

# Recognition Engine for Innovation

Recogine Technology Sdn Bhd describes itself as “an ICT-enabling company that is passionate about delivering world class intelligent transportation systems for the transportation and security industries”

Recogine is one of the companies that had participated in the High Impact Programme (HIP) 2 organised by PlatCOM Ventures. HIP 2 is a Technology Commercialisation Platform Programme under the SME Masterplan that brings innovations to the market for commercialisation. The company was co-founded by Dr. Tay Yong Haur and his business associates in 2005. The name 'Recogine' was joined by combining two words 'Recognition Engine'. It was established to realise the dream of creating a technology company based on pattern recognition, artificial intelligence and machine learning algorithms to power various products and solutions in solving industry problems.

As the company's Chief Technical Officer, Ng Kam Sin put it, “We see ourselves as leaders and innovators of niche intelligent transportation system solutions and products that combine the best of creativity and technology. We develop end-to-end solutions to help our clients benefit their clients.”

But it all began humbly enough, with Recogine's first job being to install CCTV, emergency phones, control cameras and fibre optics cable along a highway.

Ng explained, “Providing traffic solutions for highways was our core business for the first ten years. I believe 70% of Malaysia's highways have our ITS. Our clients include KESAS, LEKAS, SKVE, BesRaya, SILK and the MRT project.”

The company has since expanded into other market segments such as hospitals, security and public transport like LRT, MRT and monorail.



Ng said, “We believe these areas can benefit from our products and solutions. We are very much involved in the MRT project. We had also started in a small way with security systems for a residential environment. That actually came about from our highway video analytics product which we discovered could be customised for residential application. From there, we moved into other areas such as light infrastructure like hospitals and universities.”

Among some of Recogine's key products are the Intelligent Transportation Systems (ITS) for traffic management, and for the healthcare sector, the Total Hospital Information System (THIS) and Hospital Information System (HIS).

“Our ITS,” explained Ng, “are advanced applications to provide innovative services for different modes of transport and traffic management. They provide information that enable users to make safer, more coordinated, and smarter use of transportation networks.”

Another of the company's proprietary products is RecoSecure, a security management system



for industrial, commercial and residential environments. Ng said that RecoSecure is a smart policing system which optimises security patrols and improves communication for enhanced security.

The Total Hospital Information System (THIS), a project by the Ministry of Health, provides a complete ICT system and a paper-less hospital environment. It also integrates the clinical, administrative and financial systems. Patients' medical records, guidelines and clinical protocols are instantly available and can be assessed in one integrated workstation at any place and at any time in the hospital, provided that the user has authority to access the information.

Recogine's products and solutions are award winners. The company won the prestigious International Invention, Innovation and Technology Exhibition Malaysia (ITEX) award in 2013. In 2016, the company was a gold and silver medal winner at the same forum. In 2017, it was a short-listed finalist for ITEX Malaysia. Besides several other awards, its highway solutions have also received the endorsement of the Malaysian Highway Authority. Recogine has also received the ISO 9001:2008 certification from UKAS.

Though the company has gained market traction and acquired a good reputation for its products, it was not always the case, especially in its early days.

Ng explained, "Selling a new product or service is never easy. For example, when we first introduced our video analytics software here, it was tough to get market acceptance. Imported brands from Europe and USA have long been in the market and potential customers were skeptical of the quality of local products. We had to do a fair bit of promotion. We gave demonstrations and even free trials to potential clients. We participated in many exhibitions. Now, after having been in business for over ten years, our products speak for themselves."

Be that as it may, Recogine is not about to rest on past achievements.

"We are committed to be a leading technology creator for ITS and surveillance industries and to continuously provide innovative products. That's why we have our own R&D arm, RecoVision. We have a team of ten involved in R&D where we are focused on hardware technology development. R&D is critical for sustainability. It's hard work and costly but that's the only way to go considering the challenges arising from new technologies."

*What challenges and opportunities do Recogine foresee?*

"The market and the technology are changing at a rapid pace. We simply have to keep pace with market developments or lose out. We are in a very competitive market. It's not just about having better products but also about getting the products out in the market faster than that of our competitors."

"Take, for example, video analytics. There are lots of ways to work it. We have to look at mobile applications, iCloud, Big Data and IoT so our products would be aligned with emerging trends. That's where R&D comes in. To meet the challenges and opportunities ahead, we are collaborating with several organisations such as universities (currently, UTAR and UNITEN) and telecommunication companies like JetTV, internet companies like NarrowBand and even NVIDIA. We are looking into artificial intelligence (AI) as well."

"We want to be a major player in video analytics, not just in Malaysia but globally as well. Our products are good enough to be on the world stage and to compete with other international companies. Taking a step at a time, we have started going into ASEAN countries like Thailand, Indonesia, Vietnam and the Philippines."

*What has been the key factor to Recogine's success so far?*

"A dynamic organisational culture that nurtures innovative ideas is essential to build a sustainable business. We also need to be resilient, have that never-say-die attitude in the face of difficulties."

