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New Quality Productive Forces

Embracing High-end, Intelligent Manufacturing

By Staff Reporters

This year's Government Work Report proposed to vigorously promote the construction of a modern industrial system and accelerate the development of new quality productive forces. Promoting high-end, intelligent and green transformation of traditional industries is one of the important measures. In recent years, significant strides have been made in the digital and intelligent transformation of manufacturing nationwide.

Innovation revitalizes traditional industries

High-end transformation is directly reflected in advanced manufacturing which requires to tackle key technologies, enhance core capabilities, and create logo products, high-end products and fine products, according to Yang Peng, a researcher at the Guangxi Academy of Social Sciences.

For example, the textile and garment industry, typically resource and labor-intensive, must prioritize brand and design upgrading to elevate its value chain and promote brand differentiation.

Guangzhou Zengcheng Guangying Garment Co., Ltd., with over 30 years in foreign trade, has responded to market demands by investing in E.C.PARK in Guangzhou, southern China. It is a new international fashion park in the Greater Bay Area, aiming to create a 24-hour online celebrity live streaming ecosystem.

It focuses on the lifestyle of Generation Z with its digitally-driven fashion and internet celebrity ecosystem, integrating eating, drinking, playing, shopping and entertainment to create an urban celebrity gathering place. Its patrons are those looking for living, fashion, learning and travel experiences.

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Reapers harvest wheat in a field in Macun town of Jiaxiang county, Jining city, east China's Shandong province. (PHOTO: XINHUA)

Editor's Pick

Innovation for Sustainable Development of 'Blue Granary'

By QI Liming

The ocean is a strategic resource for high-quality development. It produces 135 billion tons of organic matter every year, which can provide three billion tons of aquatic products, enough to feed 30 billion people.

The ocean is so vast that the fishing industry must leverage scientific and technological innovation to extend into its deepest and farthest extremities in order to continuously seek new opportunities.

A vital role in coastal people's livelihood

Being an essential part of the global fishery industry, China's fishery industry has always been a traditional pillar industry in coastal areas, playing a vital role in the prosperity of the economy and the stability of people's livelihood.

As the first country in the world to achieve an aquaculture output that ex-

ceeds that of its fishing industry, China's suitable fishing waters are vast, and its aquaculture industry is developing rapidly.

At the 2024 China (Fuzhou) International Seafood & Fishery Expo, Chen Qingtang, chairman of Fujian Tianma Science and Technology Group Co., Ltd, said China currently accounts for 70 to 80 percent of the world's annual supply of live eels.

"China began freshwater eel farming in the 1970s, and after more than half century's breeding, China has grown into the world eel industry center. Whether it is in farming technology, farming varieties, or farming scale, China's fishing industry has been upgraded to green and ecological sustainability," said Chen.

Aquaculture personnel said that compared with the past farming mode, the meat taste, growth rate and survival rate of large yellow croaker farmed in dis-

tant seas have been effectively improved, so these aquaculture platforms add new momentum to the marine pastures. Through an underwater monitoring system, staff can monitor the water's pH value and other data at any time to observe the growth of fish.

Utilizing multiple marine resources

The move out to distant seas does not end with fish farming. Through the use of science and technology, China has not only made significant progress in its fisheries, but also made innovative breakthroughs in other industries in the marine field.

"So far, our country has cultivated 21 national aquatic varieties in algae, including kelp, laver, asparagus and wakame, covering all the current major types of algae cultivation we have," said Liu Tao, vice president of the China Algae Industry Association.

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Fourth Batch of Taikonauts Selected

By Staff Reporters

On June 11, the China Manned Space Agency (CMSA) announced the selection of 10 candidates for its fourth batch of astronauts. The group comprises eight space pilots and for the first time, two payload specialists from the Hong Kong and Macao special administrative regions. The move received strong local support and enthusiastic participation.

The candidates will undergo comprehensive training at the China Astronaut Research and Training Center in Beijing. Huang Weifen, chief designer of the manned space program's astronaut system, said the training program includes fundamental courses in geology, field studies, and geological surveys

to prepare the astronauts for both space station missions and future lunar missions. Preparations for manned lunar landing missions by 2030 are underway, with training simulators being developed.

The selection process began in late 2022. The applicants faced a series of stringent evaluations, including clinical medical exams, physiological and psychological tests, and endurance trials to ensure they would be able to withstand the challenges of space.

In late May, the CMSA announced plans for a manned lunar landing by 2030. Huang said every aspect of assembling an astronaut team—from hiring to training—has been planned to support both current space station operations and upcoming

lunar expeditions.

China's previous astronaut selections included 14 air force pilots in 1998, seven in 2010, and 18 in 2020, who included pilots, flight engineers, and payload specialists.

The CMSA is also expanding international cooperation. Foreign astronauts will be invited to participate in China's selection and training processes and missions aboard China's space station.

The selection and training system reflects the country's broader ambitions in space exploration, including the planned International Lunar Research Station. This showcases China's commitment to advancing space technology and promoting international collaboration for peaceful use of outer space.

China's Low-orbit Broadband Satellite Internet in Thailand

International Cooperation

By Staff Reporters

The first overseas application and exploration of China's low-orbit broadband satellite internet was recently established by GalaxySpace, a private satellite maker in Beijing, at a ground testing station at the Mahanakorn University of Technology (MUT) in Thailand.

GalaxySpace built a ground testing station based on the low-orbit broadband internet test constellation Mini Spider at MUT, including important components such as a mobile signal station and satellite communication terminal. This realized the test verification of a low-orbit broadband satellite internet communication network, and has gone on to continuously observe the communication capability of millimeter-wave band satellite signals under local meteorological conditions.

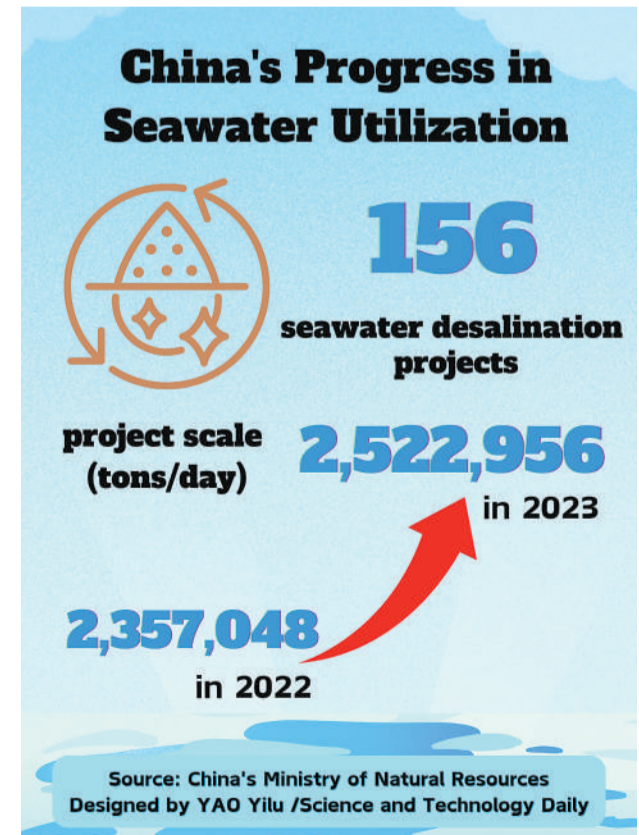
GalaxySpace, a satellite internet solution provider and satellite manufacturer in China, constructed China's first low-orbit broadband communication test constellation Mini Spider, which has completed a number of China's first satellite internet application verifications.

Satellite internet, represented by large low-Earth orbit (LEO) satellite constellations for broadband data communication, has become significant in recent years due to its full coverage, high bandwidth, low signal delay and relatively low cost. Its coverage means that satellite communications are no longer affected by geography, enabling global network reach, according to Zhang Shijie, chief scientist at GalaxySpace.

"The LEO satellites are typically positioned at heights not exceeding 2,000 km, while the GalaxySpace satellites constellation orbits are at approximately 500 km altitude. Based on preliminary testing of the Mini Spider, we achieved maximum download speeds of around 250 Mbps, upload speeds of about 210 Mbps, and minimum latency of approximately 32 ms," Panay Pookaiyaudom, president of MUT, told *The Nation*, an English news website in Thailand.

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New Graphic



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