STRATEGIC DEVELOPMENT OF KOREA’S ICT POLICY EXPERIENCE

SESSION 4

Mr. Jongbong Park
Director
Standards Promotion Department
Telecommunications Technology Association
Republic of Korea
Strategic Development of Korea’s ICT Policy Experience

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Jongbong PARK, Ph.D.
Director
Telecommunications Technology Association
What is in your mind?
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I. STATUS OF ICT INDUSTRY
### ICT vs. GDP

<table>
<thead>
<tr>
<th>Year</th>
<th>ICT Growth Rate (%)</th>
<th>Contrib. to GDP(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>4</td>
<td>8.2</td>
</tr>
<tr>
<td>2010</td>
<td>12.5</td>
<td>8.6</td>
</tr>
<tr>
<td>2011</td>
<td>11.6</td>
<td>9.7</td>
</tr>
<tr>
<td>2012</td>
<td>3.1</td>
<td>9.7</td>
</tr>
<tr>
<td>2013</td>
<td>5.5</td>
<td>9.9</td>
</tr>
</tbody>
</table>
ICT Industry In Korea (2/2)

- **ICT Contribution to Export**
  - (in 2013)
  - ICT Sector (30%, 169.141 M.$)
  - Non-ICT Sector (70%)

- **Trade balance**
  - (Unit: $ billion)
  - * = Jan.-Nov.
Korea’ ICT in the World

Global position as a ICT powerhouse

ICT Development Index 2010~2013
ICT Global Competitiveness Index 2010, 2011

OECD Broadband Subscription

OECD Fixed (wired) broadband subscriptions per 100 inhabitants, by technology, June 2014

Source: OECD
II. ICT POLICY IN KOREA
Significance of ICT in Korea

- A key driving force behind social changes
- The key element and best strategy for enhancing a national system
- A principal force in the growth of Korea for the past 20-25 years
## Development History of ICT in Korea

### Digitalization (1987~1994)
- Digitalization Project for Public Administration
- National Basic Information System Project

### Informatization (1995~2002)
- Basic Plan on Informatization Promotion
- Comprehensive e-Government Implementation Plan

### E-Government (2003~2007)
- e-Government Roadmap
- Basic Plan on u-Korea

### Integration (2008~2012)
- 4th Basic Plan on National Informatization

### Creative Economy (2013~Present)
- 5th Basic Plan on National Informatization
- Government 3.0

### Initiatives
- Act on Digital Network (1985)
- Basic Act on Informatization Promotion (1995)
- Informatization Steering Committee (1996)
- e-Government Act (2001)
- Act on Resolving Digital Divide (2001)
- Presidential Committee on Government Innovation (2003)
- Framework Act on National Informatization (2009)
- National Informatization Steering Committee (2009)
- Special Act on ICT (2013)
- Creative use of ICT
- Resolve social issues with ICT
- Create jobs

### Achievements
- 10 M + telephone lines (1987)
- Internet Commercialization (1994)
- 10 M + Internet users (1999)
- 10 M mobile users (1998)
- 40 M Internet banking users (2007)
- First place in ITU Digital Opportunity index for 3 consecutive years (2005~2007)
- First place in UN e-Government evaluation (‘2010, 2012)
- 50 M + mobile users (2010)
- 10 M + mobile banking a day (2012)
### Korea’s 20-year Trace of ICT

#### Focused on national informatization to realize a knowledge-information society

<table>
<thead>
<tr>
<th>Phase</th>
<th>1987</th>
<th>1995</th>
<th>2001</th>
<th>2008</th>
<th>Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal</td>
<td>INTRODUCTION</td>
<td>GROWTH</td>
<td>MATURITY</td>
<td>To建立基础DB</td>
<td>To establish the foundation of ICT and promote the use of the Internet</td>
</tr>
<tr>
<td>Means</td>
<td>Automation &amp; efficiency</td>
<td>Improving the networking productivity</td>
<td>Convergence &amp; service innovation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main plan</td>
<td>National Backbone Network Project</td>
<td>Basic Plan for Informatization Promotion Cyber Korea 21</td>
<td>e-Korea Vision 2006 u-Korea Basic Plan</td>
<td>Basic Plan for National Informatization</td>
<td></td>
</tr>
<tr>
<td>e-Gov</td>
<td>Informatization of Ministries</td>
<td>Local administration integrated information system</td>
<td>11 major e-Gov initiatives 31 major e-Gov initiatives</td>
<td>Smart e-government Integration of data resources</td>
<td></td>
</tr>
<tr>
<td>Data-based</td>
<td></td>
<td></td>
<td></td>
<td>Broadband Network</td>
<td>Broadband integration WiBro, RFID/USN, DMB, IPTV</td>
</tr>
</tbody>
</table>
Korea’s Informatization

The 4th Basic Plan (2008)
(Advanced knowledge information society based on creativity and trust)

u-Korea Master Plan (2005)
(The First u-Society on the Best u-Infrastructure)

(Basis of the era of per capita income of USD 20,000)

(Global leader in knowledge information society)

Cyber Korea 21 (1999)
(Internet Proliferation)

Change in the rank of Korea’s National Informatization Index (NIA, 2005)

Informatization Promotion Fund

Goal

- Promotion of e-Government
- Broadband Network Roll-out
- Support R&D and Standardization
- Human resources development in ICT

Management

- MIC (overall management), IITA (specific project management)
- Fund Management Council (Evaluation)
  - Chair: Vice Minister of MIC
  - Members: Director Generals of related Ministries

Status of Fund Investment

Funding: Total of US$ 7.78 billion (1993~2002)
- Government: US$ 3.06 billion (39.3%)
- Private Sector: US$ 3.59 billion (46.2%)
- Miscellaneous profits and interests: US$ 1.13 billion (14.5%)

- Broadband infrastructure and promotion: US$ 800 million (15.1%)
- Informatization Promotion: US$ 1.07 billion (20%)
- R&D Infra: US$ 375 million (7%)
- ICT R&D: US$ 2 billion (37.5%)
- ICT Human Resource: US$ 950 million (17.8%)
- Standardization: US$ 135 million (2.6%)
Standardization Policy/Framework

- National Radio Research Agency
  - Communications Standards Commission
- Korea ITU Committee
- International Standardization Experts
- ICT Standardization Strategy Forum
- TTA Standardization Committee
- Telecommunications Technology Association
- Manufacturers
- Communication service providers
- Laboratories
- Academia etc.
- APT
- ITU
- Foral Consortiums
- GSC/CJK/3GPPs

Flowchart showing the relationship between government and private sectors in the context of standardization.
III. KEY SUCCESS FACTORS
KEY Success Factors

Government Driven Economy
- Designated Ministry for ICT
- Continuous and evolving ICT Master-plan

Securing Designated Funds
- ICT Informatization Fund
- Broadcast Development Fund, etc.

Public-Private Partnership
- Research and Development
- Deploying Broadband network, etc.

Setting up Designated Expert Organizations
- Specialized agencies or association in the field of ICT: Informatization, Security, R&D, Standardization, Promotion, Broadcasting, Spectrum, etc.
IV. CHALLENGES
ICT Paradigm Shift

**PC Age**
- Digitalization, Computerization
- PC, PC Communication, Database
- PC, OS
- 1 person → 1PC

**Internet Age**
- Online, Informatization
- High-speed Internet, www, Web-server
- Portal, Search Engine
- Click e-Korea

**Mobile Age**
- Social, Mobile
- Mobile Internet, Smartphone
- SNS, App Service
- PC in Hand, Communication

**Smart Age**
- Intelligence, Individualization, Informatization of Things
- Big Data, Next-Gen PC, M2M
- Future Prospective, Situation Recognition, Customized Service
- ICT Everywhere, Creation of New Value

**Leading Companies**
- Microsoft
- IBM
- Google
- Naver
- Facebook
- Twitter
Techno-Nationalism

- Lessons from CDMA case

Convergence with non-ICT sectors/industries

- ICT in mature stage which needs collaboration with non-ICT sectors (e.g. Internet of Things)
Roles of New National Informatization

1. Lead investment in new technology and institutional improvement
   ⇒ Foster a creative economy (ICT convergence & expansion and the creation of new business ecosystem & demand for ICT)

2. Solve current national and social issues scientifically and effectively at low costs
   ⇒ Ensure a human-centered safe and comfortable life

3. Strengthen the ICT literacy of citizens
   ⇒ Combine imagination & creativity with ICT (creative assets)

4. Enhance the network infrastructure
   ⇒ Support national & social innovation
V. LESSONS FROM KOREA’S EXPERIENCE
Characteristics of ICT Policy

Policy needs to be developed based on the premise that technology development in ICT fields is very fast and hard to forecast.

→ Constant updates are required

National informatization policy entails long-term large-scale investment and has great ripple effects

→ Long term planning is required

Policy serves as an effective tool to ensure the constant growth of economy and improve the quality of people’s life, and entails changes in social structure and systems as well as values, behaviors, and norms of people

→ Cross-sectoral cooperation is required
Thank You