

# I SEE SDI

Sustainability Report 2006

## REAL PLAY

MAKE THE ROAD  
MEET ON THE ROAD  
HARMONY ON THE ROAD



# About the sustainability report

## The 4th episode about sustainability

Samsung SDI releases its fourth sustainability report this year.  
The report contains information regarding;

### Activities during the period January 1 to December 31, 2006

Any significant changes in activity up to April 30, 2007 from the stated reporting period

Details of all production sites, sales offices, and R&D centers in Korea and Germany  
Resource information of small local offices that previous reports have not reported on.

### All display products and energy related products

Details on PDP, CRT, OLED, LCD, Rechargeable batteries, VFD and future products which are currently under development in R&D centers have also been included.

### GRI G3

The report has been prepared based on the GRI Guideline G3 for Sustainability Reporting and the Environmental Reporting Guidelines announced by the Ministry of Environment in Korea. Data are generated based on G3 protocol. For data that has not been defined in the protocol, management criteria of the company were referred to.

In spring 2006, the 3rd report was made public.  
Samsung SDI publishes annual sustainability reports.

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# DEAR GLOBAL PARTNERS,

Samsung SDI Co., Ltd. is now building a new road in the display and energy industry through our persistent efforts.

# CEO Message

## DYNAMIC BALANCE

We, as humans, always wish for a brighter future. Such a wish is not merely based on our simple need to survive. Rather, it is based on our desire to provide a better future for the generations to come.

How can a business contribute in this regard?

First, a business can contribute to raising the standard of living by making leaping advances in technology and materializing it into economic success. Second, a business has to focus beyond its economic success and recognize its corporate responsibility for the environment and the ecosystem.

Third, as sustainability cannot be achieved by individualized efforts only, a business has to work in cooperation with its stakeholders and other interested parties.

I believe that the door to sustainability will open when these three efforts are all in balance.

## IN THE PRESENCE OF A NEW ERA

Samsung SDI is dedicated to achieving success by becoming the leader in technology, as well as in the marketplace.\* We need to raise the standard of living by developing unsurpassed technologies and lead the market by pioneering uncharted territories.

We all know that markets are governed by the laws of the jungle.

However, the display market has been particularly harsh for industry players as they face steep declines in price, new products springing up like weeds, competition in the construction of new plants and alliances among industry players.

Notwithstanding the foregoing, Samsung SDI did not stop or hesitate.

We built new plants to manufacture premium PDPs and released the "W" series, which can display the natural colours of the displayed objects on the screen.

We also turned a new page of history when we begin manufacturing AMOLED, a "dream come true" in display device.

*\* "TDC" (which stands for Technology Driven Company) and "MDC" (which stands for Marketing Driven Change) are Samsung SDI's core capabilities in its pursuit of creating the future of the display and energy industry.*

## AFFLUENT SOCIETY

Samsung SDI aims to create environmental value through Life Cycle Thinking and share affluence through a mutually beneficial partnership.

Toward this end, Samsung SDI has built an environmentally friendly supply network by providing active support to its suppliers in increasing their capability to operate in an environmentally friendly manner. Samsung SDI has also instituted processes for developing environmentally-friendly products. Samsung SDI has removed hazardous materials from its products and made special efforts to enhance the safety of its products, so that our customers can rest assured that our products are safe and environmentally friendly.

Samsung SDI is also committed to contributing to society, both domestic and international. For example, Samsung SDI provides free eye surgery to the visually-challenged and hearing dogs to the hearing-impaired.

Samsung SDI also leads other community-improvement campaigns, such as the "one site, one community" campaign.

In this regard, Samsung SDI's efforts have not gone unnoticed, and in its research report, the Ministry of Commerce of China (the governmental unit overseeing foreign economic policies) has recognized Samsung SDI as a model company that has successfully localized in China.

## GATHERING TOGETHER

Samsung SDI finds opportunities for sustainability through the participation and cooperation of its stakeholders.

A company is a group of stakeholders associated for a common purpose and serves as the underlying foundation upon which different groups of stakeholders can form a relationship. Therefore, we as a company cannot achieve sustainability without working side-by-side with the communities around us.

Samsung SDI listens to the voices of its stakeholders to prepare for the future and also to reinforce the processes of refining business management activities. In addition, in the interest of advancing the common goal of global sustainability, we actively participate in various stakeholder activities as a member of the society.

## THE NEXT STEP

Samsung SDI's endeavors continue.

When we first began our sustainability management back in 2003, we placed our focus on environmental issues, which at that time were the most urgent and critical issues.

It is now time for us to reexamine what we need to focus on, and we identified five issues that we need to focus on for a sustainable future: (i) climate change, (ii) resource circulating society, (iii) aging and health, (iv) poverty and conflict, and (v) stakeholder engagement. Samsung SDI will take new steps to address these issues and reflect it in its management activities for the advancement of global sustainability.

## THE ROAD NOT TAKEN

In its journey toward sustainability, a company may face a moment of choice: either it can improve the much-traveled existing road and become a good company, or build a new road and become the best company. Currently, the display business is floating in a sea of chaos and no one can tell the future. But I can tell you this. The darkest hour is just before the dawn, and there is always a rainbow after the rain.

Creative innovation and openness to change are the only tools of survival in a constantly changing market.

Two roads diverged in a wood, and we took the one less traveled by. Samsung SDI is currently in its last phase of transformation and is reaching the turning point where it is poised for a new take-off.

Thus, I believe we can enjoy the abundant fruits of our efforts in the near future.

When the time comes, we will be able to say "And that has made all the difference".

President & CEO Kim Soon Taek

*Soon Taek Kim*

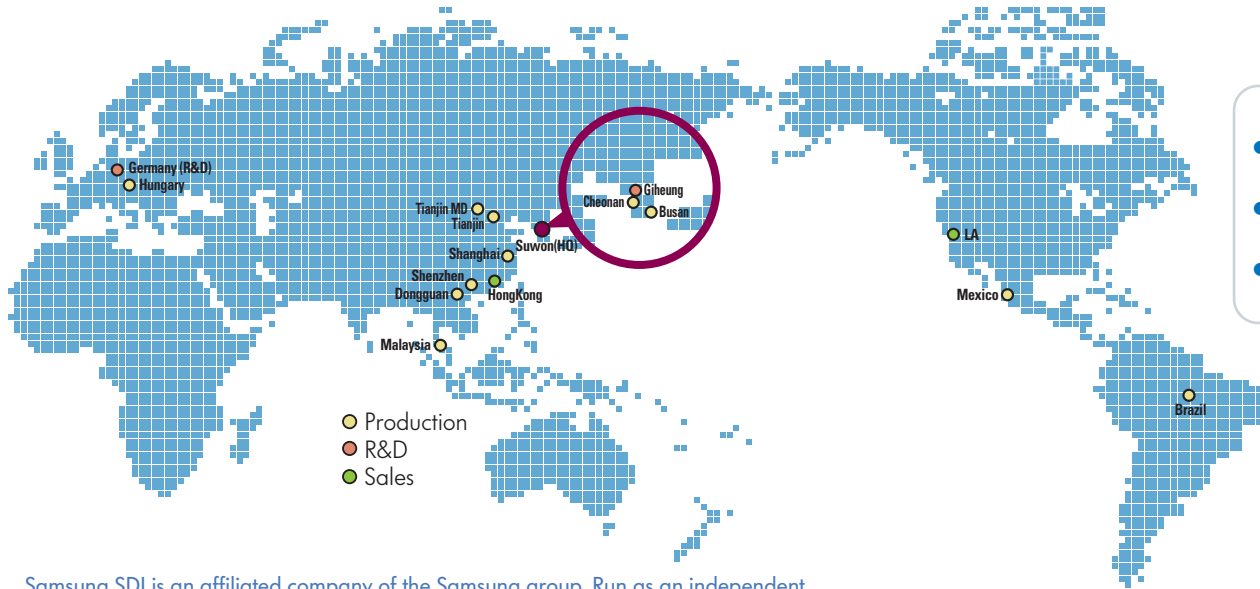
# SAMSUNG SDI Co., Ltd

Samsung SDI is a world-leading company in display and energy products.

Samsung SDI operates 11 production bases, two R&D centres, two sales offices, and many peripheral branches and offices in 11 countries. Major production plants are located in Hungary, Malaysia, China, Korea, Mexico and Brazil. Products from these plants are sold to suppliers of completed TV sets, monitors, and mobile devices globally. Samsung SDI operates a PDP, CRT, Mobile Display and Battery divisions. Next-generation display and energy technologies are under development at R&D centres.

Following its business innovation program, Samsung SDI discontinued parts of the CRT production-line operations at the Suwon and Busan plant in 2006. On the other hand PDP module lines and PDP Line 4 were constructed at the Samsung SDI in Hungary and at the Busan plant respectively. In 2007, we will consolidate the two separate head offices which at Seoul and Suwon into a single unified head office in Suwon. We are hopeful that this merger will amplify the innovative wind of change blowing throughout the company, generating a powerful synergy effect.





- Samsung SDI makes**  
unit : million e.a.
- Digital display  
PDP 2.3 CRT 51.7
  - Mobile display  
OLED 15 LCD 192
  - Energy  
Rechargeable battery 275

Samsung SDI is an affiliated company of the Samsung group. Run as an independent company, Samsung SDI is listed on the Korea Exchange (KRX) as an electric and electronics business. The total number of stockholders is 43,744 dated on 31 December 2006. Please refer to the Samsung group website ([www.samsung.com](http://www.samsung.com)) for more information.

<b>Employees</b> 27,684 people		<b>Total Asset</b> Equity KRW 4,578 billion Liabilities KRW 2,131 billion	<b>Sales</b> KRW 6,650 billion	
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# OPPORTUNITIES AND CHALLENGES

Samsung SDI strives to achieve a sustainable growth through business transformations and market-leading technologies. Climate change, resource circulating society, an aging society and stakeholder engagement are regarded to be the most important sustainability issues by Samsung SDI. We plan to focus and address these problems along with the running of the business.

## INTERFACE BETWEEN KNOWLEDGE AND PEOPLE

Vast knowledge and its utilisation gives you the competitive edge in this era. We call this the Informatization era. Everyone longs for effective access to quality information.

Display products are by far the most effective tool for delivering information because 80% of information acquired by humans are obtained through the eyes.

To allow quick and easy access to information we need energy. Batteries that are easy to carry and last long dramatically change the lives of people.

Samsung SDI offers displays and energy products at the interface of knowledge and people. The mission of the company is to ensure that more people can enjoy better quality information. We are confident that such sharing of knowledge can contribute to the development of the human race.

From the sustainability perspective, the key importance is the development of technological power to lead this Informatization era, the power to influence the markets, and the effects we exchange with nature in the process. But above all this lies the social expectations of Samsung SDI to achieve the above without losing our position as the basis of business and people.



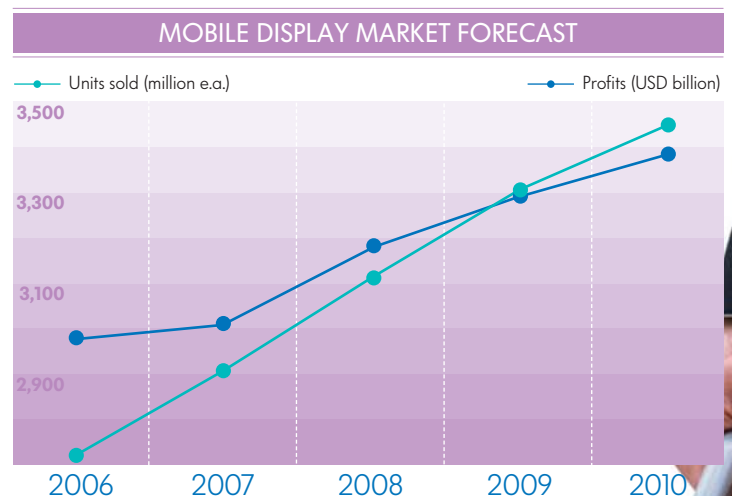
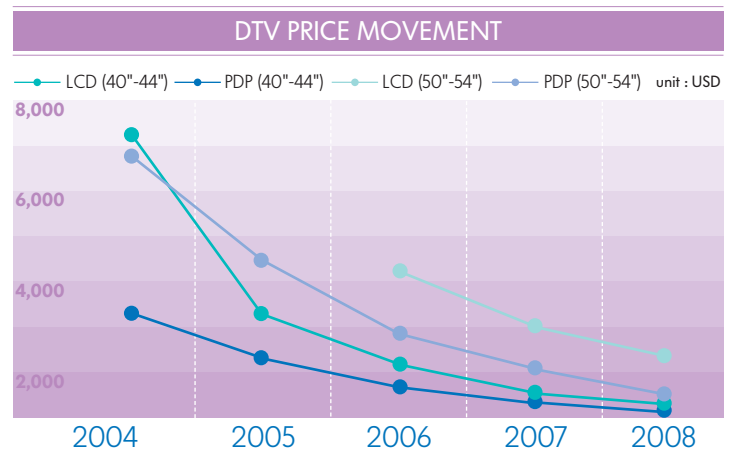
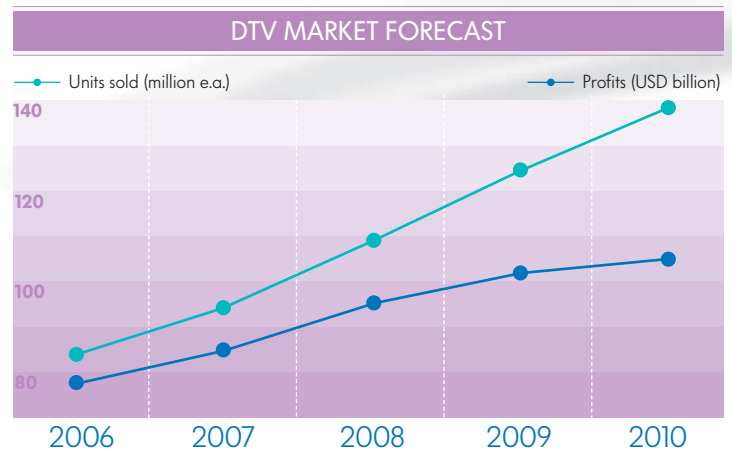
## POWER TO LEAD MARKET AND TECHNOLOGY

### | Markets on the move |

As digital broadcasting began in earnest, the DTV market has also been rapidly growing. As it became an attractive market to invest into, aggressive investment and fierce competition dragged down the price of TV so much that only the few elite companies were able to survive through it. Evolution of mobile communications presented limitless possibilities to the mobile market.

Beyond simple talking, it enabled transmission of volume data. Following the trend, consumers required clearer and more vivid visual information. Displays that can project high-resolution moving images are fast emerging as the key factor for companies within the mobile market.

If displays are the jewel of the mobile market, the supporting niche of this are thin batteries with a large capacity. Influenced by the mobile market, demand for Li-ion batteries is on a stable rise. On top of this, as the adoption of eco-friendly forms of energy swarm us as an urgent task, solar cells, next-generation fuel cells and batteries for HEV will be expanding the market even further very soon.





# MAKE THE ROAD

Today, we are dreaming of meeting the future.  
Right now, Samsung SDI is preparing for ceaseless growth  
to make dreams come true and warm people's hearts.  
Samsung SDI will make all your dreams a reality.



## | Axis for growth |

Samsung SDI moves the axis for growth along its long-term business roadmap. We aim to lead a market through obtaining guidance from the voices of our customers.

Samsung SDI reforms its business structure by shifting the focus from the platform businesses including CRT and STN-LCD to the development businesses such as PDP, OLED, and rechargeable batteries. The development business portfolio covers high-end products that meet the consumers' needs.

Samsung SDI attempts to capture the needs of the consumer through our Full HD PDP which will hit the market from 2007. From our market research, we found that customers want brighter and more appealing screens whereas TV set makers wanted varied models and products that are easy to handle. Accommodating such requirements, Samsung SDI continued its efforts to improve the profit structure such as cost innovation and increasing in high-end models.

AMOLED is called a dream of a display, Nothing rivals its picture clarity and smooth moving images. Beginning with the release of AMOLDE in 2007, Samsung SDI is planning further work for product differentiation and market expansion.

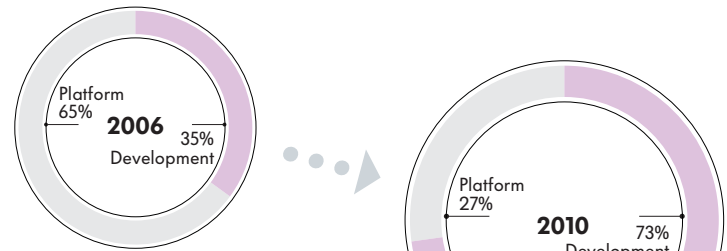
Also, in the energy industry, Samsung SDI is running ahead with the target of becoming the top contender in the industry by 2010. By expanding production basis, the company will consolidate its global competitiveness and expand the share of the energy business on the business portfolio. In the mean time, the company is working to find its way to increase profitability of its energy products by shifting its focus on laptops and mobile phones to other products.

Through such efforts, we will raise the development business to the top-tier position. According our plan, it is forecasted that the development business, currently accounting for 36% of the company sales in 2006, will occupy 73% of the company sales and 91% of the company profits by 2010.

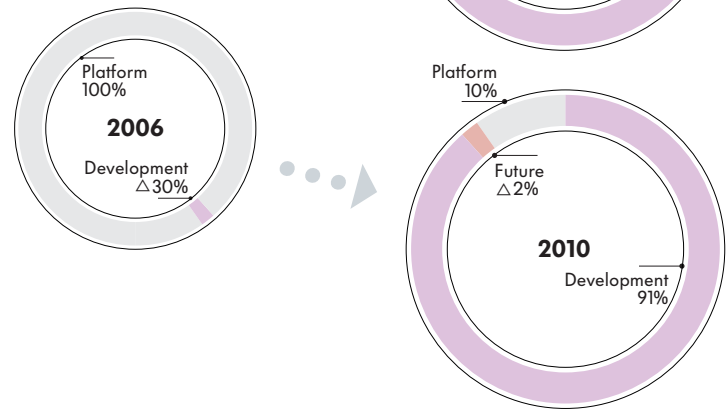
The growth of development is fueled by profits from the platform business. Samsung SDI is focusing on Vixlim in the CRT business, expanding global production bases. The company expects that it will push rivals out of competition from the market, securing the dominating position and win profits in the market. Simultaneously, Samsung SDI endeavors to secure the growth engine for the future. In preparation for the rechargeable battery business regarding HEV, it also focuses on core technological development for next-

## BUSINESS SHIFT

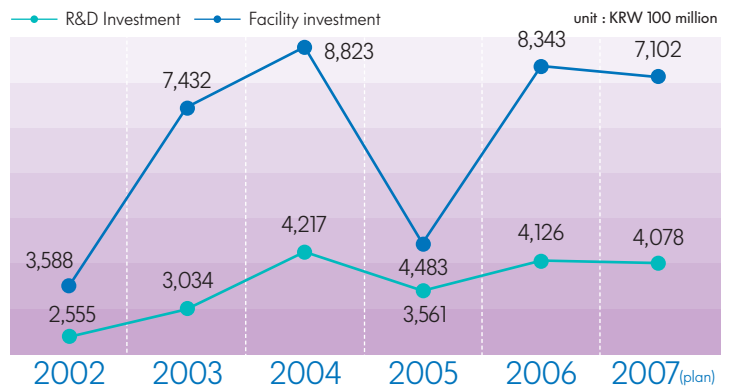
### [Revenue structure]



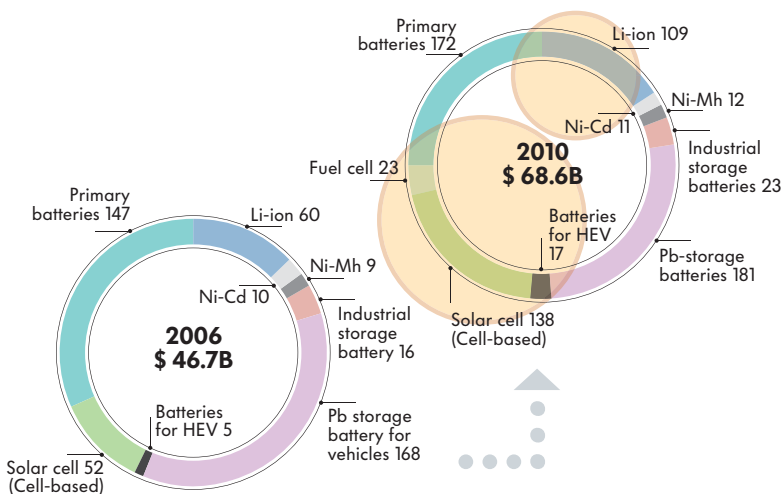
### [Profit structure]



## R&D AND FACILITY INVESTMENT



## ENERGY MARKET CHANGE



generation display and the energy business covering flexible display, 3D, and fuel cells.

Samsung SDI is a company on the move. We do not stop investing for we wish to ensure a continuing growth of the company.

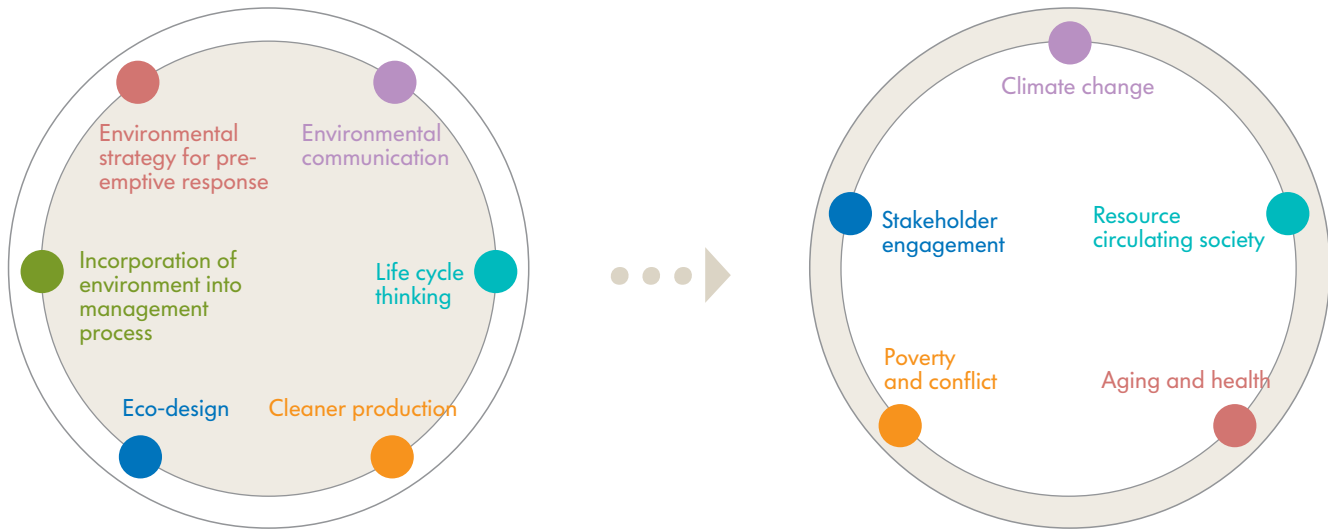
In 2007, Samsung SDI plans to invest 710 billion won into production facilities, 610 billion won in the development business, 80 billion won to the platform business mainly for Vixlim modification, and 17 billion won towards the shaping of the batteries for HEV business in the future.

With another 400 billion won invested into R&D, Samsung SDI aims to establish a concrete position as the true victor of the display and energy market.

*2006 Q4 Data from DisplaySearch is referenced to for display market prospect and price changes. Data from NRI, IIT, and KOTRA are referenced for the energy market prospect.*

## MAJOR SUSTAINABILITY ISSUES

Marking the 2nd phase of sustainability management, the focus on environment would be expanded to cover social part.



### ANOTHER DEFINITIVE STEP

In the long run, economic growth along with economic value creation go together to bring about a win-win partnership with stakeholders. Considering the influences we exchange with the environment, people and communities, Samsung SDI analyzed the related sustainability trend in 2006. We established 5 main issues based on the influences inflicted on and by Samsung SDI. They are climate change, a resource circulating society, aging and health, poverty and conflict, and stakeholder engagement.

#### | Climate change and a resource circulating society |

Samsung SDI is a producer of electronic goods. Electronic goods consume vast amounts of energy during preparation, production and during its use. In fact the whole product life cycle circulates through energy intake. For this reason, Samsung SDI felt that a more strategic approach was needed for climate change.

Due to resource shortage and increased consumption, the world is in need of a new economic system. For the sake of a sustainable development, the economic focus should shift from the economy of disposal to the economy of recycling and reuse to become a resource circulating economy. With this in mind, Samsung SDI strives to improve our designs, enabling minimum waste generation during the manufacturing process and to enable easy recycling of products.

#### | Aging and health, poverty and conflict |

Rising populations and aging mean two things for Samsung SDI. First, as interest in health matters grow, we have to be more careful in handling hazardous affect some materials within our products have on the body. Samsung SDI must recognize this growth in health consciousness as a business opportunity, and develop products that are advantageous to our health.

Second, the company has to think about people, the very source of value

creation. As the population structure shifts, a long-term perspective is needed on how to move people. By conventional standards, the proportion of economically active population is shrinking.

Samsung SDI is a global company based in many different countries. Poverty and conflict are global issues and Samsung SDI hopes to approach such issues in the context of corporate social responsibility.

#### | Stakeholder engagement |

The Internet has led to the opening of the Informatization era. Large volumes of information has been distributed through the Internet. Stakeholders have been keeping an eye on all corporate activities via the net and they move to participate in management activities in actual. Samsung SDI tries to lead clear communications and grab the opportunity in this rapidly changing society.

By doing so Samsung SDI envisions to realize sustainable development by taking into consideration technology, market-prevailing power, the environment and people as well as social expectations of Samsung SDI.

Sustainability is the backbone and foundation of all management activities of Samsung SDI. In realizing this sustainability, economic, environmental, and social aspects must be geared up accordingly. Since 2002 Samsung SDI has adopted sustainability into our business philosophy and have rolled out phased strategies accordingly. In the beginning stage, the company focused on urgent high risk environmental matters, strengthening its capability on that front. Reflecting on the achievements made so far, Samsung SDI feels obliged to find another focus of a social aspect. This means finding further comprehensive business opportunities from the sustainability cogwheel remains a task Samsung SDI will have to tackle as it progresses. In Samsung SDI, sustainability issues are addressed by the Sustainability Management Committee. More details about the Committee are carried on the governance section on p58 of the report.

**2 $\mu$ s**  
PDP response time

**10 quadrillion  
and 8,000  
trillion**  
The number of  
colours that W2  
can express

**30%**  
Brightness improve-  
ment in W2

**512 times**  
Improvement of  
colour expression of  
W2

**Black**  
The clearest colour  
that PDP panel can  
deliver

# EXCITING PLAY



SAMSUNG





W2's colour expression ability has been improved 512 times compared to that of previous PDP. Implementation of complementary colour designing and daylight filters enabled delivery of brighter and clearer images.

Plans to mass produce W3, which prides low energy consumption, in 2007 underway.



### WITH YOUR HEART

W means "With PDP," a brand name of Samsung SDI products, suggesting a TV intimately integrated into family life. Samsung SDI introduced W1 in 2006 and the launch of W2 will follow shortly whose colour expression will be 512 times better than the previous model.

Colour expression improvement means that PDP is able to deliver more colours. W is capable of expressing colours as true as we see them in nature.

It can also deliver more defined moving images. Usually when moving images are displayed, debris of the images from the previous clip remain even after the clip has moved on. This is called a "drag effect." PDP is a self-emissive display with phosphor and is more than capable of delivering dynamic images clear of the drag effect.

Such an ability to deliver magnificent images in colours as vibrant as in nature allows the viewer to become immersed in the images and to obtain the highest possible degree of enjoyment from their viewing.

Lose yourself in a life and death race in the fields of savannah, feel the Adrenaline rush of a heated Sports Arena, and let scenes of an action movie take your breath away. You can with W.

### BLACK

W implies black. Black reduces escape of light via reflection, delivering clearer visuals on the display.

A PDP panel has countless rooms, each of which contains red, green, and blue phosphors to emit light. These rooms are called barrier ribs.

Black absorbs light. To obtain a black panel, Samsung SDI sprayed complementary colours of brown and navy on the dielectric layer which is placed in and above the barrier rib layers. The combination of Brown and Navy paint produced a black panel. This was how a black panel was created.

Previously a band-shaped black material was inserted in a panel to reduce reflected light. But the employing of this material to achieve the same results as with the Brown-Navy dielectric layer proved to reduce the brightness of the screen.

W is a product with minimum light reflection and reduced loss of brightness thanks to the complementary colour panel design. This black panel was awarded the IR52 Jang Young Sil in 2006. IR52 Jang Young Sil is a prize awarded to products whose technological originality and significance are recognized. It is awarded by the Korean Industry and Technology Promotion Association to encourage continual development of industrial technologies in Korea.

W2 is a product whose light reflection and brightness loss is reduced to the minimum, made possible by the dielectric layer design. Daylight filters also help to reduce reflected luminance, enhancing image clarity. Now you can enjoy clearer and more definitive images on PDP even in bright places.

Enjoy! You could even count the blowing hairs of a woman in the wind - that is, if you are not enjoying W already.

## CLEAN TV

Lead enters the human body through the digestive and respiratory system. Once ingested or inhaled, the majority accumulates in the bone and teeth. This is of particular concern in Young children and infants whose Lead resistance is very poor, and prolonged exposure to lead can onset possible problems concerning their immune system.



Samsung SDI is working hard to exclude lead from all its PDP panels. The company discontinued its use of lead in all parts in 2005 except for items that RoHS, the European environmental regulation, designated as exceptions. We have since continued our efforts to drive lead out of our products including those assigned as exceptional.

In 2007, customers will be able to meet a lead-free PDP for the first time. With this Samsung SDI finally succeeds in removing the six toxic substances included in most PDP products, the 6 substances being lead, mercury, chromium VI, cadmium, PBB, and PBDE.

However our efforts to make environmentally friendly TV will continue. Samsung SDI plans to remove PVC and halogenated flame retardants out of products which aren't regulated as yet, but are environmentally undesirable.

## - 4Kg

Glass takes up about 45% of PDP module's weight. It also accounts for a majority of the weight of a panel and more than half the material costs.

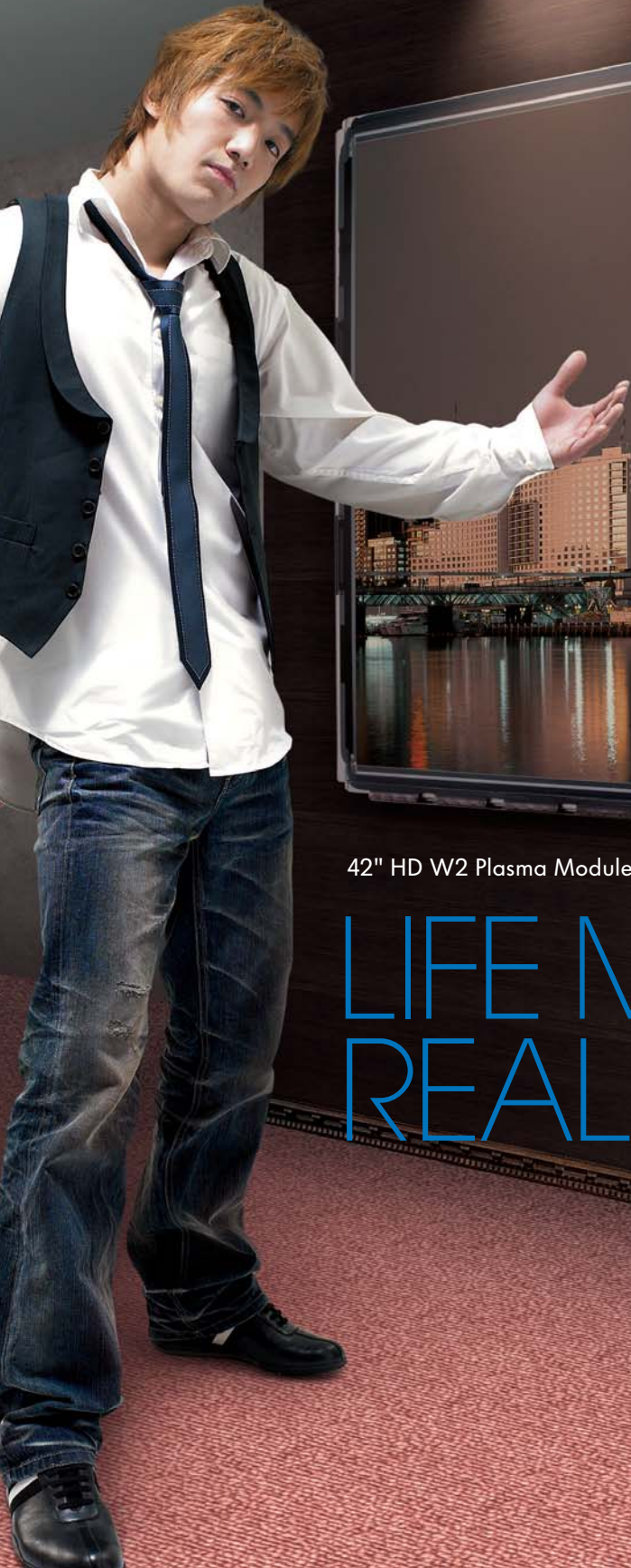
Samsung SDI is striving to achieve optimum cost saving and environmental friendliness by reducing the PDP glass thickness from 2.8t to 1.8t. If the slimmer glass is applied to a 50" PDP, then the panel would weigh 4 kg less.

## TV PANEL CONSUMING LESS ENERGY

Electricity is a form of energy. On earth, power plants burn fossil fuels to produce electricity and consumers consume this energy to power their TV.

To reduce the power consumption of PDP panels, Samsung SDI has optimized the panel design and have developed phosphors that can emit light at low energy input as well as the development of new materials for the protective layer. Through these efforts, the company will find its way to the target of saving 50W of electricity compared to W1, which is 50" HD TV. 2007 will be the year that marks mass-production of W3 - a low energy consumption panel.





42" HD W2 Plasma Module

LIFE MORE  
REALISTIC

**107%**  
Colour expression  
rate of AMOLED  
(based on NTSC)

**10,000 : 1**  
Contrast ratio of  
AMOLED

**10 $\mu$ s**  
Response time of  
AMOLED

**1**  
Samsung SDI, the first  
mass producer of  
AMOLED in the  
world

**0.52mm**  
The thickness ever  
possible to build  
now

# FANTASTIC PLAY





A world first commencement of AMOLED production in 2007  
 AMOLED is a self-emissive display showcasing beautiful pictures and vivid moving pictures whilst consuming less power

AMOLED

## DREAM BEGINS

Today people are seeking beyond the attainability of simple information from mobile devices. They crave joy and delight. The very gateway to this search is a display that delivers visual information. Consumers expect more than a window dutifully displaying images. They look for a display that they can feel thrilled with and covetous of, that excites them at the first sight - one they will admire.

Now you can hold your dream in your hands. Samsung SDI will begin AMOLED mass production in 2007.

### "IT IS SELF LIGHT EMITTING! BEAUTIFUL!"

AMOLED delivers the most true to nature colours possible. Colours that people recognize when they see objects with their own naked eyes are called natural colours. Colour reproduction measures how natural the colours projected by a display are. National Television Systems Committee ("NTSC") in the United States defined colour reproduction as a standard to measure in percentage how many colours a display can express out of all colours that can be displayed of a TV screen. AMOLED is able to reproduce colours at 107% the optimum of the NTCS standard.

Due to this rich colour reproduction, people believe that AMOLED images are brighter than they actually are. Under the same light, AMOLED looks brighter than LCD. AMOLED delivers brighter images at a lower power consumption.

Another advantage of AMOLED is that its displays are not affected by the drag effect at all as it can process moving images 3,000 times faster than LCD.

So vibrant and lively the images, colours as true as in nature, and images so real. Customers who experienced ALMOED exclaimed, "Only a self-emissive display could deliver images this Beautiful!" "Shocking! It is like experiencing the transition from black and white TV (existing display) to color TV (AMOLED)." Samsung SDI worked relentlessly for a long time to present AMOLED to the public. The company has assigned specialists and researchers and an investment of over 100 billion won in R&D budget annually, and has built up technology power since 2000. Starting from mobile phones and MP4 player markets in 2007, the company will make inroads into PMP and digital camera market after 2008 and hope to amaze our customers again with even larger displays in the near future.

AMOLED is a self-emissive display. Unlike TFT-LCD, it does not require a backlight. As power is not needed to light the backlight, the power consumption of AMOLED is low. As it is slimmer than conventional LCD, it also requires less material. In terms of power consumption, AMOLED power consumption is 10% lower than existing displays. 2" QVGA, a product in the development phase, requires 30% less power than existing products. It can display beautiful pictures under 150mV. Its power efficiency has also been improved 1.5 times, allowing the product a longer life cycle.



2.2" QVGA AMOLED



Removal of halogenated flame retardants from LCD modules, whilst developing a product capable of controlling screen and its luminance depending on its environment

**SLIMMER, BRIGHTER!**

The slimmest mobile phone in the world was installed with an LCD produced by Samsung SDI . The sliding phone is 10.9mm thick and is equipped with the 2.2" QVGA TFT-LCD of Samsung SDI.

Samsung SDI designed the product substrate at 0.3t and a backlight of 0.33t, allowing the whole unit to be only 1.95mm thick. Also by improving the panel processing technology, it also reduced space occupied by unnecessary compartments in both right and left ends from 1.9mm to 1.5mm.

Not only is the thickness minimized, Samsung SDI guarantees excellent picture quality from its LCDs as well. It applied a colour filter enabling improved colour expression, increasing colour reproduction range by 70%. LED is a component enabling the backlight to illuminate. The more LED's employed, the brighter the backlight becomes. If you use an LED that can illuminate better at a lower voltage, you can make pictures brighter with less number of LEDs. Samsung SDI uses high-brightness LED chips in its LCDs and increased the radiance to 500cd/m<sup>2</sup>.

**HALOGEN-FREE**

In 2004 Samsung SDI completely removed materials categorized as harmful by the RoHS from their LCD modules. In 2005 it successfully developed a range of PVC free products and continued their success with the release of halogenated flame retardant-free products in 2006. To enable the removal of halogenated flame retardants from its LCD modules, the company analyzed the constituent substances in 11 LCD models and 184 of its components. We then exchanged 24 Halogen containing components of the 184 components with Halogen free.

Samsung SDI is compliant with customer requirements for environmentally-friendly products. We stand ready to respond to a customers' call at any time.

LIFE MORE DELIGHTFUL

**85%**

Percentage of world population whom are target customers of the CRT

**29.9cm**

Thickness of Vixlim 21"

**31%**

The difference in thickness between Vixlim and CRT TV

**43%**

Percentage of world population of whom are target customers of Vixlim

**6,114,881**

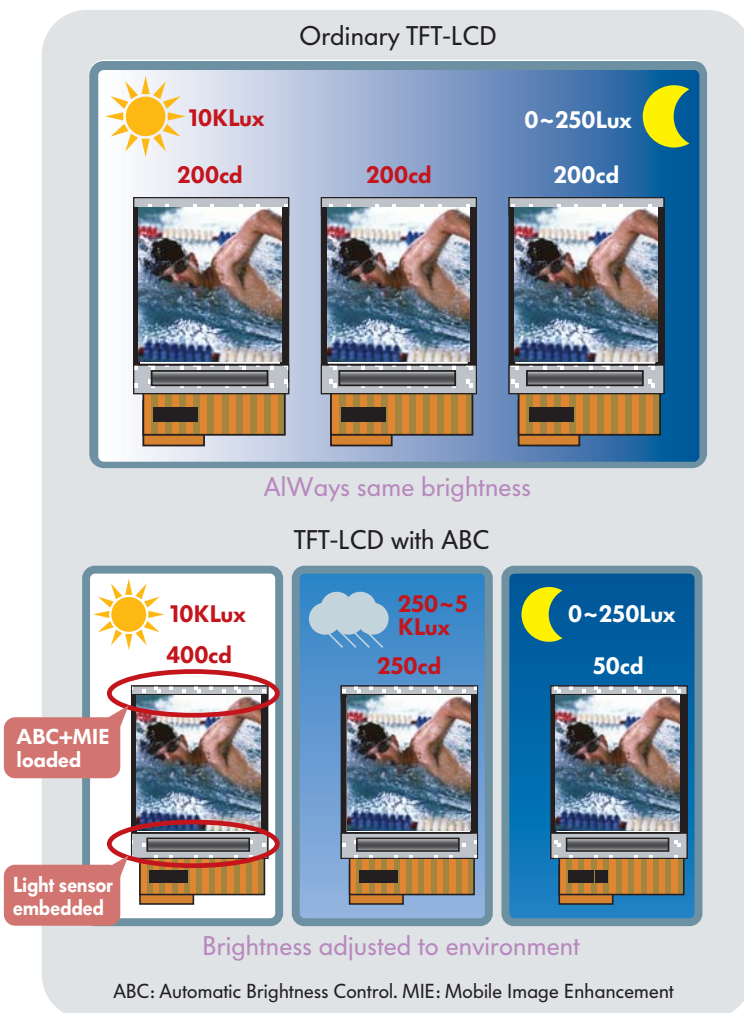
Units of Vixlim sales since its launch

## CHAMELEON

There is a LCD whose colour and brightness change depending on where it is used. The 2.3" QVGA TFT-LCD, a newly developed product, senses light within a certain environment and adjusts itself to the optimal screen brightness at a particular abundance of light.

The light-sensor within the product measures light intensity within an environment. The Automatic Brightness Control (ABC) function is controlled by the Mobile Image Enhancement (MIE) program to control brightness and colours of images on display depending on the detected brightness. Indeed the screen brightness becomes reduced in a dim place, while displaying brighter images in a bright place, providing optimized images to a place where it is used. As it alters its brightness automatically, it can reduce power consumption by 30-50% on average, compared to conventional TFT-LCDs.

It stands as the key next-generation technology to be integrated into mobile display products such as mobile phones, DMB, PMP, and UMPC. It can provide clear pictures outdoors and prevents glare, delivering far better picture quality than conventional products.



## VIXLIM

Vixlim is a display expected to yield high demands in emerging markets with its fashionably slim thickness approximately 30 cm thinner than conventional CRTs. With its slim body and large flat screen-like exterior its visual aesthetics were enhanced.

## VICTORY SLIM

A survey conducted by the iSuppli, a global researcher based in the United States, revealed that consumers spend approximately 7% of their income to purchase a TV. Given the current price tag of a TV, the survey showed that those with salaries higher than 20,000 dollars may consider buying a large flat panel TV whilst those who do not will consider the purchase of a small LCD TV or CRT. Those with salaries between 1,200 dollars and 20,000 dollars, in particular, were seen likely to buy Vixlim.

To finalize, 85% of the world population were likely to choose CRT whilst 43% would choose Vixlim.

For consumers of emerging markets such as China, India, and Latin America the price of a large flat-panel television is still regarded expensive. This may be why the demand of Vixlim in the emerging markets is on the steady rise. In established markets populated with high-income earners, for those who may wish to purchase a second TV for the study or their kid's rooms, SDI confidently recommends Vixlim.

## FPD LOOK

When buying TV, consumers study three things; price, quality and design. Existing CRTs offer good picture quality and a reasonable price, but are thick and heavy. If they could be slimmer, they could satisfy all of the three consumer requirements in terms of price, quality and design. Samsung SDI made the CRT slimmer for the sake of a more attractive design. Samsung SDI unveiled the 35.2cm thick Vixlim in 2005 and 29.9 cm thick Ultra Vixlim in 2006, which was 31% slimmer than the conventional CRT. In addition, new CRT were applied with a large flat panel TV-like exterior, complementing home interior. Consumers purchasing FPD showed preference to the table-top stand style as opposed to the wall-mount style. The table-top stand type requires extra fixture. Comparing the spacial requirement of a table-top stand LCD TV and Vixlim, there are no notable differences in terms of space consumption and exterior look. This is a case of Technology enhancing the design-oriented competitiveness of a product. In addition, Vixlim has avoided image distortion at the edges of the screen. Samsung SDI endeavors to improve both quality and design of its products. With these achievements, Vixlim is regarded as the product that brought the second golden age to CRT displays. By 2006, sales figure of Vixlim had reached 6 million units after just two years since its release.

## GREEN CRT

Being slim and light implies three things; it is visually pleasing, is easy to use or move, and would have consumed less material whilst being produced in comparison to others. It can also reduce energy consumption as the smaller mechanism is able to function at a lower energy input.

Samsung SDI is persevering to make CRT environment-friendly. As well as reducing the thickness of Vixlim, we have been successful in decreasing the number of parts for DY. 27% and 23% of part contents were cut for 29" and 32" respectively so that DY used for Vixlim II weighed 16% less. In addition, 19" CDT power consumption was reduced by 12% from 27kV to 23kV. This works out as 28.8kWh of power saved per year when a consumer uses the product for eight hours everyday,



<b>2.6Ah</b> The highest cell capacity available	<b>2.1mm</b> Thickness of the slimmest battery	<b>275 million e.a units</b> Battery sales in 2006	<b>38%</b> Battery business growth
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# EASY PLAY



## BATTERIES

Our aim of achieving even greater level of safety for our batteries, and hope to achieve this through strict quality control, R&D of next-generation materials and related processing technologies.

Increasing investment to meet the rising demands of the market, and to increase the sales ratio of high-capacity batteries, as well as expanding the battery pack business

Removal of bromo-bisphenol and antimony trioxide from battery cells  
 Continuous efforts to commercialize the use of fuel cells and HVE batteries

### SAFE TO USE BATTERIES

There is a battery that you can use again and again after recharge. It is called a rechargeable battery. Nickel-Cadmium cells, Nickel-Hydrogen batteries and Lithium-ion batteries are examples of rechargeable batteries. Samsung SDI is a mass producer of Li-ion type batteries. Li-ion batteries have a high energy efficiency and are long lasting. They are good for small and light products, working best for mobile devices.

In 2006, series of spontaneous ignition or explosion of rechargeable batteries produced by rival companies forced led to a mass recall of their distributed products. Such accidents inevitably marred the image of the producers and their products as hazardous and unreliable. In the wake of such unfortunate accidents, there has been growing concern regarding the safety of rechargeable batteries.

It was said that the accidents were caused by impurities contaminating the products during the manufacture or faulty parts. If so the hazardous incidences concerning rechargeable batteries is an avoidable one as they were due to misconducts within the internal manufacturing process management of the companies in question.





Quality issues can rise with a moments carelessness. Samsung SDI is taking care of it. It puts into action a strategy ensuring customer satisfaction and placing quality as the top priority through continuous process improvement and robust quality management procedure. Samsung SDI is continuing steady investments into next-generation material development and manufacturing process technologies as well as quality improvement of batteries currently in mass production. Such efforts are fueling the development of next-generation batteries which deliver much enhanced performance and safety.

### ONE STEP CLOSER TO THE TOP

The battery business of Samsung SDI showed a growth of 38% in 2006 compared to the previous year.

Li-ion batteries have been applied mainly for use in mobile phones and laptops. With the arrival of new mobile devices such as MP3 players, the number of customers seeking Li-ion batteries are also on the increase. Li-ion batteries are enjoying just as significant rise in demand in the electric tools market where they are replacing Ni-Cd batteries. The Li-ion batteries market is expected to show an average growth of 15% per annum up to 2008.

To meet the rising demand, Samsung SDI is building more lines and investing increasing amounts of management resources. If this continues, it is expected that Samsung SDI would be firmly positioned as the second largest battery producer in the world by 2007.

Success of a business is determined by its scale and revenue. Simple growth in sales volume does not guarantee you a winning position. In order to improve profitability of the battery business, Samsung SDI is increasing the sales ratio of its high-capacity batteries and expanding into the battery pack business. Going abreast with market changes, Samsung SDI is developing batteries for various products as well.

Samsung SDI endeavors to be the leading force in the expanding battery market with safe and quality products, serving as the very catalyst of the mobile age.



Li-ion Battery-Polymer Battery



LIFE MORE  
COMFORTABLE

## RoHS +

EU RoHS directive regulates the use of six toxic substances harmful to humans and the environment in electronic and electric products. Not all hazardous materials are regulated. How toxic and whether those materials can be replaced determines which substances to regulate. Teraboromo-Bisphnol (TBBA) and Antimony Trioxide is a substance not subject to regulation but use of an alternative material where possible is highly recommended. Samsung SDI, in conjunction with suppliers, undertook a research that led to the removal of these materials from all materials for some battery pack models. Apart from six RoHS materials, it will continue its efforts to remove other materials hazardous to people and environment from its products.

## STRONGER, MORE, CLEANER!

The electrical power supplied to a machine when a machine is turned on is called its generating capacity. To operate a large and heavy machine which consumes a lot of energy, the battery capacity needs to be high and the output must be maintained above a certain level.

When an electric current is met with high resistance, energy consumption increases. Samsung SDI lowered the resistance that is generated when an electric current passes within a battery, enhancing the energy efficiency. Compared with existing cylinder-type Li-ion batteries, the new battery has an output 50% higher at continuous output. Its mechanical strength was also enhanced by 33%. With such improvements, Samsung SDI was able to successfully provide batteries suited to cater for expert electric tools, which require higher capacity batteries than ordinary ones.

Safety Improvements were also made for our batteries. Samsung SDI added anti-overcharge materials to prevent the occurrence of overheating or explosion.

For existing batteries, Cobalt has been used as the electrodes. Cobalt is such a rare and expensive metal, requiring much resource and energy to cultivate. In 2005, Samsung SDI combined metals of the Ni/Mn series for cylinder-type batteries and reduced the use of Cobalt down to 12%. By doing so we were able to achieve increased battery capacity as well as a reduction in use of a rare resource, reducing material costs. Currently projects to reduce the cobalt use in batteries for laptops are underway.

## FUEL CELL

### CONVENIENT AND CLEAN ENERGY

Crude oil prices are going up and concerns over global warming and the green house effect are growing. Fuel cells are like a small power generator, which can generate power continuously as long as fuel supply is consistent. They do not rely on fossil fuel and do not emit any pollutants. Only water is expelled after energy generation after a series of chemical reactions. The fuel cell will generate infinite quantities of energy as long as its fuel cartridges are replaced now and then.

Samsung SDI's aims to develop a method for building smaller fuel cells which can generate more energy with less fuel. In 2006, Samsung SDI developed a fuel cell that was 23% more energy-efficient than existing 20W note PC. The new cell was 30% smaller and produced 21% more energy per cubic volume. The noise level during operation of the fuel cells were also reduced to 37dB. This is very unlikely to cause disturbances within our daily lives, as a quiet conversation we may enjoy in a library measures at 40dB.

### ONE CHARGE GOES A MONTH; A CUP FULL LASTS 13.4 HOURS

One charge enables you to use your laptop for a month. Samsung SDI, in conjunction with Samsung Electronics and Samsung Advanced Institute of Technology, developed a 1,200Wh grade large capacity fuel cell. The fuel cell can support usage of a 12" mobile laptop with an average capacity of 12~15W, eight hours a day and five days a week before the fuel cartridge requires replacement. This is the world's current longest possible usage between charges and 1.6 times longer than that of the fuel cell Samsung SDI presented late last year. The maximum capacity can now reach up to 20W and the energy density, the amount of energy from a cubic volume, is measured at 650WH/L which is four times higher than its rival products. Samsung SDI also succeeded in developing a compact fuel cell which allows 15 hours of usage of a notebook PC with less than 100cc of fuel.

## CELL FOR HEV

### THE PULSE OF 500W

Samsung SDI increased the generating capacity of the cylindrical cells used in hybrid electrical vehicles (HEV) to 500W.

HEV is an automated vehicle equipped with both an internal combustion engine that generates energy from fossil fuels and an electrical engine that moves the vehicle using electrical energy.

HEV emits less pollutants, and travels further on less fuel. By producing energy through cells instead of fossil fuel combustion, emission of pollutants including Nitrogen oxides and dust resulting from combustion can be reduced by up to 90%.

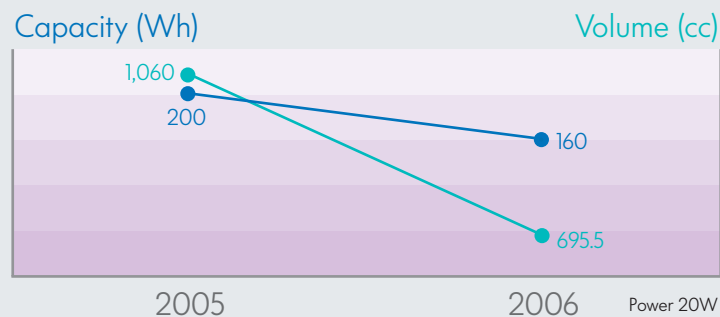
However there are many issues that remains to be solved before HEV can be commercialized. One of them is the increasing of the battery power generating capacity. Power capacity is the force behind the operation of automobiles. Vehicles with a high capacity can travel at a greater velocity and climb steep slopes with more ease. To support this power generation with electrical energy instead of conventional fossil fuel energy, the power generating capacity of the vehicle needs to be raised.

A can is the structure containing the contents of a battery. A cathode, anode and a separator is placed into this followed by injection of electrolytes to allow current to flow. Samsung SDI developed the winding technology, in which the surface area of materials with electrical conductivity were expanded and electrolytes could homogenously diffuse into the electrodes. This was so that the internal resistance could be reduced, ensuring efficient electric current passage. Generating capacity is directly proportional to the amplitude of the electric current, and with the described improvements Samsung SDI was able to improve cell power generation capacity by 25%.

If the safety and life span of this product can be significantly increased, making it fit for commercial use, the fuel efficiency of a vehicle equipped with HEV can be expected to double its previous efficiency.

We dream of being the source of the clean energy that will drive our vehicles in the future. Samsung SDI is drawing ever so close towards achieving commercialization of HEV batteries.

## FUEL CELLS FOR LAPTOP



# MEET ON THE ROAD

The world our children will see should be filled with clear blue skies and fresh breezes. Samsung SDI's vision is infinite as we strive today for a better tomorrow.





# STOP CO<sub>2</sub>

Drastic climate changes are not a distant future, but an imminent threat heading towards us. Climate change are of immense significance regarding product energy efficiency of electronic and electric businesses.

## FIGURES OF CLIMATE CHANGE

In February 2007, the Intergovernmental Panel on Climate Change (IPCC) released its 4th assessment report. The report stated that, if heavy dependence on fossil fuels continue, the average rise in temperature could rise by a staggering 6.4°C maximum and that sea levels will rise by 0.59mm by the year 2099. It also stated that the CO<sub>2</sub> concentration stood at 379 ppm in 2005, which was 100ppm up from the level before the industrial revolution. The annual CO<sub>2</sub> emission was measured at 64 GtC in the 90s but in the space of 6 years had risen to 7.2 GtC. This is a 12% increase from the previous figure. As if to follow the general trend, the average temperature over the last century rose by 0.74°C Among the top 12 highest temperature records since 1850, 11 have been recorded in the last 12 years. Climate change is a matter we must regard with urgency.

## ROLES OF CORPORATE

Men have learnt to use tools to improve their quality of life. But in doing so, people are leaving irreversible marks on the environment as they produce, use and dispose tools.

Mankind forms a business to make tools efficient economically, and companies produce tools in a mass scale. In the end, whether the efficient economy we have pursued would be sustainable or not depends on how environmentally friendly the tools produced by companies are and how much consideration consumers have for our environment.



The same applies to the issue of climate changes. Most tools that people use consume energy whilst being made and require energy again to be used. Massive amount of greenhouse gas is emitted in the process of gaining required energy, which is regarded as the main contributor to global warming.

Each of companies provides its own products and services in various shapes and forms. Whatever their form, we as a whole must try to consume less energy in using them, hence reducing the volume of greenhouse gas emitted and preventing further warming of the Earth.



## ELECTRIC AND ELECTRONIC BUSINESSES AND CLIMATE CHANGE

Samsung SDI, as a display and energy product producer, is classified as an electric and electronics business. With regards to climate changes, the first thing that Samsung SDI can consider is greenhouse gas emission that arises during manufacturing processes.

Curbing the emission begins with thorough investigation. In 2005, Samsung SDI conducted an investigation into greenhouse gases for the first time in the Korean display industry, and in 2006 the investigation expanded to cover overseas sites.

In 2006, the emission volume at domestic sites was measured at 612,971 tCO<sub>2</sub> - 16% down in volume and 2.3% down per sales compared to the previous year. If volumes from overseas sites are included, Samsung SDI's emission rate measures in at 1,152 kilo tCO<sub>2</sub>. Overseas sites began investigation in 2006 so data from further back were not considered, reason being that measurement was only possible for direct and indirect greenhouse gas emissions caused by electricity up to 2005. Measuring other sources of direct and indirect gas emission was not easy. Even though we could obtain the data, we could not ensure its accuracy.

Looking into sources of greenhouse gases within the corporation in 2006, indirect emissions from use of electricity accounted for 69%, followed by fixed combustion from boiler operation at 19%. When these two are combined, it accounts for 88% of the total emission. Fugitive emission is calculation of a particular emission generated from refrigerators that use refriger-

## GREENHOUSE GAS RESEARCH AND CALCULATION METHODS

We used the following methods for research into greenhouse emission and their respective volume calculation.

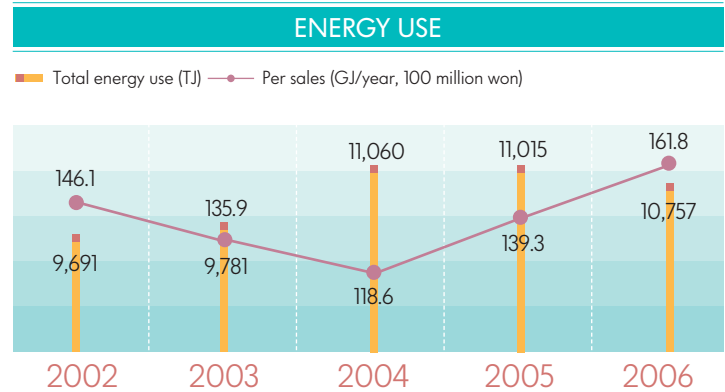
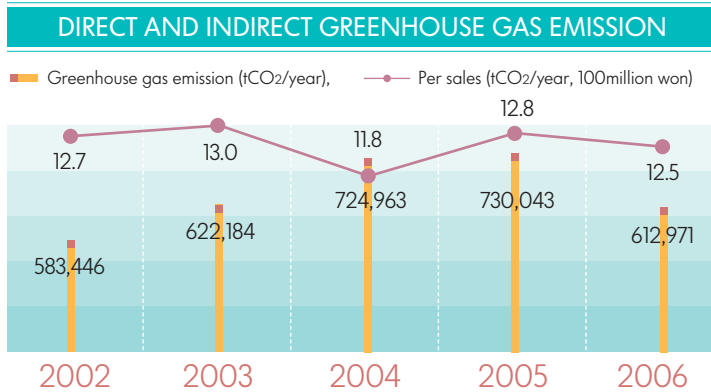
### 1. Criteria applied for greenhouse gas research

We adopted the Guideline for National Greenhouse Gas Inventories, 2006 edition, of IPCC, and Corporate Accounting and Reporting Standard, 2004 edition, issued by the WRI and WBCSD.

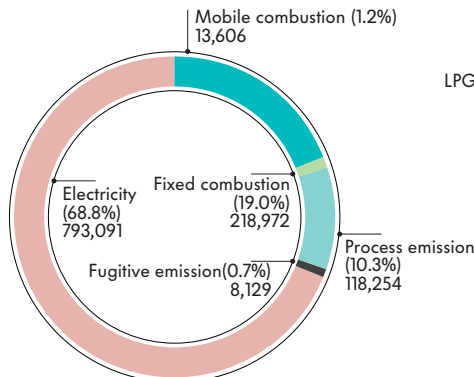
### 2. Coefficient by energy source

For home sites, we referred to the Energy Use Rationalization Act (2006) for the calorific values of the energy source. The calorific values were 8,000 Kcal/l for gasoline, 9,050 Kcal/l for diesel, 8,950 Kcal/l for kerosene, 9,900 Kcal/l for B-C oil, 10,550 Kcal/Nm<sup>3</sup> for LNG, and 15,000 Kcal/Nm<sup>3</sup> for LPG. For carbon emission coefficients of electric power, data from the Energy Economy Centre (2005) was used. The values 0.1319 t-C/MWh for before 2006 and 0.1156 t-C/MWh for 2006 were applied. For overseas sites, Samsung SDI received data from the energy suppliers to each site and also from the government of the host countries. And when coefficients by energy source could not be found in any way (Samsung SDI Malaysia and the Shanghai plant), Korean coefficients were applied.

\* Korea only

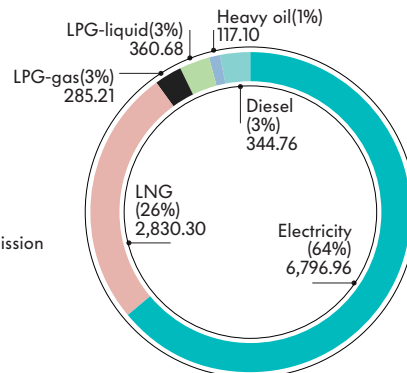


### [Greenhouse gas by source]



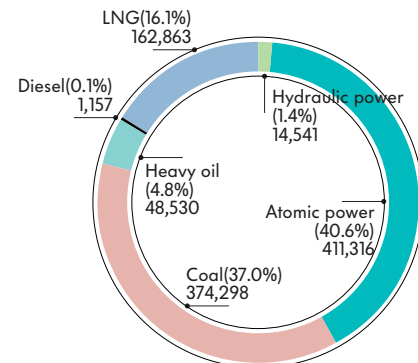
\* 2006, global sites

### [Energy use by type]



\* 2006, global sites  
(Unit: TJ)

### [Indirect energy consumption]



\* Electricity consumption by domestic plants in 2006 (Units: kWh)  
Energy statistics for 2005 of the Energy Economy Institute has been referenced.

ants. Mobile combustion is the calculation of carbon dioxide generated by fork lifters on the premises and by the vehicles of employees on the move. At present emission from processes stands at 10%. This is because of HCFC used in the LCD manufacturing processes. As AMOLED production begins in earnest, the figure is likely to rise. In response, Samsung SDI is now responding to the emission by installing facilities to remove greenhouse gases in the AMOLED manufacturing facilities. And at the same time the company is trying to use less HCFC and replace it with other material. Other sources of greenhouse gas emissions include employee business trips. But it is expected that the impact from this source would be almost negligible. Samsung SDI, however, has reduced business trips to a minimum through groupware, the video message-based conference system, killing two birds with one stone by cost-cutting and reducing greenhouse gas emission simultaneously.

If you take a closer look into energy, the main emission source, the graph representing energy consumption follows a similar trend to that of the greenhouse emission graph, suggesting a close correlation between the two. In terms of energy use, the volume was reduced by 258 TJ, or 2.3% to 10,757TJ in 2006 from 11,015TJ in 2005, but in terms of per sales, the figure rose to 162 TJ/100 million won from 139 TJ/100 million won for two consecutive years. This is because as the total sales dropped due to the fall in price, energy saving was not great enough to counteract this.

A second thing that Samsung SDI considers regarding climate change is of our products. If you follow through the life cycle of electronic goods from collection of raw materials through use to disposal, you will find that the greatest volume of greenhouse gas emission arises during usage of the product. This is because all energy consumed during a product's lengthy life time is taken into account. Assuming that there are 10 million households in Korea with each household using 400kWh, the annual electricity consumption would amount to 48 TWh and CO<sub>2</sub> emission would reach a staggering 20 million tCO<sub>2</sub>. All these are ascribed to lightings, refrigerators, TV, wash machines, air-conditioning systems and heating equipment. If all electronic products had their efficiency improved by 30%, electricity savings would amount to 14 TWh a year. This is equivalent to the energy generated by 18 400,000 kW-grade hydraulic power generators as well as by thermal power generators using 15 million drums of B-C oil. If commercial and industrial products are also taken into account, the figure will go up even further.

The case goes that energy efficiency of electronic products are significant with regard to climate changes. Samsung SDI is making committed efforts to enhancing energy efficiency of products and accelerating R&D activities to replace fossil fuels with new energy sources. For more information, please refer to pages 12 ~ 23, or visit our website at [www.samsungsdi.com](http://www.samsungsdi.com).

## ENERGY EFFICIENCY IMPROVEMENT

Most of the greenhouse emissions emitted during manufacture and service activities are from the use of electric energy and fossil fuels such as LNG. Committed to reduce such emissions, Samsung SDI cut the use of electricity throughout its premises by 927 TJ/year in 2006.

### Energy saving efforts at the Cheonan plant

The plant implemented various energy saving methods during 2006. Examples include the installation of control valves to minimize damages arising from flow of cold water through the PAC process. An air pressure controller was also installed to ensure that air supply was not unnecessarily high. Apart from this the plant also reduced usage of steam by redirecting waste heat from tanks to the ventilation rooms. Also, noticing that water discharged from the employee accommodation complex was warm, the plant installed a heat pump to salvage this warm water and use it to heat the complex.

Such activities enabled the plant to save 355TJ of energy in 2006.



The heat pump in the dormitory complex

### Energy saving efforts in Samsung SDI Brazil

The plant investigated into its air uses in manufacturing processes from August 2006, and from its results decided to uninstall numerous inefficient manufacture facilities including approx 300 spray nozzles used to cool the inside of electric panels. This lowered the electric load of compressors to 2.3 MW/day.

### Energy saving at the Busan plant

The Busan plant conducts regular energy check ups and deploy various energy conserving activities.

Examples of such activities include adjustment of the power load of the plant's voltage transformer for power distribution, reducing amount of lost electricity. We also enhanced energy efficiency of an electromotor that occupied near 60% of the electricity load, saving electricity costs. In addition, the plant improved efficiency of its high pressure compressors, reducing electricity consumption and minimizing heat loss of boilers. This measure led to fuel conservation. We also adjusted the temperature of water used for industrial processes at our plants, saving steam usage. There have also been cases of salvaging of waste heat from tanks and recycling of sewage arriving from electron guns.

Thanks to these activities, the Busan plant was able to save 259 TJ/year in 2006.



Analysis of heat loss of boilers

Further details of energy saving activities can be found at our webpage at [www.samsungsdi.com](http://www.samsungsdi.com) in Case Study under the sustainability menu.

# LOVE IS ETERNAL

China has evolved to be a valuable strategic business foundation of Samsung SDI. As a member of the community in which it operates, Samsung SDI feels responsible in continuing social contribution activities such as free eyesight recovery operations and the One heart in one community scheme.

In February 2006, Samsung SDI received a plaque of thanks on which the quote "Love is eternal" had been inscribed. Liu Chun Gang, the vice president of the Association of the Disabled of Tianjin, remarked that "Thanks to Samsung SDI's generous support, over 100 people with visual impairment were able to reclaim their vision through the 'hope for the visually challenged in Tianjin' operation. We feel that this is a testament of Samsung SDI's interest and eager involvement towards the needy members of the society."

## DAWNING IN THE MAINLAND

In 1992, the mainland market flung open its protective gates. As China sped towards market liberalization, the world awoke to the exciting possibility of enormous potential markets, affordable labor and abundant resources. Companies from all over the world were racing each other into China. Since the opening of our first office at Beijing in 1994, Samsung SDI has so far invested 1 trillion 155 billion won into China. More than half of its production sites are located in the country, and approximately 39% of its employees are in action in China.

Initially, advancement into the Chinese market arose from the prospect of lowering production costs. But today, China is far from being a place solely for simple product assembly.

All display products and energy products that Samsung SDI delivers are produced in China through technological exchanges. Such exchanges, along with local IT companies, serve as a leading power of cutting-edge technology within industries.

Samsung SDI established the International Purchase Center in 1998, endeavoring to discover exceptional local vendors. Products made in China utilize raw materials purchased within China in an effort to adhere more extensively to its local markets. The Shenzhen plant, for example, has a local sourcing rate of up to 92%.

Besides this Samsung SDI is laying a foundation for long-term R&D activities within the country, including the establishment a Battery CRM center at the Shanghai office and a Technology Development Center at the Tian Jin plant.

Production of Vixlim, which is regarded to have brought the second golden age for CRTs, began in February 2005 and has seen sales of more than 6 million units up to 2006. Of this approximately 60% found buyers in the Chinese market. It is researched that China has many CRT customers and as a result the demand is predicted to rise continuously. This implies that China established a recognized place as a strategic business ground for Samsung SDI.

## MAY WE LIGHT UP THE WORLD

According to a survey conducted by the World Health Organization, if no control measures are taken, the world will see 10 million people going blind in China alone by 2010 and GDP loss due to visual impairment would

reach 5,372 million dollars.

Cataract is a main source of visual impairment in most cases. Cataracts account for 50% of Chinese patients with visual problems. Among them a great majority loses their eye sight permanently due to their economic disposition preventing them from getting the treatment they need.

Since 1995, Samsung SDI has provided free eyesight recovery operations in conjunction with Siloam Eye Hospital to help patients with eye problems who could not afford treatment themselves. Cataract patients benefit from eye-sight recovery operations and students with vision problems are granted scholarships to help them achieve their dreams. At the same time the company hosts numerous cultural and sports events and outreach activities. These activities are reflective of the business's characteristic as producers of display products.

Samsung SDI began these activities in Tianjin, China in 2004 and has been expanding them across China ever since. Through this we aim to share both the happiness and pain of the Chinese community, local to our regions of operation, as a corporate citizen. Up to 2006, 810 Chinese patients with visual impairment benefited from ophthalmic treatment.

The Association of the disabled of Tianjin, the Disabled Welfare Fund, and the Hwamyung Group have presented SDI with the Hwamyung Award for two consecutive years.

## ONE HEART IN ONE COMMUNITY

The Chinese government now focuses its economic policy on achieving a balanced development. Agriculture, rural areas, and farmers are a huge concern in China. In the 11th five-year development plan, the building new rural communities and a harmonized society have been given paramount importance.

Working abreast with the new trend, Samsung SDI introduced the 'One heart in one community campaign' in China. The campaign aims to form a sisterly relation between a plant and a rural village, providing solutions to problems in the community and contributing to its development. The campaign is an adaptation of the 'One site one community campaign' in action in Korea. These activities represent Samsung SDI's aspiration to grow together with the community it operates within.

Each Samsung SDI site in China is now supporting the campaign, following the One heart in one community spirit. In principle, Samsung SDI will select a campaign program suited to the needs of the village and carry out the



campaign in groups of tens of people, which is to be carried out on a quarterly basis in the least. Simple donations not involving direct participation of employees are not permitted. Samsung SDI draws up



**110,499**  
Eye operation beneficiaries in Korea

**8.75%**  
Proportion of turnover utilized as social reinvestment

**946,292,000 won**  
Matching grant donation in 2006

**5**  
Plants in China

**810**  
Eye operation beneficiaries in China

# HARMONY ON THE ROAD

Our destination extends to a world of endless happiness. Samsung SDI will listen to the dialogues of hope which will blossom on the road. Samsung SDI will be your faithful companion on the road, on your happy journey toward a brighter tomorrow.



annual outreach plans through preliminary research and in consultation with local representatives, and adjusts monthly programs before carrying them out, always open to more suggestions on how we can improve the environment even further.

Last year, the company supplied educational resources to elementary schools and household goods to underprivileged families. We also engaged ourselves in agricultural product purchase, road repair, and community cleaning activities.

There are countless rural communities in China and no matter how hard we try we will never be able to help them all. But we do what we can, hoping that our small efforts will be mirrored all over China to bring fourth a better nation.

The Ministry of Commerce in China, in charge of Chinese economic policy, publishes annual reports detailing Chinese economic advancements and problem analysis. Samsung SDI was featured in the 2006 report as an exemplary management company, making it the first Korean company to be covered in this governmental report.

# STEWARDS OF A CLEAN AND BEAUTIFUL WORLD

Establishment of an ethical management infrastructure and the increasing of its awareness  
Corporate competitiveness enhancement through trust bonds among stakeholders

A society is an organic system. To reach a common objective of a sustainable development, all stakeholders must cooperate. A company, as one of the members of the community, does its best to fulfill this responsibility.

Samsung's philosophy is that "We will devote our human resources and technology to create superior products and services, thereby contributing to a better global society." To serve this philosophy ethically, Samsung has business principles that acts as a rule of thumb for all business activities. With this, Samsung SDI is doing its best to help achieve a sustained development as well as a clean and beautiful world.

## STEP BY STEP

Samsung SDI undertakes three steps to promote an ethical management. First, we build the infrastructure and raise awareness of this. Second, we establish a regime to put it into practice in various angles. Third, we work to build trust in and out of the company. In 2006, we took the first step to set up the infrastructure and increase knowledge of this.

Firstly, we refined the consultative body within the organization. Chief executives participated in the Enterprise Ethics Management Committee to review and discuss activities for ethical management, and a similar conduct was seen at the Working Committee comprising of Administrative workers.

Awareness trainings have also been actively conducted. It has become compulsory for new employees and those who are promoted to take courses on ethical management. Cyber training courses offering similar education have also become available for all employees. In 2006, 80 executives and 8,276 non executive members received official group training on ethical management in Korea. Departmental education, reading circle sessions on ethical codes of conduct, and OJT are the tools which enable all employees to learn about the company policies and procedures on ethical management and anti-corruption. Samsung SDI has also modified the ethical management web-page so that it carries more detail, and worked hard to come up with ways of allowing employees and outside stakeholders easier access to these materials.

In 2007, the company plans to advance to the second step, working hard to integrate ethical management into practice of business conduct. By introducing the Voluntary Fair Trade Compliance Program, the company hopes to promote goodwill competition and contribute to the spread of fair trade.

We aim to share these efforts with our suppliers, working towards joint development through sharing the know-how and the common belief of the importance of an ethical management.

Cyber course for ethical management



Ethical management webpage



# A FUN PLACE TO WORK

Working to make Samsung SDI a fun place to work following our People-first principle

Controlling working hours and proactively supporting employee welfare to allow them a healthy life-work balance and a happy family life

## THE PEOPLE MAKE THE COMPANY

In an era of intelligence, talents can make or break a company. State-of-the-art technologies that can affect the world economy and top-tier products that please consumers are all of a human origin. Prioritizing of such talents is a key business philosophy as well as the faith governing Samsung. A company finds itself from those dedicated to making it a success.

Results of a business will be different depending on the state of mind of the people working with it. Professor Wayne Brockbank of the Business Administration department, Michigan University announced his related research results. According to him, the atmosphere of a workplace contributes 34% towards a firm's performance. That's why companies think and work hard to make their workplace a fun and happy one for its employees.

## ROARING WITH LAUGHTER

One beautiful day in May, the Cheonan plant, the Busan plant, and the Kiheung R&D center explode in a series of laughter. Competitions were held with employees and the management team present together. Putting behind them the daily chores and cares, they enjoyed the day, happy and merry. This was the day when Samsung SDI held its Guinness Championship competition.

Cases of employees holding a 'record' in a variety of fields were collected and contenders of the competition selected. The event was a fun filled one intended to build a company full of fun and excitement.

excellent business performance and contribution to the company, whereas the Surprising Record (SR), in which individuals and divisions showcase their unique talents, hobbies and all things unusual, to allow a live audience to decide who indeed owns the most surprising talent. In spring and fall however, the Funny Record (FR) was held, in which many races and games took place.

Through these events, 85 Guinness champion prizes were awarded for their extraordinary records such as 'the one holding the most number of patents (103 patents)', 'the person who traveled the longest distance for a business trip (700,000 miles)', 'the person who suggested the most number of improvement ideas (2,205 suggestions)', and 'the person with the most number of pass books (12 books)'. The FR Guinness Championship, in particular, received flattering reviews stating it had revitalized the daily lives of the employees.

"When I am busy, I can send an SMS without looking down at the screen!"

**Choi Eun young**  
AM Division, Management Support Team

For her, it took only 26 seconds to send an SMS comprised of 35 letters. In the FR competition of the first-half of 2006, Choi Eun Young of the AM Division won the title of 'fastest text messenger'. "I used the gift certificate that I received as a prize to watch a movie with my friends. I also took part in the couple skipping game, but because of the heels I was wearing missed first place. Next year I hope to win in both quick texting and the couple rope-skipping."



**34%**  
The impact of working environment on business performance

**7.8%**  
Turnover rate of Samsung SDI in Korea

**85 people**  
Samsung SDI Guinness Champions of 2006

"When I raised my first child, I handled it as I would a fragile porcelain ornament in case I hurt him."

**Kim Kwang Soo**  
PDP Production Engineering Group

Kim Kwang Soo, SDI's employee with the most number of children, is the father of 4 children and works at the Production Engineering Centre.

It would be easy to assume that a man with such a hectic work schedule can find the time to draw close to his children, but he speaks about each one of them with remarkable ease and love.

Also, and understandably, he is rather concerned about the childcare and education of his children.

"I wish that a social system for families with many children takes root quickly. There should also be more childcare facilities that parents can trust their child with."

## WORK-LIFE BALANCE

As income level rose and the five-working-day system was grounded, the desire to improve the quality of life increased widely. Younger generations cherish a work-life balance and their attitude shows that sacrificing their life outside the workplace to pursue a successful career and promotion is not as important as it had been in the older generations. As more and more female workforces are incorporated into an economically active workforce, childbirth, child-rearing, and bands among family members have also emerged as issues that needs to be addressed.

### | Putting on the brakes |

The Overtime Prevention System is an automated system which records the working hours of employees and sends out an alert e-mail to their bosses and HR staff when it is detected that an employee is likely to reach the overwork threshold. This is how Samsung SDI controls hours worked by line operators. In addition, Samsung SDI employees work as a member in one of the 4 groups rotating shifts on 3 occasions per 24 hours. Therefore even when plants are operated around the clock for consecutive days, employees can find enough time to rest.

Employees to whom this shift system isn't applicable due to the product and process specifics they are engaged in either work during daytime only or work under the three-group-three-shift system that guarantees weekly day-offs to ensure they get enough time off.

Back-up workers in the office are no different. Every Wednesday is designated as a family day. When the closing time is aired, these employees pack up and make a dash out of the office. This is to encourage employees to put a brake on their busy work life and enable them to spend at least one evening from the working days with their families.

### | For mothers of samsung SDI |

In 2006 Samsung SDI distributed booklets explaining gender etiquettes and maternity support information in the workplace to its employees. In the maternity protection section, the booklet told of an employees' rights related to pregnancy, childbirth, and child-rearing and their entitlement to a maternity leave.

Female employees who return to work after a maternity leave may feel a discomfort she had not felt before. She will miss the baby at home and will need a place to use a breast pump as well as plenty of rest as a new mother who still needs time to recover fully.

Samsung SDI established a female only lounge on the 22nd floor of the Seoul Office. Within this area a separate area was created for the convenience of lactating mothers who may use a breast pump.

If a lounge is a refuge for a tired body, it is the Open Door Center that comforts a tired soul. Open Door Center aims to support





employees with psychological problems. Employees can visit the Open Door center to share with the professional therapist their personal problems both within and outside the workplace. The Center is open to all members of Samsung SDI.

#### | For a better life |

Samsung SDI is passionate in the prospect of providing solutions to the common worries our employees face, including health, children's education, housing as well as life after retirement and tries to address them proactively. The company believes that active care of employees' concerns is a way of providing a better working environment to its employees and hence improve employee satisfaction with the company. On top of legal welfare requirements, Samsung SDI supports employees in Korea with mortgage, medical expenses, individual pension schemes, fitness centers and resort facilities.

Business sites also have their own programs to improve the health of its employees. An integrated company surgery provides emergency medical care and intensive care particularly focusing on four major illnesses; hypertension, diabetes, liver disease and hyperlipidemia.

The Wellness Centre is a sports centre available to employees for the maintenance of general fitness and as a sports centre. At the Busan plant, where employees are older compared to other plants, a physical therapy center exists maintained by a professional physiotherapist. The center helps to prevent health complications of employees from developing.

The meaning of a healthy balance between work and life doesn't translate simply to the adjustment of working hours. It expands further into finding the meaning of life in the workplace.

Samsung SDI is continually improving itself to become a happy and healthy working place.

Samsung SDI operates a retirement pay scheme based on the Labour Standards Act to support the livelihood of employees after retirement. The scheme pays out a lump sum retirement grant at time of retirement proportional to years they have dedicated to Samsung SDI. Employees who are under employment can ask for an interim payment, if necessary. In 2006, Samsung SDI reviewed the retirement pension scheme and compared it to the current scheme to analyze the pros and cons of the two schemes. It was decided that the introduction of the scheme will be held back for the moment, but Samsung SDI plans to decide what scheme it would run regarding retirement grants in the future following employee consultations.

"I felt good and relaxed in a comfortable seat, listening to music, not having to worry about anyone walking in."

**Koo Kyung Reum**  
Finance & Accounting Team

Koo kyung Reum of Finance returned to work after maternity leave with a grave concern. She could not find a private place to use her breast pump.

"I worried alone. One day I expressed this concern to a company counselor. I am not sure if my concern was passed up or not, but the company reserved a resting place for female employees and set aside a secured breast pumping space.

It may not be easy for the company to prepare such space as there may not be many users. But the company did it and I felt I was cared for.

I was very happy just to see such a space being created."

# WITH THE SUPPLIER, TO THE SUPPLIER

With S-Partner in place, evaluation of all Korean suppliers has been completed and has been expanded to cover local suppliers for overseas sites as well. Evaluation items in the S-Partner system includes ethical and social aspects.

Samsung SDI acknowledges suppliers as valuable partners in business management and deliver activities such as cost innovation, manufacture innovation and quality innovation activities through joint effort with our suppliers. We also support our suppliers in training 6 sigma experts and employees of the various management skills. Samsung SDI is working to achieve a win-win situation for both suppliers and ourselves.

## WITH THE SUPPLIER TO THE SUPPLIER

The WSTS (With the Supplier To the Supplier) is an annual competition held for the benefit of CEOs, executives and fellow employees to aid the sharing of information on current management trends and reflecting of the degree of success of the past year's management innovation techniques. As a result WSTS has enabled Samsung SDI to obtain winning strategies and ideas .

## SUSTAINABLE PARTNER

S-Partner stands for a sustainable partner. With the S-Partner system in place, Samsung SDI has been able to evaluate the environmental aspect as well as quality, price and delivery of its products. In 2006 evaluation items were revised to analyze the global trend, reflect on business principles and its social performance.

S-Partner certification lasts for two years. Companies whose certifications expire are subject to re-certification. When a new contract is tailored or Samsung SDI wishes to review the business status of a potential partner, Samsung SDI applies the criteria applicable for its S-Partners.

Once qualification reviews for S-Partner are completed, the results are entered into the Green Procurement System and transmitted to the related supplier.



WSTS 2006

# NETWORK FOR GLOBAL ENVIRONMENTAL REGULATIONS COMPLIANCE

Enhancement of the communicative function of SMIS, the sustainability management integration system.

System improvement and process standardization in all stages of product construction to achieve effective eco-designing

## MULTI-DIMENSIONAL COMMUNICATION

The Sustainability Management Initiative System ('SMIS') was designed to respond proactively to global environmental regulations, but has been suffering a lack of communication between its users. In response to this, and to continue management of a constantly evolving and developing system, we constructed a two-way communication interactive message board within SMIS.

The System comprises of six modules, four of them being product related. They are Environmental Management System (EMS), Green Procurement/Eco Design (GP/ED), Life Cycle Assessment (LCA) and Environmental Accounting (EA). The other two are related to business management support and are the SM project management and SM metrics management.

The new function enables users to receive notifications of each module promptly as soon as they are dispatched. It is linked to the Green Procurement system within MegaSTEP, a procurement portal. The linkage not only enables internal users to register VOCs, but external users such as suppliers can also add queries regarding environment friendly supply chain management to which Samsung SDI will try their hardest to respond to as soon as possible.

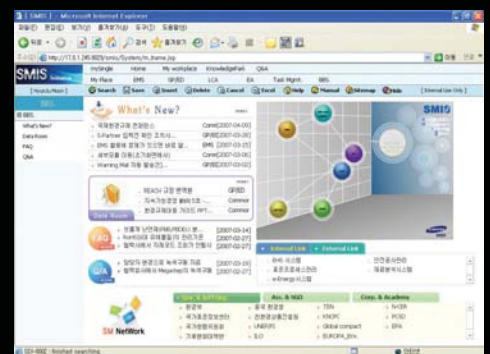
SMIS has the portal function embedded, providing easy access to other business systems and online sites related to sustainability management.

Samsung SDI plans to provide general information regarding trends of the latest global environment regulations on sustainability management.



## COMPANY-WIDE DESIGN PROCESS FOR ENVIRONMENT FRIENDLY PRODUCTS

EuP directives of Europe require all energy using products to undergo the most environment friendly designing. In an effort to design eco-friendly products efficiently, Samsung SDI has improved the ED module. Company policies specify that eco-friendly products must follow standardized design processes, and the processes are linked to Product Life-cycle Management ('PLM') for efficient processing. In addition, R&D centres are to aid the evaluation of the pro-environmental elements.



SMIS main screen

# ECO-VALUE 2010

Samsung SDI announced the Eco-value 2010 as a means of measuring degree of implementation of environmental strategy and has been working to achieve this. We found there to be numerous activities in which SDI succeeded in meeting its goals but just as many activities that we hadn't been successful at during 2006. Eco-friendly manufacturing was relatively poor in performance as sales from it were affected by fluctuations in economic indicators such as business restructuring and fall in product prices. Despite various changes in business environment and numerous unexpected problems, Samsung SDI remains committed to its original m. Our determination to create environmental values will continue into 2007 as well.

ECO-FRIENDLY PRODUCT						
Plan	Description	Goal(2006)	Acheivement(2006)	Level	Goal(2007)	Goal(2010)
Products free of toxic chemicals	Removal of Six RoHS materials, PVC and halogenated flame retardants	Six RoHS materials	Removal of the six RoHS materials Development of products free of PVC and halogenated flame retardants (LCD, batteries)	↗	Lead-free PDP RoHS plus product release	Voluntary and continuous removal of hazardous materials from products
Eco-design	Continuous removal of environmental damage due to our products through eco-design	Products free of toxic chemicals	Products free of toxic chemicals	→	Products free of toxic chemicals	Products free of toxic chemicals

ECO-FRIENDLY MANUFACTURE								
Plan	Description	Baseline	Goal(2006)	Achievement (2006)	Level	Goal(2007)	Goal(2010)	Remarks
Reduction of greenhouse gas emission	Reduction of greenhouse gas emission (per sales)	2002 year	5%	2.0%	→	5%	15%	To change the threshold of carbon emission coefficient
Reduction of water usage	Reduction of water usage (per sales)	2001 year	15%	23%	↗	26%	30%	
Reduction of waste	Reduction of waste generation (per sales)	2001 year	15%	4%	→	15%	30%	An increase seen in construction waste
Enhancement of recycling rate	Improvement of waste recycling rate	-	85%	86.1%	↗	87%	90%	Furthering of recycling in the Cheonan plant
Landfill rate	Landfill rate of wastes	-	10%	7.5%	↗	7%	1%	PDP glass recycling
Reduction of toxic material usage	Reduction of toxic material usage (per sales)	2005 year	5%	△ 273%	↘	△ 250%	30%	Impact of business restructuring

ECO-FRIENDLY COMMUNICATION								
Plan	Description	Goal(2006)	Achievement (2006)	Level	Goal(2007)	Goal (2010)	Remarks	
Enhancing the suppliers' environment management capability	Providing assistance and guidance to improve environment management capability	100% certification as S-Partner	100% (200/201)	↗	Revision of guidelines Re-certification of certification-expired suppliers	Operation of certification and support system in environment and society	Termination of relationship with one uncertified company	

\* Indicators related with Eco-friendly manufacture are limited to domestic performance. The coverage will expand to overseas sites going forward.



# ECONOMIC PERFORMANCE

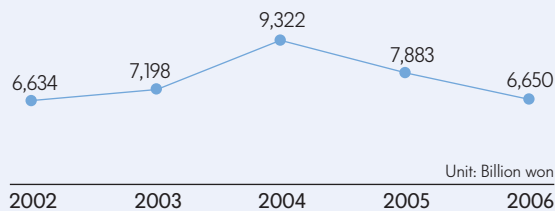
In the sustainability context, economic growth can be defined as maximizing a subject's current values without undermining its future opportunities and utility. In the same context, sustainable development is the growing of all available economic values that all stakeholders can share unbigoted. Samsung SDI is committed to increasing the economic values of enterprises and stakeholders through business restructuring, new technology development and enhancement of market-dominating powers, and share increased economic values with win-win partnership linked to social sustainability strategy.

All our activities such as continuous investment in future businesses, production facilities, technology development, consideration on climate changes and environmental impact, and activities to achieve win-win with each stakeholder group, are to be conducted in this context. Beyond the short-term financial performance shown by the financial statements, Samsung SDI is committed to improving the long-term economic value of the globe. Samsung SDI is thinking it through even when you are reading this report. True sustainability can be achieved when economic, environmental, and social activities combine to generate opportunities. That is the prevailing task for Samsung SDI to solve strategically.

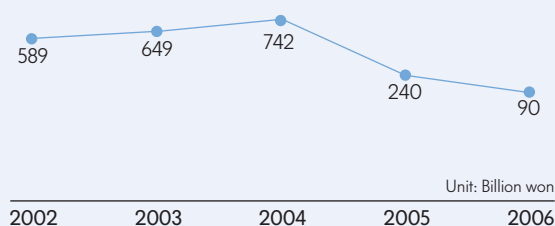
## ECONOMIC PERFORMANCE

The large flat panel TV market is undergoing a fierce competition in terms of the product lifecycle. As a result of competitive investments, the company's rank in production volume and market dominance is never static and market prices of products precipitate. Our current financial performance would pose short-term difficulty to us as any company would face in the process of increasing market share and business transformation. You can find more details on our economic strategy on p8.

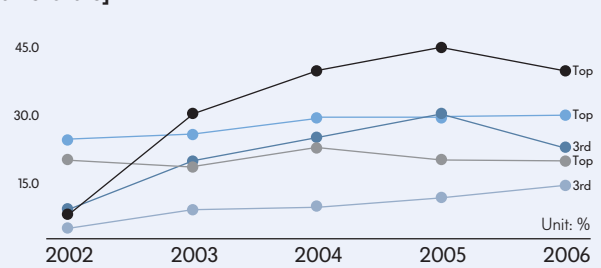
### [Sales]



### [Current net income]



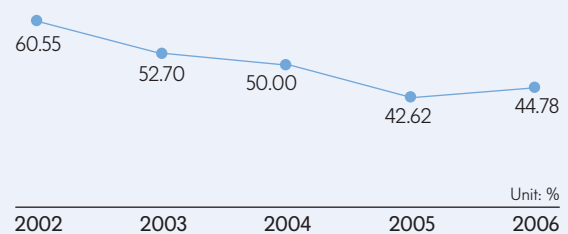
### [Market share]



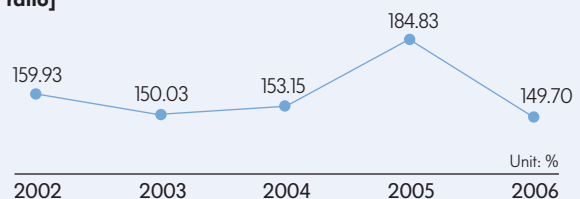
## FINANCIAL STABILITY

The lower debt to equity ratio is and the higher current ratio is, the more stable a company is. Samsung SDI has solid foundation with healthy financial structure.

### [Debt to equity ratio]



### [Current ratio]



## ECONOMIC VALUE CREATION AND DISTRIBUTION

Unit: Billion won

### Direct economic value generated

a) Revenues 6,907

### Economic value distributed

b) Operating costs 6,054

c) Employee wages and benefits 688

d) Payments to providers of capital 33

e) Payments to government 19

f) Community investments 9

### Economic value retained

a - (b + c + d + e + f) 103

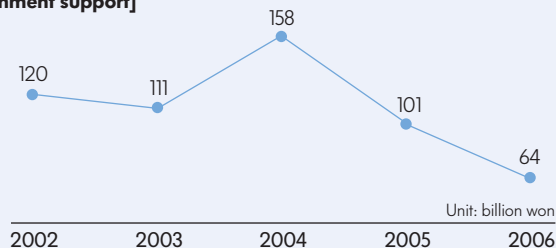
## GOVERNMENT SUPPORT

Samsung SDI is steadily increasing investments into its manufacturing facilities and R&D activities, made possible through tax exemptions from the government. We have also carried out government projects with their support. These are our efforts aimed to maintain harmonious relations with the government, large companies and suppliers.

In return for our investments into industrial clusters in developing countries, Samsung SDI has been enjoying tariff exemption from the respective governments. The company also receives tax benefits through royalties received in return for technology transfers.

The government does not hold equity to Samsung SDI.

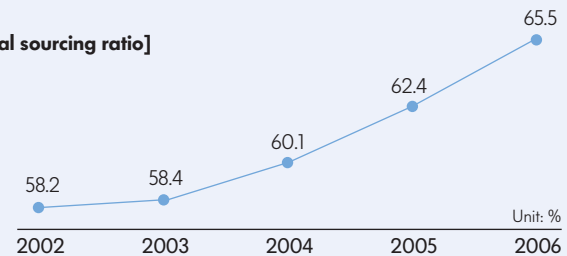
### [Government support]



## LOCAL SOURCING

Samsung SDI is increasing its local sourcing ratio. Local sourcing cuts down production costs and raw material costs as well as shortening delivery times for part supply. Samsung SDI contributes to the development of local economy through development of suppliers, creation of indirect employment and growth of development related businesses.

### [Local sourcing ratio]



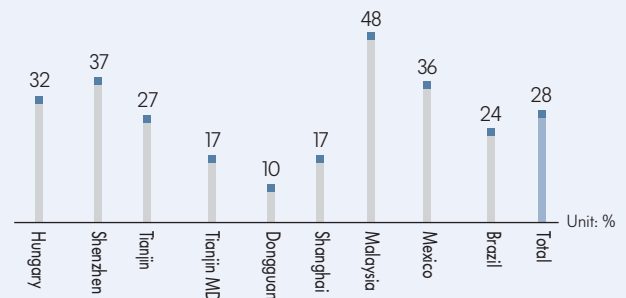
## LOCALIZATION

Currently Samsung SDI holds nine overseas production sites lead by 19 executives. Four of the 19 executives are local. Localization is crucial to enable development of the company together with the communities and continue businesses in the long term. Localization is not something that can be achieved overnight. It can only be achieved through a long term planning and adjustments.

Samsung SDI plans to first increase the number of on-site department head figures from within the operating communities as a key task in achieving localization in overseas plants. In line with the plan, the company set up the mid-term target to raise the number of local managers, lowering the number of Korean dispatches.

Samsung SDI plans to cherish and develop local human resources even further.

### [Proportion of local departmental managers]



## INDIRECT ECONOMIC IMPACTS

The CRT production lines at the Suwon plant lost its competitiveness due to fall in product price, unfavorable currency exchange rates, over-supply and a decrease in general demand. In response, Samsung SDI undertook business restructuring initiatives and concentrated Korean CRT lines to the Busan plant in 2006.

During the process, Samsung SDI promised the labor council that it will retain 100% of its employees. Following this Samsung SDI began the voluntary retirement system, which supplied volunteers additional financial benefits on top of their retirement grants. Most of the employees who used to work in the restructured plant were assigned to other plants hence maintaining their jobs. Samsung SDI ensured the financial future of voluntary retirees through providing provision on matters such as guidelines in business start-ups, obtaining licenses and finding new jobs. In this way, Samsung SDI was able to close uncompetitive production lines at the Suwon plant and assign human resources to new and developing businesses that needed more resources for expansion.

For the same reason, one CRT line in Samsung SDI Malaysia also closed down in 2006. Some of the operators of the line were recruited by other production lines. Those who took voluntary retirement received early retirement benefits as by those at the Suwon plant.

While the company was going through all this, it found out that Korean employees preferred retaining of their jobs as opposed to early retirement benefits, whereas the Malaysian employees preferred early retirement benefits. In total 217 individuals of the total workforce applied for early retirement.

Even so, Samsung SDI never stopped investing into the PDP business development. Planned works for 2007 include the construction of a P4 Line at the Busan plant and the PDP module lines at the Hungary plant.

P4 Line under construction at the Busan plant will serve to produce premium PDPs. Till now Samsung SDI has been producing PDPs at the Cheonan plant. One of the reasons why the Busan plant was selected to operate the P4 Line is because Samsung SDI had been aware of the impact of CRT line restructuring into the Busan plant on the local economy.

As of late 2006, 273,087 people became involved in its construction.

Approximately 380,000 people would become involved in the construction in some form until its completion. Out of the suppliers located in Ulsan and Yangsan, three companies would have form major business deals related to P4 Line. Their sales would add up to 1,620 million won. 608 people are currently working in the three companies. Without a doubt, Samsung SDI's investment into the P4 Line will contribute massively to their development.

Main export items of the Ulsan area are heavy chemicals, automobiles, and shipbuilding industries, taking up 15.9% of total Korean domestic exports based on data from 2005. The city of Ulsan and Ulsan Chamber of Commerce announced its export target to be at 100 billion won by 2010. Samsung SDI believes that its PDP business will contribute largely in meeting the target for the IT field, a newly designated business field. The city of Ulsan is now working hard to attract cutting-edge businesses in fields such as IT and raw materials through establishment of a local industrial cluster (Ulsan High-Tech Valley) in the Ulsan area.

The local community welcomed the arrival of a PDP plant construction in Ulsan, hanging welcome banners throughout the area. Local businesses in traditional markets and supplies providers are more active than ever. It is also expected that the establishment will help fill up empty homes and apartments that had not yet been sold even after completion. This will help liven up the depressed real-estate market in the new city in Yangsan.

The European FPD market is growing at an incredible rate. Hungary, along with Poland, has emerged to be a major production supporting Samsung SDI's entry into the European home appliance market. Samsung SDI plans to meet the demands of the European market by installing PDP module lines in Samsung SDI Hungary.

With the current PDP module line investment, 315 people were to be hired from this funding. By late 2006, 213 employees were already hired and receiving training. Göd of Hungary, where Samsung SDI Hungary is situated, hosts many suppliers and forms an industrial complex of its own. This situation will help to encourage local economic development through increased employment, increased local tax income and through provision of support for high-tech electronic businesses.

Reorganization activities and new investments as stated above are undertaken in line with a long-term strategy for business restructuring.



# CONSOLIDATED FINANCIAL STATEMENTS

## CONSOLIDATED BALANCE SHEET

End of the 37th fiscal year: 31, December 2006  
End of the 36th fiscal year: 31, December 2005

Samsung SDI CO., Ltd and subsidiaries

(Unit : million won)

		37th (Current)	36th (Previous)
		Amount	Amount
<b>[Assets]</b>	<b>I . Current Assets</b>	2,385,708	2,778,503
	(1) Quick Assets	1,807,102	2,176,558
	(2) Inventories	578,605	601,946
	<b>II . Non-current Assets</b>	4,502,918	3,922,110
	(1) Investment and Other assets	1,146,991	1,081,892
	(2) Tangible Assets	3,269,576	2,759,498
	(3) Intangible Assets	86,351	80,720
<b>[Liabilities]</b>	<b>Total Assets</b>	<b>6,888,625</b>	<b>6,700,613</b>
	I . Current Liabilities	1,593,706	1,503,241
	II . Long-term Liabilities	537,083	499,087
<b>[Shareholders' Equity]</b>	<b>Total Liabilities</b>	<b>2,130,789</b>	<b>2,002,328</b>
	I . Capital Stock	240,681	240,681
	II . Capital Surplus	1,289,528	1,291,600
	III . Retained Earnings	3,277,815	3,252,794
	IV . Capital Adjustment	(161,412)	(213,199)
	V . Minority Interests in Consolidated Subsidiaries	111,224	126,407
	<b>Total Shareholders' Equity</b>	<b>4,757,836</b>	<b>4,698,285</b>
	<b>Total Liabilities and Shareholders' Equity</b>	<b>6,888,625</b>	<b>6,700,613</b>

This consolidated financial statement is a summary of validated data that went through review and audit by Samil-PriceWaterhouseCoopers.

For details, go to the electronic disclosure system in Financial Supervisory Service or contact Samsung SDI through the VOC system link on the Samsung SDI webpage.

※ The FSS electronic disclosure system : <http://dart.fss.or.kr>

# CONSOLIDATED FINANCIAL STATEMENTS

## CONSOLIDATED INCOME STATEMENT

■ End of the 37th fiscal year: 31, December 2006  
 ■ End of the 36th fiscal year: 31, December 2005

Samsung SDI CO., Ltd and subsidiaries

(Unit : million won)

	37th (Current)	36th (Previous)
	Amount	Amount
I . Sales	6,650,053	7,882,777
II . Cost of Sales	5,691,847	6,763,837
III . Gross Profits	958,206	1,118,940
IV . Selling, General and Administrative Expenses	827,683	810,682
V . Operating Profits	130,522	308,258
VI . Non-operating Income	256,849	233,255
VII . Non-operating Expenses	287,047	269,498
VIII . Ordinary Profits	100,325	272,014
IX . Extraordinary Income	-	-
X . Extraordinary Loss	-	-
XI . Net Income Before Income Taxes	100,325	272,014
XII . Income Tax Expenses	(3,110)	6,560
XIII . Net Income After Income Taxes	103,435	265,454
XIV . Minority Interests in Earnings of Consolidated Subsidiaries	12,734	25,381
XV . Net Income	90,701	240,074

This consolidated financial statement is a summary of validated data that went through review and audit by Samil-PriceWaterhouseCoopers.  
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 ※ The FSS electronic disclosure system : <http://dart.fss.or.kr>

# CONSOLIDATED FINANCIAL STATEMENTS

## CONSOLIDATED CASH-FLOW STATEMENT

■ End of the 37th fiscal year: 31, December 2006  
 ■ End of the 36th fiscal year: 31, December 2005

Samsung SDI CO., Ltd and subsidiaries

(Unit : million won)

	37th (Current)	36th (Previous)
	Amount	Amount
<b>I . Cash Flow from Operating Activities</b>	974,920	777,943
1. Net Income	90,701	240,074
2. Addition of Expenses Not Involving Cash Outflows	819,854	839,005
3. Deduction of Revenues Not Involving Cash Inflows	(46,840)	(44,151)
4. Changes in Assets and Liabilities Resulting from Operations	111,204	(256,984)
<b>II . Cash Flow from Investing Activities</b>	(1,134,464)	(377,080)
1. Cash inflows from Investing Activities	247,997	107,056
2. Cash Outflows from Investing Activities	(1,382,461)	(484,136)
<b>III . Cash Low from Financing Activities</b>	307,830	(389,748)
1. Cash inflows from Financing Activities	843,973	678,349
2. Cash outflows from Financing Activities	(536,143)	(1,068,097)
<b>IV . Net Increase (Decrease) from Foreign Currency Translation</b>	2,037	(24,144)
<b>V . Increase (Decrease) with Change of Subsidiaries Consolidated</b>	-	-
<b>VI . Net Increase (Decrease) in Cash and Cash Equivalents</b> ( I + II + III + IV + V )	150,323	(13,029)
<b>VII . Cash and Cash Equivalents at the Beginning of the year</b>	737,496	750,525
<b>VIII . Cash and Cash Equivalents at the End of the year</b>	887,819	737,496

This consolidated financial statement is a summary of validated data that went through review and audit by Samil-PriceWaterhouseCoopers.

For details, go to the electronic disclosure system in Financial Supervisory Service or contact Samsung SDI through the VOC system link on the Samsung SDI webpage.

※ The FSS electronic disclosure system : <http://dart.fss.or.kr>

# ENVIRONMENTAL PERFORMANCE

Samsung SDI uses ISO 14001 as a metric blueprint for environmental management, the international environmental management system standard. Since the introduction of BS 7750 in 1995 all business sites at home and abroad have eventually established a certified environmental management system. The Corporate R&D Centre in Giheung, Korea, was certified ISO 14001 in 2006, a first for an R&D facility in Korea. Over 130 people are serving as internal environment auditors at all overseas sites. To address the environmental impacts of left by products, Samsung SDI has put in place LCA and eco-design processes.

In accordance with the Samsung Green Management philosophy, Samsung SDI is practicing its environment management and implementing five strategies of integrated environment management system, supply chain environmental management, cleaner production technologies, eco-friendly design and mutual communication. Along with these activities, Samsung SDI is running SMIS, the enterprise-wide global environment information system, for plant environmental data management and environmental management implementation management, and e-Energy System for energy management and control.

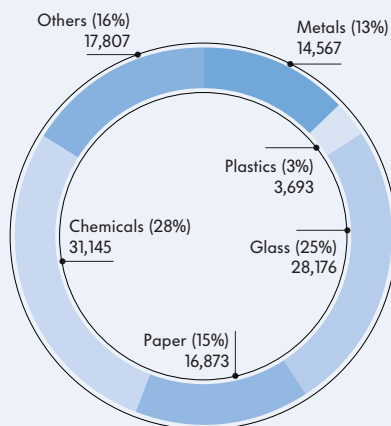
## MATERIAL

The world is evolving into a resource circulating society. Samsung SDI used approximately 16,000 types of materials in 2006. About 1,900 types of this were for PDP. Those materials are classified as is shown in the table on the left.

In 2006 alone, for PDP manufacturing activities, Samsung SDI spent 15,000 ton (13%) of metals, 28,000 ton (25%) of glass, 17,000 ton (15%) of paper, 31,000 ton (28%) of chemicals, 4,000 ton (3%) of plastic and 18,000 ton (16%) of others.

Customers define the material types and characteristics used in production and the recycling of products, therefore Samsung SDI cannot directly control the recycled material content or the amount of product recycled. But the company is recycling PDP glass, all of which used to be sent to landfills, and the packaging of raw materials and products. These are the efforts made by SDI in transforming the world into a resource circulating society. Samsung SDI also analyzes and manages property information of raw materials and use the results to design products appropriate to resource-circulation.

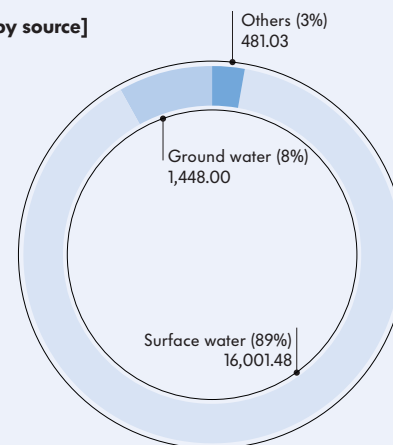
[Material use]



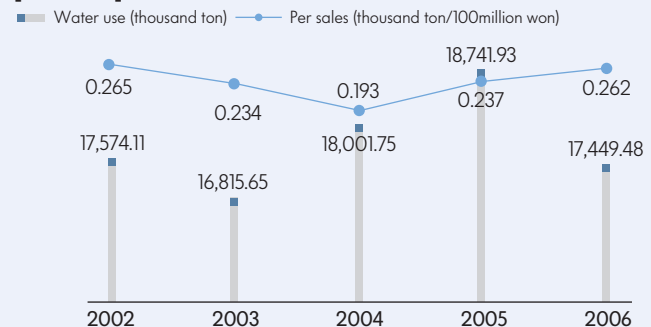
## WATER

Samsung SDI consumed 17,449,000 tons of water in 2006. If recycled water is added, the figure goes up to 17,931,000 ton, and to 24,069,000 tons when recycled water that had been discharged from the production process is also combined. The total water use decreased by 1,292 tons or 6.9% compared to the previous year, but actually increased sales figures by 10%. This is because engineering technology was hard to develop, whilst product prices fell sharply. Samsung SDI has been conjuring various efforts to overcome this difficulty. Cases of water usage reduction will be updated on our webpage at <http://www.samsungsdi.com>

[Water use by source]



[Water use]



## BIODIVERSITY

All production plants of Samsung SDI are located within the boundaries for industrial areas as defined by the hosting nation and the municipal governments. Land on which plants stand are not neighbouring with areas of high biodiversity or sanctuaries of valuable species. Each hosting country or local government has never needed to request Samsung SDI for any measures related to biodiversity and environment. Apart from this, Samsung SDI's each plant is carries out various environment conservation activities independently.

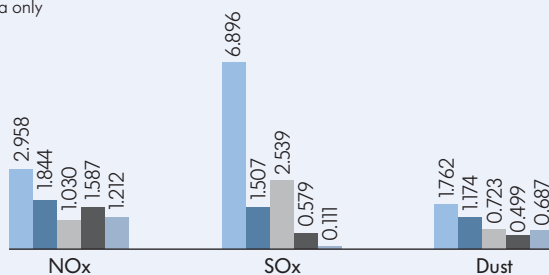
## AIR POLLUTANT EMISSIONS

Samsung SDI is maintaining air pollutant concentration levels under legal limits of hosting countries, making continuous efforts to curb the emission. As an example of its commitment, Samsung SDI replaced the boiler fuels in the Tianjin and Shenzhen plants with LNG in 2006. Following installation of LNG supply networks, Samsung SDI hopes to extend the usage of cleaner fuel even further.

- ※ Air pollutant emission data are different from records on the previous report, because the incorrect graphs were printed in designing the previous report.
- ※ The reason that Ozone-depleting material data are different from the records of the previous report is because some data from the Dongguan and Brazil plants were excluded during the 2005 data collection process.

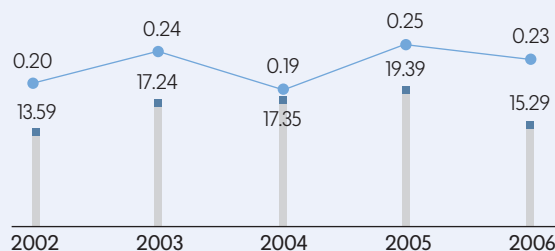
### [Air pollution]

■ 2002 ■ 2003 ■ 2004 ■ 2005 ■ 2006  
Unit: kg/100million won, year  
※ Korea only



### [Ozone-depleting material emission]

■ Use (ton CFC11eq/year) — Per sales (ton CFC11eq/100 million won, year)



Samsung SDI is in compliance with legal requirements of hosting countries for the emission levels of volatile organic compounds. Currently aggregation of company-wide emission of VOC is underway. Samsung SDI reports that the company does not use persistent organic pollutants (POP) in production or sales operations.

In 2006, Samsung SDI emitted 15.29 ton CFC 11eq of Ozone-depleting substances - 4.1ton CFC11eq down from the previous year.

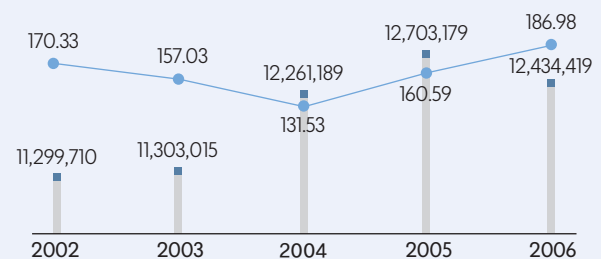
## WATER POLLUTANTS EMISSIONS

In 2006 Samsung SDI discharged 12,434,000 tons of waste water - 269,000 ton or 2% decrease from the previous record. But like was the case for water usage, the value per sale rose to 187. In terms of pollutants, Korean plants generate BOD, COD and SS at 18%, 20% and 15% of legally allowed limits respectively. Records of overseas plants are also under legal limits. Samsung SDI enhanced waste water treatment facilities at the Cheonan plant, the Dongguan plant, and the Tianjin MD plant during the reporting period to observe regal requirements and to curb pollutant emission.

- ※ Waste water generation data are different from the records of the previous report due to contribution of incorrect data from the Brazil plant.

### [waste water generation]

■ Waste water generation (ton/year) — Per sales (ton/100 million won, year)



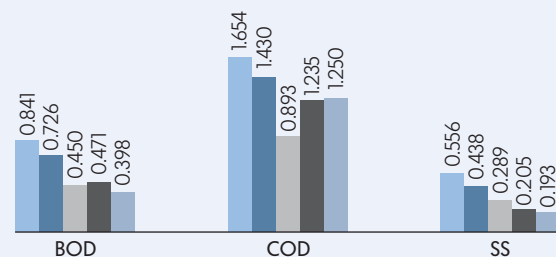
### [Quality of discharge water]

■ 2002 ■ 2003 ■ 2004 ■ 2005 ■ 2006

Unit: kg/100 million won, year

※ Korea only

(Data of the Cheonan plant are based on discharge rate from its industrial complex wastewater treatment facility)



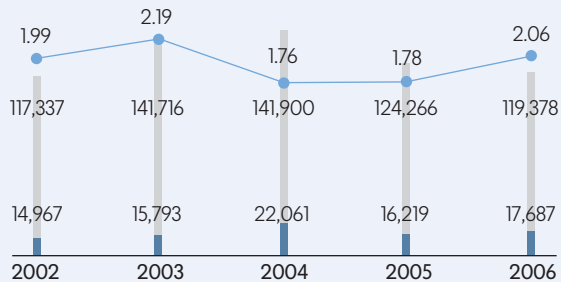
## WASTES

In 2006, Samsung SDI, generated 137,000 ton of waste, out of which designated wastes accounted for 18,000 tons (13%) and general wastes weighed 119,000 ton (87%). Classifying them by their treatment method, 115,000 tons (84%) of generated wastes were recycled. 120,000 tons (9%) went to landfills and 7,000 tons (5%) were incinerated. Waste recycling rate in Korea rose to 86.1% from 82.6% in 2005 thanks to PDP glass recycling.

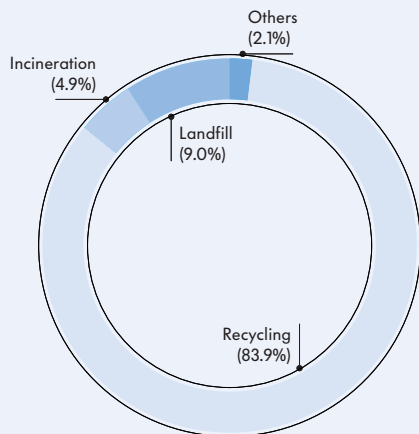
2,680 tons/year of CRT glass among wastes generated by Samsung SDI cross borders for recycling to waste treatment companies. Waste CRT glass originating from Mexico and Hungary were transported to the U.S and Germany respectively and were used for CRT manufacture or as material for other products.

### [Wastes]

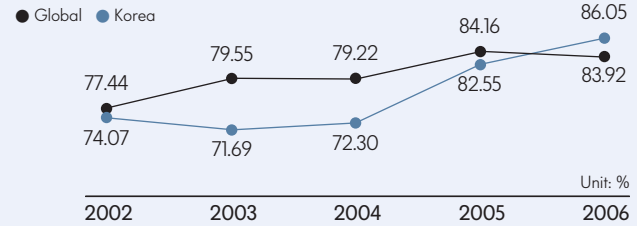
■ Hazardous waste (ton/year) ■ General waste (ton/year)  
● Per sales (ton/100 million won, year)



### [Waste treatment by method]



### [Recycling rate]



## LEAKAGE

In 2006 Samsung SDI did not see leakage involving oil, waste and hazardous materials in any of its production sites.

## REUSE OF PRODUCTS/PACKAGING MATERIALS

Samsung SDI is making active efforts to recycle and reuse raw and sub materials and product packaging. In terms of raw and sub materials, Samsung SDI collects packaging boxes and reuse them after modification. It also collects packaging materials from customers and reuse them. In 2006 the PDP division and the CRT division in Korea recycled 217,000 pieces (6%) and 7,000 pieces (25%) of packaging materials respectively. In the case of batteries and mobile LCD products, Samsung SDI focuses more on increasing the efficiency of packagings, rather than its recycling, because packaging of such products are very small in size.

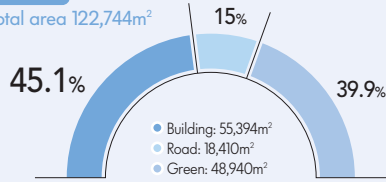
## COMPLIANCE

All sites of Samsung SDI have not been fined or been subjected to non-monetary sanctions as a result of non-compliance of environmental regulations or laws during the reporting period. There were also no complaints or lawsuits filed by stakeholders over environmental issues. Samsung SDI is committed to complying to laws and regulations through stricter management rather than legal requirements.

# ENVIRONMENTAL DATA BY SITE

## Suwon

Total area 122,744m<sup>2</sup>



Contact: dg.sung@samsung.com  
Sung Dae Gye Tel. 82-31-210-7231  
Fax. 82-31-210-7161

### ● Location

Situated within an industrial area, 150m away from residential areas and 4 km away to the north from Suwon Whaseong fortress, a UNESCO heritage. Waste water of the site undergo biological and chemical treatments before being discharged into the Whonchun stream, which is combined with the Hwangui stream, one of the four main streams in Suwon, to flow into the Ahnsung stream and then into the Asan bay of the West sea.

### ● Input and output

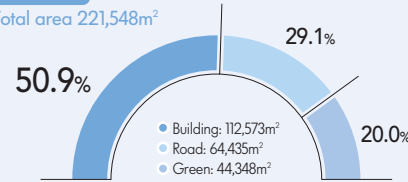
	2004	2005	2006	
<b>Input</b>				
Energy (TJ)	663	494	312	
Water (10 <sup>3</sup> ton)	669	677	333	
Recycled Water (10 <sup>3</sup> ton)	431	311	66	
<b>Output</b>				
CO <sub>2</sub> (10 <sup>3</sup> ton)	66	49	26	
Waste water (10 <sup>3</sup> ton)	607	542	223	
Waste	Recycling (ton)	3,240	4,284	6,921
	Incineration (ton)	435	247	527
	Landfill (ton)	118	110	450

### ● Level of compliance(2006)

Category	Requirement	Average
<b>Air pollutants (ppm, mg/m<sup>3</sup>)</b>		
NOx	200	2
SOx	500	2
Dust	100	5
HF	3	0.5
NH <sub>3</sub>	100	0.2
THC	75	27
<b>Water pollutants (ppm)</b>		
BOD	80	2
COD	90	5
SS	80	2

## Cheonan

Total area 221,548m<sup>2</sup>



Contact: hyun733@samsung.com  
Son Jae Hyun Tel. 82-41-560-3274  
Fax. 82-41-560-3219

### ● Location

Situated within the Cheonan industrial complex 3, 200m away from nearest residential areas. 2km away lie the Upsung reservoir and Notae mountain. The plant runs biological and chemical treatments for company sewage. Water discharge moves to the sewerage treatment facility in Area 3 and flows through the Cheonan stream and the Gokgyo stream to the West sea.

### ● Input and output

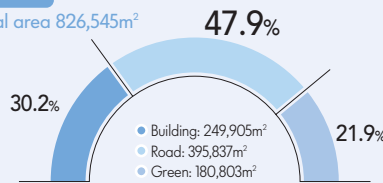
	2004	2005	2006	
<b>Input</b>				
Energy (TJ)	2,089	2,852	3,151	
Water (10 <sup>3</sup> ton)	2,105	3,341	3,740	
Recycled Water (10 <sup>3</sup> ton)	1,191	1,383	1,587	
<b>Output</b>				
CO <sub>2</sub> (10 <sup>3</sup> ton)	236	328	334	
Waste water (10 <sup>3</sup> ton)	1,363	2,893	3,467	
Waste	Recycling (ton)	10,019	13,446	18,758
	Incineration (ton)	1,388	1,185	1,544
	Landfill (ton)	3,812	4,181	3,527

### ● Level of compliance(2006)

Category	Requirement	Average
<b>Air pollutants (ppm, mg/m<sup>3</sup>)</b>		
NOx	200	6
SOx	500	-
Dust	100	5
HF	3	0.2
THC	50	4
HCl	6	1
<b>Water pollutants (ppm)</b>		
BOD	280	53
COD	320	66
SS	300	50

## Busan

Total area 826,545m<sup>2</sup>



Contact: dj1212.song@samsung.com  
Song Dong Ju Tel. 82-55-380-1212  
Fax. 82-55-380-2239

### ● Location

Situated within an industrial complex technically. Residential areas are nearby. Mt. Sinbul, called Korean southern Alps, is in the back. After being treated with biological and chemical methods, the final discharge joins the Sangchun stream, the upstream of the Taehwa river, and moves along the river to the East sea.

### ● Input and output

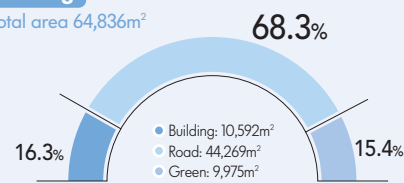
	2004	2005	2006	
<b>Input</b>				
Energy (TJ)	2,690	2,122	1,702	
Water (10 <sup>3</sup> ton)	2,581	2,926	2,518	
Recycled Water (10 <sup>3</sup> ton)	2,301	3,921	2,263	
<b>Output</b>				
CO <sub>2</sub> (10 <sup>3</sup> ton)	408	337	158	
Waste water (10 <sup>3</sup> ton)	2,649	2,124	1,782	
Waste	Recycling (ton)	31,432	29,701	30,064
	Incineration (ton)	1,646	1,683	2,064
	Landfill (ton)	9,738	2,555	869

### ● Level of compliance(2006)

Category	Requirement	Average
<b>Air pollutants (ppm, mg/m<sup>3</sup>)</b>		
NOx	200	0.6
SOx	500	-
Dust	100	3
HF	5	0.3
HCl	6	0.4
NH <sub>3</sub>	100	0.4
<b>Water pollutants (ppm)</b>		
BOD	60	6
COD	70	13
SS	60	1

## Giheung

Total area 64,836m<sup>2</sup>



Contact: soochang.ha@samsung.com  
Ha Su Chang Tel. 82-31-288-4154  
Fax. 82-31-288-4157

### ● Location

Situated within greens of an urban area technically. 1.2km away from this lies the Shingal reservoir and residential areas. Road 23 runs in front of the site. 2km away are the Kihung I.C. and Shingal I.C. After going through biological and chemical treatment, water discharge joins the Gongse stream through Singal reservoir and the Osan stream and reaches West sea.

### ● Input and output

	2004	2005	2006	
<b>Input</b>				
Energy (TJ)	193	196	186	
Water (10 <sup>3</sup> ton)	203	212	227	
Recycled Water (10 <sup>3</sup> ton)	123	129	156	
<b>Output</b>				
CO <sub>2</sub> (10 <sup>3</sup> ton)	22	22	19	
Waste water (10 <sup>3</sup> ton)	147	133	149	
Waste	Recycling (ton)	548	527	477
	Incineration (ton)	105	126	112
	Landfill (ton)	46	45	23

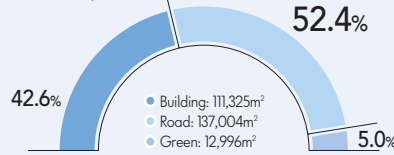
### ● Level of compliance(2006)

Category	Requirement	Average
<b>Air pollutants (ppm, mg/m<sup>3</sup>)</b>		
NOx	200	0
SOx	500	0
Dust	100	4
H <sub>2</sub> S	10	1
HF	3	0.5
HCl	6	0.6
<b>Water pollutants (ppm)</b>		
BOD	80	2
COD	90	3
SS	80	1

# ENVIRONMENTAL DATA BY SITE

## Shenzhen

Total area 261,325m<sup>2</sup>



Contact: delong.yin@samsung.com  
Yin Delong Tel. 86-7-55-8335-7000  
Fax. 86-7-55-8336-7008

### Location

Situated within Fu Tian Qu, Shenzhen. Nearest residential area is 1km to the south and 100m to the west. 200m to the east is the Mt.Bi Jia park. 1km southwest of the plant is the Mt.Lian Hua park and Fu Tian stream runs 1km away.

Waste water from the plant goes through chemical treatment and moves into the Nan Mountain sewerage treatment facility. Final discharge flows into the Nan Sea.

### Input and output

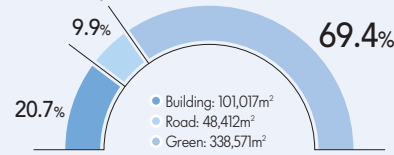
	2004	2005	2006	
<b>Input</b>				
Energy (TJ)	1,254	1,134	1,018	
Water (10 <sup>3</sup> ton)	2,137	1,935	2,013	
Recycled Water (10 <sup>3</sup> ton)	599	525	600	
<b>Output</b>				
CO <sub>2</sub> (10 <sup>3</sup> ton)	132	121	107	
Waste water (10 <sup>3</sup> ton)	1,178	1,094	1,175	
Waste	Recycling (ton)	36,037	35,432	25,474
	Incineration (ton)	1,547	1,601	-
	Landfill (ton)	2,950	2,790	2,639

### Level of compliance(2006)

Category	Requirement	Average
<b>Air pollutants (ppm, mg/m<sup>3</sup>)</b>		
NO <sub>x</sub>	400	36
SO <sub>x</sub>	1000	150
Dust	150	38
<b>Water pollutants (ppm)</b>		
BOD	30	-
COD	130	79
SS	100	26

## Tianjin

Total area 488,000m<sup>2</sup>



Contact: zhongye.fang@samsung.com  
Fang Zhongye Tel. 86-22-8212-9971  
Fax. 86-22-8211-1394

### Location

Technically situated within the TEDA industrial development area. It is 1.5km away from nearest residential areas. The Won stream runs 4 km from the site.

The plant is operating chemical treatment for plant sewage and sends the treated water to the Daguhe River. It finally arrives at the Bo Sea.

### Input and output

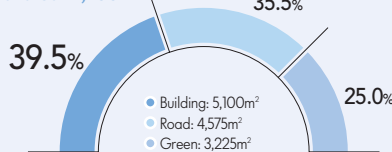
	2004	2005	2006	
<b>Input</b>				
Energy (TJ)	1,185	1,165	1,153	
Water (10 <sup>3</sup> ton)	2,315	2,004	1,898	
Recycled Water (10 <sup>3</sup> ton)	349	253	397	
<b>Output</b>				
CO <sub>2</sub> (10 <sup>3</sup> ton)	97	95	73	
Waste water (10 <sup>3</sup> ton)	1,383	1,160	1,196	
Waste	Recycling (ton)	8,959	7,385	5,682
	Incineration (ton)	262	290	203
	Landfill (ton)	0	0	0

### Level of compliance(2006)

Category	Requirement	Average
<b>Air pollutants (ppm, mg/m<sup>3</sup>)</b>		
NO <sub>x</sub>	300	82
SO <sub>x</sub>	50	7
Dust	30	5
<b>Water pollutants (ppm)</b>		
BOD	30	-
COD	150	62
SS	150	120

## TianjinMD

Total area 12,900m<sup>2</sup>



Contact: Yenji.bian@samsung.com  
Bian Yenji Tel. 86-22-2380-8552  
Fax. 86-22-2380-8282

### Location

Located in the Mi electronic industrial complex, 3.4m high above sea level and 2km away from nearest residential areas.

Waste water from the plant is treated chemically and moves into the Daguhe and finally to the Bo Sea.

### Input and output

	2004	2005	2006	
<b>Input</b>				
Energy (TJ)	-	67	75	
Water (10 <sup>3</sup> ton)	-	122	140	
Recycled Water (10 <sup>3</sup> ton)	-	-	35	
<b>Output</b>				
CO <sub>2</sub> (10 <sup>3</sup> ton)	-	6	12	
Waste water (10 <sup>3</sup> ton)	-	55	47	
Waste	Recycling (ton)	-	221	494
	Incineration (ton)	-	54	85
	Landfill (ton)	-	0	0

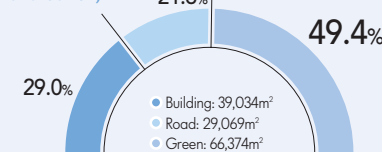
### Level of compliance(2006)

Category	Requirement	Average
<b>Air pollutants (ppm, mg/m<sup>3</sup>)</b>		
NO <sub>x</sub>	300	137
SO <sub>x</sub>	20	7
Dust	10	7
<b>Water pollutants (ppm)</b>		
BOD	30	-
COD	150	-
SS	150	-

※ No measurements taken as waste water treatment plant was under construction in 2006

## Dongguan

Total area 134,477m<sup>2</sup>



Contact: daomin.wang@samsung.com  
Wang Daomin Tel. 86-769-8558-2000  
Fax. 86-769-8582-1600

### Location

Situated in the Shingwagi industrial complex, Dongguan Guangdong province. It is located in an industrial complex 2km away from the entrance of the Guangzhou-Shenzhen highway.

Waste water from the plant is treated chemically and discharged into the Dong River. In the end it enters the Nan Sea.

### Input and output

	2004	2005	2006	
<b>Input</b>				
Energy (TJ)	316	326	291	
Water (10 <sup>3</sup> ton)	1,117	1,133	1,130	
Recycled Water (10 <sup>3</sup> ton)	-	-	120	
<b>Output</b>				
CO <sub>2</sub> (10 <sup>3</sup> ton)	35	36	32	
Waste water (10 <sup>3</sup> ton)	388	465	390	
Waste	Recycling (ton)	656	562	243
	Incineration (ton)	1	2	39
	Landfill (ton)	33	32	93

### Level of compliance(2006)

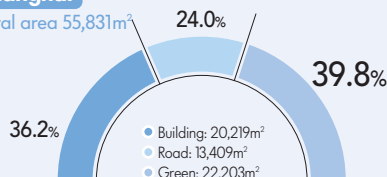
Category	Requirement	Average
<b>Air pollutants (ppm, mg/m<sup>3</sup>)</b>		
NO <sub>x</sub>	400	88
SO <sub>x</sub>	500	33
Dust	80	28
<b>Water pollutants (ppm)</b>		
BOD	20	-
COD	90	-
SS	60	-

※ No measurements taken as waste water treatment plant was under construction in 2006



## Shanghai

Total area 55,831m<sup>2</sup>



Contact: bin.xu@samsung.com  
Xu Bin Tel. 86-21-5774-6000  
Fax. 86-21-5774-4040

### ● Location

Situated within the Songjiang industrial complex, 3km away from closest residential areas.

After chemical treatment, the waste water of the plant is sent to the regional sewerage treatment facility for another round of treatment before being discharged into the Yellow sea.

### ● Input and output

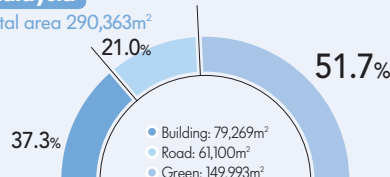
	2004	2005	2006	
<b>Input</b>				
Energy (TJ)	94	105	110	
Water (10 <sup>3</sup> ton)	145	279	277	
Recycled Water (10 <sup>3</sup> ton)	72	86	86	
<b>Output</b>				
CO <sub>2</sub> (10 <sup>3</sup> ton)	11	13	13	
Waste water (10 <sup>3</sup> ton)	83	213	195	
Waste	Recycling (ton)	135	327	453
	Incineration (ton)	93	88	23
	Landfill (ton)	0	0	54

### ● Level of compliance(2006)

Category	Requirement	Average
<b>Air pollutants (ppm, mg/m<sup>3</sup>)</b>		
NO <sub>x</sub>	240	3
SO <sub>x</sub>	-	-
Dust	-	-
<b>Water pollutants (ppm)</b>		
BOD	150	28
COD	300	60
SS	350	6

## Malaysia

Total area 290,363m<sup>2</sup>



Contact: mohan.muthu@samsung.com  
Mohan Muthu Tel. 60-6-670-1281  
Fax. 60-6-677-9334

### ● Location

Situated in industrial areas 3km away from nearest residential area. Mt.Angsi is 2km to the east and River Simin runs to the west of the plant.

After chemical treatment, the plant discharges the water to the Gadut River, a branch stream of TTJ (Taman Tuanku Jaafar) and then to the Linggi River, finally flowing into the straits of Malacca leading to the West sea of the country.

### ● Input and output

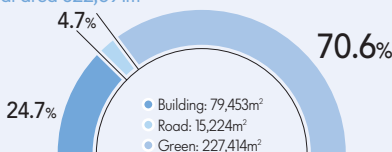
	2004	2005	2006	
<b>Input</b>				
Energy (TJ)	1,370	1,236	1,175	
Water (10 <sup>3</sup> ton)	3,767	3,185	2,389	
Recycled Water (10 <sup>3</sup> ton)	484	388	415	
<b>Output</b>				
CO <sub>2</sub> (10 <sup>3</sup> ton)	139	125	108	
Waste water (10 <sup>3</sup> ton)	2,257	1,949	1,485	
Waste	Recycling (ton)	10,887	3,073	2,402
	Incineration (ton)	148	156	67
	Landfill (ton)	1,718	1,214	1,171

### ● Level of compliance(2006)

Category	Requirement	Average
<b>Air pollutants (ppm, mg/m<sup>3</sup>)</b>		
NO <sub>x</sub>	1700	0
SO <sub>x</sub>	200	1
Dust	400	104
<b>Water pollutants (ppm)</b>		
BOD	50	14
COD	100	43
SS	100	13

## Hungary

Total area 322,091m<sup>2</sup>



Contact: pyeongsu.seo@samsung.com  
Seo Pyeongsu Tel. 36-27-530-808  
Fax. 36-27-530-850

### ● Location

Has GOD on the North, forests on the South, highways on the east and fields to the west. River Danube is 2.5~3km away to the west.

Waste water from the plant, after chemical treatment, goes into the waste water treatment facility in Vac and is discharged into River Danube.

### ● Input and output

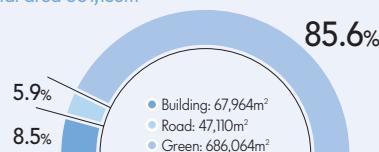
	2004	2005	2006	
<b>Input</b>				
Energy (TJ)	507	489	635	
Water (10 <sup>3</sup> ton)	845	742	1,011	
Recycled Water (10 <sup>3</sup> ton)	154	210	245	
<b>Output</b>				
CO <sub>2</sub> (10 <sup>3</sup> ton)	52	50	59	
Waste water (10 <sup>3</sup> ton)	768	736	956	
Waste	Recycling (ton)	5,631	5,319	6,025
	Incineration (ton)	212	133	47
	Landfill (ton)	1,320	907	1,669

### ● Level of compliance(2006)

Category	Requirement	Average
<b>Air pollutants (ppm, mg/m<sup>3</sup>)</b>		
NO <sub>x</sub>	350	25
SO <sub>x</sub>	-	-
Dust	150	0.3
<b>Water pollutants (ppm)</b>		
BOD	500	74
COD	1,000	40
SS	2,500	1,100

## Brasil

Total area 801,138m<sup>2</sup>



Contact: cg.her@samsung.com  
Her Chulgu Tel. 55-92-616-6170  
Fax. 55-92-616-6277

### ● Location

Situated within an industrial complex, 100m away from residential areas. A small stream runs in front of the site. The Amazon river lies 2.5km away.

Waste water from the plant is discharged to a common stream of the industrial complex after chemical treatment. Treated water passes through the River Negro and Amazon, reaching the Atlantic Ocean.

### ● Input and output

	2004	2005	2006	
<b>Input</b>				
Energy (TJ)	418	419	397	
Water (10 <sup>3</sup> ton)	1,277	1,279	1,196	
Recycled Water (10 <sup>3</sup> ton)	-	-	-	
<b>Output</b>				
CO <sub>2</sub> (10 <sup>3</sup> ton)	48	49	43	
Waste water (10 <sup>3</sup> ton)	829	760	716	
Waste	Recycling (ton)	6,897	6,394	8,616
	Incineration (ton)	2,879	2,224	1,964
	Landfill (ton)	0	0	629

### ● Level of compliance(2006)

Category	Requirement	Average
<b>Air pollutants (mg/Mkcal)</b>		
NO <sub>x</sub>	-	-
SO <sub>x</sub>	5,000	795
Dust	350	232
<b>Water pollutants (ppm)</b>		
BOD	-	22
COD	-	75
SS	-	32

## Mexico

Total area 318,223m<sup>2</sup>



**Contact:** bochan6.kim@samsung.com  
**Kim Allen** Tel. 1-619-671-6212  
 Fax. 1-619-671-6226

### ● Location

Technically situated within an industrial complex 80m away from residential areas. A small stream runs in front of the site. Sewage from the plant is discharged to the Arroyo matanuco after chemical treatment and reaches the Pacific Ocean.

### ● Input and output

	2004	2005	2006	
<b>Input</b>				
Energy (TJ)	510	555	532	
Water (10 <sup>3</sup> ton)	1,096	1,174	1,058	
Recycled Water (10 <sup>3</sup> ton)	1,171	1,282	913	
<b>Output</b>				
CO <sub>2</sub> (10 <sup>3</sup> ton)	55	58	51	
Waste water (10 <sup>3</sup> ton)	280	639	653	
Waste	Recycling (ton)	13,506	11,569	9,429
	Incineration (ton)	36	50	46
	Landfill (ton)	2,042	1,623	1,428

### ● Level of compliance(2006)

Category	Requirement	Average
<b>Air pollutants (ppm, mg/m<sup>3</sup>)</b>		
NO <sub>x</sub>	190	77
SO <sub>x</sub>	1,100	0
Dust	350	3
<b>Water pollutants (ppm)</b>		
BOD	75	7
COD	-	-
SS	75	5

## In relation to Environmental data generation:

### 1. CO<sub>2</sub> emission

For overseas business sites, in contrast to the previous year where only simple calculations of CO<sub>2</sub> emission based on energy and electricity consumption were conducted, it followed the IPCC Guideline for investigation in 2006. This explains the data differences to the records reported last year. In September 2006, when amendment of Korea Energy Use Rationalization Act was announced, data from 2006 were applied with the adjusted coefficient for TOE calculation.

### 2. Level of compliance at overseas sites

For the Tianjin MD plant, pollution level could not be measured in 2006 as the waste water treatment facility was still under construction, and so had no data to report.

Countries hold varying criteria and measurement items for degree of air pollution and water pollution. Data that have not been measured due to different legal standards have not been reported.

### 3. Recycled water

Volume of recycled water refer to the combined volume of sewage recycled to usable water via chemical treatment with water recycled during the manufacture process. The volume of recycled water from manufacture process at the Brazil plant had not been recorded responsively, and so were excluded from the report this year.

### 4. Waste water

Waste water volume is the amount of plant sewage entering chemical treatment and excludes sewage of domestic origin.

## ENVIRONMENTAL INVESTMENT

Unit: million won

Activities	Investment	Cost	Benefits	Description
End-of-pipe treatment	2,070	25,024	23,430	Operation of internal environmental facilities, treatment outsourcing and others
Preventive measures	12,039	30,119	9,604	Environmental education, measurement analysis, audits, waste management, plan of action
Stakeholders		257	33,495	Support for environment groups, regional cooperation, environment events
Legal compliance		6		Penalty on wastes, insurance
<b>Total</b>	<b>14,109</b>	<b>55,406</b>	<b>66,529</b>	

Samsung SDI's Environmental accounting system has been in place since 2005. The system will be further implemented in all our overseas sites to expand its coverage. In 2006, Samsung SDI invested 14,109 million won into its environment facilities, spent 55,406 million won towards environment costs and generated 66,529 million won in benefits.

# SOCIAL PERFORMANCE

Samsung's core values comprise of People, Excellence, Change, Integrity and Co-prosperity. Of these, our Business Principles places emphasis on ones related to social responsibility such as Integrity and Co-prosperity among others, providing concrete guidelines and codes of behavior for employees. Samsung SDI is doing its best to successfully conduct its social responsibility following these principles.

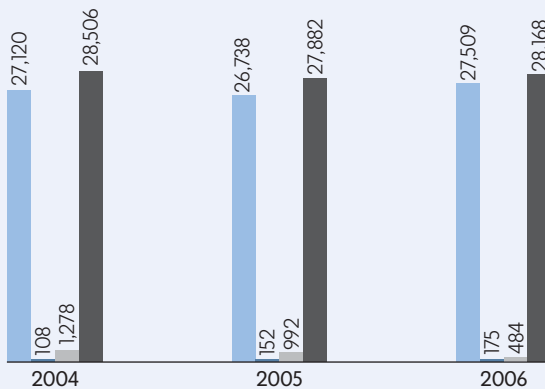
Samsung SDI devised six strategies for social sustainability; Customer benefit management, Value adding HRM, Human rights management, Sustainable supply chain management, Integrated community service and a Transparent and ethical management. These strategies are implemented in conjunction with managerial activities on site, and to ensure effective management of social sustainability related business processes such as customer satisfaction, human resource development, supplier support, social contribution and ethical management, Samsung SDI operate systems such as VOC, e-HR, MegaSTEP, Sharers' Lounge, and Cyber Audit.

## EMPLOYEES

We arranged these data according to GRI Guideline G3 and the HR management scheme of Samsung SDI. Regular employees and contractual workers are on the payroll of Samsung SDI. Outsourced workers were regarded as external workers, but are under the supervision of Samsung SDI. The reported employment data covers a small scale R&D center and offices overseas. The turnover and diversity data from branches and offices with less than 20 employees have been excluded from the data.

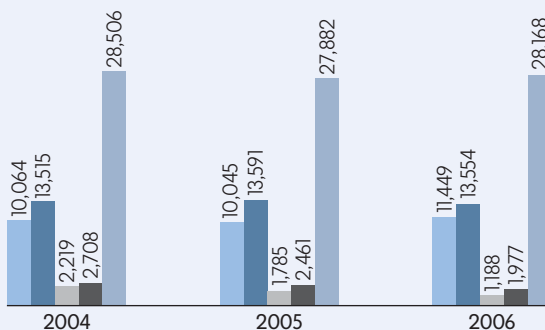
### [Employment by type]

■ Regular ■ Contractual ■ Outsourced ■ Total



### [Employment by region]

■ Korea ■ Rest of Asia ■ Europe ■ America ■ Total



## LABOR AND MANAGEMENT RELATION

Samsung SDI does not have a labor union. Nevertheless we stay true to our law-abiding business principle, securing our employees the freedom of association and the right to collective bargaining, and tries to provide the best employment welfare and benefits as well as the most favorable working conditions to encourage labor right protection and enhance their social and economic status. As an alternative to a labor union, the company puts in place the labor council, which is legally required, to act as a representative body of employees.

The labor council is formed of equal numbers of elected employee representatives and company representatives. They discuss employee rights, complaints, and difficulties related to issues such as working conditions and salary. The body acts as a body of collective bargaining, serving as a representation of all employees within Samsung SDI.

**Items for consultation** Productivity improvement and achievement distribution, recruitment, assignment, training, HR system improvement, complaints handling, safety and health, improvement of working conditions, health care, general principles of employment adjustment such as change of employee placement, re-training, lay-off due to changes in businesses/technologies, working and resting time implementation, system enhancement for payment methods, structure, and scales, employment welfare enhancement, and items regarding labor and management cooperation.

**Items for decisions** Establishment of employees' training and capability development, installation and management of welfare facilities, installation of an in-house labor welfare fund, items that are not finalized in Ombudsman committee, and installation of various labor and management committees.

**Items for reporting** Items related to business plan and performance and those items related to quarterly production plans and performance, resource plans, economic and financial status related items of the company.

Company policies, business management status and discussion results from the labor council are made available all employees. Material changes to company management such as business restructuring and streamlining must undergo both the hearing process and the labor council's consensus both of which follow after a one month prior notification of the intended changes. Samsung SDI endeavors to incorporate decisions arising from such gatherings into employee welfare and company policies.

## TURNOVER

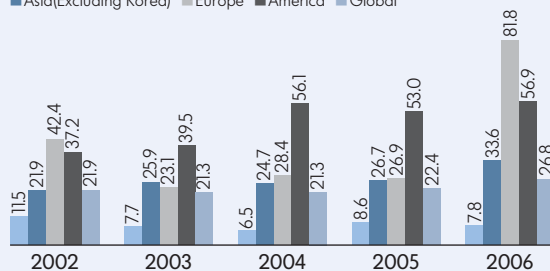
We report the workforce turnover rate as defined by GRI G3 guidelines, and so the annual number of employees leaving the company is divided by the total workforce number, and the result is reported as the % of workforce leaving the company at the end of the year. The calculation may differ from the conventional method of employee turnover calculation.

The regional difference in the turnover rate reflects cultural characteristics of the region as well as employment flexibility of the market. The high turnover rate in Europe in 2006 was because data affected by the restructuring of the German plant that concluded in 2005 had been represented in the 2006 employment data.

2006 showed high numbers of aged employees who opted for voluntary retirement so the turnover rate of people in their 50's was high. Samsung SDI paid premium retirement grants to such individuals in the wake of restructuring.

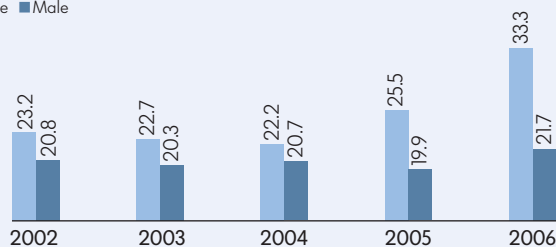
### [Turnover by region]

■ Korea ■ Asia(Excluding Korea) ■ Europe ■ America ■ Global  
Unit: %



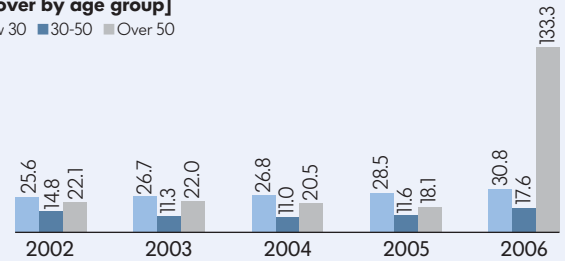
### [Turnover by gender]

■ Female ■ Male  
Unit: %



### [Turnover by age group]

■ Below 30 ■ 30-50 ■ Over 50  
Unit: %



## HEALTH AND SAFETY

Samsung SDI puts in place safety management for independent contractors, but does not manage their accident rate separately. For the last five years, the injury rate has followed a steady decrease and totals at 1% per year. The company currently does not keep track of the days of absence of an employee following accidents at work, because such accidents have been extremely rare and maintaining recordings of such rarity had little meaning.

Samsung SDI began tracking the scale of reported accidents from 2006 for our overseas sites. Now the company reports this separately for Korea and overseas sites. The lost day rate is measured based on the calendar days, calculating absence days from the day of accident to the day before returning to work. All sites at home and abroad reported 0% in occupational diseases rate from the year 2002 to 2006.

Recording and reporting of disaster statistics are led by safety engineers, who refer back to ILO codes and safety regulations stated by each country.

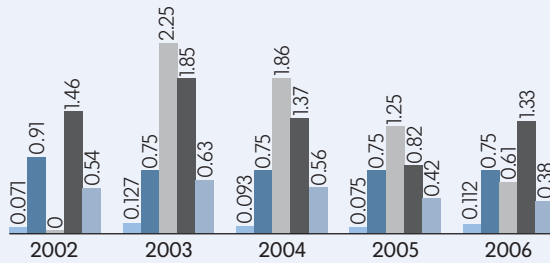
Samsung SDI operates various employee education/training programs led by its health and safety departments in the form of cyber training via the intranet and group training. In-house clinics and external hospitals are linked, providing consultation to individual health problems as well as providing treatment and cures. Those found with health problems during their regular medical check-ups are entitled to intensive preventative care and treatment programs. When an employee suffers injury or seeks medical advice, he or she may visit the in-house clinics and receive treatment during business hours.

In accordance with the Industrial Safety and Health Act, article 19, industrial safety and health committee are up and running throughout Samsung SDI and its divisions, apart from the labor council. The committee is run by a site or business division. All sites including overseas sites call monthly environmental safety meetings, led by division heads or their substitutes.

Regular programs for employee's families haven't been implemented, but Samsung SDI runs training and cure programs on health and safety and diseases. With regards to social contribution activities, Samsung SDI also deploys eye care activities for communities and supports community health and safety.

**[Injury rate]**

■ Korea ■ Rest of Asia ■ Europe ■ America ■ Global  
Unit: %



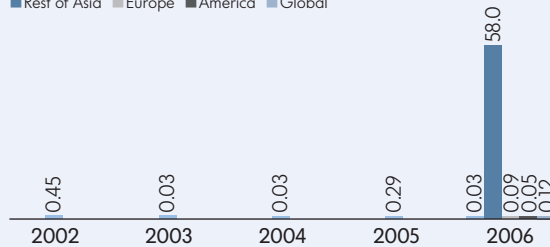
**[Fatalities]**

■ Korea ■ Rest of Asia ■ Europe ■ America ■ Global  
Unit: Persons



**[Lost day rate]**

■ Korea ■ Rest of Asia ■ Europe ■ America ■ Global  
Unit: %

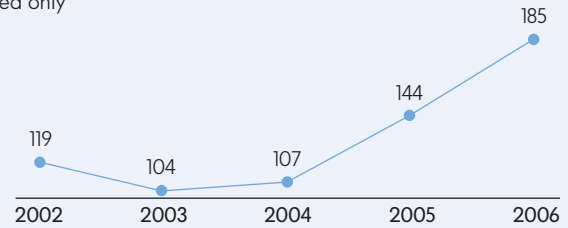


**TRAINING**

Of the various core values we value, safety first is the one we value the most. Samsung SDI, with a long-term view in mind, do not hesitate to investment into our human resources. From 2005 the company has implemented a phased training structure. It focused on educational organization and management in the first year, and conducted customized trainings according to abilities needing development for each position and occupational group last year. Under the standard training hour system, the company defined detailed training hours by the occupational group. In 2007, the company plans to focus on performance-centered training related to company strategies, job descriptions and skills based on the established training system.

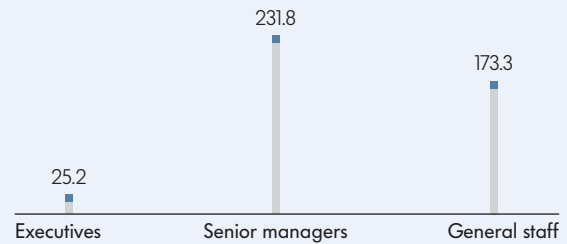
**[Average per capita training hours per year]**

※ Korea only



※ Previous records on average per capital training hours per year were not correct, which we report anew after correcting them.

**[Average per capita training hours by position]**

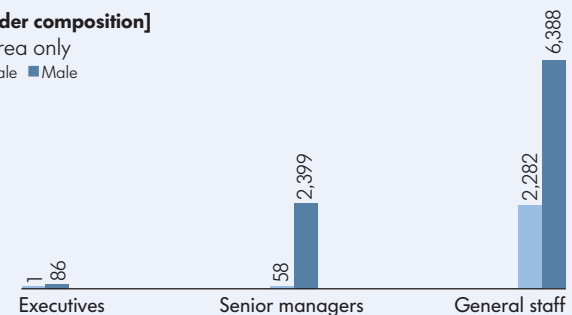


**DIVERSITY AND EQUAL OPPORTUNITIES**

Samsung SDI's code of conduct and its HR policies makes clear that the company shall not discriminate people by their academic credentials, gender, religion, nationality and age when considering an employee's hire, placement, promotion, wage, training and retirement. As a way of increasing social participation opportunities for women, the company has increased the proportion of females in its work force from 20% to 30%, and this is exercised when hiring recruits for level 3 positions. Observing the non-discriminatory performance-based compensation, equal base salaries are paid for employees of the same position regardless of their gender.

**[Gender composition]**

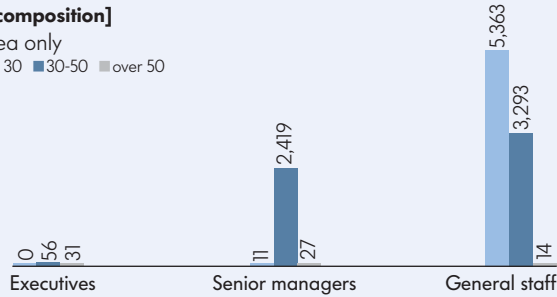
※ Korea only  
■ Female ■ Male



**[Age composition]**

※ Korea only

■ below 30 ■ 30-50 ■ over 50



**HUMAN RIGHTS**

Samsung SDI emphasizes the importance of respecting individual diversity and dignity under the business management principles. It intends to ensure that all business management activities will be based on spirit of respect for the human. In this context, the company takes into account human rights in decision-making and deal-making with suppliers.

In 2006, Samsung SDI did not make significant capital investment decisions or investment agreements in terms of scale or in a strategic context.

Samsung SDI is reinforcing the evaluation of a supplier's social aspect by taking into the human rights aspect when the company deals with any supplier. To be a successful supplier of Samsung SDI, a supplier must meet our requirements covering quality, price, delivery and environmental and social parts to obtain an S-Partner certification. Samsung SDI designated environmental aspects as mandatory requirements and social aspects as reference items in 2006. From 2007, social aspects would be turned mandatory for supplier evaluation. Social part requirements cover human rights, labor, and ethical management of a supplier.

**NON-DISCRIMINATION**

Samsung SDI bans all forms of discrimination against race, skin colour, gender, religion, political affiliation, nationality etc within any kind of management activities. Samsung SDI believes that it is the tradition of equal treatment of stakeholders in and out of the company that enabled Samsung SDI's prosperous growth so far. No cases involving violation of the indiscriminatory policy was made in 2006.

**BAN ON FORCED/CHILD LABOR**

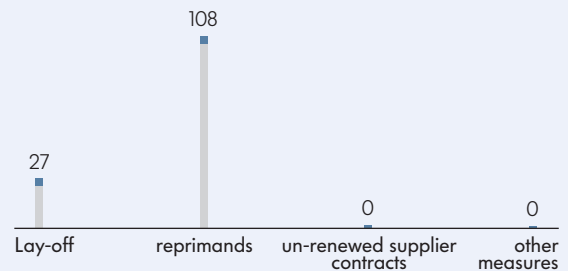
We banned forced labor and child labor in all its global sites from the beginning, and such cases have never occurred within Samsung SDI. As a means of preventing child labor, it is mandatory for job applicant to present proofs of age when applying to the company.

**ANTI-CORRUPTION**

In 2006 Samsung SDI discharged 27 employees proved of violating the anti-corruption provisions, taking 108 reprimands in total. By its very nature, the procurement department is regarded to be most at risk of being exposed to corruption. Samsung SDI conducts regular audits across the whole plant to allow prompt detection of corrupt activities. It also does so through mediums such as reports, anonymous notes and action plans. A process to assess and analyze risks of irregularities in advance is in place, but the company remains on high alert to detect signs of irregularities within channels for report, anonymous notes, and diagnosis being opened. Upon detection investigation into activities potentially corrupt begin and actions against it are taken immediately.

A supplier prone to corruption and irregularities and customer contacting departments are subject to indirect inquiries for potential corruption. When undesirable activities are detected, full-scale audits are initiated. There were no law suits filed concerning corruption or closure of litigations during the reporting period.

**[Countermeasures for corruption]**



※ Korea and 4 Chinese plants (Shenzhen, Tianjin, TianjinMD, Dongguan)

## LEGAL COMPLIANCE

During 2006, there wasn't a single case where Samsung SDI was fined or subject to non-monetary sanctions for non-compliance with laws and regulations in jurisdictions where it does businesses, international declaration and treaties, and regional regulations. Not a single complaint against the company was filed caused by international disputes which would require dispute settlement procedures.

In addition the company did not come across any cases where it was fined or was subject to non-monetary sanctions for violation of laws and regulations governing product provisioning and use that cover product impact on consumer health, product labeling and marketing communication.

Samsung SDI put in place enterprise-wide business principles for all operations and followed them thoroughly. All operations including marketing communication such as advertisement, promotion, and sponsorship were conducted in line with related regulations and in-house regulations, and in a conscious way from the ethical perspective. Following the review rules and regulations of the Korean Advertising Review Board, Samsung SDI exercises pre-censorship for its advertisement to prevent any social and ethical problems from arising.

To keep the operation environment clean, Samsung SDI operates the internal control system, which is used to prevent and screen out any inefficiency, weaknesses, unreasonableness, and irregularities existing in its business processes. Sales representatives and marketing are obliged to take courses on related laws and regulations, internal regulations, and internal control system regularly, and take internal trainings on ethical management and fair trade as mandatory requirements.

## CUSTOMER HEALTH/SAFETY

Even though Samsung SDI are not producers of completed products, it builds products with safety and health considerations throughout the product life cycle from product use by consumers and disposal.

Samsung SDI abides by processes considering product safety and eco-friendliness for all products including PDP, batteries, CRT, and mobile displays.

As Samsung SDI is equipped with processes that enable consideration of a product's impacts on consumer health and safety, via product group from the product conceptualization, R&D, development, and design phases, It reviews various potential risk elements such as explosion, toxic materials, leakage, electric shocks, fire, and injury. In order to shield customers from any hazardous threats to health and safety, the company is equipped with numerous documented procedures by which all equipment and products have to be reviewed for their safety specifications and be approved for them. In product manufacturing and production, use of hazardous materials are discouraged as much as possible to care for the health of customers and employees.

### [Safety label/eco label on products]

Safety label (internationally certified)



Eco-label (self-declaration of environmental claims)



RoHS Compliant

## PRODUCT LABELING

Samsung SDI requires suppliers to attach a certification label on all parts and raw materials to declare whether they contain environmentally hazardous substances or not. Along with this requirement, Samsung SDI collects environmental information on parts and remove components that may have potentially negative environmental and social consequences in advance.

Meanwhile, the company provides information on safe product use and environmental impact following careless disposal to customers.

### [Lead-free label]



# COMMUNITY SERVICE

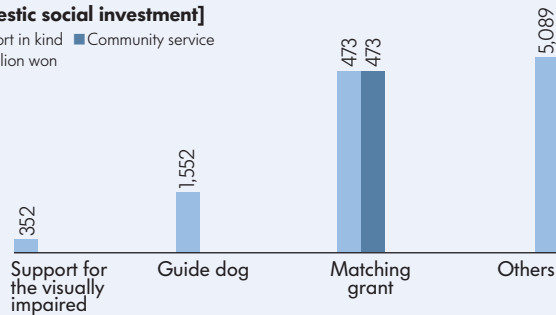
As a member of the society, Samsung SDI endeavors to embrace isolated neighbors and advance together. Samsung SDI's community service activities include support for the visually impaired, gift of eyesight recovery operations, guide dogs for the aurally challenged, and the matching grant for Light of Love fund. Reflecting its business characteristics as a display maker, Samsung SDI, in conjunction with the Siloam Eye Hospital, has run the eyesight recovery operation project since 1995. The project aims to help save the failing eyes of our neighbors in need. Samsung SDI continues its strenuous efforts to do the little it can to light up the world.

## SOCIAL INVESTMENT

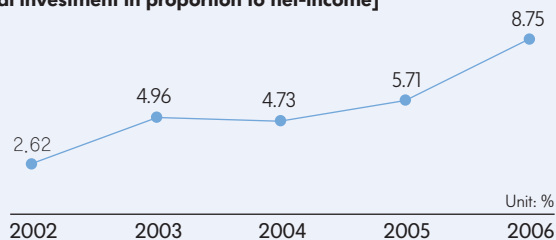
In 2006, Samsung SDI reinvested 7,940 million won in total to the society. When hours spent by employees in community services were converted into monetary terms they amounted to 916 million won. Samsung SDI makes a social reinvestment of over 5% of its net income annually. In 2006, the company collected 946 million won in matching grant, half of which was donated in kind and the rest of which was spent to fund voluntary community services.

### [Domestic social investment]

Support in kind Community service  
Unit: million won

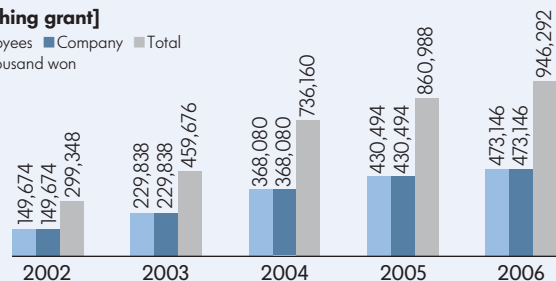


### [Social investment in proportion to net-income]

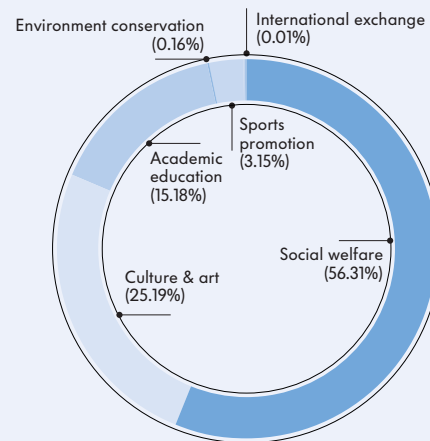


### [Matching grant]

Employees Company Total  
Unit: thousand won



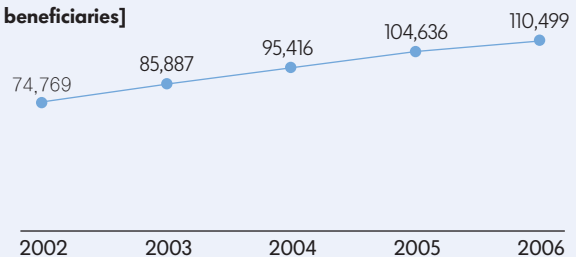
### [Support rate by area]



## LIGHT TO THE WORLD

In 2006, Samsung SDI provided free eyesight recovery operations to 240 patients in rural areas and developing nations. It also supported the livelihood of 100 poor families with serious eye problems and helped over 500 patients with eye abnormalities obtain the most from their cultural and physical recreation activities. Support on a mobile eye clinic went to people in remote areas such as farming villages, islands, and leper colonies and provided them with free eye examinations and surgery. The company also invited 100 students with visual impairments to the "Golden Bell" event. On an annual basis, the company grants scholarships to two college students with visual impairments.

### [Total beneficiaries]





# GOVERNANCE

The core ethos of Samsung comprises of business management philosophy, core values and business principles, and the founding philosophy, unique organization culture and international rules are well reflected through the ethos. These are the rules governing all management activities within Samsung SDI, being applied to all sites at home and abroad. Following these, Samsung SDI is committed to maximizing the present and future corporate values and contributing to the advancement of the society through conscientious and responsible management practices.

## MAKE-UP AND ROLE OF BOD

Following the Commercial Law and Securities Exchange Act, Samsung SDI puts in place the board of directors. The BOD discuss and decide critical aspects regarding the direction of business management and execution of duty as defined in law. At present, the BOD is composed of three internal and four independent directors. The CEO, who is an internal director, chairs the BOD. The logic in this is to allow utilisation of his expertise in overseeing the corporate management and enable responsible management in turn.

Three subordinate committees exist beneath the BOD. They are the Management Committee, the Audit Committee and the Nomination Committee. The Management Committee oversees major business activities of the company and is directly responsible for corporate performance in relation to economic, environmental, and social aspects.

Independent directors play an important role in making decisions on economic, environmental and social matters. Independent directors are selected out of experts in business management, economy, law, and technologies relevant to the company businesses.

To maintain exclusivity of the BOD, independent directors are selected after recommendation from the Nomination Committee. Those purely interested in the company do not qualify for independent directorship. Internal and independent directors are appointed after the selection procedure which take place during the shareholder's meetings.

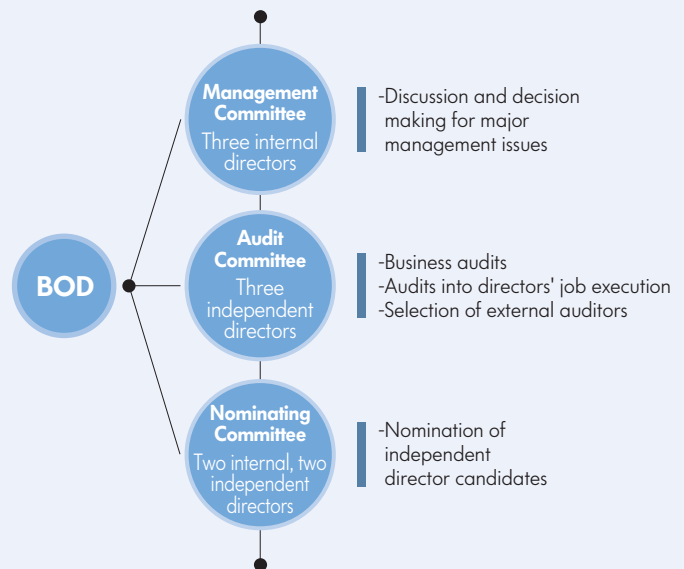
To avoid conflict of interests, Directors are forbidden to engage in a business of a similar nature as with the company they are associated with. Also a director with a special interest in a certain issue is refused participation in making decisions for that particular issue. However the BOD reviews related laws and regulations to avoid potential conflicts among stakeholders over BOD decisions and always register the opinions of stakeholders with care.

## [BOD make-up]

Position	Name	Role
CEO	Kim Soon Taek	Head of corporate management as a whole
Internal director	Shim Im Soo	PDP Division Head and Head of the Cheonan Plant
Internal director	Lee Jung Wha	Head of management support
Independent director	Jung Gap Young	Overall business management
Independent director	Choi Byung Yoon	Overall business management
Independent director	Bae Young Gil	Overall business management
Independent director	Jang Jun Chul	Overall business management

※ Directors in Samsung SDI are males in their 50's and above

## [Committees under the BOD]



## OPERATION AND COMPENSATION FOR THE BOD

BOD meetings are called on a quarterly basis, but Ad-hoc meetings are held whenever necessary. 2006 saw eight sessions in total and all directors including five independent directors attended.

Samsung SDI ensures the derivative litigation right and the right of inspection of books and records pursuant to the Commercial Law in order to protect the rights of minority shareholders and reflect their opinions in management decisions. However 2006 did not see a single case in which the minority shareholders' rights were exercised.

In an effort to inform employees of the company business performances and register their feedback, chief executives make trips to all sites of business briefing sessions on a quarterly basis. Also they are engaged in frequent klatches to obtain employee feedback. On the other hand, executives and employee representatives regularly share business information through the labor council and discuss issues important to employees such as HR management and related system enhancement.

Compensation for executives consists of a base salary fixed for each position and performance-based salary which is given differently depending on individual performances. In performance evaluation, financial performance involving sales, net-profits, and stock prices are acknowledged the most. Safety, environment, labor and management relations, corruption/irregularities and security related performances are also noted of.

For the 2006 general meeting of shareholders, compensation provided to the members of the committee was decided at 12 billion won, of which 4,063 million of which were executed.

## SUSTAINABILITY MANAGEMENT COMMITTEE

Apart from the BOD, Samsung SDI established the Sustainability Management Committee to maintain cooperate stability and to keep track of its execution. The Committee is convened twice a year in the presence of the CEO and other executives. The Sustainability Office under the committee is responsible for the conduct of actual activity. On site Steering Committees or division level committees discuss further details on each site and product group.

# RISK MANAGEMENT

The display and energy market is notorious for its incredible competitiveness, partly due to the super fast development in related technology. As uncertainties of the future rise due to rapid changes, structured risk management became essential for companies to secure strong competitiveness.

Samsung SDI operates its risk management system which is integrated into management activities. This is to allow detection of risk factors in advance so that risk factors not contributing towards corporate strategy roll-out can be excluded, but also allowing uptake of risks that can be turned into opportunities, eventually maximizing long-term corporate values.

## DEFINING MANAGEMENT STRATEGIES WITH RISK FACTORS IN MIND

The stage of development of rival products, price fluctuation of raw materials, and currency exchange rate fluctuations are all material risk factors affecting business performance. Samsung SDI predicts the ultimate affects of different risk factors on businesses, translates the forecast into management strategies and manages each risk factor with a suitable solution.

## CRO (CHIEF RISK OFFICER) SYSTEM

CRO keeps an eye on changes within and outside of the company. They identify external risks that may affect the company in the future as well as possible undesirable consequences internal decisions may result, then issue warnings or propose control plans.

Natural disasters, terrorism and conflagrations bring massive damages to the management activities of a business and may even inflict an end to a business. Samsung SDI hopes to detect risks in a structured manner via the CRO policy, preventing contingencies and effectively responding when such contingencies become a reality, ultimately minimizing its impact on the business. The HR executive is currently serving as the CRO also, and reports of their activities to the CEO and the Management Committee directly. Under the CRO exists the Corporate Risk Management Committee whom supervise risk management organizations in all sites at home and abroad.

## INTERNAL CONTROL SYSTEM

Samsung SDI operates an Internal Control System. The purpose of this system is to enable effective and efficient use of resources in corporate management, provision of reliable accounting for financial reporting; prompt delivery of management information and ensuring that all company activities are compliant with the relevant policies, laws and regulations.

Samsung SDI is operating its own electronic system for internal control. From this, data and information are used to aid day-to-day operations and are also applied in strategic decision-making.

## PLANT OPERATION APPROVAL SYSTEM

In accordance with the blue print for business transformation, Samsung SDI continues its investment in development businesses, and to enable collective control over risk factors that may arise in the process has the plant operation approval system in operation.

The Plant Operation Approval System committee is comprised of nine departments including development, purchase, quality, environment, safety and utility. When production lines are built or added, the committee monitors the construction progress on a monthly basis beginning from when the project is in the planning stage until its in production, checking out risk factors and deciding on respective countermeasures to these.

Besides this, Samsung SDI makes full use of the Audit Committee composed of independent directors and the internal audit system to discover risk factors in management activities in advance and control them systemically.

# STAKEHOLDERS

Samsung SDI coexists with a variety of stakeholders. Stakeholders can be categorized into the following:

## Economic Stakeholders

Economic stakeholders share their economic values with Samsung SDI. Through our relationship we aim to redistribute economic values and pursue economic development.

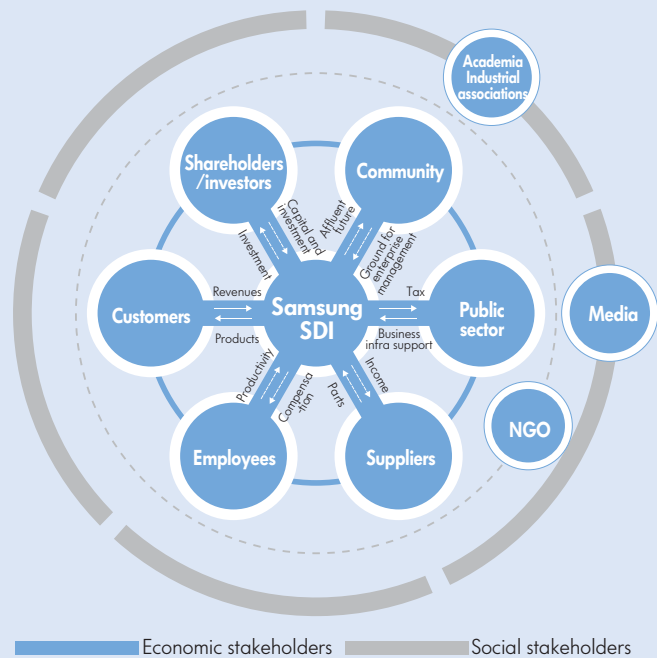
## Social Stakeholders

Social stakeholders hold a wide range of interests in issues such as technology, environment, and society. Through its relations with Samsung SDI, they develop technologies jointly with Samsung SDI and contribute social reinvestments, creating and distributing economic values to the society indirectly.

## NGO

NGOs, among social stakeholders, have their interests centered around the sustainability of Samsung SDI. They focus particularly on environmental and social problems and actively present their opinions regarding Samsung SDI's activities in these context.

[Stakeholder classification]

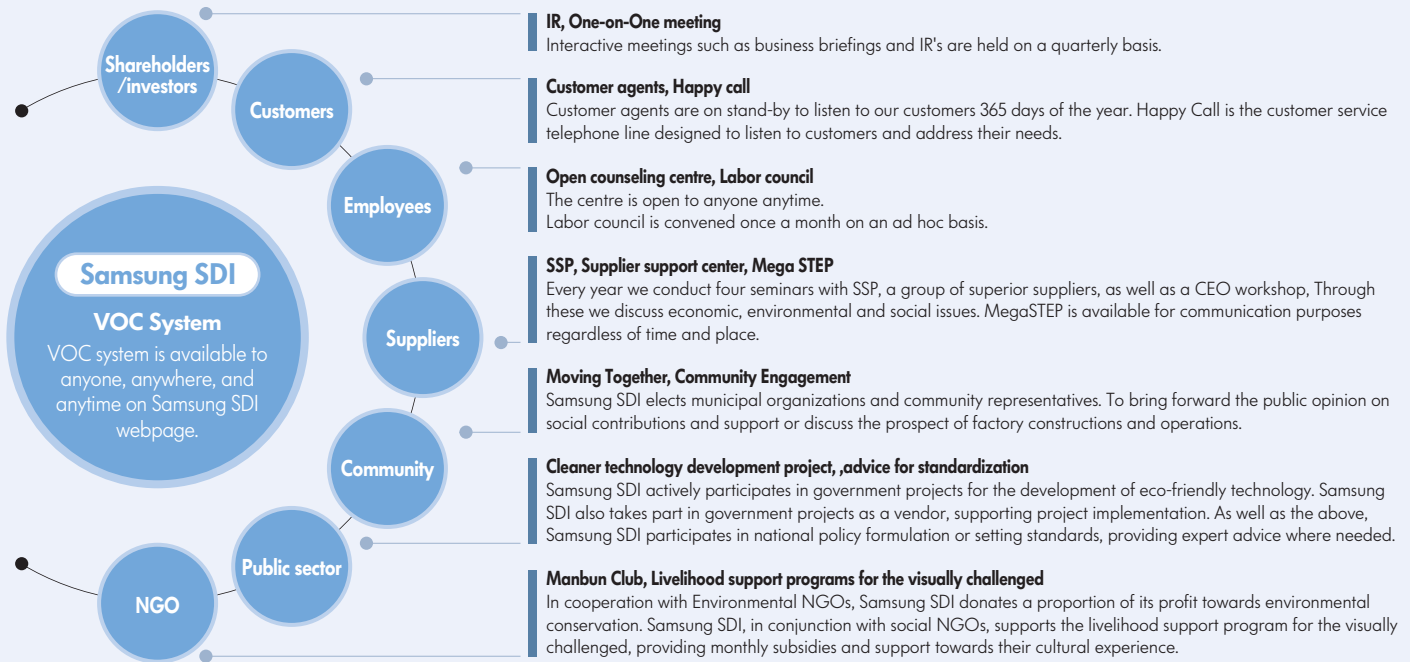


Samsung SDI has been keeping in touch with stakeholders through various channels of communication divided according to the role of the stakeholder. The aim is to lead dialogs tailored to the interests of individual stakeholders.

It would be very difficult to aggregate the voices of stakeholders and prioritize them. To bridge gaps between differing interests and opinions, various stakeholders face having to gather and understand each other's views.

Samsung SDI drew up a mid-term roadmap of stakeholder engagement to encourage an integrated and more organized engagement of stakeholders. Commitment made to stakeholders will be incorporated into annual sustainability management strategies of Samsung SDI and shared with chief executives in the Sustainability Management Committee.

**[Examples of engagement channels by function]**



**FOCUS AND INCLUSION**

Samsung SDI appreciates opinions of any source. The VOC system on the company webpage and the Survey pop-up window allows anyone to contribute their thoughts to us.

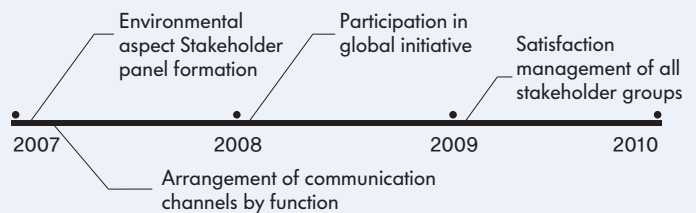
We also believe that, depending on the depth of interest in SDI's sustainability and the extent of influence exchanged with Samsung SDI, some stakeholders may need a more intimate communication approach. Samsung SDI plans to pursue a more active communication link primarily with NGOs of economic stakeholders such as shareholders, investors, customers, employees, suppliers, communities and social stakeholders. This will mean more opportunities for us to face stakeholders representing each group, but we leave open the VOC system so that anyone can voice their opinions to us.

**CLOSER AND FURTHER**

Samsung SDI re-arranged communication channels according to each function and figured out a panel which will enable many different stakeholders to gather and share their thoughts. Also we aim to join the global sustainability initiative proactively. Thereafter we aim to keep track of our stakeholder's satisfaction of our endeavors and to improve on aspects that we may be lacking.

This mid-term plan will begin with the environmental aspect, and further expand to cover social and economic aspects. We hope to draw nearer to our stakeholders by calmly solving yearly tasks one at a time.

**[Mid-term roadmap for stakeholder engagement]**



## In opening the sustainability report

The two main questions in drawing this report were these: What do we report and how do we report it? We look to you for the solutions to these questions.

### WHAT TO REPORT?

The report is a product of two points of view; the views of the stakeholders and Samsung SDI which they wish to present to the other.

In November 2006, Samsung SDI elected stakeholders to represent the opinions of each stakeholder group and conducted a survey on these representatives. This was so that we could ask them to prioritize the issues surrounding Samsung SDI.

We believe that the information contained in the report will be better utilized by those deeply interested in the sustainability of Samsung SDI. For this reason the survey was conducted mainly with the major stakeholders aforementioned. During the process, we also sought expert opinions regarding sustainability to cover the interests of the stakeholders whom we hadn't requested opinions from.

Contents of the questionnaire were based on preparatory studies on external trends and media coverage. The issues included in the report were selected depending on the results of the questionnaire and future strategies and sustainability objectives. Social expectations with regards to sustainability were also considered whilst deciding the content. Also all issues regarded as important, even by a single stakeholder group, were included in the report. In this way, we tried to capture all items and agenda given importance in this report.

We reviewed core indicators of the GRI Guideline (G3) fully. For indicators that did not comply with our business characteristics, we provided brief explanations of why.

We prioritized on issues that many stakeholders and Samsung SDI ourselves regarded as being strategically important included these issues in the early sections of the report.

We tried to capture our sustainability philosophy interwoven with enterprise-wide strategies throughout the report. When a certain story is described, we thought deeply about who would be most affected and what impact they will exchange. Samsung SDI analyze how issues surrounding the company are related to our sustainability and set strategies and action plans according to our findings. The mid-term objectives and performance resulting from the process are described on page 36.

For performance data, we included brief background description and explanation when necessary, and proved how these values were related with the sustainability of Samsung SDI. Environmental data for each site are laid out with local legal standards and company compliance levels to aid each comparison.

### [Stakeholder survey results]

Category	Issues
<b>Common</b>	PDP vs. LCD, future AMOLED business, mid and long term business plans, market-share of products
<b>Shareholders /investors</b>	Performance, AMOLED production plan and timeline, profitability of rechargeable batteries, business restructuring, investment plan
<b>Customers</b>	Vixlim competitiveness
<b>Employees</b>	Cases of creating a fun place to work
<b>Suppliers</b>	AMOLED production plan and timeline, investment plan, S-partner system, supplier support system
<b>NGO Public sector CSR experts</b>	Overlapping issues* (Social NGOs raised issues over governance, labor union, health and safety)

※ The public sector, NGOs, and experts showed low their feedback rates and their replies varied widely, making it hard to select a common issue that concerned them. But opinions of respondents were overlapped with those of other stakeholder groups. So we replaced the opinions of these groups with our study results of media coverage.

※ Comparisons of PDP vs LCD were not included. Instead we enlisted the strength and competitiveness of our PDP.

### HOW TO REPORT?

Samsung SDI is working hard to release a report via a more transparent and effective process. The publication process has been standardized and is undergoing constant improvements. The main aim of drafting a report is on increasing direct communication with stakeholders and making the report more accessible to more people.

Samsung SDI created the sustainability menu on the homepage last year which held basic sustainability information and case studies. For more details on a variety of subjects visit the SDI website at:

① <http://www.samsungsdi.com/sustainability>

The report was validated by a 3rd party selected via an interview procedure and has been proven to have no interest or any affiliation with the company. This is to ensure that the contents of the report are honest and correct. The 3rd party validation procedure is detailed in the independent validation report on page 64 to 66.

# ADVANCING TOGETHER

## PUBLIC POLICY

Divisions of the Public policy of concern to Samsung SDI are public policies regarding environment and consumer safety. As the company operates as a B2B (business to business) business, it does not exchange significant impacts with the public. Nevertheless we work to recognize the potential impacts of our products, processes and services and proactively respond to customer requirements regarding environmental issues and safety, whilst simultaneously contributing rational policy-making through coalitions with businesses in the electric and electronic market to minimize environmental footprints and to ensure product safety.

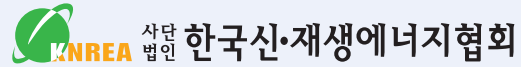
Samsung SDI seeks to achieve a balanced economic, environmental and social sustainability together with the society. The attitude also applies to environmental and safety issues.

The business principles of Samsung bans any form of political engagement and illicit donation and call for fair competition. For this reason Samsung SDI does not directly involve itself in policies related to management activities. The position or opinion of the company is captured only as part of the opinions of the industry as a whole when coalition groups or institutes study the industry trend and suggestions.

We also actively participate in various activities for setting national and global standards to find the most appropriate direction to advance to together with our stakeholders.

## PARTICIPATING ORGANISATIONS

The WBCSD (World Business Council for Sustainable Development) was founded following the Rio Declaration to define the roles of companies in obtaining sustainable development, and the Samsung Group is actively taking part in the movement. Samsung SDI not only contributes to the WBCSD, but is also acting as a member of the Korea Business Council for Sustainable Development (KBCSD). We also take part in the Committee of Corporate Ethics under the Federation of Korean Institutes as well as the Manbun Club of the Environment Foundation. Other activities include acting as a member of various corporate associations such as the Korea industrial Technology Association, to which Samsung SDI contributes suggestions for policies to the government and executes national tasks that are delegated. The company is also a member of numerous academic societies, such as the Korea Information Display Society, The Korea Society for New and Renewable Energy and Korea Association of Business Ethics to name a few.



## ORGANISATIONS FOR COOPERATION AND SUPPORT

Samsung SDI has joined IECTC-III aimed to establish ISO 26000 guidelines and eco-product development standards, whilst cooperating with government agencies and domestic and overseas institutes to solve different and material sustainability issues including corporate ethics, development of eco-products and processes, waste, support for SMEs, climate change and energy saving.



# INDEPENDENT ASSURANCE STATEMENT SAMSUNG SDI 2006 SUSTAINABILITY REPORT

## Introduction

Dear Samsung SDI stakeholders,

BSI and Sd3 have teamed up to create a multi-disciplinary assurance team with a broad range of skills and depth of experience providing a high level of competency for assurance engagements.<sup>1</sup> Samsung SDI commissioned us to provide independent assurance of the 2006 Samsung SDI Sustainability Report.

The assurance followed the AA1000AS standard, based on the following principles:

- **Materiality:** Is Samsung SDI publishing sustainability information that enables its stakeholders to make informed judgments, decisions and actions about the company's management and performance?
- **Completeness:** To what extent can Samsung SDI identify and understand the material aspects of its sustainability performance?
- **Responsiveness:** Has Samsung SDI responded appropriately to the expectations and perceptions of its stakeholders? Is it meeting its policy and standards commitments? Is each material issue being covered adequately?

Additionally, the GRI content index on pages 67-68 was checked to ensure it accurately referenced the GRI G3 reporting guideline indicators. A third party application level check was conducted.

### Scope:

The assurance covered the whole report and focussed on systems and activities during the 2006 calendar year at Samsung SDI sites in Korea with the following exceptions:

- The consolidated financial statements on pages 41-43 are based on previously published and audited financial data. We did check that the data was consistently reproduced.

The systems and activities used to produce consolidated global data have been assured as has data from Korean sites. Primary data from production sites outside Korea has been desk reviewed and not verified at site level.

This statement was prepared in English and translated into Korean.

### Assurance level:

The assurance provided is limited, as defined by the scope and methodology described in this statement.

### Responsibility:

The sustainability report is the responsibility of Samsung SDI. Our responsibility is to provide an independent assurance statement to stakeholders giving our professional opinion based on the scope and methodology described.

### Independence:

The assurance was carried out in line with the BSI Fair Trading Code of Practice <http://www.bsi-global.com/Fair+Trading/index.xalter> and Sd3's Assurance Code of Conduct [www.sd3-global.com/assurecode.html](http://www.sd3-global.com/assurecode.html)

## Methodology

We assessed over 200 assertions and data sets included in the report and the systems and processes used to manage and report these using the following methods:

- Reviewed report, internal policies, documentation, management and information systems
- Visited sites in Korea specifically Samsung SDI's headquarters in Seoul, manufacturing sites in Busan, Cheonan and Suwon and the Corporate R&D centre
- Carried out 52 interviews with staff involved in sustainability management, report preparation and provision of report information at Korean sites
- Checked systems, initiatives and documents referred to in the report, with particular emphasis on the Sustainability Management (SM) Committees and SM Initiative System (SMIS)
- Followed data trails to initial aggregated source and checked sample data to greater depth during site visits
- Independently checked materiality using the AccountAbility five-part materiality test, including a brief check on media coverage.

## Our Opinion

Based on the activities undertaken, we found the report to be a true and fair reflection of Samsung SDI's sustainability policies, strategy, management systems and performance. As well as our findings and recommendations given here, we have provided a management report to Samsung SDI which contains additional detail.

<sup>1</sup>The team of seven assurers was composed of experts experienced and trained in a range of sustainability, environmental and social standards including AA1000AS, ISO 14001, SA8000, GHGEM, OHSAS 18001 and ISO 9001. BSI is a leading global standards and assessment body founded in 1901, Sd3 is a leading sustainability consultancy with over 10 year's experience in reporting and assurance.



### Materiality

We found that the report covered Samsung SDI's material issues.

We commend the inclusion of a roadmap and information on the company's plans for increasing stakeholder involvement and inclusion. The structured stakeholder survey and prioritisation of feedback has helped determine the report content. Further development and implementation of these plans will enable a better evaluation of all stakeholder issues. We recognise and strongly support Samsung SDI's commitments in this area and welcome further information in future reports on how the outcomes are incorporated into management decision-making processes.

The identification of the key opportunities and challenges for Samsung SDI is useful. In future reports, we would welcome more information in three of these areas: First, in terms of a resource circulating society, the company's role in and response to producer responsibility and product life cycle legislation; Second, with regards to aging and health, further detail on Samsung SDI response to aging populations and fewer economically active citizens; and third, the ways Samsung SDI intends to extend a positive influence on poverty and conflict.

### Completeness

Samsung SDI has effective systems capable of measuring, monitoring and managing sustainability issues. We found the SMIS provided a good integrated system for measuring and monitoring sustainability issues. The SM committees were actively involved in management at site level and at the corporate level. We also identified commitment and competency among employees involved with these systems and processes.

The issues covered by SM have been expanded to cover a broader range of sustainability issues during the reporting period and in particular six key tasks for social sustainability. We strongly support the inclusion of these tasks and recommend the development of associated Key Performance Indicators (KPIs) and targets.

We recommend continued development of the linkage between sustainability, Samsung SDI's strategy and business planning activities. Further development of information to help stakeholders understand the relative life-cycle impacts of its products and the opportunities that Samsung SDI has to influence the various stages would be beneficial. The LCA system should be linked to business planning and the sustainability strategy while at the same time being used to its full capability to assess all products throughout their lifespan.

### Responsiveness

Aligned to the development of Samsung SDI's stakeholder engagement processes, the ability to confirm that Samsung SDI is providing information, engaging with stakeholders and responding to their needs is developing. Therefore, we would expect future assurances to be more able to confirm the degree to which this principle has been met.

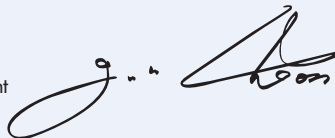
The report shows that Samsung SDI has in general responded appropriately to material issues. Further information on the impact of restructuring and sub-contractors would improve responsiveness. We also recommend that in future the report should provide clearer information on how the business growth strategy impacts on the five main sustainability issues identified and the company's plans to manage these linkages.

### GRI reporting

We have confirmed that the GRI indicators referenced in the GRI Index on pages 67-68 are reported either partially or fully. And the report exceeds the B+ application level criteria within the GRI G3 guidelines.

12th April 2007

JK Cheon, President  
BSI Korea



Dave Knight, Director  
Sd3-Global



# VERIFICATION OPINION FOR GHGEV

## **Samsung SDI Co., Ltd.**

Pusan Plant, Suwon Plant, Chunan Plant and Kiheung Corporate R&D Center located in Korea.

Shenzhen Plant, Dongguan Plant, Shanghai Plant, Tianjin Plant and Tianjin MD Plant located in China.

Brazil Plant, Mexico Plant, Hungary Plant and Malaysia Plant located in Overseas Area

### Scope:

The annual GHG emissions are for 2006 calendar year. The physical scope is within the boundary of the 13 sites mentioned above.

GHG emissions for SCOPE 1(Direct-emissions from the plant), SCOPE 2(Indirect-energy related) and partially SCOPE 3(Indirect-emissions from outsourced activities) as defined in WBCSD/WRI GHG protocol Chapter 4 "Setting Operational Boundaries"

### Data Verified:

The Green House Gas Emissions for the period of 2006 calendar year as follows:

Calendar	Year 2006
tCO <sub>2</sub> e	1,152,052

### GHG Criteria & Protocols used for Verification:

The verification was carried out at the request of the Samsung SDI Co., Ltd. using:

- The Kyoto Protocol to the United Nations Framework Convention on Climate Change - 11 December 1997.
- The GHG Protocol of the WBCSD/WRI - Revised March 2004
- IPCC Guideline for National Greenhouse Gas Inventories - Revised 2006
- ISO14064 Part 1 & 3 - Issued 2006
- BSI GHGEV Global Best Practice - Issued September 2003

as the principal reference documents.

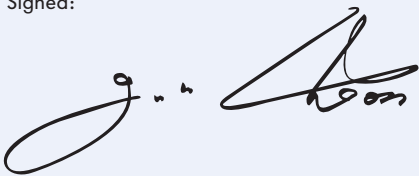
BSI Management Systems standard confidentiality arrangements were in force for all of the activities that were part of the verification.

### Verification Opinion:

As a result of carrying out verification in accordance with the protocols and the best practice mentioned above and the principles of ISO/IEC Guides 65, EA-6/01 and Guide 66, it is the opinion of BSI that:

- No material misstatement in the calculations was revealed, good record keeping was demonstrated and
- Data quality was considered acceptable in meeting the key international principles for greenhouse gas emissions verification.

Signed:



JK Cheon / BSI Korea President

Date : 12th April 2007

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MC4401/ISSUE1/SA/0102/UK/DP

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Training	LA10	Average hours of training per employee	53
Diversity and equal opportunity	LA13	Diversity in BOD composition and employees.	53-54, 57
	LA14	Ratio of basic salary of men to women by employee category	53
Human rights			
Investment and procurement practices	HR1	Percentage and total number of investment agreements that include human rights clauses	54
	HR2	Rates of significant suppliers and contractors that have undergone screening on human rights	54
Non-discrimination	HR4	Total number of incidents of discrimination and actions taken	54
Collective bargaining	HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights	51
Child labor	HR6	Operations that are likely to have child labor and measures taken	54
Forced labor	HR7	Operations that are likely to have forced labor and measures taken	54
Society			
Community	SO1	Programs that evaluate and manage operations on communities	28-29, 40, 61
Corruption	SO2	Percentage and total number of business units prone to corruption	54
	SO3	Percentage of employees trained in anti-corruption policies and procedures	30
	SO4	Actions taken in response to incidents of corruption	30, 54
Public policy	SO5	Public policy positions and participation in public policy development and lobbying	63
Compliance	SO8	Significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	55
Product liability			
Customer health and safety	PR1	Percentage of products in compliance with procedures for improvement of customer health and safety	55
Product and service labeling	PR3	Type of products required by procedures, and percentage of products subject to such information requirements	55
Marketing communications	PR6	Programs to be compliant with marketing communications related laws, standards, and voluntary codes	55
Compliance	PR9	Monetary values of significant fines for non-compliance with laws and regulations concerning the provisions and use of products and services	55

GRI Application Level								
		2002 in Accordance	C	C+	B	B+	A	A+
Mandatory	Self Declared			Report Externally Assured		 Report Externally Assured		Report Externally Assured
	Third Party Checked							
Optional	GRI Checked							

# TERMINOLOGIES

## 6 Sigma

Management initiative implemented to secure 6 sigma (0.00034% or 3.4 unexpected occurrences out of 1 million opportunities) level quality of its products. 6 Sigma was first adopted by Motorola in 1987 and by Samsung SDI as the first cooperation to do so in Korea in 1996.

## Internal control

To ensure accurate and reliable financial reporting, compliance with related regulations and procedures as well as effective job execution, the company checks all processes within firm, calculate risks and manage risks by a system that allows continuous control.

## Manbun Club

The name given to the group of companies that donate a proportion of its profit as environment investments to ensure a positive future for people, society and the Earth. The name translates to 1/10,000 in Korean and was adopted to reflect the proportion of sales donated by its member co operations towards environmental investment.

## Matching-Grant Fund

Placed to encourage donation from employees. The company donates a sum relative to its employee's donation at a certain ratio.

## Back light

A mechanism which projects white beams of light from the back of displays incapable of self illumination.

## Debt ratio

Debt capital divided by total assets. This tells us the extent of reliance of a company on debt to fund its assets.

## Current ratio

An indication of a company's ability to meet debt obligations. Equal to current assets divided by current liabilities.

## AMOLED (Active Matrix Organic Light Emitting Diode)

OLED with active driving method. Unlike PMOLED, independent RBG driving is applied, which lowers power consumption and allows a more refined display presentation.

## BOD (Biochemical Oxygen Demand)

Oxygen requirements for underwater microorganisms to decompose pollutants in water. High BOD is indicative of high level of pollutants in sample of water.

## COD (Chemical Oxygen Demand)

The quantity of oxygen required when pollutants in water is oxidized by oxidants such as  $KMnO_4$  or  $K_2Cr_2O_7$ . The higher the COD, the poorer the water quality.

## CRT (Cathode Ray Tube)

It is a general term for CDT and CPT.

#### **EA (Environmental Accounting)**

As traditional accounting does not reflect environmental aspect satisfactorily, EA was developed to support decision-making for environmental management by analyzing environmental investments, benefits and results.

#### **ED (Eco-design)**

Product design with consideration to the environment. Refers to a company's product development strategy to design, produce and sell products that excel in both environmental and economic aspects as cost, quality, and environmental aspects are all considered and managed remarkably.

#### **EuP (Energy using Product)**

A regulation effective from August 2005. It enforces eco-design for products using power and is to be implemented throughout the EU.

#### **Fuel cell**

A type of a power generator. Similar to other chemical batteries in that it functions through oxidation and reduction reactions, but different in that reactants are continuously supplied externally and products are continuously removed from within the cell. The reactants are hydrogen, gas fuel, and methanol and liquid fuel.

#### **GJ**

Gigajoule. 1GJ=10<sup>9</sup>J. Giga is a metric prefix indicating magnitude 10<sup>9</sup> times the size of a base unit (1 followed by 9 zeros). 1 Joule is equivalent to 0.24 cal or amount of work done when 1 W of electricity is consumed for 1 second.

#### **GRI (Global Reporting Initiative)**

Independent from the non-permanent institution under UNEP, it was established in 1997 with the aim of developing and disseminating a universal Sustainability Reporting Guidelines to be used in corporate economic, environmental, and social performance reporting.

#### **HD (High Definition) TV**

Compared to ordinary TVs, HD TV can deliver much higher picture quality and clarity. A conventional TV has around 525 ~ 625 number of scanning lines, whilst a HD TV contains twice as many (from 1,050 to 1,250), allowing projection of remarkably realistic images.

#### **ISO 14001**

International standard that forms the basis for setting up, auditing and certifying cooperate environmental management systems.

#### **ISO 26000**

Efforts are underway to define it as an international standard for corporate social responsibilities.

#### **LCA (Life Cycle Assessment)**

An objective process to evaluate the environmental burdens associated with a product, process, or an activity by identifying energy and material usage and waste production, and to evaluate and implement ways of improving the state of the environment.

#### **NOx (Nitrogen Oxide)**

These gases (NO, N<sub>2</sub>O, NO<sub>2</sub> and etc.) contribute to the greenhouse effect and possibly to the deterioration of the stratospheric ozone layer as well. They are also the causes of smog and acid rain.

#### **QVGA (Quarter Video Graphics Array)**

Resolution of 320 x 240 = 76,800 pixels

#### **RoHS (directive on Restriction of the use of certain Hazardous Substances in electrical and electronic equipment)**

A directive banning of usage of the six hazardous materials - Lead, Mercury, Cadmium, Chromium VI, PBB and PBDE - in products to be sold in the EU market, to take effect from July 2006.

#### **SOx (Sulfur Oxide)**

These gases (SO<sub>2</sub>, SO<sub>3</sub>) are produced when sulfur in fossil fuels react with oxygen, contributing to the acid rain effect.

#### **SS (Suspended Solid)**

Particulate solids with diameter larger than 0.1 which float on the surface of and/or are suspended in sewage or other liquids.

#### **TJ**

1TJ=10<sup>12</sup>J. Tera is a metric prefix indicating a size 10<sup>12</sup> times larger than the base unit (1 followed by 12 zeros).

#### **VOC (Voice of Customer)**

A system to ensure customer satisfaction. Customers can file complaints or suggest ideas about products, services, and management activities through this function on the webpage.

#### **VOCs (Volatile Organic Compounds)**

Substances such as paints, cohesive and petro-chemical products. VOCs form optic chemical ozones, doing harm to human bodies by acting as carcinogens and potentially damaging the human genome.

# BUSINESS PRINCIPLES

## 「Business Principles: Preface」

Samsung aims to be a world leading company, devoting our human resources and technology to create superior products and services, thereby contributing to a better global society. To this end, we share and pursue Samsung Values; People, Excellence, Change, Integrity, Co-prosperity. As part of the effort to realize these values, we follow the Business Principles. These are not only our promise to comply with laws and good ethical practices, but also a concrete expression of our commitment to these values. The Business Principles will be the guiding standards for everyone in Samsung, outlining the conduct expected of all our employees both individually and collectively.

## Principle 1 : We comply with laws and ethical standards

### **1-1 We respect the dignity and diversity of individuals**

- We respect the basic human rights of everyone
- We do not, under any circumstances, permit forced labor, wage exploitation or child labor
- We do not discriminate against any stakeholders, including customers and employees, on the basis of nationality, race, gender, religion, etc

### **1-2 We compete fairly, complying with laws and business ethics**

- We comply with the laws of the countries and communities in which we conduct business and we respect business competition standards and practices
- We do not take any profits from unethical business practices
- We do not permit the exchange of gifts, entertainment or any other form of bribery as an inducement to engage in unfair business practices

### **1-3 We maintain accounting transparency by keeping accurate records**

- We accurately record and maintain all business transactions to provide objective information on business activities for all stakeholders
- We abide by accounting rules of relevant countries and internationally accepted accounting standards
- We disclose material business matters such as major financial changes, corporate information as prescribed by law

### **1-4 We do not intervene in politics and we maintain a neutral stance on all political issues**

- We respect the political rights and opinions of the individual. However, political activity should be kept outside of the workplace
- We do not use company resources for political purposes
- We do not provide illegal political donation

## Principle 2: We maintain a clean organizational culture

### **2-1. We draw a strict line between public and private affairs in all business activities**

- When the interests of the company and the individual conflict, the legitimate interests of the company should take precedence
- We do not use company assets or the position within the company for personal interest (including embezzlement and misappropriation of company assets)
- We do not allow securities transactions such as trading in the company shares utilizing internal business information

### **2-2 We protect and respect the intellectual property of the company and others**

- We do not divulge internal intellectual property and classified information without prior permission or approval
- We respect the intellectual property of others by avoiding acts of infringement such as copying, distribution, modification or use without permission

### **2-3 We create a healthy organizational atmosphere**

- We foster positive working relationships by prohibiting harmful practices such as sexual harassment, violence and inappropriate monetary transactions between colleagues
- We do not allow favoritism or private groups based on external affiliations that is detrimental to the harmony within the company
- We establish win-win labor-management relations based on mutual trust and open communication

### **Principle 3: We respect customers, shareholders and employees**

#### **3-1 We value customer satisfaction the top priority in our business activities**

- o We provide products and services that meet customer demands and expectations in a timely manner
- o We treat our customers with sincerity and kindness, and attend to their proposals and complaints
- o We respect and protect our customers' reputation and their personal and proprietary information

#### **3-2 We focus on shareholder value**

- o We strive to provide long-term benefits to shareholders through rational investment and efficient management
- o We strive to make stable profits and increase the market value of the company with robust business operations
- o We respect the rights, opinions and reasonable requests of shareholders

#### **3-3 We endeavor to improve employees' quality of life**

- o We provide equal opportunities to all employees, and treat them fairly based on their abilities and performance
- o We encourage all employees to pursue continuous self-development and we actively support the improvement of their capabilities for better business performance
- o We strive to provide a workplace environment that fosters personal initiative and creativity

### **Principle 4: We care for the environment, health and safety**

#### **4-1 We engage in environmentally friendly management practices**

- o We observe global standards, related laws, and internal regulations related to conservation of the environment
- o We endeavor to protect the environment in all business operations, including product development, manufacturing and sales
- o We strive to implement activities that use resources efficiently such as recycling

#### **4-2 We value human health and safety**

- o We observe global standards, related laws, and internal regulations related to safety
- o We strive to prevent accidents by complying with safety regulations and fostering a pleasant work environment
- o We take every precaution not to supply products and services that could harm human health and safety

### **Principle 5: We are a socially responsible corporate citizen**

#### **5-1 We actively perform our duties as a corporate citizen**

- o We endeavor to raise public trust in our company by fulfilling our responsibilities and duties as a member of local communities
- o We strive to generate stable employment and fulfill our responsibilities to pay taxes faithfully

#### **5-2 We respect the characteristics of local custom, culture, and society, and strive to prosper together with local communities**

- o We respect the laws, cultures and values of the countries in which we do business, and we contribute to the quality of life of local residents
- o We lead the improvement of societies through the support of public activities such as education, art, culture and sports
- o We actively participate in public services such as volunteer activities and disaster relief services

#### **5-3 We build win-win relationships with business partners**

- o We form reciprocal relationships on the basis of mutual trust with our suppliers, and treat them as strategic partners
- o We reinforce our suppliers' competitiveness with legitimate support in order to achieve co-prosperity



# Listening to you

☎ 82-31-8006-3399

We capture your valuable opinions through a Samsung SDI Sustainability Report.  
We collect opinions from our audience, use them improve management activities of Samsung SDI and give feedback.  
We hope to meet you again soon with much improvement.

## Which of the following best describes you or your affiliation?

- Samsung SDI employee    Shareholder    Institutional investor    Individual investor    SR investor  
 Supplier    NGO representative    CSR expert    Media    Academic  
 Public officer    Others \_\_\_\_\_

## What do you wish to find out from a Samsung SDI Sustainability report?

Samsung SDI's

- Company profile    Investment information    Sustainability management  
 Environmental management    Community service    HR management and working environment  
 Customer satisfaction management    Win-win management with suppliers    Dialogue with stakeholders

## Please tick the box which best describes your impressions on the report.

	Very much	Agree	So-so	Not really	Not at all
Terminologies are clear and easy to understand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient and useful information is provided on necessary issues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contents are reliable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The design is easy to read and Aids the understanding of the content	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Which of the following could be improved?

- Company profile and investment information    Economic part    Environmental part    Social part  
 Communication with stakeholders

Please give us any opinions, impression, requests etc.



## We would like to hear from you

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① <http://www.samsungsdi.com>

<http://www.samsungsdi.com/sustainability>

※ VOC system is also available.

Go to the Samsung SDI website and click "here VOC" on the bottom of the main page.

## Recognitions of Samsung SDI's achievements

Samsung SDI was awarded for the following during the reporting period:

2007	Mar.	The Best Award for Best Ethical management	Korea Association of business Ethics
2006	Oct.	[Convention for Waste Reduction Performance Expansion 2006] Excellent plant in Battery and Electronics Industry	Korea Environment and Resource corporation, Ministry of Environment
	Oct.	[The 30th National Productivity Innovation Convention] Prime Minister Testimonial	Ministry of Commerce, industry and Energy, Korea productivity Center
	Sept.	[Year 2006 Korea Green Management Award] Best Green Report Award	Korea Management association, KMA Registration and Assessments
	Aug.	[Year 2006 Korea Employment Brand Award] Award in Electric and Electronics Part	Incruit
	Jun.	[Year 2006 Environmental Management Award] Grand Prix	Korea Economic Daily, Open Management Research Inc.
	Feb.	[The 5th Green People Award] Green Corporate Award	Cheonan Asan Korea Environment Movements

## DJSI, Leader of the Electric and Electronics Industry

SAM is a corporate asset management and investment company based in Switzerland. SAM, along with Dow Jones of the US, are the creators of the Dow Jones Sustainability Index (DJSI). SAM assesses top 10% of companies in each industry whom have sustainability practices. DJSI is the average stock price of the companies with the best assessment among others. SAM reviews economic, environmental, and social aspects of companies and select the best companies capable of delivering the most benefits to shareholders in the long term.

Samsung SDI has been short listed on the DJSI list for three consecutive years, and in 2005 and 2006 was chosen as the company with the most sustainability in the electric and electronics field.





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