

Editorial



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Drastic changes are taking place worldwide in productivity, growth modes, lifestyles and socioeconomic development patterns. With the strong demands of modernization and globalization, a new round of S&T revolution is gaining momentum and is expected to give birth to significant breakthroughs. S&T innovation, the most active and revolutionary factor in today's world, clearly characterizes our times and makes it different from any other times in the past. It has become a strategic option for various countries to cultivate new economic growth points and compete to take favorite positions for S&T advancement. In the wake of the international financial crisis in 2008 in particular, governments of different nations have placed their hopes for economic recovery on revolutionary S&T breakthroughs. They strive to take the initiative in a new round of competition and development by making clear the possible fields and directions of S&T revolution, speeding up foresighted deployment, and promoting the development of emerging industries of strategic importance.

In some key S&T fields, external technological changes in concert with internal contradictions might bring about dramatic breakthroughs in fundamental issues, and result in deep impacts on productivity, lifestyles, social processes, and the competency and position of a nation in international competition. As such, we have to make timely analyses of the trends of S&T development and take full advantage of a new round of S&T revolution to significantly upgrade China's capacity for S&T innovation and industrialization.

Facing this historic mission and the magnificent opportunities of our times, the Chinese Academy of Sciences (CAS), which is China's national team and think-tank in science and technology, places a high priority on strategic studies and seeks to understand the future development trends of global S&T progress by giving a full role to insightful scientists. We have already presented *Science & Technology in China: Roadmap to 2050*, a report series on long-term S&T development. With rapid S&T advancement, however, we also have to pay close attention to medium- and short-term S&T development trends and ponder the following three issues in the next 10 years. One concerns world S&T development trends: where might major breakthroughs be achieved? Another one concerns the urgent S&T issues for China's socioeconomic growth and national security: in which field might major breakthroughs be made? And the third issue concerns foresighted deployment: what should China do to satisfy new demands in the light of new trends? CAS has therefore launched studies of S&T development trends to 2020 and presented the report *Vision 2020: Emerging Trends in Science and Technology and China's Strategic Options*.

A brainchild of many prestigious S&T workers, this report is expected to play a positive role in helping China implement its innovation-driven development strategy and establish an innovative country.