



# Newsletter

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## CAST President Wan Gang delivers a speech at 2022 BMW Group board meeting

On January 24, 2022, Wan Gang, President of the China Association for Science and Technology (CAST), was invited to make a video presentation on the topic of “new energy vehicles for the carbon neutral era” at the 2022 BMW Group board meeting. He outlined the current situation of development of new energy vehicles in China and the rest of the world.

He expressed hope that the new energy vehicle industry would seize development opportunities under

the global low-carbon development goal, break through bottleneck problems restricting industrial transformation, upgrading, and high-quality development, promote cross-boundary industrial synergy, realize “vehicle energy integration”, “vehicle road synergy” and “vehicle network interconnection”, and continue to expand the application scale of the new energy vehicle market to realize the development vision of carbon neutrality in the manufacturing and operation of new energy vehicles.

## CAST Executive Vice President Zhang Yuzhuo pays a visit to CBAS

On January 6, 2022, Zhang Yuzhuo, Executive Vice President and Chief Executive Secretary of CAST, visited the International Research Center of Big Data for Sustainable Development Goals (CBAS). He said that CAST fully supports the work of CBAS and the

International Society for Digital Earth and expressed desire to strengthen international academic exchanges, build world-class journals, adhere to multilateralism, and make due contributions to the development of international science and technology societies in China.

## China Science and Technology Summit held in Macao



From December 1 to 4, 2021, Zhang Yuzhuo, Executive Vice President and Chief Executive Secretary of CAST, led a delegation to Macao for a working visit and held

talks with Macao’s Chief Executive Ho Iat Seng. At the opening ceremony of the China Science and Technology Summit, Zhang Yuzhuo said that CAST will use the platform of “Science and Technology Innovation China” to promote integration of science and technology with the economy, support Macao’s better integration into the overall situation of the country, and inject new momentum into implementation of the principle of “one country, two systems”. CAST seeks to optimize the resource advantage of “popularizing science in China”, support construction of scientific and cultural venues in Macao, and jointly promote public scientific literacy. CAST will encourage Macao scientists and technology workers to join national institutes of science and technology and support Macao

in cultivating, introducing and utilizing talent to provide intellectual support and a human resources guarantee for innovative development. CAST will actively expand opening-up and cooperation, assist Macao enterprises in setting up R&D institutes and innovation incubation bases

overseas, and support the establishment of international science and technology organizations or branches in Macao to create a favorable international environment for scientific and technological innovation.

## 2021 Greater Bay Area Engineers Forum held in Hengqin

On December 5, 2021, Zhang Yuzhuo, Executive Vice President and Chief Executive Secretary of CAST, attended the 2021 Greater Bay Area Engineers Forum in the Guangdong-Macao In-Depth Cooperation Zone. In his opening speech, Zhang said that CAST would promote innovation in engineering science and technology, promote innovation in original and leading science and technology areas, strive to break through bottlenecks impeding key core technologies, and promote leapfrog development in important engineering science and technology fields. CAST seeks to empower engineers, promote the scientific spirit, safeguard science and engineering ethics, continuously upgrade the concept of sustainable development for engineers as well as their abilities to tackle global challenges. He called on engineers to lead the way by embracing the latest technical and professional skills, enhancing their interdisciplinary and cross-border

collaboration abilities, and forging an engineering team to meet the demands of the new era. CAST will expand opening-up and cooperation in engineering, promote innovative cooperation between the Chinese mainland and Hong Kong and Macao and between China and the world, and promote improvement of China's engineering. It will also promote mutual recognition of national and regional engineering qualifications and enhance China's opening-up to, trust in, and cooperation with the international engineering to help build a global community of shared future with the wisdom and strength of Chinese engineering.

CAST renewed its cooperation agreement with the Hong Kong Institution of Engineers, which also signed a mutual recognition agreement on electrical engineer qualifications with the Guangdong Society of Electrical Engineering.

## CAST's International Cooperation and Liaison Committee holds its first working meeting in Beijing

On January 7, 2022, the first working meeting of Expert Committee for International Cooperation and Liaison of the 10th Standing Committee of CAST was held in Beijing. The meeting was presided over by Shi Yigong, Vice President of the 10th session of CAST and director of the expert committee. Attending committee members reported that last year's science and technology exchanges with foreign countries achieved gratifying results and served China's diplomacy and work on Hong Kong, Macao and Taiwan while promoting the building of a

global community of shared future.

Four topics were discussed at the meeting: the committee doing more to help Chinese scientists hold posts and fulfill duties in international organizations, promoting international mutual recognition of engineering qualifications, conducting research on appropriate and diversified economic development in Macao, and conducting summer exchange and internship programs for university students from Hong Kong, Macao and Taiwan.

## 2021 China-Russia Digital Economy Summit Forum held

The 2021 China-Russia Digital Economy Summit Forum was held concurrently in Beijing, Shenzhen of Guangdong Province, Hunchun of Jilin Province and Moscow, Russia, via video link on December 28, 2021. The forum, co-hosted by CAST and the Russian Federation of Science and Engineering Societies, was an important part of the China-Russia Digital Economy Demonstration Project, one activity in a series to mark the China-Russia Science and Technology Innovation Year. Experts from the two countries were invited to discuss topics under the

theme of “Openness, innovation and Convergence Driving the Digital Future”.

Wang Jinzhan, Executive Secretary of the Secretariat of CAST, said in a video address to the forum that the project would continue in the next two years. He expressed hope that the two sides would deepen practical cooperation in promoting frequent exchanges of talent, opening up the technology sector, and integrating industrial development to inject new life into the development of the China-Russia comprehensive strategic partnership in the new era.

### Local associations for science and technology

## Science and Technology Forum held in Xiamen, Fujian Province

A forum for science and technology experts from across the Taiwan Straits was held on December 12, 2021 in Xiamen, Fujian Province. Hosted by CAST, the forum was organized by the Fujian Association for Science and Technology and co-organized by 52 units from both sides of the Taiwan Straits. It aimed to build a platform for cross-Straits scientific and technological innovation and collaborative development. Experts conducted in-depth exchanges of digital technology, energy technology, marine science and technology, green technology, and health and ecological protection, seeking new opportunities for cooperation in innovation and entrepreneurship.

Wang Jinzhan, Executive Secretary of the Secretariat of CAST, said in his speech at the forum that CAST attaches great importance to cross-Straits scientific and technological exchanges and cooperation, and will provide help to Taiwan’s scientific and technological talent seeking jobs or to start businesses on the Chinese mainland. CAST will continue to promote mutual recognition of professional qualifications for scientific and technological professionals across the Straits, open channels and build platforms. CAST hopes that scientific and technological workers across the Straits can build consensus, join hands, and create a better future for the Chinese nation.

## 2021 International Conference for Seed Industry Scientists held in Sanya, Hainan Province

The 2021 International Conference for Seed Industry Scientists was held in Hainan Province from December 16 to 18, 2021 under the theme “Using innovation in the seed industry to consolidate the foundation for modern agriculture”. Lyv Zhaoping, Executive Secretary of the Secretariat of CAST, Wichai Laocharoenpornkul, Chairman of the Asia and Pacific Seed Association, and Kevin Pixley, Deputy Director of the International Maize and Wheat Improvement Center, delivered video speeches at the opening ceremony of the conference. Sanya Party chief Zhou Hongbo, also a member of the Standing Committee

of the Communist Party of China Hainan Committee, took part in a symposium with academicians on the sidelines of the conference. The first international conference for seed industry scientists, the conference sought to bring together forces from all sides, gather innovative elements, and build an international platform for exchanges and cooperation in the seed industry to promote high-level scientific and technological self-reliance as well as innovation and development of the international seed industry. Organizers hope to build a seed industry exchange and cooperation platform with international influence.

## Online seminar held in Guangdong Province to celebrate the Spring Festival

On January 15, 2022, the Guangdong Association for Science and Technology (GAST) held its annual seminar to greet the Spring Festival alongside representatives of the science and technology sector of Hong Kong and Macao and members from the two special administrative regions. It was the first time the seminar was held online.

Zheng Qingshun, vice-chair of GAST, reported on Guangdong’s science and technology innovations and their organization’s contributions to construction of the Guangdong-Hong Kong-Macao Greater Bay Area as well as GAST’s foreign cooperation and exchange activities and key work over the past year.

Luo Hui, Director General of the Hong Kong, Macao and Taiwan Affairs Office of CAST, delivered a speech via video link. Luo said that the Hong Kong, Macao and Taiwan Affairs Office of CAST will continue to vigorously cooperate with the scientific and technological communities in Guangdong, Hong Kong, and Macao to encourage scientific and technological workers from the

two SARs to join national societies and hold events. The office will continue expanding the service platforms of “popularizing science in China”, “science innovation in China” and “intelligence gathering in China” to Hong Kong and Macao, and support the integration of Hong Kong and Macao science and technology organizations into the technological innovation and development of the Guangdong-Hong Kong-Macao Greater Bay Area. The office will also support and encourage local science and technology associations and national societies to strengthen exchanges with the science and technology communities in Hong Kong and Macao, serve the development of the Hengqin and Qianhai cooperation zones and the Guangdong-Hong Kong-Macao Greater Bay Area, and make greater contributions to the development of Hong Kong as an international innovation center and Macao as an appropriately diversified economy, an important world talent center, and an innovation hub.

## Overview of Chinese Scientists' Participation in International Organizations

Among the 211 national societies affiliated to CAST, a total of 108, or 51.18 percent of the total, have members serving at the executive-committee-member level or above in international science and technology organizations. The Chinese Medical Association has 39 people nominated for international science and technology organizations, the most among these societies. The China Zoological Society, Chinese Society of Theoretical and Applied

Mechanics, and China Sport Science Society each have 11 people recommended for posts in international science and technology organizations, while the Chinese Chemical Society, Chinese Society for Anatomical Sciences, and Chinese Mechanical Engineering Society each have nine. Another 22 societies have five to eight people in posts in international science and technology organizations, and 79 have one to four.

## Chinese Physical Society joins roundtable conference of senior leaders of international physical science societies

On December 15, 2021, Zhao Zhengguo, Vice President of the Chinese Physical Society, attended the fourth roundtable conference for senior leaders of international physics societies.

The meeting discussed the joint statement “role of physics in the green economy” and decided to formally issue a joint statement at an appropriate time according to the opinions of the conference attendees. The conference highlighted global sustainable development goals and the

important role physics plays in them, raising awareness of the importance of basic science for sustainable development.

The meeting discussed ways to promote sharing of science, data, and software, one goal of the 2022 International Year of Basic Sciences for Sustainable Development, and how it will contribute to equity, diversity, and inclusion in scientific development.

## Chinese Society for Electrical Engineering holds US-China Green Energy Forum

The Chinese Society for Electrical Engineering held the 13th US-China Green Energy Forum from January 5 to 6, 2022 via video, connecting two offline meeting venues in Beijing and Fuzhou, Fujian Province.

The forum was jointly hosted by the Chinese Society for Electrical Engineering, the US-China Green Energy Council and the Energy Internet Research Institute of Tsinghua University, and sought to discuss ways to respond

to global climate change, realize “carbon neutrality”, and advance international win-win cooperation. Themed “The development of clean energy for carbon neutrality”, the event invited Nobel Prize winners, academicians and experts from China, the United States and Europe to conduct in-depth exchanges on cutting-edge innovative green energy technologies, pool global wisdom, and integrate innovative energy thinking.

## The Association for Chinese Japanese and Chinese doctors in Japan holds its 2021 annual conference

The Association for Chinese Japanese and Chinese doctors in Japan held its 2021 annual conference from December 18 to 19 in Tokyo, Japan, which also marked the 25th anniversary of the founding of the association. Themed “Learning from others’ strengths and coordinated development”, the activity offered the association the opportunity to issue a report on its work over the past year

and gather an audience for the head of the association to deliver a speech commemorating the 25th anniversary of its founding. The forum invited more than 20 Chinese and Japanese experts from relevant fields to conduct exchanges on topics related to the theme of the conference and share recent science and technology research achievements to advance win-win cooperation.

### *S&T News*

## State Council: A national modern measurement system is to be built by 2025

The State Council, China’s Cabinet, recently issued the Metrology Development Plan (2021-35), which proposes that a national modern advanced measurement system be established by 2025, the year the innovation and influence of China’s metrology technology is expected to compete with global frontrunners, with some fields leading internationally.

Other development goals outlined in the plan include significant improvement in the nation’s metrology technology innovation, major breakthroughs in key areas of metrology technology, and China ranking among the world’s top players in metrology by 2035, when China’s modern and advanced national metrological system with

quantum metrology as the core is expected to be complete. By then, China’s work in the field will reach the top scientific and technological level to meet the needs of the times and trends of international development.

The plan recommends strengthening basic research to promote innovation-driven development in metrology and empowering applications to serve the development of artificial intelligence, intelligent manufacturing, public health and safety, and other major fields. It suggested the nation strengthen the construction of metrological capacity to promote high-quality development, strengthen metrological supervision and management, and improve the efficiency of metrological supervision.

## China unveils a five-year plan for future space exploration

The State Council Information Office released “China’s Space Program: A 2021 Perspective”, the fifth white paper on the country’s space program, on January 28,

2022. According to the document, China will promote comprehensive development of space science, including space technology and its potential applications over the next

five years.

Over that period, China will develop several projects in space including space gravitational wave detection satellites, Einstein probes, an advanced space-based solar observatory, solar wind-magnetosphere interaction panoramic imaging satellites, and high-precision geomagnetic field measurement satellites. The research is related to subjects of the extreme universe, space-time ripples, solar terrestrial panorama, and habitable planets. The country will continue to carry out forward-looking exploration and basic research in space

astronomy, heliospheric physics, lunar and planetary science, space earth sciences, and basic space physics to produce more original scientific achievements.

Over the next five years, according to the white paper, China will conduct experiments and research in fields of biology, life, medicine, and materials in the space environment at the Tiangong space station, and with the Chang'e series of probes, the Tianwen-1 probe, and other space experiment platforms to continue deepening humanity's understanding of science.

## China's FAST telescope scores several major achievements

On January 5, 2022, the Chinese Academy of Sciences released the latest operation report for the country's FAST (Five-hundred-meter Aperture Spherical radio Telescope) and highlighted several important scientific research achievements made by FAST including measurement of interstellar magnetic fields using neutral hydrogen spectral lines, fast radio bursts (FRBs), and radio pulsars.

Since becoming operational on January 11, 2020,

FAST's annual observation time has exceeded 5,300 hours, enabling it to play a major role in producing scientific results. On March 31, 2021, FAST officially announced open access to astronomers around the globe and received applications for 7,216 hours of FAST observation time from different countries. Finally, 27 international projects from 14 countries outside China were approved, and astronomical observations started in August 2021.

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CAST is the largest non-governmental organization of scientific and technological professionals in China. Through its 211 national member societies and local branches all over the country, CAST maintains close ties

with millions of Chinese scientists, engineers, and other professionals working in fields of science and technology.

[www.cast.org.cn](http://www.cast.org.cn)