KCC promotes smart work activation in full scale to develop Korea as a global power of smart work

- To extensively pursue 10 tasks in 3 fields, such as spreading of smart work culture, acceleration of smart work system introduction to the neglected in workplace and user protection

- To establish and distribute smart work introduction · operation guidebooks and information security recommendation

Under the vision of 'advancing Korea as a global smart power through balance between life and work', Korea Communications Commission (KCC) established and announced on the 6th the 'Smart Work Activation Promotion Plans' aiming for smart work execution for 30% of workers by 2015. These plans are detailed promotion plans for the smart work-related sections of KCC's 'Establishment of the Basis for Advancement of Smart Work Infrastructures and Activation in the Private Sector' and 'KCC Work Plans 2011'. The Smart Work Activation Promotion Plans have been prepared through a number of expert meetings.

In addition, KCC announced that, as practical tasks of the Smart Work Activation Promotion Plans, 'Smart Work Introduction · Operation Guide Book for Business', a composite guide book on smart work to accelerate the introduction of smart work system, and 'Information Security Recommendation for Smart Work Activation' to minimize security vulnerabilities and threats during smart work introduction and operation would be established and distributed.

At present, the leading domestic and international companies are actively introducing smart work system. Although the social recognition of smart work is increasing in Korea, improvement is necessary in terms of the face-to-face organization culture, etc. In addition, introduction of smart work is being delayed for female workers, the elderly and small businesses due to the burden of cost. Moreover, it has been required to establish user convenience and safety measures considering the quality and information security of smart work system.

At this, KCC decided to promote 10 key tasks in 3 fields, which are ▶ spreading of smart work to the entire nation and support for overseas market entry, ▶ acceleration of the introduction of smart work system by supporting female workers, the elderly and small businesses and ▶ implementation of environment to activate safe and convenient use by employing information security certification and quality rating system, etc.

▶ For **(spreading of smart work to the entire nation and support for overseas market entry),** KCC will ① promote organizing government-wide joint policy presentations · conferences and smart work day as well as discovering smart work leaders, etc. in order to spread smart work culture and create the necessary environments. In addition, KCC will ② promote establishment and amendment of the related laws in order to resolve problems and therefore to activate smart work introduction. For example, taxational support, protection of workers rights and information security will be promoted by improving the smart work-related systems, such as establishment of the Smart

Work Activation Promotion Act, etc. For this, KCC will discover tasks for policy and law improvement and spread smart work culture through close cooperation with the related government offices, such as the Ministry of Gender Equality and Family and the Ministry of Employment and Labor, as well as Smart Work Forum, etc. Furthermore, KCC will ③ provide support for publicity and global market entry by small businesses in Korea and therefore spread the business model by strengthening the brands of domestic technologies and developing smart work star companies

▶ For **(acceleration of the introduction of smart work system by supporting female workers, the elderly and small businesses)**, KCC will ④ develop low-cost and high-quality smart work distribution model through pilot projects specialized to the fields in which the ripple effect of smart work is large and therefore attempt at increasing the use of the developed model. In addition, KCC will ⑤ support small businesses employing female workers, the elderly and the disabled with smart work introduction and therefore increase employment opportunities for the socially vulnerable. At the same time, KCC will ⑥ establish a base for effective remote cooperation among workers through video communication regardless of location and therefore encourage innovate transformation of communication paradigm from voice to image-based.

▶ For **(implementation of environment to activate safe and convenient use by employing information security certification and quality rating system, etc.)**, KCC will ⑦ prepare information security guidelines and smart work introduction·operation guide book to

create safe and reliable smart work environment. Also, introduction of security certification and quality rating systems will be reviewed. In addition, KCC will ⑧ develop and standardize core technologies for smart work environment in order to provide working environment that satisfies users' demands and for social-based cooperation. At the same time, global test bed will be implemented to support international joint research projects. Moreover, KCC will ⑨ advance wired and wireless network infrastructures so that to enable smart work anytime, anywhere and ⑩ promote cloud service and M2M communication in order to create intelligent working environment.

The 'Smart Work Introduction · Operation Guide Book for Business' provides the management as well as handling officers from HR, general affairs, management planning and information system divisions of businesses with information on the necessity of smart work introduction as well as expected benefits, preparations and roles of each handling officer. Also, this guide book explains procedures of smart work introduction per type, smart work operation methods, case studies of smart work introduction and status of the related legal systems.

The 'Information Security Recommendation for Smart Work Activation' suggests technological and administrative protection measures to be autonomously implemented by businesses in order to create safe smart work environment. Considering a variety of smart work types, such as field · shift (mobile office) work, work from home and work in center, the recommendation proposes information security measures per function and component of

smart work as ▶ rules to be observed by smart work service providers, ▶ rules to be observed by smart work administrators and ▶ rules to be observed by smart work users.

Once KCC's promotion plans for smart work are implemented through organic cooperation among industrial, academic, research and government sectors, it is forecasted that new smart work-related markets and jobs will be created. In addition, IT infrastructures of high economic values and accessibilities will be provided. Accordingly, one-man companies and small businesses will be activated. At the same time, from social and cultural perspective, the expansion of remote and mobile services will enhance the quality of life through harmony between 'life' and 'work. Also, the system of work from home and flexible working hours will improve the environment for employment of the vulnerable, such as female workers, the elderly and the disabled.

A KCC insider said, "the Smart Work Introduction · Operation Guide Book and Information Security Recommendation for Smart Work Activation promoted as practical tasks for the 'Smart Work Activation Promotion Plans' will serve as a compass for the businesses wishing or scheduled to introduced smart work system."

※ Currently KCC is preparing to produce and distribute the detailed SMO implementation guidelines (during Jan. 2011) based on the results of 'Pilot Project of Small Business SMO Implementation' promoted in accordance with the SMO (smart mobile office) Promotion Plans (Nov. 23, 2010).

Attachment: 1. One copy of Smart Work Activation Plans
(Summary)

2. One copy of Smart Work Introduction and Operation Guides for Business (Summary)
3. One copy of Information Security Recommendation for Smart Work Activation (Summary)

<Attachment 1>

Smart Work Activation Plans (Summary)

1. Background and Promotion History

○ In line with the increase of smart phone use and popularization of high-resolution video service, it became possible to introduce smart work that enables flexible working anywhere, anytime.

※ Smart Work: A new concept of working environment that improves work efficiency by promoting convenient and smart work anywhere and anytime regardless of time and space

(Smart Work Types: Shift/ field work, work from home work in smart work center, etc.)

○ Through smart work system, it is possible to solve the social issues concerning low carbon green growth as well as low fertility and aging society. In addition, as importance of working conditions to achieve balance between life and work is highlighted, the related industries take notice of smart work as a new business opportunity.

○ In July 2010, 'Smart Work Activation Strategy' to spread smart work system to the entire nation was reported to the President. (KCC extensively promotes smart work introduction in the private sector, while the Ministry of Public Administration and Security focuses on the public sector.)

○ In December 2010, '2011 Operation Plans' including information on pilot projects to spread smart work system and on promotion of guide book distribution, were reported to the President.

2. Status and Issues

□ Status

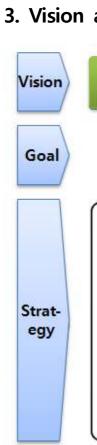○ With the increased use of smart phone, businesses introducing

mobile office of e-mail, employee search and authorization functions is increasing.

  ※ Mobile Office Subscribers in Korea: 210,00 in 2009 → 700,000 in 2010 (increase by approx. 230%)

○ The system of work from home is introduced for efficient HR management by Dongdaemun-gu Office (work from home for female officers after childbirth) and Lotte Home Shopping (work from home per time slot for call center employees), etc. KT has implemented and therefore is operating approx. 10 smart work centers for employees.

○ The advanced countries, such as the U.S., U.K. and Netherlands, have secured emergency handling system in preparation for natural disasters, etc. Introduction of smart work system in the advanced countries is increasing with measures to lower public cost due to economic crisis.

□ Issues

○ Although social consensus on the necessity of smart work is increasing, there are apprehensions about the negative effects in terms of employment stability and denied promotions, etc. in the face-to-face organization culture.

○ Introduction of smart work system is being carried out especially among large enterprises. This is being delayed in small businesses and for female workers and the disabled due to the burden of cost.

○ It is necessary to establish the physical base for smart work system through network advancement, technology development and establishment of measures for user convenience · safety considering smart work quality and information security.

3. Vision and Strategy

Vision > To advance Korea as a global smart power through balance between lift and work

Goal > To establish smart work environment for 30% of workers by 2015

Strategy

· Activating smart work business by investment and development led by the private sector
· The government to focus on establishing wholesome ecosystem, such as small business support and market expansion

Improving awareness and establishing the base — 2011년
» Expanding distribution — 2012년
» Expanding entire industries to lead the global market — 2015년

Key Tasks

Tasks

Spreading the culture nationwide and supporting overseas market entry	Accelerating smart work introduction	Implementing environment for safe and convenience use
1. Spreading smart work culture and creating necessary environment 2. Establishing Smart Work Activation Promotion Act 3. Activating business and supporting overseas market entry	4. Discovering smart work distribution model 5. Supporting the socially vulnerable for smart work use 6. Activating video communication	7. Strengthening information security and user convenience 8. Developing and standardizing core technologies 9. Improving network infrastructures 10. Creating intelligent working environment

4. Promotion Tasks

⑴ Spreading of smart work culture to the entire nation and support for overseas market entry

  ※ Working-level conference for joint promotion of smart work activation in the private sector with the Ministry of Gender Equality and Family and the Ministry of Employment and Labor (Jan. 4, 2011)

  ① (Spreading Smart Work Culture) Policy presentation · conference, campaign to practice smart work (Ex.: Smart Work Day) and campaign to improve work place culture by discovering leaders through awarding exemplary cases

    ※ Encouraging smart work system introduction by private organizations and promoting effective publicity of exemplary cases through cooperation with the press

  ② (Establishing Smart Work Activation Promotion Act) Resolving problems and therefore activating smart work introduction through improvement of the legal system relating to taxational support, protection of workers rights and information security

  ③ (Activating Business and Supporting Overseas Market Entry) Developing star companies and increasing the brand power of domestic technologies by supporting small Korean businesses for publicity and global market entry

⑵ Acceleration of the introduction of smart work system by supporting female workers, the elderly and small businesses

  ④ (Discovering Smart Work Distribution Model) Developing low-cost and high-quality smart work distribution model through pilot projects specialized to the fields in which the ripple effect of smart work is large and therefore increasing the use of the developed model

  ⑤ (Supporting Smart Work Use by Small Businesses and the Socially Neglected) Supporting small businesses employing the socially

neglected, such as female workers, the elderly and the disabled with smart work introduction

⑥ (Establishing the Base for Video Communication Activation) Establishing a base for effective cooperation among workers regardless of location

③ Implementation of environment for safe and convenient use by employing information security certification and quality rating system, etc.

⑦ (Strengthening Information Security and User Convenience) Establishing environment for safe and convenience smart work use by employing security certification and quality rating systems as well as through smart work introduction guidelines and information security recommendation

⑧ (Developing and Standardizing Core Technologies) Developing technologies and implementing global test bed for working environment that satisfies users' requirements and for social-based cooperation

⑨ (Improving Network Infrastructures) Advancing network infrastructures, such as introduction of Giga Internet system in the earlier phase and WiFi/ WiBro/ LTE implementation, in order to enable smart work anywhere, anytime

⑩ (Establishing Intelligent Working Environment) Establising intelligent working environment using cloud service and M2M communication

5. Necessary Budget

○ To establish smart work environment for 30% workers by 2015, smart work activation, such as improvement of infrastructures and service commercialization, is promoted with an investment of approx. KRW 1 trillion by 2015.

- KCC will invest approx. KRW 270 billion by 2015.

  ※ Budget details will be confirmed through consultation with the Ministry of Strategy and Finance.

- The private sector will invest approx. KRW 730 billion by 2015 to the areas relating to smart work service (infrastructure implementation cost excluded).

  ※ The private sector plans to invest approx. KRW 200 billion for service promotion of smart work solution development in 2011.

6. Expected Benefits

○ New jobs will be created as industrial competitiveness and added values will increase.

  ※ The full-on introduction of smart work system will lead to creation of the related market to the scale of KRW 4.8 trillion and 380,000 jobs by 2014 (KT, Oct. 2010).

○ IT infrastructures of high economic values and accessibilities will activate one-man companies and small businesses. In addition, the lowered traffic will contribute to low carbon green growth.

  ※ In the first half of 2010, 1,000 jobs were created by one-man companies. One-man companies extensively converge in the IT and service fields and therefore produce a high job creation effect (Small & Medium Business Administration, 2010).

○ Employment environment for the socially vulnerable, such as female workers, the elderly and the disabled, will be enhanced.

<Attachment 2>

Smart Work Introduction · Operation Guide Book for Business (Summary)

□ Promotion Background

o **(Status)** With the VIP report of 'smart activation strategies' (Jul. 2010) and 'smart work activation for advancement of the working method' selected as a state task (Sep. 2010), the atmosphere is elated for spreading of smart work system to the entire nation.

o **(Issues)** Although the base for smart work introduction, such as IT infrastructures and application abilities, is mature, there is still the negative notion among workers and businesses about smart work system. In addition, there are difficulties associated with smart work implementation and operation. Therefore, smart work is being carried out especially among large enterprises.

o (Necessity**)** It is necessary to prepare and distribution 'smart work guide book', a composite manual for smart work introduction and operation to encourage smart work introduction by businesses.

□ Key Contents

o The 'Smart Work Introduction · Operation Guide Book for Business' provides the management as well as handling officers from HR, general affairs, management planning and information system divisions of businesses with information on the necessity of smart work introduction as well as expected benefits, preparations and roles of each handling officer.

- Procedures of smart work introduction per type, smart work operation methods, case studies of smart work introduction and status of the related legal systems, etc.

<Contents of Smart Work Guide Book>

Formation	Contents	
Smart Work Overview	- Definition, types, status and necessity of smart work	
Preparations for Smart Work Introduction	- To examine for smart work introduction - To organize smart work project team - To establish smart work policies - To analyze smart work	operations - To re-examine smart work operation procedures - To draw up smart work-related systems and rules
Smart Work Guidelines per Type	1) Mobile office	- Outline - Service provision models and base technologies - Introduction procedures and operation - Case studies on smart work introduction
	2) Work from home	
	3) Work in smart work center	
	4) Work in office (video conference)	
Security Reviews	- Security reviews on terminal, application program, platform, network and server issues	
Legal Systems	- Smart work-related laws · regulations and the contents	

<Attachment 3>

Information Security Recommendation for Smart Work Activation (Summary)

□ Promotion Background

o **(Status)** With advancement of wired · wireless network infrastructures and expansion of smart phone use, social interest in and corporate demand for smart work increase.

   ※ 7,070,000 smart phone users as of Dec. 23, 2010 (3 communications service providers)

o **(Issues)** The risk of hacking and exposure of important personal and business information hinders businesses' decision to introduce smart work system.

   ※ 47.9% of CEOs, "Security is the biggest problem of mobile office" (SERI, Survey in 2010)

o **(Necessity)** To secure stability in providing and using smart work service, it is necessary to establish detailed security systems and guidelines so that to prevent and handle diverse security threats in smart work environment.

□ Key Contents

o The 'Information Security Recommendation for Smart Work Activation' suggests technological and administrative protection measures to be autonomously implemented and therefore recommends compliance with the measures.

<Smart Work Information Security Rules>

Rules		Contents
Service Provider	Security for Infrastructures	- Technological protection measures, such as response to hacking, wired · wireless network security and physical security, to establish safe environment for smart work infrastructures
	Security for Shared PC	- Technological protection measures for corporate storage devices and mobile storage media, etc. used in shared computers in smart work center
Administrator	Security for Terminal, Service, Contents	- Administrative protection measures to protect terminals, services and contents from malicious codes and loss · theft, etc.
	HR Management	- Administrative protection measures, such as training and monitoring for safe smart work service use
	Incident Response Procedures	- Procedures of handling a variety of security incidents possible to occur in smart work environment
User	Information Asset Handling · Management	- Regulations to be followed by users for appropriate protection of information assets
	Enhancement of Awareness	- Educational and learning activities, such as information security notes and handling procedures, to continuously increase users' awareness on informations security
	Incident Handling	- Guidelines for users to promptly handle security incidents in smart work environment