

Self-Reliance and Self-Improvement with High Quality: the Characteristics of China's Science and Technology System in the New Era

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Abstract: China adheres to the innovation driven development strategy, takes self-reliance and self-improvement in science and technology as the strategic support for China's development, improves the new nationwide system, and accelerates the construction of an innovative country and a world science and technology power, presenting a series of new era characteristics.

Keywords: Science; Technology; China; New; Era

Fund project: USTC, School of Marxism, 2021 Annual Research Fund Project "The Party's Leadership of Science and Technology in the New Era" (Approval number: YD2200000601).

1. Focus on science and technology self-reliance and self-improvement system

The most prominent feature of China's scientific and technological innovation system in the new era is the optimization of the strategic objectives of scientific and technological innovation. That is to say, efforts should be made to build a system of self-reliance and self-improvement in science and technology, achieve the independent, controllable and rapid development of scientific and technological innovation, ensure the overall stability of China's economic and social development, and to form a comprehensive strategic system of scientific and technological innovation^[1].

"China has set the strategic goal of becoming a leading innovative power by 2035, and takes self-reliance in science and technology as the strategic support for China's development." Self-reliance and self-improvement in science and technology means to develop science and technology based on China's scientific and technological talents, technologies, resources, institutions and systems, in accordance with China's actual conditions, strengthen scientific and technological exchanges and cooperation on the basis of independence and self-reliance, adhere to independent innovation and source innovation, deepen the reform of science and technology systems and mechanisms constantly, to build a socialist modern science and technology power with Chinese characteristics. There are profound reasons for this. First, the world's unprecedented international upheaval has accelerated its evolution, the great rejuvenation of the nation is a major task in the domestic situation, the international and domestic environment is complex, the world economy has been in a long-term downturn, and scientific and technological work has increasingly become a leading force in responding to international and domestic situations and promoting the development of socialism with Chinese characteristics. We must focus on the development of scientific and technological undertakings and give play to the role of scientific and technological work in driving the overall situation. Second, the impact of the COVID-19 is extensive and far-reaching. Scientific and technological forces have played a key role in changing the war situation during the anti epidemic period. In the face of major disasters such as public health events, scientific and technological forces should still be relied on, and scientific and technological development remains the key to solving world problems. At the same time, the trend of anti globalization, unilateralism and protectionism in the international community is surging. A series of hidden dangers and problems have emerged in the globalized science and technology system. It is becoming increasingly important to build a self-reliant and self-improvement Chinese science and technology system. Third, scientific and technological innovation between China and other States has become one of the main battlefields in the strategic games, and the competition

among major countries around 5G communications, chip manufacturing, energy technology and other scientific and technological commanding heights has never been fiercer.

2. Strengthen the orientation of scientific and technological innovation achievements

Scientific and technological innovation should highlight the achievement orientation, which is one of the characteristics of China's scientific and technological innovation system in the new era. To be specific, scientific and technological development and innovation management should highlight the achievement orientation, mobilize research resources to scientific and technological achievements that can truly solve major problems in China's real development, give greater business autonomy to scientific and technological innovation subjects, and promote high-quality development of scientific and technological undertakings^[2].

The most outstanding performance is the establishment and strengthening of a new national system in the field of science and technology. The new nationwide system for scientific and technological work is to "give full play to China's role as an organizer of major scientific and technological innovation, support strategic scientific plans and projects with long cycles, high risks, high difficulties and good prospects, focus on system layout, system organization and cross-border integration, and combine government, market, society and other forces to form an overall advantage in the future". In general, it is to focus on a specific scientific and technological goal, China and its leaders plan as a whole the main force of government agencies, scientific research institutions, state-owned enterprises, private enterprises and individuals, comprehensively use all-round resources, concentrate on scientific and technological breakthroughs, pursue major breakthroughs in scientific and technological achievements within a certain period of time, to solve crucial scientific and technological problems that affect national economy and people's livelihood. Achievement orientation is one of the most significant features of the new national system. What's more, China has given full play to the guiding role of various fund projects, journals and scientific research platforms, strengthened the achievement oriented requirements of its annual guidelines, publishing requirements and use requirements, emphasized on strengthening the original leading scientific and technological research, insisted on the major achievement oriented solution to key core technical problems, and strengthened the innovative achievement oriented requirements from the evaluation terminal of scientific research achievements. In addition, enterprises are users, evaluators and creators of scientific and technological innovation achievements. Since entering the new era, China has constantly emphasized the importance of enterprises as innovation forces, insisted on building a scientific and technological innovation system that links production, education and research, encouraged universities, research institutions and enterprises to cooperate in innovation, and strengthened the practical value and significance of innovation achievements. The government is expected to actively encourage all kinds of enterprises to expand investment in innovation, guide enterprises to carry out production innovation, truly become the main body of technological innovation decision-making, R&D investment, scientific research organization, and achievements transformation, support leading enterprises to establish innovation consortia, and provide policy and legal protection.

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