Surbana Jurong, NTU launch lab to find solutions to urban challenges

The facility will home in on digitalisation, sustainable urban solutions and future of industry as key areas of research

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Surbana Jurong (SJ) and Nanyang Technological University (NTU) now have a joint laboratory which will develop next-generation solutions to urban challenges.

Called the SJ-NTU Corporate Lab, the work at the S$61 million facility on the NTU campus will fall into three core areas – digitalisation, sustainable urban solutions and the future of the industry.

The 12th laboratory supported by the National Research Foundation (NRF), it will run on a budget of S$61 million for its first five years.

Wong Heang Fine, group chief executive of Surbana Jurong, said such a lab is necessary for studies into the rapid pace of urbanisation and the effects of climate change.

The lab’s research into digitalisation, for example, could entail the building of information models that scan and create a building’s infrastructure and render it as a three-dimensional map.

Such models can help streamline maintenance and construction processes.

In studies into sustainable urban solutions, ways will be found to minimise the energy footprint of buildings through features such as passive ventilation or cooling systems.

The lab’s third core research theme, Future of Industry, will concern itself with urban challenges faced by industry, such as the idea of using underground spaces for storing liquified natural gas at cryogenic temperatures, thus freeing up above-ground space for other uses.

Professor Subra Suresh of NTU announced that the university aims to train around 70 research staff, PhD and graduate students over the next five years, along with dozens of undergraduates.

Surbana Jurong’s Mr Wong said the lab is part of the efforts by company’s newly set up Innovation Programme Office. Innovation is integral to the growth of the government-owned consultancy company, which focuses on infrastructure and urban development; he added that the company hopes to incorporate the lab’s innovations into its projects.

Minister for National Development Lawrence Wong, who was present at the inauguration of the lab, took the opportunity to restate the importance of long-term investments in research and development (R&D).

He said such investments need to be consistent as well, noting that Singapore’s 2016-2021 budget for R&D was S$19 billion, 18 per cent more than in the preceding five-year period.

The minister, who is also Second Minister for Finance, said, however, that government spending should catalyse private investment in R&D, not crowd it out.

He cited the NRF as the government’s way of encouraging private investments in R&D; although the SJ-NTU Corporate Lab is the 12th lab supported by the NRF, it is significant for being the first one for the built-environment sector, he said.

The minister added: “Singapore 2.0 must be greener, smarter, more beautiful, more inclusive, and more resilient than the current one.”