



# 中华人民共和国科学技术部

Ministry of Science and Technology of the People's Republic of China



## CHINA S&T NEWSLETTER

No.8 2019

### Contents

2019 Pujiang Innovation Forum in Focus



## 2019 Pujiang Innovation Forum Convened in Shanghai

From May 24th to 26th, the 2019 Pujiang Innovation Forum was held in Shanghai with the theme of "New Vision and New Future of Science and Technology Innovation". The next 10 to 15 years will be a crucial period for the fostering of new growth drivers for the world economy, and for the revolution in global science, technology and industry, as well as for China to embark on a distinctive path of innovation and build itself into a world power of science and technology. Participants from home and abroad held in-depth discussions on the future trends of science and technology, the major impact of science, technology and innovation on economic, social and urban development and how to play its role, and depicted a new vision and new future of global science, technology and innovation.

### Topics of 2019 Pujiang Innovation Forum

The Forum consisted of the opening ceremony & plenary session, 4 special forums and 11 thematic forums.

#### 4 Special Forums:

1	Science and Technology Innovation Roundtable Summit for Young Innovators
2	Seminar for Global Top Research Institutions
3	The Country of Honour Forum
4	Seminar on the Construction of 'Belt and Road' Innovation Journey

#### 11 Thematic Forums:

1-3	3 Industry Forums
4-6	3 Future (Science) Forums
7	The Regional (Urban) Forum
8	The Entrepreneur Forum
9	The Policy Forum
10	The Culture Forum
11	Forum on Science and Technology Finance

### Minister Wang Zhigang Attends and Delivers Keynote Speech at the Opening Ceremony of 2019 Pujiang Innovation Forum

A new round of global science and technology revolution and industrial change is accelerating. Due to its penetration, diffusion and disruptive nature, science and technology has far-reaching impact. The progress of science and technology has given rise to new forms of business and new models in industrial development. Science and technology innovation activities per se also call for enhanced exchanges and cooperation among scientific communities and

researchers. China will always be committed to openness and cooperation and is willing to exchange ideas with and learn from other countries on the development of science and technology and contribute to solving global issues, increasing the accumulation of knowledge and promoting human well-being.

The Chinese government regards innovation as the prime driving force for development, and pursues an innovation-driven development strategy. China has proposed a "three-step" goal to improve China's science and technology strength and innovation capability. Looking ahead, China will focus on improving the system of science, technology and innovation as a whole and raise the overall efficiency of the national innovation system. China will give top priority to breakthroughs in disruptive technologies, and with an emphasis on originality, strengthen basic research. China will leverage the power of science and technology to boost targeted poverty alleviation, sustainable development and ecological conservation, and provide more support for people-centered development. China will foster more regional innovation growth drivers, accelerate the development of science, and technology innovation centers in Beijing and Shanghai, and give full play to the leading role of science, technology and innovation in delivering major national strategies for regional development. China will optimize the structure of science and technology professionals, create favorable conditions for foreign professionals to work in the country, improve academic practice and culture within the science community, establish a good academic ecosystem, and stimulate the key role of people. China will incorporate the development of research ethics and the impact of science and technology on society into the research and development programs for emerging technologies, and develop "responsible science and technology". China will strengthen its innovative capacity, opening up and cooperation, and implement the Belt and Road Science, Technology and Innovation Cooperation Action Plan, and build a closer "STI circle of friends" with more countries around the world.

### Shanghai National New-Generation AI Innovation and Development Pilot Zone Launched

At the Plenary Session of the 2019 Pujiang Innovation Forum, Minister of Science and Technology Wang Zhigang and Shanghai Mayor Ying Yong jointly launched the Shanghai National New-Generation AI Innovation and Development Pilot Zone.



The Ministry of Science and Technology supports the construction of the Shanghai National New-Generation AI Innovation and Development Pilot Zone (hereinafter referred to as the "Shanghai Pilot Zone"). Shanghai Pilot Zone is designed to bring together high-end innovation resources, boost innovation capacities, push forward AI governance, improve the innovation and entrepreneurship ecosystem, serve as a role model in driving the innovative development of AI across the country, and provide the "Shanghai experience" for developing more science and technology innovation centers, and promoting the integration of the Yangtze River Delta Region and China's participation in global AI governance.

In response to the needs of major national strategy and of Shanghai's economic and social development, the Shanghai Pilot Zone will focus on tough issues in the development of AI. With innovation as a driver, and committed to scenario-driven approach, openness, interconnection and governance synergy, it aims to develop into a world-class innovation ecosystem, promote the deep integration of AI and economic and social development, enhance AI science, technology and innovation capabilities, and push forward the scenario-driven applications and governance innovation. The Shanghai Pilot Zone will push forward the innovative and iterative development of AI in a systemic way, and work to become a hub for AI innovation, application, demonstration, and governance system and a magnet for AI professionals.

## **2019 Pujiang Innovation Forum Releases Think Tank Research Results**

### **1. China New-Generation AI Development Report 2019**

**Authors:** The New-Generation AI Development Research Center of the Ministry of Science and Technology and Chinese Academy of Science and Technology for Development, in collaboration with a dozen institutions at home and abroad.

**Main Contents:** *The China New-Generation AI Development Report 2019* shows that the United States, China and the United Kingdom perform well in the development of AI. The United States tops the world in terms of Field-Weighted Citation Impact of (FWCI) of AI papers, number of PCT patents, number of enterprises and scale of financing, and leads the world in overall AI strength. China publishes the largest number of AI papers in the world and ranks second in terms of number of

enterprises and scale of financing, but lags relatively behind in FWCI. The United Kingdom comes third in terms of AI paper publication and total citations, number of enterprises and scale of financing, and also boasts considerable strength in the AI field globally. Despite its small number of papers and enterprises, Israel has scored well in terms of FWCI and industry-academia-research institution cooperation index. Japan and South Korea also have some advantages in patent application.

The report points out that AI industrialization was fast pushed forward in China over the past year, providing strong support for the growth driver transformation and high-quality national economic development of the country. Rich application scenarios in the social service field provide conditions for the accelerating implementation and iteration of AI technology in China.

### **2. The Annual Report on the Eco-system of Science and Technology Finance in China**

**Authors:** Chinese Academy of Science and Technology for Development, China Association for Promotion of Science & Technology and Finance and Shanghai Institute for Science of Science

**Main Contents:** *The Annual Report on the Eco-system of Science and Technology Finance in China* examines closely the development characteristics and trends of China's science and technology finance ecosystem.

The report highlights the following: Firstly, state-owned venture capital promotes mixed ownership reform, and venture capital institutions are still an important source of financing for small and medium-sized enterprises. State-owned venture capital has long been in a dominant position. Currently, the investment share of wholly state-owned enterprises continues to decline, and all localities are speeding up the mixed ownership reform of state-owned venture capital institutions. More than two-thirds of provincial state-owned venture capital institutions have now begun to explore institutional reform and give full play to their special role in the venture capital industry. Secondly, tax policy promotes the development of micro, small and medium-sized enterprises. more preferential tax policies are provided to venture capital and angel investments, financial institutions, NEEQ individual investors and incubators for supporting small and micro enterprises. Thirdly, the banking sector has increased inclusive financial services, and the central bank has adopted targeted RRR cuts, enhanced assessment of banks' supportive loans to small and medium-sized enterprises and set up a national

financing guarantee fund to boost bank support for small and medium-sized enterprises. Fourthly, the STAR Market and pilot registration system has ushered in the reform of multi-level capital markets. In 2018, stock financing in SMEs, ChiNext, NEEQ and regional stock exchange markets, which mainly serve micro, small and medium-sized enterprises, topped RMB 600 billion. Focusing on information disclosure-centered key institutional innovations, the STAR Market and pilot registration system launched by the Shanghai Stock Exchange will mark the start of institutional reform of China's capital market system. For innovative enterprises, Chinese depository receipt (CDR) is now piloted in a bid to diversify financing means. Fifthly, new financial instruments and technologies improve the structure and quality of financial services. Rapidly evolving FINTECH offers new, affordable services that are available for use while ensuring secure data storage, thus supporting the safe operation of the financial system. Following rampant growth, crowdfunding has been back on the right track. Crowdfunding platforms are gradually forming a whole ecosystem. Green tech-based banks will integrate access to technology demand and supply, evaluation, transfer and commercialization, financial services, tracking and post-evaluation.

### 3. Dream Cities 2019: Global Innovation Source

**Author:** Springer Nature was commissioned by Shanghai Institute for Science of Science to conduct a survey on the driving role of global cities as innovation centers.

**Main Contents:** Mainly based on data of papers published in high-level academic journals cited in Nature Index, *Dream Cities 2019: Analysis Report on Global Innovative Cities* adopts the Fractional Count (FC), an indicator of science and technology originality, and the Article Count (AC), an indicator of research impact, to perform statistical analysis and correlation study on the academic outputs of 20 innovative cities globally from 2012 to 2017, so as to show the driving role and evolution of these cities as innovation leaders.

From 2012 to 2017, 20 innovative cities covered by this survey directly contributed 27.3% of the world's high-level science, technology and innovation, with less than 2.5% of the global population, demonstrating strong originality. Their share of global research outputs substantially increased from 51.8% to 63.8%. These innovative cities are playing an increasingly pivotal role in the global innovation network.

The 20 selected cities are: New York, Boston, San Francisco (including San Jose), Beijing, Tokyo, Paris, Los Angeles, London, Shanghai, Seoul, Berlin, Singapore, Seattle (including Tacoma and Bellevue), Toronto, Sydney, Hong Kong, Moscow, Tel Aviv, Shenzhen, and Bangalore.

### Overview of Pujiang Innovation Forum

Pujiang Innovation Forum is a high-level international forum jointly launched by the Ministry of Science and Technology and the Shanghai Municipal People's Government in 2008.

With a focus on innovation, the Forum, with an international vision and national needs in mind, aims to offer a platform for representatives from government, industry and academia to exchange ideas and share best practices on innovation. It is also a platform to publish the latest policies and to conduct international science and technology cooperation. It is part of the efforts to facilitate the innovation-driven development strategy and build China into an innovative nation.

### 1. Country of Honour & Province (city) of Honour mechanism: Working together to spur innovation

2017	Center of Excellence and its Impact on China-Denmark Science Innovation Center The Kingdom of Denmark Provinces (cities) of Honour: Beijing City and Anhui Province
2016	Innovation: The Road from Creative Idea to Product UK Province (city) of Honour: Zhejiang Province
2015	Science, Technology and Innovation Leads China-Israel Cooperation Israel Province (city) of Honour: Jiangsu Province
2014	Strengthen Regional Cooperation in Science, Technology and Innovation between China and Russia Russia Province (city) of Honour: Heilongjiang Province
2013	Innovative economy: innovation shapes competitiveness Finland Province of honour: Sichuan province
2012	China-Germany Research Project Management Workshop Germany City of honour: Beijing

## 2. The Forum is focused on "innovation"

(Source: Ministry of Science and Technology)



## 3. Forum highlights reflect major changes

