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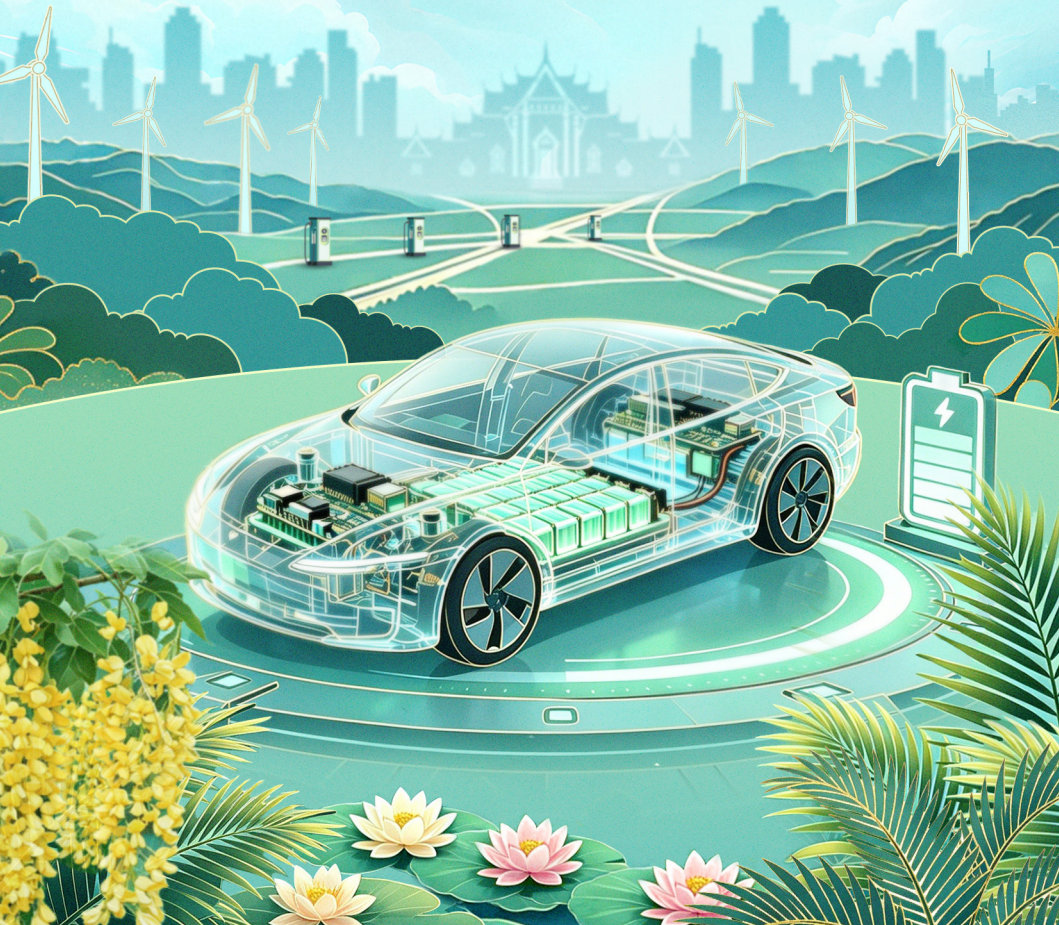
CAST Newsletter

2026 World New Energy Vehicle Congress Thailand Forum advances transportation transformation and sustainable development



Headlines

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2026 World New Energy Vehicle Congress Thailand Forum advances transportation transformation and sustainable development

Keynote speakers at the 2026 WNEVC Thailand Forum

On April 2, the 2026 World New Energy Vehicle Congress (WNEVC) Thailand Forum was held in Bangkok. The event brought together more than 100 senior executives and technical experts from Southeast Asia's automotive sector. Participants engaged in in-depth discussions on technological innovation in new energy vehicles (NEVs), industrial chain collaboration, and market applications, fostering consensus and exchanging insights. The forum not only provided an effective platform for deepening China-Thailand industrial cooperation, but also contributed to the broader goal of reshaping global transport and energy systems and advancing green, low-carbon development worldwide.

Wan Gang, President of CAST and of WNEVC, delivered a keynote address. He noted that addressing climate change and promoting a green, low-carbon transition in economic and social development have become global priorities and shared responsibilities. Building a new energy system centered on renewable energy is essential for sustainable economic growth, while accelerating the coordinated transformation of the automotive industry toward electrification, intelligent technologies, and low-carbon development represents a key pathway to achieving both decarbonization and industrial upgrading.

Wan Gang emphasized the need to further strengthen international cooperation and jointly accelerate the development of the NEV market. Chinese enterprises, he suggested, should leverage Thailand's industrial base, geographic advantages, and market demand to provide locally tailored products and services. At the same time, leading automakers are encouraged to drive the global expansion of entire industrial chains, fostering new models of cluster-based capacity

deployment overseas. Cooperation between China and Thailand in the NEV sector, he added, will not only create high-quality employment opportunities in Thailand but also ensure that the benefits of green development are shared by local economies and talent development, injecting stronger momentum into global sustainable development that is green, low-carbon, secure, and intelligent.

Anek Laothamatas, former Minister of Higher Education, Science, Research and Innovation of Thailand, remarked that tackling climate change and protecting the natural environment depend on expanding the use of new, clean and renewable energy. With its solid automotive industry foundation and supportive policy environment, Thailand looks forward to deeper China-Thailand cooperation in NEV technologies and industrial coordination. By leveraging their respective strengths, sharing resources, and complementing each other's advantages, both sides can promote high-quality development of the NEV industry and achieve mutually beneficial outcomes.

Tanita Sirisup, Deputy Secretary General of the Thailand Board of Investment, noted that over the past 50 years since the establishment of diplomatic relations between China and Thailand, political trust has deepened and economic and trade cooperation has yielded substantial results, laying a solid foundation for closer collaboration in the new energy and automotive sectors. In recent years, growing investment by Chinese enterprises in Thailand has significantly advanced both the scale and technological upgrading of the country's electric vehicle industry. Amid the global shift toward electrification, intelligent technologies, and low-carbon development, Thailand is accelerating its efforts to become a regional hub for NEV manufacturing and industry ecosystems, supported by its well-established automotive base, competitive investment policies, and strategic geographic location. Looking ahead, China and Thailand will further deepen cooperation in areas such as technological R&D and industrial and supply chain coordination, helping Thai enterprises integrate into the global NEV value chain and achieve mutually beneficial, sustainable development.

(Source: Official WeChat account of WNEVC)

CAST and Max Planck Society discuss cooperation across multiple fields to address global challenges

On April 14, 2026, CAST President Wan Gang met in Beijing with Patrick Cramer, President of the Max Planck Society, and

his delegation. The two sides exchanged views on scientific and technological development in China and Germany, as well as on cooperation and exchange between their respective scientific communities. Luo Hui, Director-General of the CAST Department of International Affairs, also attended the meeting.

Wan Gang briefed the German side on China's latest progress and practical achievements in areas such as new energy vehicles and artificial intelligence. He noted that, amid a complex and rapidly evolving international landscape and a profound reshaping of the global science and technology order, the importance of China-Germany cooperation in science and technology has become increasingly evident. The two sides can further deepen pragmatic cooperation in areas including new energy, life sciences and health, research integrity, and science communication. He also proposed building platforms for exchange among young scholars and promoting the broader societal application of scientific research outcomes, so that they may better benefit the public and jointly contribute to global scientific advancement.

Cramer spoke highly of China's achievements in science, technology, and economic development. He noted that China is at the forefront of applying scientific and technological innovations, and that the European scientific community places great importance on cooperation with China. He expressed hope that both sides will strengthen exchange and mutual learning in areas such as the commercialization of research results and energy transition and work together to address global challenges including climate change and energy security, leveraging scientific collaboration to support sustainable development for humanity.

(Source: Official website of CAST)

CAST and American Chemical Society exchange views on promoting a healthy global academic ecosystem

On April 9, 2026, Luo Hui, Director-General of the CAST Department of International Affairs, met in Beijing with Rigoberto Hernandez, President of the American Chemical Society (ACS). The two sides held in-depth discussions on promoting exchange among young scientists and advancing cooperation in STM journal publishing.

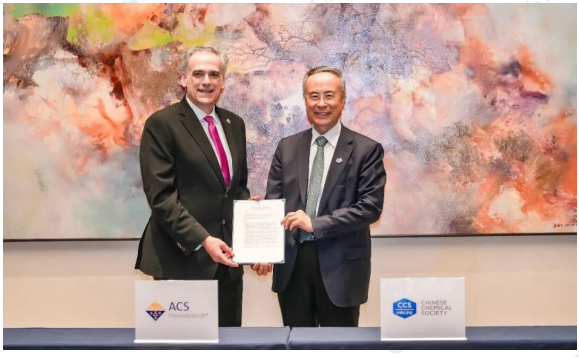
Both sides agreed that academic organizations in China and the United States have a strong foundation for long-standing cooperation. Looking ahead, they will work together to build platforms for communication and exchange among scientists from both countries,

further expand channels for young researchers to engage with one another and cultivate a robust pipeline of talent to support the sustained development of science. Committed to mutual benefit and win-win cooperation, the two sides will explore joint efforts to develop high-quality academic journals and work together to foster an open, fair, and non-discriminatory global academic ecosystem.

(Source: Official website of CAST)

Academic Exchange

Chinese Chemical Society and American Chemical Society renew memorandum of cooperation



CCS President Wan Lijun and ACS President Rigoberto Hernandez exchange the renewed memorandum of cooperation

On April 11, 2026, during the 35th Chinese Chemical Society (CCS) Congress, CCS President Wan Lijun met in Chongqing with ACS President Rigoberto Hernandez and James Milne, President of ACS Publications, along with their delegation. The two sides held discussions on key areas including journal publishing, the joint organization of academic conferences, and talent development, and renewed their memorandum of cooperation.

Hernandez expressed his appreciation for the warm reception extended by the CCS and conveyed his gratitude for the congratulatory message sent by Wan Lijun on behalf of the CCS on the occasion of the 150th anniversary of the ACS. He also spoke highly of the achievements made through the long-standing cooperation between the two organizations. Milne noted that academic publishing plays a vital role in scholarly exchange and expressed hope that both sides will further strengthen collaboration to promote the wider dissemination of research within the global chemistry community.

(Source: Official website of CCS)

World Industrial Design Association established to advance global design innovation

Inauguration ceremony of WIDA

Recently, the World Industrial Design Association (WIDA) was officially established with its headquarters in Shanghai. WIDA is dedicated to advancing global research in industrial design and fostering deeper integration among academia, industry, and research. It aims to elevate the overall development of industrial design worldwide, build an open, collaborative, and efficient innovation ecosystem, and contribute to the advancement of human civilization as well as economic and social development.

WIDA was jointly initiated by a wide range of domestic and international stakeholders, including the University of Shanghai for Science and Technology (USST), the China Industrial Design Association, Shanghai Jiao Tong University, and Germany's MH Design & Innovation, along with other industry organizations, enterprises, universities, design institutions, and individual professionals. It operates under the guidance of CAST.

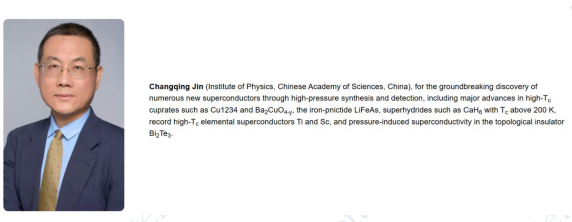
WIDA's founding membership comprises 168 organizations and individuals from 23 countries and regions, and it has established ties with partners in more than 60 countries. Its members span a broad range of disciplines and industries, including design thinking, design science, artificial intelligence, robotics, aerospace, automotive, high-end equipment, new materials and processes, human-computer interaction, intelligent design, as well as ecological and low-carbon design.

On April 17, WIDA held its inaugural plenary meeting and first council meeting at USST. The first Council and leadership team were elected, with USST President Zhu Xinyuan serving as the inaugural Chair. He stated: "Our vision is to promote shared prosperity in global industrial civilization through the bond of industrial design."

(Source: WeChat official account of USST)

International Awards

Chinese physicist Jin Changqing receives 2026 Bernd T. Matthias Prize



Webpage announcing Jin Changqing's award of the prize
Photo credit: Official website of the Materials and Mechanisms of Superconductivity (M2S) Conference

Recently, the 2026 Bernd T. Matthias Prize—one of the highest international honors in the field of superconductivity—was officially announced. Jin Changqing, a research fellow at the Institute of Physics (IOP) of the Chinese Academy of Sciences (CAS), received the award for his pioneering discoveries of numerous new superconducting materials. Previous recipients from China include Zhao Zhongxian of the IOP of CAS and Chen Xianhui of the University of Science and Technology of China.

The award recognizes Jin's groundbreaking contributions to the discovery of new superconducting materials through high-pressure synthesis and detection. His work spans multiple superconducting systems, including cuprates, iron-based superconductors, hydrogen-rich compounds, elemental superconductors, and topological materials. His major achievements include the discovery of "three-high" cuprate superconductors such as Cu1234 and Ba_2CuO_{4-y} cuprates with orbital-order inversion; iron-based "111" superconductors represented by LiFeAs; calcium-based hydrogen-rich superconductors with superconducting transition temperatures above 200 K; record-high transition temperatures in elemental titanium and scandium; and the realization of pressure-induced superconductivity in the topological insulator Bi_2Te_3.

Established in 1989, the Bernd T. Matthias Prize is among the most prestigious academic honors in superconducting materials research. It is awarded every three years to one to three scholars worldwide who have made outstanding contributions to the field. The selection process is highly rigorous, and past recipients include leading international scientists such as Hideo Hosono, Mikhail Eremets, Katsuya Shimizu, and Frank Steglich.

(Source: Official website of IOP)

Chinese scientist Zhang Xian elected Chair of United Nations Commission on Science and Technology for Development

29th session of the CSTD announcing Zhang Xian's election

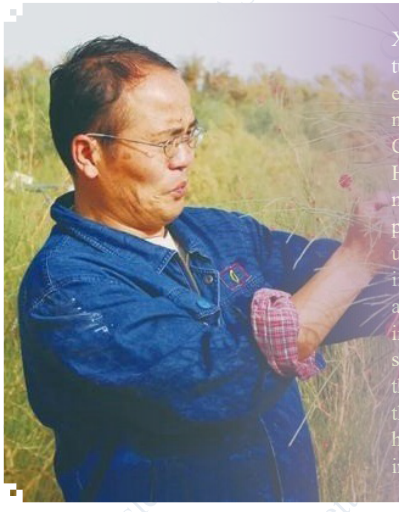
Recently, the 29th session of the United Nations Commission on Science and Technology for Development (CSTD) opened at the Palace of Nations in Geneva, Switzerland. During the session, Zhang Xian, Chief Scientist at the Administrative Centre for China's Agenda 21 (ACCA21) under the National Natural Science Foundation of China, was formally elected Chair of the CSTD. His election represents a meaningful contribution by China to advancing the vision of a community with a shared future for humanity.

The CSTD is the highest-level intergovernmental body within the United Nations system dedicated to science and technology. As a central platform for global science and technology governance, it plays a key role in advancing rulemaking and coordinating international cooperation in this field. It also provides essential scientific and technological support for implementing the United Nations 2030 Agenda for Sustainable Development. In addition, the Commission helps draw international attention to critical S&T issues, promotes global cooperation and capacity building, and serves as an important forum for dialogue and exchange on science, technology, and development worldwide.

(Source: *Science and Technology Daily*)

Scientist Profile

Desert expert Xu Xinwen weaves a "green ribbon" across the sands



Xu Xinwen is a research fellow at the Xinjiang Institute of Ecology and Geography of the Chinese Academy of Sciences, and Director of the National Engineering Research Center for Desert-Oasis Ecological Construction (Taklimakan Desert Research Station). His research focuses on desertification control, the mitigation of wind and sand hazards in engineering projects, and the restoration of fragile ecosystems under extreme conditions. He has played a key role in the construction of the Tarim Desert Highway and pioneered innovative approaches such as drip irrigation using saline and brackish water in shifting sands, as well as irrigation-free vegetation restoration through dune stabilization. These efforts have enabled the establishment of protective shelterbelts along the highway, and his technologies have since been applied in several countries across Central Asia and Africa.

Xu Xinwen during fieldwork
Photo credit: news.cn

In mid-spring, a gentle warmth settles over Urumqi. At the Institute, newly delivered equipment is being installed, enhancing research capacity, while display panels on the fourth floor of the laboratory building showcase the Institute's recent advances in desert studies.

Xu Xinwen—leader of the desert research team and head of the Taklimakan Desert Research Station—has spent nearly four decades working on the front lines of desert research. Pointing to a photograph, he describes the "green ribbon" stretching across the desert as China's first highway traversing the Taklimakan Desert, a project to which he made critical contributions as a sand-control expert.

Over the past forty years, Xu's work has taken him across Xinjiang's two major deserts. He has developed and refined techniques such as afforestation in shifting sands using saline-water drip irrigation and irrigation-free vegetation restoration through dune stabilization. These methods have been widely applied in China and extended to Central Asia and Africa, offer-

ing practical solutions to global desertification challenges.

Creating a green shield for desert highways

In early 1992, Xu joined an expert team tasked with selecting the route for the Tarim Desert Highway and designing its sand-control system. Based on factors such as dune height and prevailing wind direction, he optimized the alignment to reduce construction workload and minimize sand hazards. Carrying surveying equipment on their backs, he and his colleagues walked along the planned route, mapping the terrain and producing a corridor map nearly 500 meters wide. Frequent sandstorms and harsh conditions made the work extremely challenging, yet the team persevered.

In 1995, the 566-kilometer Tarim Desert Highway was completed and opened to traffic, becoming at the time the world's longest graded road crossing a continuous shifting desert. Yet Xu did not stop there. Recognizing the threat posed by encroaching mobile dunes, he set out to establish long-term protective measures and build a "green shield" along the highway.

The team initially adopted mechanical sand-control measures, installing straw checkerboard barriers made from reed stalks along the road, ranging from 70 to 300 meters in width. These measures ensured safe operation in the early stages. However, as shifting dunes gradually buried the structures, the team sought a more sustainable solution: establishing protective vegetation. After confirming the presence of groundwater in the desert interior—saline and brackish, yet sufficient for drought-tolerant plants—they secured a reliable water source. Even before construction began, Xu Xinwen had established a 1-hectare experimental plot on the desert's edge, where he selected and cultivated drought- and salt-tolerant species such as tamarisk and saxaul. In 1994, when the highway reached the Tazhong oilfield, he relocated the experimental base deeper into the desert and installed mechanical sand barriers to protect the seedlings.

In 1997, large-scale planting began along the highway, marking the transition to vegetation-based sand control. By 2000, a demonstration shelter forest covering 63,000 square meters had been established, effectively preventing sand encroachment. In 2003, the shelterbelt project was formally approved. Over the following years, Xu led his team in planting more than 20 million

desert plants, expanding the shelterbelt to a width of 72-78 meters and forming a durable green barrier. He also established an introduction and acclimatization center, later developed into a desert botanical garden spanning over 20 hectares and housing more than 400 plant species, providing valuable germplasm resources for ongoing desert restoration efforts.

Advancing international cooperation for global desertification control

Now in his sixties, Xu Xinwen takes greatest pride in two achievements: contributing to the construction of the Tarim Desert Highway and helping China's sand-control technologies reach the wider world. He notes that the highway's shelterbelt project has provided a valuable model for countries tackling desertification. Since 2006, these technologies have been implemented in countries such as Libya, Kazakhstan, and Ethiopia.

Xu emphasizes that there is no one-size-fits-all solution to desert control; effective approaches must be tailored to local conditions. In Kazakhstan, he and his team spent nearly two years developing ecological barrier technologies suited to the local environment, establishing an introduction base and successfully introducing more than 40 plant species. In Africa, they developed five key technologies for the African Great Green Wall initiative and established five demonstration sites. In 2017, the Xinjiang Institute of Ecology and Geography signed a memorandum of cooperation with the Pan-African Agency of the Great Green Wall, marking international recognition of China's expertise in combating desertification.

Even today, Xu shows no sign of slowing down. He remains committed to deepening international cooperation and promoting Chinese technologies, while also mentoring the next generation and passing on his experience.

The desert speaks nothing, and the oases bear witness. From the Tarim Basin to Central Asia and Africa, Xu and his team have rooted themselves in shifting sands, planting green across barren landscapes and inscribing the spirit of China's desert fighters into the global effort to combat desertification.

(Source: cctv.com)

Upcoming Conferences

World Transport Convention 2026 to convene in Tianjin

The World Transport Convention (WTC), an international platform jointly supported by transportation science and technology organizations in China and worldwide, has been successfully held for nine consecutive years since its launch in 2017. With its growing influence, WTC has become an important driver of global cooperation in transportation science and technology.

The 2026 Convention will be jointly hosted by the China Highway & Transportation Society (CHTS), the Chinese Institute of Navigation, the China Railway Society, the Chinese Society of Aeronautics and Astronautics, the China Society of Automotive Engineers, and the China Air Transport Association. It is scheduled to take place from June 2 to 3 at the National Convention and Exhibition Center in Tianjin.

Under the theme "AI + Transportation," WTC 2026 will feature an opening ceremony with keynote speeches and parallel forums. Academy members and leading experts from universities, research institutes, and industry—both from China and abroad—are expected to participate. Discussions will focus on major forward-looking and critical technological issues in transportation, showcase the latest innovations, and promote international exchange and cooperation in the field.

For more information, please visit: https://en.wtc-conference.com/

(Source: Official website of CHTS)

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