Thoughts on Carrying Out International Scientific and Technological Innovation Cooperation and Exchange under the Belt and Road Initiative

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Abstract: Since the proposal of the "Belt and Road" initiative, China has actively carried out scientific and technological cooperation with countries along the route, which has effectively enhanced China's international image, improved China's cultural confidence, and further promoted the rapid development of China's high-tech enterprises. Although the "Belt and Road" has brought great opportunities for international scientific and technological innovation and cooperation, it still faces severe challenges. How to seek advantages and avoid disadvantages, seize opportunities, and deepen international scientific and technological innovation and cooperation is a question worthy of in-depth consideration. Based on this, this paper first analyzes the opportunities and challenges encountered in international scientific and technological innovation cooperation and exchange under the background of the new generation of "Belt and Road", and then puts forward specific strategies for innovation cooperation and exchange. It is hoped that it can better promote the development of China's scientific and technological innovation capacity.

Keywords: Belt and Road, International Scientific and Technological Innovation, Cooperation and Exchange

Since the proposal of the "Belt and Road" initiative, a long time has passed. Although China's scientific and technological innovation capacity has been effectively enhanced and strengthened, and many cutting-edge scientific and technological achievements have emerged in many industries and fields, effectively promoting the rapid development of China's national economy, there is still a huge gap between China's scientific and technological innovation level and that of developed Western countries, which seriously hinders the development of China's high-tech industry. Therefore, under the background of the "Belt and Road", in the process of carrying out international scientific and technological innovation cooperation and exchange with countries along the route, China should not only adhere to independent innovation but also have an inclusive and open attitude, and take the initiative to carry out exchange and cooperation with countries along the route, so as to continuously strengthen its own scientific and technological innovation level, actively carry forward the value of scientific and technological innovation achievements, and thus better promote the high-quality development of China's social economy [1]

1. Opportunities and Challenges of Carrying Out International Scientific and Technological Innovation Cooperation and Exchange under the Background of the "Belt and Road"

(1) Opportunities

First, international scientific and technological exchange activities with various countries along the route are becoming more and more frequent. Under the background of the "Belt and Road", China has actively carried out academic exchange activities related to scientific and technological

innovation with countries along the route, which not only showed China's scientific and technological innovation achievements to other countries but also fully learned from the advanced experience of other countries, better promoting the development of China's high-tech industry. When carrying out scientific and technological innovation exchange activities with countries along the route, China can learn from and draw on the scientific and technological achievements researched by other countries or some relatively advanced scientific research methods, and use the advanced experience of other countries to make up for the shortcomings in China's scientific and technological innovation. Moreover, in the process of carrying out exchange activities, it is also possible to understand the detours other countries have taken in researching a certain technology, so that when China researches the technology, it can effectively avoid them, which not only saves a lot of time but also reduces the waste of resources. It is necessary to make full use of every scientific and technological exchange activity with countries along the route to lay a good foundation for China's independent scientific and technological innovation. Second, the international scientific and technological cooperation environment is becoming increasingly favorable. With the proposal of the "Belt and Road" initiative, local governments have attached great importance to it and realized the importance of carrying out scientific and technological innovation cooperation and exchange with countries along the route. They have not only introduced necessary policies but also increased financial support, creating a good environment for scientific and technological cooperation and exchange. In addition, some local governments have invested in the construction of corresponding cooperation bases with various types to provide hardware facilities for scientific and technological cooperation and exchange with countries along the route, creating a very good cooperation and exchange environment.

(2) Challenges

First, although on the whole, under the background of the "Belt and Road", China has carried out active scientific and technological innovation exchange and cooperation with countries along the route, and the number of scientific research projects is also increasing, these activities are only academic exchanges or experience sharing, with basically no in-depth cooperation, which does not promote the improvement of China's scientific and technological innovation strength [2]. Therefore, in order to better improve China's scientific and technological innovation level, it is necessary to carry out in-depth cooperation and exchange with countries along the route.

Second, there is a lack of high-quality innovative talents. In the process of carrying out scientific and technological innovation exchange and cooperation with countries along the route under the background of the "Belt and Road", talents are the decisive factor. However, in terms of China's current talent situation, there is a serious lack of high-quality innovative talents, and the matching of talent resources is unbalanced. A few high-quality innovative talents in the market are all attracted by some large and powerful scientific research institutions. Many scientific research institutions with average conditions are seriously lacking in excellent talents. This problem has become an important factor affecting the development of scientific and technological innovation cooperation and exchange with countries along the route.

2. Specific Strategies for Carrying Out International Scientific and Technological Innovation Cooperation and Exchange under the Background of the "Belt and Road"

(1) Building a Science and Technology Innovation Cooperation Park with Strong Influence

Under the background of the "Belt and Road", to better promote China's scientific and technological innovation level and carry out in-depth scientific and technological innovation cooperation and exchange with countries along the route, it is necessary to establish a science and technology innovation cooperation park with strong influence, fully explore its own advantages, so as to better promote the improvement of China's comprehensive scientific and technological innovation strength. In the specific work of building a science and technology innovation cooperation park, first of all, it is necessary to strengthen cooperation with countries along the route. The government and China's high-tech leading enterprises should take the lead in establishing a science and technology innovation cooperation park with strong influence to lay a good foundation for the smooth development of subsequent work. In the construction of the science and technology innovation cooperation park, relevant government departments should encourage some parks with relatively good comprehensive conditions to actively carry out foreign cooperation, actively exchange scientific and technological innovation achievements and experience with countries along the route, absorb the essence and discard the dross, and innovate the path of scientific and technological exchange with countries along the route in combination with their own actual development. Secondly, in the construction of the science and technology innovation cooperation park, government departments should give strong support to promote the development and growth of relevant research institutions. When carrying out scientific and technological innovation exchange with countries along the route,

professional talents of these institutions can be used for technological achievement transformation, so as to create more economic benefits for high-tech enterprises. Finally, encourage high-tech enterprises to actively participate in scientific and technological innovation research and development projects. For these enterprises, the government can give preferential policies and tax reductions. Through the above measures, the influence of the science and technology innovation park will gradually expand, attracting more countries along the route to participate.

(2) Enhancing China's Independent Scientific and Technological Innovation Capacity

In terms of enhancing China's independent scientific and technological innovation capacity, the most important thing is the introduction and cultivation of high-quality innovative talents. If there is a lack of high-quality talents in the field of scientific and technological innovation, all work will be empty talk. Therefore, in enhancing China's independent scientific and technological innovation capacity, emphasis should be placed on the cultivation and introduction of high-quality innovative talents. First, China can sign talent training agreements with countries along the route, and determine to jointly train talents with countries along the route, so as to strengthen exchanges and cooperation between China and countries along the route, and enable the latest researched scientific and technological achievements to be transmitted to each other, promoting the common progress and development of China and countries along the route. Secondly, establish an international scientific and technological cooperation service platform. Vigorously publicize the preferential policies and treatment put forward by China in scientific and technological innovation cooperation and exchange to various countries along the route, attract the attention of foreign outstanding innovative talents, and make them actively participate in talent training programs [3]. Finally, actively carry out diversified cultural and scientific and technological exchange activities with countries along the route. In carrying out this activity, in addition to exchanging and cooperating with government departments of countries along the route, we can also cooperate with local enterprise research institutions to make them contribute to international scientific and technological innovation cooperation and exchange.

3. Conclusion

To sum up, under the background of the "Belt and Road", China's scientific and technological innovation capacity has been greatly improved, but it has also ushered in some challenges and opportunities. Therefore, in order to better strengthen China's scientific and technological innovation level, the government should give full play to its guiding role, not only increase policy support but also jointly establish high-tech cooperation parks with China's high-tech industries, lay a good foundation for carrying out scientific and technological innovation cooperation and exchange activities with countries along the route, and further improve China's scientific and technological innovation strength.

References:

1. Liu Xinwei. The Fruits of "Belt and Road" Scientific and Technological Cooperation: Accelerating the Construction of an Innovative Silk Road [J]. China's Foreign Trade, 2024, (01):72-73.

- 2. Bai Chunli. Scientific and Technological Innovation and Cooperation Support the High-Quality Development of the "Belt and Road" [J]. Enterprise Observer, 2023, (10):64-69.
- 3. Wang Liang, Zhou Jing, Li Lianying. Enlightenment of International Cooperation of Typical Developed Countries on China's Scientific and Technological Innovation Cooperation with "Belt and Road" Countries [J]. Science and Technology Management Research, 2023, 43(2):33-40.