

The Road to \$20,000 GDP/capita

IT

8

3

9

Strategy

Convergence

Digital

Message from Minister



The development of a series of innovative technologies from TDX in the 80s to CDMA and the broadband Internet since the 90s has established Korea as a global IT powerhouse.

As a result, the IT industry has emerged as a key driving force of the Korean economy, accounting for almost 30 percent of total exports.

However, we cannot afford to be complacent with the past achievement of the Korean IT industry, since Today's winner-takes-all society allows only a company or a country with world's best technologies to survive the fierce competition across international borders.

To cope with the challenge and make a leap toward a global leader in the IT field, Korea should take a road untravelled by its competitors.

Against the background, the Ministry of Information and Communication formulated the IT839 Strategy to help Korea stay ahead. Under the Strategy, new IT services will be introduced and promoted to encourage investment in network infrastructure, which will bring synergic effects with cutting-edge devices, equipment, software and contents.

I hope all of you play a role in carrying out the IT839 Strategy and open the era of \$20,000 GDP per capita!

Daeje Chin, Ph.D.

Minister

Ministry of Information and Communication Republic of Korea

contents

I. What Is the IT839 Strategy?

- 1. Background _ 05
- 2. Mid-to-Long Term Goal _ 07

II. The 839 Implementation Plan

- 1. 8 Services
 - WiBro Service _ 09
 - DMB Service _ 10
 - Home Network Service _ 11
 - Telematics Service _ 12
 - RFID based Service _ 13
 - W-CDMA Service _ 14
 - Terrestrial Digital TV _ 15
 - Internet Telephony (VoIP) _ 16
- 2. 3 Infrastructures
 - Broadband Convergence Network (BcN) _ 18
 - Ubiquitous Sensor Network (USN) _ 19
 - Next-Generation Internet Protocol (IPv6) _ 20

3. 9 New Growth Engines

- Next-Generation Mobile Communications _ 22
- Digital TV _ 23
- Home Network _ 24
- IT SoC _ 25
- Next-Generation PC _ 26
- Embedded SW _ 27
- Digital Contents _ 28
- Telematics _ 29
- Intelligent Service Robot _ 30

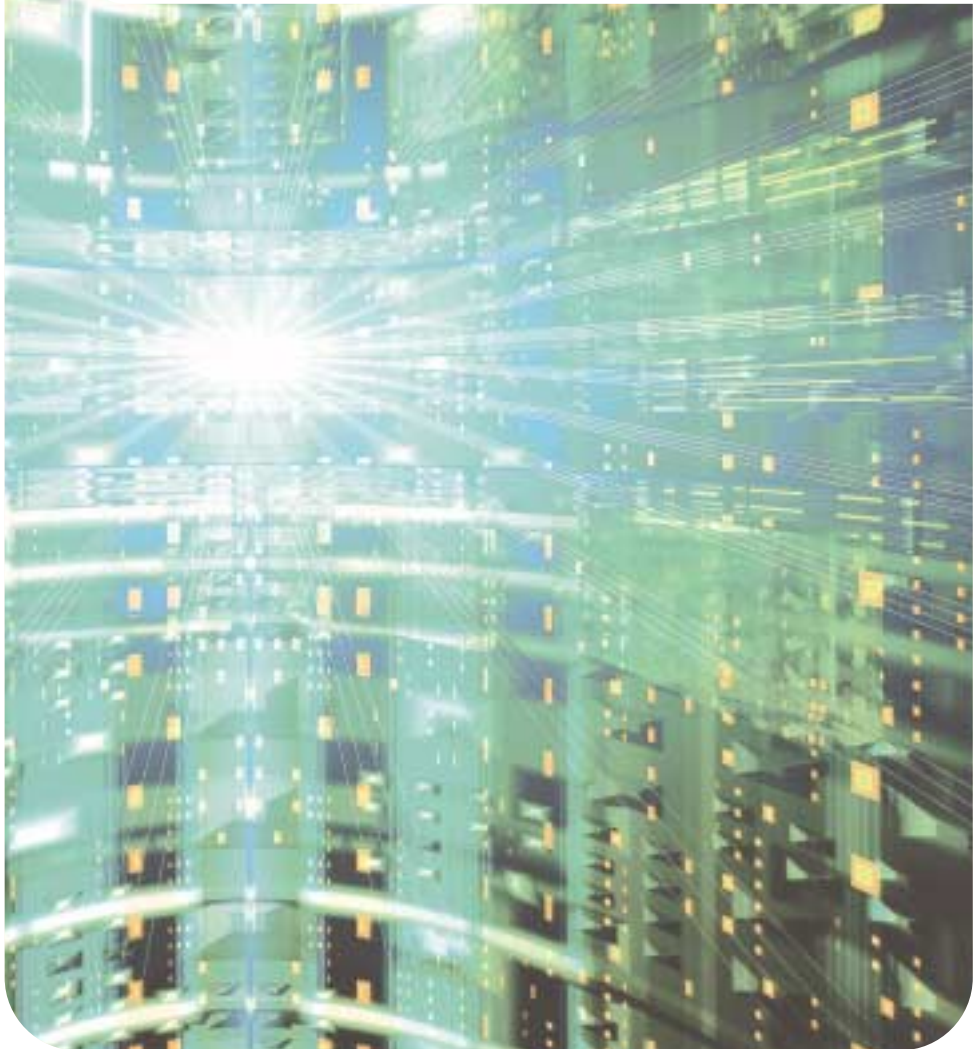
III. Expected Results



What Is the IT839 Strategy?

Background

Plan for 2004 & Mid-to-Long Term Goal





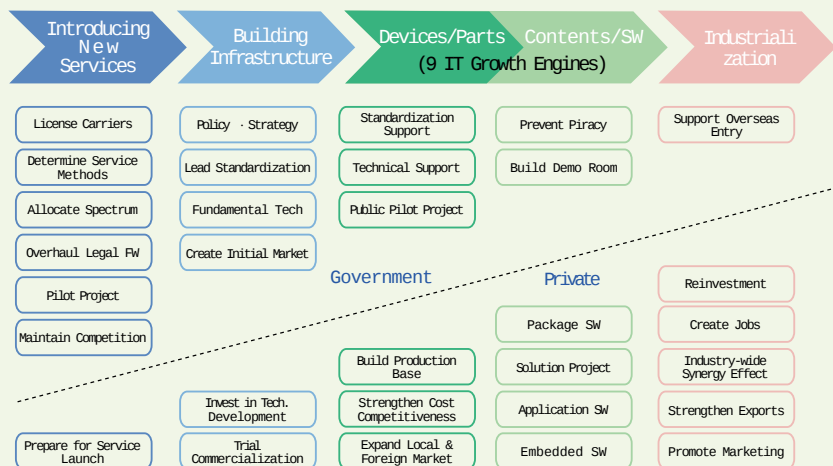
What Is the IT839 Strategy?

Background

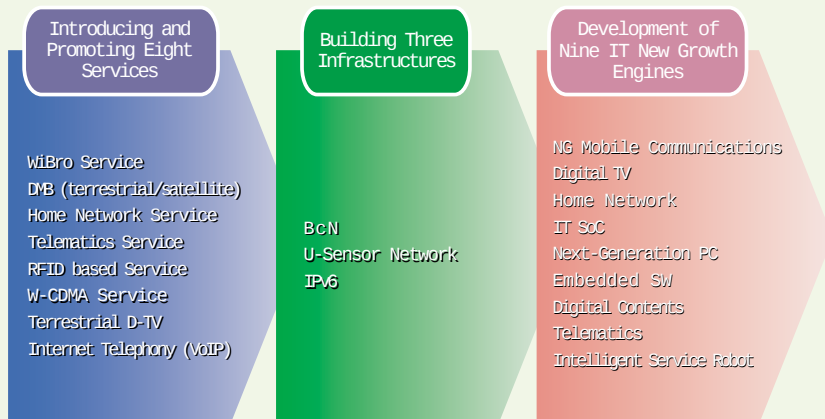
- The Korean IT industry developed into a global industry from scratch in just two decades.
 - Korea now has world-class IT infrastructure such as broadband Internet and mobile communications.
 - Korea-made products based on broadband networks and IT technologies including semiconductors, mobile handsets, TFT-LCD, digital TV and Internet games have emerged as number one products on the global market.
- The achievement was made possible thanks to the new services that create demand, establishment of infrastructure that enables the provision of new services and enhanced manufacturing capabilities.
 - Korea's development strategy to adopt new IT services ahead of competitors, commercialize them and preoccupy the IT service industry turned out successful.
- With a goal to develop a new virtuous cycle, the Ministry of Information and Communication (MIC) drew up the IT839 Strategy.
 - The IT industry has been ready for the second momentum for growth as the recent broadband and convergence trend blurred the border between industries as well as products and created new businesses
 - To use the second growth momentum as a driving force of national development, the IT839 Strategy that aims to introduce world's first services and products was established.
- The MIC is committed to the implementation of the Strategy to achieve \$20,000 GDP per capita earlier than the original schedule.
 - We will promote an effective industrial development model that creates future growth engine through the strong collaboration among IT services, infrastructure and manufacturing.



IT Industrial Value Chain & Roles of Government and Companies



The IT839 Strategy





Plan for 2004 & Mid-to-Long Term Goal

	Name of Project	Plan for 2004	Mid-to-Long Term Goal
Services	① WiBro Service	Standardization, Establish Licensing Framework	Service Launch ('06)
	② DMB Service	License Broadcasting Station, Service Launch	Interactive Service ('06)
	③ Home Network Service	Provide the Service to 500,000 Homes (VOD/Electronics Control)	10 Million Home Network Serviced Houses ('07)
	④ Telematics Service	Establish Information Center, Pilot Project Launch	10 Million Service Users ('07)
	⑤ RFID based Service	Allocate Frequencies, Develop Core Technologies	Tiniest & Cheapest RFID ('07)
	⑥ W-CDMA Service	Allow Subsidies, Support Tech. Development	Nationwide Networks across Cities ('06)
	⑦ Terrestrial D-TV	End Standard Dispute, Expand Coverage	Nationwide Networks ('05)
	⑧ Internet Telephony (VoIP)	Establish Service Framework, Allocate Numbers	4 Million Service Users ('06)
Infra-Structures	⑨ BcN	Develop Tech., Establish Network for R&D Use	20 Million Users ('10)
	⑩ U-Sensor Network	Establish Framework, Pilot Project Launch	Realize u-Life ('10)
	⑪ IPv6	Support Pilot Project, Develop Equipment	Switch over to All IPv6 ('10)
New Growth Engines	⑫ Next-Generation Mobile Communications	Develop Portable Internet Prototype	Develop 4G Mobile Communication Prototype ('07)
	⑬ Digital TV	Develop Terrestrial DMB Transmitter-receiver	Telecom & Broadcasting Convergent Service Server/ Devices ('07)
	⑭ Home Network	Develop Wired & Wireless Convergent Home Server	Telecom & Broadcasting & Games Convergent Home Server ('07)
	⑮ IT SoC	Develop Multimedia Chipset for Mobile Phones	Develop into One of the Three Major Countries in IT SoC ('07)
	⑯ Next-Generation PC	Introduce Watch-type PC	Wearable PC ('07)
	⑰ Embedded SW	Build Embedded SW in 100 Kinds of Products	Develop into the second largest producer in Embedded S/W ('07)
	⑱ Digital Contents	Develop Multi-platform Game Engines	One of the Three Major Open Source SW Producers ('07)
	⑲ Telematics	Establish Test-bed for Tech. Verification	In-vehicle Mobile Office ('07)
	⑳ Intelligent Service Robot	Develop Humanoid that Recognize its Master	Global Presence ('07)



The 839 Strategy Implementation Plan

8 Services

- 01 _ WiBro Service
- 02 _ DMB (terrestrial/satellite) Service
- 03 _ Home Network Service
- 04 _ Telematics Service
- 05 _ RFID based Service
- 06 _ W-CDMA Service
- 07 _ Terrestrial D-TV
- 08 _ Internet Telephony (VoIP)



WiBro (Wireless Broadband) Service

Background

- The Wireless Broadband Service is a portable Internet service that provides a high-speed Internet connection anytime anywhere, whether you are on the move or at a standstill.
- The market saturation in the fixed-line, mobile and broadband Internet areas raised the need to develop new driving forces and create a new market.

Goal and Strategy

The licensing framework of the WiBro Service (number of service providers, standards, time schedule, etc.) will be established by July 2004 to launch the commercial service in 2006 as originally planned.

- Since July 2003, the Portable Internet Service Task Force Team has been in operation to study the most effective licensing framework for the WiBro Service.
- The licensing schedule will be determined by June 2004 after a comprehensive review on the market demand prospect, technology standards, and the effects on the IMT-2000 service.
- The overall licensing framework including the number of service providers, frequency fees and a license period will be established and announced by July 2004.

Expected Results

- The introduction of the WiBro Service in 2006 is expected to secure 8 million subscribers and create a portable Internet market sized at 3 trillion won by 2010.
- About 40,000 jobs will be created in the portable Internet market by 2010.



DMB (Digital Multimedia Broadcasting) Service

Background

- The concept of DMB was introduced to satisfy the consumer need for mobile multimedia broadcasting that provides quality audio and video services anytime anywhere.
- World's first commercial DMB service will stimulate digital broadcasting equipment manufacturers and contents developers and emerge as one of the growth engines of the Korean economy.

Goal and Strategy

The nationwide satellite DMB service and the terrestrial DMB service for the Seoul Metropolitan Area will start within the second half of 2004 and expand coverage across the country by 2006 when enough channels are obtained.

- Based on its excellent mobile reception, the DMB service can offer various contents such as music, text and streaming video over portable TV, PDA and mobile handsets.
- We will commercialize the terrestrial DMB technology for the first time in the world and preoccupy the global market just as we did with the CDMA technology.

Expected Results

- From 2004 to 2012, the terrestrial DMB market will grow to 2.4 trillion won in size and create 3.4 trillion won in production and 40,000 jobs.
- From 2004 to 2012, the satellite DMB market will grow to 1.7 trillion won in size and create 1.8 trillion won in production and 34,000 jobs.



Home Network Service

Background

- The Home Network Service realizes a future home environment in which information home appliances are networked to provide various information services regardless of time, space and the kind of device.
- The Home Network Service has ripple effects through the economy since it is related to telecommunications, broadcasting, construction, home appliances and solutions.

Goal and Strategy

Korea plans to provide the Home Network Service to 500,000 homes in 2004 and increase the number to 10 million (60% of total households) by 2007.

- To develop and promote various home network service models, a pilot project will be launched in 2004, in cooperation with service providers, manufacturers and construction companies.
- We will build infrastructure to support private sector's promotion of the home network service.
- The Ubiquitous Dream Exhibition Hall was open in March 2004 to allow the general public to experience future life-style services and showcase cutting-edge technologies such as IPv6.

Expected Results

- By introducing the service earlier than other countries, Korea will take the lead at the global home network service market estimated at 102.6 billion dollars. By 2007, Korea will record 14 trillion won in production.
- In addition, our traditional home will be transformed into a pleasant and convenient place with enriching digital experiences.



Telematics Service

Background

- Telematics is an in-vehicle multimedia service that offers infotainment as well as location and traffic information via mobile communications networks.
- On the basis of fixed and wireless communications and broadcasting networks, telematics is a value-added service that turns a vehicle into another Internet-connected space.

Goal and Strategy

Korea will become one of the top five countries in the telematics industry by increasing the market size to 3.2 trillion won and providing terminals to 27 percent of the total population by 2007.

- We will collect key information such as traffic, map and tourism for the success of the service, systemize the supply chain of telematics terminals and lower terminal prices and usage rates.
- Nine key projects to lay the foundation for the demand and supply of the market will be carried out by local governments, research institutes and companies, each taking a different role.
- We will propel projects to build a telematics pilot city at Jeju-do. (2004.5 ~2006.5)

Expected Results

- The full introduction of the telematics service will enhance the competitive edge of relevant industries and register 7.353 trillion won in production and 1 trillion won in added value by 2007.
- The telematics service will also increase the quality of life with reduced traffic congestion, better traffic safety and an in-vehicle office environment.



05

RFID based Service

Background

- Radio Frequency Identification (RFID) is a sensor technology that identifies information on the product with an RFID tag and gathers information from surrounding environments.
- The technology is expected to be used extensively in our daily lives from management of food, livestock, wastes and environment to logistics, distribution and security services.

Goal and Strategy

Korea will allocate additional frequencies for RFID in 2004 and complete development of core technologies such as chip, reader and middleware by 2010.

- We plan to develop core technologies and systems for passive/active RFID in 2005, sensing-type RFID in 2007 and a ubiquitous sensor network in 2010.
- To reduce the price and size of RFID tags, key technologies for producing, processing and packaging of the chip will be developed along with a micro sensor convergent technology.
- In connection with the technology development, ISO standard identification codes and IPV6 will be integrated into RFID to establish standards for a ubiquitous environment.

Expected Results

- The RFID commercial service in Korea will preoccupy the global market estimated at 1 billion dollars in 2007 and create 4 trillion won in production and 25,000 jobs.
- Together with the new growth engine project including telematics and home network, RFID based Service will maximize synergic effects and enhance consumer convenience.



W-CDMA Service

Background

- The W-CDMA service is an IMT-2000 service that provides voice, video and high-speed data service in the 2GHz band.
- In an effort to maintain Korea's powerful status in mobile communications that was established with the success of 2G CDMA, we will begin full-scale W-CDMA service, one of the major 3G services.

Goal and Strategy

The W-CDMA service in the Seoul Metropolitan Area will stabilize by the end of 2004 and achieve balanced development with the CDMA service from 2005.

- Since the launch of the commercial W-CDMA service in late 2003, the MIC has encouraged investment from telecom carriers and allowed handset subsidies as well as a fixed tariff for unlimited use of data.
- The W-CDMA Technical Support Team, composed of telecom carriers, manufacturers and researchers, was formed to fix problems that might arise at the initial stage of the service.
- In addition, the W-CDMA Working Group is in operation to boost competitiveness of the Korean W-CDMA industry through active exchange of technical and business issues in the domestic and international market.

Expected Results

- The investment by telecom carriers will create 9.563 trillion won in production, 1.182 trillion won in added value and 100,000 jobs by 2010.



Terrestrial Digital TV

Background

- There is a pressing need to end the ongoing controversy over the terrestrial digital TV standard as early as possible.
- The terrestrial digital TV service provides high definition and stereophonic sound on a large-sized screen. The terrestrial digital TV network will be completed by 2005 nationwide.

Goal and Strategy

The controversy over the standard will come to an end by August 2004. Then, Korea will expand coverage across cities and towns by 2005 and start the nationwide terrestrial digital TV broadcasting service from 2006.

- Results of the field test and socioeconomic effects of different standards will be analyzed by June 2004 to end the dispute before the Athens 2004 Olympic Games in August.
- A task force team is in operation to license and test terrestrial digital TV broadcasting station so that the stations will open in provincial governments by late 2004 and in cities and towns by late 2005.
- A various kind of TV sets will be developed and provided at affordable prices while the minimum mandatory HDTV broadcasting hours will increase and the digital TV broadcasting reception will improve.

Expected Results

- The digitalization of terrestrial, cable TV and DMB services will record 229 trillion won in production and create 1.26 million jobs.
- The terrestrial digital TV service will realize a home theater environment with high definition and stereophonic sound and provide an easy access to useful information.



Internet Telephony (VoIP)

Background

- The high broadband penetration and the complete deployment of Internet backbone networks created the Internet Telephony (VoIP) service that offers cheap phone services.
- The VoIP service converts voice signals into packet data to provide a phone service over the Internet. This service is expected to become a killer application of the All-IP based Broadband Convergence Network.

Goal and Strategy

Korea will start allocating called numbers and establish a policy framework for VoIP so that the service can develop into a basic telecom service based on BcN in 2010.

- Within the first half of 2004, a policy framework for VoIP including classification of the service, regulation on market entry, interconnection scheme and service level agreement (SLA) will be determined.
- To lay the foundation for an All-IP phone system by 2010, we will classify VoIP as a facilities-based telecom service, allocate called numbers and guarantee phone-level voice quality.
- The success of the VoIP service based on world's best broadband infrastructure will lead to the further development of relevant industries such as equipment and software.

Expected Results

- Korea's Internet phone service will establish standards for global VoIP technologies and Korea will push into the Internet phone equipment market estimated at 9.1 billion trillion dollars in 2007.
- The service is likely to play a leading role in the creation of a convenient communications environment by integrating video communications, multimedia, payment settlement and other value-added services.



The 839 Implementation Plan

3 Infrastructures

- 01_ BcN
- 02_ U-Sensor Network
- 03_ IPv6



Broadband Convergence Network (BcN)

Background

- Since 1995, Korea has actively pressed ahead with the deployment of broadband networks across the country.
- Now, in response to the convergence of telecommunications, broadcasting and the Internet, and to lay the foundation for new growth engines of the IT industry, we need to build the Broadband Convergence Network (BcN).

Goal and Strategy

Korea will establish BcN by 2010 that provides quality services at the speed of 50 to 100Mbps to 20 million fixed and wireless subscribers.

- The BcN will support quality of service (QoS), security and IPv6 and extend various convergent services.
- A high-tech R&D network will be established to develop and verify core technologies for the BcN. Pilot projects will be carried out.
- We will develop and distribute a wide range of applications and revise relevant laws and regulations to create a favorable environment for the BcN.

Expected Results

- The BcN will stimulate private investment amounting to 67 trillion won and create 111 trillion won in production of telecommunication and broadcasting equipment .
- The BcN will provide high-tech services such as e-Learning, e-Health, home network and VOD services via convergent terminals, regardless of time and space.



Ubiquitous Sensor Network (USN)

Background

- The Ubiquitous Sensor Network (USN) recognizes and manages information over the Internet through an RFID tag attached to a product.
- The USN will be the first step toward the informatization of a product, which will be the basis of a ubiquitous society.

Goal and Strategy

Korea will establish a policy framework for the USN by 2004 and introduce a u-life by the target year 2010.

- U-sensor based business models for the areas of farm products & livestock management, environment, transportation, distribution and logistics will be developed.
- Pilot projects will be carried out on the applications with huge ripple effects across the industry and our daily lives to create early demand in the market.
- To shorten time to market, services and application systems will be developed at the same time and laws and regulations will be revised.

Expected Results

- The USN will enhance consumer convenience by efficiently managing products, food, transportation, environment and medicare.
- Taking the semiconductor industry as a basis, it will result in the development of new technologies such as RFID tag and sensor technologies and innovate the entire logistics system.



Next-Generation Internet Protocol (IPv6)

Background

- As the Internet Protocol in use today (IPv4) will be depleted starting from 2006, we need to find a fundamental solution to the problem.
- Our aim is to become an Internet powerhouse by promoting IPv6, a key factor in implementing the BcN, home network and telematics services, earlier than others.

Goal and Strategy

Korea will expand IPv6 pilot networks in 2004, start commercial services in 2005 and provide All-IPv6 based services since 2010.

- Through IPv6 pilot projects, equipment and services will be verified in advance. In addition, the IPv6 Strategic Council will establish collaboration among industries, academia, research institutes and the government.
- We will promote the development of IPv6 technology suitable to the Internet environment and introduce them to create early market demand.
- IPv6 will be applied to new projects such as BcN, WiBro and home network services. It will also be developed in connection with RFID and 3G mobile communication services.

Expected Results

- IPv6 will fundamentally solve the shortage of Internet addresses and contribute to the success of new growth engine projects.
- The successful promotion of IPv6 will create 8.6 trillion won in production and 53,000 new jobs.



The 839 Implementation Plan

9 New Growth Engines

- 01 _ NG Mobile Communications
- 02 _ Digital TV
- 03 _ Home Network
- 04 _ IT SoC
- 05 _ Next-Generation PC
- 06 _ Embedded SW
- 07 _ Digital Contents
- 08 _ Telematics
- 09 _ Intelligent Service Robot



Next-Generation Mobile Communications

Background

- Next-generation mobile communications is expected to develop based on the new high-speed packet transmission technology.
- It will enable users to have a fast and clear access to multimedia information, while on the move or at a standstill, via the existing mobile and Internet networks.

Goal and Strategy

Korea will develop prototypes for the wireless portable Internet in 2004, start commercial services in 2006 and develop prototypes and core technologies for 4G mobile communications by 2007.

- We will focus on core technologies necessary for global competitiveness in the future mobile market, and make efforts to adopt them as international standards so that key IPRs can be owned.
- Based on the world-class broadband infrastructure, we will establish wireless portable Internet networks and create demand for wireless multimedia services.
- To increase competitiveness of exporters, a technology that upgrades the multimedia function of mobile handsets, one of the key export items of Korea, will be fostered.

Expected Results

- By 2007, the next-generation mobile communications will create 43 trillion won in production, as a result of continuous growth.
- High-speed high-quality broadband multimedia services will shift our paradigm and overhaul the employment structure, the way of doing business and our lifestyles.



02

Digital TV

Background

- The terrestrial DMB transmitter-receiver, a technology that provides voice, video and data services in the mobile environment, will be commercialized by 2006.
- There is a need to develop a DMB transmission system and terminal technologies for the provision of convergent services in the vehicle or on the move.

Goal and Strategy

Korea will develop a unidirectional DMB transmission and terminal system by 2004, and complete a bidirectional DMB system by the end of 2006.

- Interactive terminals that enable audio, video and data broadcasting will be jointly developed by industries and broadcasters under the initiative of the Electronics and Telecommunications Research Institute.
- To apply terrestrial DMB to portable devices such as a mobile handset and a PDA, relevant companies will participate in the project from the early development stage and transfer core technologies.
- We will actively participate in international standard development and hold seminars to promote Korea's terrestrial DMB as an international standard.

Expected Results

- The terrestrial DMB market is projected to grow to 2.8 trillion won in 2012. It will record 3.4 trillion won in production and create 40,000 jobs during the period from 2004 to 2012.
- Interactive DMB as a personal media will increase demand for digital contents and expedite the convergence of telecom and broadcasting. In addition, the digital culture will come into full blossom with terrestrial DMB.



Home Network

Background

- Home network refers to core technologies of home automation that controls information appliances and provide TV-based home entertainment services.
- Leveraging the strengthes in the Digital consumer electronics inderstry and Broadband Internet infrastructure, Korea will focus on developing core technologies and establishing standard to lead the world market.

Goal and Strategy

Korea will develop a fixed-wireless convergent home server in 2004, a telecom-broadcasting convergent home server in 2005 and a telecom-broadcasting-game convergent home server in 2006.

- An open home network framework, a wireless home network and a next-generation server, which are core technologies for a telecom-broadcasting-game convergent home server, will be developed.
- We will secure source technologies and core component technologies to have global competitiveness in home servers and information appliances.
- A home network working group will be established among China, Japan and Korea to lead standard development for the home network service.

Expected Results

- Early development of core technology such as a home server will nurture the home network into a major inderstry, following CDMA, semiconductor and TFT-LCD.
- Korea will be able to keep its global competitiveness with the early development of next-generation core technologies for the home network industry.



04 IT SoC (System-on-Chip)

Background

- IT SoC refers to a non-memory integrated circuit which is not only a growth engine itself for the next-generation but also a key that determines the success of IT products.
- Although SoC is projected to lead the global chip market, Korea's chip industry has been expanded based on memory. Now is the time to strengthen the SoC industry.

Goal and Strategy

Korea will develop multimedia chipsets for mobile handsets in 2004 and emerge as one of the three major IT SoC countries in the world by 2007.

- Core SoC and Intellectual Property (IP) will be developed in connection with other growth engines including mobile communications, digital TV and home network. An IP DB will be also established.
- SoC experts who satisfy the demand from the industry will be nurtured through the SoC Architect Training Program under universities. SoC will be co-developed by industry, academia and research institutes.
- We will create an IP-based design environment and support design, verification and test of chips to enable easy, low-cost designing and manufacturing of SoC.
- We will enhance collaboration with SoC design companies, SI and foundries and encourage design companies to jointly develop technologies.

Expected Results

- Korea will enter into the global SoC market estimated at 160 billion dollars in 2007. We will gain competitiveness in IT industry by fostering 10 SoC design companies, each with over 100 billion won in revenues.



05

Next-Generation PC

Background

- A Next-Generation PC refers to a wearable PC that has information processing and networking power. It will be commercialized by the end of 2007.
- The next-generation PC that integrates sensors and human interface technologies will provide human-centered services with convenience and excellent portability.

Goal and Strategy

Korea will develop prototypes for the Next-Generation PC in 2004, establish technology standards in 2006 and complete the development by the end of 2007.

- From 2004, we will focus on developing core technologies such as micro platform and human interface required for the implementation of a wearable PC.
- Secure and reliable models will be identified in connection with BcN. Standardization efforts will be made to achieve interoperability.
- To raise the public awareness of the next-generation PC, the IT-Wear, an international fashion show of wearable computers, will be organized.

Expected Results

- The next-generation PC will become a strategic item of Korea, preoccupying the global market sized at 35 billion dollars and posting 4 trillion won in production in 2007.
- IT will be fully integrated into traditional industries such as textiles and fashion industries and provide user-friendly IT services in our daily lives.



Embedded SW

Background

- Embedded SW is software built in information appliances, vehicles, robots, industrial equipment, medical equipment, SoC and so on.
- Embedded SW provides smart functions such as the HW control, communications, multimedia, Internet and artificial intelligence services.

Goal and Strategy

Korea will annually provide various-sized embedded SW platforms and solutions for each product until 2007.

- Standard-, micro- and nano- platforms of embedded SW as well as solutions including DTV, smart phones and robots will be developed and distributed.
- We will secure world-class technologies through open source codes and apply them to mobile terminals and digital home.
- We will operate a human resource development program in cooperation with industries, academia and research institutes to foster top-notch engineers who can handle both HW and SW.
- We will develop standards, support compliance tests, build an efficient test-bed and carry out a pilot project to quickly advance into the market.

Expected Results

- Embedded SW will create 12 trillion won in production in 2007 and Korea will emerge as the second largest embedded SW producer.



Digital Contents

Background

- The advent of a digital era increased the importance of digitalized contents on culture, education, medicare and other areas of our daily lives.
- As a high value-added industry with near 0 marginal cost, digital contents are key to maximizing added value in mobile communications, DTV, home network and other growth engines.

Goal and Strategy

Korea will develop online game engines geared to multi-platforms in 2004 and build the country as one of the top five digital content countries in the world by 2007.

- Core technologies such as 3D computer graphics, multi-platform geared online game engines and multi-platform e-learning solutions will be developed.
- A DC cluster will be created in the High-tech IT Complex, which is under construction.
- To support overseas entry of Korean companies, we will operate a global test-bed and increase support for better localization. We will also carry out a joint study with advanced countries such as Australia.

Expected Results

- Korea will become No. 1 in online games and mobile contents. With the establishment of the third largest CG production base in the world, Korea will be able to achieve 12.7 billion dollars in production by 2007.
- A wide range of quality digital contents tailored to the specific needs of consumers will enrich a digital life.



Telematics

Background

- Telematics is an in-vehicle mobile communication service that offers convenience, safety and pleasure.
- Core technologies have been developed to provide Contents, Communication and Commerce services and establish an office in the vehicle.

Goal and Strategy

Korea will develop terminal SW platforms in 2004 and establish a test-bed and an integrated processing protocol for wireless networks in 2005.

- Key technologies will be developed, accommodating demands from service users, mobile carriers and car manufacturers.
- A test-bed will be established at an early development stage to test and certify products, increase demand and advance the service.
- We will join forces with world's renowned R&D centers such as IBM and carry out joint research with Sweden's Telematics Valley to lead standardization and promote overseas entry.

Expected Results

- Korea will develop core technologies and lead standardization, increasing global competitiveness of the domestic telematics industry.
- A vehicle will turn into a space of digital life that provides services such as safe driving, mobile office, shopping and multimedia.



Intelligent Service Robot

Background

- An IT-based intelligent service robot refers to a Ubiquitous Robotic Companion (URC) that provides necessary services anytime anywhere. The URC will be commercialized by the end of 2007.
- Consumers will be able to enjoy various service of the robot at lower costs since the URC will operate by simply adding network functions to the existing robots.

Goal and Strategy

Korea will complete a pilot project by 2005, start initial services early 2006 and fully introduce the URC by the end of 2007.

- In 2005, a URC will be established in 400 apartment houses and 200 public places (i.e. post office) to create early demand for the market.
- The URC will be developed with a priority put on human-focused functions and a strategy to develop lego-like composite technologies will initiate further development of the URC.
- We will support the spread of URC and standardization of intelligent service robots.

Expected Results

- The commercial service of the URC will help Korea preoccupy the global market estimated at 200 billion dollars and register 13 trillion won in production by 2013.
- The combination of a robot and IT will result in human-oriented interfaces and technologies that enhance our living standards.



Expected Results

The Service Market

- 2.6 trillion won (2004)
- 10 trillion won (by 2007)



The Entire IT Industry

- 240 trillion won in production (2004)
- 370 trillion won in production (2007)
- 110 billion dollars in exports (2007)

