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Editor's Note

This year marks the 75th anniversary of the founding of the People's Republic of China (PRC), a milestone in the country's development.

Since 1949, the nation has achieved remarkable progress in science and technology, driving transformative changes in nearly every aspect of people's lives, including clothing, food, housing, transportation and consumption.

Alongside these domestic achievements, China has also engaged in international cooperation, sharing its wisdom and proposals on addressing global challenges, which have been increasingly recognized and valued by the global community.

In celebration of the 75th anniversary of PRC, Science and Technology Daily (English edition) publishes this special issue to highlight China's social progress powered by science and technology, its scientific and technological achievements, international collaborations and the spirit driving these advancements. We also look at some global perspectives on the nation's development.

China is enhancing sci-tech collaboration with the rest of the world, sharing its great innovation practices. The aim is that these collaborative efforts will continue to improve people's well-being, for everyone, everywhere.

Great Changes in Chinese People's Lives for Better

By YU Haoyuan

In the 75 years since the founding of the People's Republic of China (PRC), the nation has undergone a remarkable evolution across all aspects of people's daily life. These transformations have been magical, reflecting upgrades in people's lives through the long march towards modernization.

Fashionable to the fingertips

In the early 1950s, clothes were mostly monochrome. But as people embraced new lives, they were just as eager to dress with more changes. Therefore, China has constantly developed the textile industry.

In 30 years of learning from foreign countries and independent innovation, materials such as nylon and synthetic fiber started to be widely used. In the 1970s and 1980s, the domestic market matured, and Western influences introduced diverse clothing styles. Since then, China has become the world factory. After joining the World Trade Organization, China aligned with global fashion trends, and the presence of international brands increased. People wanted to express their personality through their clothes and styles became diverse, offering a wide range of options.

In the last decade, digital technology revolutionized fashion in China. The wearable tech such as bluetooth headsets and e-watches become mainstream.

Eating healthy

In the 1950s, food supply was a challenge. As China became more developed and open, and agricultural technology advanced substantially in the 1990s — most notably the development of hybrid rice by agronomist Yuan Longping — people had enough to eat and wished for variety in their diets.

In the 21st century, modern agricultural technologies such as hydroponics and precision farming significantly improved crop yields and quality. Improved food safety testing technologies ensured that products were effectively monitored from farm to table. Today people start to seek a healthier, wellness-focused diet. Whole grains, fruits, and vegetables have replaced meats as popular healthy choices.

Living in greater comfort

When the PRC was founded, a house usually

meant a basic shelter. Most residences had no electricity or tap water and many homes did not have toilets. In the 1970s, the housing allocation policy led to a preponderance of tube-shaped apartment buildings.

Reform and opening-up started in 1978 and was like timely rain to crops. Several encouraging policies were implemented, prompting people to "move into cities and build them up." Since then, the urban population began to grow significantly.

With the widespread use of new building materials such as bricks, cement, and tiles, better-quality residential buildings began to be constructed in the 1980s. After 2000, the acceleration of digitization enabled seamless operation of lighting, television sets and other home appliances. With just a tap on their smartphone, people could effortlessly control all these devices.

Transport on fast track

In the early days of the republic, the infrastructure was underdeveloped. In cities, residents mainly used bicycles and public transportation. For long-distance travel, there were the iconic green trains first built in the 1950s.

From 1950 to 1980, China's transportation landscape underwent a profound transformation. New roads replaced old dirt paths. Hard-to-build railways like the Chengdu-Chongqing line were successfully implemented.

Since 1980, China's transportation sector has entered a rapid growth phase. With emulsified asphalt and prestressed concrete bridges, roads have significantly improved. In 1988, China's first highway was opened to traffic.

As the new millennium arrived, the highway and railway network expanded swiftly, connecting major cities and regions. Private cars started to become popular and travel by air became more convenient and cheaper. By the end of 2023, China's operational railway network reached 159,000 kilometers. The high-speed railway in China has now entered the era of "400 kilometers per hour". Highways surpassed five million kilometers and navigable waterways exceeded one million kilometers. There are 259 civil aviation transport airports, and annual inter-regional passenger trips exceeded 61 billion.



PHOTO: XINHUA



National Day Celebrations

An 18-meter-high flower basket at Tian'anmen Square in Beijing is part of the nationwide decorations for October 1, National Day. The inscription says "May the motherland be blessed" and the abundance of flowers, fruits and vegetables symbolizes China's prosperity at 75. (PHOTO: VCG)

Advancing Global Cooperation with Win-Win Outcomes

By Staff Reporters

Since the 18th National Congress of the Communist Party of China in 2012, China has enhanced its global cooperation. It has developed a high-level model of opening up, notably through the Belt and Road Initiative (BRI) and signed BRI cooperation agreements with more than 150 countries. It has established multiple platforms such as the China-ASEAN Cooperation Mechanism and the Forum on China-Africa Cooperation (FOCAC).

BRI: science collaboration

Fostering sci-tech collaboration with its BRI partners, China has signed intergovernmental science and technology agreements with 81 countries, established intellectual property cooperation relations with over 50 countries, and supported more than 1,000 joint research projects. These collaborations have enhanced global innovation and technology transfer.

Over the past 11 years, China has focused on talent development for its partner countries, training over 16,000 professionals in fields such as agriculture and health. Additionally, 67 institutions from 48 countries have joined the Alliance of National and International Organizations for Belt and Road Regions, facilitating cooperation on crucial global challenges such as food security and climate change.

International sci-tech cooperation platforms have also been established, supporting areas like small hydropower in Pakistan, Internet of Things-based smart agriculture in Chile, and rice cultivation in Africa. Over 50 BRI joint laboratories are playing a vital role in promoting scientific cooperation between research institutions worldwide.

China has also established nine transnational technology transfer centers across regions including ASEAN, Africa, and Latin America. More than 300 technology exchange activities have been held, implementing over 1,000 cooperative projects.

The Belt and Road Forum for International Cooperation, the highest-level event under the BRI framework, has held three successful sessions. The third one, held in Beijing in October 2023, announced over 458 outcomes, sending a strong message of China's continued commitment to global cooperation and openness.

BRICS: model partnership

The BRICS cooperation mechanism, representing emerging economies, has become a successful model for collaboration. In January 2024, Saudi Arabia, Egypt, the UAE, Iran, and Ethiopia joined BRICS, marking a significant expansion of the group.

China is committed to deepening its scientific and technological ties within BRICS. During the 15th BRICS Summit in August 2023, China announced the establishment of the China-BRICS Science and Innovation Incubation Park. In December 2023, this park was inaugurated in Xiamen to facilitate the transformation of scientific achievements and enhance industrial cooperation among BRICS nations.

Since the signing of the *BRICS Memorandum of Understanding on BRICS Cooperation in Science, Technology, and Innovation 2015*, 19 priority areas have been identified for collaboration. Thirteen working groups have been established in fields such as astronomy, marine science and geospatial technology. The BRICS Technology Transfer Center, officially launched in 2017 in Kunming, China, has been another cornerstone of cooperation. It has hosted six consecutive collaborative meetings and created an online platform for technology exchange.

The BRICS Summit 2024 will be held in Kazan, Russia, from October 22 to 24, marking the first summit since BRICS expanded. The member states have demonstrated that despite differences in their interests and cultures, they can unite in their shared pursuit of global resilience and recovery.

Sino-African: shining cooperation

Under the frameworks of the BRI as well as FOCAC, China and Africa have deepened agricultural science and technology cooperation. By the end of last year, China had established 24 agricultural technology demonstration centers across Africa, helping increase local crop yields by 30 percent to 60 percent on average.

In Brazzaville, the capital of the Republic of Congo (ROC), the thriving China-aided agricultural science and technology backyard has been pivotal in boosting cassava production through improved varieties and farming techniques. With the assistance of Chinese experts, the ROC's cassava yields have doubled from 15 tons per hectare to 30 tons.

Chinese experts focus not only on increasing crop yields but also on transferring technical knowledge. For instance, a Kenyan entrepreneur, Lucy Mimano, attended a training program in China and established what has become Kenya's largest banana tissue culture facility.

China-ASEAN: mutual growth

The 21st China-ASEAN Expo, which winds up in Nanning on September 28, highlights high-tech innovations while also focusing on strategic emerging industries.

This aligns with current technological and industrial development trends and the key areas being negotiated in the third version of the China-ASEAN Free Trade Agreement.

The expo is showcasing cutting-edge advancements in AI, biotechnology, green low-carbon technologies, digital solutions, and more. They provide a vibrant display of the latest technological achievements and underscore the expo's role in promoting tech innovations. A notable addition this year is the ASEAN High-Tech Products Pavilion, showcasing innovations in the green economy, digital technologies, automotive sector, marine economy, and healthcare.

The expo is also promoting sustainable practices. In 2023, all exhibition halls used 100 percent green energy, reducing carbon emissions by over 1,200 tons. This year, in line with the dual goal of carbon neutrality and the enforcement of the Regional Comprehensive Economic Partnership, it is focusing on integrating green low-carbon technologies with intelligent innovations.

As a crucial platform for the development of the China-ASEAN Free Trade Area and regional economic integration, the China-ASEAN Expo continues to drive collaboration across multiple sectors.