



By **ELIM POON**

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CHINA'S electric vehicle (EV) ecosystem is often described as a closed loop – powered, supplied and dominated by domestic champions. But one of Malaysia's leading semiconductor players has been positioning itself inside that circle.

Penang-based Mi Technovation Bhd, one of Malaysia's big four listed automated test and equipment (ATE) players, first announced a venture in China in 2023, earmarking almost RM150mil to research and develop power modules to be used in the making of EVs.

The venture entails a big leap into designing power chips and modules in Hangzhou, one of China's leading EV hubs.

A prototype was created last June, putting the company in a position "to capture growing demand for energy-efficient power solutions in automotive and industrial markets," as the company had said then.

If successful, it could become the first Malaysian firm with direct exposure to China's EV supply chain, says Peter Lim Tze Cheng, a fund manager and chief research officer at Trident Analytics Sdn Bhd.

Mi Technovation executive director and group CEO Oh Kuang Eng says he expects the China EV business to contribute meaningfully in two years. It could become the largest revenue generator in five years.

"In the next 10 years, Mi Technovation will no longer be seen purely as a semiconductor equipment company. The group has built strong capabilities in mechanical and electrical engineering.

"It is natural for us to explore applications in power semiconductor systems."

Oh, together with his wife, controls 56.53% of the company. The third-largest shareholder is Norges Bank, the central bank of Norway, with a 5.18% stake.

Mi Technovation's core businesses lie in semiconductor equipment and materials.

The company recorded RM625mil in revenue and RM94mil in net profit for the financial year ended Dec 31, 2025 (FY25).

Its shares trade at a historical price-to-earnings multiple of 26.68 times, the lowest among the big four.

This could partly be due to Mi Technovation's new ventures, which are still work in progress.

Into the **EV Mix** in China

■ **First Malaysian firm with direct exposure to China's EV supply chain**

■ **Company's core competitor is German firm, Muehlbauer Holding AG**

■ **Mi Technovation's push into power chip design could be transformative**

The China EV segment started contributing a little towards the group in FY24, registering a revenue of RM2.9mil although that figure dropped to RM0.2mil in FY25.

The revenue came from the sale of sample products and services. Oh explains that the samples are now being integrated and tested by clients, which could take up to 12 months.

The EV foray into China is focused on intelligent powertrain systems and autonomous driving platforms – essentially the electronic control systems that manage power EVs.

The group is also designing silicon carbide-based power chips and power modules – components that manage and optimise how electricity is distributed and used within a system – targeting the fast-growing renewable energy (RE), EV and artificial intelligence (AI) infrastructure markets.

"In most vehicles today, manufacturers use power modules from companies such as Infineon or ON Semiconductor, but we can use our own chips. This allows us to tailor our chip design to suit specific applications.

"We do not manufacture parts like the chassis, battery, axles or bridges. We are focusing only on the electrical and electronic architecture. Automakers will purchase our power modules and, with other parts from other suppliers, assemble the final vehicle," Oh says.

There are risks though. Beyond concerns like geopolitical tensions, tariff uncertainty, and currency fluctuations, Oh says the most critical challenge is the unprecedented pace of technological advancement.

"Any technology company that

fails to launch or introduce new technologies with more advanced features is at risk of being replaced by a new start-up," he says.

Mi Technovation is also strengthening its semiconductor equipment and materials businesses. Oh says the company is developing a new generation of laser bonding equipment targeting the high-performance computing segment.

The group also launched its third production site for its material business, which manufactures solder balls, in Senai, Johor last year. This is in addition to its facilities in Taiwan and China.

"Our Taiwan operations will support customers in Taiwan and some in Japan, Korea and the United States.

"The Malaysian operations will support customers in South-East Asia and India, while that in China will serve the Chinese market," Oh says, adding that the new site was needed as the Taiwan plant was nearing its maximum capacity.

The group's Chinese operations, however, are still in the red. Oh says this is mainly due to policy changes affecting exports.

"In China, policies can be unpredictable. For example, rare earth and silver materials are tightly controlled.

"Previously, we could export these materials from China, but now we need export licences and must disclose details such as who is the end customer and consumption, given national security concerns," he says.

Mi Technovation is also moving further into higher-end products such as copper-core solder balls and proprietary solder alloys.

Oh says the group has developed its own patented alloy formulation to support these applications.

Trident Analytics' Lim says Mi Technovation stands out as it has managed to build a globally competitive niche in semiconductor equipment.

According to Lim, the company's core equipment's main competitor is German firm, Muehlbauer Holding AG.

"If someone wants this type of machine, they either buy from the German company or they buy from Mi Technovation. For a Malaysian homegrown company to reach that stage is impressive," he says.

Lim adds that Mi Technovation is willing to invest aggressively in new technologies and markets.

The group has also chosen to develop new capabilities in different locations, he says.

"It is willing to fund new ventures and research and development overseas.

"Losses are normal in the early years. In particular, the group's development of laser bonding equipment in South Korea will be significant if it is successful. Such technology does not exist in the market," he says.

Oh says the company spent about RM27mil in 2025 on the development of its new operating segments.

"Without such spending, the group's overall results would have been stronger and our net profit would have exceeded RM100mil.

"But when a company is earning well, it should invest in new areas for long-term growth.

"Otherwise, in industries like semiconductor equipment and materials, which are cyclical, we may find ourselves in the same position even after 10 years," he says.

Lim says Mi Technovation's push into power chip design could be transformative if successful, even though the field is highly competitive.

"Even if the project does not work out, the group still has its profitable equipment and materials businesses. If it succeeds, it will be a game changer for the company," he says.