2 new NTU labs to help green start-ups take commercial leap

Start-ups focusing on green technology will get help to make the leap from research and development to commercial viability from two new labs set up by Nanyang Technological University (NTU). The EcoLabs Digital Twin Co-Innovation Lab and the NTU-Arrow Invent Joint Lab are located in the JTC Cleantech One building in Jurong. They will help start-ups as well as small and medium-sized enterprises (SMEs) refine and test their technology and connect them to larger companies to help them scale up, said NTU in a statement yesterday.

The two labs began work last year and were launched at an event yesterday under the EcoLabs Centre of Innovation for Energy programme—a collaboration by NTU, Enterprise Singapore and the Sustainable Energy Association of Singapore. Mr Stanislav Borisov, the centre’s innovation manager for sustainability and decarbonisation, said the EcoLabs Digital Twin Co-Innovation Lab is working on about 30 projects and is already in contact with over 100 start-ups and SMEs.

While the two labs are located in the same building, they serve different purposes. The EcoLabs Digital Twin Co-Innovation Lab is a collaborative and creative space to help energy start-ups and SMEs innovate in Singapore’s energy sector.

The second lab, NTU-Arrow Invent Joint Lab, is a tie-up between NTU and United States technology company Arrow Electronics. There, companies can use equipment which may be too expensive to buy themselves. Some of the companies which use the lab spaces were at the launch to present their projects.

One of them is Resync Technologies, a start-up which produces a software which analyses how households use electricity and tells them what appliances they may be overusing. Resync chief executive Emir Nurov said: “We deployed our solutions in a few Housing Board and condominium flats, and after two months, (households) saw energy savings of up to 35 per cent.”

Start-ups like Airo have been using the co-innovation lab to refine their product. Airo has developed an app which optimises the temperature and efficiency of air-conditioning units. HDB residents can key in their postal code and select their flat’s floor plan. The app will then suggest the best location and settings for an air-con unit.

Airo chief executive and co-founder Vernon Low said he splits his time between office and the lab, where he taps the staff’s expertise to work on the app. Speaking at the launch, Minister of State for Trade and Industry Low Yen Ling said the EcoLabs programme is part of Singapore’s larger strategy to support start-ups and SMEs as they translate their technology into products on a commercial scale.

Ms Low, who is also Minister of State for Culture, Community and Youth, added that recent events such as the war in Ukraine causing oil prices to spike have highlighted the need for Singapore to seek alternative sources of energy, including renewables. NTU president Subra Suresh, who also spoke at the launch, said Singapore faces an energy trilemma—attempting to maintain a balance between affordability, reliability and sustainability—compounded by the growing need for energy solutions to be environmentally friendly. He added that growing interest in using technology to reach sustainability goals has led to huge demand for innovation from start-ups and SMEs.