
Press release

To be released on February 1, 2012 (Wednesday) upon the distribution time.

Inquiry: Woo-Hyeok Choi, Broadcasting and Communications Green Technology Team, Convergence Policy Officer
(750-2190)

Pil-Goo Kang, Broadcasting and Communications Green Technology Team (750-2194)pkkang@kcc.go.kr **솔팀**

2012 Broadcasting & Communications R&D Implementation Plan (KRW207.2 billion)

- with a focus on SSK (Speed, Security, Knowledge) -

On December 1, 2012, the Korea Communications Commission announced that it voted on an implementation plan for R&D projects for 2012 that will include standardization studies as well as technology and workforce development in broadcasting & communications. It will be officially carried out starting on February 1.

The plan provides investments amounting to KRW207.2 billion (up by 4.4% over 2011) including ▲ KRW18.2 billion for standardization, ▲ KRW152.7 billion for technology development, ▲ KRW5.5 billion for workforce development, ▲ and KRW30.8 billion for building research facilities.

〈 Korea Communications Commission R&D expenditures for 2012 〉

(Unit: KRW100 million)

Classification	2011 budget (A)	2012 budget (B)			Change	
		Continuing projects	New projects	Total	(B-A)	%
Total	1,984	1,473	598	2,072	88	4.4
Technology development	1,460	1,069	458	1,527	67	4.6
Standardization	172	143	39	182	10	5.8
Workforce development*	67	55	-	55	△12	△18
Building infrastructure	285	206	101	308	23	8

* Some non-R&D projects (KRW1.2 billion) were changed to professional broadcasting & communications education projects (non-R&D projects).

Based on the **broadcasting & communications strategy for the future (May 2010)** and the **broadcasting & communications master plan (November 2011)**, information was collected from a technical demand survey of PMs of the Korea Communications Commission, a project planning committee (270 or so participants) consisting of experts from industries, universities and research institutes, public hearings and Internet disclosures, and screened to identify viable projects for the plan.

< **Technology development: KRW152.7 billion** >

- ◇ Intensive investment will be made in R&D based on Speed, Security and Knowledge to foster a new “smart industry” of the future, and R&D will be conducted into emotional intelligence for building a convenient broadcasting & communications service use environment.
- ◇ Increased support will be afforded for SMEs to enhance their core technical competencies, and free-competition R&D will be introduced so that innovative ideas can be connected to technology development (**Idea & Development**).

▲ **Speed:** Development of **post Wi-Fi** and post-4G mobile communication technologies (**B4G/5G**) that will be faster and more robust against interference, and thus provide large-capacity high-quality service in crowded areas.

▲ **Security:** hardware-based information security modules will be developed that can be installed at USIMs to ensure thoroughgoing smartphone security (by preventing leaks and malicious spread of information after a smartphone is stolen or lost) as well as low-cost SW for prevention of internal information leaks in line with the expansion of organizations obliged to protect personal information pursuant to the Personal Information Protection Act.

▲ **Knowledge:** development of massive data processing and application service technologies to create various new services by creatively utilizing massive data and core user-participatory digital signage technology that can provide advertising customized to personal preferences and location as well

as a recommendation service.

▲ **UI/UX:** development of a UI/UX for smart TVs that is voice-activated and even recognizes faces, and makes it possible to provide various services to fit personal tastes or preferences of users so that practical and convenient services can be fostered.

▲ **Support for small and medium-sized venture companies:** Increased support for R&D to enhance the core technical competencies of small and medium-sized venture companies and universities, and R&D customized for SMEs to help small and medium-sized venture companies continuously create markets (e.g., very small base stations etc.).

The plan will also gradually migrate the R&D system to an I&D (Idea & Development) so that the innovative ideas of small and medium-sized venture companies and universities can lead to technology development, and provide new support for small projects (KRW100~500 million) in mobile service and radio infrastructure as “free-competition projects” (KRW4.2 billion) not specified by the government.

< **Standardization: KRW1.82 billion** >

◇ To safeguard against global patent wars, development of strategic standards like next-generation mobile communication (B4G) and green technologies will be reinforced, and standards developed for improving the disabled and underprivileged’s access to broadcasting & communication.

M2M convergence standardization will be carried out in which various

stakeholders participate to effectively apply broadcasting & communications technologies to other industries like medicine and automobiles, and try to have the post-4G mobile communication technologies (B4G) and green technologies become global standards so that the core technologies of Korea can be accepted globally.

In particular, standards will be developed to minimize the information divide in society so that the disabled can more easily install and utilize smartphone apps.

<Developing the workforce and building infrastructure: KRW36.3 billion>

◇ Research infrastructure that can promote the diffusion of promising broadcasting & communications services and effectively support **development of state-of-the-art ICT technology will be enhanced**, and more **test beds for reinforcing the research competency** of small and medium-sized venture companies will be built.

Current research networks (KOREN and TEIN) and technical support test-beds will be enhanced, and a new test-bed for near-field mobile devices like NFC and WiFi, which are rapidly growing recently, will be built at the **Telecommunications Technology Association (TTA) to support commercialization of related products.**

The Korea Communications Commission will make sure that the Korea Communication Agency PM and R&D organization (Korea Communication Agency) continuously check performance so that this plan is carried out soundly, and research results maximized by getting more industries and service operators involved in joint research.

The Korea Communications Commission said that this plan will be able to lay the foundation for invigorating new services of the future and creating markets, and contribute to the shared growth of large corporations and SMEs by strengthening the R&D competency of SMEs.

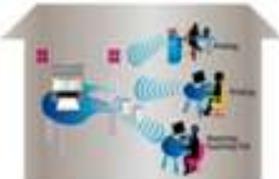
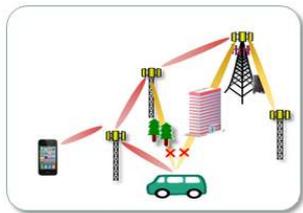
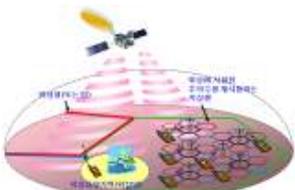
The Korea Communications Commission is planning to select organizations that will carry out the technology and standardization projects through an open competition in March, and provide support for

them. For more information on the details of the projects and how to apply, you can visit the homepage of the Korea Communications Commission (www.kcc.go.kr), the Korea Communications Agency (www.kca.kr), and the Telecommunications Technology Association (www.tta.or.kr).

[Attachment]

Key new technologies

[Speed]

<p>Post Wi-Fi</p> 	<p>◇ Development of next-generation core WiFi technologies that can overcome interference in crowded areas and provide high-quality services like large-capacity video service (2014)</p>
<p>Next-generation mobile communication (B4G)</p> 	<p>◇ Development of new, post-4G high-speed wireless network technologies and technology for direct communication between terminals without the need of a base station (2015)</p>
<p>WDM-PON parts</p> 	<p>◇ Development of the very small low-price core parts of optical transmission equipment to improve the price competitiveness of network equipment (WDM-PON) (2014)</p>
<p>Smart node system</p> 	<p>◇ Development of high-performance smart node technology that can reduce the network traffic processing load of large distributed contents, and efficiently provide such functions as “smart work” and video conferencing (2014)</p>
<p>2.1GHz ground-satellite integrated communication</p> 	<p>◇ Development of the technology for integrated ground-satellite network transmission and frequency sharing to secure a ground travelling frequency of 2.1GHz bandwidth (2014)</p>

[Security]

<p>Smartphone information protection module</p> 	<p>◇ Development of hardware-based information security modules that can be installed in USIMs to ensure thoroughgoing smartphone security by preventing leaks and malicious spread of information after a smartphone is stolen or lost (2014)</p>
<p>Low-cost internal information leak prevention SW</p> 	<p>◇ Development of low-cost SW that will prevent internal information leaks in line with the expansion of organizations obliged to protect personal information pursuant to the Personal Information Protection Act (2013)</p>

[Knowledge]

<p>Knowledge store</p> 	<p>◇ Development of an open knowledge storage technology, the next-generation appstore platform that will enable everyone to sell and utilize professional knowledge regardless of time and place (2015)</p> <p>[knowledge store] knowledge creation/ customized expression user</p>
<p>Big data applications</p> 	<p>◇ Development of a massive data processing and application service technology for creative utilization of massive data (2014)</p>

[Intelligence and emotion]

<p>UI/UX for smart TV</p>	<p>◇ Development of a UI/UX for smart TVs that is voice-activated and can recognize faces, and make it possible to provide various services fitting the personal tastes or preferences of users so that practical and convenient services can be realized (2014)</p>
<p>Emotion-based broadcasting system</p>	<p>◇ Development of an emotion-based broadcasting system to help the disabled to better enjoy customized UX services more easily than now (2014)</p>
<p>Digital signage</p>	<p>◇ Development of core user-participatory digital signage technology that can provide advertising customized to personal tastes and location as well as a recommendation service (2014)</p>

I want KBS.

- user recognition
- customized viewing
- visually impaired
- Emotional UX
- Posting video advertising
- Photo ad
- poster
- Advertising

—