

Key research that took place in the digital contents field in 2004 included digital actor technology designed to support high-quality digital video production, game engines which are compatible between PC and PS2, and DRM-related technology that aims to protect digital contents and IPRs. In the S/W solution sector, the government stimulated the development of voice-recognition interfaces, which can be utilized in intelligent robots and telematics.

VIII. Telematics

The Korean government supports the development of core technologies in terminals, servers, and wireless access for telematics.

The government plans, by 2007, to turn vehicles into a third cyber-space, delivering convenience for drivers, entertainment for passengers, and safety for the vehicles. By 2005, the government will establish indoor and outdoor test-beds to test for all kinds of telematics equipment. It set 2006 as the target year to secure three core technologies in terminals, servers, and wireless access for telematics.

To become a global telematics leader, Korea will systematically gather and provide information on traffic, road-maps and tourism while lowering telematics terminal prices and service usage rates. Local governments, research institutes, and private companies will divide their roles to conduct nine core projects designed to establish the telematics market. To trigger demand for telematics service, the government plans to set up a 'telematics service pilot city' in areas like Jeju island.

VIII. Intelligent Service Robots

The new intelligent service robot industry no longer perceives robots as labor to replace humans, but to provide entertainment and to serve as companions. The global intelligent service robot market is projected to grow to USD 4.9 billion in 2007 and USD 23.1 billion in 2010 (IDC, Dec. 2004). The market for intelligent service robots remains vastly untapped, but is expected to grow. Hence, under the national interest governments in advanced countries including the U.S., Japan and Europ are focusing into technology, research and developments.

The government aspires to become one of the world's three largest intelligent robot makers by developing and industrializing intelligent service robot technologies. In particular, the MIC intends to promote the technological developments in Ubiquitous Robotic Companion(URC), which integrates advanced IT infrastructures with the robot technology, to build "robots that are capable of providing my services anywhere anytime." The trial service for URC will begin from the end of 2005.

3. IT R&D and International Standardization Activities

I. Innovating and Enhancing R&D Systems

In 2004, the government introduced Project Managers(PMs), private experts for each new growth engine sector, and a Planning Evaluation Commercialization & Marketing(PECoM) system that can standardize and manage the entire R&D process. Such a move aims to shift IT R&D into a performance-based system.

The Korean government aims to shift R&D in information technology in the direction of a performance-based system.

PMs manage the entire process of the project from planning to commercialization. Such a system can promise more successful R&D results and increase synergistic effects between the government and the private sector by reflecting technical demands by the private sector on government policy. With that in mind, PMs set out development strategy for IT growth engines and the master plan, identify new projects and pursue goal-oriented technological development.

The PECoM system was first developed as a stand-alone so that it can be used in a computer system as early as possible. In the next stage, the government plans to make the system compatible with other systems to ensure functionality of the system and efficient use. The focus of the PECoM system will expand from progress management to the overall process of project planning, evaluation, and follow-up. PMs' regular reviews on milestone accomplishments will be reflected in yearly project evaluations to manage performance in R&D activities. The government will continuously work to improve the R&D system to enhance expertise and transparency in selecting and assessing R&D projects.