

Business opportunities taking flight in Taiyuan

General Aviation Expo brings together industry experts from across the world to Shanxi's capital city



By YUAN SHENGGAO

Insiders of the general aviation industry gathered at an expo in Shanxi in late September to identify business opportunities in the North China province.

The 2023 Taiyuan International General Aviation Expo was held from Sept 27-30 in the Shanxi provincial capital city of Taiyuan.

General aviation refers to all the aviation activities other than scheduled flights operated by commercial airlines or activities conducted by the military. Its operations include chartered flights, package delivery, emergency rescue, aerial survey and aerial sports, as well as operations relating to forestry and agriculture.

A highlight of the expo was a forum held on the first day, which functioned as a networking platform for information sharing and business matchmaking.

At the forum, Shanxi's general aviation operators, local governments, research institutions and universities signed 12 strategic partnership agreements.

But for the general public, the



From left: As part of the 2023 Taiyuan International General Aviation Expo, an aerial display takes place at Yaocheng Airport from Sept 28-30. Members of the public inspect a helicopter on display at the expo. PHOTOS BY RUAN YANG / FOR CHINA DAILY



most eye-catching event was an air show held from Sept 28-30.

Five international teams from countries including Sweden, Australia and South Africa performed aerobatic stunts at Taiyuan's Yaocheng Airport.

In addition to the air show, visitors were treated to a number of interactive events relating to the popularization of science and technologies, and knowledge about aircraft and flights.

The interactive events were held at the Shanxi Aviation Industry Comprehensive Exhibition Hall. Covering a floor space of

about 6,000 square meters, the hall is Shanxi's first facility to offer integrated and interactive experiences relating to aviation.

At this hall, visitors were offered opportunities to operate simulators of the C919 — the China-made large aircraft — and the J-20 fighter, as well as other experiences like parachuting and aerial fighting with the assistance of such technologies as artificial intelligence, augmented reality and naked-eye 3D.

But for professional visitors, the key attraction at the expo were the various exhibits of products, tech-

nologies and solutions.

Shanxi province used the event to showcase its fast-growing general aviation industry. There was a dedicated show for 11 cities in the province to display their developments and economies relating to the aviation industry.

In recent years, Shanxi has made rapid and steady progress in the general aviation industry. It has developed a complete industry chain ranging from research and development, manufacturing, sales and operations to exhibition and vocational training. And the general aviation industry in Shanxi has

diversified application scenarios that include logistics, tourism, agriculture, forestry, aerial survey and emergency rescue.

Shanxi is one of the national pioneers to use general aviation for short-distance passenger transportation as an effective supplement to the scheduled medium-to-long-range flight services.

Since 2019, Shanxi's general aviation operators have opened 12 air routes for intraprovincial passenger transportation and five short-distance routes to link cities in neighboring provinces.

There are also sightseeing tourist

flights for such famed destinations as the Taihang Mountains and the ancient city of Pingyao.

Shanxi has developed a general aviation manufacturing industry with local features. The province has formed four general aviation industry clusters in the cities of Taiyuan, Datong, Jinzhong and Changzhi. Research efforts into hybrid drones and general aviation avionics systems have continued to increase.

In the field of raw material R&D and manufacturing, Taiyuan Iron & Steel Group has become a major carbon fiber supplier to the nation's aerospace industry. Enterprises such as SPIC Shanxi Aluminum are developing pitch-based carbon fibers, aluminum-magnesium alloy materials and titanium alloy materials to be applied to aviation airborne products.

An official responsible for the general aviation industry in Shanxi said the province will continue to boost the sector's development by strengthening infrastructure construction, offering easier market access and attracting and training more professionals for the industry.

"Our aim is to develop into a demonstration province for China's general aviation industry, through mobilizing all the possible resources and innovating in policies," the official said.

Li Xuelin contributed to this story.

Higher education rising up the country's ranks

By YUAN SHENGGAO

Since Shanxi began to align the development of its top higher-learning institutions to the nation's Double First Class initiative in the mid-2010s, the province has witnessed the steadily improving competitiveness of its universities and colleges, especially in the fields of teaching and research.

The Double First Class initiative is a major program launched in 2016 by the Chinese government to improve China's higher education strength and international competitiveness, through developing first-class universities and first-class disciplines.

In February 2022, the Ministry of Education announced the second round of first-class universities and first-class disciplines. Shanxi has two universities, namely Shanxi University and Taiyuan University of Technology, on the first-class universities list. This number ranked Shanxi 16th among all provinces, municipalities and autonomous regions in China.

Taiyuan University of Technology had its major of chemical engineering and technology included in the list of first-class disciplines and Shanxi University's philosophy and physics majors were on the same list.

While Shanxi University and Taiyuan University of Technology are

consolidating their positions on the Double First Class lists, more schools in Shanxi are expected to join the ranks in the future as they are proactively strengthening disciplinary development and improving overall teaching and research capabilities.

North University of China and Shanxi Medical University, both based in the provincial capital of Taiyuan, are the most likely to be added to the list in the future. The two schools have seen their growing strengths in both teaching and research over the recent years.

In North University of China, for instance, the teaching team at the defense technology department, headed by Yin Jianping, won a second prize of the 2022 national teaching awards for higher-learning institutions.

In Shanxi Medical University, the two disciplines of special medicine and forensic science are the mostly likely to be added to the Double First Class list, according to an official at the school, who added that public health and clinical medicine are also developing into the university's advantageous sectors as a dedicated college and research center have been established.

In the field of research, a number of renowned universities in Shanxi have announced new achievements with great significance and huge potential for industrial applications.



A representative from North University of China (left) distributes brochures with technology transfer information to visitors. RUAN YANG / FOR CHINA DAILY

In 2021, Taiyuan University of Technology cooperated with related provincial and national industrial institutions to establish a national laboratory on the clean and efficient use of coal and coal-based fuels. This was the first national lab operated by the university and has played a crucial role in supporting Shanxi's energy revolution campaign, according to an official at the university.

In Shanxi University, breakthroughs have also been made in the efficient use of coal. The project for the clean and efficient utilization technology of gangue and coal slime, led by professor Cheng Fangqin, won the second prize at the National Awards for Progress in Science and Technology in 2022. An applied physics project — quantum control based on ultracold Fermi gas — led by professor Zhang Jing, won the second prize of the National

Awards for Natural Sciences in the same year.

Leveraging their strengths in research and development, Shanxi's universities and colleges have enhanced collaborations with local enterprises to support economic development in various regions in Shanxi.

For instance, the schools have newly established 42 disciplines dedicated to the service industry. They have also founded 66 joint innovation centers and 37 research academies in collaboration with enterprises.

These programs and entities have not only supplied crucial technologies but also trained qualified professionals for Shanxi's economic development, according to an official at the Shanxi Department of Education.

Li Linxia contributed to this story.

Agricultural revolution lifts yields and profits

By YUAN SHENGGAO

Autumn is the busiest season for farmers in Shanxi as they harvest various crops after more than half a year of labor.

It is also the happiest season, as they have seen their incomes from farming increase year-on-year. Many of them said that the increases in output and revenue are a result of farming modernization, the intensive use of technologies and innovations in operational models.

On Oct 5, Li Gaizhuan, a farmer in Zhuangwo village in the county of Wuzhai, was busy harvesting potatoes on his farm. The farm is part of the Wuzhai potato modernization base, which uses new breeding technologies to cultivate high-output and high-quality varieties.

"We estimate the per-hectare yield of potatoes can reach 90 metric tons on my farm, as well as those in my neighborhood," Li said. "That will be a 200 percent increase compared with the output from farms using conventional farming methods."

Xue Cunbo, deputy chief of the Shanxi Seeding Industry Development Center, referred to the farming modernization move as a "potato revolution".

"It is called a revolution because this move represents a total turnaround to potato farming, from seedling to deep processing," Xue said.

In Wuzhai, the potato modernization base covers more than 6,600 hectares of land in 43 villages.

"Potatoes there are mainly sold to deep-processing enterprises for making a variety of products based on potato starch, like medicines, health food and skin care products," Xue said. "Potatoes used for processing have higher prices than the conventional varieties. This means further increases in farmers' revenues."

Like the potato sector, agricultural industrialization has become a trend in Shanxi's farming industries.

Local officials said Shanxi's recent moves in promoting agricultural industrialization include develop-

ing high-standard modernized farming industry parks, industrial clusters and characteristic towns with specialty products. They aim to build an industry chain ranging from research to farming and processing.

Shanxi is now home to four national-level agricultural industrial clusters, nine national-level modern farming industry parks and 34 national-level characteristic towns for farming. It also boasts 2,850 enterprises engaged in the farming industry chain.

It is estimated that the annual output value of the farming products processing industry can reach 430 billion yuan (\$58.95 billion) in 2025, becoming one of the economic pillars in Shanxi.

Another effort in boosting Shanxi's agricultural development is promoting new operational models. These include forging partnerships between farmers and farming companies, setting up farming cooperatives and using e-commerce tools, trade shows and branding strategies for the sales of farm produce and processed products.

In the county of Xixian, a harvest festival is held from mid-September to mid-October.

Duan Jianjun, chief of a farming cooperative in the county, said he is happy to welcome groups of visitors to its pear farms.

"They are here to pick pears and bring them home," Duan said. "We have held several sessions of the festival in Xixian and this year we have the largest number of visitors here."

He explained that this is because of the increasing recognition of local pears after they were included in a provincial campaign for farm-produced brands. Xixian's top-quality pears are now collectively known as "Jade Dew Fragrant Pear".

In Shanxi, the provincial marketing campaigns for local produce include the accreditation of 1,938 organic products, 176 products with geographical indications and 119 high-quality specialty products, according to local officials.

Wang Xiujuan contributed to this story.

Competition left shaken, not stirred over Fenjiu

By YUAN SHENGGAO

Fenjiu liquor, a product from renowned Shanxi distillery company Xinghuacun Fenjiu Group, once again garnered attention from the international alcoholic beverage industry, as a cocktail based on it won the first place in a mixologist championship held in Moscow, Russia.

The cocktail was mixed by Andrei Krovliev, a mixologist from Murmansk, at the final contest held on Sept 11. As the winner of this event, he will attend an international championship in Rome, Italy, in November.

Local media reports said that more than 5,000 candidates attended the Moscow event, with 100-plus contestants entering the finals.

The championship in Moscow was initiated in 1998. It has since developed into an iconic event for the cocktail industry in Russia and also a global gala as more mixologists and industry insiders

from around the world have taken part.

Xinghuacun Fenjiu Group from the Shanxi city of Fenyang eyed this event as a good opportunity to enhance its presence in the Russian and neighboring markets.

The company set up a special booth at the event, allowing visitors to taste the Fenjiu-based cocktails mixed by multiple mixologists, in addition to the one winning the championship.

Another cocktail called Yuzu Highball, which was made by Maxim Kuchumov, a mixologist from the Russian city of Tomsk, won the best mixology award among Fenjiu-based cocktails.

Xinghuacun Fenjiu has attended the event for three sessions. Over the three years, the brand has won increasing recognition from Russian customers, said an executive of the company.

More importantly, he noted that it is a great chance for customers from across the world to under-



Mixologist Andrei Krovliev wins first place at the event with his Fenjiu-based cocktail. WEN ZHAOYAN / FOR CHINA DAILY

stand the culture and history relating to China's unique white liquor.

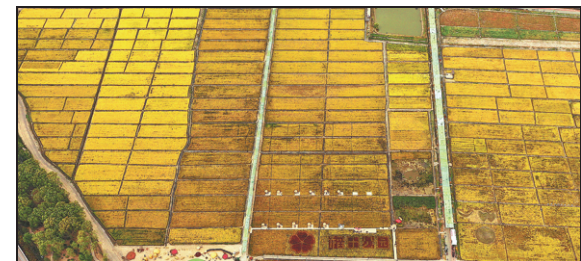
According to the executive, the township of Xinghuacun, where the company is based, has a history of more than 6,000 years of alcoholic beverage production and it has been recognized by experts as one of the sources for the industry in China.

He said that Xinghuacun Fenjiu is one of the pioneers in China's white liquor industry to go global

on a massive scale. It began volume exports after it won a first prize at the Panama Pacific International Expo, which was held in San Francisco in the United States in 1915.

To date, the company's white liquor products have been sold to foreign markets through its 50-plus dealers. They are available in more than 9,000 overseas outlets, including 180-plus duty-free shops.

Li Shu contributed to this story.



A rice farm in the suburbs of Taiyuan is ready for harvest. WANG RUIRUI / FOR CHINA DAILY