

Translation



The following document is a Chinese government plan for making Chinese tech companies more innovative. Among other things, the plan proposes a number of measures to improve private companies' integration with China's state-run S&T innovation ecosystem and proposes a few novel approaches toward financing Chinese tech startups.

Title

Action Plan for Improving the Technological Capabilities of Enterprises (2022-2023)
企业技术创新能力提升行动方案 (2022-2023年)

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Source

Website of the Central People's Government of the People's Republic of China. The *Action Plan* is dated August 5, 2022 and was uploaded to the website on August 15, 2022.

The Chinese source text is available online at:

http://www.gov.cn/zhengce/zhengceku/2022-08/15/content_5705464.htm

An archived version of the Chinese source text is available online at: <https://perma.cc/VN5C-XMKF>
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Action Plan for Improving the Technological Capabilities of Enterprises (2022-2023)

In order to thoroughly implement the major decisions of the Party Central Committee and the State Council on enterprise innovation and to implement the deployment requirements of the *Three-Year Problem-Tackling Plan for Science and Technology Structural Reform* (《科技体制改革三年攻坚方案》) on launching and implementing the initiative to improve the technological innovation capabilities of enterprises, this action plan is formulated according to the new situation and new needs faced in enterprises' innovation and development.

I. Overall Requirements

Take Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era as the guide, fully implement the spirit of the 19th Party Congress and the various plenums of the 19th Central Committee, and completely, accurately, and comprehensively implement the new concept of development (新发展理念). Accelerate the construction of the new pattern of development (新发展格局), give full play to the decisive role of the market in resource allocation, and give better play to the role of government. Focus on the key aspects of enterprise innovation capabilities, be oriented toward prominent problems, and strengthen precise policy implementation. Enhance incentives, optimize innovative services, and boost confidence in development. Guide and support all kinds of enterprises in making technological innovation into their core competitiveness and provide strong support for achieving a high level of science and technology (S&T) self-reliance (自立自强) and promoting stable economic growth and high-quality development. By the end of 2023, a batch of innovative policies to benefit enterprises will take effect. Innovation factors of production (创新要素) will more rapidly gather in enterprises, and various enterprises will achieve positive results by relying on technological innovation to pioneer high-quality development. A number of backbone enterprises will become a national strategic S&T force (国家战略科技力量), and a large number of small and medium-size enterprises (SMEs) will become important birthplaces of innovation, forming a fairer and more just innovation environment.

II. Nature of the Action [Plan]

1. Promote the solid implementation of the innovation policy of benefiting enterprises (惠企创新政策). This promotes inclusive policies such as increased deductions for research and development (R&D) expenses, tax incentives for high-tech enterprises, tax incentives for technology startup incubators and vehicles, and technology trading tax incentives to "max out all rightful perks" ("应享尽享"), accelerates the implementation and promotion of a new round of pilot reform measures in Zhongguancun, and further magnifies the effectiveness of policies that support enterprise innovation. This improves and implements the assessment, incentive, and fault tolerance mechanisms for the innovation of state-owned enterprises, improves the fairness and convenience measures for private enterprises to obtain innovation resources, and forms a policy environment in which various types of enterprises "innovate regardless of their origin" ("创新不问出身"). This builds a comprehensive service platform for enterprise innovation policies, organizes a series of publicity and training sessions on enterprise innovation policy, and provides more accurate policy push (政策推送) services. This improves tracking mechanisms for the implementation of enterprise innovation policies and utilizes the implementation of policies as an important reference for local supervision and incentive assessment.

2. Establish a mechanism for enterprises to regularly participate in national S&T innovation decision-making. This establishes a symposium system for allowing entrepreneurs to consult on S&T innovation, regularly organizes communication and exchanges, and conducts inquiries and consultations. This builds a network of high-end think tanks for enterprise innovation and guides and supports enterprises that improve their strategic planning capabilities for S&T innovation. This increases the strength of enterprises' indoctrination in national S&T innovation plans and special plans in key fields. This improves the demand-oriented and problem-oriented S&T planning and project formation mechanism and strengthens the condensed application of research tasks from enterprise and industrial practice. The technical directions of key industrial fields in the preparation of the annual guides for national S&T programs have further solicited the needs and opinions of enterprises. For key special projects closely related to industrial development, this increases the proportion of enterprise experts in guide compilation and project evaluation. The number of enterprise experts in the national S&T expert database will greatly increase.

3. Guiding enterprises to strengthen breakthroughs on key and core technologies (关键核心技术). This formulates a guidance catalog of key areas where the state encourages enterprise research and development and guides enterprises to carry out technological innovation based on national needs. For projects with clear industrial application goals in national S&T programs, enterprises are encouraged to take the lead in organizing the implementation and to explore collaboration between the government and social capital¹ to carry out key and core technology research. This supports digital economy and platform economy enterprises to strengthen innovation in hard S&T (硬科技). This supports central enterprises and leading private technology companies that focus on major national needs and take the lead in forming a systematic, task-based innovation consortium. For national S&T program projects led by enterprises, this strengthens organization and implementation in the form of innovation consortia. This relies on more enterprises to establish a number of national technology innovation centers (国家科技创新中心) and other innovation bases. This strengthens the evaluation, assessment, and optimization and integration of the national engineering technology research centers (国家工程技术研究中心) and brings those who are qualified into the management of the national technology innovation centers.

¹ Translator's note: The Chinese term 社会资本, translated literally as "social capital," and its synonyms "social funding" (社会资金), "social investment" (社会投资), and "social financing" (社会融资), refer to any source of funding outside of government budget outlays. These terms encompass investment by private individuals and private institutions. However, investment from state-funded entities such as state-owned enterprises (SOEs), including state-run banks, also falls under the umbrella of "social capital."

4. Support basic cutting-edge research on the forward-looking layout of enterprises. Preferential tax policies shall be implemented for enterprises to invest in basic research. This encourages enterprises to set up basic frontier research funds, R&D projects, and awards through donations and other methods. This optimizes the management of the National Natural Science Foundation of China (NSFC) Enterprise Innovation and Development Joint Fund (企业创新发展联合基金), focuses on key scientific issues in the major needs of enterprise development, and deploys basic research in a forward-looking manner. Explore the establishment of a connection mechanism between NSFC, the basic cutting-edge key special achievements of the National Key R&D Program (国家重点研发计划), and the needs of enterprises. This supports enterprises that participate in the construction of national laboratories through R&D cooperation, platform co-construction, and achievement sharing. This accelerates the reorganization of state key laboratories of enterprises (企业国家重点实验室) in accordance with the new standards for the construction of national key laboratories (全国重点实验室) and supports enterprises that build a number of national key laboratories around major national needs and cutting-edge directions. This supports the main national key laboratories whose construction is entrusted to enterprises, as they undertake major S&T projects. This carries out pilot projects for the construction of future industrial S&T parks and accelerates the cultivation of technological enterprises in cutting-edge fields.

5. Promote the growth of SMEs into an important birthplace of innovation. Set up technology-based SME projects in the 14th Five-Year Plan's National Key R&D Program applied key special projects, and in some of the S&T Innovation 2030—Major Projects (科技创新2030—重大项目). This supports the transfer and conversion of S&T achievements by technology-based SMEs through the National Fund for Technology Transfer and Commercialization and other funds to improve the level of technological innovation. This improves the gradient cultivation (梯度培育) system of high-quality enterprises, consolidates the foundation of gradient cultivation of high-quality enterprises, and supports the innovation and development of professional, meticulous, specialized, and innovative (专精特新) “little giant” enterprises and single-item champion (单项冠军) enterprises that have mastered key and core technologies. This improves the “makerspace-incubator-accelerator-industrial park” incubation chain, promotes the “investment + incubation” model, and enhances the professional service capabilities of various innovation and entrepreneurship vehicles.

6. Increase the concentration of S&T talents in enterprises. This strengthens strategic guidance and services for entrepreneurs, with seminars on entrepreneurial S&T innovation strategies and policies, gives full play to the talents of entrepreneurs, and supports entrepreneurs who act as explorers, organizers, and leaders of innovation

and development. This encourages enterprises to recruit more high-level S&T talents, expands the scale of enterprise recruitment of postdocs, and encourages enterprises to recruit more overseas postdocs. The national S&T talent programs will strengthen support for leading enterprises in S&T and innovation teams in key fields. This supports enterprises to develop scientific research assistant positions relying on various S&T planning projects and innovation base platforms. This accelerates the implementation of the incentive mechanism for the distribution of salaries for S&T innovation at state-owned enterprises (SOEs) and implements special salary management policies for qualified S&T talents at SOEs. This implements equity and dividend incentive policies for state-owned technology-based enterprises, and studies, evaluates, and promptly promotes the pilot policy that incentivizes deferred payment of individual income tax for listed high-tech enterprises. This carries out pilot projects for the “double employment” of scientific research personnel in schools and enterprises and promotes the system of S&T envoys (科技特派员) in enterprises.

7. Strengthen financial support such as venture capital for enterprise innovation. This establishes a coordination mechanism for the normalization of the system for financial support of S&T innovation (金融支持科技创新体系). This encourages all kinds of angel investment and venture capital funds to support enterprise innovation and entrepreneurship, thoroughly implements preferential tax policies for venture capital, and guides venture capital enterprises to invest in early-stage, small, and hard S&T companies (投早、投小、投硬科技). This makes good use of policy tools such as relending (再贷款) for S&T innovation and special bonds for the industrialization of major S&T achievements and gives full play to the role of various financial institutions. This promotes new S&T financial products such as enterprise innovation score-based loans² and instrument and equipment credit loans (仪器设备信用贷) and increases credit for more than 100,000 enterprises. This promotes S&T project R&D insurance, intellectual property (IP) insurance, and other new S&T insurance products. This encourages local governments to build S&T enterprise information platforms to share information on industry and commerce, social security, IP, taxation, customs, and water and electricity and improves information sharing mechanisms between financial institutions and S&T enterprises.

8. Accelerate the opening up (开放) of S&T resources and application scenarios to enterprises. This increases the opening up of major national scientific research infrastructure, large-scale scientific instruments, and basic patent information

² Translator's note: an "enterprise innovation score-based loan" (企业创新积分贷) is a type of financing for Chinese technology companies. It relies on the "enterprise innovation points system" (企业创新积分制), a method of quantitatively ranking the innovativeness of Chinese tech companies devised by the Torch High Technology Industry Development Center (Torch Center) of the Ministry of Science and Technology (科学技术部火炬高技术产业开发中心; 火炬中心) in May 2022.

resources to enterprises and incorporates service enterprises into the evaluation and assessment indicators of the National S&T Resource Sharing Service Platform (国家科技资源共享服务平台). This supports local governments in providing enterprises with public data resources through the establishment of data zones and hierarchical authorization. This promotes the provision to enterprises of low-cost computing power (compute) services from such sources as the national supercomputing centers and the intelligent computing centers. This supports the construction of a number of major demonstration application scenarios, encourages innovative cities, national independent innovation zones (国家自创区), China National High-Tech Industrial Development Zones (国家高新区), national agricultural high-tech zones, and national new generation artificial intelligence (AI) innovation and development pilot zones in publishing a list of application scenarios and releases more scenario-based cooperation opportunities to enterprises.

9. Strengthen merged innovation between industry, universities, research institutes, users (产学研用), and small, medium-size, and large enterprises. This supports enterprises, universities, and research institutes to jointly build a number of new R&D institutions. This carries out special initiatives to promote the conversion of S&T achievements into practical applications (科技成果转化), promotes the opening up of various S&T achievement conversion project libraries (项目库) to enterprises, and accelerates the conversion and industrialization of S&T plans and other achievements at all levels in enterprises. This supports the authorization of enterprises to use the S&T achievements of universities and research institutes through licensing and other methods. This collects data on problems with technological products from leading enterprises in key industries and organizes SMEs to “reveal the list.” This arranges a certain proportion of SMEs to participate in the S&T planning projects led by large enterprises. This encourages localities to cultivate small, medium-size, and large enterprises to integrate innovation platforms and bases and promotes cooperation between upstream and downstream enterprises in the production chain. This guides small, medium-size, and large enterprises to further improve their service capabilities and provides strong support for financial innovation. Relying on the China Innovation and Entrepreneurship Competition (中国创新创业大赛) and the “Maker in China” (“创客中国”) SME innovation and entrepreneurship competition, this will continue to spur the merging of innovation competition among small, medium-size, and large enterprises.

10. Improve the level of internationalization of enterprise innovation. This supports enterprises that build overseas S&T innovation centers, offshore innovation and entrepreneurship centers, and other bases. This supports qualified enterprises that lead the establishment of international social organizations in the field of industrial

innovation and participate in the formulation of international standards. This promotes in-depth cooperation between a group of enterprises in the China National High-Tech Industrial Development Zones and national S&T park enterprises in the Belt and Road Initiative (BRI)³ countries as regards technology, projects, and talents. This gives better play to the role of the overseas intellectual property rights protection assistance centers (知识产权海外维权援助中心) and the overseas intellectual property rights dispute response guidance centers (海外知识产权纠纷应对指导中心) and enhances the ability of enterprises to “go global” (“走出去”) in the use and protection of intellectual property rights (IPR). This increases support for enterprises to apply for the implementation of national foreign expert projects and National Talent and Intellect Recruitment Demonstration Bases (国家引才引智示范基地). This improves support measures for foreign-funded research and development institutions, encourages foreign-funded R&D institutions to participate in government S&T projects, carries out the conversion of S&T achievements into practical applications, and establishes postdoc work bases (博士后工作站).

III. Assurance Measures

1. Strengthen organizational assurance. Relying on the State Leading Group for Inter-Ministerial Cooperation on Technological Innovation Projects (国家技术创新工程国际协调小组) to strengthen overall planning and coordination, this actively implements relevant tasks with relevant ministries and localities and forms a joint effort to improve the technological innovation capabilities of enterprises. Before the end of September 2022, extensive deployment and mobilization will be carried out, and various ministries and localities will formulate work plans for implementing the action plan, refining task arrangements and a division of responsibilities. Before the end of 2022, all ministries and localities will formulate and issue specific implementation measures based on actual conditions and will launch a batch of workable action points and policy tools. Before the end of 2023, all measures will be fully implemented and effective.

2. Strengthen resource assurance. All ministries and localities will further optimize the structure of S&T investment, increase the support of various S&T plans for technological innovation of enterprises, and strengthen the layout of various innovation base platforms in enterprises. This gives full play to the role of the National Fund for Technology Transfer and Commercialization and the central government’s guidance of local S&T development funds, and leverages more social funding to support the technological innovation of enterprises. Vehicles such as national independent innovation zones, the China National High-Tech Industrial Development Zones, and

³ Translator's note: The "Belt and Road Initiative" (“一带一路”), abbreviated BRI, refers to the Silk Road Economic Belt (丝绸之路经济带) and the 21st Century Maritime Silk Road (21世纪海上丝绸之路).

national agricultural high-tech zones should provide financial support, policy guidance, and service guarantees for the technological innovation of enterprises in such zones, and enterprise technological innovation support will be included in evaluations and assessments.

3. Strengthen propaganda and guidance. All ministries and localities should strengthen propaganda on and interpretation of this action plan and related enterprise innovation policies. This supports all kinds of news media to set up columns and special programs to publicize the technological innovation of enterprises and summarizes and promotes a batch of typical experiences and cases of improving the technological innovation ability of enterprises. This increases positive propaganda and public opinion channeling, boosts corporate confidence in development, and creates a good social atmosphere for corporate innovation and entrepreneurship.