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2023 Pujiang Innovation Forum Bulletin I

**Build an Open, Inclusive, Mutually Beneficial and Win-Win Global Open
Innovation Ecosystem**

Editor's Note: The Pujiang Innovation Forum 2023 was held in Shanghai from September 9 to 11. Under the theme of "Open Innovation Ecosystem: Innovation for Global Connectivity", the Forum this time included 1 main forum (Opening Ceremony and Plenary Session), 2 theme forums (Innovation System and Technology Evaluation, and Regional Innovation and Development), 9 special forums focusing on innovation culture, women scientists, young science and technology innovators, and green and low-carbon, 2 exhibitions for tech-matching (Global Tech-Matching Fair (InnoMatch EXPO), and WeStart Global Entrepreneurial Investment Conference), and 2 special dialogues (Foreign Scientists Symposium, and Symposium for Young Scientists). The collection of bulletins will compile the insightful viewpoints and important remarks of the guests to the Forum, and share the results of the Forums. This bulletin summarizes views of guests¹ at the Opening Ceremony and Plenary Session for your reference.

¹ Chinese guests attending the conference included Chen Jining, Secretary of the CPC Shanghai Municipal Committee; Ding Zhongli, Vice Chairman of the Standing Committee of the National People's Congress and Chairman of the Central Committee of the China Democratic League; Wang Zhigang, Minister, Ministry of Science and Technology then; Huang Xiaowei, Secretary of the Leading Party Members' Group of the All-China Women's Federation and Vice-President and First Member of the Secretariat of the All-China Women's Federation; Wang Zhonglin, Deputy Secretary of the CPC Hubei Provincial Committee and Governor of Hubei Province; Hu Wenrong, Chairman of the Shanghai Municipal Committee of the Chinese People's Political Consultative Conference; Jin Li, Academician of Chinese Academy of Sciences and President of Fudan University; and Xu Donglian, T. D. Lee Fellow, Associate Professor of Physics, Tsung-Dao Lee Institute, Shanghai Jiao Tong University. Foreign guests included Celso Pansera, Head of the Brazilian Delegation and President of the Brazilian Innovation Research Agency; Hem Vanndy, Minister of Ministry of Industry, Science, Technology, and Innovation; Marcos Galvao, Ambassador of Brazil to China; Pietro Barabaschi, Director-General of the International Thermonuclear Experimental Reactor (ITER) Project; and Kumsal Bayazit, Chief Executive Officer of Elsevier.

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A new revolution in science, technology and industry is gaining momentum. The scientific research paradigm has profoundly changed. Open innovation has become the general trend of the development of the times. General Secretary Xi Jinping pointed out that in order to solve the problems of common development, human beings require international cooperation and openness and sharing more than ever, and no country can become an independent innovation center or enjoy the results of innovation alone. The guests attending the conference agreed that **we should always firmly implement a more open, inclusive, mutually beneficial, and shared international strategy for cooperation in science and technology, continue to deepen multilateral, inter-governmental and non-governmental international scientific and technological exchanges and cooperation in all dimensions, at different levels and in various areas, expand scientific and technological openness, build an open, innovative and cooperative ecosystem, achieve mutual benefit and win-win outcomes, pursue higher-standard opening up, and enhance the shared well-being of humanity.**

I. Open innovation is not only an integral component of the development of the times, but also an initiative for all countries to join hands for win-win results

First, an open innovation ecosystem provides a bigger platform for addressing the common challenges for human society. In his congratulatory

letter to the Pujiang Innovation Forum 2023, **President Xi Jinping** stressed that scientific and technological innovation is an important force for humankind to jointly address risks and challenges and promote peace and development. **Chen Jining, Secretary of the CPC Shanghai Municipal Committee**, said that scientific and technological innovation is a common cause of all humanity; and that facing common challenges such as energy security, human health, and climate change, we should further expand global vision, enhance mutual strategic trust, deepen openness and cooperation, and bring more benefits to people across the world through technological innovation. **Wang Zhigang, Secretary of the Leading Party Members' Group and Minister of the Ministry of Science and Technology of the People's Republic of China**, proposed that expanding openness and cooperation in the field of science and technology is a strategic path for solving global problems and challenges by relying on scientific and technological innovation; and that technological innovation is changing the perspective and way we understand the world, it is an important and critical choice for addressing current global issues and challenges, and it even becomes the best approach. **Luciana Santos** agreed that it is necessary to resolve problems such as water shortages, sea level rise, public health emergencies, and food shortages through international cooperation, and to establish a new diplomacy model for international cooperation and scientific and technological innovation. **Ding Zhongli, Vice Chairman of the Standing Committee of the National People's Congress and Chairman of the Central Committee of the China Democratic League**, pointed out that energy security, climate change, human health and other fields face many challenges; and that the interests and destinies of people all over the world are

more closely linked, and scientific and technological innovation and international cooperation are needed to address these challenges.

Second, an open innovation ecosystem is a prime mover in national and regional economic and social development. Ding Zhongli agreed that openness and cooperation directly promote global connectivity, while global connectivity in turn promotes multi-dimensional innovation among countries, thereby jointly promoting world development. In his congratulatory letter to the Pujiang Innovation Forum 2023, **Brazilian President Luiz Inacio Lula da Silva** said he sees great potential in the partnerships between Brazilian and Chinese science parks and advanced technology companies to facilitate more investment and increase competitiveness and productivity for the two nations. **Celso Pansera, President of the Brazilian Innovation Research Agency,** pointed out that exchanges and cooperation between China and Brazil in the field of scientific and technological innovation have laid a good foundation for cooperation in diplomacy, culture, economy and trade, etc. **Luciana Santos, Minister of the Brazilian Ministry of Science, Technology, and Innovation,** said that in his foreign policy, President Luiz Inacio Lula da Silva has given scientific and technological cooperation an important mission; and he anticipates to creating wealth through technological cooperation, promoting the process of re-industrialization based on innovation, reducing inequality, and overcoming poverty and hunger. **Wang Zhonglin, Deputy Secretary of the CPC Hubei Provincial Committee and Governor of Hubei Province,** stressed that opening and sharing have made Hubei a strong magnetic field for attracting global innovative factors, and that innovation has led Hubei to make big strides on the path of high-quality development.

II. Global connectivity: Taking multiple approaches to achieve

openness, inclusiveness, mutual benefit and win-win outcomes through multi-party collaboration

First, international Big Science programs outline a common vision for humanity and create the "bearing beam" of global connectivity. **Pietro Barabaschi, Director-General of the International Thermonuclear Experimental Reactor (ITER) Project**, pointed out that the energy supply issues are global challenges, and it is necessary to use the wisdom of researchers around the world to carry out worldwide collaborative research for common goals. ITER is the core hub platform for international scientific and technological cooperation. All members work together as a team with the goal of demonstrating the potential of nuclear fusion as a future energy source. **Chen Lingling, Principal Investigator at the CAS Center for Excellence in Molecular Cell Science, Chinese Academy of Sciences**, pointed out that the preparations for next-generation neutrino telescopes with greatly improved performance are being carried out all over the world, such as the Lake Baikal Experiment Baikal-GVD, the Mediterranean Telescope KM3NeT, the Pacific Neutrino Experiment P-ONE, the South China Sea Neutrino Telescope TRIDENT, and the second-generation ice cube IceCube-Gen2. The cooperative networking between these Big Science facilities and international Big Science programs have formed the "bearing beam" of global connectivity.

Second, the Belt and Road scientific and technological innovation cooperation has advanced steadily, becoming the main line for global connectivity. We should build the Belt and Road into a road of innovation with high quality, optimize the construction layout and operation management of the Belt and Road Joint Laboratory, support enterprises, science and technology parks and other entities to build overseas innovation centers,

incubators, accelerators and other offshore platforms in other Belt and Road countries, continuously expand scientific and technological exchanges as well as people-to-people and cultural exchanges, and support non-governmental cooperation on scientific and technological innovation. **Wang Zhigang** said that China has pushed forward scientific and technological innovation cooperation under the Belt and Road Initiative, advanced four actions including people-to-people and cultural exchanges, joint laboratory construction, park cooperation, and technology transfer, conducted joint research with scientists from many countries in the fields of climate change, food security, human health, peak carbon emissions and carbon neutrality, and has achieved fruitful results. **Gong Zheng, Deputy Secretary of the CPC Shanghai Municipal Committee and Mayor of Shanghai**, pointed out that as an important program of both the "Scientific and Technological Innovation China" and the Brazil's innovation diplomacy plan, the "China-Brazil Innovation Week" has been successfully held for three consecutive years and become an important platform for scientific and technological cooperation between China and Brazil. **Wang Zhonglin** pointed out that through scientific and technological exchanges and cooperation with more than 60 countries and regions, open Hubei has become a fertile ground full of energy for innovation.

Third, the depth and dimension of global connectivity are strengthened through mutual benefit and win-win outcomes. Ding Zhongli pointed out that the earth-shaking changes since China's reform and opening up have also benefited from an open and cooperative international environment. Such benefits are not one-sided, but bilateral or multilateral. Openness and cooperation promotes global connectivity, while global connectivity in turn promotes multi-dimensional innovation, thereby making

the world a better place. **Celso Pansera** stressed that Brazil recently announced a new industrialization plan, and Brazil will strengthen learning from China in areas such as the digital economy, life and health, sustainable development, and advanced agricultural technology, implement all-round cooperation with China by relying on specialized research institutes in medicine, oil extraction, forest protection, and carbon emission reduction, and strengthen the mutual benefit and win-win cooperation between China and Brazil. Investment in science, technology and innovation between China and Brazil is always above the world average, and it is expected that China and Brazil will continue to increase investment in these areas in the future.

III. Institutional guarantee: Joining hands with other countries around the world to build an open innovation ecosystem

First, China should deepen inter-governmental and non-governmental cooperation on scientific and technological innovation, and raise innovation and cooperation to a higher level. Wang Zhigang pointed out that China should uphold multilateralism, give full play to the leading role of the intergovernmental science and technology cooperation mechanism, strengthen institutions such as the joint committee on science and technology cooperation, and the innovation policy dialogue, strive to enhance openness, trust, and cooperation in the international science and technology community, and promote multi-dimensional cooperation and connectivity in talent, technology, achievements, and platforms. **Celso Pansera** stressed that Brazil has recently revised relevant laws, and established the Brazilian Ministry of Science, Technological Development and Innovation, and it will continue to increase investment in scientific and technological innovation. Brazil will strengthen its exchanges of students and young scientists with

China, and establish closer exchanges and cooperation in the field of scientific and technological innovation on the basis of close and stable diplomatic, cultural, economic and trade cooperation between the two countries.

Second, China should expand the public sharing of scientific and technological resources, and build more platforms for international cooperation and exchanges on science and technology. Wang Zhigang pointed out that China should step up the opening-up of the national science and technology programs, actively participate in and take the lead in undertaking international Big Science programs and projects, and establish globally oriented scientific research funds and strategic cooperation projects. **Nikos K. Logothetis, Director of the International Center for Primate Brain Research and Head of the Department of Physiology of Cognitive Processes,** proposed that we should establish an international science and technology exchange platform, promote the development of integrated technology, and achieve international cooperation and exchanges in the field of brain science. **Jin Li, Academician of Chinese Academy of Sciences and President of Fudan University,** proposed that we should establish a scientific community, and further promote international scientific and technological exchanges and cooperation. At the same time, we should build a data sharing platform to achieve open access to and sharing of data. **Kumsal Bayazit, Chief Executive Officer of Elsevier,** proposed that Elsevier will support international cooperation and interdisciplinary cooperation through global journals, provide diverse open models for access to information, and help researchers share data while publishing scientific research results.

Third, China should cultivate a favorable internationalized environment for research, and support innovators of all kinds to conduct

foreign exchanges and cooperation. **Jin Li** stressed that a favorable internationalized environment for research is an important guarantee for international cooperation; and that we should resolve the unfairness and inequalities brought about by global challenges, and achieve sustainable development. **Wang Zhigang** proposed that we should strive to remove institutional barriers hindering open innovation; create an open, equal, fair and non-discriminatory science and technology development environment; accelerate the wider application of new knowledge, new technologies, new products, and new industries; support enterprises, universities, research institutions, and science and technology associations to carry out extensive international scientific and technological exchanges and cooperation; encourage and support the construction of R&D and innovation platforms and cooperative institutions overseas; innovate mechanisms to attract overseas talents; rely on Big Science facilities and major research platforms to gather international high-end scientific and technological talents; increase funding for outstanding young researchers from abroad to come to China for conducting academic exchanges, pursuing doctoral degrees and engaging in postdoctoral studies; continuously optimize and innovate facilitation measures for foreign scientific and technological talents in research, residence, and entry and exit; and provide higher-quality services for scientists, entrepreneurs, and investors from various countries to come to China for innovation and entrepreneurship. **Celso Pansera** said that the governments at the federal and local levels should simultaneously increase financial support for scientific and technological innovation, improve institutional guarantee for scientific and technological innovation, and cultivate a favorable environment for scientific and technological development. **Ding Zhongli** agreed that we should create a

favorable environment for research from both domestic and international perspectives. Domestically, we should start with breaking the "Four Only" (preferring academic papers, professional titles, diplomas, and awards) in the evaluation of scientific and technological talents, leveraging the "baton" role of scientific and technological evaluation in funding support, and establishing a good ecosystem for import substitution. Internationally, we should create a favorable environment for research by breaking the international scientific and technological blockade system, eliminating international discrimination, and promoting global scientific and technological innovation connectivity.

Fourth, China should strengthen global scientific and technological governance, and promote the formation of an open cooperation framework for scientific and technological innovation. Wang Zhigang proposed that we should respond positively to UNESCO Recommendation on Open Science, conduct dialogues on Open Science under a multilateral framework, participate deeply in international cooperation on the rules and standards of Open Science, establish exchange and cooperation mechanisms with the international community by centering on issues such as application of emerging technologies and biosafety, and improve science and technology security systems and risk prevention mechanisms. **Jin Li pointed out that we should formulate fair and reasonable international rules and standards,** protect intellectual property rights, and maintain the order and security of scientific and technological innovation. Xu Donglian, Associate Professor of Tsung-Dao Lee Institute and T. D. Lee Fellow, pointed out that researchers should put forward their own unique insights and innovative ideas, attract international peers to seek cooperation, connect with international peers more openly and confidently, actively communicate and exchange when

encountering difficulties, lead student teams to attend international conferences, and contribute the teams' wisdom at international conferences.

Compiled by: Ji Chenchen, Zhou Shaodan