

MaGIC-AIRASIA PARTNERSHIP A GAME CHANGER FOR DRONE DELIVERIES

THE Malaysian Global Innovation and Creativity Centre (MaGIC) recently partnered with Asean digital champion airasia to launch an urban drone delivery sandbox, which will be deployed over the next six months.

In a recent demonstration at the Cyberjaya test site witnessed by Science, Technology and Innovation Minister Khairy Jamaluddin and airasia group CEO Tan Sri Tony Fernandes, a drone with a maximum payload of 2kg and maximum flight distance of 5km completed a delivery.

The first phase of the project in Cyberjaya seeks to develop the capabilities, experience, approval process, deployment readiness and service expansion of drone operators.

"Despite much fanfare about drone deliveries, global adoption has been slow," said MaGIC CEO Dzuleira Abu Bakar.

"Logistics players and drone operators face intense scrutiny due to safety and privacy concerns, aviation regulations, usage in highly populated areas and pilot capabilities.

"This has limited innovation to only the largest names, keeping more agile, localised drone operators on the sidelines due to long, expensive testing periods," she said.

The National Technology and Innovation Sandbox (NTIS) is Malaysia's answer to all these issues. Backed by RM100mil in funding to fast-track commercialisation of key projects, NTIS is a national solution co-ordination centre that enables innovators and startups to stress-test their products, services, business models and delivery mechanisms in a secure and live environment, with some relaxations from all or selected regulatory requirements.

Launched as part of the Penjana economic recovery programme in August 2020, its success in helping local innovators accelerate their R&D processes during the Covid-19 pandemic led to it being kept on under the National Policy on Science, Technology and Innovation (NPSTI) – the Ministry of Science, Technology and Innovation (MoSTI)'s long-term development plan towards 2030 in accelerating Malaysia towards a high-tech and high-income nation.



Khairy (middle), Fernandes (red cap) and Dzuleira (right) at the drone demonstration in Cyberjaya.

As a partner and NTIS lead secretariat, MaGIC will assist in facilitating initiatives undertaken by airasia under the NTIS programme. The launch of the urban drone delivery sandbox has enabled MaGIC to tap into its ecosystem of local innovators to bring two Malaysian drone operators – Stream Revolution and Meraque Services – into the sandbox.

Going forward, MaGIC will connect airasia with more startups, entrepreneurs and ecosystem players to develop innovation and entrepreneurship programmes.

"The global drone package delivery market was valued at US\$642.4mil in 2020 and is expected to reach US\$7.388bil in 2027.

"With the gross merchandise value of our ecommerce industry projected at US\$30bil in 2025, demand for drone delivery will rise in tandem. Malaysia needs to innovate quickly to set up a network of drone talents and technology to carve out its slice of the drone delivery pie," said Dzuleira.

She added that on March 1, the Civil

Aviation Authority of Malaysia (CAAM) launched three new civil aviation directives (CADs) that govern the training of drone pilots, the use of agricultural drones, and investments into drone R&D and innovation activities.

"We created this urban delivery sandbox while working closely with CAAM to ensure that drone use in urban settings meets the requirements outlined in these CADs.

"Together, we will find common ground in drone regulation towards accelerating Malaysia's drone industry and technology growth, while giving public safety the highest priority," she said.

Airasia takes a three-pronged approach to the drone delivery sandbox – its logistics venture Teleport brings its extensive experience in Asean logistics and high tech (block-chain) expertise; its super app serves as readily available ecommerce clients for drone operators to test capabilities and make adjustments for different delivery scenarios; and, with the civil aviation sector being

among the worst casualties of Covid-19, the drone delivery sandbox serves to equip airline workforce from all backgrounds with the necessary skills to become drone pilots.

Drone operators VStream Revolution and Meraque Services are familiar with the need for a sustainable pipeline of local talent to support the burgeoning drone industry.

VStream Revolution's drone solution specialist Saravanan Chettiar Letchumanan said the company initially distributed foreign-made drones, but Covid-19 restrictions on travel and trade posed a challenge in acquiring replacement parts and maintenance talent.

"Now, not only do we have local repair staff, we also have trained local engineers who can customise drones to customers specification – something we did not have with foreign drones," he said. VStream is consulting with Penang Port to establish its own drone air unit.

"Demos are exciting, but we need to see drones flying in regulated airspace and facilitating first and last-mile deliveries. Making drone deliveries viable will take hardware, tech, talent and regulation all pulling in one direction," he added.

Meraque Services has used its drones for inspections, agriculture, advertisements and last-mile deliveries. These fully autonomous swarm drones – whereby one pilot can control up to 20 drones – are deployed without cameras to address privacy concerns to the community.

Meraque localises software and customises hardware to create bespoke solutions for clients such as Pos Malaysia, DBKL and Pharmaniaga.

"Drone technology is green technology. It is already proven, and the entire logistics ecosystem is moving towards drone tech," said Meraque CEO Md Razalee Ismail.

NTIS' public-private sector collaboration will boost productivity in the trade and industrial sector through advanced technology, talent development, accelerated R&D processes in collaboration with regulators, and increased commercialisation rates and innovation.