Vision for International Sci-tech Cooperation

Voice of the World

By LIN Yuchen

The Belt and Road Initiative (BRI), spearheaded by China, has evolved into one of the most fruitful international development projects in modern history. Since its inception, the BRI has made remarkable strides in promoting global economic, and sci-tech cooperation.

The discussions on the BRI during the second Belt and Road Conference on Science and Technology Exchange reflected the transformative power of this initiative in advancing global collaboration.

One of the most significant achievements of the BRI is boosting economic connectivity, especially through projects like the China-Europe Railway Express. Reports from the Korea Trade-Investment Promotion Agency highlight the steady growth of cargo transport via the BRI's rail network, stabilizing global supply chains.

According to SWIFT data, by April 2025, the Chinese RMB's share in global transactions reached 3.5 percent, signaling China's successful push for currency internationalization.

Professor Cássius Guimarães Chai of the Federal University of Maranhão, Brazil lauded the BRI's contributions, especially in sci-tech exchanges. Chai praised the BRI's role in bridging gaps in infrastructure and innovation. The expansion of Chinese digital technologies, like the Digital Silk Road, is creating new pathways for collaboration.

Photo shows a toll station of Cambodia's Phnom Penh Expressway, a landmark project of China-Cambodia joint construction of BRI. (PHOTO: XINHUA)

In regions like Latin America and Africa, the BRI's digital infrastructure projects have fostered significant technological development. The South Atlantic Inter Link, a Chinese-backed submarine cable, has revolutionized telecommunication between Cameroon and Brazil. In Africa, the BRI has helped establish vital communication networks and new railway lines, facilitating the growth of e-commerce, telemedicine, and artificial intelligence.

For instance, Huawei's commitment to building solar-powered research labs and electric vehicle assembly plants in Nigeria showcases the BRI's potential to promote sustainable technology in developing regions.

In the area of renewable energy, the potential for collaboration is immense. China's expertise in clean energy technologies could complement Brazil's push for sustainable power generation in its northeastern region. Similarly, the expansion of the China-Brazil Earth Resources Satellite program will boost Earth observation capabilities, aiding Brazil's efforts to monitor deforestation in the Amazon.

In the realm of sci-tech advancements, Russia and China have forged a strong partnership within the BRI framework. As noted by Russian expert Sergei Drukarenko, first vice-president of the Russian Union of Scientific and Engineering Associations, the BRI's impact on scientific cooperation between the two nations has been profound. Initiatives like joint research projects, sharing technological innovations, and educational exchanges have solidified their relationship.

Russia's involvement in BRI-related projects, such as the development of high-speed rail networks and space collaborations, signals the increasing importance of these partnerships.

Silk Road Spirit in Action

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A landmark moment came in 2024, when China, Brazil, South Africa, and the African Union jointly launched the Initiative on International Cooperation in Open Science to cultivate an open, fair, and non-discriminatory global environment for sci-tech development, ensuring that innovation benefits the Global South.

Blade Nzimande, minister of science, technology and innovation of South Africa, articulated the essence of BRI collaboration: "This cooperation is not a one-way transfer of technology but a mutually beneficial, two-way exchange. China is willing to collaborate with various partner countries and genuinely respects its partner countries."

Experts lauded China's establishment of effective cooperation mechanisms, including technology transfer centers and youth scientist exchange programs. These mechanisms are translating visions into tangible benefits in people's lives.

"The BRI is not only a catalyst for shared economic advancement but also a wider platform for driving scientific innovation and sustainable development," said Chang Lih Kang, minister of science, technology, and innovation of Malaysia. "This multilateral framework stands as a testament to our collective commitment to ensuring that no nation is left behind in the global journey toward innovation and digital transformation."

The ocean refuses no rivers

At the heart of the BRI's scientific collaboration lies a timeless principle. "The Silk Road spirit, openness, inclusiveness, mutual benefit, is fundamental to the BRI's science, technology, and innovation cooperation. It embodies the principle that civilizations thrive through exchange and mutual learning," said Francesco Faiola, an Italian scientist at the Research Center for Eco-Environmental Sciences of the Chinese Academy of Sciences (CAS).

According to Faiola, today the BRI operationalizes this philosophy by recognizing the equal value of all civilizations and rejecting scientific hierarchies.

This spirit was vividly demonstrated at the Belt and Road Forum for Young Scientists, which emerged as a vibrant hub of ideas, with over 100 young scientists from BRI partner countries showcasing their research results. The presentation by Daniya Yaliyeva, a young scientist from Nigeria, exemplified the potential of cross-border collaboration.

Fakhar Zaman, another young researcher from Pakistan, said: "The BRI has built an incredibly effective platform for exchange and learning. China provides abundant resources for those determined to strive. I am grateful for this youth talent program. For me, they represent opportunity, resources, and an even brighter future."

The principle of open collaboration extends beyond individual researchers to international big science programs. "Science breaks down borders," said Philip Diamond, director general of the Square Kilometre Array Observatory (SKAO), highlighting China's scientific engagement under the BRI. "I do not see China's sci-tech advancement as a threat," he said, based on his years of collaboration with Chinese institutions, including universities, the Ministry of Science and Technology, and CAS.

He noted China's commitment to open and transparent global science, as expressed by its science minister. "If you can arrange situations where scientists and officials are talking together, that can only help," he added, citing projects like ITER and SKA.

Dinara Shcheglova, vice minister of the Ministry of Science and Higher Education of the Republic of Kazakhstan, echoed this vision: "We see the BRI as an opportunity for joint technological advancement and for shaping a shared future based on science, sustainability, and mutual respect. We stand ready to expand these efforts together with our partners."

Chengdu Declaration on Jointly Building the Belt and Road Science, Technology and Innovation Community (Full Text)

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III. Jointly bridge the divide in science and technology for shared prosperity and progress

We uphold the principle of harnessing sci-tech achievements for the benefit of all humanity, and champion a universally beneficial and inclusive economic globalization, with a view to ensuring universal access to growth opportunities, promoting diverse development paths, and bridging the gaps in technology, digital access and AI.

We stand ready to address the development needs of Belt and Road partner countries, and actively engage in technology transfer based on the principle of mutual benefit and win-win outcomes. We will jointly implement the Belt and Road Special Cooperation Program on Poverty Alleviation through Science and Technology, boost global flow of knowledge and technology, support developing countries in building up their science and technology capacities, help them address poverty and development challenges through science, technology and innovation and advance the development and rejuvenation of the Global South.

We will jointly implement the Belt and Road Special Cooperation Program on Traditional Chinese Medicine, harness STI for the preservation of cultural heritage, and enhance mutual learning between traditional medicine systems, contributing to better life and health of all.

IV. Jointly build a strong network for innovation partnership and foster young researchers and innovators

We recognize that young researchers and innovators are key forces shaping the future of humanity, and it is a shared vision of all countries to build a close network for sci-tech exchanges and cooperation and enhance interactions between young researchers.

We support researchers of Belt and Road partner countries in working together to address key research challenges, and encourage active participation in the global Scientific Research Fund launched by China. We will work together to foster a long-term, stable cooperation network among partner research institutes, implement a Belt and Road STI Partnership Program for Young People, and train researchers and innovators in diverse fields.

We will expand Belt and Road sci-tech people-to-people exchanges, particularly academic exchanges and technology training programs for young researchers, to promote their mutual learning and the sharing of STI outcomes.

V. Jointly improve global science and technology governance to ensure sci-tech advances benefit all

We reiterate that harnessing science and technology for peaceful purposes is an inalienable right under the international law. We support the resolutions adopted by the United Nations General Assembly on promoting international cooperation on peaceful uses in the context of international security, on *International Decade of Sciences for Sustainable Development (2024-2033)* and on enhancing international cooperation in artificial intelligence capacity-building, and endorse the UNESCO Recommendation on Open Science and other initiatives. We reject the attempt to abuse the concept of security and politicize sci-tech cooperation, and work to promote the free flow of researchers, innovators and sci-tech resources across the globe, respect research ethics, foster tech for good, and uphold the diversity, inclusiveness and sustainability of scientific practices. All these efforts aim to create an open, inclusive, fair, equitable and non-discriminatory environment for sci-tech development.

We actively support the science, technology and innovation of the Global South countries, unlock collective wisdom to explore sci-tech solutions for them to combat global challenges, and safeguard the technology security, equity and justice of developing countries in the international community. We will work hand in hand with the Global South countries on our path to modernization.

We're acutely aware that the effective delivery of this Declaration requires our concerted efforts. We look forward to the active response from global stakeholders, including governments, and scientific and industrial communities. Together, we will make solid progress in the development of the Silk Road of innovation, contributing sci-tech strength to the building of a community with a shared future for mankind.

Source: The website of China's Ministry of Science and Technology

Comment

Innovation as Engine: How Local Brands Are Going Global

By LI Linxu

For decades, "Made in China" was synonymous with mass production and competitive pricing. Today, that perception has undergone a radical transformation. The phrase now represents innovation-driven, high-quality, customized solutions, sustainable practices, and world-class supply chain sophistication—a testament to China's industrial evolution.

At the forefront of this change are companies that have transformed from local workshops into global leaders through relentless innovation and smart manufacturing. Among them, Gulf Security Technology (GST), a fire safety pioneer from port city Qinhuangdao in north China, stands out as a prime example. Its journey from a local fire detector and alarm manufacturer to an internationally recognized smart safety solutions provider illustrates how innovation is propelling its success on the world stage.

Within GST's 60,000-square-meter smart manufacturing facility in Qinhuangdao, the future of Chinese industrial innovation is vividly on display. Here, intelligent robotics, big data analytics, and automated production lines work in seamless harmony, producing advanced safety equipment with precision and efficiency. The facility's digital service platform enables predictive maintenance and real-time hazard monitoring, setting a benchmark for proactive fire safety solutions worldwide.

As GST's General Manager Wu Haifeng explains, "Our competitive edge lies in our ability to innovate continuously." With over three percent of annual revenue reinvested in R&D, GST introduces more than 50 new products each year, ensuring it stays ahead of global market demands.

GST's transformation offers a replicable path for domestic brands aiming for global relevance. Today, its footprint spans more than 80 countries along the Belt and Road Initiative and surrounding territories, with strong brand recognition in Southeast Asia, South Asia, and the Middle East.

Its success was not achieved in isolation. It thrived within Qinhuangdao's smart fire safety industrial cluster, where related firms collectively generate more than 15 billion RMB annually and hold over 40 percent of domestic market share. This ecosystem fostered collaboration, talent retention, joint R&D, and shared supply chain—key ingredients for innovation.

Innovation has now become the primary driver propelling local brands onto the global stage. At the same time, leading high-tech firms are ramping up R&D investments to strengthen their core competitive advantages. Statistics show that more than 570 Chinese industrial enterprises are now among the world's top 2,500 companies in R&D investment, accounting for nearly a quarter of the total.

Government policy also plays an important role. China's updated fire safety regulations, which mandated smarter, more responsive systems, pushed the industry toward innovation. GST's ability to rapidly adapt and comply with national and international certifications has been instrumental in its domestic and overseas success.

As China continues to cultivate new quality productive forces, more and more brands like GST are proving that the next wave of global leaders will be defined by innovation, not just scale.

Blade Nzimande, minister of Science, Technology and Innovation of South Africa, poses for the cameras with a copy of Science and Technology Daily.

Chang Lih Kang, minister of science, technology and innovation of Malaysia, is also happy to be photographed with the Science and Technology Daily.

(PHOTO: Science and Technology Daily)