Digital Society
Development of Korea

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I. Informatization in Korean Society

1. Building a Fundamental Infrastructure for Informatization

2. Building a National Informatization Infrastructure

3. Improvement and Expansion of National Informatization
1. Building a Fundamental Infrastructure for Informatization

The Korean government made an agenda of informatization as one of its key national objectives and thus rebuilt the national informatization promotion system in the 1990s.

- In August 1995, the legal basis for promoting informatization on a national scale was created in terms of the legislation of the Framework Act on Informatization Promotion.
- The government established the Ministry of Information and Communication to take full control over all functions regarding informatization and IT industry. In this context, demand and supply in the information society was efficiently balanced and pursued.
- The government also established the Informatization Promotion Committee (chaired by the Prime Minister and included other ministers among its members) to supervise the government’s informatization policies and strategies across all areas of government.
- Establishing a mid/long-term framework plan on national informatization which guided each ministry to set up individual plans that resulted in systematic informatization in the government.
- Priority was given to building a high-speed communication network, which formed the fundamental infrastructure of informatization. At the same time, e-Government projects were also aggressively pursued as a strategic tool to enhance the overall capacity of the government.
- In addition, the government was very active in its efforts to deal with the negative effects of informatization including cyber attacks in form of hacking and computer viruses, as well as the growing digital divide.

As a result, Korea has become a well recognized global IT powerhouse and ranked first in the 2010 UN Global E-Government Survey.

- In the future, Korea will continue to strive to realize an advanced knowledge-based information society by adapting to changes of the informatization paradigm, as well as developments of IT. In addition, Korea will also make every effort to share its success in informatization with the international community.

Establishing a mid/long-term framework plan on national informatization which guided each ministry to set up individual plans that resulted in systematic informatization in the government.

- Since the first such framework plan was drawn up in 1996, the Korean government has formulated new visions and strategies of informatization in terms of revising the plan in five-year intervals to reflect the global trend of informatization and innovate its national informatization paradigm.
- Based on the framework plan for national informatization, specific action plans have been established each year in the form of a rolling plan and have been positively implemented, providing a systematic and comprehensive system that serves as an effective foundation for the promotion of informatization.

In order to financially support these informatization efforts, the Korean government set up the Informatization Promotion Fund (currently called, ‘Information and Communication Promotion Fund’) in January 1996.

- The fund enabled the government to invest intensively in promoting e-Government, developing technology and manpower and establishing an information/communications infrastructure. These all served as a foundation for Korea’s informatization level that improved and became recognized throughout the world.
2. Building a National Informatization Infrastructure

From 1987, the Korean government started computerizing national data in important areas such as resident registration, real-estate registration, and finance, as part of its efforts to lay the groundwork for informatization at the national level.

By computerizing the nation’s administrative data and information, the database computerization project laid the cornerstone for today’s system of e-Government, which electronically connects different government agencies.

In the 1990s, when the United States and some European countries rushed to establish their own high-speed information/communications infrastructure, the Korean government also advanced to the next step, sparing no effort to build its own high-speed network as a form of new social infrastructure necessary for the development of a 21st century information society.

For example, in 1995, the government finalized its Comprehensive Plan for Construction of KII (Korea Information Infrastructure) to build a nationwide optical network and a high-speed transmission network and completed the network construction at a cost of USD 40 billion in 2005.

3. Improvement and Expansion of National Informatization

In the 2000s when aggressive implementation of e-Government began based on the well-established IT infrastructure, Korea’s informatization level also improved.

Starting in 2004, the government engaged in policy making efforts to apply new information technologies such as RFID and USN to public services in the wake of convergence of information/communications technologies and diffusion of ubiquitous technologies.

Many information/communications technologies are being applied to areas of social infrastructure such as transportation, logistics, and city management in order to create new added-value. In the meanwhile, the government has identified priority u-IT projects in the five public service areas and is fostering them as success service models.

Moreover, as the information society is becoming more advanced, the government is also making efforts to address the side effects of informatization including digital divide and information security, issues which have emerged as serious social problems both at home and abroad.

Special efforts are being made to close the global digital divide by implementing projects such as building information access centers and fostering IT human resource development in developing countries.
I. Informatization in Korean Society

II. Achievements of National Informatization

1. Major Achievements

2. Success Factors

Since 2003, the United Nations has provided comparative assessment reports on the e-Government development levels of its 192 member states, in order to facilitate and enhance global cooperation in and through e-Government. The 2010 UN Global E-Government Survey shows that Republic of Korea ranked first among all the member countries, given the highest possible scores in the categories of Online Service Index that measures emerging information and transaction services, as well as connectivity and the E-Participation Index to assess citizen participation in government decision-making.

* E-Government Development Index: 6th → 1st
* E-Participation Index: 2nd → 1st

Republic of Korea has made great efforts to provide connected services that are integrated and customized to meet the needs of the public and businesses through G4C (Government for Citizen), e-Procurement, e-People, etc. The government has been earnest in its endeavors and worked hard to successfully establish e-Government services with a high interest from the general public, which is now being widely recognized by earning the top ranking in this prestigious UN biannual E-Government survey.

With the recognition as the world’s No 1 ranking from the UN, the Korean government, the e-Government leader, will be at the forefront of sustained efforts to make continuous contributions to the international community. Korea will also keep playing a leading role to match its reputation as an IT powerhouse at the G20 Seoul Summit to be hosted by the Republic of Korea in November, this year.

<table>
<thead>
<tr>
<th>Category</th>
<th>2005</th>
<th>2008</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN E-Government Development Index 2010</td>
<td>5th</td>
<td>6th</td>
<td>1st</td>
</tr>
<tr>
<td>Online Service</td>
<td>0.97 (4th)</td>
<td>0.82 (6th)</td>
<td>1.00 (1st)</td>
</tr>
<tr>
<td>Telecommunication Infrastructure</td>
<td>0.67 (19th)</td>
<td>0.69 (10th)</td>
<td>0.64 (13th)</td>
</tr>
<tr>
<td>Human capital</td>
<td>0.97 (13th)</td>
<td>0.98 (10th)</td>
<td>0.99 (7th)</td>
</tr>
<tr>
<td>E-Participation Index</td>
<td>0.87 (4th)</td>
<td>0.98 (2nd)</td>
<td>1.00 (1st)</td>
</tr>
</tbody>
</table>
Wider online services across the society helped invigorate many kinds of online social and economic activities.

— Widespread introduction of online services on financial service and shopping Internet sites made public life more convenient.

— Online activities are becoming increasingly interactive and part of everyday life among the public. Examples of the new digital trend include blogging, online clubs, and online communities.

— Single-person media use has proliferated. In December 2008, 49.9% of Internet users are receiving instant messaging services and 58.1% are blogging.

— Introduction of broadband Internet connection to every elementary, middle and high schools was completed in 2000. With this, online education has become popular.

17 cyber colleges run online education programs including and CSAT (College Scholastic Ability Test) lectures.

The information and communication industry has grown to be an important engine driving the national economy.

— The information and communication industry played a critical role in overcoming the financial crisis in 1997 and boosting Korean economy to become the 11th largest in the world.

— Moreover, the industry recorded an unrivaled growth rate, creating a total of 90,000 jobs for the past 6 years.

Early investment in electronic services infrastructure laid the foundation for a powerhouse in the digital world.

— National infrastructure for digitization has been sophisticated since the early stage, through building high-speed national network and encouraging use of mobile phones and wibro services.

— Thanks to such activities, Korea came to have one of the world’s best Internet environment with 80.6% wired households and 77.1% of the people using the Internet in 2008.
2. Success Factors

Establishment of informatization as a national agenda and continuous investment

— In the 1980s, the foundation for e-Government was built through the digitization of main tasks of the government such as administration, education, finance, defense and the public wellbeing.

— In the 1990s, the necessary infrastructure for information society was prepared through the construction of a national high-speed information network.

— In the 2000s, efficiency of administrative work and quality of public lives were enhanced with intensive investment in e-Government projects.

Establishment and management of national system for promoting informatization

— National bodies were set up under the leadership of top decision makers and managed to oversee and coordinate informatization policies.


  ★ Prime Minister body: The Informatization Promotion Committee (1995)

— Laws and regulations were established in the early stage for efficient informatization


— The Information and Communication Promotion Fund was established (1996) to support key informatization projects.

Establishment of informatization governance for mutual benefits and cooperation between the public and private sectors

— Expertise in the private sector was harnessed in development, execution and review processes of national informatization projects

  ★ Experts in the private sectors took important roles in overseeing, coordinating, reviewing and advising organizations for informatization policies
In 2000, “Digital Literacy Plan for 10 Million” was set up and pursued to help the public in understanding and using online service and information. The Act on Closing the Digital Divide was established in 2001 for easier access to the Internet among the marginalized including disabled people and those with low-income.

Since 2008, job seekers and retired workers in the IT field have been employed to promote the use of online service and information provided by small and medium enterprises and local service companies.

Relevant industry insiders and associations held frequent meetings to discuss ways to create a virtuous cycle in development of the projects and the IT industry.

The informatization promotion system was open to users, collecting and reflecting opinions from the public and companies.

Striking a digital balance between the central and local governments

For common key tasks of local organizations, the central and local bodies cooperated to set up and use standard systems.

Examples include Sae-ol Administration System, Wetax (standard system for local tax payment), and Architectural Administration System.

Best practices of information systems of local governments were identified and shared to prevent redundant investments.

To support unique pilot projects of local governments, the general public was engaged to participate in fund raising (matching fund type).

Examples include Local Informatization Support Project (1995~2006) and Public Participation Project for u-City Service (2007~)

Best practices of information systems of local governments were identified, shared, and became more widely used across the country. Also, they received brand name recognition and were exported to foreign countries.

Examples include KISS, Public Procurement Service, UNI-PASS, Hometax and u-119.

Informatization of each government body was assessed and then policy directions were consulted through public participation.

Examples include activities at Ministry for Health, Welfare and Family Affairs (2007), Anti-corruption and Civil Rights Commission, Korea Customs Service (2008), and Defense Acquisition Program Administration (2009).
Ⅲ. Major Projects for National Informatization

1. Establishment of e-Government
2. Prompting Public Services through New Technologies
3. Proactive Measures to Deal with Adverse Effects of Informatization
4. Supporting Informatization of the Public Sector
5. Expanding International Cooperation for Informatization
Starting in 2008, the government has been engaged in implementing e-Government projects focusing on connection and integration to support value creation of the public, businesses and government.

In 2001, the Electronic Government Act was enacted and 11 initiatives were selected and implemented in order to increase efficiency in administrative affairs and dramatically improve public services.

### Eleven e-Government Initiatives

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved Services to the Public and Businesses</td>
<td>4 initiatives including innovation of application services by creating a single access point (G4C), integration of the information systems for the four major social insurances, and integration of administrative affairs on national procurement (G2B)</td>
</tr>
<tr>
<td>Greater Administrative Productivity</td>
<td>5 initiatives including building a national financial information system, comprehensive informatization of local government administration, educational administration information system, and electronic personnel management system</td>
</tr>
<tr>
<td>Solid Foundation for Development of e-Government</td>
<td>2 initiatives including establishing an electronic signature/electronic administrative signature system and building an integrated and electronic pan-government environment</td>
</tr>
</tbody>
</table>

During 2003~2007, the government selected implemented 31 roadmap projects in 4 areas aiming at achieving world-class e-Government.

### 31 Roadmap Projects for e-Government

<table>
<thead>
<tr>
<th>Area</th>
<th>Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovating the Way Government Works</td>
<td>11 projects including digitizing document processing procedures, realizing local e-Government, and real-time management of national agenda</td>
</tr>
<tr>
<td>Innovating Public Services</td>
<td>14 projects including improving Internet-based civil services, single-window for business support services, and increasing online citizen participation</td>
</tr>
<tr>
<td>Innovating Information Resource Management</td>
<td>5 projects including building a government-wide NCIRA, building information security system, and restructuring informatization organizations and personnel</td>
</tr>
<tr>
<td>Innovating Legal Systems</td>
<td>Reforming the legal system for e-Government and security</td>
</tr>
</tbody>
</table>

Starting in 2008, the government has been engaged in implementing e-Government projects focusing on connection and integration to support value creation of the public, businesses and government.

To provide integrated citizen- and business-oriented services, the e-Government services are being integrated.

- Korea e-Government Portal (www.korea.go.kr) provides integrated and customized services for citizens
- Government for Business Portal (www.g4b.go.kr) provides integrated services for businesses including founding establishments, enterprises, etc.

To improve inefficient management of information resources caused by disconnected informatization efforts made by each ministry, information resources are being consolidated.

- Such integration of information resources is expected to save cost for system construction by 52%

To avoid redundant investment in informatization projects of ministries and promote efficient informatization, government-wide EA (Enterprise architecture) is being developed.

- By deliberating on informatization plans of each ministry based on the government-wide EA, duplicate investment can be prevented.
The efforts made in building e-Government have contributed to improving government efficiency and transparency as well as the quality of life.

- "On-nara BPS" is now used as the standard government e-document system, allowing e-document exchange between the central and local governments and among public organizations.
- By constructing information systems for each business area including personnel, finance, procurement, and tax, the efficiency and transparency of government administration have been enhanced.
- Online services for citizens and businesses including G4C, Home-Tax, and G4B services enabled service application from home.
- Moreover, some of the e-Government systems in Korea, such as G2B and KISS (for immigration), have emerged as the world’s top brands.

※ system was selected by OECD in 2004 as the best practice for improving transparency and KISS was awarded the Public Service Award by UN in 2007.

2. Promoting Public Services through New Technologies

Korea is working to provide diverse services by applying u-IT new technologies to the public and private sectors.

- In order to minimize market failure during the initial stages, the government is implementing a feasibility first policy with initiatives including the building of test-beds.

Projects involving the use of RFID/USN, Telematics, and so forth have been carried out since 2004, in an effort to create initial market environment for ubiquitous new technologies.

- Various business models for both the public and private sectors, such as an RFID-based inventory management system and an air cargo tracking and control system were developed.

Key Achievements of RFID/USN Projects

- Public sector business process improvements (Customs Service)
  - Air cargo customs clearance (10 stages → 4 stages), and operation procedures (46 stages → 31 stages)
- RFID tag price reduction by creating early demand
- Institutional and legal framework established including the mandatory use of RFID tags on certain commodities and guidelines to protect private information.
  - Use of RFID mandatory for management of government procured commodities (2008. 8, Amendment to the Commodity Management Act)
In 2009, RFID/USN has been selected as a new growth engine industry and the government is focusing its efforts into the sector.

- The Plan for Promotion of Ubiquitous-based Public Services was established in March 2009 to provide the basis for expanding RFID/USN technology use across all sectors of society and the nation.
- Initial projects in five areas with strong relevance to people’s everyday lives have been identified with the objective of developing successful service business models.

In addition, a variety of services are being prepared through the joining of IT with other sectors such as IT & construction, IT & Living, IT & Safety, and so forth.

- In 2007, the government implemented its u-City test bed project on a matching-fund basis between the government and the private sector, mostly in urbanized areas such as Seoul, Busan, and Gwangju.
- In 2009, the government’s efforts to develop new business models are under way in areas with strong public sector implications such as safety, welfare, energy, and green IT.

3. Proactive Measures to Deal with Adverse Effects of Informatization

As the information society continues to develop, negative side effects of informatization such as a widening digital divide, hacking, virus attacks, and invasion of privacy have emerged as serious social issues requiring government intervention.

To this end, investments are being expanded to strengthen protection of privacy by facilitating an information usage environment safe from various attacks including hacking, virus and cyber-terror.

- The establishment of the Korea Internet Security Center and the introduction of an information security diagnosis system have reduced damages from hacking and virus attacks.
  ※ Reported number of hacking and virus attacks fell from 110,000 in 2003 to 35,000 in 2006, a 68.9% drop.
- The government laid the foundation for comprehensive and systematic protection of private information by both public- and private-sector players by launching the pan-government Comprehensive Mid-term Plan for Information Protection in 2008.
- In conjunction, the government plans to gradually expand its information protection budget so that it eventually matches the amount budgeted in developed nations.
  ※ Korean government’s information protection budget for 2009 is KRW 170 billion (5.5%), with a planned increase to KRW 230 billion (7%) in 2010 and KRW 290 billion (9%) in 2012

Policies to protect the people from intrusions of privacy and personal information as informatization progresses.

- From 2006, to address the illegal collection and use of private information and identity theft that is occurring on the Internet, the public I-PIN was introduced, which strengthened online protection of private information.
- In 2007, the CCTV Privacy Guideline was established to protect video information of individuals.
- Currently, the government is seeking to enact a “Private Information Protection Act” which will impose strict controls on the collection, management, and provision of private information and provide enhanced protection of private video footage.
4. Supporting Informatization of the Private Sector

The Korean government has initiated full-scale support for the business informatization since the Asian financial crisis of 1997~98, as a core means of boosting productivity.

- Related legal frameworks for e-commerce have been prepared since 1999, such as the Electronic Transaction Basic Act and the Digital Signature Act, and pilot projects in such key industries as electronics, automobile, construction, and steel, have been implemented.
- Since 2000, business informatization has been promoted: classification system, as a database, for products and components by industry, standardized electronic documents, and cooperation among supply chains.
  ※ More than 1,300 businesses and organizations in 48 business sectors are working on their own informatization projects.
- Core technologies for business informatization have been developed and distributed to the private sector, such as ERP, and e-Marketplace.

- From 2003, training and counseling centers have been built as part of an effort to prevent and treat social damages from Internet addictions.
- Campaigns to foster healthy information culture such as the establishment of the ‘Information Culture Charter’ in 2008, and subsequent designations of ‘Information Culture Month’ are also being carried out.
- From 2009, a nation-wide information culture and ethics education are being carried out by utilizing education infrastructures of schools, local autonomous, and private sector.

A comprehensive approach to resolve the digital divide has been taken from the early stages of informatization to prevent the wealth gap of the industrial society from accelerating the digital divide.

- The policy basis for resolving the digital divide was created through the enactment of the Act on Narrowing of the Digital Divide in 2001. This was followed by the First Comprehensive Plan to Address the Digital Divide in the same year. The second such plan was formulated in 2005.
- The government has worked to create an environment where all citizens can freely utilize knowledge information through such initiative as informatization education for the disabled and providing used PCs to people in the low-income bracket.

- All rural communities with at least 50 households have been linked to the high-speed Internet network. (June 2006)
- 4,377 free-of-charge information access centers have been built, mostly in communities with low informatization levels. (December 2001)
- Informatization education to marginalized communities by means of household visits, programs at educational venues, and through the Internet.
- Computer ownership among the underprivileged rose by 16.4 percentage points, from 48.7% in 2004 to 65.1% in 2008.
- Internet usage among the underprivileged rose by 16.8 percentage points, from 24.9% in 2004 to 41.7% in 2008.

The government has implemented informatization projects for small- and medium-sized enterprises (SMEs) to narrow the digital divide between large companies and SMEs and to strengthen competitiveness of SMEs.

- For SMEs not large enough to informatize on their own, the government has undertaken ASP project, and made efforts to support informatization of small shops and businesses such as eyewear shops, hair salons, and publishing houses.
  ※ ASP (Application Service Provider) provides rentals of electronic solutions at reasonable rates to customers over a network, by which customer companies do not have to purchase IT equipment and/or software
- As of the end of 2007, 213 ASPs exist in Korea providing 382 kinds of services. The number of businesses using the ASP service exceeded 1.05 million in the first half of 2008.

- Major Projects for National Informatization
  ※ All rural communities with at least 50 households have been linked to the high-speed Internet network. (June 2006)
  ※ 4,377 free-of-charge information access centers have been built, mostly in communities with low informatization levels. (December 2001)
  ※ Informatization education to marginalized communities by means of household visits, programs at educational venues, and through the Internet.
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<table>
<thead>
<tr>
<th>Service Category</th>
<th>Simple Office Automation</th>
<th>Single function within a company</th>
<th>Function integration within a company</th>
<th>Integration between companies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of services</td>
<td>25</td>
<td>239</td>
<td>73</td>
<td>45</td>
<td>382</td>
</tr>
<tr>
<td>Percentage</td>
<td>6.5</td>
<td>42.6</td>
<td>19.1</td>
<td>11.8</td>
<td>100.0</td>
</tr>
</tbody>
</table>
E-finance has become a common channel for financial activities, and the volume of e-commerce transactions has shown steady increase every year.

- For financial services, the e-finance system is available 24 hours a day and 365 days a year.

- Financial transactions through the Internet banking service accounted for 60.1% in 2008.
- About 18.5% of financial transactions are conducted through bank windows.
- Mobile phone banking subscribers: 8.48 million (2008)
- Stock trading conducted online accounted for 49.7% in 2008.

- The volume of e-commerce increased to USD 137 billion in 2001 from USD 625 million in 1998. As of 2008, the volume recorded USD 787 billion.

<table>
<thead>
<tr>
<th>E-Commerce by Transaction Type</th>
<th>Unit: KRW billion, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transaction Type</td>
<td>2001</td>
</tr>
<tr>
<td>Total volume</td>
<td>118,976</td>
</tr>
<tr>
<td>B2G</td>
<td>7,037</td>
</tr>
<tr>
<td>B2C</td>
<td>2,580</td>
</tr>
<tr>
<td>C2C, etc.</td>
<td>418</td>
</tr>
</tbody>
</table>

Nation-wide efforts are being made to improve the quality of people’s lives and to stimulate related industries by realizing informatization in various areas of society such as health care, education, and culture.

- To offer medical services available anytime and anywhere, the u-Healthcare initiative which includes 52 projects has been implemented since 1998, and starting from 2006 a project called Electronic Health Records (EHR) for medical information sharing among public medical institutions has been promoted.

- To foster the cultural industries, remote education programs for human resources in the game industry have been conducted from 2002, and Contents Export Information System (CEIS) has been established to promote the export of cultural contents.

- In education, e-learning projects are being promoted to reduce private education cost since 2004, and currently 2.9 million people are using the e-learning programs.

5. Expanding International Cooperation for Informatization

Korea, a global leader in informatization, is actively participating in international development efforts for informatization in answer to the requests for cooperation from the international community.

- Korea is providing expertise and know-how it has acquired from its own e-Government and informatization experiences through consultation for developing countries and joint programs with international organizations.

- Since the early 2000s, Korea has been conducting consulting, project auditing and joint research in the areas of e-Government and national informatization with more than 20 nations.

- Korea has also collaborated with major international organizations such as the World Bank, the United Nations, and the Asian Development Bank to provide technical assistance to developing countries and to conduct joint research.

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation on e-Government and National Informatization</td>
<td>10 countries including Kyrgyzstan, Congo, Myanmar, Mongolia, etc.</td>
</tr>
<tr>
<td>Project Auditing</td>
<td>Myanmar and Cambodia</td>
</tr>
<tr>
<td>Joint Research and Consultation (IT cooperation centers)</td>
<td>Mexico, Chile, South Africa, and Turkey</td>
</tr>
</tbody>
</table>

- The Korean government has organized and hosted a number of international forums, conferences, and exhibitions to promote government-level collaboration and exchanges of technologies and human resources.

- To discuss the future vision of informatization, Korea hosted the Asia e-Government Forum in 2007 and 2008; the Latin America IT Conference in 2004 and 2005; and the US-Korea IT Policy Forum in 2008.
To introduce its successful e-Government practices, Korea set up informational booths at such international events as e-Challenge and CeBIT.

In helping developing countries to bridge the global informatization gap, the Korean government has built information access centers, dispatched youth volunteer groups, and invited foreign government officials to Korea for training.

- The Korean government has built and operated information access centers in developing countries to improve the environment for their information use, contributing to the establishment of information infrastructure and greater information access.

- Korea has also improved information use capability and informatization awareness by dispatching youth volunteer groups to countries with low capacity of information use.

- The Korean government has invited government officials of developing countries who are in charge of national IT development and informatization policies to participate in education and training programs.

- Korea has shared its experience and know-how on informatization by hosting seminars and forums at home and abroad.

<table>
<thead>
<tr>
<th>Year</th>
<th>2001-2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>Cambodia, Romania, Vietnam, Egypt, Philippines, Bulgaria, Laos, and Tunisia</td>
<td>Indonesia and Nigeria</td>
<td>Mongolia, Uzbekistan, and Kenya</td>
<td>Guatemala, Mozambique, Sri Lanka, Azerbaijan, and Bangladesh</td>
<td>Morocco, Algeria, Paraguay, and Ukraine</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>2002-2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

Also, IT cooperation centers for consultation, joint research, and exchanges of technologies and human resources have been established in collaboration with major countries.

※ IT Cooperation centers have been established in Mexico (2003~’06), Chile (2004~’06), Turkey (2007~’10), and the center in South Africa has been in operation from 2008 with a schedule to be completed by 2010.
IV. Further Steps Toward an Advanced Information Society
As informatization created a new information environment and demands, reestablishment of national informatization policy was required.

- Technology environment was changed with the convergence among information and communication technologies and growing demand to pursue low-carbon green growth and tackle low-birth rate and aging.
- Individual information systems are required to be linked or integrated for users, responding to the global trend of openness, sharing and cooperation.
- The need to tackle adverse effects of digital technology has increased, as more threats of hacking, leaking of personal information, and a growing digital divide are witnessed.

Accordingly, the purposes were reestablished: harnessing national informatization policy and creating values; promoting communication and coordination; aggressively tackling adverse effects; and pursuing cooperation between the private and public sectors.

In December 2008, the government established and announced Framework Plan for National Informatization, which would guide a new policy direction.

- By achieving the goal of an Advanced Knowledge and Information Society with Creativity and Reliability, the government aims to realize the plan of developing Korea to an advanced country.
- At the same time, it wants to create new national wealth through the productive use of information and communication technologies (creative informatization), and realize a safe and mature knowledge-based information society, minimizing adverse effects (reliable informatization).

The government set 5 targets for national informatization

- First, Creative Soft Power to overhaul national information creation and utilization systems to generate a new development engine.
  - National infrastructure for information is planned in more than 2 sectors until 2012.
- Second, Converged Cutting-edge Digital Infrastructure to harness information and communication technologies for more effective and sophisticated key national infrastructure.
  - The speed of fixed line internet is planned for improvement from 100Mbps to 1Gbps until 2012.
- Third, Reliable Information Society to build trust in overall areas of the public lives including calamities, disasters and food safety as well as cyber security.
  - The personal information leakage is expected to decrease from 59% in 2007 to 30% until 2012.
- Fourth, Efficient Knowledge-based Government to raise work efficiency of the government and enhance service quality for the public by integrating and linking information systems.
  - The rate of using e-Government services is planned to increase from 41% in 2007 to 60% in 2012.
- Fifth, Better Life with Digital Benefits to stimulate the economy by using information and communication technologies creatively and productively.
  - The target score of public satisfaction with life is 0.6 until 2012 from 0.45 in 2007.

In April 2009, the government set up Action Plan for National Informatization to implement basic plans. It also announced 205 specific targets to resolve public affairs and raise national competitiveness through informatization.
## Internet Subscription and Usage

<table>
<thead>
<tr>
<th>Category</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subscribers to Broadband Internet</td>
<td>10,405</td>
<td>11,178</td>
<td>11,921</td>
<td>12,191</td>
<td>14,043</td>
<td>14,710</td>
<td>15,475</td>
<td>16,349</td>
</tr>
<tr>
<td>(Subscribers per 100 persons)</td>
<td>(21.8)</td>
<td>(22.4)</td>
<td>(22.4)</td>
<td>(25.4)</td>
<td>(29.1)</td>
<td>(30.4)</td>
<td>(31.8)</td>
<td>(33.5)</td>
</tr>
<tr>
<td>Internet Users 1)</td>
<td>26,270</td>
<td>29,220</td>
<td>31,580</td>
<td>33,010</td>
<td>34,910</td>
<td>35,590</td>
<td>36,170</td>
<td>36,580</td>
</tr>
<tr>
<td>(Users per 100 people)</td>
<td>(59.4)</td>
<td>(65.5)</td>
<td>(70.2)</td>
<td>(72.8)</td>
<td>(74.1)</td>
<td>(75.5)</td>
<td>(76.1)</td>
<td>(77.2)</td>
</tr>
</tbody>
</table>

Source: Korea Communications Commission (Subscribers to Broadband Internet), Korea Internet & Security Agency (Internet Users)

Note: 1) The number of Internet Users and per 100-person figures have been estimated based on the population ages 3 and older, which may differ from the ITU database calculated based on the entire population (2000-2001 year: 7 and older, 2002-2005 year: 6 and older, 2006-2009 year: 3 and older).

## Household Access to Internet and Computer Ownership

<table>
<thead>
<tr>
<th>Category</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household Access to the Internet</td>
<td>70.2</td>
<td>68.8</td>
<td>72.2</td>
<td>74.8</td>
<td>78.4</td>
<td>79.8</td>
<td>80.6</td>
<td>81.2</td>
</tr>
<tr>
<td>Households Owning a Computer</td>
<td>-</td>
<td>77.8</td>
<td>78.9</td>
<td>79.6</td>
<td>80.4</td>
<td>80.9</td>
<td>81.4</td>
<td></td>
</tr>
</tbody>
</table>


## E-Commerce

<table>
<thead>
<tr>
<th>Category</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total E-Commerce Transactions</td>
<td>177,810</td>
<td>235,025</td>
<td>314,079</td>
<td>358,650</td>
<td>413,584</td>
<td>516,314</td>
<td>630,087</td>
<td>670,886</td>
</tr>
<tr>
<td>B2C 2)</td>
<td>16,632</td>
<td>21,634</td>
<td>27,349</td>
<td>29,036</td>
<td>34,436</td>
<td>38,801</td>
<td>52,266</td>
<td>59,456</td>
</tr>
<tr>
<td>C2C 2)</td>
<td>5,043</td>
<td>6,995</td>
<td>6,643</td>
<td>7,921</td>
<td>9,332</td>
<td>10,226</td>
<td>11,359</td>
<td>12,063</td>
</tr>
</tbody>
</table>


1) Business-to-Business; 2) Business-to-Government; 3) Business-to-Client; 4) Client-to-Client

## E-Banking

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Users of Internet-based Banking (10,000/100,000)</td>
<td>1,771</td>
<td>2,275</td>
<td>2,427</td>
<td>2,674</td>
<td>3,591</td>
<td>4,470</td>
<td>5,260</td>
<td>5,921</td>
</tr>
<tr>
<td>Individuals (1,000 persons) Business (20,100 companies)</td>
<td>1,702</td>
<td>2,175</td>
<td>2,309</td>
<td>2,530</td>
<td>3,412</td>
<td>4,240</td>
<td>5,008</td>
<td>5,605</td>
</tr>
<tr>
<td>Registered Users of Mobile phone-based Banking (10,000 persons)</td>
<td>-</td>
<td>19</td>
<td>89</td>
<td>186</td>
<td>298</td>
<td>441</td>
<td>469</td>
<td>463</td>
</tr>
</tbody>
</table>


## Internet Usage by the Information-Marginalized

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Korean Population</td>
<td>59.4</td>
<td>60.5</td>
<td>70.2</td>
<td>72.8</td>
<td>74.8</td>
<td>76.3</td>
<td>77.1</td>
<td>77.6</td>
</tr>
<tr>
<td>Information-marginalized Users</td>
<td>14.1</td>
<td>19.2</td>
<td>24.9</td>
<td>29.4</td>
<td>35.1</td>
<td>40.1</td>
<td>41.7</td>
<td>43.0</td>
</tr>
<tr>
<td>Disabled</td>
<td>45.3</td>
<td>46.3</td>
<td>45.3</td>
<td>43.4</td>
<td>39.7</td>
<td>36.2</td>
<td>35.4</td>
<td>34.6</td>
</tr>
<tr>
<td>Older/Senior Citizens</td>
<td>22.4</td>
<td>27.6</td>
<td>34.8</td>
<td>41.0</td>
<td>46.6</td>
<td>49.9</td>
<td>51.8</td>
<td>52.7</td>
</tr>
<tr>
<td>Law-income</td>
<td>27.1</td>
<td>31.7</td>
<td>38.4</td>
<td>44.2</td>
<td>48.4</td>
<td>52.8</td>
<td>54.6</td>
<td>55.7</td>
</tr>
<tr>
<td>Residents of rural communities</td>
<td>11.4</td>
<td>16.2</td>
<td>19.8</td>
<td>23.0</td>
<td>29.4</td>
<td>33.4</td>
<td>35.2</td>
<td>36.2</td>
</tr>
</tbody>
</table>


Note: 1) "Gap" refers to the difference between the Internet usage rate of the entire population and the respective group.

2) "Older/senior citizens" refers to people ages 50 or older while "law-income" refers to those receiving the National Basic Living Allowances.
### Selected Informatization Indices

#### International Index

<table>
<thead>
<tr>
<th>Year</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITU Digital Opportunity Index</td>
<td>-</td>
<td>-</td>
<td>1 (40)</td>
<td>1 (180)</td>
<td>1 (181)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>ITU ICT Development Index</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2 (156)</td>
<td>3 (159)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>UN e-Government Development Index</td>
<td>-</td>
<td>13 (191)</td>
<td>5 (191)</td>
<td>5 (191)</td>
<td>-</td>
<td>-</td>
<td>6 (192)</td>
<td>-</td>
<td>1 (192)</td>
</tr>
<tr>
<td>UN e-Participation Index</td>
<td>-</td>
<td>12 (191)</td>
<td>6 (191)</td>
<td>4 (191)</td>
<td>-</td>
<td>-</td>
<td>2 (192)</td>
<td>-</td>
<td>1 (192)</td>
</tr>
<tr>
<td>WEF Networked Readiness Index</td>
<td>20 (72)</td>
<td>14 (62)</td>
<td>20 (102)</td>
<td>24 (104)</td>
<td>14 (115)</td>
<td>19 (122)</td>
<td>9 (127)</td>
<td>11 (134)</td>
<td>15 (138)</td>
</tr>
<tr>
<td>Brooking’s Institution e-Government Report</td>
<td>2 (198)</td>
<td>87 (198)</td>
<td>32 (198)</td>
<td>86 (198)</td>
<td>1 (198)</td>
<td>1 (198)</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: International IT Index, IT Statistics and Index, Information Statistics, National Information Society Agency (http://www.nia.or.kr)

Note: "Year" is the time when the index was made public. Figures provided in the parentheses indicate the total number of countries surveyed.

### Selected Informatization Indicators

#### (Unit: No. of users per 100 persons)

<table>
<thead>
<tr>
<th>Rank</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadband Internet Subscription</td>
<td>Denmark (34.1)</td>
<td>the Netherlands (35.5)</td>
<td>Norway (32.4)</td>
<td>Switzerland (32.7)</td>
<td>Korea (31.2, rank 7), US (25.0, rank 15), Japan (23.0, rank 17), OECD average (21.3)</td>
</tr>
<tr>
<td>Internet Usage</td>
<td>Greenland (90.75)</td>
<td>Norway (85.0)</td>
<td>the Netherlands (84.9)</td>
<td>Denmark (81.8)</td>
<td>Korea (76.3, rank 11), US (72.5, rank 14), Japan (68.85, rank 20)</td>
</tr>
<tr>
<td>Computer Ownership</td>
<td>Canada (64.4)</td>
<td>Netherlands (91.3)</td>
<td>San Marino (90.6)</td>
<td>Switzerland (88.8)</td>
<td>Korea (54.4, rank 17), Sweden (88.2, rank 5), US (79.9, rank 7)</td>
</tr>
<tr>
<td>Mobile Phone Subscription</td>
<td>United Arab Emirates (174.5)</td>
<td>Macao (116.5)</td>
<td>Italy (153.12)</td>
<td>Qatar (150.41)</td>
<td>Korea (90.2, rank 48), Japan (83.88, rank 71), US (83.35, rank 73)</td>
</tr>
</tbody>
</table>

Source: 1) Broadband Internet subscription figures are current as of June 2006. 2) Internet usage and mobile phone subscription figures are current as of 2007 and computer ownership figures are current as of 2006. 3) OECD Broadband Portal (http://www.oecd.org/sti/ict/broadband).