Hi-tech Asian Games

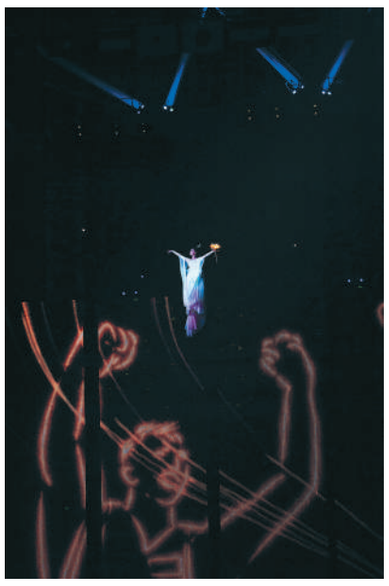
Witnessing Three Decades of Hi-tech Progress

By TANG Zhexiao

From 1990 to 2023, three Asian Games were hosted by China, marking memorable moments in the development of Chinese sports. This included reflecting on changes and development in the country, and the giant leaps made in science and technology over the past 33 years.

As an important part of large-scale sports events, the torch relay attracts wide attention. It embodies the characteristics of different countries and regions, records the changes of the times, and is a mirror of progress in sports, technology and culture.

The 11th Asian Games, which opened on September 22, 1990 in Beijing, was the first large-scale international sports event held in China. At the foot of the Nyainqentanglha mountain in southwest China's Xizang autonomous region, a 15-year-old girl from Xizang lit the torch flame with a solar lighter.



The 19th Asian Games closes in east China's Hangzhou, on October 8, 2023. (PHOTO: ZHOU Weihai/S&T Daily)

At the opening ceremony of the 16th Asian Games held in Guangzhou in 2010, China's dragon boat team leader Wu Guochong, one of the last five torchbearers, emerged from the Pearl River and ran onto the stage. Finally, Chinese world champion diver He Chong lit a cauldron flame by a big firecracker, which was full of Chinese characteristics.

Thirty-three years later, the 19th Asian Games officially opened on September 23, 2023, with a high-tech opening ceremony that wowed the world. An innovative and impressive highlight began with a giant digital torchbearer made up of over 100 million virtual sparks, each representing a participant of the online torch relay, running through the streets of Hangzhou before entering the stadium to light the cauldron alongside Tokyo 2020 Olympic swimming champion Wang Shun.

Like the athletes, technology has also got faster. At the 1990 Beijing Asian Games, it took 15 minutes from printing out the competition results to releasing them at the press center. At the 2010 Guangzhou Asian Games, it only took less than 10 seconds from the time the official result was determined to it being announced on the official Asian Games website. Today's Hangzhou Games, which opened on September 23, featured a host of cutting-edge technology. Using a 5G network, it is possible to transmit high-definition sports game images in real-time with high speed and low latency.

Blending the realms of artificial intelligence and eco-friendly technology, the Hangzhou Asian Games kicked off with a truly unique opening ceremony, according to the *Times of India*.

From green sporting venues equipped with wind, photovoltaic and other clean energy sources to technological applications including driverless buses, digital torchbearers and fireworks, eco-friendly and green technology is a highlight of the Hangzhou Asian Games.

Thirty-three years on, high-tech has integrated sports events with people. From Beijing to Guangzhou, and then to Hangzhou, we have witnessed and participated in the three Asian Games hosted by China, according to Kenneth Fok Kai-kong, vice-president of the Sports Federation and Olympic Committee of Hong Kong and head of Hong Kong delegation, who added that it is the Asian Games that make the world understand different periods of China.

Opinion

Can Internet Governance Ensure Multilateralism?

By ZHU Rongsheng

Global security governance vis-à-vis artificial intelligence (AI), especially addressing the risks caused by generative AI, has become a core issue at the 18th Internet Governance Forum in Kyoto, Japan, held from October 8 to 12.

In the opening speech at the forum, Japanese Prime Minister Fumio Kishida said the application of AI has accelerated the spread of false information on the Internet, and called on the international community to jointly deal with the global risks of advanced AI.

Nick Clegg, president of Global Affairs at Meta, formerly Facebook, said that digital technology should not benefit only a few. Greater openness and equity is urgently needed to maintain technology safety and drive innovation.

These calls by international and industry leaders highlight the need for true multilateralism in the international community's pursuit of maximizing the benefits and reducing the risks of digital technologies, rather than abuse of export controls and intensification of the geopolitical competition that is dividing the world.

Kishida said that Japan is working with other G7 members to complete the code of conduct for the Hiroshima AI Process, whose objective is to govern AI to ensure fairness and accountability while promoting transparency.

Though Kishida claimed to listen to the Global South, it is a fact that while the development of governance norms by a small number of countries may be more conducive to rapid theoretical formation, it will never provide a broadly representative consensus to address the global digital governance challenges.

Countries that lack effective use of the Internet are less able to enjoy the benefits of AI, and countries that lag behind in the development of emerging technologies will find it more difficult to have a voice in international governance rules-making.

At a time when technology exchanges are politicized and digital governance is ideologized, it is increasingly necessary to build a community of shared future for mankind to solve the problem of unbalanced international development and governance deficit.

UN Secretary-General Antonio Guterres stressed the need for open and human-center cooperation in digital governance to bridge the global digital divide.

On September 26, China issued a white paper entitled *Jointly Building a Community with a Shared Future for Mankind: China's Initiatives and Actions*. China calls on all countries to uphold the vision of a shared future, fully communicate and consult, share governance responsibilities, and form broad consensus and concerted actions to address global issues.

Such a governance path based on extensive participation by the international community and general consensus is more conducive to ensuring true multilateralism in global digital governance.

Zhu Rongsheng is a research associate at the Center for International Security and Strategy of Tsinghua University.

Science Parks Contribute to China's Innovation

By CHEN Chunyou

Over the last four decades, China has formed various development models. Science parks are among the most original, innovative and influential ones, experts said at a science park development forum in Beijing on September 25.

At the forum, held by the Institutes of Science and Development, Chinese Academy of Sciences (CAS), experts discussed the current status of China's science parks and their future development.

Science parks have become a calling card of China, which boasts a wide range of them, including high-tech zones, economic development zones and science cities. The first science park in China, the Beijing Zhongguancun Science Park, was opened in the capital in 1988. Since then, other science parks have emerged, playing a major role in promoting industrial development and economic growth. They have nurtured industries on artificial intelligence, big data and blockchain, smart manufacturing, new-generation information technology and biomedicine.

Nie Changhong, director general of the Science and Technology Innovation and Development Center, CAS, said science parks have achieved integrated development with cities and established close connections with universities. With their accumulated resources, their innovation momentum is surging.

China's science parks have developed from small-scale to large-scale, becoming a catalyst for driving regional innovative development, said Jia Jingdun, a researcher from the Torch High Technology Industry Development Center, Ministry of Science and Technology (MOST).

"Take high-tech zones as an example," Jia added. "According to MOST, there were 177 national high-tech zones in China by 2022, contributing over 13 percent of the national GDP and creating the largest science and technology park groups in the world." Jia also said that science parks stimulate a culture of innovation and entrepreneurship, thus growing the knowledge-based economy.

Science parks play a key role in accumulating resources, and creating a good platform for the development of enterprises. They also promote the agglomeration of innovative and entrepreneurial high-tech firms. By 2021, there were 5.6 million people engaged in R&D activities in national high-tech zones, said Fang Hanting, a researcher from the Regional Coordinated Development Research Center of Zhejiang University in east China, noting that science parks also represent a collaborative interplay among governments, industries and academics.

While science parks have benefited from China's rapid development, they are also a major contributor to it. In the new era, they are expected to bolster economic growth by cultivating new development drivers and developing emerging industries.

Voice of the World

China Leads Global S&T Clusters

Edited by QI Liming

All of the world's five biggest Science and Technology (S&T) Clusters are now located in East Asia, and three Chinese S&T Clusters, namely Shenzhen-Hong Kong-Guangzhou, Beijing, and Shanghai-Suzhou, have been on the top five list, according to the 2023 edition of World Intellectual Property Organization (WIPO)'s Global Innovation Index (GII).

Top three S&T Clusters in China

Shenzhen-Hong Kong-Guangzhou — Shenzhen is a Chinese Special Economic Zone and technology hub, known as China's Silicon Valley, while the neighbouring Hong Kong is known as Silicon Harbor, according to Verdict website.

Beijing — The number of state-owned enterprises headquartered in Beijing saw the capital city place 54 companies on the Fortune Global 500 in 2022, accounting for 37 percent of all Chinese-headquartered companies on the list.

Shanghai-Suzhou — Shanghai, a global center for finance and an innovation technology hub, boasts the world's busiest container port. As of 2018, the Greater Shanghai area was estimated to produce a gross metropolitan product of nearly 1.33 trillion USD.

WIPO witnessed China's S&T contribution

The European Commission says GII ranks countries and economies based on their innovative capacity each year. In a preliminary release before the official launch on September 27, 2023, the GII 2023 S&T Clusters Chapter identified local areas with significant concentrations of world-leading science and technology activity.

WIPO Director General Daren Tang said that, "S&T Clusters are among the most critical components for the innovation performance of any economy. By bringing science, businesses and entrepreneurs together, these cities or regions are able to build an ecosystem that translates scientific ideas into on-the-ground impact. It is also heartening to see that these S&T Clusters are growing at a particularly fast pace in emerging economies."

Tang acknowledged China's immense contribution to international intellectual property work. In his view, China has accomplished a major milestone, transforming itself into a global epicenter of creativity, technology and innovation.

Innovation hubs outnumber those in the U.S.

China, home to 24 S&T clusters, has the most clusters ranked among the top 100, overtaking the U.S. with 21 clusters for the first time, according to GII.

According to *Science* magazine, China now leads in the top 100 ranking of metropolitan areas based on their S&T productivity.

Vibrant local clusters are critical hubs of national competitiveness, and the new ranking suggests the U.S. has been slipping, said Mark Muro, a regional innovation specialist at the Brookings Institution.

The highest climbers in the ranking are three clusters in China, namely, Zhenjiang (+15 positions), Hefei (+13) and Wuxi (+13), according to the GII report.

Comment

U.S. Should Stop Its Long-arm Jurisdiction Tactics

By GONG Qian

On October 6, the U.S. added 42 Chinese companies to its export control list over their alleged support for "Russia's military and/or defense industrial base," claiming they were involved in activities contrary to the national security or foreign policy.

Washington's generalization of national security, abuse of export control measures, and arbitrary slapping unilateral sanctions and long-arm jurisdiction on Chinese companies is nothing new. In late September, it had added 11 Chinese companies to the same trade blacklist for similar reasons.

China's Ministry of Commerce (MOFCOM) called the action a typical act of economic coercion and unilateral bullying. The trade relationship between China and Russia is legitimate, and it is unreasonable to add the Chinese enterprises engaged in normal economic exchanges and trade business to the so-called export list.

Wang Wen, executive dean of the Chongyang Institute for Financial Studies at Renmin University of China, called it a typical act of U.S. hegemony and bullying in an interview with a Shenzhen-based news outlet.

Wang also said such bullying is the mark of a "paper tiger" as the targeted 42 Chinese enterprises are small entities and not big brands with global influence, which would retaliate if the U.S. attempted to impose sanctions on them.

A Bloomberg comment said "the success of sanctions is painted in shades of grey," referring to U.S. curbs on leading Chinese enterprises like telecom giant Huawei, which recently released its new smartphone using self-designed processors. It shows that China was capable of coming up with its own technology innovations in answer to sanctions.

China and the U.S. are two large and closely interconnected economies, and their bilateral trade in goods hit a new record in 2022, reaching 690.6 billion USD, according to the U.S. Bureau of Economic Analysis. While the U.S. deems arbitrarily imposing export bans as an effective way to slow China's economic rise, in reality such action is hurting the interests of American companies, which can be showcased by the escalating tech rivalry since the U.S. passed the *CHIPS and Science Act* last year to prevent companies from selling or sharing high-tech knowhow or equipment with China.

According to *The New York Times*, in recent months, American big chip companies Nvidia, Intel and Qualcomm have pushed back with a blunt warning: Cutting sales to China would gut their businesses.

Eventually, the U.S. would find that it is caught in a trap of its own making. What it should do is immediately correct its wrong practices and stop its unreasonable suppression of Chinese companies, as MOFCOM has said.