



Can Formula E serve as breeding ground for Chinese racing cars?

Shen Mengdan

Unlike Formula E, which is young, the Formula One, founded in 1950, has a long history and a huge fan base. But in a competition dominated by big names of European car companies, Formula One finds no fleet of Chinese companies.

The pity was compensated a bit by the cheers from the crowd for Shanghai native Zhou Guanyu, China's first F1 racer. He drove at the F1 Chinese Grand Prix for the first time in the city last month.

Now the Formula E's return to China raises hopes for the future success of Chinese racing vehicles.

China has emerged as a formidable force in the field of electric vehicles. The penetration rate of new-energy vehicles in China grew from 0.08 percent in 2013 to 31.6 percent in 2023.

A growing global demand for electric vehicles also propelled China past Japan as the world's largest auto exporter last year.

In the first quarter of this year, 16 Chinese models were among the 20 most popular models of new-energy vehicles globally.

The landing of Formula E in Shanghai this month is thus no coincidence but a call of the times.

Wang Jiawei is a racing engineer. He is the chief technology officer of Stable Engineering and was a scrutineer at F1 Shanghai for seven years after graduating with a degree in vehicle

engineering.

He is now the chief national scrutineer for the 2024 Shanghai E-Prix.

He was also part of the telemetry team, supporting the deployment of the telemetry system at the 2014 Beijing E-Prix, the 2016 Hong Kong E-Prix and the 2019 Sanya E-Prix.

Wang feels China is a significant market for Formula E.

"If an international electric-vehicle event is not held in China, it cannot be considered international. Besides, I think the number of races in China organized by Formula E is a little low," he said.

Wang expects that his efforts will help to close the engineering gap in Chinese motorsport and underscore the need for training racing engineers.

"Many people in China have no idea what a racing engineer is. In a racing team, engineers play a key role. For example, the driver can only describe how they feel about driving in words after testing the car, which is not accurate, while the engineers can objectively analyze the car's performance based on the recorded data on the track, which involves complex calculations," he explained.

Racing engineers also design racing engines and other key components. However, there are currently no related majors nationwide and no corresponding faculty so far, which are urgently needed, Wang said.

Formula racing is not only a competitive and entertaining event, but also a test field for the continuous technological



Wang Jiawei

progress of the automobile industry. Many modern car technologies made their first appearances on the Formula One circuits.

For example, the paddle shift is designed to make the driver concentrate more on driving, allowing both hands to stay on the steering wheel while shifting gears. At the same time, compared with manual shifting, paddle shift also reduces misuse and protects the car and the engine.

"Nissan, Porsche and Maserati all use power engineering to test cutting-edge technologies on Formula E cars. Racing is a useful way to determine whether or not technologies are effective," Wang said.

He hopes more Chinese manufacturers will invest more resources in the racing industry.

Formula racing is a test field for the continuous technological progress of the auto industry. — Ti Gong

He also believes that racing may help Chinese carmakers enhance their global brand image.

NIO, a Chinese electric vehicle brand, has already gone global in motorsports. Founded in November 2014, it has already established design and R&D labs in Silicon Valley, Munich, Shanghai and London.

Since its inception, NIO has competed in the Formula E Championship, winning the inaugural drivers' championship in 2015.

Wang hopes for further investment from Chinese automakers in Formula E, as well as the development of Chinese racers.

"Zhou Guanyu's participation in 2024 introduced Formula One to many Chinese people for the first time. I believe that if Formula E wants to get traction in China, it must learn to convey the Chinese story rather than attempt to sell the European tale in China," he said.

China has begun to develop racing talent.

"A number of domestic drivers have already demonstrated exceptional talent. If we want them to be more professional, we can only rely on domestic automakers to invest more resources," Wang stated.

Since 2011, China has also organized Formula Student China competitions, similar to European countries. The competitions test the students' comprehensive qualities, including engineering research and development, business and endurance races, as well as their racing engineering and management abilities.