



A technician tests out the components in the world's first front-engine, front-wheel drive 8-gear automatic transmission, which is produced by Shengrui Transmission Co in the Weifang Hi-tech Industrial Development Zone. PHOTOS PROVIDED TO CHINA DAILY

# CUTTING-EDGE TECH KEY TO INDUSTRY GROWTH

City's industrial area helping companies to get the support they need to innovate

By YUAN SHENGGAO

For companies in the Weifang Hi-Tech Industrial Development Zone, innovation is the key to supporting long-term growth.

Shandong Joyance Intelligence Technology Co, a small to medium-sized enterprise, specializes in agricultural drone development and reported an average annual growth of 50 percent over the past two years. The company said innovation is the key to its rapid growth.

Joyance has partnered with Beihang University in Beijing and Zhejiang University in East China's Zhejiang province to design products for overseas clients. By joining forces with those leading research institutes, new products are guaranteed to be introduced every year, according to the company.

Joyance's products are exported to more than 40 countries and regions. It has become one of the top three agricultural drone developers in China, the company said.

Apart from Joyance, Weifang Litro Electrical Technology Company, an engine systems developer and manufacturer in the zone, is also working on innovation. According to Litro, one of its injection valves takes only two milliseconds to react, while other products need six milliseconds.

As high-tech companies enhance their power in the industry by promoting technological innovation,



A technician works with the numerical control machine in Weifang Litro Electrical Technology Company, an engine systems developer and manufacturer in the zone.

traditional companies in the zone are following the trend.

Shandong Tianrui Heavy Industry, a machinery maker, has paid close attention to maglev equipment and system development in recent years. It established a technology innovation center in Weifang in October. The company said the center marked a new starting point, which is in the industrial upgrade and transformation process.

Shandong Yinlun Heat Exchange System, a company specializing in refrigeration and emission technology development, also pays attention to environmental protection product development. Yinlun said it has partnered with Shandong University

to develop emission treatment technology.

Statistics from the zone show that Shandong Tianrui Heavy Industry reported their overall year-on-year industrial output value increased 44.9 percent; Shandong Yinlun Heat Exchange System reported an increase of 23.7 percent; and Shandong Novoshine Optoelectronics reported an increase of 57.4 percent in the first nine months of 2018.

While companies have put effort into promoting innovation, the regional government has striven to enhance service quality. In recent years, the zone government has tried to improve the business innovation environment. It carried out a busi-

ness cultivation plan named "Invisible Champion" that increased the number of high-growth companies to 33 in 2018, up from 15 in 2017.

Shandong Huali Machinery Technology is a freeze-proofing system developer in the zone. Its freeze-proof bolts can work at the temperature of -50 C.

Sun Zhanbiao, general manager of Huali, claimed that a reduced consumption of water during winter was caused by burst pipes. However, a need for major investment and a lack of financial support made the progress difficult for the company.

Huali then moved into Weifang Optoelectronics Industrial Park in the zone. The park provided strong professional, technological and financial support to Huali, said Sun.

The company has now demonstrated its products in more than 30 places around China. As a result, its annual sales growth rate has increased 15 percent year-on-year.

Wang Lian contributed to this story.



# Online method offers an easier way to pay taxes

By YUAN SHENGGAO

A package of measures to streamline taxpayers' administration procedure through online payments has been launched in the Weifang Hi-tech Industrial Development Zone.

The rollout, initiated by local taxation administrations, involved the merging of services provided by the national tax and local tax management departments.

Taxpayers can now pay up in one place. The merger is also aimed at improving the efficiency of the tax

departments and optimizing the local business environment.

"In the past, when I finished the online application procedure, I had to queue up at the office hall and wait for my number to be called. In order to save time spent in waiting, I had to come to the office early in the morning," said Li Liuying, a local businesswoman.

But today, under the guidance of staff in the office hall, Li filled in the basic information form. After her submission, the value-added tax and additional tax was quickly calculated.

She then used her mobile phone to scan the payment code and completed the payment via WeChat.

After the reform, the number of taxpayers arriving at the taxation service office has decreased significantly, according to officials.

Moreover, the zone's tax bureau has launched services such as WeChat tax payment, online asset declaration, invoice collection and error correction in declaration.

As a result, some businesses have been streamlined by going online. The online volume of invoice collec-

tion, invoice verification and invoice generation have increased substantially, according to Mu Xiujian, deputy director of the tax service department of the zone's taxation bureau.

By June 2019, all kinds of services related to startup enterprises, including enterprise registration, official seal engraving, tax-related applications, employment and insurance registration, as well as certificate approval will be available online.

Cui Chengwang contributed to the story.

# Zone pushes ahead to offer better education as student roll increases

By YUAN SHENGGAO

Weifang Hi-tech Industrial Development Zone has pledged to work harder to develop local education through reform of the teacher management system and recruitment of the best staff.

Liu Xiaotong, one of 12 young teachers hired by Daguan School in the zone last year, began working right after her graduation. She is now recognized as a representative of young teachers in the school.

"I was determined to become a teacher when I was a child. When I graduated from college, I heard that schools in the Weifang high-tech zone were recruiting new teachers. And I wanted to test myself at the admission exam," Liu said.

She passed the exam and was assigned to Daguan School. According to Liu, the school's facilities and the environment have exceeded her expectations, especially for some research activities, which have helped her to advance quickly.

With local urbanization, the number and structure of students has changed so the expectation of a higher quality education has become an issue that needs a quick answer.

In 2018, 197 teachers from top-tier Chinese universities involved in the Project 985 (a Chinese project for founding world-class universities in the 21st century) were introduced to the zone's schools.

The zone also established a special education fund to give

incentives and subsidies to teachers and educational managers who have made outstanding contributions.

"Young teachers come to the zone, bringing not only vitality, but also pioneering teaching methods," said Wang Mei, dean of Daguan School.

During the school reform, young teachers have brought a lot of new ideas, which has improved the quality of teaching greatly.

The zone will continue to promote the introduction of high-quality teachers in accordance with the highest standard in the country, said Li Yuguo, head of the personnel department at the zone's education bureau, so as to secure the human resources needed in the Weifang Hi-tech Industrial Development Zone.

# Weichai scoops top prize for breakthrough in powertrain development

By YUAN SHENGGAO

Weichai Power, the engine, transmission and axle developer and heavy vehicles, automobile electronics and parts maker in Weifang Hi-tech Industrial Development Zone, was awarded first prize at the 2018 National Science and Technology Progress Awards for its breakthroughs in commercial vehicle powertrain development and applications.

The award, unveiled on Jan 8, is one of China's top prizes devised by the State Council in recognition of scientific contributions made by either groups or individuals.

Weichai was the only machinery business that scooped up such an award in China last year.

Tan Xuguang, chairman of Weichai Power, said the accolade recognized his group's continuous efforts in promoting innovation.

"Weichai Power used its industrial strength and shouldered its responsibilities to support the wider brand development of China's heavy-duty commercial vehicles," Tan said.

According to the company, over the past decade Weichai has focused in particular on developing powertrains for commercial vehicles and their applications.

Its newly developed powertrain comprises Weichai's engine, Shaanxi Fast Gear's transmission and Shaanxi Hande Axle's products. Experts said Weichai's powertrain has made breakthroughs in power output, emissions control, system reliability and professional development and production.

Weichai set out on the path to the development of independent technology many years ago, after launching a project supported by Austria's Steyr Motors.

In 2005, Weichai made its first acquisition by purchasing Zhuzhou Torch Spark Plug Co in Hunan province. The deal allowed Weichai to obtain a controlling stake in Shaanxi Fast Gear, Shaanxi Heavy-duty Motor Company and Hande Axle.

It then successfully developed an industrial chain that combined the development of engines, transmissions and axles under one roof. Weichai also built one of the first powertrain development centers in the world, according to the company.

Weichai revealed that it invested more than 15 billion yuan (\$2.21 billion) over the past 10



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Tan Xuguang, chairman of Weichai Power

years to support engine development. Research programs were established in Weifang and Jinan in Shandong province, Xi'an in Shaanxi province, Shanghai, Chicago in the United States, Aachen in Germany and Tokyo in Japan.

It also partnered up with leading research institutes and companies including Tsinghua University, Stanford University and German group Bosch to beef up its development.

Weichai's efforts generated returns and it successfully transformed from being an engine developer into a powertrain developer.

During the development period of its new technology, Weichai also established and cultivated a professional research and development team and established four innovation platforms including a national internal combustion engine reliability laboratory and a commercial vehicle powertrain engineering technology research center.

Weichai's powertrain sales revenue totaled 91.2 billion yuan over the past three years. Its products are widely used by major truck producers and coach makers in China. According to Weichai, its achievements also allow Chinese heavy-duty commercial vehicle producers to occupy 99 percent of the market in China and successfully export to overseas markets.

On Jan 8, Weichai released its latest powertrain system, which it says represents the highest levels achieved in technology in the commercial vehicle powertrain sector.

The company also committed itself to continuously developing quality, reliable and competitive products for its clients in the future.



Weichai Power is awarded the first prize at the 2018 National Science and Technology Progress Awards for its breakthroughs in commercial vehicle powertrain development and applications on Jan 8.



A teacher guides her student in a calligraphy class in Dongfang School in the Weifang high-tech zone.