POLICY DIRECTION FOR U-KOREA

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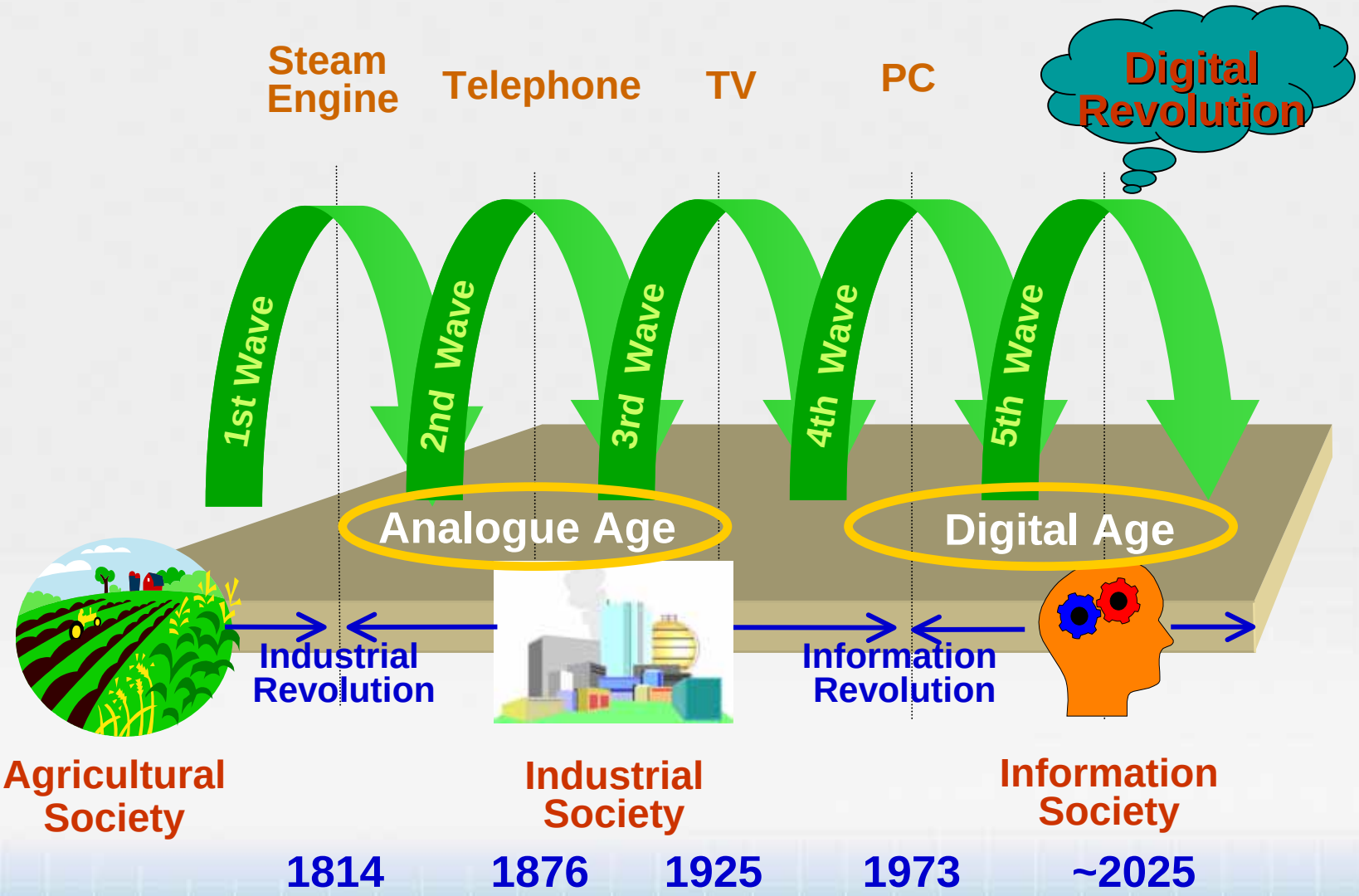
I. Knowledge Information Society

정보통신부

정보통신부

Revolution at 50-year Interval



Emergence of Knowledge Information Society

3rd Revolution in Human History

- Industrial Society : mechanized technology using engines
  - Knowledge Information Society: rapid development of information technology - communication, computer, etc.

    ▶knowledge and information are driving force for value-added and national competitiveness, rather than materials or energy

Spread of Internet Use

- Rapid Increase in Number of Internet Users

  - Worldwide : 600 million (end of 2002) → 1 billion (2005, estimated)
  - Korea : 26.27 million (end of 2002) → 32.57 million (June 2005)

- 50 million users for 5 years since opening of Internet to public
  (To have 50 million users takes 38 years for radio, 13 years for TV)

Changes in Social Sectors from Informatization

Basis for IT Revolution	Sectors	Key Changes
DITITALIZATION + NETWORKING	ECONOMY	• IT industry portion enlarged • New industry emerged (Internet Portal, etc.) • Spread of e-Commerce
	SOCIETY	• Internet Lecture for college entrance exam, 17 Certified Cyber Colleges(2005) • 23 telecommuting disabled workers for flight reservation (Korean Air)
	CULTURE	• Monthly average of more than 5 million visitors to individual community portals • online communities vitalized
	POLITICS	• Effective decision gathering online • Activities of National Assembly open via Internet

[Change-1] Change in Industrial Structure

Emergence of New Industry

- e-Business, e-Commerce
  - ※ Domestic e-Commerce Volume : KRW 55 billion(1998) → KRW 314 trillion(2004)
- S/W Industry related to digital contents such as game, music, video, etc.
- Information processing and operation businesses such as internet portal, DB construction, etc.

Restructuring of Existing Industries

- Direct trade between producers and customers increased → Brokerage reduced
- Integration of informatization and IT → Manpower reduction and productivity increase

IT Industry vs Traditional Industry(2003)

- S/W Industry : KRW 19.8 trillion vs. Domestic home appliance :KRW 17.4 trillion
- Mobile phones :KRW 15.4 trillion vs. Domestic car consumption: KRW 14 trillion

[Change-2] Change in Society and Culture

All kinds of culture (music, movies, etc.) offered online

- No. of online communities at ‘Daum’ exceeds 5.8 million (Sept. 2005)
- ‘iloveschool’ brought nationwide alumni meetings online
- New type of culture is created, in which ‘netizens’ display their writings, music, visual images through their blogs or personal web pages and receive feedback

In Korean cyber communities…

1. 2 out of 3 netizens log on for daily average 30 minutes ~ 2 hours in order to perform their activities in the communities
2. Monthly average no. of visitors to individual community portals mostly exceed 5 million people
3. More and more organizations such as citizen groups, interest groups, charity organizations are organizing cyber communities for strengthening unification in their activities

[Change-3] Age of e-Politics (case of the US Presidential Election)

Increased role of the Internet

- Window for campaign fund raising and volunteers rally
  - Campaign fund raising via Internet : $ 0 in 1996 → $ 100 million in 2004
  - Internet as a medium for volunteers and supporters to hold offline meetings
- Window for direct contact between candidates and voters
  - Function of candidates' web pages changed : archives → real-time providing of information
- Increased functions of blogs(internet media run by each person)
  - politics bloggers were given authorization to cover news in candidate selection rallies for Presidential Election (Munhwa Ilbo, Feb. 3, 2005)

Spread of citizens participation in politics and customer-oriented mindedness

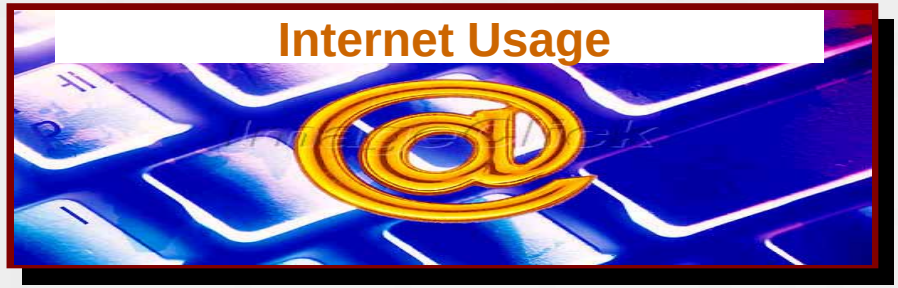
Korea's Informatization Level

World's Best IT Infrastructure

Broadband Internet

- 11.92 million subscribers, 77% of total households (Dec. 2004)
- Top ranking in the world in broadband penetration rate (2004, OECD)

Internet Usage



- 31.58 million, 65.7% of total population (Dec. 2004)
- 2nd in the World in internet usage rate (2004, ITU)

Mobile Phones

- 36.58 million, 76% of total population (Dec. 2004)

  * US: 53%, Japan: 62% (2003)

E-Government Leader

- World's 5th Leader in e-Government Readiness Index by UN(2004, UN)

Key Success Factor (1)

Policy-making for transformation and rapid response by private sector

Government

- competition among telecommunications providers and privatization (establishment of KT/DACOM)
- Technology development and industry promotion (TDX/CDMA/ADSL)
- Promotion of National Basic Information System Project and Korea Information Infrastructure Project

Businesses

- Intensive investment on key strategic fields (broadband internet, CDMA, etc.)
- Spread of e-Commerce and promotion of IT adoption by traditional industries

Individuals

- High enthusiasm in education and capability in early-adoption of new technologies and equipments
- Cultural characteristics of always being in advance (‘Pali, pali’ culture)

Key Success Factor (2)

Establishment of robust framework

- **Restructuring of government organization**
  - ▶ 1982 Establishment of Telecommunication Policy Bureau (separating policy function and project management function)
  - ▶ 1991 Establishment of Information and Communications Bureau in Telecommunications Policy Office (Bureau for IT)
  - ▶ 1994 Establishment of Ministry of Information and Communication
  - ▶ 1996 Establishment of Informatization Planning Office

- **Establishment and reinforcement of supportive bodies**
  - ▶Electronics and Telecommunications Research Institute(1985) ▶Korea Information Strategy Development Institute(1987) ▶National Computerization Agency(1987) ▶Institute of Information Technology Assessment(1992) ▶Korea Information Security Agency(1996) ▶Korea IT Industry Promotion Agency(1998)

Framework establishment for Knowledge-information society

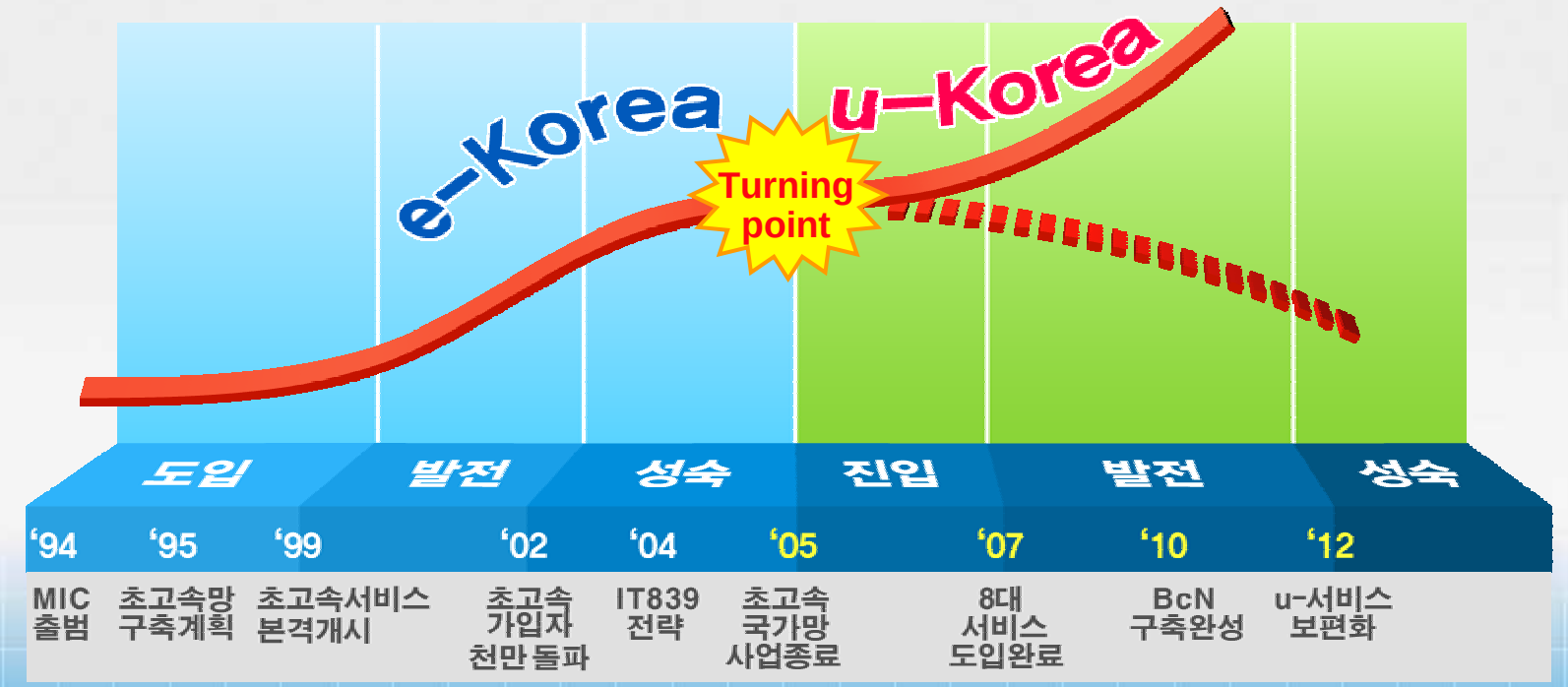
II. Environmental Change and Policy Direction

Informatization Environmental Change (1)

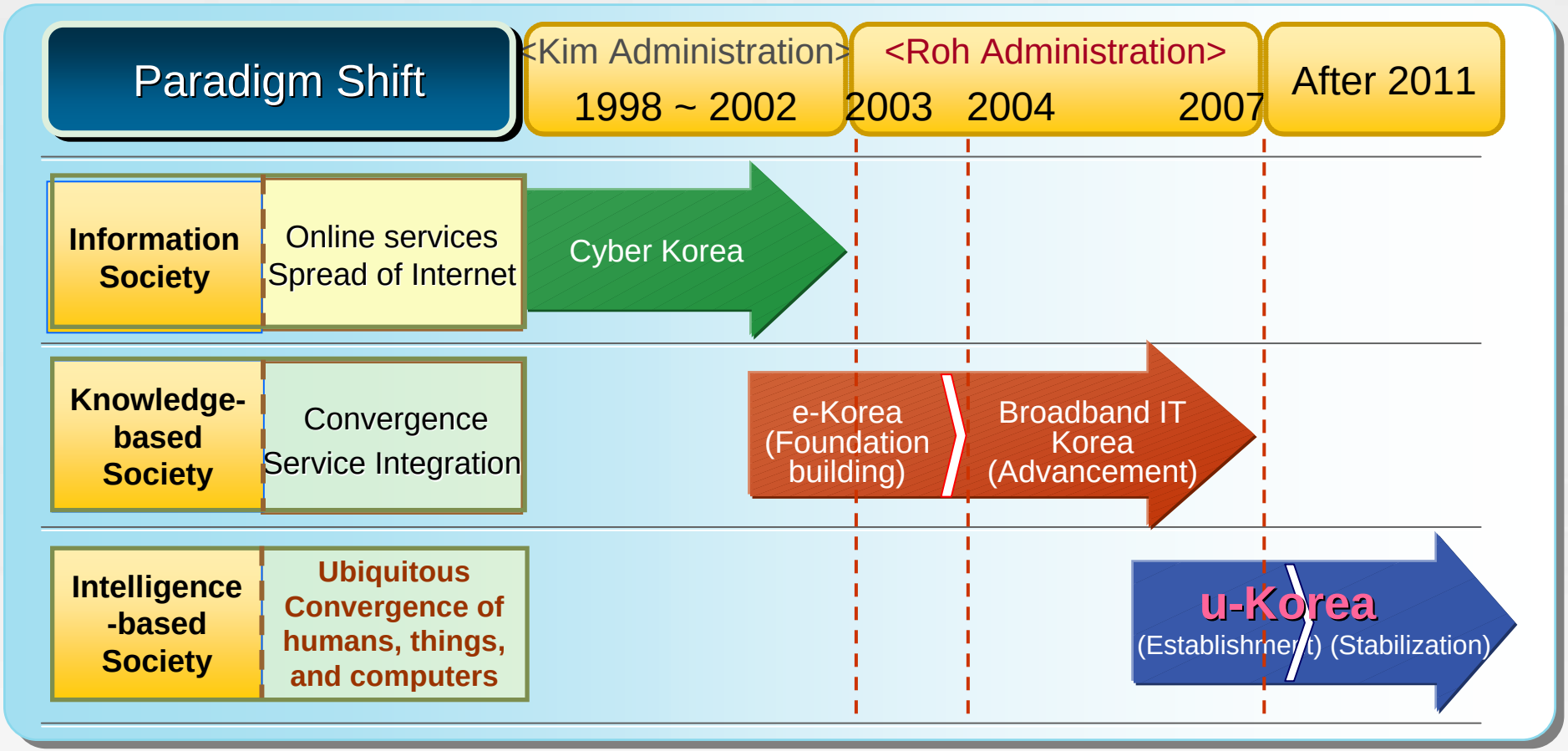
1 Informatization Paradigm Shift

Limited informatization in Individual network and PCs

New strategy required for ubiquitous environment



<Ref> Process of Informatization Paradigm Shift



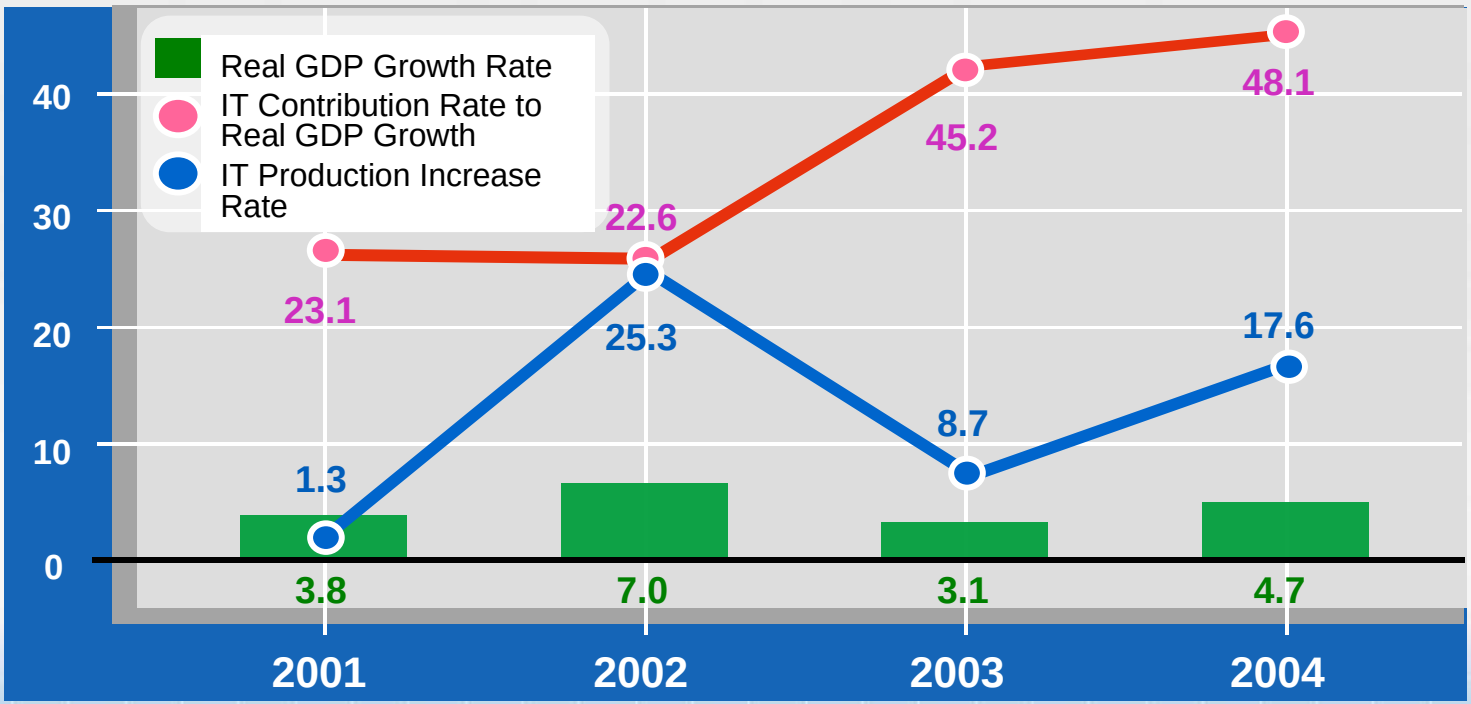
u-Korea (intelligence-based society)

a society in which all people can freely enjoy benefits of IT anytime and anywhere thanks to all things made intelligent with electronic chips inside and connected to each other via networks

Informatization Environmental Change (2)

2 Increased demand for reinvigorating economy with IT

- IT industry supporting Korean economy in slump
  - IT Contribution to Economy : No. 1 in OECD member economies (OECD Outlook 2004, December 2004)



Source: Bank of Korea, Ministry of Information and Communication

Informatization Environmental Change (3)

3 Increased threat to information security

- **Damages by incidents are growing severe due to convergence of communication, broadcasting, and internet and diversification of information equipments.**

Broader Damaged Area

Internet ➡ BcN

More Intense Damage

Simple information loss, system failure ➡ loss in human lives and property

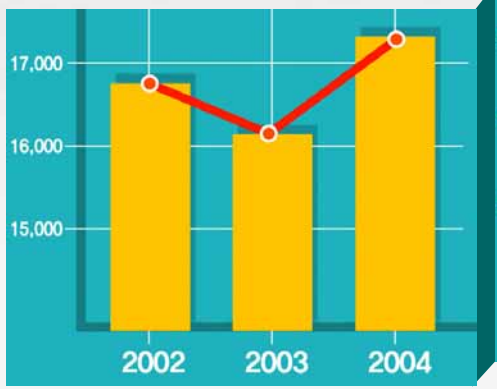
Increased Attack Targets

PC ➡ mobile phones, information appliances and all other devices

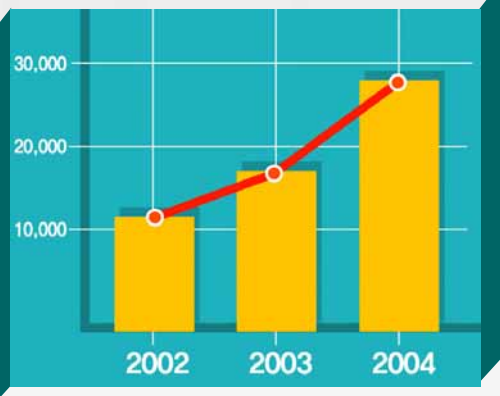
Informatization Environmental Change (4)

4 Increased concerns on adverse functions of informatization

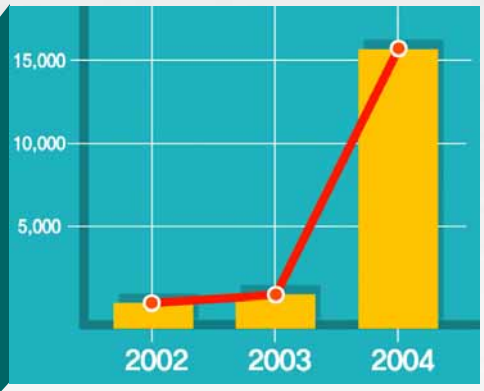
- Issues raised on breaches of personal information, illegal and obscene information, online addiction, etc.
  - ※ limitation in collecting residential ID numbers and destruction of information of canceling subscribers to mobile communication services



No. of inquiries on breaches of personal information



No. of adjustment requests on illegal and obscene information

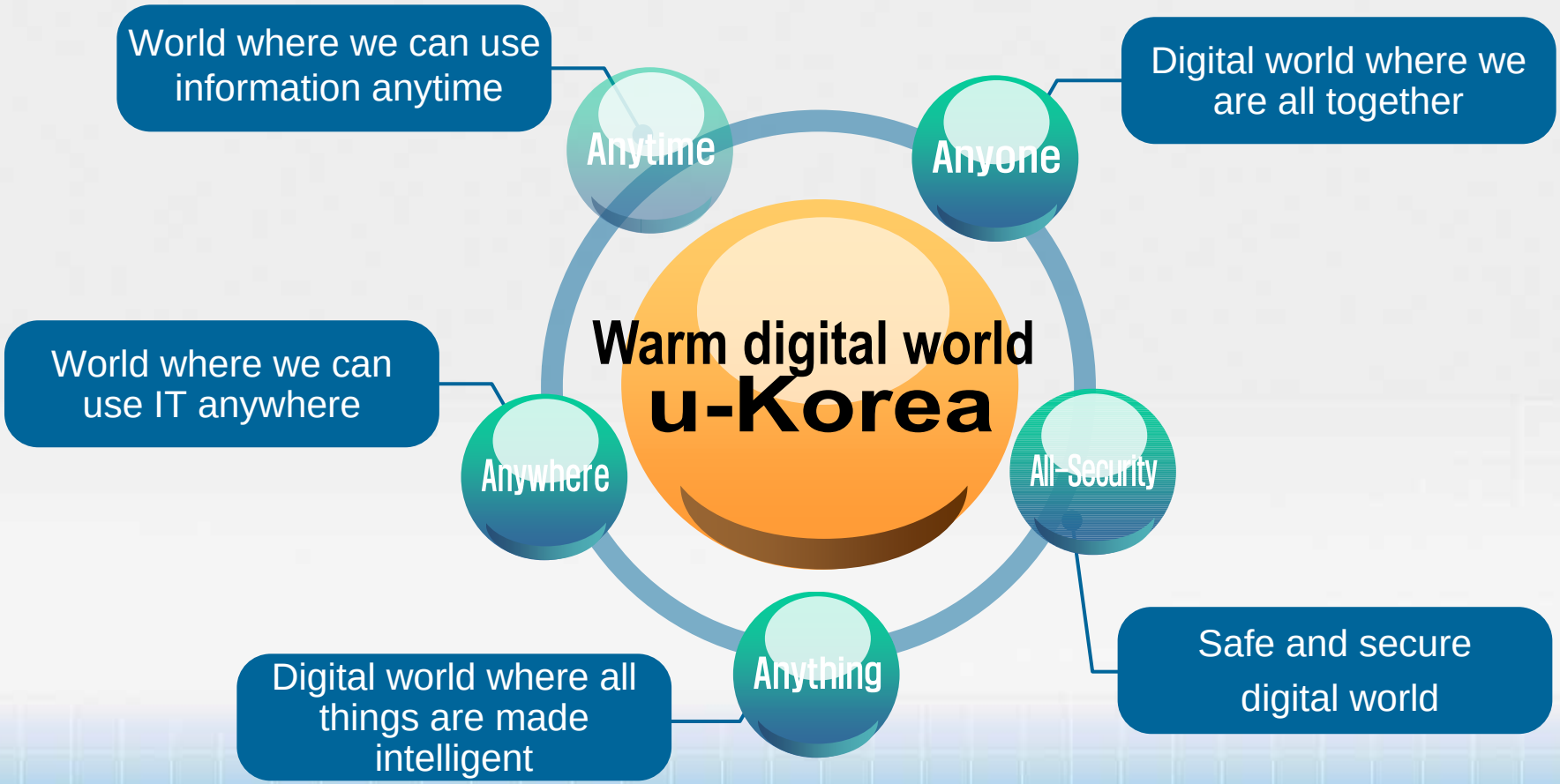


No. of inquiries on online addiction

Source: KISA, KADO, Information Communication Ethics Committee

Future Vision of Informatization Policy

u-Korea Vision



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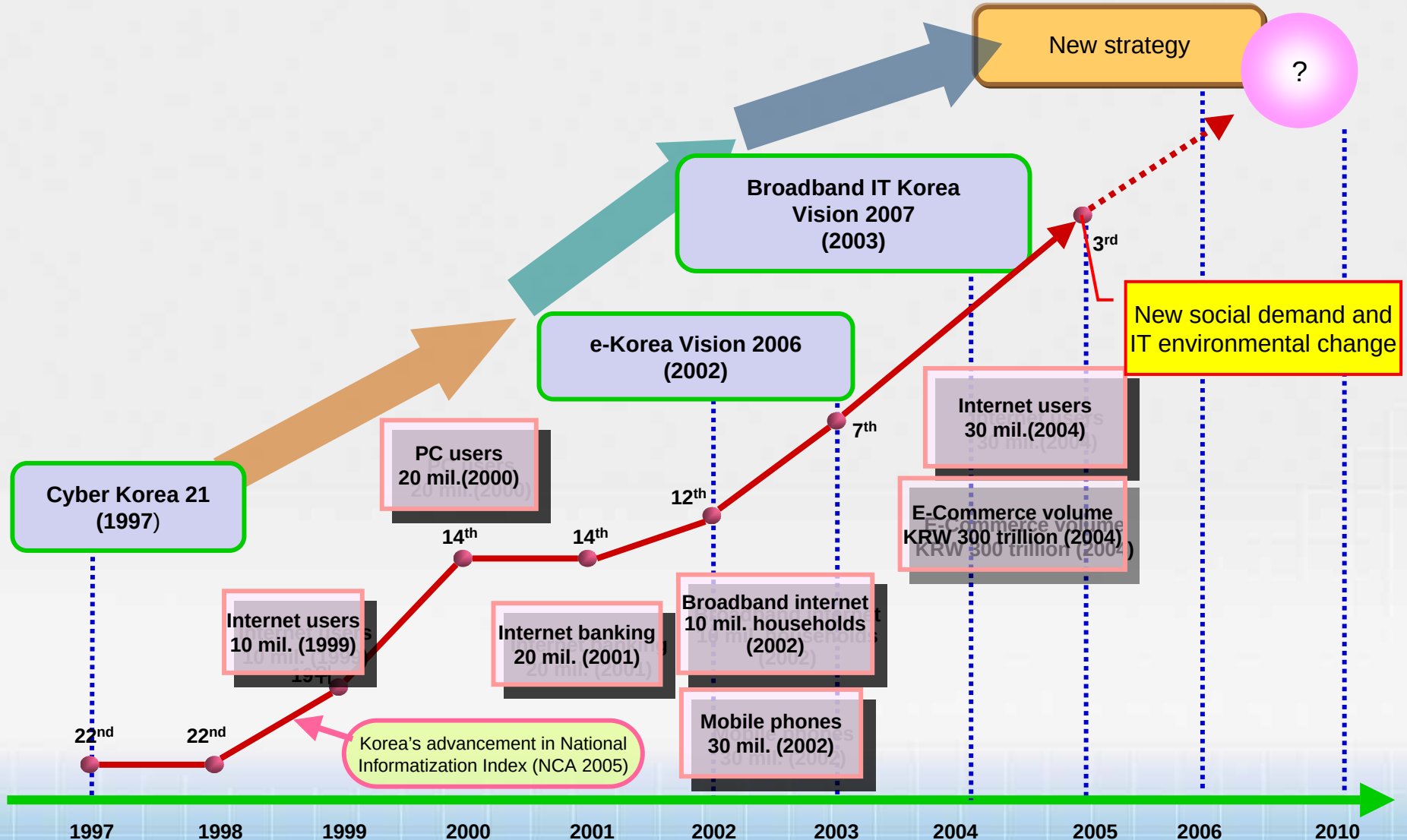
Korea's Journey on Informatization

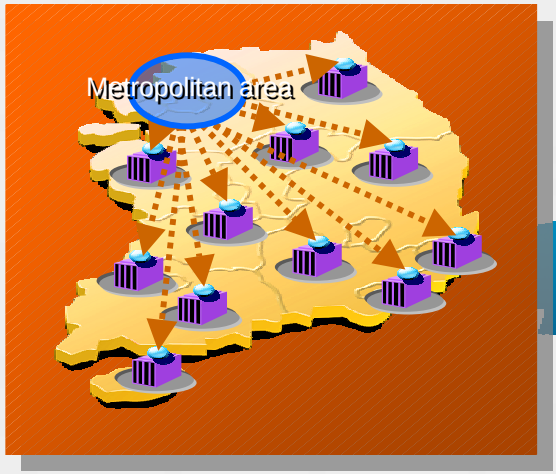


Change in Informatization Environment

u-KOREA Master Plan

Need for revised national informatization strategy

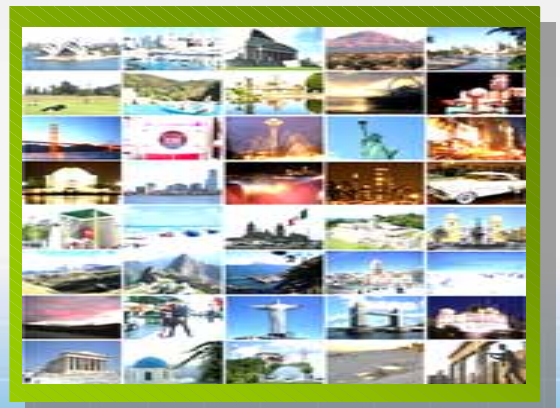
Moving of public institutes to other districts



Concerns on continuous Low-growth

Acceleration of low birthrate and aging

ncrease in demand for diversity



Rapid realization of ubiquitous IT

RFID

DMB

WiBro/4G

Telematics

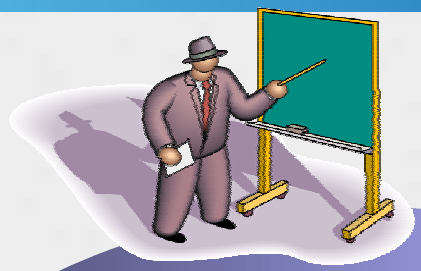
Digital TV

Housework Robot

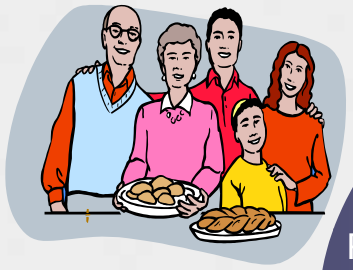
Home Network

Spread of fear on disasters

Why Ubiquitous IT?



Government innovation



Advanced welfare system

Real-time response
All-time accessibility

Real-time response
Voluntary decision

Ubiquitous IT

Case recognition
Voluntary decision

Intelligent national foundation

Real-time information
Case forecast

Convergence
Integration

Social system innovation

Strong industrial competitiveness

Basis to achieve advanced Korea using its strengths as the IT power

u-Korea Strategy

u-Korea Engine — **Driving force for business process and system innovation in various sectors of society such as IT839 Strategy, e-Government Project, etc.**

Establishment of u-Korea Engines

Establishment of u-Infrastructure

Advanced infrastructure	Establishing 3 infrastructures - BcN, RFID/USN, IPv6
Key technologies	Establishing 9 growth engines - Intelligent robots, next generation PC, etc.
Services and equipments	Establishing 8 services - WiBro, DMB, home network, etc.
Solutions	Developing and diffusing of S/W solutions
Manpower and standardization	Supporting ITRC and leading international standardization
International Cooperation	Establishing R&D centers and IT Hub of Northeast Asia

Prevention of Adverse Functions

Digital divide	Performing IT education and establishing infrastructure for the poor
Information security	Protecting network and device stability and privacy

Creation of environment

Legal institution	Improving legal institutions for ubiquitous environment
u-Culture	Declaring u-Korea Charter and operating nationwide council

Key Tasks for u-Korea

SECTOR	GOAL	TASKS
Politics and administration	System innovation in public sector	▪ 24-hours civil services ▪ Electronic voting and real-time survey
Disasters	Disaster management system	▪ Disaster prevention service against flooding, earthquakes, etc. ▪ Emergency disaster detection service – fire, building collapse
Transportation and logistics	Northeast Asian hub of logistics	▪ Automatic service for logistics and distribution using RFID ▪ Traffic management service using ITS, LBS
Agriculture, marine, and livestock	Advancement of remote areas	▪ Tracking and management service for agriculture, marine, and livestock produce ▪ Disease management service for agriculture, marine, and livestock produce
Business management	Product efficiency and customer satisfaction	▪ Best production system with product management and SCM ▪ CRM with real-time collection of customer information
Manpower and employment	Employment opportunities with market creation	▪ Telecommuting service for the disabled and senior citizens ▪ Comprehensive and real-time employment information service

Stages for u-Korea

u-KOREA establishment ('06~'10)

- enter top 15 in national competitiveness
- achieve national income of USD 22,000
- enter top 25 in quality of citizen life

- Ubiquitous services (u-logistics and distribution, u-Healthcare, etc.)
- Fostering u-industry and new markets

- Completing ubiquitous network (BcN, USN, etc.)
- Technological converging of IT with BT, NT
- Improving institutions for ubiquitous society

u-KOREA stabilization ('11~'15)

- enter top 10 in national competitiveness
- achieve national income of USD 27,000
- enter top 20 in quality of citizen life

- Diffusing ubiquitous service to all sectors of society
- Positioning on higher level over overseas markets

- Inserting chips in all things
- Activating convergence of IT and BT, NT
- Stabilizing ubiquitous culture

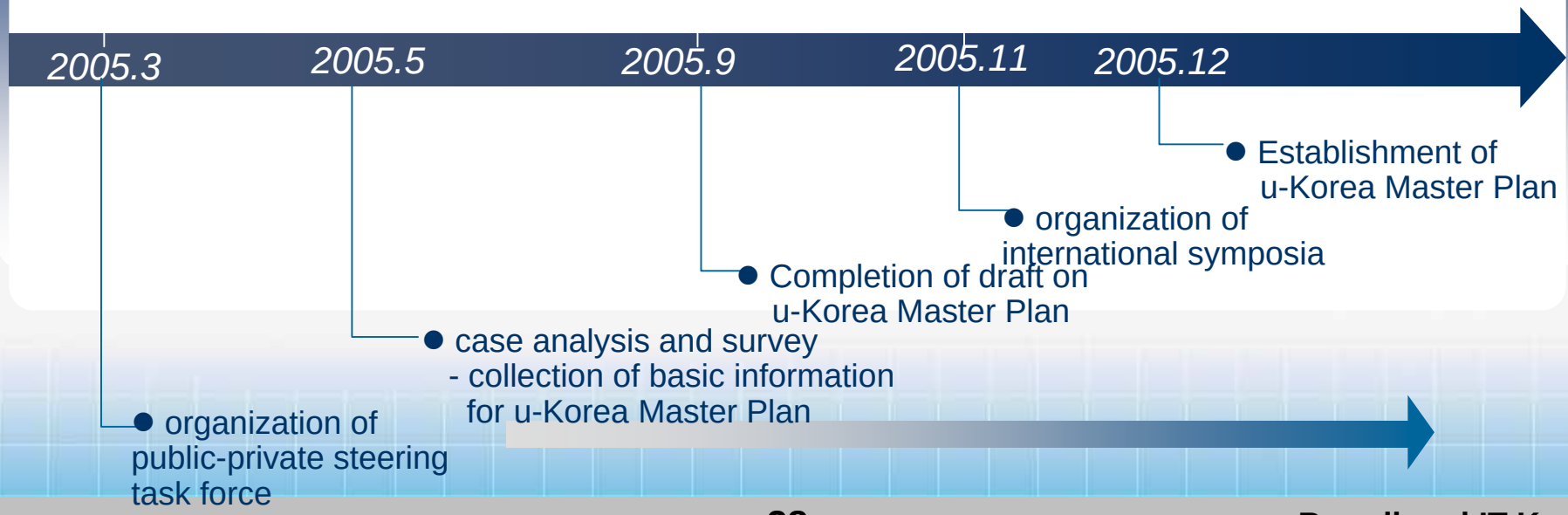
Promotion Framework and Plan

Framework

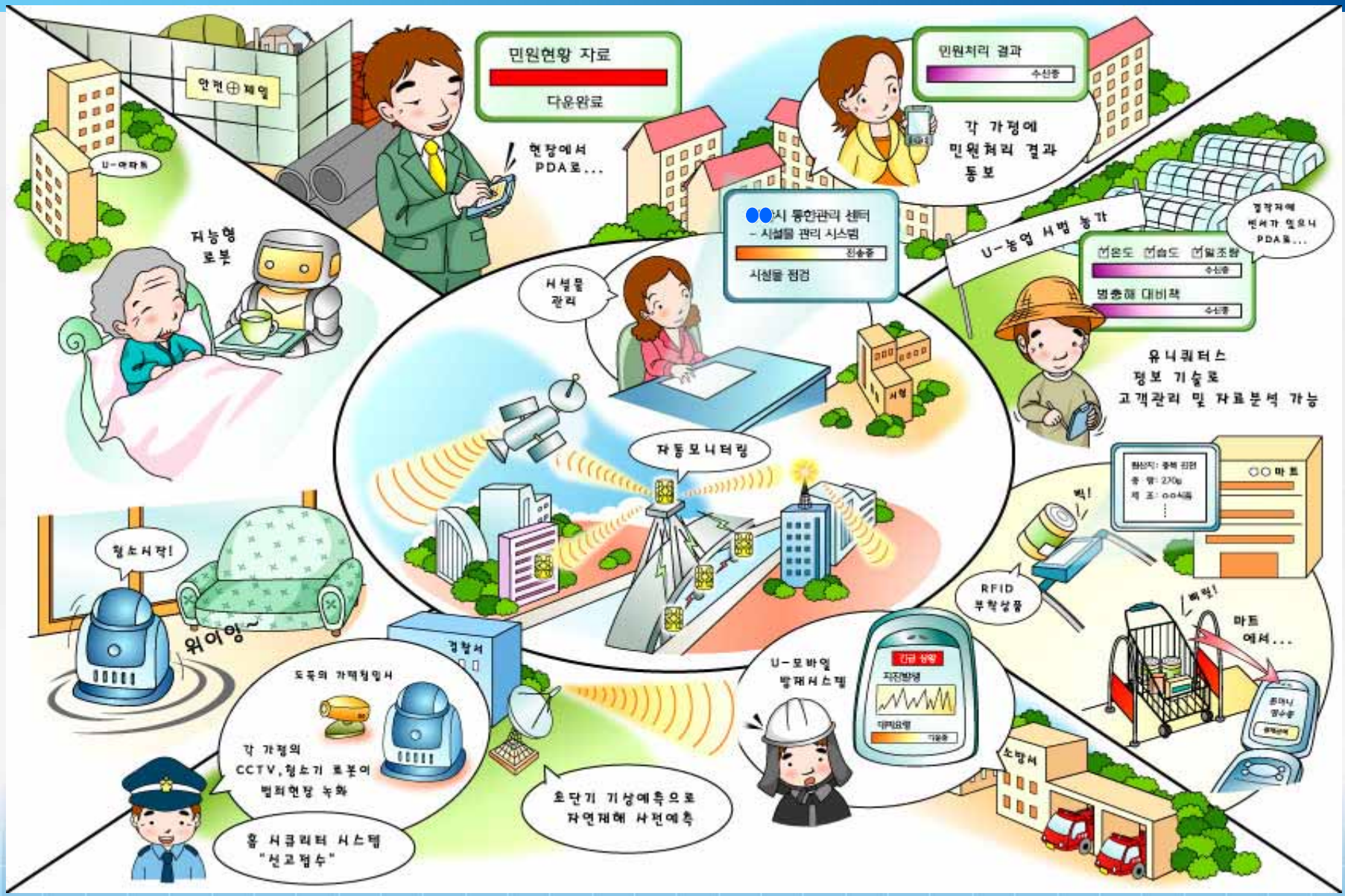
Establishing a public-private steering task force for u-Korea Master Plan

- Drawing roadmap through ministerial collaboration after establishment of the Master Plan
  - MiC to construct and provide u-Korea engines, the key foundation for advanced Korea
  - Each ministry to promote contents development, legal institutions improvement by sector

Plan



u-KOREA in 2015



Future u-Korea

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