



With AI empowerment, the "Industrial Brain" for the rubber tire sector is activated in Guangrao

Recently, the first rubber tire (finished product) industry brain AI capability center in Shandong Province was officially put into operation in Guangrao County. This "industrial brain" presents core data such as industry operation trends, accurate enterprise portraits, and resource supply and demand matching in real time through intelligent large screens. With the new model of "one industry map", it has cleared the data bottlenecks in the industrial chain and filled the gap in the intelligent control of the local rubber tire industry.

As a well-known "tire capital" in China, Guangrao County has a large rubber tire industry and a concentration of enterprises. Previously, the digital level of various enterprises varied, data was isolated from each other, and the decentralized upgrading model became a key weakness that constrained the high-quality development of industrial clusters.

This time, relying on the Inspur Yunzhou industrial Internet platform and AI technology, Guangrao has broken the traditional mode of upgrading enterprises in the past and built a digital public service platform shared by the whole industry. The platform integrates online resources such as supply chain, innovation chain, and capital chain. Tire production enterprises can publish their needs for raw material procurement, equipment updates, etc. online, and upstream and downstream suppliers can synchronize their entry to achieve efficient docking.

Under the empowerment of wisdom, enterprises achieve improved quality and efficiency in production and operation. Taking the co construction unit Huasheng Rubber Group as an example, the enterprise deeply integrates AI technology into the entire process of procurement, research and development,

production, and sales, relying on the platform to accurately predict the price trend of raw materials and overseas market demand. At the same time, through intelligent production scheduling, AI quality inspection and other functions, it effectively reduces product defect rate and production energy consumption.

For government departments, the 'industrial brain' also makes government services more precise. The government can grasp the real-time operation of industries and enterprise management, warn risks in advance, rely on the industrial chain map to achieve precise investment attraction and factor allocation, and promote the concentration of resources towards high-quality enterprises.

From "manufacturing" to "intelligent manufacturing", the brain of Guangrao rubber tire industry has built a new pattern of government enterprise linkage and comprehensive empowerment, creating a replicable and promotable "Guangrao model" for the intelligent transformation of the tire industry in the province and even the whole country.

Three major tire industry chain projects have won the National Science and Technology Award

On July 8, 2026, the 2025 National Science and Technology Awards Conference was held in Beijing, and a total of 258 projects were selected for the three major awards. Three key projects in the rubber tire industry chain have made it to the award list, covering the entire process of tire skeleton materials, vibration reducing elastic substrates, and green intelligent manufacturing of tires, achieving independent breakthroughs in core technologies upstream and downstream.

The project "Key Technologies and Applications of Vibration and Noise Reduction Supramolecular Elastic

Materials" won the second prize of National Technical Invention Award in 2025. The project was recommended by Shandong and gathered teams from Beijing Institute of Technology Lunan Research Institute, Shandong Aozhuo New Materials, Beijing University of Chemical Technology and other universities and enterprises to tackle the problem. The project overcomes the difficulty of preparing supramolecular elastomers, and the new material can be widely adapted to tire cushioning and vehicle vibration reduction components, greatly improving tire driving noise reduction and fatigue resistance, and opening up the path from laboratory to industrial implementation of new materials.

Another project, "Key Technologies for High Performance Tires and Their Green Intelligent Manufacturing," won the second prize of National Science and Technology Progress Award in 2025. The project was jointly completed by Harbin Institute of Technology, Zhongce Rubber Group and other units. The team has broken through the complete process of high-performance tire formula, molding, and intelligent manufacturing, built a green and intelligent production line, and taken into account the wear resistance and fuel saving performance of tires, while reducing production energy consumption and pollutant emissions, providing a complete solution for the transformation and upgrading of domestic tire enterprises.

The high-performance polyamide 66 industrial silk project, jointly developed by Zhejiang University of Technology, Shenma Industry, Shuguang Rubber Design Institute and other schools and enterprises, has won the second prize of National Science and Technology Progress Award in 2025. This project overcomes the core process of continuous polymerization melt direct spinning, produces high-end tire curtain fabric, solves the pain point of long-term dependence on imported high-end tire skeleton materials, and builds a solid foundation for tire strength and temperature resistance.

The three achievements this time belong to two major links: upstream basic new materials and downstream tire intelligent manufacturing, forming a complete technological chain breakthrough. The mode of deep integration of industry, university and research will open up the scientific research and industrial demand of colleges and universities, and the domestic tires will be independent and controllable in the

fields of silent vibration reduction and green production, which will strongly promote China's rubber tire industry to move towards high-end and low-carbon direction.

2.1 billion yuan! A renowned tire maker plans to build its 6th new factory

Recently, multiple foreign media outlets have simultaneously disclosed that Apollo Tyres, a leading tire company in India, has launched a new local production capacity layout plan and plans to establish a super large green manufacturing plant in the southern part of Tamil Nadu. The total planned investment for the project exceeds 30 billion Indian rupees, equivalent to approximately 2.137 billion yuan, positioning the company as a new generation core production base.

S. Kiltana, the Minister of Industry and Investment of Tamil Nadu, confirmed that the Apollo Tire team has conducted multiple rounds of special negotiations with the state government. Currently, they are screening contiguous industrial land in the southern region and coordinating land approval and industrial support policies.

Public information shows that Apollo Tire's current production capacity is under significant pressure. The company's financial report data shows that the comprehensive capacity utilization rate of its two major production bases in India and Europe remains stable at a high level of 90%. The existing production lines are approaching their load limit, and orders at home and abroad continue to pile up. The addition of new production capacity has become a strategic necessity for the enterprise in the medium and long term. Previously, the company had finalized a 58.1 billion rupee expansion plan for the 2027-2029 fiscal year, mainly for upgrading the Andhra Pradesh plant area. This time, the Tamil Nadu Green Plant is an independent and significant investment sector.

In the first half of this year, Apollo Tyres announced a capital expenditure plan for the 2027 fiscal year, investing 350 billion rupees (approximately 30 billion yuan) for global capacity expansion.

At the regional level, Tamil Nadu is the core automotive manufacturing corridor of India, with the surrounding areas of Chennai gathering the whole vehicle and parts supporting industry chain. At the same time, it has a large seaport, which

facilitates the transportation of tire products to European, Southeast Asian, and Middle Eastern markets. Apollo Tire has already operated a mature 257 acre factory in Auragadam, Chennai, which, combined with existing factories in Kerala, Gujarat, and Andhra Pradesh, will improve the production capacity matrix in southern India and alleviate the pressure of export orders.

A company spokesperson stated that the company is still evaluating the feasibility of building a factory in multiple regions. The existing factory in Andhra Pradesh reserves expansion space to meet short-term growth, but from a long-term global export strategy perspective, building a factory in southern Tamil Nadu has logistics and industrial synergy advantages.

As one of the leaders in the Indian tire industry, Apollo Tire has 5 factories in India, 1 in Hungary and 1 in the Netherlands. Its Apollo and Vredestein brands cover the fields of commercial and passenger vehicle tires. According to the company's 2026 fiscal year data, the capacity utilization rate of factories in India and Europe has reached 90%, with orders in short supply and urgent need for expansion.

At present, the specific production time, designed annual production capacity, and employment scale of the project have not been disclosed. After the land selection is completed, the enterprise will publicize the complete construction plan, and the main sources of funds will be self owned operating cash flow and medium - to long-term credit combinations.

The tire manufacturer has initiated a recall, affecting multiple market

Recently, Yokohama Rubber in Japan issued a voluntary recall notice to multiple global markets, initiating batch replacement of its 126S model 385/55R22.5 commercial truck tires. The products have manufacturing process defects and are prone to sidewall cracks during long-term use, posing safety hazards such as tire blowouts and leaks.

The announcement shows that the root cause of this defect is from the production line operation process. Due to deviations in production and manufacturing instructions, some batches of tires did not have sidewall reinforcement materials laid according to design standards, resulting in material misalignment. After long-term exposure to heavy loads and road impacts, fine cracks will gradually appear in the stress areas of the tire shoulder and sidewall. As the driving mileage continues to expand, it can cause rapid air leakage and sidewall burst under extreme working conditions, greatly increasing the risk of loss of control for heavy freight vehicles.

The production cycle of the recalled tires is from January 2023 to October 2025, produced at the Ise factory in Mie Prefecture, Japan, and sold to multiple markets including the European Union and Japan. According to publicly available data from the EU safety regulatory system, there are a total of 15216 tires involved in the European region, with a total of over 15000 tires, including 3078 tires in the German market alone; There are only 16 tires involved in the domestic market in Japan, and complete statistical data for other overseas markets has not yet been disclosed.

For all products involved, Yokohama Rubber has launched free testing and unconditional replacement services. Global distributors and logistics fleets have been notified to check inventory and tires in use, and freight practitioners are reminded to verify tire models and serial numbers as soon as possible.

Commercial vehicle tires are directly related to road traffic safety, and this large-scale recall has exposed loopholes in the front-end production quality control of enterprises. At present, Yokohama Rubber has comprehensively revised its production line manufacturing instructions, adding multiple intermediate appearance and structural inspection processes to avoid the recurrence of similar material misalignment defects from the source.