

# **THE GLOBALIZED UNIVERSITY - Challenges and Responses**

**A Demos Conference on Science, Innovation and Globalization  
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In this age of globalization, universities are being demanded to develop in a new direction. Today, I would like to present briefly my views on what universities must do successfully to lead a knowledge-based world society and, as an example of Asian universities, what Seoul National University, which I served as the president, is doing to support such a vision.

For a nation's economy to develop properly, a corresponding economic growth strategy must be adopted. Unlike the "investment-based strategy" of developing nations, developed nations adopt an "innovation-based strategy" that stresses higher education, R&D, and market-based resource allocation. Consequently, for a country to develop dynamically and join the club of developed nations, it must change its economic strategy to an innovation-based strategy in a timely fashion. Recently, leading Asian countries including China, India, and Korea actively adopted an innovation-based strategy, thus entering the unlimited competition era.

To lead such development, creative research is indispensable, and the role of universities that can educate internationally competitive experts and develop new key technology becomes pivotal. Accordingly, prestigious universities worldwide are searching for ways of reforming their education systems and enhancing their education and research capacity to present and support a new vision.

50 years since the Korean War, Korea has grown into a nation that ranks 12th in gross domestic product worldwide. The major industries leading such development have been the semiconductor, computer, automatic telecommunication device, shipbuilding, steel and automotive industries. Lately, the nation has concentrated on research on information technology, biotechnology, and nano technology, all of which are R&D-intensive industries. It is a universally acknowledged fact that the greatest driving force behind the amazing development of Korea, a small country with a short history of modernization, has been "outstanding

manpower.” In my view, due to its peculiar conditions, Korea must follow the small-but-strong country development model which primarily relies on human capital of the highest quality.

Although it is true that Korea owes its amazing social development to outstanding manpower, the nation's universities and research were not without shortcomings until recently. The biggest problem was an overemphasis on quantitative expansion, which was not fully accompanied by corresponding qualitative development. In some respects, Korean universities were still bound to the investment-based strategy of developing nations, whereby knowledge created in developed nations is promptly imported and disseminated to bring about economic development.

Korea's premier universities therefore are now implementing reform to grow as truly world-class research universities. I would like to mention the vision that I had while reforming Seoul National University as its president. First, I stressed “the global cooperation of education and research.” Nowadays, it is a global phenomenon indeed for qualified experts to study and to work abroad. Although it is a source of concern for the nations involved in terms of brain drain, such a phenomenon signifies that talented experts are trained and monopolized not by individual nations but by the entire world. In many cases, only those who have been exposed to diverse cultures and experiences can think flexibly and produce unique ideas based on a rich imagination. In addition, collaborative systems and efforts are necessary that will enable the creative research conducted by these talented individuals to benefit not only individual nations but also the world and humanity. Taking this into account, I placed the greatest emphasis on strengthening the diversity and internationalization of Seoul National University.

Second, I stressed Seoul National University's “key role in scientific and technological development.” I believe that universities must devote their energy and resources above all to basic research. According to economic experts, basic research has a greater effect of raising the rate of economic growth than does applied research as a nation's economy develops. In other words, while it may not bring about as much immediate profit as investment in items that can be commercialized promptly, investing the same budget in basic research with potential further raises long-term growth potential. Seoul National University has devoted much of its time and resources on basic research that it now ranks 30th in the world in the number of academic papers published in SCI journals. In addition, it is also imperative that a collaborative research system among universities, companies, and governments be

established to maximize the efficiency of research and to raise the fluidity of researchers. Seoul National University has supported research on specialized hi-tech fields and to industry-university cooperation so that research conducted at universities can be promptly commercialized. It has established a joint university-industry research complex on campus. Established in 2003, the Seoul National University Industry Foundation serves as a channel that constructs a smooth technology distribution system among universities and companies.

At this moment, I would like to mention briefly the effort of Korea's private firms and Korean government to promote research. It is a well-known fact that Korea's private firms have played a key role in the nation's scientific and technological development. Although Korean companies have yet to reach the global standard as a collective, the top tier boasts world-class research capacity and investment. For example, last year, at Samsung Electronics Co., Ltd., R&D personnel reached over 30,000, 40% of the total staff members. Similarly, at LG Electronics, Inc., 11,500 staff members, 38% of the entire workforce, are in charge of R&D. According to an announcement by the British Department of Trade and Industry in 2006, Samsung Electronics and Hyundai Motor Co., Ltd. rank 9th and 43rd in terms of corporate investment in R&D, respectively, among 1,250 companies worldwide. Korean government also provided 1.5 trillion won starting 1999 to the Brain Korea (BK) 21 Project in a bid to enhance universities' research capacity and to train outstanding researchers. Thanks to the BK 21 project and other efforts, the number of graduate students as well as faculty members of universities who publish papers in SCI journals has increased dramatically. Recently, Japan, China and Taiwan initiated similar projects. All such phenomena are based on the awareness that, to strengthen the international competitiveness of universities, support on a national level is indispensable.

Regarding the informal theme of this session as to how universities in the UK can develop better research links with Asia, Korean students admittedly prefer to study in the United States than in Europe mainly because the nation's university system is similar to its American counterpart and graduate schools in the United States provide more scholarships. Likewise, there are only few European students in Korea. Under such circumstances, it is necessary to consider ways of developing better research links among British universities, Korea, and Asia. It would be desirable to form an international research network that connects universities, companies, and governments. Because researchers and research bodies each have their own goals, collaborative research can be all the more dynamic and innovative. In the long term,

universities that are capable of conducting collaborative research will be able to create various forms of cooperation including the exchange of scholars and students, satellite lectures, dual degree systems, and internships. It will be desirable also to host the branches of renowned research centers in partner countries and to establish and jointly invest in research clusters to promote effective collaborative research. In 2006, Seoul National University established the European Union Center together with Korean Institute for International Economic Policy. Many celebrities including Benita Ferrero-Waldner, European Union Commissioner, Guy Sorman from the Institut d'Etudes Politiques in France and Anders Fogh Rasmussen, the Danish prime minister, visited the EU Center and delivered speeches on the politics and economy of Europe. I expect that such efforts will gradually foster Koreans' knowledge and awareness of the Europe.

In this fast-changing world environment, no single university, no matter how well endowed, can by itself seek to address the challenge of being at the forefront of research and innovation. It is my firm conviction that we must collaborate across academic and national boundaries if we are to remain successful in the years to come. In this respect, this conference, which seeks new opportunities for collaboration among Asia, the United Kingdom, and Europe, is a crucial event and will serve as an important occasion for the world to develop in new ways. Thank you.