

{No.2 Vol. 163}

**Shanghai Center for Pujiang Innovation Forum**

September 22, 2023

---

**2023 Pujiang Innovation Forum Bulletin II**

**The Soft Power of Innovation Culture is Coupled with the Hard  
Power of Scientific and Technological Innovation**

**Editor's Note:** The Innovation Culture Forum of the Pujiang Innovation Forum 2023, with the theme of "Chasing the Light: The Spirit and Momentum of Innovation", the experts from home and abroad in various fields conducted in-depth discussions on "nurturing a culture of innovation and fostering an enabling environment for innovation" from the perspectives of cultivating values, strengthening institutional guarantees, and promoting mutual learning among civilizations. This bulletin summarizes views of guests at the Innovation Culture Forum for your reference.

## **2023 Pujiang Innovation Forum Bulletin II**

### **The Soft Power of Innovation Culture is Coupled with the Hard Power of Scientific and Technological Innovation**

Scientific culture is the spiritual soil and source of power of scientific and technological development and innovation. The report to 20th CPC National Congress pointed out that in order to improve the science and technology innovation system, we must "nurture a culture of innovation, encourage dedication to science, cultivate fine academic conduct, and foster an enabling environment for innovation"; and that innovation culture has become an important part of China's national science and technology innovation system. Innovation culture provides a good environment and atmosphere for nurturing innovative thinking, triggering innovation potential, and maintaining innovation vitality. It is the core support that motivates innovative behavior. The guests attending the Forum agreed that the cultivation of a culture of innovation is a multi-dimensional construction process. **Countries around the world should take advantage of the opportunities of changes to foster innovative values, create a favorable environment for innovation with institutional guarantees, and promote international scientific and technological exchanges and mutual learning among civilizations through in-depth opening-up.**

**I. Stay confident and take advantage of the opportunities of changes to foster innovative values**

**On the one hand, we should develop a correct understanding of our country's fine traditions and current situation, and stay**

**confident in science and culture. Zhang Biyong, President of Science and Technology Daily**, pointed out that in 5,000 years of civilizing process, the Chinese nation has not only created achievements such as the Four Great Inventions (papermaking, gunpowder, printing and the compass), and developed scientific knowledge systems in agronomy, medicine, astronomy, and mathematics, but also nurtured unique innovative thinking and awareness. **Mei Jianjun, Director of the Needham Institute**, University of Cambridge, argued that under the influence of Western centrist thinking, China's scientific and cultural characteristics and China's contributions to the world have been ignored, and they should be understood and analyzed more objectively and accurately. **Ji Zhigang, Professor of Shanghai Jiao Tong University**, pointed out that as early as the early 17th century, Xu Guangqi collaborated with Matteo Ricci to translate *The Elements of Geometry*, which soon encouraged many people to publish related books in the field of mathematics. From this, you can see a glimpse of Chinese science and culture. **Lv Wei, Former Director of the Innovation and Development Research Department of the Development Research Center of the State Council**, pointed out that at present, Chinese citizens' scientific literacy has been elevated to a new level (from 1.6% in 2005 to 12.9% in 2022), and they have good scientific and cultural literacy and social culture atmosphere.

**On the other hand, we should develop a thorough understanding of the new changes in the new era, and nurture scientific culture and innovation culture that keep pace with the times. Wang Yuan, Former Executive Vice President of Chinese Academy of Science and**

**Technology for Development**, pointed out that the development of scientific culture and social culture interacts with each other; and that the new world pattern and scientific and technological development trends have brought about not only many challenges to social culture, but also changes in science and culture. **Guo Zhe, Director of the Department of Publicity and Culture of China Association for Science and Technology**, argued that new changes in the actors involved in scientific culture and innovation culture have occurred. What is particularly noteworthy is that the power of individualization is rising, which is also profoundly reconstructing the whole publicity system of scientific and technological innovation culture. **Donna Kurtz, Professor, Department of Engineering Science and Department of Classical Art, University of Oxford**, proposed that digitalization and open source have brought about the transformation of research paradigms, promoting the formation of scientific culture in the digital era. **Adi Yoffe, Israeli futurist**, pointed out that Israel has developed a scientific culture where individuals need to do things faster, better, and more unique. In addition, she also stressed that the "fragmentation" trend is a historical trend; and that it is by grasping such social change that TikTok has forged its own attainment.

## **II. Continuously explore and foster an enabling environment for innovation with institutional arrangements**

**On the one hand, the scientific and technological innovation system carries the cultivation of scientific culture. Osório Coelho Guimarães Neto, Deputy Secretary of Technological Development and Innovation of MCTI, Brazil**, argued that a powerful and efficient national innovation system is the institutional foundation for cultivating

scientific culture; and that without a complete national innovation system, it is impossible to talk about cultivating scientific culture. **Zhang Biyong** pointed out that Shanghai has begun exploring the construction of a special zone for basic research, providing a specific physical space for the cultivation of scientific culture from the field of basic research.

**On the other hand, institutional mechanisms guarantee a stable environment for the development of scientific culture.** **Lu Wei** pointed out that scientific culture at the research level is a value system, way of thinking, institutional constraints, code of conduct, and social norms formed by the scientific community in scientific activities; that the formation of original ideas requires a stable and predictable social environment, and the implementation of means that support innovation, such as the non-consensus project selection mechanism, requires institutional guarantees. **Osório Coelho Guimarães Neto** stressed that public policies provided by government departments, or the stable environment provided by the private sector, would be conducive to the cultivation of scientific culture.

**III. Promote mutual learning among civilizations, and through integration and connectivity, bolster international exchanges on science and technology**

**On the one hand, we should adhere to the principle of "seeking common ground while reserving differences in a world where diverse civilizations coexist".** Mei Jianjun argued that the purpose of mutual learning among civilizations is to conduct in-depth analysis and comparison of different scientific, cultural, social and economic

structures, reveal their differences and similarities, and determine their influence on the civilizing process, thus demonstrating observation and understanding of specific historical phenomena. **Adi Yoffe** pointed out that in Israel's scientific culture, there is a deliberately different way of thinking, which is reflected in innovation by manufacturing its own unique products, thereby strengthening its position in international cooperation and making Israel a typical country of innovators.

**On the other hand, we should strengthen interdisciplinary integration and nurture new knowledge.** **Mei Jianjun** pointed out that Xu Guangqi put forward a very famous slogan: "In order to surpass, it is necessary to integrate; before integration, first [it is] necessary to translate [their calendrical treatises]", and argued that translation is the first cornerstone of cultural exchange. However, translation is not a simple knowledge transfer, but it is more about understanding and learning Western knowledge during the transfer process. Therefore, integration is the only way to enhance mutual learning among civilizations. **Donna Kurtz** stressed that her team has more than 20 years of experience collaborating with people from various regions in China, and has established the "Oxford Linked Open Data (OXLOD)" with the participation of 500,000 people, which generates huge amounts of data, far exceeding the computational speed of the human brain. She argued that international cooperation not only integrates data resources, but also integrates the strengths of all parties.

**Compiled by: Tian Chunzhi, Zhou Shaodan**