions)

#### Supplementary

##### Consulting

Management and technology consulting to improve efficiency and competitiveness

- Business and technology diagnosis and consulting, startup education and training, sales channel development, mentoring, restructuring and M&A etc.

##### Certification

Certification of Ventures & Inno-Biz

Certification of Green Technology & Green Enterprise



KOTEC provides guarantees preferentially for technology-innovative 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, and provides them with preferential technology financing. KOTEC also establishes a specific goals (quota) for four key sectors (green growth enterprises, export enterprises, venture startups, and excellent technology enterprises), and provides intensive support for promising players in these sectors so that they can lead economic growth for the future.

### ●● Key Clients

- Venture enterprises with high-risk and high-return, unlike traditional SMEs
- Inno-biz enterprises with competitive strengths based on technological edge
- Technology startups with the capacity to create jobs and expand growth potential
- R&D enterprises with excellent technologies and 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 Enterprises

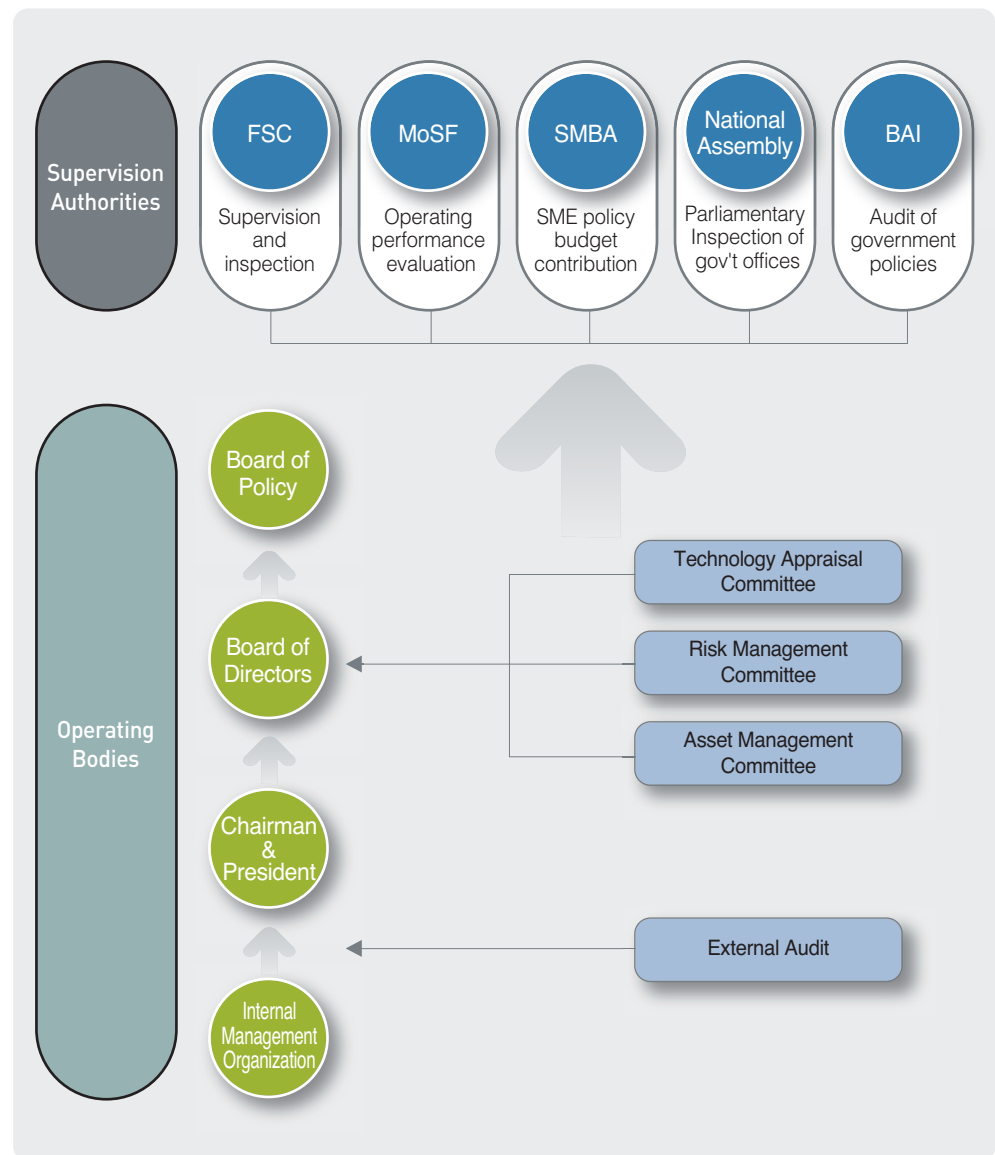
- Technology-intensive SMEs seeking business opportunities with new and advanced technologies and ideas
- Types of Venture Enterprises
  - Technology appraisal guarantee enterprises or technology appraisal financing enterprises
  - R&D enterprises
  - Enterprises invested in by venture capitals

### ●● Inno-Biz Enterprises

- Inno-biz is coined from "Innovation" and "Business" and refers to a company that retains competitive strengths based on technological edge
- Conditions to be qualified as an Inno-biz enterprise
  - Enterprises that have been in operation for no less than 3 years, obtained at least 700 points in the technology innovation system evaluation, and achieved a grade of B or higher in the business evaluation

KOTEC has a number of internal decision-making organizations, including the Board of Policy and the Board of Directors, and is also under the management and supervision of various external organizations such as the Financial Services Commission (FSC), the Ministry of Strategy and Finance (MoSF), the National Assembly and the Board of Audit and Inspection (BAI) in accordance with fundamental laws such as the Korea Technology Credit Guarantee Fund Act, the National Finance Act, the Act on the Management of Public Institutions, the Board of Audit and Inspection Act, and the National Assembly Act.

### ● Decision-Making and Management & Supervision System



## Performance Results for Major Operations

### Overview

Although domestic and global economies showed signs of moderate recovery in 2013, uncertainties lingered because of the weakening growth momentum of emerging countries and QE tapering of the US. However, KOTEC has been committed to its role as a specialized technology financing institution in order to lift economic vitality, such as in the creation of jobs and new growth engines. In particular, KOTEC expanded its role with limited guarantee resources by enhancing the technological competitiveness of SMEs and providing intensive support for the expansion of future growth engines; encouraged credit loans and investment for technology firms by advancing its technology appraisal infrastructure and appraisal specialties and techniques; and tightened risk management practices and systematically exercised indemnity rights to solidify its business fundamentals.

### ● Technology Guarantee

Since its establishment, KOTEC has served as a partner for tech-innovative SMEs by providing technology guarantees worth over KRW 230 trillion in total for SMEs with excellent technological strengths and outstanding business potential. KOTEC pushed forward with structural improvements for marginal businesses and enterprises that received long-term guarantees in large amounts in order to prevent the deterioration of guarantees expanded in the course of overcoming the financial crisis in 2009, and to more efficiently distribute guarantee resources while intensifying guarantee support for technology startups and new growth engine industries. The volume of total guarantees provided amounted to 19.7 trillion in 2013, an increase of 1.5 trillion over the last year.

#### Size of Technology Guarantees



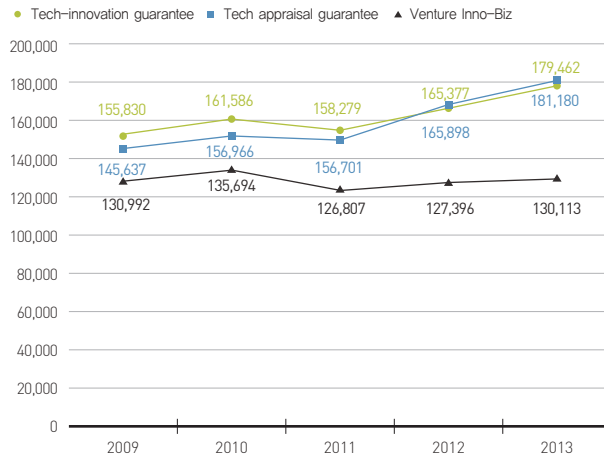
Category	2009	2010	2011	2012	2013
Guarantee balance	171,448	174,261	173,154	181,595	197,284
Guarantees offered	175,713	169,336	169,173	180,775	196,591
New guarantees	81,979	42,860	41,396	52,354	60,184

Since June 2005, departing from the quantitative approach to increase the volume of guarantees, KOTEC designated Inno-Biz firms associated with greater risks but also higher potential value-adding and job creation as the target sector for guarantee offers, and implemented a specialized technology appraisal system (KTRS) on which to base the appraisal not on past financial records, but on future potential, such as technology competitiveness and commercialization potential, with an aim to focus on guarantee expansion.

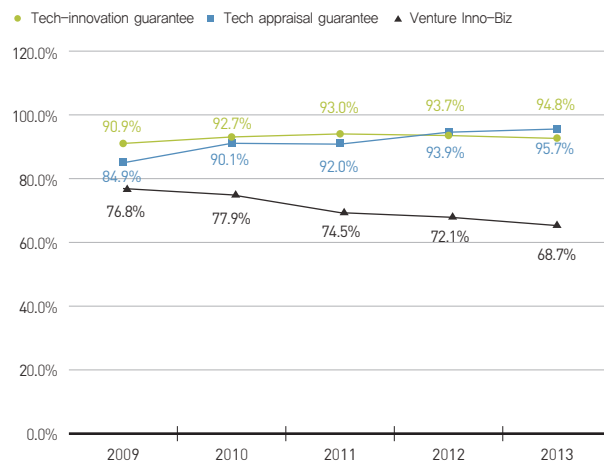


## Technology Guarantee Status

(Guarantee Size) (Unit : KRW 100 million)



## (Guarantee Ratio Change)



In addition, KOTEC appointed 3 pillar areas that have great job creation effects: technology startups, new growth engine industries, and R&D financing; and concentrated its guarantee support on these areas. KOTEC invested KRW 43.2 billion for startups and tech-ventures in order to attract further private investment and provided KRW 305.2 billion in guarantees for Primary-CBOs securitized for tech-intensive SMEs whose credit ratings are not strong enough to issue corporate bonds.

## Guarantee Supply for 3 Major Support Areas

(Unit : KRW 100 million)

Category	2011	2012	2013	
			Plan	Actual
Technology Startups	34,295	76,244	72,000	87,142
New Growth Engine Industries	9,491	44,921	45,000	57,742
R&D Financing	6,063	16,340	20,000	24,022

## ● Technology Startups

Business based on new technology within a 5-year span since foundation

## ● New Growth Engine Industries

Companies to manufacture or have relevant technology for 17 leading items of 3 areas designated by the government

## ● R&amp;D Financing

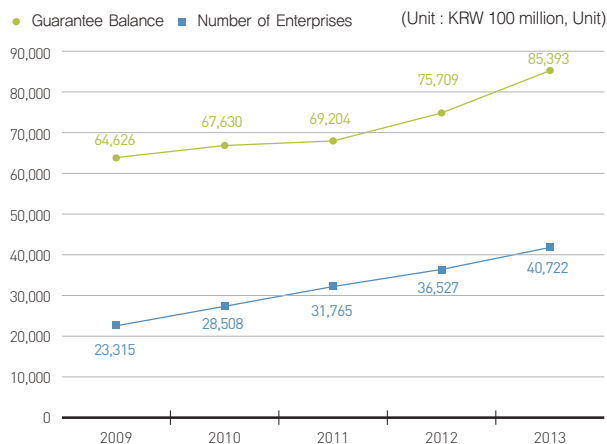
Providing tailored support to specific stages of R&D (Development - Pre-commercialization - Commercialization)

Notably, KOTEC has extended its support for technology startups and increased their guarantee balances from KRW 6.5 trillion in 2009 to KRW 8.5 trillion as of the end of 2013; and continues to drive its guarantee policy to increase the portion out of the total balance.

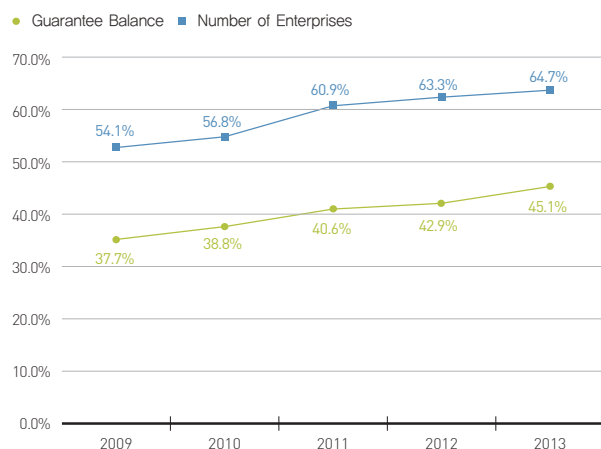


### Guarantee Supply for Technology Startups

(Guarantee Balance and Number of Enterprises)



(Share)



### Technology Appraisal

Technology appraisal is an activity of comprehensively reviewing the prospects of technology, marketability, and business with regard to intangible technologies and expressing the results in amounts, grades, points, and opinions.

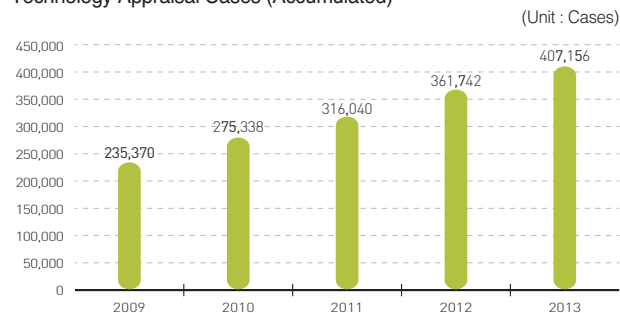
Since its first technology appraisal, carried out in March 1997, KOTEC's appraisal cases have steadily increased every year to total 407,156 in 2013, and the accumulated appraisal fees amounted to KRW 224 billion in 2013. KOTEC's technology rating system (KTRS) has served as a tool to assess the future value of technology, technological strengths and growth potential, feasibility of commercializing developed technologies, and intangible asset values to effectively support the SME technology innovation policy of the government.

### Scope of Application for KOTEC's Technology Appraisal System

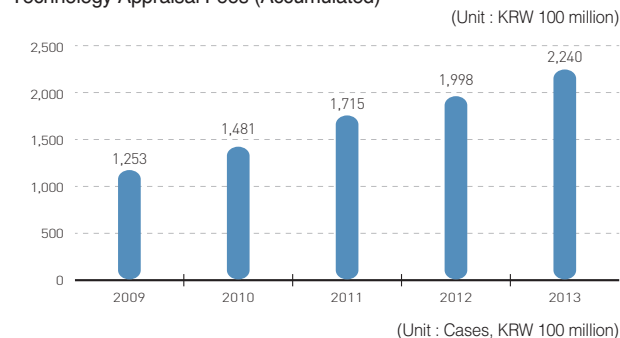
<b>Future Value Oriented Funding Support</b>
<ul style="list-style-type: none"> <li>Technology Appraisal Guarantee</li> <li>Technology-Based Credit Loan</li> <li>Guarantee-linked Investment</li> </ul>
<b>Appraisal of Technological Strengths and Growth Potential</b>
<ul style="list-style-type: none"> <li>Venture Certification</li> <li>Inno-Biz Certification</li> <li>Green Technology Certification</li> </ul>
<b>Appraisal of Commercialization Feasibility of Developed Technology</b>
<ul style="list-style-type: none"> <li>R&amp;D Support Appraisal</li> <li>R&amp;D Economic Feasibility Appraisal</li> </ul>
<b>Calculation of Intangible Technology Values (e.g., Patent)</b>
<ul style="list-style-type: none"> <li>Technology Transfer and M&amp;A</li> <li>Investment in Kind</li> <li>Putting up Collateral on Patent Rights</li> </ul>

### Technology Appraisal Status

Technology Appraisal Cases (Accumulated)



Technology Appraisal Fees (Accumulated)



Category	2009	2010	2011	2012	2013
Technology Appraisal Cases	54,482	39,968	40,702	45,702	45,414
Accumulated	235,370	275,338	316,040	361,742	407,156
Technology Appraisal Fees	270	228	235	283	242
Accumulated	1,253	1,481	1,715	1,998	2,240

## ● Default and Indemnity Right Management

The rate of insolvency-driven default, such as delays in the payment of principal and interest for a guaranteed loan, expanded during the venture crisis period, peaked at 12.9% in 2004, and then stabilized to reach 4.0% in 2013.

**Incremental Default Amount & Default Rate** (Unit : KRW 100 million, %)

Category	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Incremental default amount	17,449	11,659	6,791	6,050	7,679	7,420	8,184	8,715	9,026	7,791
Default rate	12.9	10.1	6.1	5.4	6.1	4.3	4.7	5.0	5.0	4.0

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

**Indemnity Right Recovery by Year**

(Unit : KRW 100 Million)



Category	2009	2010	2011	2012	2013*
Indemnity Right Balance	16,694	16,982	18,042	19,641	18,594
Indemnity Right Collected	3,197	2,534	3,222	3,150	2,416

\* Excluding collections through rehabilitation guarantees in 2013





## Technology Guarantee

### Total Technology Guarantee Support

### ● Technology Guarantee Support

KOTEC provided stable support for technology financing for SMEs to fulfill its role as a public guarantee institution specializing in technology enterprises, and to help tech-innovative SMEs effectively secure their strong competitiveness to prepare for economic uncertainties and thrive.

KOTEC provided KRW 19.354 trillion in guarantees to timely satisfy the financial needs of SMEs, and its guarantee balance amounted to 19.728 trillion, up 1.569 trillion from the previous year.

In pursuit of reinvigorating the economy and creating jobs, KOTEC concentrated its support on SMEs with strong job creation capabilities, tech-innovative enterprises capable of creating new growth engines, and export-oriented SMEs; and its support for them accounted for 94.9% of the total guarantees provided. KOTEC issued P-CBOs worth of KRW 305.2 billion to redirect SME loans from the indirect financing market to the direct financing market.

### Enhancing the guarantee support system for technology, startups, and venture businesses

KOTEC has concentrated its guarantee support capabilities on technology startups and venture businesses, which are expected to become 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

(Unit : KRW 100 Million, %)

Category	2011	(%)	2012	(%)	2013	(%)
Total Guarantee Supply	166,271	100.0	178,588	100.0	193,539	100.0
Tech Innovative SMEs	154,808	93.1	167,512	93.8	183,727	94.9
Venture Businesses	109,895	66.1	111,459	62.4	115,860	59.9
Inno-Biz	85,102	51.2	83,730	46.9	78,123	40.4
Startups	66,527	40.0	76,244	42.7	87,142	45.0
Technology Appraisal Guarantee	151,914	91.4	167,008	93.5	184,625	95.4
Knowledge & Culture Industry	22,514	13.5	25,402	14.2	30,843	15.9
Job-Creating SMEs	25,455	15.3	37,301	20.9	44,887	23.2
New Growth Engine	34,295	20.6	44,921	25.2	57,742	29.8
P-CBO Guarantee	2,902	1.75	2,187	1.2	3,052	1.6
Total Guarantee Balance	173,154	-	181,595	-	197,284	-

#### Guarantees for Tech Innovative Enterprises

To actively support government policy, guarantees for tech-innovative firms increased to KRW 18.372 trillion in 2013, up by KRW 1.621 trillion from KRW 16.751 trillion in 2012, and its share out of the total guarantees provided also expanded to 94.9%, up by 1.1%p from 93.8% of the previous year.

### Guarantees for Venture and Inno-Biz enterprises

As a designated institution to provide support for venture & Inno-Biz firms, KOTEC provided KRW 11.586 trillion for venture and KRW 7.812 trillion for Inno-Biz firms in 2013. The share of support for venture and Inno-Biz enterprises out of the total guarantees provided in 2013 was 59.9%, slightly down from 62.4% for the previous year, but the amount was up by KRW 440.1 billion, led by the expansion of new guarantee support for technology startups.

### Guarantees for Startups

KOTEC continued to provide guarantees for startups no older than 5 years old in order to enhance the vitality of the national economy and to create more jobs, and gradually expanded the share by providing 6.652 trillion won (40.0%) in 2011, 7.624 trillion won (42.7%) in 2012 and 8.714 trillion won (45.0%) in 2013.

### Technology Appraisal Guarantee

As a key player in technology financing, KOTEC established a robust technology appraisal system optimized for financing tech-innovative enterprises, and increasingly utilized it to provide KRW 18.462 (95.4%) trillion in technology appraisal guarantees up by KRW 1.761 trillion (10.5%p) from KRW 16.701 trillion (93.5%) of the previous year.

Focusing on a new growth engine to lead a creative economy

Equipped with the capability of technology appraisal and financing support, KOTEC is leading the efforts to foster new growth engine industries to successfully back government policy and efficiently distribute limited resources to economically-significant new growth engine areas, i.e., 17 industries in the green technology, high-tech convergence, and high value-added service areas. To improve the growth potential of the national economy, KOTEC has consolidated its cooperative network for the new and renewable energy sector and increased guarantee support.

### New Growth Engine Areas (17 industries in 3 areas)

#### 3 Key Areas

#### 17 New Growth Engine Industries

##### Green Tech Industries (6)

New and renewable energy, carbon reduction energy, enhanced water treatment, LED application, green transportation system, high-tech green city

##### High-tech Convergence Industries (6)

Communications convergence, IT convergence system, robot application, new material and nano convergence, bio-pharmaceutical (resource) & medical equipment, high value-added food

##### High Value-added Service Industries (5)

Global healthcare, global education service, green financing, contents and software, convergence tourism, MICE (Meetings, Incentives, Convention, and Exhibitions)



### Establishment and implementation of a support plan to expand guarantees for the new growth engine industry

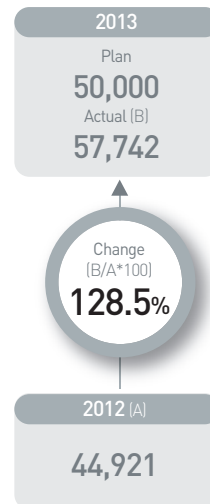
To extend support for creating a new growth engine and to ensure technology appraisal guarantees as the primary scheme for implementing the government's policy, the government prepared the "Green Business Finance Support Implementation Progress and Future Plan" (May 2012). The program revised the new guarantee amounts for three years (2011-2013) to KRW 11.7 trillion, from the original of KRW 10 trillion. Along with that, KOTEC implemented a special guarantee program for new growth engine businesses (January 2013) and established a green technology appraisal framework. As a result, KOTEC provided KRW 5.774 trillion for 12,166 firms in new growth engine areas in 2013.

### Leading the new and renewable energy industry by cooperating with relevant organizations

To foster the new and renewable energy industry as a new growth engine to encourage the potential growth of the economy, the New Renewable Energy Shared Development Guarantee has been continuously executed according to the recommendations of the New Renewable Energy Shared Growth Fund (co-created by 18 conglomerates and power suppliers, 3 commercial banks, and 3 relevant associations). This program provided KRW 73.4 billion in guarantees for 105 companies in 2013. Since KOTEC became entitled to recommend candidates as guarantee recipients in September 2012, it has proactively discovered and recommended excellent candidates and significantly increased the guarantee amounts, contributing to the creation of new national growth engines.

Guarantees offered for the new growth engine industry

(Unit : KRW 100 million)



Guarantees offered for new and renewable energy businesses

(Unit : KRW 100 million)







#### Competitiveness enhancement with customized support for competent green technology enterprises

By operating a customized guarantee program named the "GREEN HI-TECH preferential guarantee" for the green growth industry, KOTEC provided KRW 97.6 billion for 140 firms in 2013. In particular, the support system has been amended so that companies with green technology certificates and in need of financing can benefit from lower guarantee fees (maximum reduction of 0.5%p).

#### | Key Features of the GREEN HI-TECH Preferential Guarantee

Category	Preferential Guarantee for Green Certificate Companies	Preferential Guarantee for Companies with Competent Green Technology
Targets	<ul style="list-style-type: none"> <li>Companies being certified for green technology, green business certificate or green expertise</li> </ul>	<ul style="list-style-type: none"> <li>Companies meeting requirements for green technology assessment criteria (BB or higher in technology appraisal)</li> </ul>
Preferential Treatment	<ul style="list-style-type: none"> <li>Limit upgrade for green-tech firms : Additional limit for Green R&amp;D cost, technology introduction, registration of industrial property right, and recruiting</li> </ul>	
	<ul style="list-style-type: none"> <li>Guarantee limit : KRW 7 billion at the max</li> <li>Guarantee fee : 0.5%p discount</li> <li>Guarantee ratio : 90%</li> <li>Exempted from documenting technology business description</li> </ul>	<ul style="list-style-type: none"> <li>Guarantee limit : KRW 7 billion at the max</li> <li>Guarantee fee : 0.3%p discount</li> <li>Guarantee ratio : 85%</li> <li>Run experts' support</li> </ul>
Amount offered	KRW 97.6 billion for 140 companies in 2013	

## ● Fostering Job creation and entrepreneurship through technology financing



### Operating a systematic support system pertaining to startup growth stages

To help early-stage settlement of entrepreneurs, the "Startup Mentoring Program" was implemented in which seasoned mentors are assigned to infant or to-be startups to provide useful information and advice before seed funding. The selected entrepreneurs are also entitled to seed money on the back of KOTEC's technology guarantee. Under the program, 1,574 cases of mentorship services and KRW 65.6 billion in preferential guarantees were provided for 726 companies in 2013.

### Expanding guarantee support for startups to foster entrepreneurship

As it becomes more important to explore and nurture tech-oriented startups to build the grounds for future growth and to tackle growth without employment, KOTEC has been expanding guarantee support for tech-oriented startups within 5 years of their foundation.

The "Customized Startup Growth Program" was implemented for startups for 6 designated categories, including green growth startups, knowledge and culture startups, engineering startups, high-tech & root industry startups, one-man startups, and startups established by people in their 40s & 50s, to provide focused support. Under the program, KRW 2.372 trillion was provided for 10,168 startups. In particular, guarantee support for those within 2 years from foundation, younger generation startups, and those with no sales records has been expanded. Under these various programs, KRW 2.944 trillion (51.5% of the total new guarantees of KRW 5.713 trillion) was provided for 12,080 startups.

In 2013, in order to encourage tech- and idea-based startups, "Pre-Guarantees for To-be Founders" were implemented to promise a definite funding amount for would-be entrepreneurs and provide the promised funding immediately after starting a business. Under this program, 421 would-be entrepreneurs were promised for KRW 53.3 billion, and 305 firms that were actually founded received a total of KRW 35.9 billion.

## ● Increasing support for new growth industries to secure future growth engines

### Extending guarantee support for the knowledge and culture industry

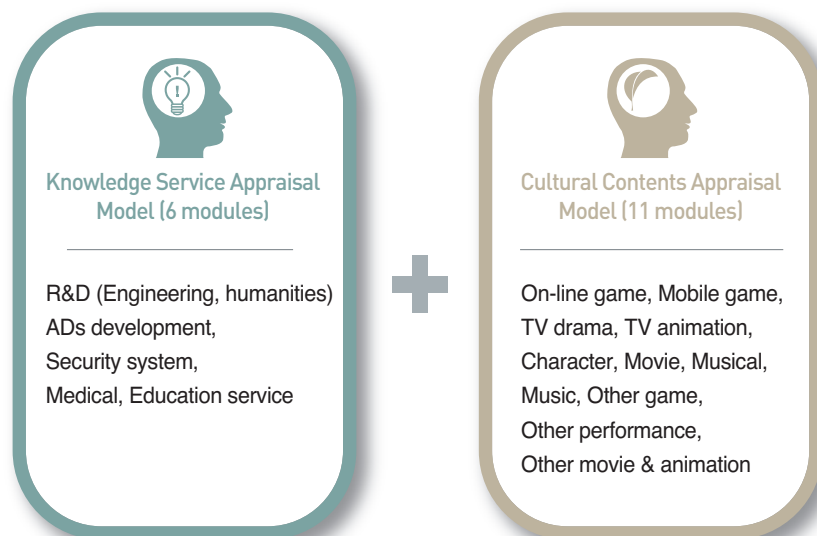
With the economic paradigm shifting towards the era of knowledge and information, KOTEC selectively designated the "knowledge service and cultural contents sector" as a post-manufacturing growth engine. KOTEC plans to expand the guarantee balance for the industry to 15% by 2015.

In 2013, guarantee coverage for the industry already reached 15.5% (exceeding the planned 14.0%) as KOTEC enhanced its proactive system to accommodate the knowledge & culture sectors in the targeted subject of technology financing and to increase the volume of guarantees for these sectors.

### Strengthening expertise in technology appraisal for the knowledge service and culture contents industry

To build a sustainable support system for the new targeted area, we significantly enhanced field application capabilities and relevant technology appraisal skills for the industry by having education and training seminars to teach the nature of the industry and by segmenting technology appraisal modules to enable appraisal practices tailored to the industry and its objectives.

#### Knowledge & Culture Industry Appraisal Model

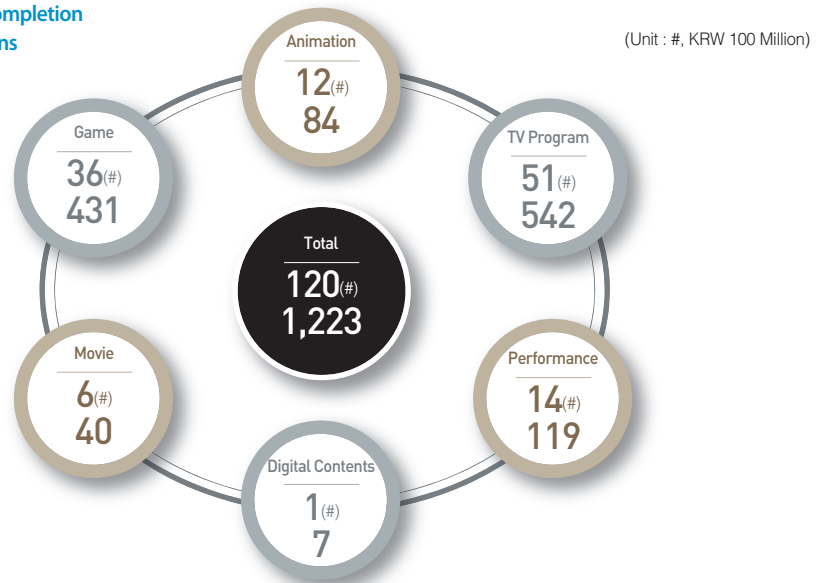


In addition, KOTEC adopted a "Guarantee for high value-added service project" program in 2013 to improve support for knowledge service and cultural content industries. The new program helps in closing the gap between funding demands and actual payment, which has long been a problem in the contract of such businesses, so that it can provide a better environment to produce high quality projects.

### Expanding funding for culture content production by introducing culture content completion guarantees

After KOTEC implemented a cultural industry completion guarantee program for cultural content development of games, dramas, animations, and movies in September 2009 to facilitate cultural content development and encourage investment, it increased the support limits for high value-added content (games, dramas, animations, convergence CGs) to invigorate the system by improving customers' access and introduced "Achievement Sharing Completion Guarantees" to exempt content developers with strong business cases from early repayment and share their achievements. Since its first implementation, the program has extended KRW 122.3 billion for 120 cultural content projects, including the drama "Deep-rooted Tree" aired on SBS, the drama "Light and Shadow" aired on MBC, the drama "Wang's family" aired on KBS, and the musical project "Sound of Music."

#### Cultural Content Completion Guarantee Provisions (accumulated)



### Operating special win-win guarantee programs for shared growth

To effectively provide technology finance support for tech innovative firms, various shared growth guarantee programs have been implemented, based on a cooperative framework with financial institutions and large conglomerates.

### Guarantees based on special contributions by financial institutions

"Guarantees based on special contributions by financial institutions" were first introduced in 2009 (amidst the global financial crisis) by signing agreements with 11 financial institutions, including IBK, and expanded in 2011 by signing a second round of agreements with 10 additional financial institutions, including Shinhan Bank. The third agreement was entered into with KB Kookmin Bank in the first half of 2013. To encourage technology startups and create jobs, KB entered into an agreement with KOTEC in 1H 2013 to provide contributions for to-be founders. As such, KOTEC continues to build and consolidate its cooperation with financial institutions to bolster guarantee support for new growth engine industries.

#### Guarantees based on Special Contributions by Financial Institutions

(Unit : KRW 100 Million)

Category	2009	2010	2011	2012	2013	Total
Special Contributions	1,893	60	880	289	50	3,172
Guarantee Support	18,701	3,758	10,447	4,102	1,387	38,395



### ● Guarantee based on agreement of guarantee fee support

The "Guarantee based on Agreement of Guarantee Fee Support" was implemented in 2011 along with "Guarantees based on Special Contributions by Financial Institutions (2nd phase)" to have financial institutions pay guarantee fees on behalf of SMEs with an aim to help SMEs to save on financing costs.

#### Guarantee based on Agreement of Guarantee Fee Support

(Unit : KRW 100 Million)

Category	2010	2011	2012	2013	Total
Guarantee Fee Support Amount	80.0	277.5	68.5	212	638.0
Guarantee Fee Support	-	99.2	213.4	274.7	587.3
Guarantee Support	-	15,788	32,526	39,319	87,633

#### Large, Medium, and Small Enterprises Shared Development Guarantee

The "Large, Medium and Small Enterprises Shared Development Guarantee" was first launched in February 2009, for the purpose of the shared growth of large, medium, and small enterprises with 3 major conglomerates, including Hyundai Motors, and 2 financial institutions. It expanded to include 9 conglomerates in total, including Samsung Electronics, and 3 financial institutions, to provide preferential guarantee rates for partners recommended by the conglomerates participating in the program.

#### Large, Medium, and Small Enterprises Shared Development Guarantee Provisions

(Unit : KRW 100 Million)

Category	2009	2010	2011	2012	2013	Total
Special Contributions	124.5	1.6	3.2	7.2	28.5	165.0
Guarantee Support	1,967	19	58	318	352	2,714



## ● Developing Customer-Oriented Technology Financing Infrastructure

KOTEC improved the loan intermediary section (cyber space where enterprises and banks can share information, such as interest rates and terms & conditions of loans) online to satisfy customer demands for better communication channels between enterprises and banks. It also promotes the efficiency of the system. Enterprises can benefit from lower interest rates by selecting loan products best fitting their needs while banks can attract customers and promote loan products through this channel.

KOTEC enhanced customer convenience by allowing enterprises to renew loan maturities through the call center recording system without physically visiting branches. To mitigate the heavy pressures from joint guarantees and encourage startups as well as improve the financing environment, KOTEC virtually abolished joint guarantees for individual business owners. For institutional business, only one actual management party shall be held liable.

In an effort to streamline the document submission procedures, KOTEC opened a web channel to verify mandatory payments of 4 public insurances, and a cyber branch to collect tax payment certificates.

### Monitoring of Guaranteed Loan Interest Rates and Enhancement of Loan Intermediary Sections to Reduce an SME's Financing Cost

To establish an institutional framework to lower SME loan rates, KOTEC renewed terms and conditions for guaranteed loans so that banks are prohibited from arbitrarily imposing additional rates; and built an interest rate notification system to publish guaranteed loan rates. KOTEC also runs an online loan intermediary section to help SMEs gain the upper hand in rate negotiations with banks, and to encourage inter-bank competition, hoping that banks voluntarily cut loan rates.

Furthermore, KOTEC defined the threshold of high interest rates and reinforced the monitoring system to discourage financial institutions from imposing excessive rates on guaranteed loans. To maximize the effect of interest cutting, KOTEC opened a new page in the online loan intermediary section to enable interest rate searches and comparisons.

#### Enhancement of the Regular Monitoring System on Guaranteed Loan Interest Rates

Before	After
<ul style="list-style-type: none"> <li>Non-regular monitoring by KOTEC</li> </ul>	<ul style="list-style-type: none"> <li>Define high interest rate and regularly monitor in cooperation with the FSS</li> <li>(KOTEC) Demand banks for explanation of high-interest loans, and request the FSS for inspection</li> <li>(FSS) Bank inspection</li> </ul>

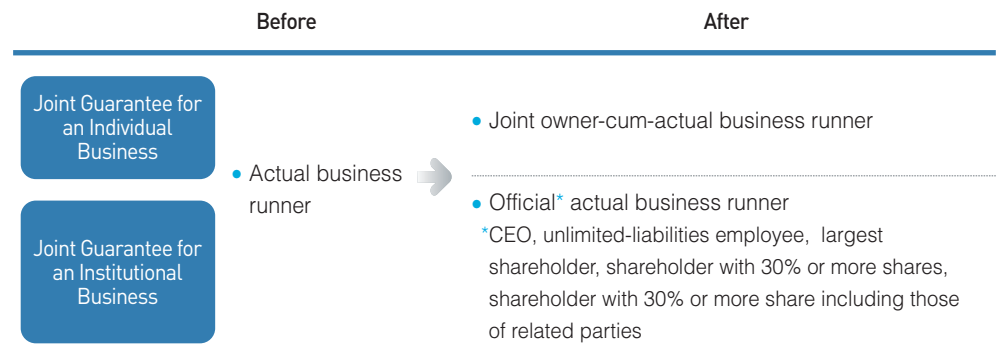
#### Enhancement of Loan Intermediary Section Services

Before	After
<div>Interest Rate Information</div>	Interest rate comparison between financial institutions
(TBD)	
<div>Entitled user</div>	Guarantee recipients and non-guaranteed
Guarantee recipients	

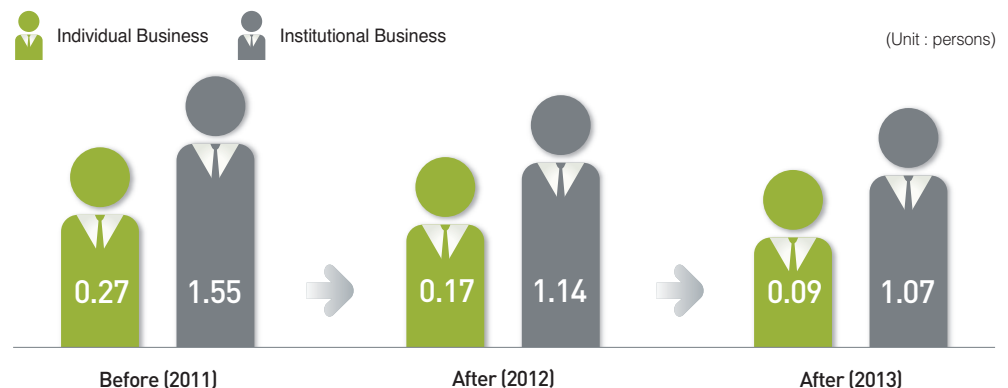
Backed by agreements with 10 banks, the "Guarantee Fee Support Agreement Guarantee" was implemented to allow SMEs to pay only 0.5% (or 0.1%) of fixed guarantee fees and the remaining fee is paid by the fund contributed by banks in an effort to reduce SMEs burdens of guarantee fees.

### ● Improvement on Joint Guarantee Issue

To promote business startups and maintain economic resilience, the joint guarantee system was reformed in May 2012. It abolished joint guarantees in principle for individual business owners, and if there is a designated business runner, only the actual runner is held responsible for the joint guarantee. For institutions, it became the principle to hold only the representative liable. The system was reformed once again in July 2013 to legalize grey markets and establish a fair trade order, guarantee liabilities held by unofficial actual runners were abolished. Accordingly, only the joint owner/actual business runner of an individual business as per the registration certificate and one actual member of management (such as the CEO or largest shareholder) of the institutional business shall be held liable for a joint guarantee. With the system in place, the number of joint guarantee holders significantly declined compared to before the system's implementation. For guarantees offered before the system took effect, the new standards will gradually be applied over the next 5 years to better serve customers.



### No. of Average Joint Guarantee Holders for New Guarantees



## Technology Appraisal

### ● Technology Appraisal Overview

#### Concept of Technology Appraisal

Technology appraisal is a system of making an in-depth evaluation of the technological competence, business feasibility, marketability, and so forth of an intangible technology with a focus on future values, and expressing the evaluation results in amounts, grades, points, and opinions.

#### Type of Technology Appraisal

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

Category	Definition
Technology Valuation	Appraise the value of the technology currently being manifested or can be manifested in the future and express the results of appraisal in an amount
Technology Business Feasibility Appraisal	Appraise the technological values and business feasibility of the corresponding business in case an enterprise wishes to commercialize a specific technology or an idea or expand the investment to currently promoting technology business
Comprehensive Technology Appraisal	Comprehensively appraise all technologies that the enterprise has in connection with the nature of the enterprise such as the management environment and business prospects

#### Scope of Technology Appraisal

The technology appraisal comprehensively reviews the technological value, marketability, and business feasibility of the target technology.

Technological Value	Marketability	Business Feasibility
<ul style="list-style-type: none"> <li>Technology overview</li> <li>Domestic and overseas technology trends</li> <li>R&amp;D environment</li> <li>Level of technology, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Market size and characteristics</li> <li>Status of the same industry</li> <li>Market demand forecast</li> </ul>	<ul style="list-style-type: none"> <li>Sales forecast</li> <li>Price and quality competitiveness</li> <li>Business validity, etc.</li> </ul>



## ● Operation of Technology Appraisal Business

### Progress

Since introducing the Technology Appraisal Center and the initiative of technology appraisal in February 1997 for the first time in Korea, KOTEC has led the technology appraisal market as the leading appraisal institution implementing technology appraisal-based guarantees, new technology appraisal system (KTRS) development, and served as the institution to issue venture certificates and green certificates.

<b>March 1997</b>	<ul style="list-style-type: none"> <li>Opened technology appraisal center</li> </ul>
<b>May 1997</b>	<ul style="list-style-type: none"> <li>Agency for the appraisal of the technological value and business feasibility of patent technology (Invention Promotion Act)</li> </ul>
<b>October 1997</b>	<ul style="list-style-type: none"> <li>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)</li> </ul>
<b>August 1998</b>	<ul style="list-style-type: none"> <li>Designated as an appraisal agency for identifying venture enterprises (Act on the Special Measures for the Promotion of Venture Businesses)</li> </ul>
<b>November 1998</b>	<ul style="list-style-type: none"> <li>Designated as a technology appraisal agency for the industrial properties of foreigners as investment in-kind (Foreign Investment Promotion Act)</li> </ul>
<b>February 1999</b>	<ul style="list-style-type: none"> <li>Implementation of technology appraisal guarantee system</li> </ul>
<b>April 2001</b>	<ul style="list-style-type: none"> <li>Designated as a professional agency specializing in technology appraisal and transaction of technology under consideration for technology transfer and commercialization (Technology Transfer Promotion Act)</li> </ul>
<b>July 2001</b>	<ul style="list-style-type: none"> <li>Designated as a technology appraisal agency for the reference of venture enterprises' listing on the KOSDAQ (Korea Securities and Dealers Association)</li> </ul>
<b>August 2001</b>	<ul style="list-style-type: none"> <li>A technology appraisal agency for the selection of INNO-BIZ (technology-innovative SME) (Small and Medium Business Association)</li> </ul>
<b>September 2004</b>	<ul style="list-style-type: none"> <li>Implemented a technology appraisal certification system (for internal use)</li> </ul>
<b>July 2005</b>	<ul style="list-style-type: none"> <li>Implemented the new KIBO (KOTEC) Technology Rating System (KTRS)</li> </ul>
<b>April 2007</b>	<ul style="list-style-type: none"> <li>KTRS acquired domestic BM patent</li> </ul>
<b>April 2008</b>	<ul style="list-style-type: none"> <li>Applied a patent registration of the international patent (PCT) of technology appraisal system (KTRS) to other countries (Japan, China, and Singapore)</li> </ul>
<b>October 2009</b>	<ul style="list-style-type: none"> <li>Acquired a Korean patent for a technology appraisal model (KTRS-Startup) for use by venture enterprises</li> </ul>
<b>April 2010</b>	<ul style="list-style-type: none"> <li>Designated as the appraisal agency for green certification by the government</li> </ul>
<b>October 2010</b>	<ul style="list-style-type: none"> <li>KTRS feedback system acquired domestic patent (2 cases)</li> </ul>
<b>January 2011</b>	<ul style="list-style-type: none"> <li>Applied and implemented the research results for the advancement of KTRS (KTRS-V2.0)</li> </ul>
<b>November 2012</b>	<ul style="list-style-type: none"> <li>Developed Green Technology Rating Model (GTRS) for better assessment of Green Technology and its related industries</li> </ul>
<b>December 2013</b>	<ul style="list-style-type: none"> <li>Improved KTRS models and redefined the system (by applying the result of commissioned research)</li> </ul>

## Technology Appraisal Organization and Manpower

To meet growing demands for appraisal and to secure a sustainable finance sales network, KOTEC restructured and optimized the technology appraisal business into a central technology appraisal institution, 10 hub appraisal centers, and 42 spoke appraisal centers as of 2013.



Center	Role	Key Responsibilities
Central Technology Appraisal Institute	Key appraisal institution to perform highly sophisticated appraisal	<ul style="list-style-type: none"> <li>Specialized technology appraisal</li> <li>Marketing to the government and relevant organizations</li> <li>Support for technology appraisal centers</li> </ul>
Hub Technology Appraisal Center	Regional hub of technology appraisal business	<ul style="list-style-type: none"> <li>IP guarantee, R&amp;D guarantee</li> <li>Technology business feasibility test (e.g., feasibility test on government R&amp;D projects)</li> <li>Support for spoke centers</li> </ul>
Spoke Technology Appraisal Center	Spokes for each regional hub	<ul style="list-style-type: none"> <li>Standardized technology appraisal task</li> <li>Technology appraisal for guarantee</li> </ul>

KOTEC keeps nurturing qualified and competent resources designated for technology appraisal to ensure opportunities to learn theory and knowledge about technology appraisals in general and actual field experience in appraisals.

(Unit : persons)

Headcount (persons)	2008	2009	2010	2011	2012	2013
Total Employees	1,066	1,056	1,072	1,068	1,066	1,085
Technology appraisal experts	568	586	578	559	532	578
Ph.D Degree holders (or equivalent)	109	116	126	131	134	147

• Technology appraisal experts :

Experts with doctorates, employees holding expertise, staff working at Hub Appraisal Center, Central Appraisal Institution, Staff working in Technology Appraisal Teams, and those with Technology Appraisal Certificates higher than level 3

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

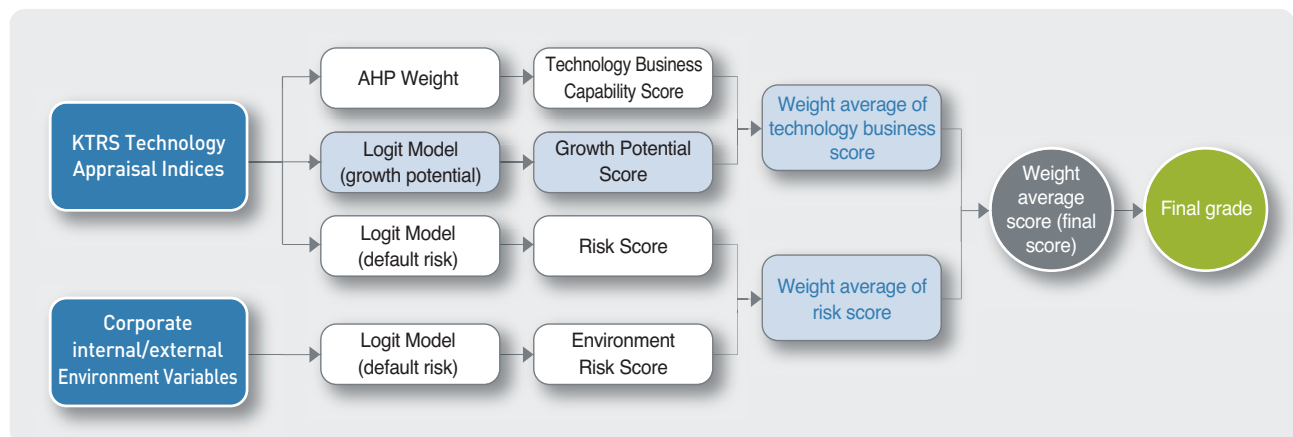
(Unit : persons)

Machine	ITC	Electronics & Electricity	Materials	Chemical	Textile	BIO	Envi-ronment	Accounting	Patent law	Culture & contents	Others
173	129	132	89	83	13	97	36	156	48	52	66
Total : 1,074											

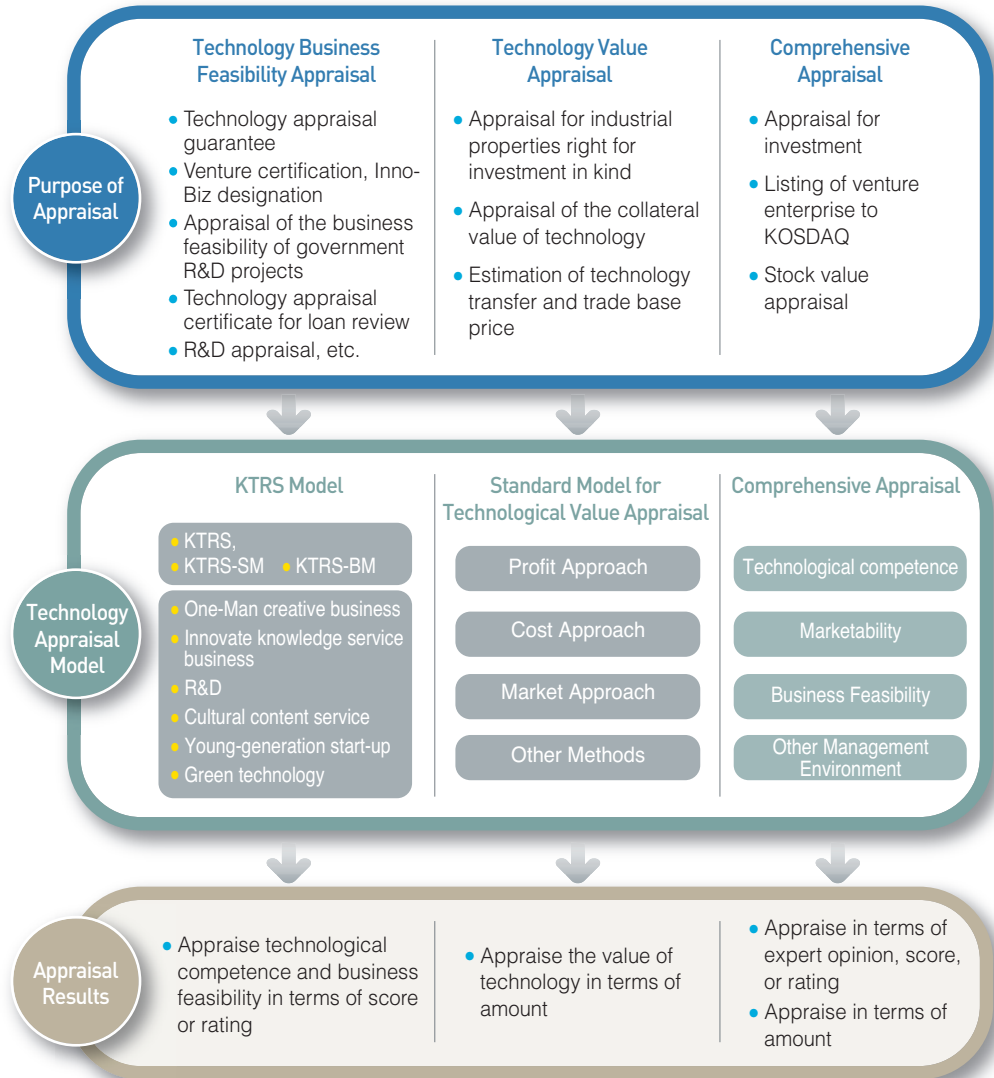
## Technology Appraisal System

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

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



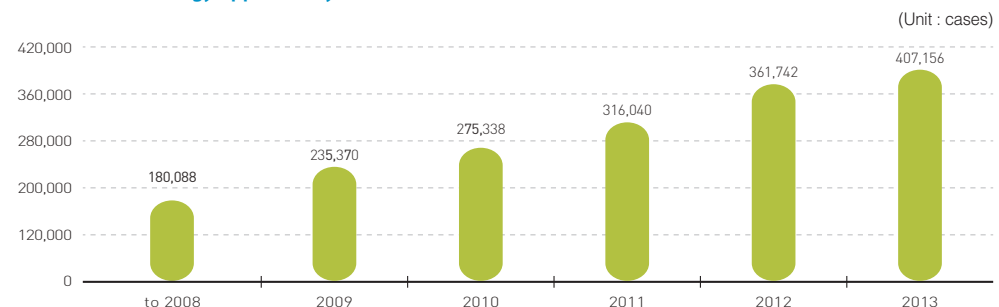
KOTEC also developed a variety of technology appraisal models to meet different appraisal purposes and diversified consumer demands.



### Technology Appraisal Performance

Since the launch of its technology appraisal business in February 1997, KOTEC has completed a total of 407,000 cases as of year-end 2013, consolidating its firm status of the best technology appraisal institution in Korea

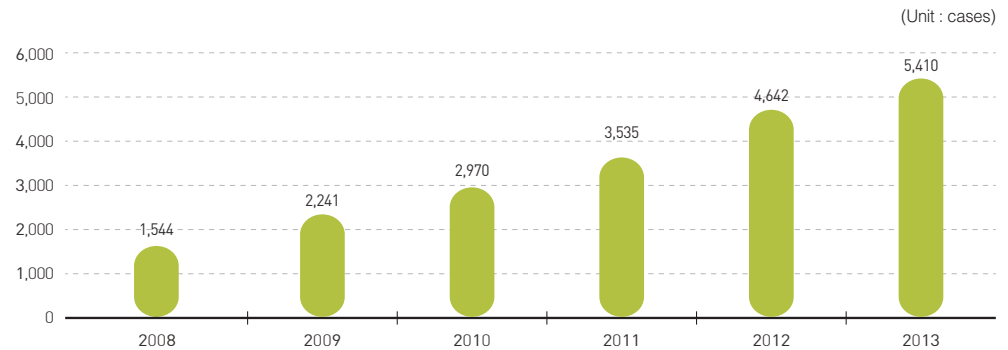
Number of Technology Appraisals by Year (Cumulative Total)





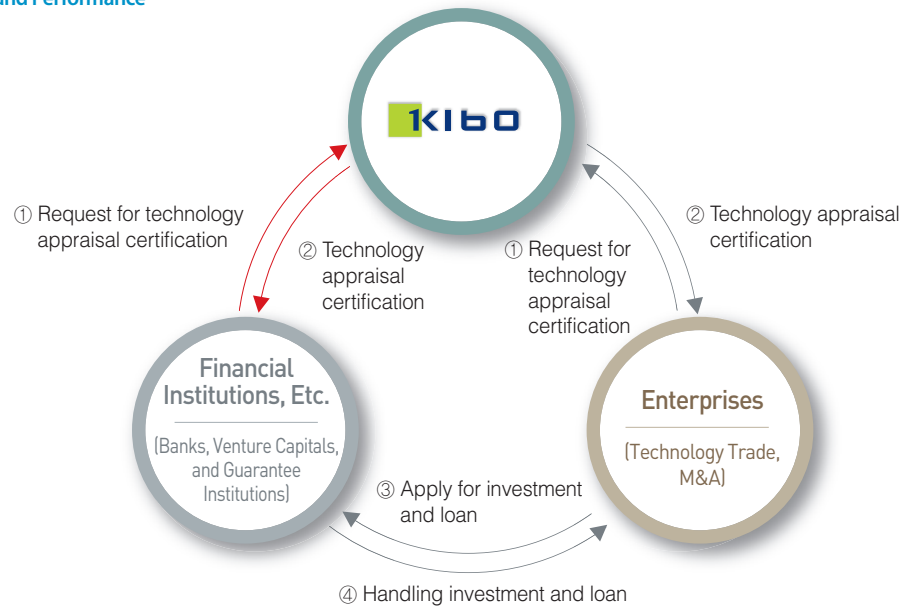
"Technology appraisal for the government or public sector" and "Technology appraisal for the private sector with fees higher than KRW 2 million for each case" are more challenging than other technology appraisals. They require more sophisticated expertise and objectiveness and greatly contribute to expanding the domestic market for technology appraisal and promoting technology finance.

#### Number of Professional Technology Appraisals by Year



KOTEC also introduced the "Technology Appraisal Certification System" in February 2005, which is used not only for its own guarantees but also for loans, investments, and technology trades by financial institutions to issue technology appraisal certificates centering on domestic financial institutions, so that it can transform the collateral-oriented financial practice into a technology and credit oriented practice.

#### Technology Appraisal Certification Procedure and Performance



\* → : Certification request made by financial institutions, etc.

(Unit : cases)

Category	2008	2009	2010	2011	2012	2013
No. of cases offered	881	1,200	1,180	2,017	2,575	3,354
T/F Project	692	769	801	643	732	608

● (Note) T/F Project: Innovative SMEs technology finance support business (Business with appraisal fee subsidy)

On the other hand, technology appraisal fees are decided on the consolidated basis of staffing, period, appraisal scope, and complexity of the tasks. The fees have remained at reasonable levels backed by the public use of technology appraisals and demands from the private sector, but are subject to change due to government policy directions and fee reduction measures for customers.

#### Technology Appraisal Fee Income Status

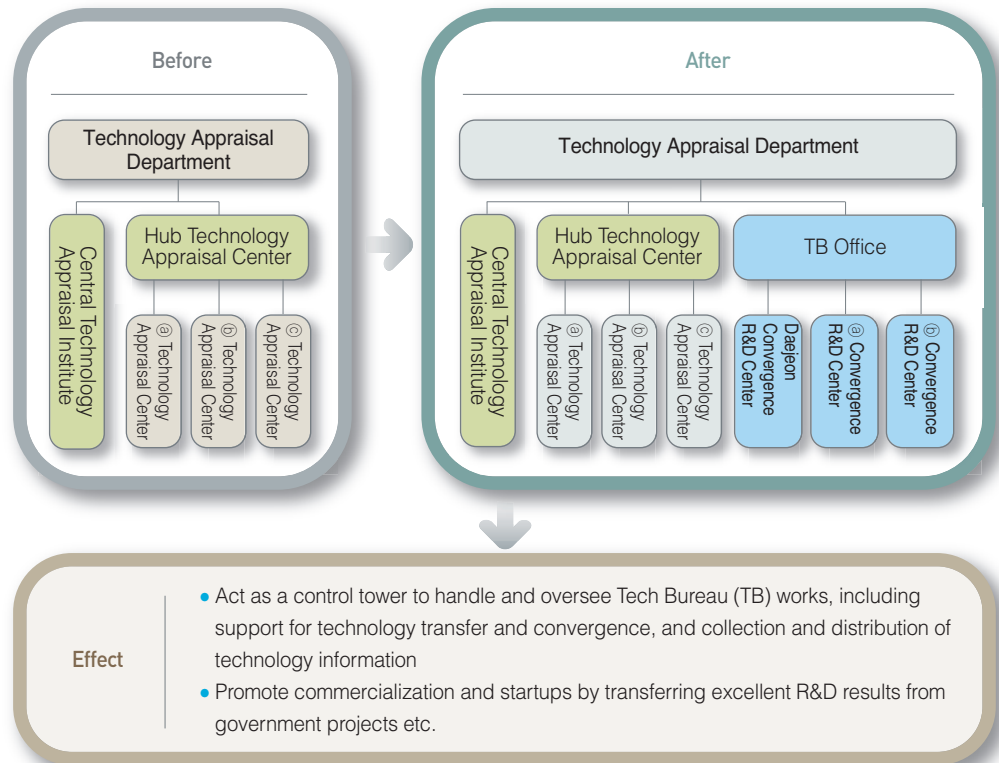


Upgrading expertise in  
technology appraisal  
organization &  
resources

## ● Major Initiatives' Progress and Achievements in 2013

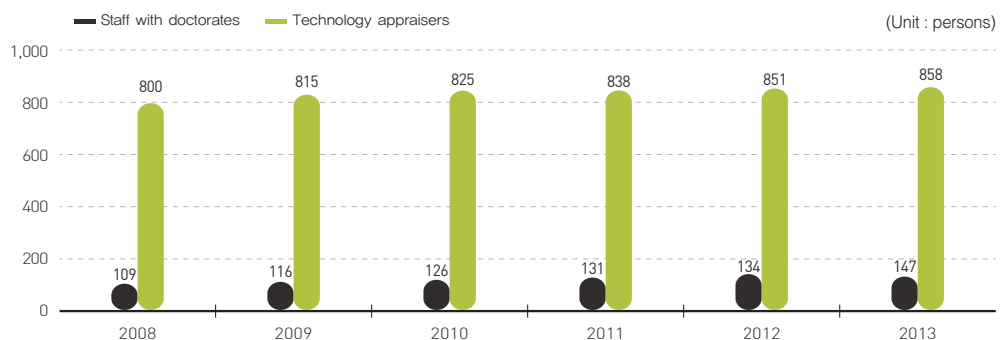
### Restructuring the organization and resources for creative financing

As technology appraisal emerges as a critical means to realize a creative economy, KOTEC established the TB Office as a hub to promote technology finance support for technology transfer and convergence etc., and improved upon the specialties of technology appraisal professionals and efficiency of corresponding organizations.



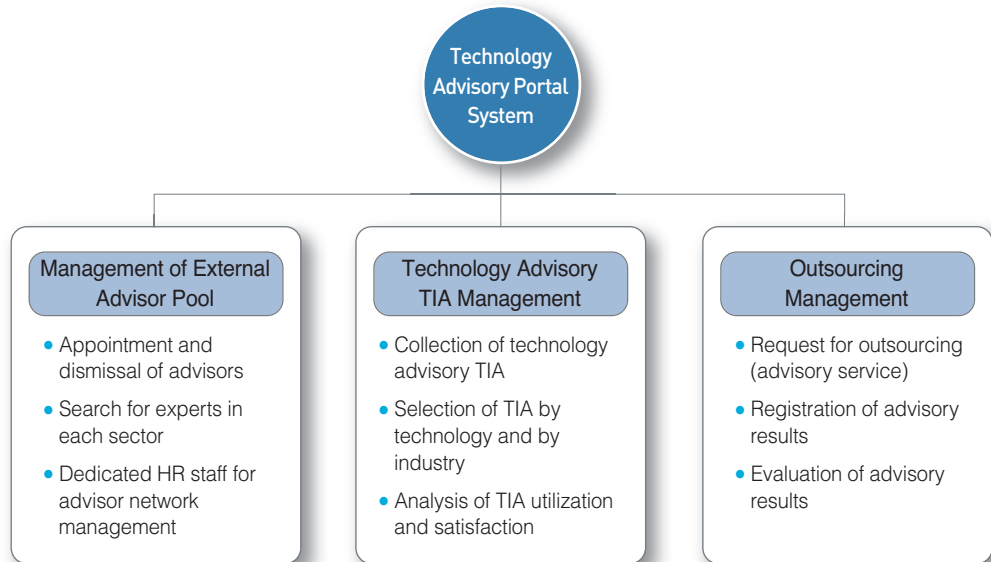
In addition, KOTEC has continued to recruit and cultivate Class 1 technology appraisers and assigned doctoral-degree experts to hub centers (that used to be assigned only to the Central Technology Appraisal Institute and Hub Technology Appraisal Centers) so that the Institution can play a leading role in financing for a creative economy.

### Internal Technology Appraiser Operations



### Expanding and facilitating an external advisor network

As both pace and frequency of new technology development are accelerating, KOTEC developed the Technology Advisory Portal System to better tap into its external advisor network and to promptly address appraisal demands with stronger expertise.



To enhance the quality of technology appraisal certification and to better utilize technology appraisal information, KOTEC has signed agreements with 17 specialized institutions in different sectors, including Korea Electronics Technology Institute, Korea Culture and Contents Agency, PWC Korea, and Darae Law and IP Firm. Additionally, to proactively respond to new technology and industry trends, the Institution has broadened its external advisor pool and professional information providers (IP).

### Expansion of External Advisor Network

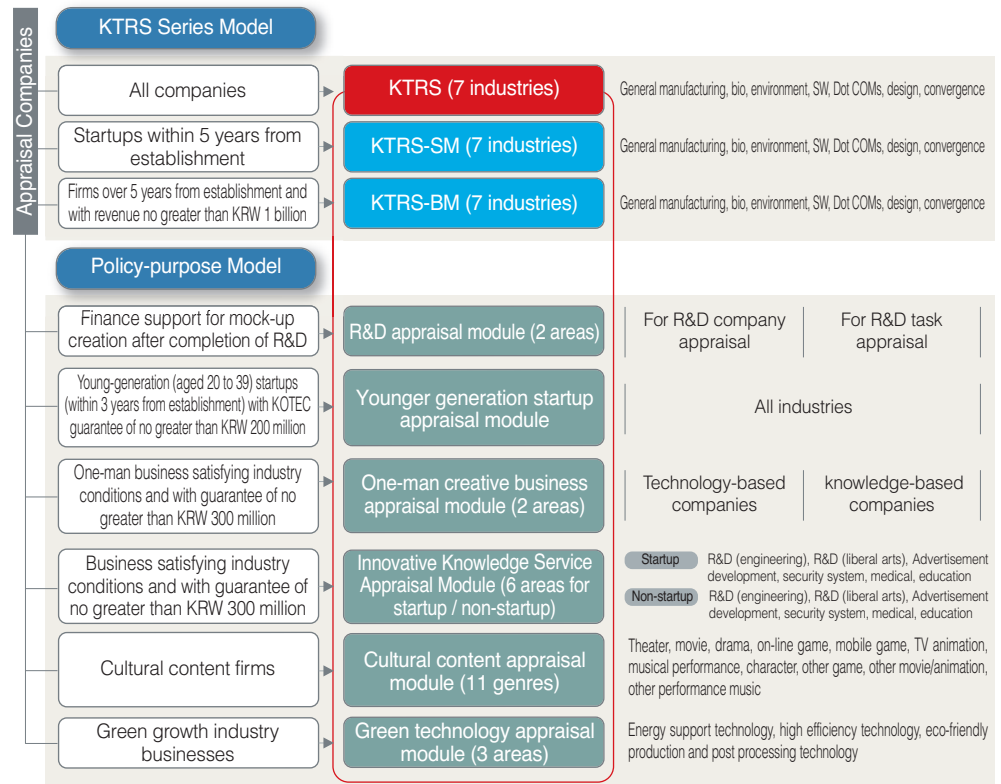




## Strengthening the Credibility of the Technology Appraisal System

### Enhancement of the KTRS and Development of New Appraisal Models

KOTEC is putting ceaseless efforts into enhancing technology appraisal models. Its proprietary model, the KTRS, is divided into KTRS-series modules and policy-purpose modules in accordance with the purpose and use of the appraisal, and the used-to-be single module of KTRS-BM was specified into 7 industry categories to advance the system, resulting in 9 modules for 52 sectors.



Under a creative economy with commercialization of IPs, including patents, software, and copyrights, the development of non-profit organizations (such as universities or research centers) becomes critical, KOTEC continues to develop technology value appraisal models that accommodate the different natures of diverse IPs, which improves the efficiency of the appraisal work and integrity and credibility of the results. Simplified appraisal models are expected to facilitate the commercialization of excellent R&D results delivered by universities and research centers.

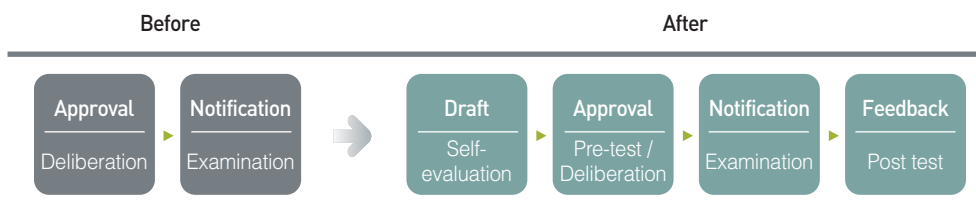
Category	Details	
Specified Appraisal Models	Revenue Approach	<ul style="list-style-type: none"> <li>Specify the revenue approach into the static discount cash flow (DCF) method, dynamic DCF method, and incremental cash flow method, based on future cash flow estimations</li> </ul>
	Cost Approach	<ul style="list-style-type: none"> <li>Elaborate the transaction case method by accommodating a royalty method</li> </ul>
	Market Approach	<ul style="list-style-type: none"> <li>Develop a multiple method based on R&amp;D cost, technology contribution, and commercialization stage</li> </ul>
Simplified Appraisal Model	R&D Multiple Approach	<ul style="list-style-type: none"> <li>Develop a multiple method based on R&amp;D cost, technology contribution, and commercialization stage</li> </ul>

### Improving Quality Control in Technology Appraisal

To be recognized as a leading technology appraiser, KOTEC needs to establish a systematic quality control process on top of fair technology appraisal based on accurate information about technology and the market.

To render fair and objective appraisals of creativity assets, such as IP and technology, KOTEC implemented a well-organized quality control process that consists of a self-evaluation system, pre-verification system, review of technology value statements, and post-evaluation system; and improved the KTRS by adding a technology appraisal feedback system that allows for comparing and monitoring different appraisers' results to minimize deviations and ensure consistency, thereby enhancing the credibility and integrity of the KTRS.

#### | Quality Control of Technology Value Appraisal

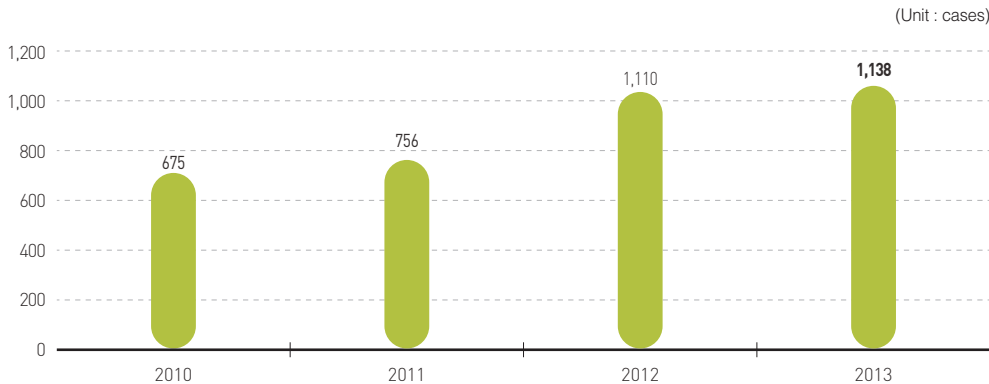


### Expanding Technology Appraisal Demands

#### Expanding Support for IP- and technology-based financing

Equipped with the best technology appraisal infrastructure in the country, KOTEC stands at the heart of driving IP and technology utilization and commercialization, which is one of the top priorities of the creative economy. In addition to the IP-based guarantee services, such as IP Technology Value Appraisal Guarantees, Technology Value-linked Guarantees, and Technology Transfer Guarantees, KOTEC introduced IP and technology-based customized guarantee services that offer the preferential treatment of performance guarantee fees, guarantee fee, and guarantee ratio, such as IP Appraisal Guarantees, IP Acquisition Guarantees, and Guarantees based on IP Agreements with Financial Institutions, to proactively expand the financial support necessary to realize a creative economy.

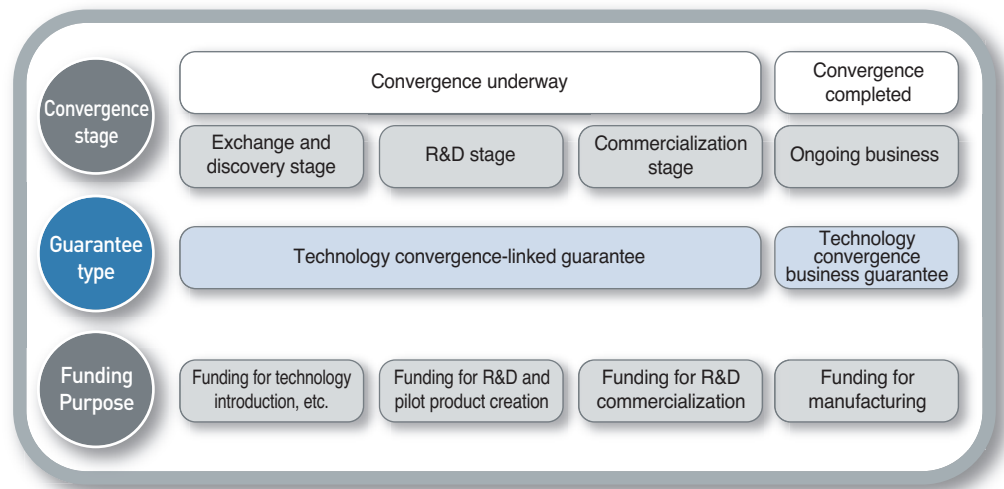
#### | IP Guarantee Cases by Year



### Strengthening Support for SME R&D

As technology convergence and R&D are emerging as a new growth engine for the creative economy, KOTEC introduced "Technology and Industry Convergence Guarantees" that offer preferential treatment, such as reduction of guarantee fees and ease of screening processes, to better support convergence between and across technology and industries along with human imagination and creativity, which is expected to create new industries and markets in combination with human imagination and creativity. This program is currently supporting innovative SMEs that are developing, utilizing, or commercializing convergence technology.

#### | Technology Industry Convergence Guarantee System



In addition, KOTEC is actively participating in government R&D projects that need KOTEC's expertise and rich experiences, such as R&D feasibility tests, R&D mentoring, and R&D planning support, to upgrade the success rate of R&D commercialization; and expanded R&D Preferential Guarantees, which selectively support promising R&D projects to mitigate funding pressures for commercialization and others.

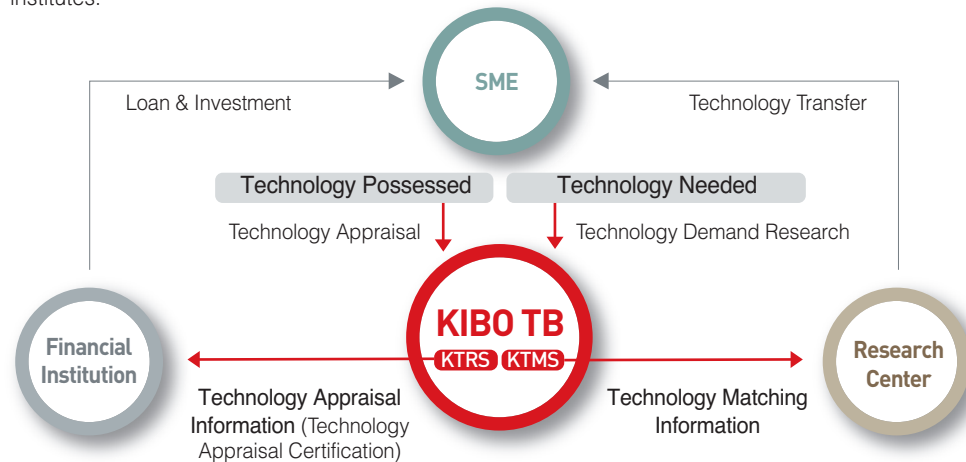
#### | R&D Guarantee Support Offered



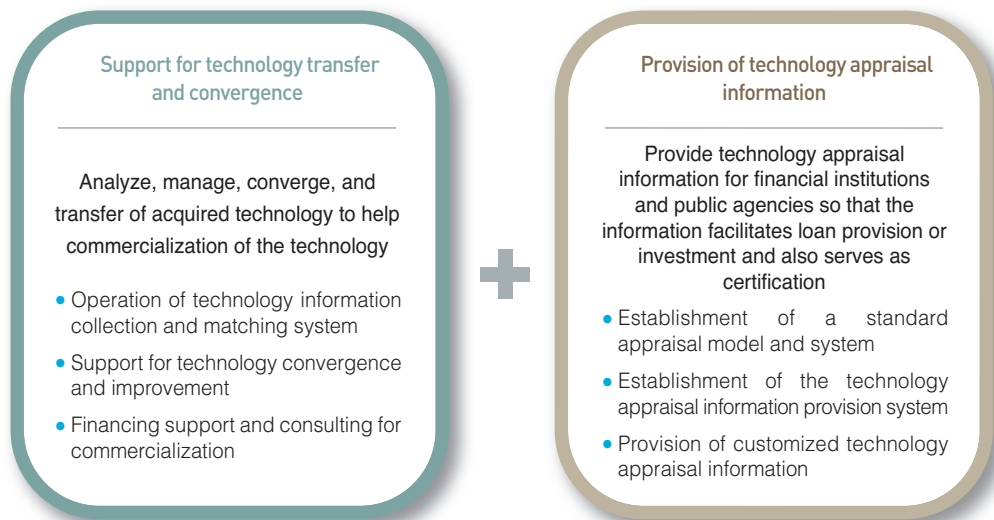
## ● Technology Bureau (TB) Business

### Overview of TB Business

TB Business is a service to manage technology information, technology demand information, and technology appraisal information for companies and research institutes (e.g., universities and research centers) in order to provide technology appraisal information for those seeking it (financial institutions, etc.) or to support technology transfer and convergence between and across companies and research institutes.



### Key Roles and Responsibilities of TB

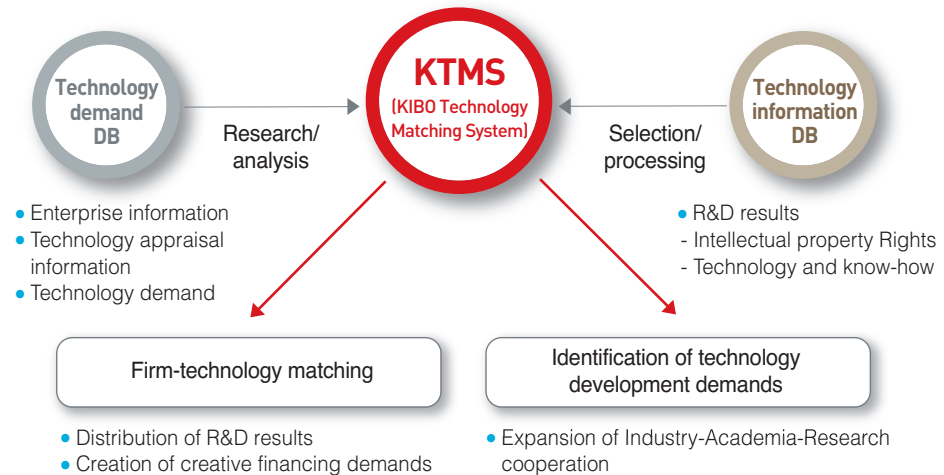


### TB Office Operation

KOTEC created the TB Office within the head office in July 2013, is currently handling TB business through the Daejeon Convergence R&D center, and will establish further TB Offices starting with Seoul in 2014.

In addition, to facilitate the transfer of excellent R&D results from non-profit research institutes, like universities and public research centers, to the best companies for commercialization, the TB Office completed the first-phase search module of the KIBO Technology Matching System (KTMS), a TB-dedicated IT platform for technology information collection, appraisal, management, demand-supply identification, and matching (finance/non-finance), and is currently building the second-phase module enabling similarity measurement and recommendations.





KOTEC is also building technology DB to support technology transfer and customized information based on agreements with public agencies that hold technology information, like the SMBA and Korea Institute for Advancement of Technology (KIAT).

## TB Performance

### Support for technology transfer and convergence

In 2013, KOTEC intermediated 43 technology deals and provided KRW 10.5 billion in technology convergence-linked guarantees for 31 desired companies backed by a joint support network with the Ministry of Science, ICT, and Future Planning (MSIP), Agency for Defense Development (ADD), Chungbuk Technopark, and SungKyunKwan University (SKKU).

### Provision of technology appraisal information

KOTEC encouraged the provision of credit loans for technology SMEs by implementing preferential programs (lower borrowing rates and technology appraisal fees), improving the value and credibility of technology appraisal certifications, and expanding the market, on the basis of agreements with the Ministry of Trade, Industry, and Energy (MoTIE), BoK, Korea Finance Corporation (KoFC), and other financial institutions.

| Support for Technology Appraisal Certificates Provided for Credit Review

(Unit : cases, KRW 100 million)

Category	2012		2013		Change (%)	
	Cases	Amount	Cases	Amount	Cases	Amount
Technology Appraisal Certificate	2,575	2,500	3,297	5,264	28.0% ↑	110.6% ↑

## Guarantee-linked Investment



### ● Overview

KOTEC has operated a guarantee-linked investment program since January 2005 to provide direct financing and financial restructuring support for tech-innovation SMEs. This was stipulated as the unique role of KOTEC in June 2012 by amendments to the Korea Technology Credit Guarantee Fund Act. In particular, the program is gradually advancing and expanding to promote policy directions for investment-oriented financing in the new government and to preemptively absorb market risks, leaving loan-centered finance practices and excessive risk-averse attitudes behind.

### ● Investment Type

Applicable investment schemes are acquisition of stocks, convertible bonds (CBs), and bonds with warranties (BWGs).

### ● Investment Subjects

Companies that satisfy all of the following conditions are eligible for investment.

- ① Technology innovation leading firm within 5 years of establishment
  - \* If needed, firms in new growth engine industries or green growth industries or R&D firms may be exempted from this requirement.
- ② Firms that are on guarantee as of the investment assessment date (or guarantee approved)
- ③ Firms with technology appraisal grades of BB or higher
  - \* However, in case the investment amount exceeds KRW 1 billion or the integrated amount of investment and guarantee exceeds KRW 5 billion, the technology appraisal grade must be BBB or higher.
- ④ Venture business by law (or Inno-biz enterprises)

### ● 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, however, 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 guarantee and investment provided by KOTEC, KODIT, and KOREG

## ● Investment Process

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

## ● Operating Result

Since the first investment executed in 2005, KOTEC has invested KRW 96.8 billion in 80 companies, and posted an accumulated loss rate of 14.6%. This diversifies SME funding channels, thereby contributing to the stable financial structure and operation of SMEs. In particular, the investment focuses on startups (56.9%), which are usually marginalized by the venture capital market, to attract follow-up investment from the private sector.



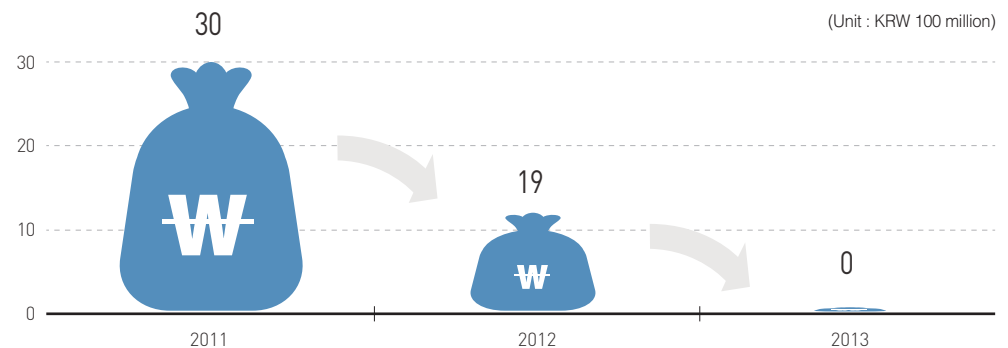
## Annual Investment Amount and ROI

(Unit : number of firms, KRW 100 million)

Category	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total	Balance
No. of Firms	2	10	7	8	9	8	4	2	30	80	50
Investment Amount	5.0	85.0	81.5	90.0	90.1	95.0	55.1	35.0	431.8	968.5	690.3
ROI	-	-	29.0	2.1	19.8	20.2	51.4	60.5	22.8	205.8	141.4

KOTEC managed to bring down investment losses to zero in 2013 by meticulously monitoring and managing post-investment performance, including quarterly supervision and the intensive management of high-risk companies. We are also trying to consolidate our investment assets, as long as this does not affect business stability for those invested.

## Annual Investment Loss Trends



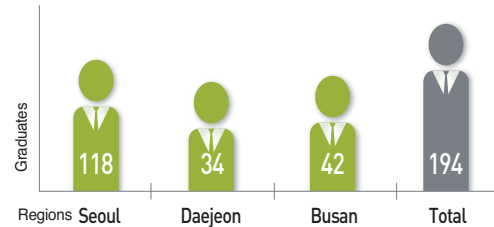
## Enterprise Support

### ● Venture Startups Class

For would-be entrepreneurs and startups in their infant stage, KOTEC offers specialized and intensive courses to promote a venture boom with an aim to encourage business startups and create jobs, thereby contributing to regional economic development.

#### 2013 Venture Startup Class Graduates

(Unit : persons)



### ● Sprout Entrepreneurship CEO Successful Business Startup Class

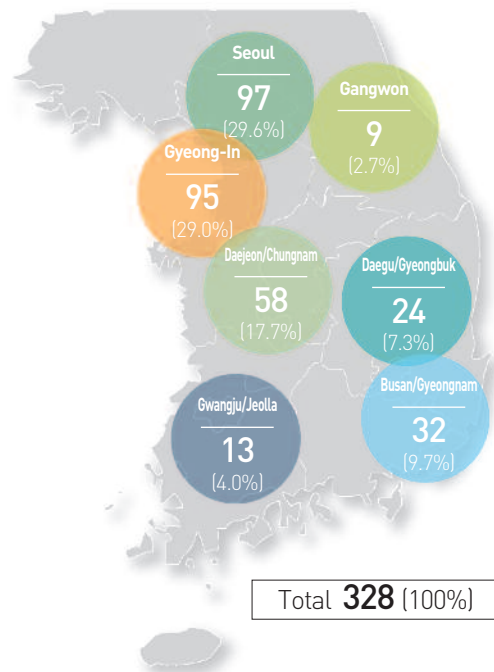
To help sprout enterprises (tech-oriented startups within 2 years of establishment and with less than KRW 100 million in new guarantees) settle on stable business grounds and succeed in their business, 2-day sessions were provided free of charge for those who desired to take the course with a curriculum of best practices, funding, accounting, taxation, and marketing.

By providing various types of education required for early-stage startups and sharing best practices, KOTEC 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.

KOTEC conducted surveys and found that graduates were satisfied with the course, and will open wider-ranging courses to drive the mutual success and cooperation between SMEs.

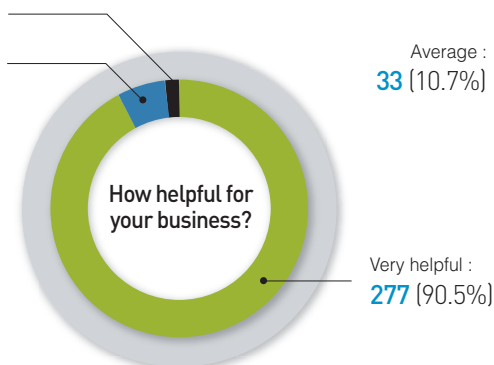
#### Graduates of Sprout Entrepreneurship CEO Successful Business Startups

(Unit : persons)

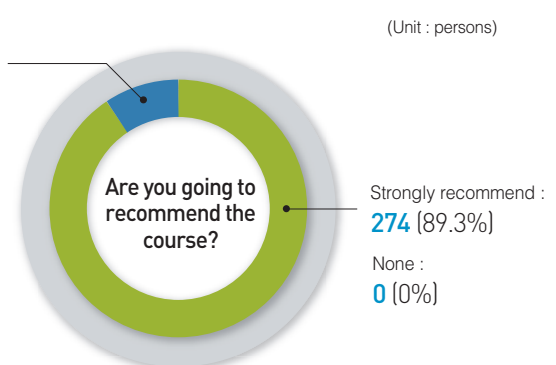


#### Survey Results After the Sprout Entrepreneurship Successful Business Startup Class

Not helpful :  
**1** [0.3%]  
Average :  
**28** [9.2%]



Average :  
**33** [10.7%]



(Unit : persons)



## ● Technology & Management Consulting

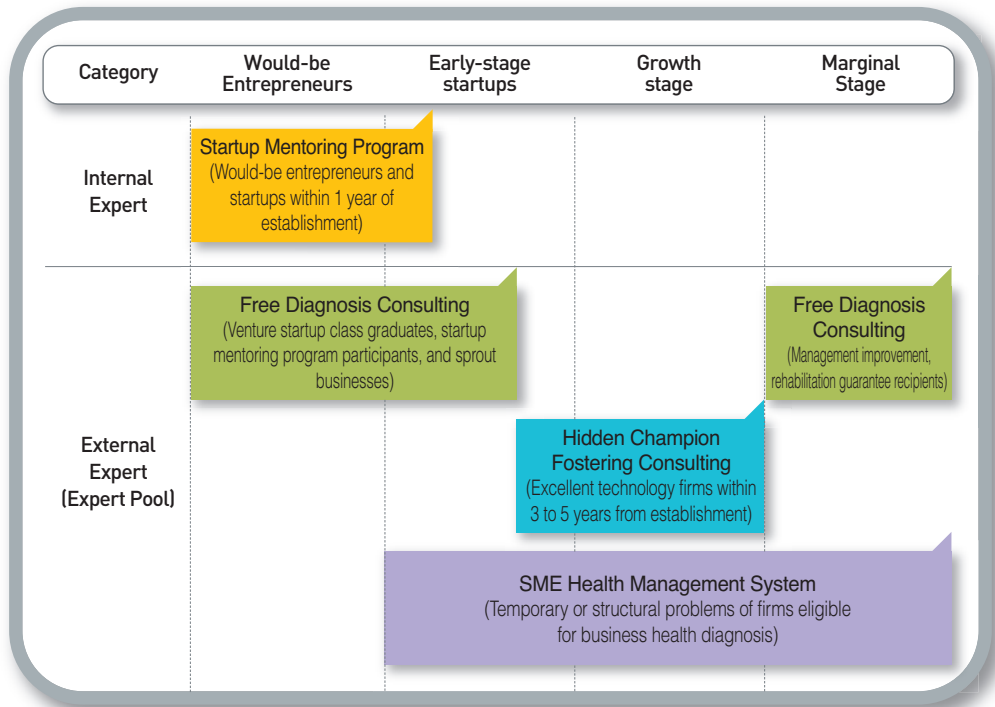
KOTEC operates a technology and management consulting program for the entire cycle of a business and provides a business diagnosis for management improvement and failure prevention, in order to help SMEs buttress their risk management capabilities.

In particular, KOTEC provides free consulting services for would-be entrepreneurs and early-stage startups in order to help them successfully launch and settle a new business, and guides them onto the right path for a successful business based on KOTEC's insightful business analysis and various enterprise support systems.

In cooperation with the SMBA, KODIT, and K-Biz, KOTEC launched an "SME Health Management System" that provides a diagnosis, prescription, and customized treatment to help SMEs solve problems, prevent a management crisis, and ultimately support the sound growth and development of SMEs.

In 2014, KOTEC will introduce a professional consulting business to discover excellent technology firms among those who have been guaranteed by KOTEC for 3 to 5 years and to foster them into future champions.

### Technology and Management Consulting Framework



### 2013 Technology and Management Consulting Support

(Unit : cases)

Consulting Type	Startup Mentoring Program	Free Diagnosis Consulting		SME Health Management System	Total
		(Venture Startup Class Graduates)	(Sprout Business Class Graduates)		
No. of support	1,574	245		1,491	3,310
		{60}	{185}		



### ●● Support for Venture and Inno-Biz Enterprises

To create sustainable growth momentum in the national economy, technology innovation support for venture and Inno-Biz enterprises has been increased to KRW 13.529 trillion in guarantees, 69.9% of total guarantees provided.

#### Venture & Inno-Biz Guarantee Support

(Unit : KRW 100 million)

Category	2007	2008	2009	2010	2011	2012	2013
Venture	60,907	76,444	118,128	109,967	109,895	111,459	115,860
Inno-Biz	50,895	66,783	95,746	89,697	85,102	83,730	78,123
Total*	72,652	93,204	140,220	132,619	128,650	131,778	135,258

\* Duplicated dates are counted only once and re-guarantees are not included.

### ●● Venture-In (Venture confirmation and disclosure system, [www.venturein.or.kr](http://www.venturein.or.kr))

KOTEC launched the "venture-in" website to identify and nurture venturers, allowing them to grow into the core future growth engine and to build a platform for interactive exchanges between investors and companies, thereby promoting venture investment. The effort was aimed to manage venture data more systematically and to enhance transparency and credibility of the data. We also opened a call center dedicated to Venture-in (1544-1120) to provide 1:1 customized service in an effort to increase customer satisfaction and convenience.







## ●● Support system by corporate growth stages

### 1

#### Preparation and Startup Stage

Support Program	Description
Pre-Guarantee for To-Be-Founders	<ul style="list-style-type: none"> <li>Set a support limit (amount) for to-be founders and provide the support immediately after starting a business</li> </ul>
Younger Generation Startups Preferential Guarantee	<ul style="list-style-type: none"> <li>Support startups within 3 years from their foundation, and established and run by young owners (aged 20-39)</li> </ul>
Growth Program Customized to Startup	<ul style="list-style-type: none"> <li>Support qualifying* startups within 5 years of their foundation</li> </ul> <p>* Qualifications : one-person creative firm, green business, knowledge and culture business, high-tech root business, startups by science and engineer majors, or firms established by those in their 40s and 50s</p>
Patent Startups Preferential Guarantee	<ul style="list-style-type: none"> <li>Support startups within 5 years of their foundation and commercializing IPs (including patents)</li> </ul>
R&D Preferential guarantee	<ul style="list-style-type: none"> <li>Provide systematic R&amp;D finance for the entire R&amp;D cycle (development, preparation for commercialization, and commercialization) through R&amp;D finance matching schemes</li> </ul>
Sprout Entrepreneurship CEO Successful Business Class	<ul style="list-style-type: none"> <li>Provide education (tax, accounting, marketing strategy, and best practice) for startups within 2 years from foundation and on KOTEC guarantees of no greater than KRW 100 million</li> </ul>
Venture Startup Class	<ul style="list-style-type: none"> <li>Provide practice training regarding business (e.g., funding strategies, HR, law, and IP management) form to-be and infant-startup entrepreneurs</li> </ul>
Startup Mentoring Program	<ul style="list-style-type: none"> <li>Help (for 6 months) to-be founders and startups (within 1 year from foundation) cope with difficulties (provide guarantees, if necessary)</li> </ul>

### 2

#### Growth Stage

Support Program	Description
Guarantee for High Value-added Service Projects	<ul style="list-style-type: none"> <li>Provide guarantees for the entire project cycle of contracts, such as IT solution development, SI service outsourcing, and cultural content creation</li> </ul>
Preferential Guarantee to Foster Star Venture Businesses	<ul style="list-style-type: none"> <li>Foster excellent ventures at their growth stage into a major pillar of the Korean economy</li> </ul>
Guarantee for Technology & Industry convergence	<ul style="list-style-type: none"> <li>Provide guarantees for firms working on or utilizing technology &amp; industry convergence</li> </ul>
IP Finance Support	<ul style="list-style-type: none"> <li>Provide funding support for the future value of IP and commercialization of IP</li> </ul>
Support for Job-creating Firms	<ul style="list-style-type: none"> <li>Provide preferential guarantees for firms with large job creation potential and funding for recruiting new employees</li> </ul>
Cultural Industry Completion Guarantee	<ul style="list-style-type: none"> <li>Support firms creating cultural content (movie, game, cartoon, animation, digital content, music, and broadcasting)</li> </ul>
Guarantee-linked Investment	<ul style="list-style-type: none"> <li>Invest in association with guarantees to improve SME financial conditions and invigorate direct financing for SMEs</li> </ul>
Venture & INNO-BIZ Certification	<ul style="list-style-type: none"> <li>Assess and confirm ventures (technology appraisal guarantee firms, R&amp;D firms, and to-be venture firms) and Innobiz firms governed by the SMBA</li> </ul>
Technology Value Appraisal	<ul style="list-style-type: none"> <li>Appraise technology for transfer or sales to objectively evaluate the value</li> </ul>
Technology Appraisal Certification	<ul style="list-style-type: none"> <li>Furnish technology appraisal certifications that include grade and opinion to financial institutions to promote investment and loan financing</li> </ul>

### 3 Maturity Stage

Support Program	Description
Guarantee based on INNO-BIZ Financial Support	<ul style="list-style-type: none"> <li>Provide preferential support for Inno-Biz enterprises through financial support agreements with banks *15 banks : KDB, IBK, Woori, Hana, KB, etc.</li> </ul>
Guarantee based on Special Contributions by Financial Institutions	<ul style="list-style-type: none"> <li>Financial institutions raise funding resources through special contributions and KOTEC provides partial guarantees and fee support.</li> </ul>
Share-growth Guarantee	<ul style="list-style-type: none"> <li>Provide guarantees for SMEs recommended by large corporations so that large corporations pay matching contributions or special contributions</li> </ul>
Preferential Guarantee for equipment loan	<ul style="list-style-type: none"> <li>Provide preferential support for enterprises buying factory(land or building) and equipment</li> </ul>
Preferential Guarantee for Export SMEs	<ul style="list-style-type: none"> <li>Provide export financing for SMEs for channel diversification, etc.</li> </ul>
P-CBO	<ul style="list-style-type: none"> <li>Acquire SME-issued corporate bonds to provide them with direct financing opportunities and improve their financial conditions</li> </ul>
Technology Transfer and M&A intermediary	<ul style="list-style-type: none"> <li>Provide intermediary services to promote technology adoption for competitiveness and to restructure their business for stable operation</li> </ul>
Green Certification Appraisal	<ul style="list-style-type: none"> <li>Verify and certify green technology and business to support the green industry</li> </ul>
R&D project feasibility test	<ul style="list-style-type: none"> <li>Test technology and economic feasibilities of R&amp;D or technology projects</li> </ul>

### 4 Marginal Stage

Support Program	Description
Urgent Management Stabilization Guarantee	<ul style="list-style-type: none"> <li>Provide prompt and adequate guarantees for firms in an urgent need of funding</li> </ul>
Management Improvement support Guarantee	<ul style="list-style-type: none"> <li>Help the management normalization of guaranteed firms that have technology and potential but management difficulties</li> </ul>
Fast-Track Liquidity Guarantee	<ul style="list-style-type: none"> <li>Provide liquidity through a fast track for SMEs facing temporary liquidity stress</li> </ul>
Guarantee for Co-workout firms	<ul style="list-style-type: none"> <li>Provide guarantees for firms which have already established a normalization plan as per the Corporate Restructuring Promotion Act and bank agreement</li> </ul>
Re-Start Business Revival Support Guarantee	<ul style="list-style-type: none"> <li>Provide support for credit rehabilitation and restart of failed SMEs to prevent their technology and experience from dying, and help with their rehabilitation</li> </ul>
Rehabilitation Guarantee for Re-starting Business Owners	<ul style="list-style-type: none"> <li>Provide both rehabilitation support guarantees and new guarantees for SME owners whose restart potential is promising</li> </ul>
SME Health Management Program	<ul style="list-style-type: none"> <li>Provide health checks and treatment (diagnosis → prescription → treatment) for SMEs in cooperation with other institutions (like SMBA)</li> </ul>

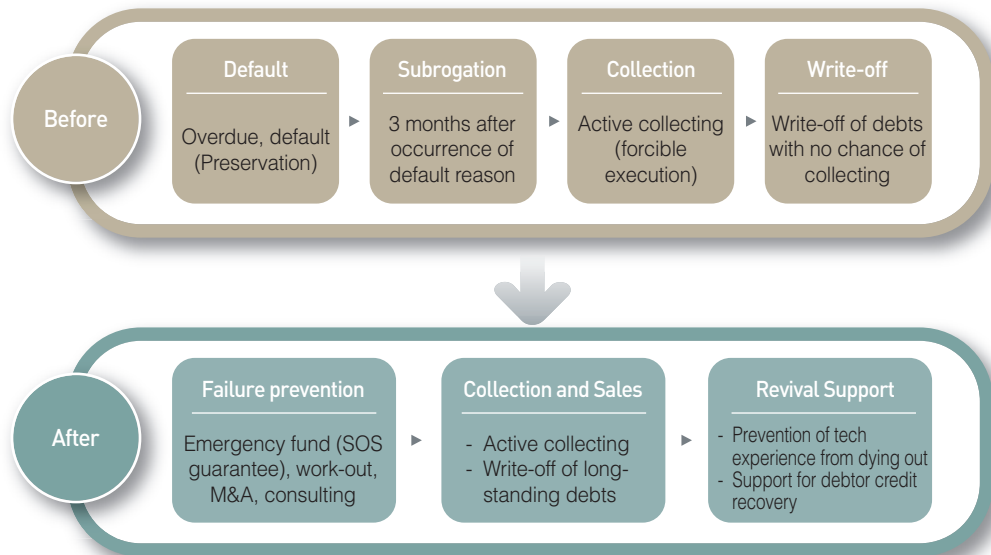


## Failure Prevention / Indemnity Right Management / Rehabilitation Support

### ● Establishment of Recovery Ecosystem

KOTEC has made a range of policy efforts to prevent SMEs' technology and experience from going being wasted in order to minimize social loss and provide rehabilitation opportunities for SMEs.

The paradigm of receivable management has shifted from indemnity right-oriented management to failure prevention and rehabilitation support so that KOTEC reinforces its service capabilities as a public guarantee agency and establishes a wholistic technology finance system that encompasses the entire ecosystem of SMEs as well as the business life cycle from establishment to growth, maturity and crisis/revival.



(Unit : no. of centers)

Concentration of Corporate-wide Capabilities for Recovery Support by Expanding Supporting Branches

Core Business	Details	Before	After	Effect
Technology Appraisal	Specialized Technology Appraisal	Central Technology Appraisal Center (1)	Central Technology Appraisal Center (1)	Expansion of technology appraisal infrastructure
	General Technology Appraisal	Hub Appraisal Centers (10)	Hub Appraisal Centers (10) Key Spoke Appraisal Centers (14)	
Indemnity Right Management	Recovery Support	Hub Appraisal Centers (10)	Hub & Spoke Appraisal Centers (52)	Expansion of recovery support

### Promotion of Failure Prevention Program (SOS Guarantee) and Revival Guarantee

KOTEC has promptly taken mitigating action by providing SOS guarantees to prevent failure. In addition, the credit recovery and guarantee system has been implemented to help the restart of failed entrepreneurs.

#### Program Details

Type	Support Programs	Details
SOS Guarantee	Management improvement support guarantee	<ul style="list-style-type: none"> <li>Support for guarantee beneficiaries that are technologically and business-wise competent but are going through difficulties in management</li> </ul>
	Urgent Management Stabilization Guarantee	<ul style="list-style-type: none"> <li>Guarantee support for companies in urgent need of additional funds in the midst of fluctuating management environments, such as a dramatic surge of order or temporary shutdown</li> </ul>
Revival Support Guarantee	Re-Start Business Revival Support Guarantee	<ul style="list-style-type: none"> <li>Support of credit rehabilitation and re-start financing for failed SMEs to prevent their technology and experience from being buried and to help them re-start</li> </ul>
	Rehabilitation Guarantee for Re-starting Business Owners	<ul style="list-style-type: none"> <li>Rehabilitation support and new guarantees for companies run by debtors (ex-business owners) who are deemed capable of resurrecting</li> </ul>

#### Support Provision by Program

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

Category	2012		2013	
	No. of Firms	Guarantee Amount	No. of Firms	Guarantee Amount
Management improvement support guarantee	259	1,072	289	933
Urgent Management Stabilization Guarantee	95	515	29	220
Revival Support Guarantee	72	118	80	81.2

### ● Default and Indemnity Right Management

KOTEC spares no efforts in lowering default rates and preventing non-performing assets by constantly monitoring and restructuring guaranteed firms as well as implementing failure prevention programs.

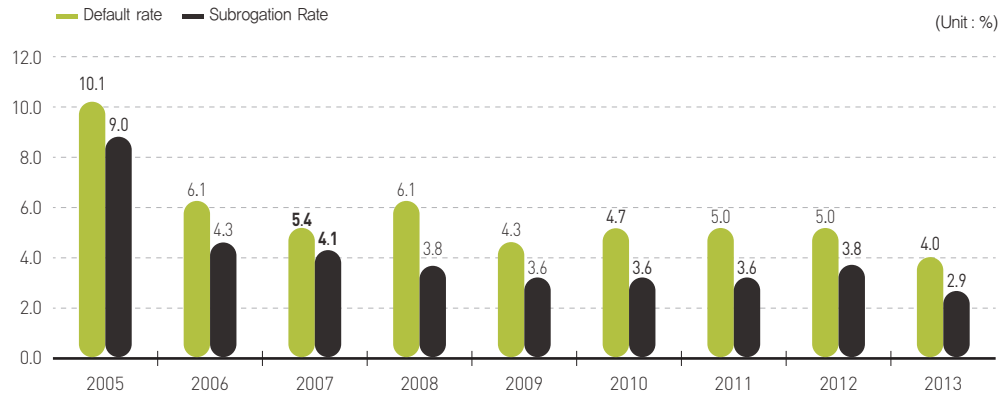
### Default Management

Category	Net Increase of Defaults		Gap
	Forecasted	Actual	
Amount	KRW 1.03 trillion	KRW 776.6 billion	253.8 billion ↓
Default Rate	5.6%	4.0%	1.6% ↓

● Note) Companies merged into securitized firms were included and the accounts of completion guarantees were excluded.

### Default and Subrogation Trends by Year

Despite the negative impact of unfavorable business environments for SMEs in the aftermath of the global financial crisis of 2008 and the Eurozone fiscal crisis of 2011, default and subrogation rates have remained relatively stable since 2009.



### Target and achievement in collecting indemnity rights

By accommodating the government's financial environment reforms that emphasize a virtuous cycle of business establishment-collection-restart, KOTEC minimized joint guarantee requirements and improved rehabilitation support for debtors. Considering the changing debt collection environment, including selling long-term outstanding receivables to KAMCO, KOTEC set the target of indemnity collection at KRW 180 billion for 2013. Backed by its well-coordinated collection plan, KOTEC managed to collect KRW 238.8 billion in 2013, despite an increasing number of default or debt waivers.



### Efficient management of long-term outstanding receivables

KOTEC focuses resources and capabilities on debts more likely to be recollectd by selling long-term outstanding debts to KAMCO to reduce management costs and enhance efficiency in debt management.

\* The amount to be collected after sale to KAMCO will be shared based on after-the-fact calculation in 8 years following the sale.

## Recruitment and Personnel Development

### ● Recruitment

Based on the mid-to-long term management plan, KOTEC investigates the staffing gap to assess the needs and implements a recruitment plan to take the lead in the government's job creation policy as a public institution enabling the institution to grow into a comprehensive technology support agency and support the government's efforts to address the problem of youth unemployment.

By launching new business projects and creating new positions, KOTEC hired 33 new full-time employees, 7 being high-school graduates.

Committed to the government policy to raise employment rates and provide more opportunities to the less privileged, KOTEC employs 74 young interns, 27 of which have disabilities and 15 of which are high-school graduates.

KOTEC is planning to hire additional staff in 2014, as it is expected to secure additional quotas from the government for IT projects, ect., to contribute to actualizing a creative economy.

#### New Full-time Employees in 2014

(Unit : persons)

Category	Total	Local	Women	Engineers	High-school Graduates
Full-time	33	16	15	14	7

#### Young Intern Employment Record

(Unit : persons)

Category	Total	Disabled	Local	Women	Engineers	High-school Graduates
2012	58	23	40	32	8	11
2013	74	27	51	48	8	15
Total	132	50	91	80	16	26

#### Contract-based Staff in 2014

(Unit : persons)

Type	Admin-support	Contract	Part-time	Total
Contractors	5	2	6	13

## ● Resources development

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

For efficient resources development, KOTEC established a Resources Development Team dedicated to HRD at the HQ and an in-house training center for HRD training in Yongin City, Gyeonggi-do.

KOTEC's HRD system is built with the hardware of an expert pool of in-house lecturers, the Cyber HRD Center, and Cyber Cultural Center, and the software of credit requirements for three categories of basic competence for all employees: leadership competence, job skill competence, 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 training, and to ensure self-initiated learning throughout the year to take root, the Cyber HRD Center has been established to put many of the courses online and keep the business running efficiently.

The 2013 Resources development has been performed on the basis of the resource management and development plan along with its mid-to-long term management plan. A comprehensive education training plan for 2013 was built upon feedback on the training and education of the previous year.

In particular, to establish an education system for SMEs and to foster competitive talents to support KOTEC's sustainable growth, it designated and focused on strategic action plans, such as developing diverse programs for different R&Ds, implementing a mobile learning environment, and expanding SME consulting programs, to provide tailored support and cultivate customized talents.

(Unit : persons)

### Training Record

Type	2011	2012	2013
In-House Off-Site Training	1,358	1,370	1,711
External Off-Site Training	657	535	535
Cyber Training	3,841	3,351	4,158
Technology & Culture Training	55	58	60
Total	5,911	5,314	6,464





## Customer Satisfaction









### ● Overview

KOTEC's customer satisfaction (CS) initiative of 2013 was designed to improve customer satisfaction, service capabilities, customer-oriented work processes, and the intensive management of poor-service areas. As a result, it delivered 89.7 (up by 0.3p from the previous year) out of 100 at the Public CSI, as surveyed by the Ministry of Strategy and Finance.

### ● Initiatives

- Improve the overall CS level by improving CRM center services
- Identify poor-service areas and implement intensive remedial action
- Drive customer satisfaction based on VoC

### ● CS Activities

 <b>Kibo CS Manual Book publication</b>	<ul style="list-style-type: none"> <li>• Publish a scenario-based CS manual and standardize CRM services</li> <li>• Analyze KOTEC's work flows from the customers' perspectives, and prepare CRM guidelines for each customer interface</li> <li>• Convert the work process to be more customer-oriented</li> </ul>
 <b>CS Slogan contest and banner distribution</b>	<ul style="list-style-type: none"> <li>• Hold a CS slogan contest for KOTEC employees in order to encourage CS-oriented thinking for CRM employees and promote KOTEC's commitment to CS management</li> </ul>
 <b>CS case posting on CS Plaza</b>	<ul style="list-style-type: none"> <li>• Inform on poor CS areas and best CS practices from other institutions (30 cases) to encourage customer-oriented service thinking and CS practices</li> </ul>
 <b>CS Leader Training</b>	<ul style="list-style-type: none"> <li>• Provide CS on-site education to 52 CS leaders from all branches to help them initiate CS activities and to make them serve as the missionaries of CS management</li> </ul>
 <b>CS Clinic</b>	<ul style="list-style-type: none"> <li>• Provided customized training for branches that scored low at PCSI and mail CS surveys to improve CS services</li> </ul>
 <b>VoC-based CS activities</b>	<ul style="list-style-type: none"> <li>• Systematically analyze and manage VOCs (806) received through various channels to improve the CS framework</li> </ul>
 <b>Customer-oriented windows and CRM services</b>	<ul style="list-style-type: none"> <li>• Establish a pilot "Advisory Booth" at the Ilsan Technology Appraisal Center so that customers can seek advice without concerns about privacy violations, etc.</li> <li>• Re-arrange PC monitors to the left or right of the window, allowing employees to meet customers literally face to face</li> </ul>
 <b>Branch managers' A/S Call</b>	<ul style="list-style-type: none"> <li>• Call (or contact in another way) 329 customers by branch managers to listen to their voice (VOC) and use it for service improvement</li> </ul>



Focus Group  
Interview (FGI)

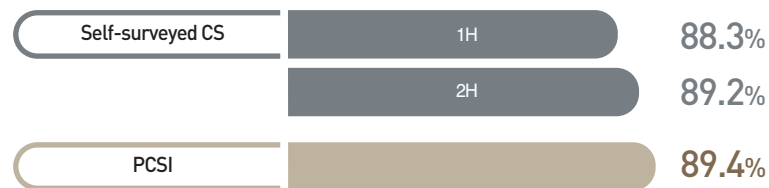
- Conduct FGI and seek opinions from 9 customers who presented low satisfaction at the FGI

CS evaluation and  
compensation

- Identify and reward the 20 Best CS-Men
- Select and reward the 10 Best Employees recommended by customers
- Reward the 20 Best Employees for Telephone Surveys
- Reward the 30 Best CRM Employees (at call centers)

● CS Survey Result Trends

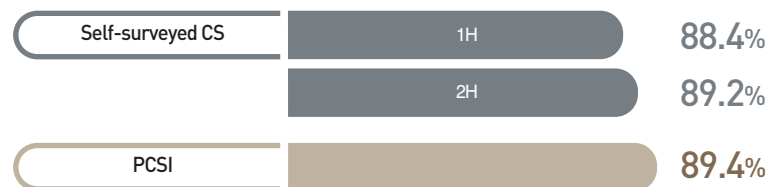
2010



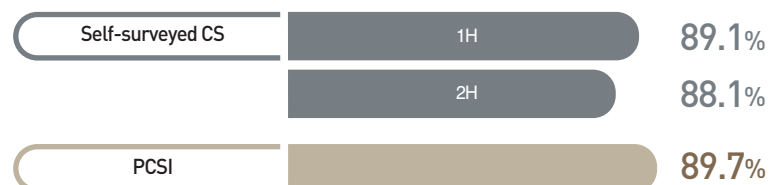
2011



2012



2013



## Ethical Management

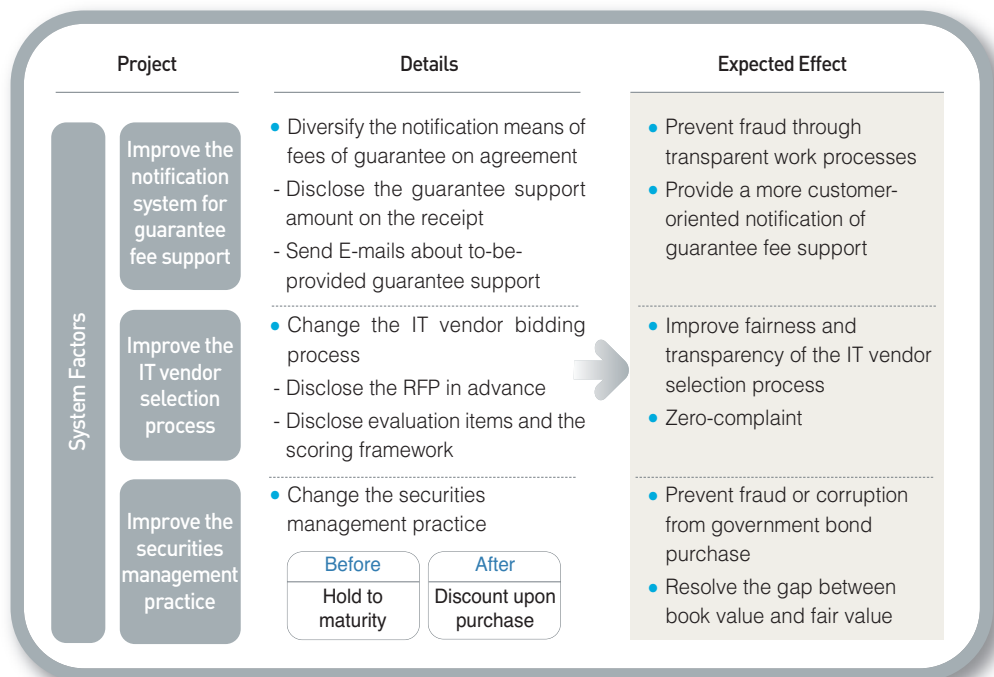
Efforts to discover and address corruption risks to improve integrity

### ● Direction of Ethical Management

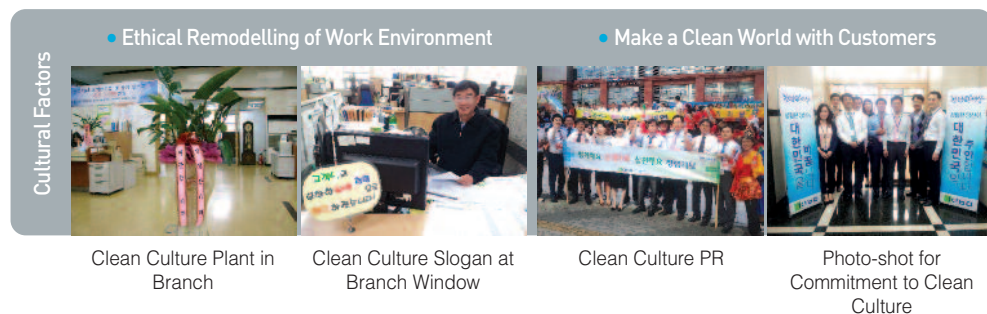
- Establish and implement ethical management strategies taking into account the business environment and the previous year's performance
- Strengthen ethical management and transparency through feedback of evaluation results

### ● Ethical Management Progress

System improvement by voluntary participation ("1 department 1 project" campaign: 11 in total)



Build a customer-employee ethical consensus initiated by clean culture mentors from each branch



Distribute and share the ethical management culture of Clean Kibo



Transfer Clean Kibo know-how to clean partners

Hold a monthly working-level meeting and share KOTEC's best practices with partners about anti-corruption and clean culture activities

## Encourage ethical thinking through voluntary ethics programs


Hold a clean culture event to raise employee awareness

Event	Result
"Clean" Slogan Contest	<ul style="list-style-type: none"> <li>Slogan contest about commitment to clean culture and CS</li> <li>- 354 applications (by 263 participants)</li> </ul>
Customer Proposal Festival	<ul style="list-style-type: none"> <li>Contest for proposal to improve clean culture and CS</li> <li>- 41 applications (4 winners)</li> </ul>

 [Clean Slogan Contest Winner]
  [Customer-proposal Festival]



## Promote ethical and clean Culture through PR activities

Activity	Result
Distributing "Clean Fan"	<ul style="list-style-type: none"> <li>Create 7,150 "Clean Fans" and distribute them to customers, employees and partners</li> </ul>
Sharing Best Practice of Ethical Management	<ul style="list-style-type: none"> <li>Disclose policy materials about ethical and clean culture on the website</li> </ul>
Promoting the Ombudsman system	<ul style="list-style-type: none"> <li>Provide the link to the Ombudsman System of the ACRC</li> </ul>


  
 What is a "Clean Fan"? The Clean Fan is designed to form an ethical consensus between employees and customers, and to promote clean culture

## Strengthen employees' ethical competence by diversifying ethics education channels

Program	Result
Lecture Tour by "Visiting Ethics Class"	<ul style="list-style-type: none"> <li>Executives visit branches to provide ethics education and discussion sessions</li> <li>- 14 branches (with 252 employees taking part)</li> </ul>
Special Lecture on Ethical Management	<ul style="list-style-type: none"> <li>Special Lecture on Ethics</li> <li>- Lecturer : Chair professor Yoon, Eun-gi</li> <li>- Utilizing video materials</li> </ul>
Cultural Experience Training	<ul style="list-style-type: none"> <li>Field experience for 53 Clean Culture Mentors</li> <li>- Korea Sunbi Culture Training Center</li> </ul>

 [Visiting Ethics Class]
   
 [Ethics Lecture by Prominent Scholar]

## ● Ethical Management Performance

- Designated as an "Agency of Excellence" in the 2013 public agency transparent assessment by the Anti-Corruption and Civil Rights Commission
  - Ranked 1st in Public Institutions among 86 quasi-government institutions and 2nd in the total public sector (653 institutions)
  - Designated as a "High Performer in Comprehensive Transparency" for 8 consecutive years

Comprehensive Transparency

KOTEC 8.81%

Quasi-government entities 8.35%

Entire public-sector entities 7.86%

- Awarded with the Prime Minister's Award for Korea's e-people in Anti-corruption





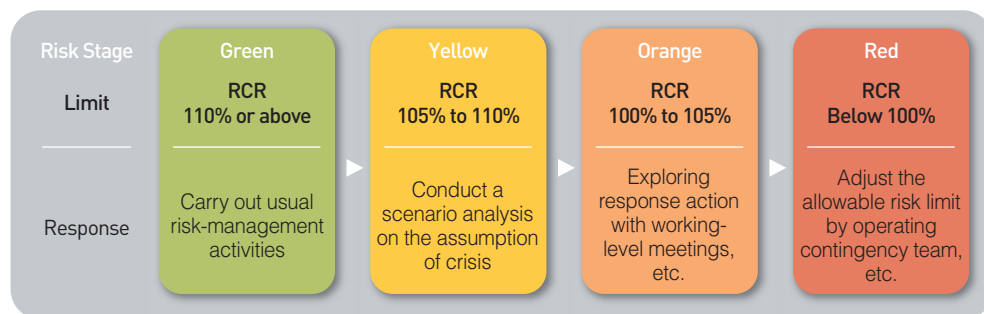
## Risk Management

KOTEC implemented a comprehensive risk management framework to improve risk detection and response capabilities by organically associating credit risks for guarantee assets, credit/market/liquidity risks of assets under management, and operational risks. After the introduction of the system, we upgraded enterprise-wide risk management capabilities in 2013, which resulted in record-high asset quality and sustainable growth foundations.

### ● Strengthening risk response capabilities corresponding to changing economic environment

To set up a truly comprehensive risk management framework under growing economic uncertainties at home and abroad, KOTEC performed stress tests based on crisis scenarios and established RCR-linked contingency plans for each risk stage in order to swiftly respond to a liquidity crisis by strengthening liquidity risk management.

#### Operation of a Contingency Plan for each Crisis Stage



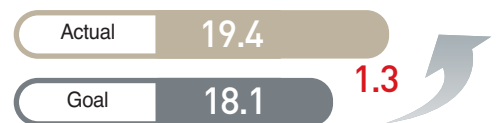
● Risk Coverage Ratio (RCR) : Solvency measurement calculated by the ratio of assets under management to the total risk

### ● Preemptive Risk Management to Enhance the Quality of Technology Finance

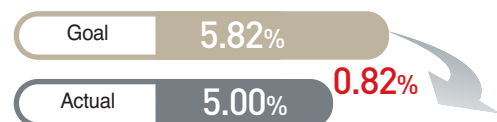
By focusing on policy guarantees that have great growth potential and large economic repercussions, KOTEC embarked on strategic and preemptive risk management, which resulted in over-achieving the guarantee provision target. It also implemented a sophisticated risk management practice for branches, including differentiated risk management by risk level and strategic portfolio operation.

#### Over-achievement of Guarantee and Risk Control Target by Systematic Risk Management

Guarantee provided (Unit : KRW trillion)



Total Risk Rate



## IT Operation & Management

### ● Launching the KOTEC mobile App. Service

KOTEC launched the KOTEC Mobile App. service in December 2013 for the convenience of SMEs.

The KOTEC mobile App. provides wide-ranging features, including guarantee application, My Guarantee, technology appraisal, guarantee products, venture & Inno-Biz Certification and interest rates, technology transfer information, SME support information, and Branch information. In particular, the Push Service feature provides customers with customized information and product information, further improving customer convenience.

#### KOTEC Mobile App.



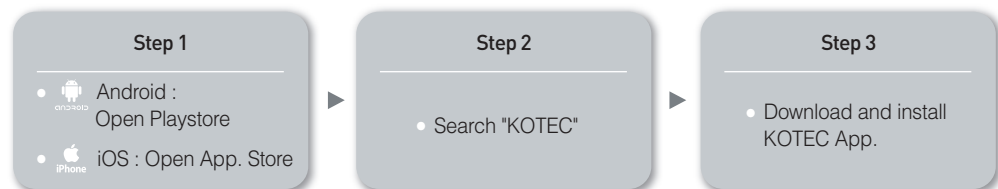
● Main Screen



● Key Features

Feature	Details
Guarantee Application	<ul style="list-style-type: none"> <li>Introduction of how to apply for KOTEC guarantees and guarantee application</li> </ul>
My Guarantee	<ul style="list-style-type: none"> <li>Guarantee application process status, guarantee record, expected guarantee fees, guarantee limit, guarantee extension eligibility, etc.</li> <li>Issued Documents (Guarantee certification, receipt, and tax invoice search)</li> </ul>
Technology Appraisal	<ul style="list-style-type: none"> <li>Introduction of technology appraisal type, procedure, and KTRS</li> </ul>
Startup Mentoring	<ul style="list-style-type: none"> <li>Introduction of and application for the startup mentoring program</li> </ul>
Guarantee Products	<ul style="list-style-type: none"> <li>Introduction of new guarantee products and eligibility tailored to each customer</li> </ul>
Technology Transfer M&A	<ul style="list-style-type: none"> <li>Introduction of technology transfer and M&amp;A, and application for sales/purchase</li> </ul>
Venture & InnoBiz.	<ul style="list-style-type: none"> <li>Introduction of Venture &amp; InnoBiz. certification, application procedure, and requirements</li> <li>My Certification (Venture &amp; InnoBiz. certification search)</li> </ul>
Branch Search	<ul style="list-style-type: none"> <li>Branch search by branch name, location, or GPS</li> <li>Navigation service and call feature</li> </ul>
PUSH Service	<ul style="list-style-type: none"> <li>Customized information for each customer</li> <li>Customized SMSs about eligible guarantee products</li> </ul>

#### How to install



#### How to use

- **Cyber Branch member** : Log-in by the same ID/PW as on the website (Cyber branch)
- **New User** : Sign up as an individual member (authentication required) or a corporate member
  - ※ Anyone can sign up, regardless of transaction with KOTEC.

※ Contact : KOTEC IT mobile app. team (051-606-7606, 607)

### ● Improving Branch IT Network

KOTEC upgraded its branch IT network to improve work efficiency and to prevent problems that would arise from the failure of old equipment.

It replaced existing communication lines with high-speed internet lines and multiple communications equipment with a single powerful piece of equipment, improving work speed and saving on repair and maintenance costs.

#### Branch IT Network Improvements

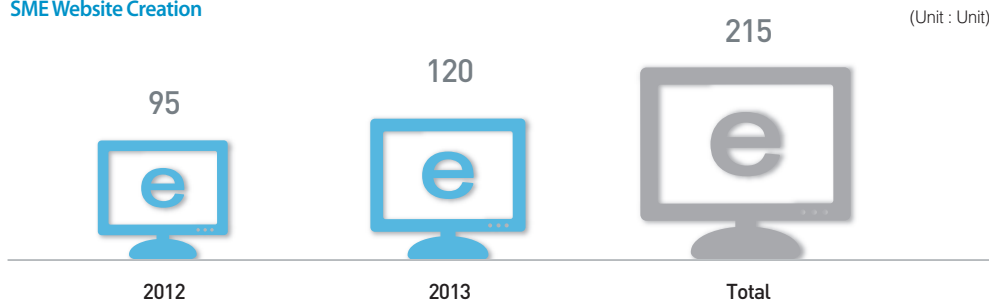
Category	Before	After
Network Line	Low-speed dedicated line	High-speed dedicated line
Speed	256Kbps ~ 1Mbps	5Mbps ~ 20Mbps
Equipment	Router, WAN accelerator and VPN equipment	1 UTM

### ● Creating SME Websites

KOTEC created websites (or homepages), free of charge, for KOTEC-supporting SMEs that have poor IT infrastructure.

KOTEC added 15 website creation templates to the existing 10, so that they can better represent the business category and size of different SMEs. Based on the templates, KOTEC created 120 websites to contribute to their company PR and market expansion.

#### SME Website Creation



### ● Enhancing Anti-Cyber Terrorism

KOTEC established response measures, such as enhancing IT security systems and internal control, to effectively tackle increasingly sophisticated cyber terrorism.

To respond to any sign of attack in real time, KOTEC has built a proprietary security control system and a cooperative network with financial information sharing and an analysis center (FISAC).

KOTEC also implemented a "Comprehensive Analysis System against Cyber-Threats" to beef up its security control muscle. This enabled comprehensive and effective control as well as the collection of threat information from all equipment, leaving behind the old practice of disparate analysis.

### Comprehensive Analysis System against Cyber Threats



In association with the FISAC, which provides 24-hour control services by security experts, KOTEC maintains a proactive and preemptive system against cyber terrorism, and actually handled 132 signs of breach and 45 security recommendations in 2013 alone.

KOTEC exercised anti-DDoS and anti-hacking drills to reinforce its internal control and to improve the emergency response abilities of our employees, not to mention IT security personnel. KOTEC also diagnosed and eliminated security weak points within the organization on the basis of regular evaluation and analysis of expert institutions.

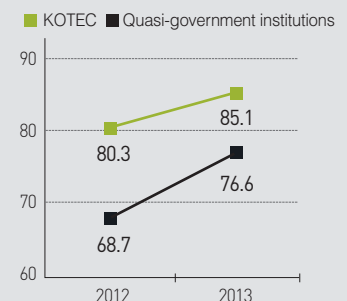
All of these efforts paid off in the form of a "Best" grade on the IT Security Assessment, executed by the NIS, for 2 years in a row (2013 and 2014), advancing its reliability as a specialized technology finance institution.

IT Security Evaluation by the National Intelligence Service (NIS)  
**Delivered the Best Grade for two consecutive years (2012 and 2013)!**

2012  
80.31  
Good

2013  
85.13 (↑4.82p)  
Good

Average of 32  
quasi-government  
institutions:  
76 (Average)



## CSR

### ● Overview

KOTEC aims to fulfill its responsibilities as a leading public financial institution and build sustainable management grounds by sharing social responsibilities between and across all executives and employees and supporting underprivileged and socially vulnerable people.

### ● Directions and Performance

KOTEC's 2013 social contribution activities focused on social volunteer programs customized to the beneficiaries in line with its foundation goal and characteristic of business.

#### Directions

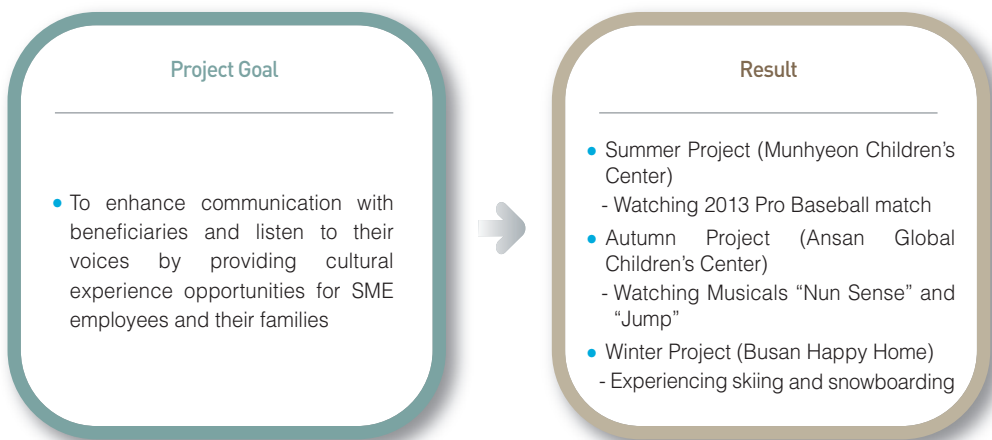
#### Major Performance

#### Customized Social Contribution to Recipients' Needs

| Development and operation of Social Programs

	Needs Survey (Interview)	Needs Understanding	Social Programs
Welfare Facility	Local Children Centers, Comprehensive Social Welfare Center	Providing cultural experience opportunities	● 4 Seasons 5 Senses Satisfaction Project.
Regional Government	Sannae-myeon Miryang Gyeongnam, Seosin-myeon Hwasung, Gyeonggi	Provide work force and improve rural income	● "1 Company 1 Village" volunteer campaign for rural areas
Regular Support	Children's Foundation, and Single-family Senior Citizens	Provide regular support for the underprivileged and socially vulnerable	● Talent donation for the marginalized, Free meal, blood donation

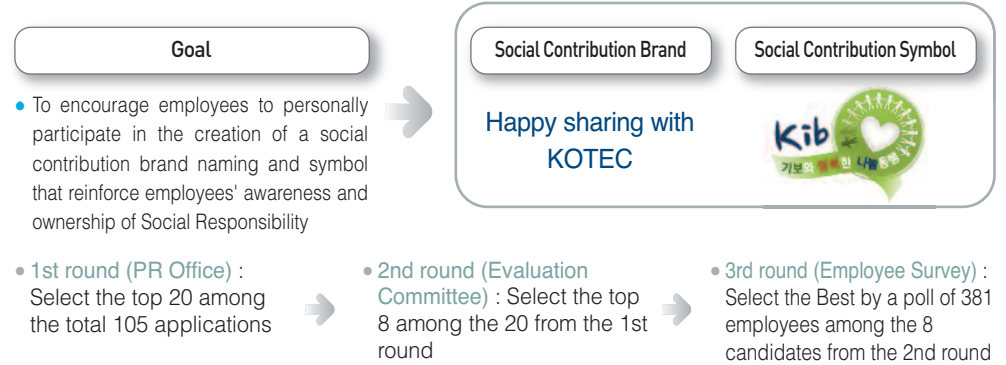
| 4 Seasons 5 Senses Satisfaction Project



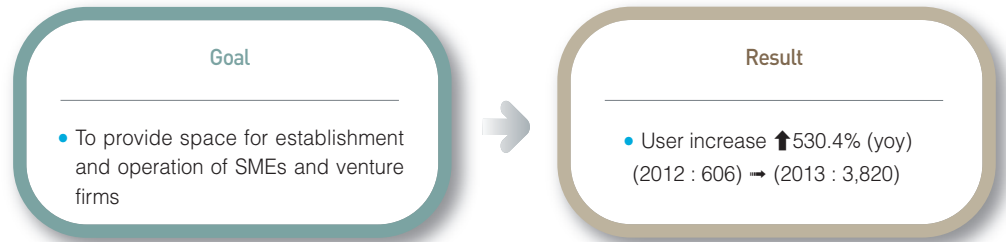


### Social Contribution Activities in line with KOTEC's Purpose, Characteristic of business, Capabilities

Development of the "KOTEC Social Contribution Brand Naming and Symbol"  
(participated in by KOTEC employees)



Smart Working Center (SWC)



Other "KOTEC Social Contribution" Activities

Target	Details	2012	2013	Change
SMEs To-be Entrepreneurs	KOTEC Venture Startup Class (free)	168 people	194 people	↑15.5%
	Sprout Enterprise CEO Successful Startup Class (free)	250 people	328 people	↑31.2%
	Free Management Diagnosis Consulting	200 cases	245 cases	↑22.5%
Experience Facility Opening	Opening of Science and Technology Exhibition Center and Operation of Science Experience Class	3,026 people	5,758 people	↑90.3%
Employee Participation	"1 Company 1 Village" volunteer campaign for rural areas (4 times/year)	272 people	566 people	↑108%



4 Seasons 5 Senses Satisfaction Project



Rural Volunteer Activities

## Global Exchange and Cooperation

KOTEC is globally recognized for its excellent KTRS as a result of its effort to globalize its technology finance practices.

It has continuously expanded exchanges with global technology appraisal (or related) institutions and shared its technology appraisal system with emerging countries, such as Vietnam, creating a Korean Wave in the finance sector. It has also built a cooperative network on the backs of its partnership with SMEs at home and abroad to help excellent SMEs advance into overseas markets.

In 2003, KOTEC successfully hosted the 26th Asia Credit Supplementation Institution Confederation (ACSIC) and became a pillar in the development of the Asian credit support system. This also facilitated KOTEC's network with other guarantee institutions and enhanced its global standing by showcasing its technology finance practice. Going forward, KOTEC will continue to broaden its international exchange and cooperation to truly become a global leader of technology finance.

### ● Major Performance



- Host the 26th ACSIC Conference (Busan)

(Theme : Contributing to Economic Vitality in Asia through the Creative Operation of ACSIC)



- Sign an agreement with the provincial government of Guangdong for SMEs' overseas expansion

Building a cooperative network to support excellent SMEs in Korea and Guangdong



- Provide training for Vietnam SATI

6-week training on the technology appraisal system for SATI employees



- Participate in EUROSME 2013 Conference

KTRS introduced Best Practices by EUROSME 2013 held by the European Commission

Efforts to transfer  
KTRS

## Focus : Vietnam

KOTEC enthusiastically transfers KTRS to establish a technology appraisal index of Vietnam and relevant policies.



- Practice-oriented KTRS training for 2 employees of Vietnam State Agency for Technology Innovation (SATI) (for 6 weeks during July and August 2013)
  - Teaching a methodology for technology appraisal modeling, theories and practice of technology value appraisal etc.,
- Introduction of KTRS to the Vietnam Ministry of Science and Technology and NIPTEX

- KOTEC continued consulting services for SATI and SATI organized a dedicated team to develop a technology appraisal system.

- KOTEC will further transfer in-depth knowledge and skills through KSP\* of the MoSF in 2014.
- \* Knowledge Sharing Program: A program, initiated by the Korean government, to transfer experience and knowledge of economic development

## Other Countries

An increasing number of overseas institutions from many countries, including Japan, Thailand, Turkey and Saudi Arabia, are visiting KOTEC to learn KTRS. (10 visits from overseas institutions from 7 countries in 2013)



- Japan Finance Corporation (JFC)

JFC visited to study KTRS after it learned that KTRS was recognized as "Good Practice" by the IPF report of Europe.



- The Ministry of Finance of Thailand and Thai Credit Guarantee Corporation (TCG)

Thailand institutions visited KOTEC to learn the technology appraisal system dedicated to technology financing and demonstrated their desire to benchmark KOTEC's system.



- Saudi Industrial Development Fund (SIDF)

SIDF visited KOTEC to learn KTRS and KOTEC's technology financing programs, including Large, Medium and Small Shared Development Guarantee.



## Efforts to Support Globalization and Commercialization of Excellent Technology SMEs

Cooperating with overseas SME-related agencies to help excellent technology SMEs to penetrate into the global market



- Participation in the Trade Investment Forum  
(Korea-China (Guangdong Province) Development Forum)

40 SMEs recommended by KOTEC participated in the Korea-China Excellent SME Trade Investment Forum and delivered high performance from the investment.



- Korea-Vietnam Technology Firm Cooperation Infrastructure support

Korea and Vietnam signed an MOU to cooperate on helping SMEs enter into overseas market, including support for technology demand matching.

- Korea-Netherlands Seminar Matching support

The Korea-Netherlands Seminar, hosted by the Ministry of Economic Affairs of the Netherlands, provided matching support for KOTEC-guaranteed SMEs with excellent Dutch SMEs.

## 2013 Global Exchange Results

Overseas Institutions  
that visited KOTEC  
during the year

Period	Institution	Purpose
Feb.	Japan Finance Corporation (JFC)	Learning KOTEC's technology appraisal system
Mar.	The Scientific and Technological Research Council of Turkey (TUBITAK)	Learning KOTEC's technology finance and R&D support practices
Jul.-Aug.	The Ministry of Finance (of Thailand) and Thai Credit Guarantee Corporation (TCG)	Learning KOTEC's technology appraisal and technology guarantee system
Aug. & Oct.	The Ministry of Science and Technology and National Institute of Patent and Technology Exploitation (NIPTEX) of Vietnam	Learning KOTEC's technology finance and patent evaluation practices
Sep.	Vietnam State Agency for Technology Innovation (SATI)	Agreement for matching Korea-Vietnam technology firms
Nov.	BPI-France (technology innovation support institute of France)	Sharing institutional knowledge (cultural industry evaluation etc.,)
Nov.	Saudi Industrial Development Fund (SIDF)	Learning KOTEC's large corporation-SME win-win guarantee system
Dec.	China Association for Small & Medium Commercial Enterprises	Learning KOTEC's technology appraisal system

KOTEC's Participation  
in International  
Conferences

Period	Conference/Institution	Purpose
Jun.	Participated in the 58th ICSB Annual Conference	Acquisition of SME support policies of other countries
Jun.	Visited Europe Investment Bank	Introduction of KTRS
Sep.	Participated in the 23rd ACSIC Training Program	Introduction of KTRS



# APPENDIX



## ● Financial Statements

### Summary of 2013 Statement of Financial Position

(As of December 31, 2013)

(Unit : KRW million)

Assets	
Item	Amount
<b>I. Current Assets</b>	<b>2,306,611</b>
Cash and Cash Equivalents	7,131
Short-term Financial Instruments	1,311,594
Short-term Investment Securities	805,993
Others current assets	181,893
<b>II. Investment Assets</b>	<b>415,939</b>
Long-term Financial Instruments	183,049
Long-term Investment Securities	228,875
Other Investment assets	4,014
<b>III. Tangible Properties</b>	<b>122,320</b>
Land	24,889
Building	70,684
Machinery	10,408
Asset under Construction	16,339
<b>IV. Intangible Properties</b>	<b>22</b>
Industrial Property Right	22
<b>V. Other Non-Current Asset</b>	<b>509,359</b>
Indemnity Right	408,783
Preservation Right	774
Deposit and others	99,803
<b>Total Assets</b>	<b>3,354,251</b>

Liabilities and Net Assets	
Item	Amount
<b>I. Current Liabilities</b>	<b>161,174</b>
Deferred Revenue	143,492
Others	17,682
<b>II. Long-term Liabilities</b>	<b>812,602</b>
Reserves for Subrogation	699,264
Reserves for Compensation	69,829
Accrued Liability for Retirement Allowance	43,510
<b>III. Other Non-Current Liabilities</b>	<b>47</b>
<b>Total Liabilities</b>	<b>973,823</b>
<b>I. Basic Net Assets</b>	<b>10,360,891</b>
Basic Fund at the Time of Foundation	21,768
Contributions	10,339,123
<b>II. Accumulated Reserves and Surpluses</b>	<b>(8,076,768)</b>
Retained Earning Carried Over from the Previous Year	(7,897,931)
Other Changes in Net Asset	60,000
Financial Operation Results	(238,837)
<b>III. Net Asset Adjustment</b>	<b>96,305</b>
Gain and Loss on Investment Securities Valuation	96,305
<b>Total Net Assets</b>	<b>2,380,428</b>
<b>Total Liabilities and Net Assets</b>	<b>3,354,251</b>

## Summary of 2013 Statement of Financial Operation

(From January 1, 2013 to December 31, 2013)

(Unit : KRW million)

Item	Amount		
	Total Cost	Income	Net Cost
<b>I. Program Net Cost</b>	<b>976,010</b>	<b>(275,805)</b>	<b>700,205</b>
Industrial Finance Support	976,010	(275,805)	700,205
<b>II. Management Cost</b>			<b>42,725</b>
Labor Cost			19,658
Expenses, others			23,067
<b>III. Non Allocated Expenses</b>			<b>54,669</b>
Asset Impairment Loss and others			54,669
<b>IV. Non Allocated Income</b>			<b>67,584</b>
Asset Operation Income and others			67,584
<b>V. Net Operation Cost</b>			<b>730,016</b>
(= I + II + III - IV)			
<b>VI. Non Exchange Revenue</b>			<b>491,178</b>
Contribution Revenue			473,724
Other Sourcing and Transfer			17,454
<b>Operation Result (= V - VI)</b>			<b>238,837</b>

## Summary of 2013 Statement of Changes in Net Assets

(From January 1, 2013 to December 31, 2013)

(Unit : KRW million)

Item	Amount			
	Net Assets	Accumulated Reserve and Surplus	Net Asset Adjustment	Total
I. Basic Net Asset	10,360,891	(7,897,931)	82,613	2,545,573
Report Amount	10,360,891	(7,897,931)	82,613	2,545,573
II. Statement of Operation		238,837		238,837
III. Adjustment Accounts		60,000	13,692	73,692
Gain and Loss on Investment Securities Valuation			13,693	13,693
Gain on Asset Revaluation			(1)	(1)
Other gain and Loss on Net Asset		60,000		60,000
IV. Ending Balance of Net Asset (= I - II + III)	10,360,891	(8,076,768)	96,305	2,380,428

## • EXECUTIVE DIRECTORS



**Hong Sung-je**  
Executive Director

**Park Dae-hae**  
Chief Audit Executive

**Park Jong-man**  
Executive Director

## • NON-EXECUTIVE DIRECTORS



Lee Don-hee



Jung Kyu-yeong



Gil Tae-geun





**Kim Han-chul**  
Chairman & President

**Kim Ki-hong**  
Executive Vice President

**Kang Seok-jin**  
Executive Director



Yang Hee-gwan



Kim Eun-ho



Cha Wang-jo

## ● Board of Policy Members

### KOTEC Board of Policy Members

December 2013

\* Steering Committee established based on the Korea Technology Credit Guarantee Fund Act Article 17

Category		Committee Member		
Chair		KOTEC Chairman & President		
Members appointed (5)	<ul style="list-style-type: none"> <li>Appointed by FSC (1 person)</li> </ul>	FSC	Financial Policy Bureau Head	Ko Seung-bum
	<ul style="list-style-type: none"> <li>Appointed by the MOSF Minister (1)</li> </ul>	MOSF	Economic Budget Review Office Head	Park Choon-seop
	<ul style="list-style-type: none"> <li>Appointed by SMBA head (1)</li> </ul>	SMBA	Micro Enterprise Policy Bureau Head	Kim Heung-bin
	<ul style="list-style-type: none"> <li>Appointed by Governor of IBK (1)</li> </ul>	IBK	Senior Vice President	Kim Gyu-tae
	<ul style="list-style-type: none"> <li>Appointed by KB Governor (1)</li> </ul>	KB	KB Vice President	Min Yeong-hyeon
Commissioned members (7)	<ul style="list-style-type: none"> <li>Commissioned by FSC among executives of financial institution or executive management (3)</li> </ul>	Shinhan Bank	Vice President	Lee Dong-dae
		Busan Bank	Vice President	Back Kyung-ho
		Hana Bank	Vice President	Kim Byeong-ho
	<ul style="list-style-type: none"> <li>Commissioned by KORACHAM chairman (1)</li> </ul>	KORCHAM	Executive Vice Chairman	Lee Dong-gen
	<ul style="list-style-type: none"> <li>Commissioned by KBIZ Chairman (1)</li> </ul>	KBIZ	Executive Vice Chairman	Song Jae-hee
	<ul style="list-style-type: none"> <li>Commissioned by KFS in discussion with the Minister of Ministry of Science, ICT and Future Planning among technology experts (2)</li> </ul>	KOITA	Vice President	Kim Eui-whan
		KISTEP	Vice President	Park Goo-seon

## ● 2013 Highlights

date	Highlights
February 15	Held a seminar on technology appraisal policy
February 27	Awarded with the Prime Minister's Award for Korea's e-people in Anti-corruption
March 7	Opened Gyeongsan Branch
March 14	Open Yongin Technology Appraisal Center
March 30	Signed an Agreement with IBK to Provide Finance Support for Excellent Technology Startups
April 1	Celebrated its 24th Anniversary
April 4	Implemented Pre-Guarantees for To-Be-Founders
April 8	Implemented Special Guarantees for Technology & Industry Convergence
April 8	Signed an Agreement with KB on Special Contributions
May 9	Signed an Agreement with IBK to Provide Financial Support for the Shoe Industry
May 20	Signed an Agreement with KT to Provide Financial Support for the Culture Content Industry
June 27	Hired 33 new full-time employees
June 28	Signed a Co-Support Agreement with KISED
June 28	Implemented a PC-OFF system
July 23	Restructured the organization (7 departments, 3 offices, and 2 sub-offices→11 departments, 2 offices, and 4 sub-offices)
July 3	Held a special lecture on ethics management by professor Yoon, Eun-gi
August 23	Implemented Guarantees for High Value-added Service Projects
October 1	Launched a campaign to refund dormant guarantee fees
October 15	Signed an MoU with the Association for Small & Medium Commercial Enterprises of Guangdong Province
October 18	Awarded with the Presidential Award for the Contribution to New and Renewable Energy Development
October 31	Signed an Agreement with the Ministry of Commerce, Industry, and Energy for the Trade Information Association
November 12	Held the 26th ACSIC
November 28	Signed an Agreement with ADD for Exchanges to Implement an SME Support Framework
December 5	Awarded for contributions to startup invigoration in 2103 by the SMBA President
December 20	Designated as an "Agency of Excellence" in the 2013 public agency transparency assessment by the Anti-Corruption and Civil Rights Commission
December 23	Launched the mobile App. service

## ● Business Network

Center	Address	Telephone
Gasam Technology Appraisal Center	Rm. 1906, STX-V Tower, 128, Gasan Digital-1-ro, Geumcheon-gu, Seoul	02)818-4300
Gangnam Hub Technology Appraisal Center	5 Fl., Dongwoo B/D, 328, Teheran-ro, Gangnam-gu, Seoul	02)2016-1300
Gangneung Technology Appraisal Center	8 Fl., Donga B/D, 2110, Gyeonggang-ro, Gangneung-si, Gangwon-do	033)642-1021
Gwangju Technology Appraisal Center	6 Fl., Mudeungsantower, 80, Jukbong Blvd., Seo-gu, Gwangju	062)360-4600
Gwangju-Seo Technology Appraisal Center	3 Fl., Industrial Bank of Korea B/D, 240, Mujin Blvd., Gangsan-gu, Gwangju	062)941-6833
Guro Technology Appraisal Center	Rm. 1801~1807, JNK Digital tower, 105, Digital-ro 26gil, Guro-gu, Seoul	02)6124-6400
Gumi Technology Appraisal Center	3 Fl., Industrial Bank of Korea, 124, Suchul Blvd., Gumi-si, Gyeongsangbuk-do	054)455-7881
Gimpo Technology Appraisal Center	Rm. 805, Shinhan Plaza, 113, Gimpohangang-4-ro, Gimpo-si, Gyeonggi-do	031)980-8600
Gimhae Technology Appraisal Center	4 Fl., Industrial Bank of Korea B/D, 55, Naeoejungang-ro, Gimhae-si, Gyeongsangnam-do	055)330-2100
Noksan Technology Appraisal Center	3 Fl., Exchange Bank of Korea B/D, 20, Noksansandan-335-ro, Gangseo-gu, Busan	051)832-0460
Daegu Hub Technology Appraisal Center	10 Fl., S-Cube B/D, 2598 Dalgubeol Blvd., Suseong-gu, Daegu	053)251-5600
Daegu Technology Appraisal Center	5 Fl., LH B/D, 130, Won Blvd., Buk-gu, Daegu 053-356-0421	053)356-0421
Daegu-Seo Technology Appraisal Center	7 Fl., Deokwon B/D, 1690, Dalgubeol Blvd., Dalseo-gu, Daegu	053)652-1861
Daejeon Technology Appraisal Center	1 Fl., KOTEC B/D, 141, Dunsanse-ro, Seo-gu, Daejeon	042)483-7451
Daejeon-Dong Technology Appraisal Center	2 Fl., Dongyang Finance and Securities, 540, Daejong-ro, Jung-gu, Daejeon	042)250-0700
Dongnae Technology Appraisal Center	10 Fl., Geumjeong Tower, 1925, Jungang Blvd., Geumjeong-gu, Busan	051)517-6070

Center	Address	Telephone
Mokpo Technology Appraisal Center	2 Fl., Industrial Bank of Korea, 25, Ogam-ro, Mokpo-si, Jeollanam-do	061)284-0394
Busan Hub Technology Appraisal Center	3 Fl., KOTEC B/D, 33, Munhyeongeumyung-ro, Nam-gu, Busan	051)606-7699
Bucheon Technology Appraisal Center	#301-102, Bucheon Technopark, 345 Seokcheon-ro, Ojeong-gu, Bucheon-si, Gyeonggi-do	032)327-1451
Bupyeong Technology Appraisal Center	#A-303, Woorim Lions Valley, 283, Bupyeong Blvd., Bupyeong-gu, Incheon	032)623-6140
Sasang Technology Appraisal Center	2 Fl., Hana Bank B/D, 271, Hakgam Blvd., Sasang-gu, Busan	051)320-3400
Saha Technology Appraisal Center	3 Fl., Cius B/D, 336, Hasinjungang-ro, Saha-gu, Busan	051)250-7808
Seoul Technology Appraisal Center	41FL., Korea Life Insurance 63 B/D, Yeouido-dong, Yeongdeungpo-gu, Seoul	02)3215-5900
Seocho Technology Appraisal Center	4 Fl., Danwoo B/D, 181, Banggae-ro, Seocho-gu, Seoul	02)3476-7265
Seongnam Technology Appraisal Center	6 Fl., Gaon Media B/D, 884-3, Seongnam Blvd., Bundang-gu, Seongnam-si, Gyeonggi-do	031-750-4800
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	6 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	6 Fl., Chungwoo 2 B/D, 152, Chunghyo-ro, Suncheon-si, Jeollanam-do	061)729-9333
Sihwa Technology Appraisal Center	3 Fl., KT&G Ansan Branch, 361, Okgugongwon-ro, Siheung-si, Gyeonggi-do	031)496-5911
Asan Technology Appraisal Center	3 Fl., Jangho B/D, 25, Baebang-ro, Baebang-eup, Asan-si, Chungcheongnam-do	041)538-5900
Ansan Technology Appraisal Center	9 Fl., Kyobo B/D, 366, Hwarang-ro, Danwon-gu, Ansan-si, Gyeonggi-do	031)401-0260
Anyang Technology Appraisal Center	3 Fl., Pail B/D, 466, Gyeongsu Blvd., Dongan-gu, Anyang-si, Gyeonggi-do	031)459-2071
Yangsan Technology Appraisal Center	3 Fl., Industrial Bank of Korea B/D, 216, Jungang-ro, Yangsan-si, Gyeongsangnam-do	055)387-6571
Yongin Technology Appraisal Center	2 Fl., 1349, Jungbu Blvd, Cheoin-gu, Yongin-si, Gyeonggi-do	031)8020-4000



Center	Address	Telephone
Ulsan Technology Appraisal Center	2 Fl., Small and Medium Enterprise Support Center, 915, Saneop-ro, Buk-gu, Ulsan	052)268-8721
Wonju Technology Appraisal Center	2 Fl., Wonju City Hall, 1, Sicheong-ro, Wonju-si, Gangwon-do	033)730-8300
Uigeongbu Technology Appraisal Center	4 Fl., Seokcheon B/D, 44, Uigeong-ro, Uigeongbu-si, Gyeonggi-do	031)820-0300
Iksan Technology Appraisal Center	7 Fl., SK B/D, 16, Iksan Blvd., Iksan-si, Jeollabuk-do	063)853-2151
Incheon Technology Appraisal Center	10Fl., Songdocentroad B B/D, 323, Incheontower-dero, Yeonsu-gu, Incheon	032)830-5600
Incheon Central Technology Appraisal Center	1Fl., KOTEC B/D, 30, Yesul-ro 152gil, Namdong-gu, Incheon	032)420-3500
Ilsan Technology Appraisal Center	15 Fl., M-City Tower, 195, Baekma-ro, Ilsandong-gu, Goyang-si, Gyeonggi-do	031)931-7200
Jeonju Technology Appraisal Center	11 Fl., Jeonbuk B/D, 566, Baekje Blvd., Deokjin-gu, Jeonju-si, Jeollabuk-do	063)270-9800
Jongno Technology Appraisal Center	22 Fl., Samil B/D, 85, Cheonggyecheon-ro, Jongno-gu, Seoul	02)738-7980
Central Technology Appraisal Institute	11Fl., #B, Songdocentroad, 323, Incheontower Blvd., Yeonsu-gu, Incheon	032)830-5770
Jinju Technology Appraisal Center	4 Fl., Industrial Bank of Korea B/D, 310, Daesin-ro, Jinju-si, Gyeongsangnam-do	055)750-1111
Changwon Hub Technology Appraisal Center	3 Fl., Industrial Bank of Korea B/D, 38, Yongji-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do	055)210-4010
Cheonan Technology Appraisal Center	Rm. 802, 215, Gwangjang-ro, Seobuk-gu, Cheonan-si, Chungcheongnam-do	041)629-5911
Cheongju Technology Appraisal Center	6 Fl., Intem Plaza, 76, Sannam-ro, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do	043)290-9513
Chuncheon Technology Appraisal Center	5 Fl., Industrial Bank of Korea B/D, 45, Geumgang-ro, Chuncheon-si, Gangwon-do	033)241-7161
Chungju Technology Appraisal Center	3 Fl., Hyundai Motors B/D, 10, Aehyang-ro, Chungju-si, Chungcheongbuk-do	043)842-1591
Pyeongtaek Technology Appraisal Center	3 Fl., Vision Plaza, 48, Pyeongtake-1-ro, Pyeongtaek-si, Gyeonggi-do	031)656-7221

Center	Address	Telephone
Pohang Technology Appraisal Center	3 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
Daejeon Technology Convergence Center	3 Fl., 141, Dunsanseo-ro, Seo-gu, Daejeon	042)610-2200
Seoul Technology Convergence Center	11 Fl., Songdocentroad B B/D, 323, Incheontower-daero, Yeonsu-gu, Incheon	032)830-5770
Iksan Technology Appraisal Center Gunsan Office	2 Fl., Kyobo B/D, 35, Daehak-ro, Gunsan-si, Jellabuk-do	063)443-2151
Daegu Technology Appraisal Center Gyeongsan Office	4 Fl., Cityone B/D, 58, Damun-ro, Jillyang-eup, Gyeongsan-si, Gyeongsangbuk-do	053)859-9000
Changwon Technology Appraisal Center Masan Office	4 Fl., Sinhan Bank B/D, 1, Sanhobuk-19gil, Masanhappo-gu, Changwon-si, Gyeongsangnam-do	055)242-3933
Gwangju Technology Appraisal Center Jeju Business Team	3 Fl., Small and Medium Business Support Center, 473, Yeonsam-ro Jeju-si, Jeju-do	064)727-0271

