



China's Policies on Technology Transfer and Transformation of Scientific and Technological Achievements

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Scientific, technological and economic context of technology transfer

- The process from scientific findings to their commercialization has been shortened.
- Technologies and products are updating at a faster speed, which gives birth to new industries.
- Modern transportation and information technology have shortened the distance in time and space, which pushes forward the globalization of science, technology and economy.



Overview on China's science and technology development

- Number of government affiliated R&D institutions: more than 3600
- Number of colleges and universities: more than 2800
- Number of recognized high-tech enterprises: about 79000
- Number of R&D personnel in full-time equivalents (FTE): 3.8 million person-years
- Gross domestic expenditure on R&D (GERD) of 2015: more than 1.4 trillion, accounting for 2.1% of GDP
- Number of S&T papers and patent grants: ranking 2nd in the world



China's STI strategy and policies

- ❖ Deepening the reform of science and technology system, promoting the integration of S&T and economy
- ❖ The strategy of rejuvenating the nation through science and education
- ❖ Building an innovative country
- ❖ Indigenous innovation, highlight breakthrough, supporting development and leading the future
- ❖ The strategy of innovation-driven development
 - Establishing the mechanism of technology transfer, clearing the channel for the transformation from S&T achievements to productivity, facilitating the capitalization and commercialization of S&T achievements.



Policy framework

■ To promote good environment for STI:

- *Outline of the Strategy of Innovation-Driven Development*
- *Opinions on Deepening the Reform of Systems and Mechanisms and Implementing Innovation-Driven Development*

■ Special laws and policies:

- *Law on Promoting the Transformation of Scientific and Technological Achievements - National People's Congress (NPC)*
- *Provisions on the Implementation of the Law on Promoting the Transformation of Scientific and Technological Achievements – the State Council*
- *Action Plan on Promoting the Transformation and Transfer of Scientific and Technological Achievements – 18 Departments including the Ministry of Science and Technology (MOST)*

■ Policies and practices of local governments, universities and research institutes



Policy measure: granting more autonomy to universities and research institutes

- The right to dispose scientific and technological achievements are given to universities and research institutes.
- The pricing mechanism of scientific and technological achievements has been expanded from evaluation to pricing agreement, listed transactions, auctions, etc.
- All incomes gained from the transfer or equity investment of scientific and technological achievements belong to the organizations.
- The statistics and reporting systems of the transformation and transfer of scientific and technological achievements in universities and research institutes are established.



Policy measure: adjusting the ownership of IPRs in national science and technology plans

- ❖ The IPRs of the research achievements of national S&T projects are granted to project undertakers, unless they concern national security, national interests and major public interests; project undertakers may legally decide to implement the IPRs, to grant others to implement the IPRs, to transfer or to convert to equity shares, and to benefit from them accordingly.
- ❖ Achievements of national S&T projects should first be implemented domestically; outward transfer and exclusive license shall be subject to approval.
- ❖ When necessary, the state retains the rights to use, develop and benefit from the achievements of national S&T projects without compensation.



Policy measure: promoting standardized technology trade

- Chapter 18 of the Contract Law: Technology Contract:
 - Technology development, transfer, consultation and service
- Tax credit for incomes of technology transfer
- Incomes from technology transfer and technology development are exempt from sales tax (VAT)
 - China's technology contract turnover has long maintained an average annual growth rate of around 20%. In 2015, 307,000 technology contract deals were closed nationwide, as registered in technology markets, with the contract turnover reaching 983.6 billion RMB.



Policy measure: encourage S&T personnel to transform scientific and technological achievements

- ❖ More than 20% of the incomes from technology transfer should be given to S&T personnel as rewards; this ratio should be raised to no less than 50% for state-owned institutions.
- ❖ In 3-5 years after a scientific and technological achievement is put into production, S&T personnel can have no less than 5% of the annual net income gained from such achievement.
- ❖ The restrictions on the leading groups of research institutes to benefit from technology transfer in forms of bonuses or equity shares are relaxed.
- ❖ Incentives in terms of equity shares and dividend rights are carried out in state-owned high-tech enterprises.
- ❖ Permissions are given for S&T personnel to work part-time or quit their current positions to work on the transformation of their S&T achievements.



Policy measure: promoting the development of high-tech industry and enterprises

- ❖ 146 high-tech parks
- ❖ Industrial STI policies:
 - Internet Plus Initiative, "Made in China 2025" plan
 - Mass entrepreneurship and innovation
- ❖ Tax policies to promote innovation of enterprises:
 - Additional deduction for R&D investment in taxation
 - Income tax credit for high-tech enterprises
 - Accelerated depreciation for R&D equipment



Policy measure: services related to technology transfer

- ❖ Technology transfer information network and technology property right exchange
- ❖ Technology transfer institutions
- ❖ Technology demonstration and promotion
- ❖ Service platform on engineering technologies
- ❖ Incubators of S&T enterprises, university science parks, maker space
- ❖ Venture capital on S&T startups
- ❖ Financial credit and guarantees, IPR pledged loans
- ❖ High-tech insurance



International cooperation on technology transfer

- ❖ 1800 R&D branches of MNCs established in China
- ❖ More than 500 international innovation parks, international joint research centers, international technology transfer centers, international science and technology cooperation bases, etc.



Thank you!