

## IV. IT SoC

IT SoC is a key component of IT devices. It is composed of memory that stores information, one or more processing units that control and process digital and analog signals, and related softwares. Korea set a goal to become a leading IT SoC country by 2007.

*Korea aims to become a leading IT SoC country, and supports the development of core SoC technologies.*

To achieve this, the government identified core SoC technologies as a new growth engine sector and supported such development. As a result, it succeeded in developing multimedia SoCs for cellular phones in 2004. It also produced 123 high-quality SoC designers who completed a specialty certificate program in the IT SoC Academy, which opened in February 2004. The government has also supported the building of a common infrastructure for SoC design companies. As a result, two mid-sized companies with more than KRW 100 billion emerged. The IT SoC industry is showing considerable growth every year.

In 2005, the government will support SoC design companies by expanding Intellectual Property (IP) databases and production of prototypes. Branch campuses of the IT SoC will open across the nation in an attempt to produce talented SoC designers nationwide. The government will develop and demonstrate low-power core chips for mobile communications and hold IT SoC exhibitions to introduce new products and promote cooperation between system developers at home and abroad.

## V. Next-generation PC

Next-generation PCs are central in the ubiquitous computing environment. Not only is it user-centered and easy to use, but also meets the requests of users at any time and place with its wearable and portable computing functions. Korea will strive for the goal to “become one of the top three advanced countries in the world, to lead the ubiquitous era for next-generation PCs”. Consistent with this goal, it is moving on to the age of wearable, edible, and embedded computing.

Korea will secure five-sense information User Interface(UI), bio-integrated

*Korea is striving to be one of the top three advanced countries in the next-generation PC field as they are central to the ubiquitous computing environment.*

technology by importing technology and encouraging international joint research. Smart I/O and software technologies will be promoted through international exchanges of developed home-grown technology and support to domestic industry. Korea will focus on the development of wearable computer and next-generation human interfaces by maximizing the use of its network infrastructure. The technology will be applied to differentiate a wide array of products to enhance consumer convenience.

In the future, Korea will explore applications adopting bio-technology to develop various micro-product models using a single chip and thus, create a new market. It is essential for the next-generation PC industry to develop utilization models that will help secure them a firm footing and enhance their national competitiveness. The government plans to assist the industry by developing various utilization scenarios centering around main PC user groups and reflect these scenarios in technical development. It also plans to apply developed technologies and utilization scenarios to pilot projects on college campuses and in the retail industry to get a head start in developing the next-generation PC market. The government will hold next-generation PC industrial exhibitions as well as wearable computer fashion shows to give people a preview into the ubiquitous lifestyle and enhance the popularity of next-generation PCs.

## VI. Embedded S/W

The government put forward its vision to realize the “Embedded, Everywhere” nation by continuously developing embedded S/W core technologies and fostering the embedded software industry. Part of the vision also has Korea growing into one of the world’s two major embedded S/W producers by providing embedded S/W solutions into platforms that can be used to develop products of various sizes and in every product line.

Embedded S/W is an engine for various information devices, particularly those in the next-generation sectors. Initially, embedded S/W platforms will be developed taking into account the technical requirements of smart phones, mobile communications, robots, digital broadcasting, digital homes, and telematics. For this purpose, the government devised mid and long-term plans to develop three