

China issues guidelines on science and technology development program

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The State Council issued the guidelines on national medium- and long-term program for science and technology development (2006-2020), which sets the proportion of research and development expenditures at 2.5 percent of the gross domestic product.

By 2020, the progress of science and technology will contribute 60 percent or above to the country's development. Meanwhile, the country's reliance on foreign technology will decline to 30 percent or below.

The number of patents granted to Chinese nationals and the introduction of their academic essays are expected to rank among the first five throughout the world.

China will give priority to technological development in 11 major sectors such as energy and water resources in the coming 15 years, in order to resolve some outstanding problems bottlenecking the country's economic and social development.

The key industries also include mining resources, environment, agriculture, manufacturing, communications and transport, information industry and modern service industries, population and health, urbanization and urban development, public security, and national defence, according to the program.

By 2020, China will have developed a number of frontier technologies in sectors such as biology, information industry, materials technologies and advanced manufacturing technology.

China will focus its energy research on the economical, efficient and clean use of energy and the exploration of new energy resources.

The guidelines also call for the development of technology for comprehensive exploration of seas and oceans, laser technology and space-sky technology for the next 15 years.

The guidelines list 10 basic researches such as basic biological researches comprising life science and diseases, research on the impact of human activities on global system, global change and regional response, and research on formation, forecast and control of disasters.

In the next 15 years, China will give top priority to the study of protein as it is regarded as the peak for life science by scientists in developed nations, the guidelines say.

Meanwhile, the study on the control of quanta may cast imponderable impact on human's social and economic development in 20 to 30 years.

In addition, China hopes to make breakthroughs in the study of Nano technology, which has been a strategic option for many countries to promote their competitiveness.

Along with the arrival of an aging era for China, a country with a big yearly increase in population and many people with birth deficiency, China is severely short of human organs for transplant.

Therefore there is an urgent need for breakthroughs and technological innovations in theory of reproduction and growth, according to the document.

China will urge large enterprises to set up research and development (R&D) institutes and welcome enterprises to share the state's R&D tasks.

According to the guidelines, China will push enterprises to spend more on research and development, and establish state-level engineering labs and various industrial engineering centers with joint R&D groups from enterprises, universities and scientific institutes.

China will persist in innovation to raise the country's competitiveness comprehensively, in the fields of equipment manufacturing and information industry, the agricultural science, the energy exploration and saving, the recycling economy and environment and etc.

China will expedite the implementation of a national strategy on intellectual property rights (IPR), bringing the IPR management into the whole process of scientific and technological management.