

AI star seeks to bring self-driving cars to Japan by 2030



TURING

ISSEI YAMAMOTO

ISSEI YAMAMOTO became one of Japan's best-known developers of artificial intelligence (AI) when his algorithm defeated the top-ranked player of Japanese chess. Now, he's pursuing an even more challenging task of human emulation: achieving a fully self-driving automotive system.

The 38-year-old is returning to the public eye with the backing of some of Japan's biggest businesses, including a unit of Mizuho Financial Group, Inc. and NTT Docomo Ventures, Inc., which have invested in his startup, Turing, Inc. The firm raised ¥3 billion (\$194 million) in a seed round valuing it at \$100 million, according to people familiar with the matter.

Turing stands out in a country that appears to have fallen behind in the race to produce next-generation electric and autonomous cars. Japan is home to some of the world's largest automakers including Toyota Motor Corp. and Honda Motor Co., which for years favored the internal combustion engines used in conventional gasoline cars and hydrogen-powered ones. They're now fighting to demonstrate leading-edge AI expertise in self-driving development, which is a high priority for outfits like Tesla, Inc. and Mobileye Global, Inc.

"There's no reason we can't do it," Mr. Yamamoto, chief executive officer of Turing, said in an interview in Tokyo. "I keep telling people, 'We can do it too.'"

Mr. Yamamoto sees opportunity in Japan's shortage of key autonomous driving technologies and co-founded Turing in 2021 with Chief Technology Officer (CTO) Shunsuke Aoki to fill that gap. Their team developed Heron, a machine learning AI model with as many as 70 billion parameters.

Turing plans to unveil a self-driving car with at least 30 minutes' driving range next year and develop a fully autonomous car by 2030.

Under consideration are plans to roll out as many as 10,000 vehicles by 2030. The company is also pursuing the possibility of licensing its model to automakers interested in adopting Heron. It's developing chips that will help cars run AI, for possible mass production in 2028.

To achieve full automation, Turing's engineers are adopting the more ambitious approach of training their AI to learn everything by itself, shying away from rule-based algorithms, according to Mr. Yamamoto. While rule-based systems are simpler to develop, they have limited capability when handling complex tasks and uncommon scenarios. Heron's machine learning program will pursue sophistication close to human intelligence, Mr. Yamamoto said.

He rose to national fame in 2017 after a publicly aired shogi match where his AI algorithm Ponanza won against then-Meijin Amahiko Sato. Mr. Sato told reporters at the time that Ponanza's moves were "eccentric" and went "beyond his intuition." Mr. Yamamoto said AI will only become stronger over time across industries.

"Big shot US companies, they all started from zero. Elon Musk too," Mr. Yamamoto said. "Japan needs a startup like us."

But the country's auto behemoths are no longer sitting idle. Toyota has partnered with Chinese firms to launch robotaxis while Honda plans to start a driverless taxi service in Tokyo in early 2026 with General Motors Co. Nissan Motor Co. is also piloting driverless taxi services in a city near Shanghai with local companies.

"We'll either go big or perish," CTO Aoki told YouTube channel Pivot. "It'll be one or the other." — *Bloomberg News*

Mayani eyes overseas market with PHL law boosting exports

By Kyle Aristophere T. Atienza
Reporter

SINGAPORE — Philippine agricultural supply startup Mayani expects to expand overseas with the help of a new law that seeks to boost export competitiveness, and as the company partners with a half-a-million farmers in the next two years.

The Tatak Pinoy Act, which President Ferdinand R. Marcos, Jr. enacted in February, should help local companies including Mayani comply with the export policies of foreign markets, Chief Executive Officer and Co-Founder JT Solis said in an interview.

Licensing and export permit requirements are among the key hurdles faced by aspiring exporters, he pointed out.

"What is the requisite documentation that's needed?," Mr. Solis told *BusinessWorld* on the sidelines of the Philanthropy Asia Summit in Singapore last week. "Maybe the government, particularly the Trade department and its Export Marketing Bureau could help facilitate these export license and code requirements."

He said the Tatak Pinoy law should provide a platform that would let local enterprises boost relations with Philippine trade attaches and their foreign counterparts to ease export requirements.

Trade attaches should link Philippine companies with potential buyers in foreign markets, he added. "I'm sure they have communities there of prospective buyers."



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The Tatak Pinoy Act sets up a council that will create a multi-year strategy for exports. Senator Juan Edgardo M. Angara, one of the measure's proponents, earlier said the council would consult the public and industry players from the agriculture, manufacturing, and services sectors for their inputs on how to enforce the law.

Last week, Mayani and four other startups across the world were chosen to receive S\$250,000 (P10.5 million) under the year-long Amplifier mentorship program of Temasek Trust ecosystem entities — the Centre for Impact Investing and Practices and Philanthropy Asia Alliance.

Supported by the Impact Innovation Partner Mastercard

Center for Inclusive Growth, the program got 139 submissions from 35 countries in areas including energy, sustainable food and land conservation, ocean conservation, and waste.

Mayani, which has signed up more than 139,000 farmers and partnered with over 500 stores, seeks to reshape rural agricultural value chains in the Philippines by harnessing technology to provide sustainable pathways to markets, boost yield and climate resilience through quality farm inputs and drive financial inclusion through alternative rural financing.

Mr. Solis said, Mayani, which was founded in 2019, seeks to increase its market reach to 12 from just seven regions in the next two years.

"We want to be able to reach at least half-a-million farmers within the next two years," he said. "Maybe in the next five years, a million farmers and fishers."

He said the private sector could help the government address the declining number of Filipino farmers by boosting their income and promoting financial inclusion.

"It's going to encourage a lot of the younger generation to see that, 'Hey, I think it's a sector worth innovating for,'" he said. "And hopefully that sends a positive signal."

Mr. Solis said the lack of cold chain storage facilities in the

country is a key challenge for agro-food startups.

Mayani has its own cold storage facilities. "Obviously, it's not enough. There has to be support from the government because the Philippines is a 7,000-island archipelago."

In January, Agriculture Secretary Francisco Tiu Laurel said the government needs P93 billion to build post-harvest facilities in the next three years, to keep P10.7 billion worth of rice and corn yearly from going to waste.

Mr. Solis said Mayani seeks to use renewable energy such as solar panels as it brings its cold storage facilities closer to farmers.

"A lot of smart cold storage facilities, especially in other countries, use solar panels already," he said. "In our case, we are looking in that direction especially if we bring post-harvest cold storage facilities closer to the farm. It just makes sense to install solar panels."

He said startups are key to advancing the Philippines' green transition goals.

"You would need firms that are very nimble, that can innovate fast," he said. "On the ground, I think that's what separates startups from normal companies — the ability to innovate fast, the ability to move fast, the ability to deploy solutions fast."



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Which industries will push the nation's growth forward?



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