

INSIGHTS

CPC National Congress Obtains Favorable Reception

Voice of the World

Edited by QI Liming

The 20th National Congress of the Communist Party of China (CPC) opened in Beijing on October 16. Xi Jinping delivered a report to the congress on behalf of the 19th CPC Central Committee.

Many countries extended their congratulations, saying China's experience is worth learning from, as it has injected consistent and stable impetus to global development.

Letters from socialist countries congratulate the 20th CPC National Congress

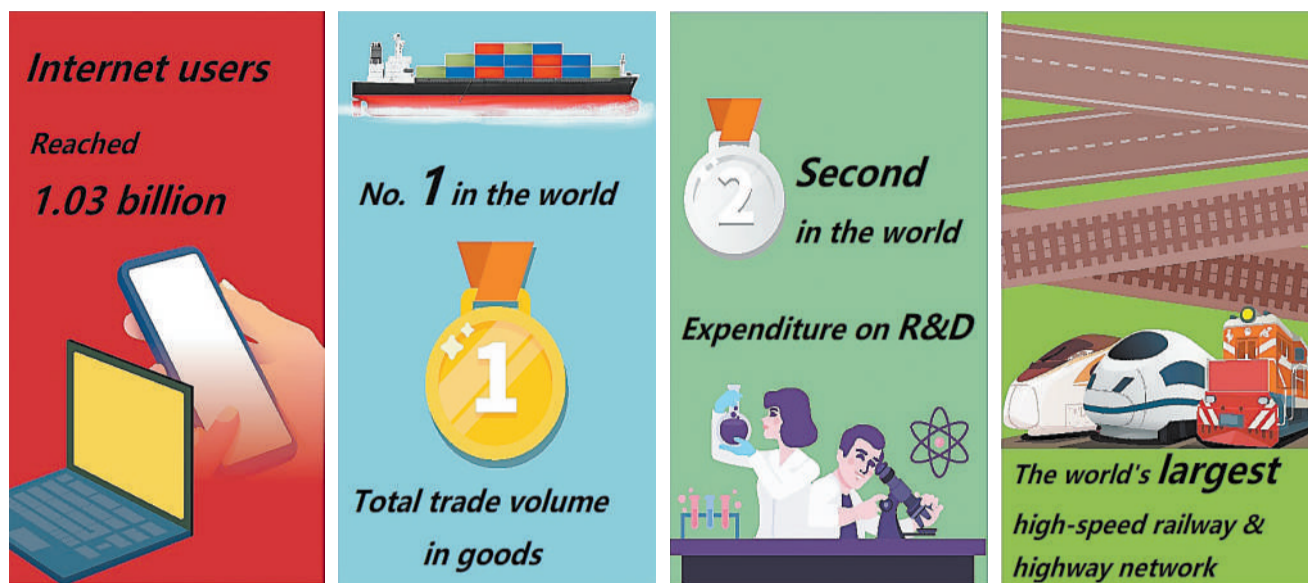
According to *Granma*, Cuba's leading newspaper, on the occasion of the celebration of the 20th CPC National Congress, the Central Committee of the Communist Party of Cuba (PCC) sent a congratulatory message to the CPC, stressing the great significance of the momentous event.

"We are glad to see that the CPC is able to lead the people in safeguarding national sovereignty, independence and unity, in building the economic development of a socialist country and in consolidating China as a factor of global stability and balance," the letter said.

It went on to say that relations between the two parties will continue to be a pillar and an important part of Cuba-China relations. The PCC believes that China, under the leadership of the CPC, will add new impetus to all progressive causes in the world.

The Central Committee of the Communist Party of Vietnam (CPV) also sent a message of congratulations to the Central Committee of the CPC on its 20th National Congress through VietnamPlus.

"Vietnam and China are two close neighbors. Both the CPV and the CPC



The graphics show China's four major achievements. (PHOTO: S&T DAILY)

are leading the cause of Doi Moi (renewal), door-opening reform and socialist building in our respective countries. We consistently attach importance to and are ready to, together with the Communist Party of China, state and people, make unceasing efforts to consolidate and lift the friendly neighborliness and comprehensive strategic cooperative partnership between Vietnam and China to a new stage of development, meeting the aspirations and essential interests of the two countries' people and for peace, stability, cooperation and development in the region and the world."

Best wishes from BRI countries

According to the *The Star*, the second largest economy in the world has invested heavily in many developing countries, and is continually increasing these investments at both bilateral and multilateral levels.

Continental partnerships between China and the continents of Asia and Africa, the China-ASEAN cooperation and the Forum on China-Africa Cooperation have positively impacted the social and

economic lives of both these regions and their people.

Lucio Blanco Pitlo III, a research fellow at the Asia-Pacific Pathways to Progress Foundation, said that China is a more stable international actor, especially in the eyes of the Belt and Road Initiative (BRI) participating countries. This is in contrast to rivals that are more susceptible to policy disruptions or swings after periodic elections or abrupt leadership changes. At a time when geopolitics are in flux, China's stability may have far more appeal.

The BRI projects have continued to be rolled out even at the height of COVID-19, most notably in Southeast Asia. This was while investments elsewhere suffered contractions due to disruptions brought on by the pandemic.

Unremitting contribution to global stability and livelihood

South Africa's President Cyril Ramaphosa said in *The Africa Report* that the CPC is a model for its South African brothers. "The way China has developed tells us how they have managed to lift

ordinary people out of poverty. And that is one of the African National Congress' (South Africa's governing party) aspirations," he said.

Stephen Ndegwa, the Executive Director of South-South Dialogues, said that China's highly efficient and home-grown political and governance structures have withstood the test of time and delivered for its citizens. They are a testament of their resilience and integrity, which have in turn become a role model for developing countries still struggling to get a foothold in the current unfair geopolitical dispensation.

China has also started initiatives that will, in the near future, become instrumental in creating global stability. Both the Global Development Initiative (GDI) and the Global Security Initiative (GSI) have received massive and unequivocal support from the global community. The United Nations has expressed its willingness to support GDI in helping the achievement of the international body's Sustainable Development Goals.

Opinion

U.S. Experts Call for More Dialogue and Cooperation with China

By GONG Qian

Recently, U.S. experts call for more academic exchanges between China and the U.S.

This was evidenced by Scott Kennedy, an expert of Chinese business and economics and senior advisor of the U.S. Centre for Strategic and International Studies (CSIS), who visited some Chinese government agencies, universities and think tanks in Beijing and Shanghai in his month-long trip recently. Kennedy is one of the few U.S. scholars to visit China since the start of the pandemic.

In his lecture at Peking University, Kennedy called for strengthening official communication to increase mutual trust. He believes that healthy competition and peaceful coexistence is the ideal solution for China-U.S. relations.

China's Vice Foreign Minister Xie Feng met with Kennedy on October 8. Xie encouraged scholars from China and the U.S. to carry out more communication, so as to play a positive role in enhancing mutual understanding between the two countries.

In recent years, geopolitical tensions and the pandemic lead to less official and people-to-people exchanges in person between the two countries. In addition, the trade war between the two countries exacerbated the existing and additional tensions. Under the circumstances, it is vital to improve bilateral ties with more visits by people from academic and business communities from both sides.

The Center for China and Globalization (CCG), a leading Chinese think tank, kicked off a 10-day visit to the U.S. in late June this year. "Over the past two years, we and our U.S. counterparts could not communicate with each other face to face. During this period, they could only receive information from the U.S. media, so it seems that they have more misunderstandings about China than before," Miao Lv, one of the co-founders of CCG, told *The Paper*. In her view, the U.S. scholars and experts still have a strong desire to know more about China.

To this extent, it is urgent and necessary to restore contact and open up people-to-people exchanges and cooperation. "My trip in China is meant to open up a crack in their echo chamber, let some air in, see what people think here, and then help open the echo chamber door back in the U.S., and see if that generates some new thoughts," Kennedy was quoted as saying by *South China Morning Post*.

Kennedy's views and actions were echoed by other U.S. experts and scholars, calling for cooperation rather than

confrontation. Renowned think-tank economist C. Fred Bergsten is one of them. He is also a political adviser and was the founding director of the Peterson Institute for International Economics.

In an online video talk with the president of CCG Wang Yaohui on September 30, Bergsten said the U.S. containment policy on China "clearly does not work", citing that China-U.S. trade dropped sharply [in 2019] due to the trade war, while China's overall trade boomed enormously.

"It would be a dramatic step if our two countries could get together, roll back those tariffs, end the trade war, restore a much larger level of trade between our countries, and in that way restore a huge amount of confidence in the world trading system," Bergsten said.

A report titled *The Business of America and China Is Business*, released by the U.S. Foreign Policy Association, also called on U.S. policymakers to view China from a correct perspective and strengthen U.S.-China economic and trade cooperation. It argues that China is an important business opportunity for the U.S. and U.S. tariffs levied on Chinese imports have hurt the U.S. more than they have hurt China.

Statistics further showed that cooperation delivered mutual benefits. According to China's Foreign Ministry spokesperson Mao Ning, the average return on U.S. direct investment in China was 14.7 percent between 2000 and 2020, far higher than that of U.S. outbound direct investment of 9.7 percent. In the first half of this year, China-U.S. trade grew by 12.7 percent and the U.S. paid in investment in China increased by 26.1 percent year-on-year.

As China becomes the second largest economy in the world, the U.S. treats China as its real economic challenger and wants to decouple from China. But President Xi Jinping has made it clear on many occasions that China will never seek hegemony and is committed to building a community with a shared future for humankind.

"The fundamental response to [China's challenge] is domestic. We need to prove our own performance, get our own act together to regain the confidence of China and the rest of the world ... We of course need to strengthen our relationship with China directly," Bergsten emphasized.

By allowing more rational and objective communication to take place, it is hopeful that China-U.S. relations could get back on the track of sound and steady development sooner rather than later.

Beidou Navigates Global Benefits

Edited by GONG Qian

The 16th meeting of the International Committee on Global Navigation Satellite Systems was held in Abu Dhabi from October 10 to 14, where, Chinese representatives were on hand to elaborate on recent developments of the Beidou Navigation Satellite System (BDS).

Beidou is the fourth largest global navigation satellite system (GNSS) after U.S. GPS, Russia's GLONASS and the EU's Galileo. China launched the last BDS satellite on June 23, 2021, giving it 35 satellites, four more than GPS. It also marked the completion of China's deployment global navigation network.

Beidou provides global users with high-precision and reliable positioning, navigation and timing services all day (24/7) and continues to deliver on its commitment to serve the world and benefit humankind.

Unique reputation of BDS

In an article published by *U.S. Joint Force Quarterly 105* in June this year, the authors wrote that as a GNSS, Beidou offers a slight improvement over GLONASS in terms of accuracy and availability. They also believe that when considered as an entire system with additional ground antennas, signal post-processing and communications, Beidou is superior to GPS, GLONASS, and Galileo.

Beidou uses two different general types of service: Radio Navigation Satellite Service (RNSS) and Radio Determination Satellite Service (RDSS). Both of them allow the user to send communications via SMS, a feature unique to Beidou among the GNSSs. "The potential applications for such a feature are limitless," the article said.

Beidou is a two-way communication system, which is different from the other three GNSSs. This characteristic is



BDS helps 'unmanned technology' in agriculture. (PHOTO: XINHUA & VCG)

useful for fishing boats, buses, field staff and rescuers that wish to send messages and indicate their locations, said Equal Ocean International.

According to Jefferies Financial Group Inc, on average, Beidou signals are accurate down to 0.41 meters versus GPS's 0.5 meters.

Expanding cooperation

Due to Beidou's unique advantages, more countries have established cooperative relationships or mechanisms with China.

On September 27, China and Russia signed a contract to build three satellite ground stations on the other's territory. "Used simultaneously, the Russian and Chinese systems - GLONASS and Beidou - will increase the accuracy and reliability of navigation. Therefore, we are sincerely interested in wider cooperation in using the GLONASS and Beidou systems," Roscosmos CEO Yuri Borisov was quoted as saying by Russian news agency Tass.

In November, 2021, the first China-

Africa BDS Cooperation Forum was held. A joint agreement was signed to take advantage of the Beidou system to enhance Africa's social, economic, and environmental developments. Mahama Ouedraogo, the African Union Commission's director of human resources, science and technology, said that Beidou would become a significant tool in Africa's development.

Additionally, China and Arab states have strengthened their communication and cooperation in promoting and using BDS. The two sides signed the *China-Arab States Cooperation Action Plan in the Field of Satellite Navigation (2022-2023)*. It is expected that the 4th China-Arab States BDS Cooperation Forum will be held this year.

Extensive application scenarios of BDS

Beidou products, technologies and services are widely used in more than 120 nations such as Cambodia, Pakistan, Myanmar, Laos, Thailand, Indonesia, Kuwait, Russia, Algeria, and Ugan-

da, as well as other African and BRI countries, according to Aerospace Technology.

It has played a strong role in many fields such as road transportation, railway management, agriculture, land mapping and survey and urban construction.

For example, according to *Africa Surveyors*, the Burkina Faso government had planned to build a hospital in response to COVID-19 in April, 2021. It used BDS/GNSS high-precision technology to provide survey data for the hospital. The land security and topographic surveying tasks were completed in six days, half the time scheduled, said Augustin Bamouni, secretary-general of the country's national surveying association.

With its improved performance, BDS has a very promising future. Yang Jun, deputy director of China's Satellite Navigation System Management Office, revealed that the value of Beidou satellite navigation industry is estimated to be worth one trillion RMB by 2025.

Breakthrough for Artificial Visual Perception

Hi! Tech

By Staff Reporters

Two-dimensional heterostructures are promising synaptic materials for photonic synapses. By using artificial photosensitive synapses, neuromorphic electronics such as bionic eyes can emulate biological nervous systems with in-memory sensing and computing abilities.

Recently, researchers from Chinese Academy of Sciences and Nanjing Tech University have demonstrated a facile interfacial coassembly of a large-area photosensitive heterobilayer. They utilized

it as an optoelectronic converter for neuromorphic electronics.

The heterobilayer was assembled from graphene oxide and perylene at the liquid-liquid interface, with the merits of centimeter-scale, high uniformity and broadband absorption from visible to near-infrared regions.

These characters ensure the exceptional photoperception of planar heterostructure devices. Specifically, this heterosynapse as an artificial neuron can be implemented into a neuromorphic network that is capable of visual learning and recognition.

The technology can therefore be helpful for the future applications of artificial intelligence technologies including autonomous driving.