



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.17 2019

Contents

Science, technology and innovation adds lustre to BRICS summit



Science, technology and innovation adds lustre to BRICS summit

The 11th BRICS summit was held in Brasilia, Brazil on November 13-14.

With the steady economic and social development of BRICS countries, the S&T cooperation between BRICS countries has also been deepening. By seizing the opportunities of the new Industrial Revolution, BRICS countries have promoted innovation-driven growth and transformation, and embraced the wave of innovation powered by intelligent manufacturing, Internet+, digital economy and sharing economy. In so doing, BRICS have cemented their ties and contributed to the global recovery.



Campinas Declaration opens a new chapter in BRICS S&T cooperation

In September 2019, the seventh BRICS Ministerial Conference on Science, Technology and Innovation was held in Campinas city, Sao Paulo state of Brazil. The meeting focused on the progress of BRICS science, technology and innovation (STI) policies and priority areas, the Science, Technology and Innovation (STI) Framework Programme, and issued the *Campinas Declaration* and *BRICS Science, Technology and Innovation (STI) Work Plan 2019-2022*.

Brazil holds the rotating presidency of BRICS this year. It identified the theme of the 11th BRICS summit as “Economic Growth for an Innovative Future”. One of the topics was strengthening cooperation on STI, demonstrating BRICS leaders’ great attention to STI and greater roles of science and technology authorities of BRICS countries.

BRICS countries agree that innovation is one of the major drivers for global sustainable development, and is key to promoting growth, employment, entrepreneurship and structural reform, improving

productivity and competitiveness and tackling global challenges.

Science and technology authorities of BRICS countries will work together to accelerate the building of BRICS Technology Transfer Center, Innovation BRICS Network (iBRICS Network) and other practical cooperation projects, and deliver on the consensus reached at BRICS summit in STI field.

BRICS countries will adopt effective, pragmatic measures to enhance STI cooperation, exchange ideas on innovation policies and strategies, formulate long-term cooperation plans in response to common challenges, and promote substantive growth of BRICS Partnership on New Industrial Revolution (PartNIR).

STI continues to expand under BRICS cooperation mechanism

As a whole, BRICS countries lag behind developed countries in the field of science and technology, but they each have their own strengths in particular industries. China boasts advanced technologies in communications equipment and high-speed railway, while Russia is strong in aerospace and nuclear power, India in software development and biomedicine, Brazil in civil aviation and deep sea oil exploration, and South Africa in coal chemicals.

Emphasize cooperative action, and encourage the development of multi-field, multi-tier innovation cooperation, including public-private partnership.

Encourage science park cooperation and the establishment of a regular communication mechanism on this topic.

Encourage technology transfer cooperation among BRICS countries, and the building of a platform for industry-universities-research institutes cooperation.

Promote the establishment of youth innovation and entrepreneurship partnership, and support STI investment and cross-border investment.

Support innovators, particularly young scientists and entrepreneurs, to share ideas and best practices on innovation and entrepreneurship.

Emphasize open science, infrastructure sharing and mega-science projects.

Continue to support the role of women in STI activities.

According to the Annual Report on BRICS' National Innovation Competitiveness Development (2017), the BRICS countries' R&D spending accounted for 17% of the global total, and its high-tech export volume reached nearly \$6 trillion, or 28% of the global total. And the total science articles hit 590,000, or 27% of the global total.

The BRICS countries' contribution to the world's STI and their international influence are growing. BRICS countries have become the leaders in the development of science, technology, economy and society of the region, driving the growth of neighboring countries.

BRICS countries are stepping up their arrangements on the development of new technologies and emerging industries, in light of their respective strengths and future market demand.

Each has made progress in particular fields, laying a sound foundation for industrial upgrading. China has made headway in its seven strategic emerging industries, while Russia in space technology, biotechnology and nanotechnology, India in IT, space technology and nuclear technology, and Brazil in aerospace technology, marine engineering and biomass energy.

Non-governmental S&T cooperation is an important supplement to governmental S&T cooperation. As the most dynamic part of non-governmental S&T cooperation, cooperation among BRICS countries' businesses will raise their innovation capacity, and become an important area.

BRICS countries' STI cooperation see impressive results

With the joint efforts over the past decade, BRICS countries have become closer in bilateral ties and achieved transformation in S&T cooperation.

China and Brazil enjoy strong complementarity and great potential in STI cooperation and the two sides have signed cooperation agreements in a wide range of fields, including space, IT, biotechnology, agriculture and animal husbandry, aquaculture, health, energy and mineral resources.

On June 18, 2019, the Third China-Brazil High-level Dialogue on Science, Technology and Innovation was held in Brasilia, the capital of Brazil. The two sides agreed to further deepen their STI cooperation, and facilitate efforts in the building of joint laboratories, the development of science parks and the exchange of young scientists. Efforts need to be made to build upon the sound cooperation momentum in nanotechnology, space technology, clean energy and agricultural technology, and expand

cooperation to other areas of common interest, including the Internet of things, ICT and new materials. It is a shared hope that the two sides will contribute to the economic transformation the improvement of people's lives of the two countries through STI cooperation.

As the world's two biggest developing countries, China and India enjoy strong economic complementarity and huge cooperation potential. During the Sixth China-India Strategic Economic Dialogue, the two countries reached new agreement on cooperation in policy coordination, infrastructure, energy conservation and environmental protection, high technology, energy and medicine.

Both sides agreed that the two economies are complementary to each other rather than in competition. Both sides should open up wider to embrace development opportunities, engage in wider-ranging cooperation to pursue win-win results, continue to enhance policy communication, complement each other's strengths, deepen practical cooperation in various fields, and promote projects in infrastructure, housing, logistics, smart city and manufacturing. This will foster a better environment for cooperation between businesses of the two countries.



China and Russia enjoy growing complementarity and win-win benefits in economic cooperation. Fruitful cooperation has been carried out in the fields of nano technology, energy, energy conservation, environmental protection, and rational use of natural resources. The visits between universities and research institutes of the two countries are also increasingly frequent. The bilateral S&T cooperation holds great promise.

China is one of South Africa's main investment destinations, and vice versa. Both countries have made vigorous efforts to advance STI cooperation. Technological cooperation in various fields has made progress, particularly in frontier technologies and industrial applications. Scientists of both countries have made phenomenal breakthroughs, adding

substance to the comprehensive strategic partnership and a new pillar for expanding mutually-beneficial cooperation.

The two-way investment has expanded beyond traditional household appliances, mineral resources and smelting to finance, telecommunications, energy, and infrastructure.

BRICS countries adopt different development paths based upon their respective national conditions and cultures. The diversity and difference is exactly the driver for mutual learning and inclusive cooperation. On the occasion of the 11th meeting of BRICS summit, there is every reason to believe that BRICS cooperation will be better and more exciting.

(Source: Science and Technology Daily)