A B S T R A C T S

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1. Zhao, J., Fu, K., Liu, Y., Liu, B., & Zhang, H. (2023). The path to and mechanism for the integration and innovation of large, medium, and small enterprises in carrying out mega projects: A case study based on the Luoshan Yangtze River Great Crossing Ultra High Voltage Engineering. *Journal of Renmin University of China*, (3), 14–27 (**赵晶, 付珂语, 刘玉洁, 刘博, 张慧** (2023). **依托重大工程实现大中小企业融通创新的路径及机制——基于螺山长江大跨越特高压工程的案例研究. 中国人民大学学报**, (3), 14–27).

Abstract As an important platform for key technology breakthroughs, mega projects are effective carriers for large, medium, and small enterprises to achieve integration and innovation. This research focuses on the Luoshan Yangtze River Great Crossing Ultra High Voltage Engineering as a case of study and finds that: (1) The process of relying on mega projects to realize the integration and innovation can be divided into three stages: learning, application, and diffusion. Three objectives are respectively aimed to achieve through these three stages: establishment of cooperative structure, breakthrough of collaborative innovation, and realization of value spillover. (2) At the stage of learning, led by the owner and followed by small and medium-sized enterprises, the cooperative structure is established through the integration of technical elements, sharing management experience, and uniting the community of construction and operation. (3) At the stage of application, the owner continues to lead, and small and medium-sized enterprises, actively create, so that the technological breakthrough scan be achieved through the closed loop of scientific research and engineering, organized technological innovation, and the process of finding problems, examining them, and perfecting the solution. (4) At the stage of diffusion, the value spillover is realized by the joint cooperation of large, medium, and small-sized enterprises through the outward transmission of implicit knowledge of management, the collaborative cultivation of the echelon of technical talent, and the layout off or ward-looking industrial technology.

2. Yang, M., & Lei, J. (2021). Science and technology for social good: A study of enterprise innovation behaviors based on competitive strategy orientation. *Science Research Management*, (8), 1–8 (杨淼, 雷家骕 (2021). 科技向善: 基于竞争战略导向的企业创新行为研究. 科研管理, (8), 1–8).

Abstract This paper defines science and technology for social good as a kind of enterprise innovation behavior based on competitive strategy orientation. By reviewing the relevant theories of technology ethics, responsible research and innovation, social innovation and entrepreneurship, enterprise ecological strategy, disruptive technology innovation alienation, corporate social responsibility, this paper puts forward the specific research content of the concept of science and technology for social good proposed by Tencent from the perspective of economics and management. Firstly, this paper analyzes the concept of science and technology for social good from four dimensions: concept, behavior, content and system. Then attempts to build a scale of science and technology for social good of enterprises, puts forward possible questionnaire items. Finally, it proposes to establish a process model of science and technology for social good behavior of enterprises and studies the impact of the behavior on enterprise performance from qualitative and quantitative qualitative perspectives and gives some important issues worthy of further study in the future, including six specific problems in five aspects: ecological level, strategic level, resource level, technical level and boundary level. The specific problems are the business ecosystem of science and technology for social good, the relationship between science and technology for social good behavior and competitive advantage, organizational resilience, the adaptability of science and technology for social good behavior and strategic choice and cultural construction, the relationship between science and technology for social good behavior and resource management, the relationship between science and technology for social good behavior and technological heterogeneity, and the situational research of science and technology for social good behavior. The main conclusions are as follows: The concept of "science and technology for social good" is defined as that the enterprise embeds the concept of ethics into the design and production of technology products and services, and actively uses responsible innovative technology to solve social problems such as improving health status, improving the quality of education, promoting social equity and promoting environmental protection. The

concept can be explained from four dimensions: concept, behavior, content and system. The development of the scale lays the measurement foundation for the construction of the process model of the enterprise's scientific and technological for social good behavior. The process model of the enterprise's scientific and technological for social good behavior has guiding significance for understanding the dynamic evolution law of scientific and technological for social good behavior, mutual verification with the conclusions of the case study and improving the universality of the theoretical model based on the case study method. The research content of this paper has important theoretical research and practical significance to promote the transformation of science and technology for social good from idea to practice and become the conventional strategic choice set by enterprises in the era of digital economy. It is also of great significance for theoretical research and practical guidance for the supplement and perfection of innovation theory, successful practice of digital transformation of enterprises, rational application of digital technology, adjustment and reform of industrial innovation policies.

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3. Yang, B., & Yi, T. (2022). The path analysis and measure research of enterprises participating in the construction of national strategic scientific and technological force. *Scientific Management Research,* (5), 118–126 (**杨博文, 伊彤** (2022). **企业参与国家战略科技力量建设的路径分析与对策研究. 科学管理研究,** (5), 118–126).

Abstract Enterprises have become an important subject in the face of international competition recently for the global grim situation. With the improvement of the scientific and technological innovation ability of Chinese enterprises, it is necessary to find the possible path to support enterprises participating in the construction of national strategic scientific and technological force, and strive to enhance China's high-level scientific and technological self-reliance. This paper analyzed the necessities of enterprises participating in international competition, ensuring the safety of industrial chain and leading the future industry, and analyzed the deficiencies of Chinese enterprises in

undertaking strategic scientific and technological tasks. Therefore, as an advice, the authors recommended enterprises investing much more into original innovation, leading innovation consortium, participating in the design of major projects, at the same time, government should increase financial support, invite enterprises join research project designing, optimize the personnel policy, improve the innovation environment.

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4. Xu, S., Jia, J., & Zhong, W. (2022). Research on the systematization of national strategic scientific and technological forces. *Forum on Science and Technology in China*, (3), 1–8 (**徐示波, 贾敬敦, 仲伟俊** (2022). **国家战略科技力量体系化研究**. **中国科技论坛**, (3), 1–8).

Abstract Driven by the era of big science and industrial change, countries all over the world attach great importance to strategic science and technology. Building a national strategic scientific and technological force is a major strategic deployment made by the CPC Central Committee. In view of the fact that the national strategic scientific and technological forces are under construction, this paper starts with the analysis of the structural characteristics of the national strategic scientific and technological forces, deeply analyzes the theoretical logic of systematizing and promoting the strategic scientific and technological forces, and redivides the scientific research activities and institutes into eight categories with reference to the Stokes quadrant model. On this basis, drawing on the idea of "main battle main construction" in the national defense construction system, this paper constructs a matrix coupling network model of national strategic science and technology forces, and analyzes three network coordination coupling modes in the model, so as to provide theoretical reference for better promoting the layout of strategic science and technology forces.

5. Zhang, X., & Pei, Z. (2022). Making self-reliance in science and technology a strategic support for national development. *Shanghai Journal of Economics*, (5), 5–23 (张新宁, 裴哲 (2022). 把科技自立自强作为国家发展的战略支撑. 上海经济研究, (5), 5–23).

Abstract As socialism with Chinese characteristics for a new era, adhering to self-reliance in science and technology is the inherent requirement to achieve high-quality development, the fundamental requirement to follow the law of scientific and technological development, the urgent requirement to cope with the century-old changes, and the inevitable requirement to realize the great rejuvenation of the Chinese nation. From the perspective of the development of the sinicization of Marxism, self-reliance in science and technology is a product of the combination of Marxist thought on science and technology with China's actual conditions and with China's fine traditional culture. A review of the CPC's century-old history shows that the CPC has always been committed to forging ahead independently and putting the development of the country and nation on the basis of its own strength. Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era has made a series of original contributions to self-reliance in science and technology. We should address the problem of unbalanced and inadequate development in science and technology, grasp the basic points of promoting scientific and technological innovation, and enhance the strategic support of self-reliance in science and technology for national development.

6. Lin, D., Wang, H., & Zhang, Y. (2022). Intellectual property insurance, financing constraints and enterprise innovation strategy: A quasi-natural experiment based on technology enterprises. *Science and Technology Management Research*, (23), 160–168 (林登辉, 王华丽, 张钰宁 (2022). 知识产权保险、融资约束与企业创新战略——基于科技型企业的准自然实验. 科技管理研究, (23), 160–168).

Abstract The implementation of the intellectual property insurance pilot policy has protected the intellectual property achievements of enterprises, so what impact will it have on the innovation strategy of enterprises? Based on this, this paper studies China's Shanghai and Shenzhen technology enterprises from 2007 to 2020. The results show that intellectual property insurance has a significant positive impact on the innovation strategy of technology enterprises, and financing constraints play a part of the intermediary effect. Further research finds that intellectual property insurance will encourage technology enterprises to adopt exploratory innovation strategies, and then based on the nature of corporate property rights and the perspective of industry competition, the study concluded that non-state-owned technology companies and technology enterprises with greater industry competition are more inclined to adopt exploratory innovation strategies.

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7. Wu, J., & Yan, T. (2021). The importance of the construction of industrial generic technology research institutes in the building of national strategic capability of science and technology. *Science & Technology Review*, (4), 31–35 (吴金希, 闫亭豫 (2021). 发展国家战略科技力量要高度重视产业共性技术研究院建设. 科技导报, (4), 31–35).

Abstract In recent years, the bottleneck technology problems have become more and more in the high-tech industries of China. These problems suggest the serious problem of systematic defects in the innovation system of China. Industrial generic technologies belong to the fields of applied basic research, and they are always multidisciplinary technology integration. This kind of technologies needs to be accumulated and cultivated in a long-term. In the developing countries, it is very important to build many high quality research institutes of industrial generic technology, which should focus on the development of key generic technologies, and they will bridge "the valley of death" in the innovation system, promoting the technology upgrading of the regional industry.

8. Yin, X., Chen, T., Chen, J., & Su, Y. (2022). High-level innovation consortium for S&T self-reliance and self-improvement. *Journal of Shaanxi Normal University (Philosophy and Social Sciences Edition)*, (2), 51–60 (**尹西明, 陈泰伦, 陈劲, 苏雅欣** (2022). **面向科技自立自强的高能级创新联合体建设**. **陕西师范大学学报** (**哲学社会科学版**), (2), 51–60).

Abstract The core of accelerating the realization of high-level self-reliance and self-improvement in science and technology is to improve national strategic scientific and technological strength, while few studies focus on how to improve the collaboration efficiency of multiple national strategic S&T forces. Applying the holistic innovation theory and mission-oriented policy design trend, this study puts forward an innovation consortium for high-level S&T self-reliance and self-improvement, that is, a high-level innovation organization form led by national strategic S&T strength and formed by the collaborative integration of multiple subjects, which is also known as a high-level innovation consortium. In the course of development and operation, we need to maintain high-quality of opening-up and cooperation, pay close attention to cutting-edge developments in international S&T, learn from the international model of high-level S&T research organizations, and benchmark international high-level innovation achievements.