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2023 Pujiang Innovation Forum Bulletin X Improving global technology transfer ecology, and helping shape a new pattern of scientific and technological opening-up and cooperation

Editor's Note: The 4th World Technology Transfer Managers Summit of the Pujiang Innovation Forum 2023, with the theme of "Ecological Construction, Explore the Future of Innovation", technology managers from worldwide technology transfer associations, universities, innovation incubation platforms, etc. conducted in-depth discussions, with focus on the co-building of innovation ecology, training of technology managers, innovation interconnection and development reshaping in the technology service industry, etc. This bulletin summarizes views of guests at the InnoMatch EXPO for your reference.

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Improving global technology transfer ecology, and helping shape a new pattern of scientific and technological opening-up and cooperation

Technology transfer and achievement transformation are an important tie connecting scientific research, technological innovation and industrialization, and also an important channel that promotes the cross-regional flow of innovative factors and the extensive sharing of innovation achievements. Currently, global technological opening-up and cooperation have brought new opportunities for the development of technology transfer, and governments, enterprises, universities and research institutions around the world are actively promoting technology transfer and achievement transformation. The guests present agreed that innovation demand, talent support and capital strength are the three core factors of technology transfer. In the future, we should improve the technology transfer ecosystem in three aspects – talent support, intellectual property protection and application, and financial instruments – to create a new pattern of technological opening-up and cooperation.

I. Global technology opening-up and cooperation brings new opportunities for technology transfer.

First, international exchanges and cooperation keep expanding the global technology transfer network. Zhang Yongmin, Academician of the French Academy of Pharmaceutical Sciences, and First-level Chief Research Fellow at the French National Center for Scientific Research (CNRS), pointed out that CNRS is the largest public research organization in Europe, and one of the first international organizations to sign bilateral cooperation agreements with Chinese research departments and institutions. Some top-tier research institutions and universities in China, such as the National Natural Science Foundation Committee, Peking University and Tsinghua University, have signed cooperation agreements with CNRS. Wong Lup Wai, CEO of IPI Singapore, pointed out that the Singaporean and Chinese governments are committed to creating a strategic unity in the technological cooperation environment, and both sides will share knowledge and information through sharing infrastructure and platforms to realize mutually beneficial and win-win cooperation.

Second, the transformation of technological innovation models accelerates the deep integration of innovation and industry chains. Chen Hanmei, Head of the Hubei Technology Exchange, pointed out that the deep integration of technological innovation, business models and financial capital has further accelerated significant breakthroughs and industrialized applications in the crossover and integration of cutting-edge technologies. New formats and models in technologies such as AI, big data and the Internet of Things are emerging faster, and the two-way circulation technological innovation model of "science-market-science" will be further deepened. The accelerated deep integration of innovation and industry chains expands channels for technology transfer.

II. Multiple parties make collaborative efforts to improve the global technology transfer ecosystem.

First, governments actively providing policy are organizational support for technology transfer. Osório Neto, Deputy Secretary of Technological Development and Innovation of MCTI, Brazil, pointed out that the Brazilian government is formulating a new round of scientific and technological innovation strategies to realize synergies across regions, and create a more equitable environment for innovation and technology transfer. Vukašin Grozdić, State Secretary (Deputy Minister) of the Ministry of Science, Technological Development and Innovation of Serbia, pointed out that in order to consolidate its position as a leading innovator in Southeast Europe, Serbia will continue to pursue broader measures, strengthen research and legal frameworks, and ensure smooth financing channels, so that sufficient funds are available to technological R&D companies and startups. In addition, it also provides tax incentives for startups and research activities, promotes technology transformation, and trains a number of highly skilled talents.

Second, enterprises from all countries look for cooperation opportunities actively and lead ecology construction for technology transfer. Gene Hartigan, Director and Chief Media Officer of Shanghai Zhangjiang Boston Enterprise Park, pointed out that as an important carrier of high-tech cooperation between China and the U.S., Boston Enterprise Park has been striving to promote cooperation among high-tech enterprises in both countries in such fields as clean energy, life sciences and information technology. Huang Liwei pointed out that IPI is committed to encouraging cross-border cooperation among enterprises through various international innovation cooperation projects, and providing platforms, channels and new markets for startups, and small

and medium enterprises to accelerate industry innovation. Vukašin Grozdić pointed out that Serbia will continue to develop its own knowledge-based economy, create an ecosystem of startups, and increase research output. To this end, Serbia has been looking for interested international partners to help realize development goals of both sides.

Third, universities and research institutions promote the transfer and transformation of technological achievements through various channels. Zhang Renhe, Academician of the Chinese Academy of Sciences and Vice President of Fudan University, pointed out that the Department of Environmental Science and Engineering, Fudan University has made remarkable progress in teaching and research talent training, university research cooperation, etc., and developed industry comprehensively in all aspects. The Shanghai International Green and Low-carbon Concept Verification Center, jointly built under the strong partnership with National Eastern Tech-Transfer Center, is an important move taken by Fudan University for development in the field of low carbon and environmental protection. Xi Lifeng, Executive Member of the CPC Committee and Vice President of Shanghai Jiao Tong University, pointed out that Jiao Tong University promotes the transfer and transformation of achievements through reforms in the talent team, transformation mechanism, and scientific and technological innovation environment. The university has established a master training system in the discipline of technology transfer, and offers incentives to full-time talents and teachers engaged in transfer and transformation at the university; compliance rectification is available in the transformation mechanism to help enterprises develop positively; the university can

benchmark Stanford University's Silicon Valley model and create a full-round transformation ecosystem.

III. Relevant suggestions

First, accelerate the building of technology transfer talent teams. Chen Hanmei stated that the new trend of deep integration between technology and economy has put forward new requirements for technology brokers. In the new era, technology brokers are no longer just "middlemen" who remove information gaps or "matchmakers" of transactions, but have new competency requirements, roles and missions. To overcome obstacles and difficulties in the transformation of technological achievements, technology brokers should play at least five roles: translator, architect, enabler, crossover man and designer. Zhang Yongmin indicated that Zhejiang University conducts cooperative research with the Ecole normale supérieure to jointly train graduate students, and cooperate in research project application, scientific research and technology transfer.

Second, strengthen the protection and application of intellectual property rights. Martin Rune Hoxer, Innovation Consul of the Consulate General of Finland in Shanghai, pointed out that Denmark can draw on advanced experience of London in intellectual property protection to establish a sound ecosystem, and join forces with both Europe and China. Gene Hartigan stated that in terms of intellectual property protection, life science is an area where China and the U.S. have common interests, and both countries can expand their development spaces through cooperation to benefit mankind.

Third, empower technology transfer and transformation with

financial instruments. Osório Neto said that tax benefits for companies

should be increased to reduce their R&D costs, allowing them to realize a

20% or even 30% tax reduction. In this way, companies can reduce their

tax burden. Vukašin Grozdić stated that Serbia has established science

and innovation foundations in breakthrough research and application

fields. The science foundation provides financial and other support to

domestic researchers, including the Excellent Project Program for Young

Talents, which provides support for early-career researchers in project

implementation, strengthens their professional skills, and offers training

in project management, so that they can better receive financial support

both at home and globally in the future.

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