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Republic of Korea

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Korean New ICT Initiative : K- ICT

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Smart Digital Economy

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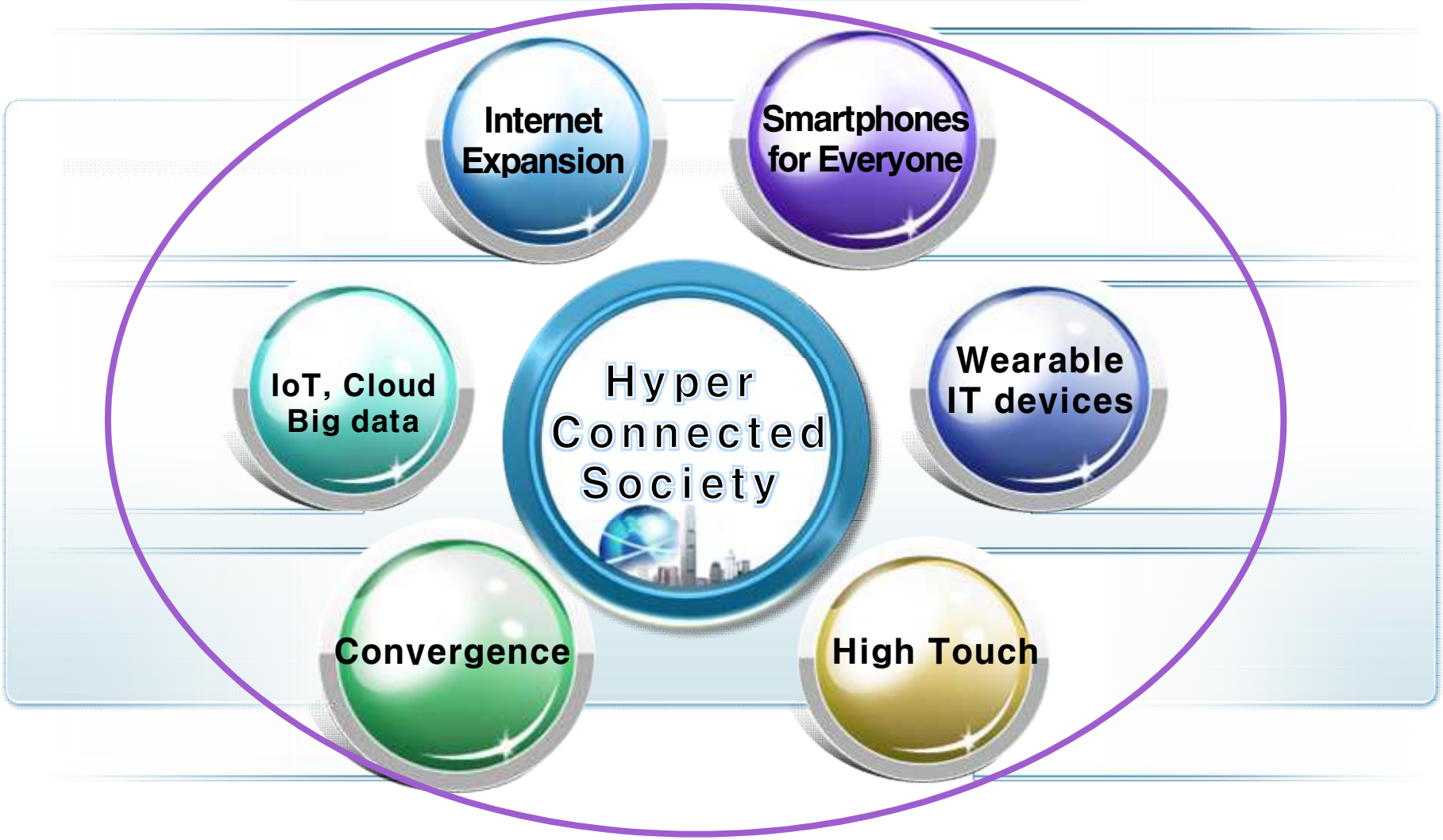
Digital Economy



Current Issues :
Changes in the Global ICT Market Environment

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Emergence of a Hyper-Connected Society and ICBM-based Economy

(CAGR, '13~'17)

IoT	Cloud	Big Data	Mobile
25.6%	22.0%	35.3%	28.0%

Rapid Growth of SW/Platform & ICT Convergence Sectors

〈Global Market Share〉 (CAGR, '13~'18)

SW 5.0% vs. Overall ICT Industry 3.2%

〈Market Outlook〉 (Gartner)

Convergence 11.8%

Roles of Players

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Government

- Provide leadership as a policy maker
- Act as an investor in R&D and HR
- Serve as a judge for fair competition

Industry

- Make future-oriented investments
- Strengthen core competitiveness

Consumer

- Diverse Services Vs Necessary Services
- ICT Convenience Vs Privacy

Roles of the Government

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1 Policy Establishment

- Establishing a vision and objectives
- Building a foundation for development
- Adopting policies based on technology and environmental changes

2 R&D and Talent Nurturing

- Seeking diversified R&D to secure leading technologies
- Encouraging the inflow of talents to Korea and long-term nurturing of problem-solving, creative talents

Emerging Challenges & Opportunities

3 Fair and Innovative Market Environment

- Creating a competitive environment through liberalization and deregulation
- Industrial promotion through nurturing of startups and venture companies

4 Proactive Investment and Initiatives

- Proactive response to changes, investment in and support to leading industries
- Seeking public-private cooperation for investment

Korea's Economy and ICT

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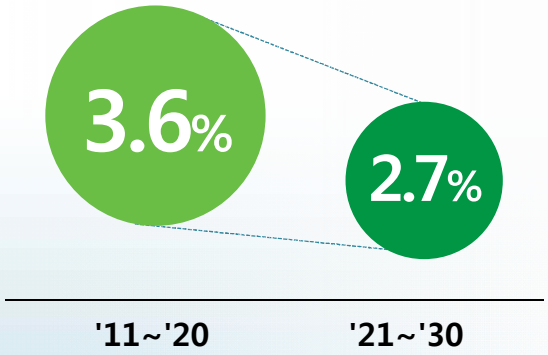
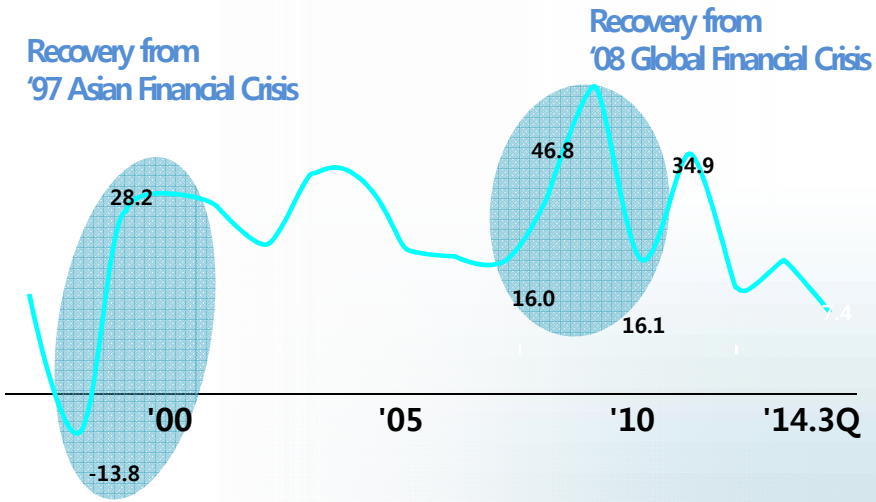
Korean Economy entering a Phase of Slow Growth

Korea's Potential Growth Rate (%)



ICT, a Driver for Economic Recovery

ICT Industry's Contribution to Korea's GDP (%)



Current Issues:
Korea's New Challenges and Implications

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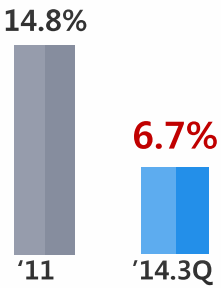
Structural Problems

18.5% Overall

39.6% Highly-skilled

Talent Shortage

Sluggish Economic Growth



ICT Production Growth

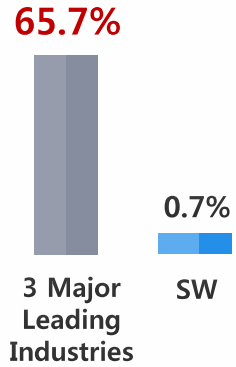
Lack of High-Growth Companies

No. of Companies 11.5%

No. of Employees 7.9%

Revenue 6.5%

Investment in New Areas



Highly Export-Dependent

Structural Reform

Fostering of New Industries

Creation of more Dynamic ICT Industries

Promotion of SW & New Industries

K-ICT Vision and Priority Tasks

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ICT-led Creative Korea

Goal

Achieving 8% of annual growth
in 2020
with innovative new industries and stronger leading industries

K-ICT Vision and Priority Tasks

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Ⅰ Structural Reform of the ICT Industry

Ⅱ Expanded Investment in ICT Convergence

Ⅲ Strengthening of Global Cooperation

Ⅳ Fostering of 9 Strategic Industries

Structural Reform of the ICT Industry

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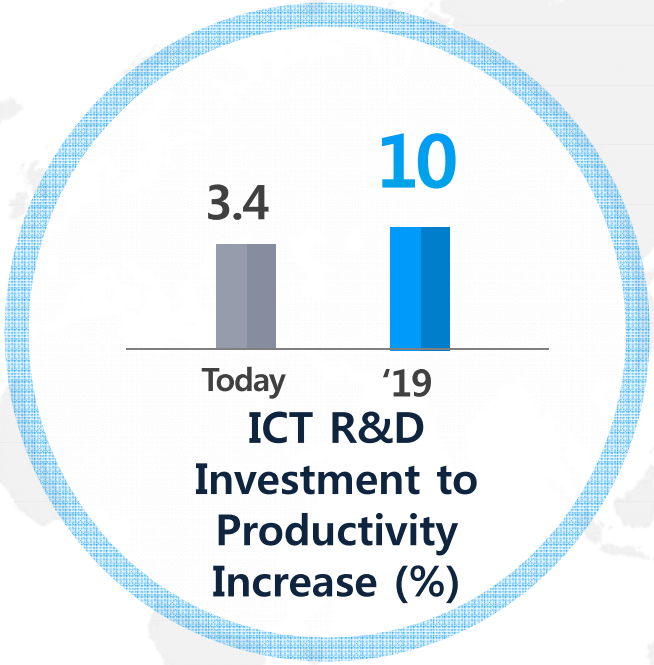
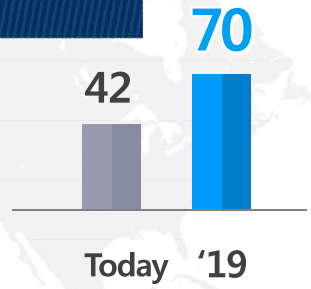
Accelerating Technology Innovation



ICT R&D Investment to Productivity Increase (%)

Nurturing Creative Talent



Relevance of College SW Education to Market Demand (out of 100)

Supporting Startups for Going Global

Attract more foreign investments

Expanded Investment in ICT Convergence

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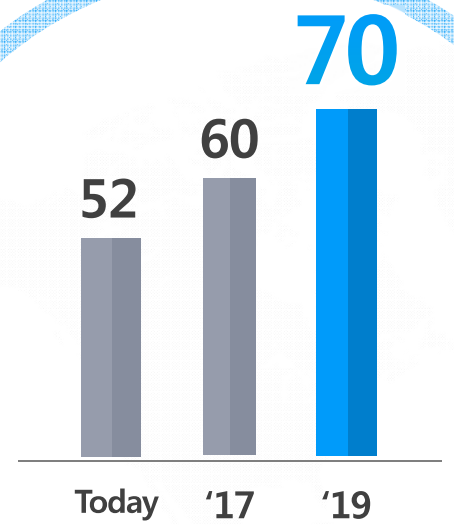
Promoting Convergence Between ICT and 6 Major Areas

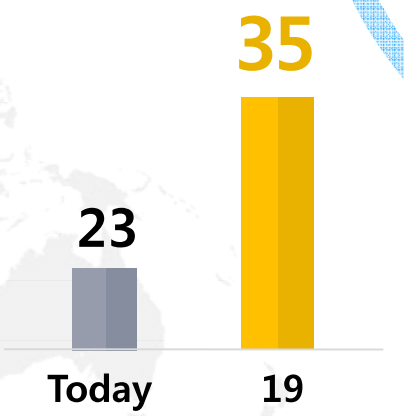
- Smart City
- Education
- Healthcare
- Tourism
- Transportation
- Energy

Enhancing the Regulatory Environment



No. of Reformed Regulations Relating to ICT (Accumulated)

Creating Public Demand for SME Products



Proportion of SME-made ICT Devices in the Public Procurements(%)

Strengthening of Global Cooperation

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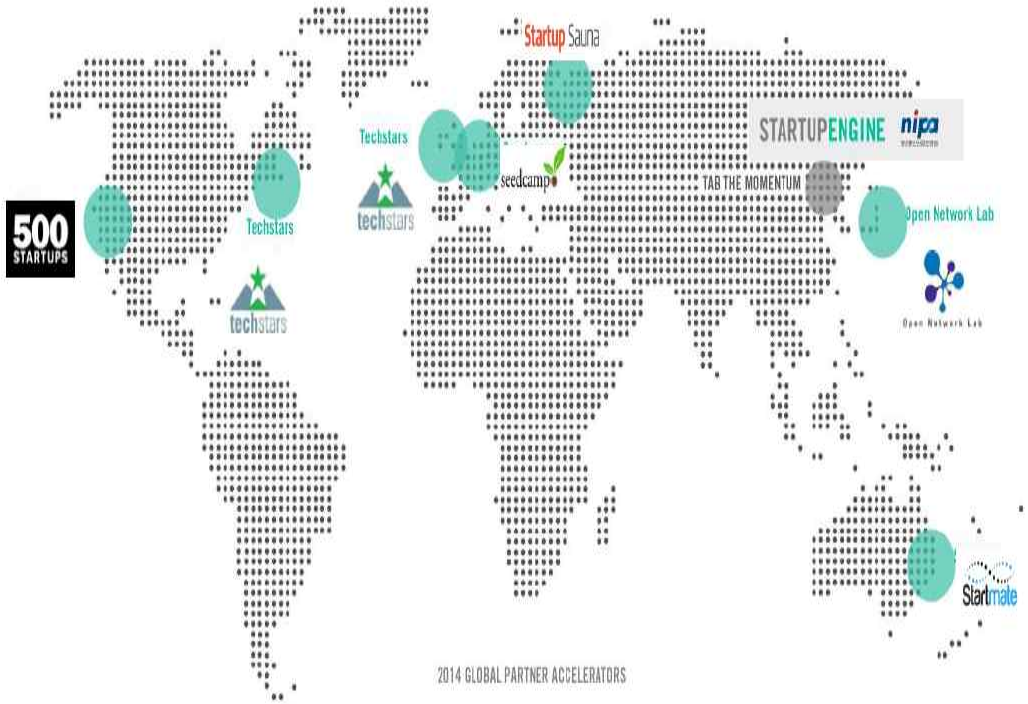
Taking a Customized Approach for Overseas Market



Enhancing Korea's Global Partnership

Fostering of Nine Strategic Industries

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Content

Digital Content

Big Data

Device

Smart Devices

Service

5G

UHD

Infrastructure

Software

IoT

Cloud

Information Security

Fostering of Nine Strategic Industries - Content

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Digital Content

- Promoting cooperation among global/big/medium/small companies so as to foster promising future content and source technologies
- Nurturing talents in next-generation content through establishing an open campus based on industry-academia-research cooperation
- Establishing a convergence content business center to provide systematic and integrated support

Big Data

- Developing a standard big data analysis model for 7 promising industries, creating new markets and achieving fast vitalization
- Seeking pilot service projects to address day-to-day urban issues (i.e. transportation, parking, energy) by using big data based on the u-City infrastructure
- Improving a legal framework to expand the supply of anonymization technologies and SW, and to balance big data industry promotion and privacy protection

- Aiming to develop and distribute **advanced PETs (Privacy Enhancing Technologies)** and encourage **voluntary adoption** to promote the safe use of big data

Fostering of Nine Strategic Industries - Device

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Smart Devices

- Securing technological competitiveness through developing various next-generation device technologies and parts that SMEs can produce
- Fostering globally-successful companies through developing signature products and encouraging the production of smart devices in other industries as their main items
- Supporting the virtuous cycle of creating and developing SMEs and venture companies (i.e. active support to device startups and regional hubs)

Fostering of Nine Strategic Industries - Service

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5G

- Developing commercial technologies for 5G equipment, terminals and services that have global competitiveness
- Securing investment capital and pursuing commercialization in 2020 by encouraging sound competition in the mobile telecom market

UHD

- Established plans (Jun. '15) for the world's first terrestrial UHD broadcasting and aiming for commercial launch after spectrum allocation and pilot services
- Enhancing support to foster the media industry by building a regional media venture center, etc.
- Aiming to overhaul the regulatory system to help broadcasting service providers actively embrace next generation media services and thereby continue to grow

Fostering of Nine Strategic Industries - Infrastructure

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Software

- Enhancing the fundamentals of the SW industry by supporting big, long-term promising future SW projects (5 projects by '17/max. 10 years), creating regional SW convergence clusters (SW companies-universities-research institutes, 10 by '17), etc.
- Providing customized support based on the development phase of a company (i.e. company foundation, growth, and globalization)

IoT

- Creating large-scale 'IoT test sites in the fields of health care and smart city by collaborating with selected local governments
- Fostering specialized IoT companies with global competitiveness by identifying and supporting promising IoT startups and SMEs
- Building and operating the 'IoT Security Center' to check vulnerabilities, security functions, and performance in all stages (design→implementation→inspection) of the IoT test site project

Fostering of Nine Strategic Industries - Infrastructure

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Cloud

- Applying the 'Cloud First' policy to promote the adoption of cloud in the public sector (20% by '19) and the migration of public services to private cloud (40 by '19)
- Increasing the use of cloud services (40% by '19) by adopting cloud services in industrial complex (50 by '19) and supporting the use of cloud for SMEs and startups
- Adopting security measures ('15) and achieving bank-level security for companies

Information Security

- Creating new demands for information security technologies through vulnerability check and analysis, and from IoT security and technology development projects
- Planning to build 'Cyber Security Spark' a cluster of tech institutes, training facilities, a test bed, and a business cooperation center
- Going global with customized information security services including consulting-demonstration/test bed project- joint market entry, based on Korea's experiences

Conclusion

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