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# Space Cooperation Consolidates Sino-French Friendship

## International Cooperation

By ZHANG Zhihui and LIU Yong
Edited by LIANG Yilian

On June 22, the Sino-French satellite Space Variable Objects Monitor (SVOM) was successfully launched. Earlier, on May 3, China's Chang'e-6 lunar probe carried France's Detection of Outgassing RadoN to the moon, marking the first collaboration between the two countries in lunar exploration and France's debut in a lunar landing project. This year also celebrates the 60th anniversary of diplomatic relations between China and France, highlighting their longstanding cooperation in space.

The 1960s and 1970s marked the early stages of this partnership. France was the first to establish diplomatic relations with China at the ambassadorial level in January 1964. In 1978, they signed an intergovernmental sci-tech cooperation agreement, the first China ever had with a Western country.

In the 1980s, China and France deepened their space collaboration. In 1985, leaders of China's space sector visited France and signed a Memorandum of Understanding on space technology cooperation. In 1987, Matra Co., a leading French space company, developed microgravity experimental instruments, which were carried by Chinese satellites, making France the first international customer of China's commercial satellite launch services using the Long March series of rockets.

Since China and France's joint declaration in May 1997 establishing a comprehensive partnership, both sides have signed an agreement for peaceful use of outer space, further consolidating space cooperation.

The 21st century has seen continued Sino-European space collaboration. In 2011, China successfully launched the French W3C satellite into orbit, marking its first launch service for a European satellite operator. The Chinese Academy of Sciences' Space Science Pioneering Program, now in its second phase, includes significant contributions from European scientists.

China's lunar exploration program has always welcomed international partners. In 2019, China's National Space Administration and the French National Center for Space Studies signed a cooperation intention letter. During French President Emmanuel Macron's visit to China in 2023, China gifted France a lunar sample. Esteemed French scientists, such as Michel Blanc, have long contributed to China's deep space exploration plans.

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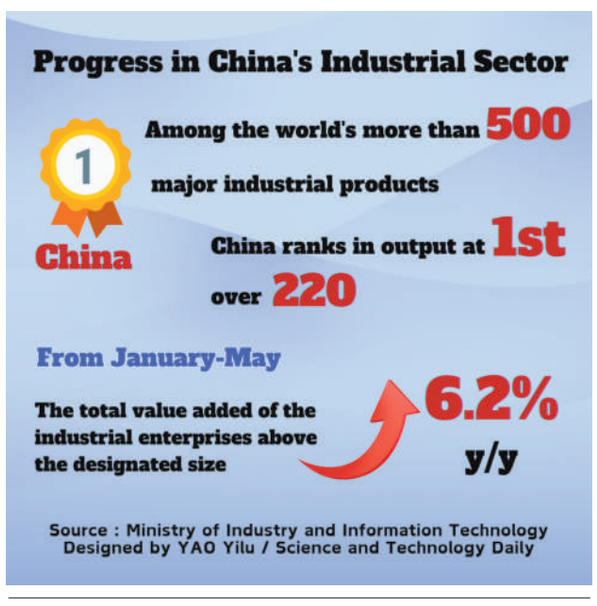
## New Graphic




WECHAT ACCOUNT E-PAPER

China's deep-sea heavy-duty mining vehicle Kaituo 2 completes sea trials at depths exceeding 4,000 meters. (PHOTO: XINHUA)

## Editor's Pick

# China's Leap in Bridge Building

By QI Liming

Bridges, an important part of the transportation system, embody a country's scientific and technological level and comprehensive national strength. In 2022, the 20th National Congress of the Communist Party of China decided that no effort should be spared to build China into a country with great transport strength.

***A super cross-sea passage builder***

Since the founding of the People's Republic of China 75 years ago, China's bridge construction has experienced a magnificent transformation, from lagging behind to leaping ahead. The bridges on the Yangtze Rivers and Pearl Rivers demonstrate the leap in China's bridge engineering technology as well as China's scientific and technological innovation and project management level.

The Shenzhen-Zhongshan Link, a bridge-tunnel connecting two major cities in southern China, opened to traffic on June 30. Spanning 24 kilometers, the link slashes the time taken to travel between the city of Zhongshan and the technology hub of Shenzhen, situated on opposite sides of the Pearl River Estuary in Guangdong province, from two hours to approximately 30 minutes. This will significantly boost economic and social development of the Greater Bay Area.

As a means of communication, bridges shorten distances in space, and span over history and the present, becoming the carriers of the future. The completion of the Hong Kong-Zhuhai-Macao Bridge and Shenzhen-Zhongshan Link has catapulted China among the great innovator nations capable of constructing super cross-sea passages and opens a new chapter in building a strong transportation network.

Meng Fanchao, chief designer of the Hong Kong-Zhuhai-Macao Bridge, said bridge engineering must follow new development concepts and construction technology standards, and promote integrated development of structure, art and culture.

***Models of BRI cooperation***

The bridge technology in China has entered a new stage of innovation and upgrade in the 21st century with new technologies with independent intellectual property rights and new standards. China's large bridges are the cynosure of global attention as marvels of technology.

Of the world's 10 bridges with the largest span, five are in China. China also boasts seven of the longest arch bridges, seven cable-stayed bridges and five suspension bridges.

The Belt and Road Initiative (BRI) partner countries are beneficiaries of China's cross-sea bridge construction. In the past decade, cross-sea bridges were built in BRI partner countries, facilitating travel and promoting local economic and social development. Bearing the dream of common development, these bridges have become models of practical cooperation between China and other countries, deepening the friendship between China and the other countries that are jointly building the BRI.

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# Global AI Governance Takes Center Stage at 2024 WAIC

By GONG Qian

The development of AI urgently requires in-depth discussions and consensus-building among countries, as well as collaborative efforts to seize opportunities and overcome challenges, Chinese Premier Li Qiang said in his address at the opening ceremony of the 2024 World AI Conference (WAIC) and High-Level Meeting on Global AI Governance in Shanghai on July 4.

Themed "Governing Al for Good and for All," the four-day event comprised four core sections: the conference and forum, display and exhibition, contest and award, and intelligent experience.

It has built world-class cooperation and exchange platforms with top scientists, experts and scholars, entrepreneurs and government officials. They shared their insights on various topics including AI ethics and governance, large language models, data, computing power, AI agent, AI for science, and autonomous driving.

The rapid revolution of AI technology has brought enormous benefits to economic and social development as well as considerable and potential risks. As a result, global AI governance has become a common issue worldwide. It urgently requires dialogue and cooperation to build consensus, manage risks, and promote the development of AI in a direction that benefits society.

Global AI governance and international cooperation topped the agenda at the 2024 WAIC. Prominent scholars and entrepreneurs offered their viewpoints and suggestions on AI ethics and safety.

To promote the healthy development of AI and reduce risks, China is introducing laws, regulations, and guidelines in areas such as algorithms, computing power, data, and industrial application safety, according to Xue Lan, dean of Schwarzman College and dean of the Institute for AI International Governance at Tsinghua University.

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# New Round of China-U.S. Giant Panda Liaison

By Staff Reporters

On June 27, two giant pandas, Yun Chuan and Xin Bao, arrived in California, U.S., on a chartered flight from the Ya'an Bifengxia Base of the China Conservation and Research Center for the Giant Panda in China's southwest Sichuan province, beginning a new round of Sino-U.S. cooperation on giant panda protection.

Female Xin Bao, born on July 23, 2020, is gentle and well-behaved, while Yun Chuan, male, born on July 28, 2019, is smart and lively.

To ensure the health and safety of the two pandas during the flight, fresh bamboo, bamboo shoots, fruits and vegetables, special dumplings, and drinking water were prepared. Meanwhile, five experienced breeders and veterinary experts from China and the U.S. accompanied the animals on the flight.

After Yun Chuan and Xin Bao settle in at the San Diego Zoo, the Chinese experts will remain with them for about three months during the quarantine period, helping them to quickly adapt to their new living environment. The public will be able to learn about their daily lives and adaptations in a variety of ways.

The San Diego Zoo, which has an average annual visitor number of six million, is the first institution in the U.S. to cooperate with China in giant panda research. Since the cooperation between the China Conservation and Research Center for Giant Panda and the San Diego Zoo began in 1994, the two sides have achieved fruitful results in the fields of giant panda ecology, behavior, genetics and nutrition, as well as field monitoring, artificial breeding, disease prevention and control, companion species research and public education. Both sides jointly solved a series of technical problems.

"San Diegans can't wait to see these amazing animals!" wrote Todd Gloria, mayor of San Diego, on social media platform X. Gloria had attended the farewell ceremony in Ya'an, where the pandas had been residing.

## WEEKLY REVIEW

***Researchers Develop Brain-on-chip System***

Chinese researchers have developed a brain-on-a-chip intelligent interaction system that can enable a brain organoid to autonomously control robots for tasks such as obstacle avoidance, tracking and grasping, completing inspired work of various brain-like computing, according to a study published in the journal *Brain*.

***Exceptionally Tough 3D Printable Elastomers Developed***

Chinese researchers have developed a 3D photo-printable resin chemistry that yields an elastomer with a tensile strength of 94.6 MPa and toughness of 310.4 MJ m-3, both of which far exceed those of any 3D-printed elastomer, according to a study published in the journal *Nature*.

***Sino-French Satellite Detects Gamma-ray Bursts***

An astronomical satellite jointly developed by China and France has recently detected gamma-ray bursts since its launch two weeks ago, marking a promising start to this high-level cooperation project between the two countries.

***NASA's CURIE Mission to Explore Solar Radio Waves***

NASA said its CubeSat Radio Interferometry Experiment (CURIE) was launched on July 9 to explore the origins of radio waves from the sun, one of the key drivers of space weather.

***SpaceX to launch Polaris Dawn Mission***

SpaceX is set to launch Polaris Dawn, the first commercial spaceflight mission with an all-civilian spacewalk plan, no earlier than July 31, according to an announcement from the project.

***'Dangling' Ice Spotted in Space***

Fluffy ice that could help create the molecular building blocks for life has been spotted in space for the first time by the James Webb Space Telescope, nearly 30 years since researchers first observed it in the lab.

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