

# NUS to expand entrepreneurship scheme that has created unicorns

Annual capacity to double to 600 students in 5 years; new overseas destinations added

**Sandra Davie**  
Senior Education  
Correspondent

A programme credited with seeding the start-up ecosystem in Singapore is being expanded.

The National University of Singapore Overseas Colleges (NOC) programme, which sees students going to work in start-ups in more than 15 locations abroad, will cater to more students – gradually expanding its current annual capacity of 300 to 600 in five years.

While the programme already sends students to places such as Silicon Valley, New York, Stockholm, Tel Aviv and Shenzhen, the National University of Singapore (NUS) will add more business and innovation nodes in the United States, Europe, China and South-east Asia.

Among the new destinations in Europe is Paris, where the first batch of 20 NOC students will go in

January 2023. The city was picked for its start-up ecosystem in Europe, and for reinventing retail and the food industry through technology.

NUS president Tan Eng Chye said the new locations will be aligned to industries of strategic value to Singapore, and the hope is that NOC will produce talent who can innovate within those areas. This means offering a more thematic approach within certain locations and plugging into their specific strengths, be it artificial intelligence (AI) in Toronto, medtech in Boston, maritime tech in Norway, or agritech and food tech in the Netherlands.

Professor Tan highlighted agritech and aquaculture technologies, which are among the areas that NUS wants to contribute to in terms of producing research and talent who will innovate in the field.

He said: "Considering our space and resource constraints, Singapore is vulnerable to external de-

velopments in the global food supply chain – hence the '30 by 30' goal to produce 30 per cent of the population's nutritional needs locally by 2030."

The expansion plans come one year after two NOC student start-ups – Carousell and PatSnap – attained "unicorn" status in 2021, reaching US\$1 billion (S\$1.4 billion) in valuation.

Before 2021, several NOC start-ups made successful exits after being bought up for millions of dollars. They include tenCube, which made \$25 million for its founders in 2010, and Zopim (\$37 million) four years later.

Prof Tan said NOC has historically been exclusive to NUS, but recognising the synergy that can occur when different communities come together, the university is opening the programme to students from other institutions. In 2022, three Singapore University of Technology and Design students were the first external participants admitted to the programme.

"Many of our NOC alumni entrepreneurs met their co-founders while on the programme, so we expect to see cross-institutional start-ups emerging as a result,"



A 2014 photo of Block71 in Ayer Rajah. The incubation space provides services to help students tap start-up communities around the world. PHOTO: NUS ENTERPRISE

Prof Tan added.

NUS is also looking to draw more of its postgraduate research students. Prof Tan said several PhD students have seized the opportunity presented by the Graduate Research Innovation Programme. It was launched in 2018 to guide postgraduate students on turning their research ideas into inventions, using them to create deep-tech start-

ups based on cutting-edge technologies to solve urgent problems.

NUS currently has more than 10,000 students pursuing PhDs and master's degrees, he added, noting that many research students, especially in fields such as engineering, science and technology, often work on breakthrough technologies for their theses. Their ideas and inventions can be devel-

oped further and taken to market.

Prof Tan said NUS Enterprise, the entrepreneurial arm of the university, will further build up its ecosystem to support local and global start-ups by students. For instance, Block71, an incubation and networking space first set up in a retrofitted flatted factory in Ayer Rajah, has also been set up in San Francisco, Jakarta, Bandung, Yogyakarta, Ho Chi Minh City, Suzhou and Chongqing. NUS is now eyeing a similar move in Guangzhou and Nagoya.

The different locations of Block71 offer more than just space. They also provide a range of services, including mentorship with entrepreneurs to help the students tap start-up communities around the world, said Prof Tan. He noted that The Economist magazine referred to Block71 as the heart of Singapore's technology start-up ecosystem and "the world's most tightly packed entrepreneurial ecosystem".

Professor Shih Choon Fong, who launched the overseas colleges in 2002 when he was NUS president, said it is important that NOC is renewed to suit the times.

"Twenty years on, the world is a different place... There are many new entrepreneurial nodes in the world and profit is not the only objective, but also social inclusion and sustainability," he said.

"NOC needs to be renewed once again. It will need new leaders, new vision, new ideas, but above all, it needs to re-envision the challenges and opportunities posed by a different world."

sandra@sph.com.sg



PatSnap founder Jeffrey Tiong was a biomedical engineering student. He and co-founder Guan Dian (left) are NUS Overseas Colleges alumni. PHOTO: PATSNAP



Online classifieds marketplace Carousell was founded by NUS Overseas Colleges alumni (from left) Lucas Ngoo, Marcus Tan and Quek Siu Rui. PHOTO: CAROUSELL

## Thumbs up for 20-year-old programme that has given birth to many student start-ups

When the National University of Singapore (NUS) launched a programme 20 years ago to nurture entrepreneurs among its students, it held up Mr Sim Wong Hoo, the Republic's first technopreneur, as a role model.

But Mr Sim, who listed his company Creative Technology on Nasdaq in 1992, did not quite endorse the idea.

"Entrepreneurs are born, not made," he told the NUS dons who planned to send their students overseas for a year to places like Silicon Valley, Stockholm and Israel under the NUS Overseas Colleges (NOC) programme.

But the university was convinced that sending its handpicked students to work at start-ups in different entrepreneurial hubs across the world was the way to go. The first batch of 14 students headed for Silicon Valley in 2002.

Twenty years on, the derring-do has paid off.

Several NOC student start-ups have become profitable businesses. Quite a few, including tenCube and Zopim, were bought over, making their young founders multimillionaires.

The peak was in 2021 when two NOC student start-ups became unicorns with their companies reaching a valuation of more than US\$1 billion (S\$1.4 billion).

The first was PatSnap in March 2021. Short for "patents in a snap", the platform makes it easy for inventors and researchers to gain insights into innovations being developed around the world. The company, founded by an NUS biomedical engineering student, reached a valuation topping US\$1 billion following its US\$300 million Series E round.

Six months later, online classifieds marketplace Carousell, a start-up led by three NUS students, became a unicorn after an investment round led by a South Korean private equity firm raised its valuation to US\$1.1 billion.

There are more NOC start-ups on the radar of global investors, including big names like PayPal co-founder Peter Thiel. Among them are South-east Asia-based personal finance marketplace MoneySmart, digital lending platform Funding Societies, digital

telecom services provider CirclesLife and shopping and rewards platform ShopBack.

The founders of these start-ups are mostly in their 20s and 30s, with degrees in different areas such as engineering, computing, business and the arts and social sciences. But they have one thing in common – they are all alumni of the NOC.

As PatSnap founder Jeffrey Tiong said: "I had the idea for PatSnap while I was an intern with a medtech in Philadelphia in 2005. My bosses asked me to search for technical information on patents, but despite studying biomedical engineering, I found the process to be really difficult. The whole experience led to my idea of building a patent search engine."

"So, without being thrown into the deep end of working in a start-up and experiencing the exciting business environment in the US, there would have been no PatSnap."

Mr Tiong belonged to one of the first few cohorts of students who went to a handful of overseas colleges launched under the programme.

The first one, set up in Silicon Valley, was targeted at those keen on high-tech start-ups. Soon, others followed in Philadelphia in the United States, and in China, Sweden and Israel. Each had a different focus, with the aim of nurturing a diverse group of entrepreneurs.

Today, the programme, which is credited with developing entrepreneurial talents and seeding the start-up ecosystem in Singapore, sends 300 undergraduates yearly to 15 locations around the world. They spend a year working full-time in start-ups as interns and take courses on entrepreneurship.

NUS recently announced plans to expand the number of NOC students and add more destinations over the next few years.

Professor Chee Yeow Meng, director of NOC, describes the successful start-ups as just one measure of the success of the programme.

"There are other indicators that we track and, by many counts, the programme works well. But with the breakneck speed of change

happening around us, we can't keep doing more of the same. We are constantly tweaking and making changes," said Prof Chee, who is also vice-provost in charge of technology-enhanced and experiential learning.

To date, the 3,800 NUS students who have gone on the programme have started more than 1,000 technology-based businesses, of which almost half are still in operation.

According to a study done by NUS Emeritus Professor Wong Poh Kam that was released in 2019, that translates to one in three students setting up technology-based businesses after one year of going on the NOC programme.

More than half of those surveyed reported working in start-ups, and a large proportion described working in companies where they took on roles requiring them to innovate and develop businesses.

Another finding was that more than one in 10 NOC alumni are based full-time outside Singapore.

Prof Chee brings up one of the most significant findings of the survey – students who participated in the NOC are 10 times more likely to have gone on to start a business within a year of graduation, compared with other NUS graduates.

"This finding alone shows the difference that the NOC programme makes in developing entrepreneurial talents," he added.

So what makes it work? Internships play a key part – and these are not with Big Tech.

"We want them to go into start-ups, even early-stage start-ups. Start-ups usually have smaller teams, so they will be in the middle of all the action and experience pretty much all business functions that the company performs," said Prof Chee.

Ms Winnie Kyaw, 22, a business degree student who is on an overseas attachment with Toronto-based blockchain start-up Mavennet, said it was "tough" being thrown into the deep end. But she learnt the ropes very quickly, largely because she had access to the start-up's leaders, including the chief executive.

Prof Chee wants "cross-pollination", so the students are sent to start-ups in different industries

and markets.

"So that when they come back and have a promising idea, they can go look for co-founders who did their NOC in different parts of the world and who can take on different roles in their start-up," he said.

When they return from their stints abroad, students can choose to stay in a special residential complex called Enterprise House, or N House, where they can continue networking with other NOC alumni. Those who are ready to launch start-ups get support, from access to incubation spaces to help with sourcing seed funding and entry to overseas markets.

The programme has won many admirers.

Mavennet co-founders Patrick Mandic and Kesem Frank said they are struck by the university's commitment to the NOC programme.

Said Mr Mandic: "We get many requests for internships, but what was striking to me was that the students were willing to spend a whole year here, working with us. And that is a big chunk of their university years."

Mr Frank said it is "remarkable that a university from the little red dot that is Singapore is trying this out and succeeding at it".

Professor Tom Kosnik, who has had more than a dozen batches of NOC students taking his course on new venture creation at Stanford University, said the outcomes for NOC alumni, such as the number of start-ups created by students, "speak volumes" for the programme.

"Nurturing entrepreneurs is not easy, it has to be done just right. But NUS has done it. I have seen it for myself – by the end of their year there, the students come up with several unique business ideas and are raring to go."

He pulls out a notebook of all the NOC students who have taken his classes and some of the earlier successful start-ups created by NOC Silicon Valley students. The two most notable ones are tenCube and Zopim.

TenCube, a data protection service, was bought for \$25 million by US security technology giant McAfee. Zopim's success came four years later in 2014, when American

### Other ventures on investors' radar

#### MONEYSMART



Personal finance marketplace MoneySmart, founded by NUS Overseas Colleges (NOC) alumnus Vinod Nair, 40, hit the headlines in November when it announced its plans to list on the Singapore Exchange via a reverse takeover deal with hotel operator Asia-Pacific Strategic Investments (APS).

APS, controlled by Singapore tycoon Oei Hong Leong, is said to have offered US\$161.7 million (S\$218 million).

Founded in 2009, MoneySmart provides a financial comparison and content platform for consumers to make informed product choices across a range of banking, insurance and investment products.

#### CIRCLES.LIFE



Disgruntled with the quality of customer service from the big telcos, Mr Rameez Ansari (above), 40, and other co-founders – former private equity investor Abhishek Gupta and telco analyst Adeel Najam – decided to launch a digital telco that offers customers flexibility in choosing mobile plans.

CirclesLife was launched to the public in 2016, offering digital mobile services such as voice, data, roaming and international calls.

The company, which has operations in Taiwan, Australia, Indonesia and Japan, made the headlines in July 2022 amid reports that it was in talks for a potential \$3.5 billion merger with US-listed Bridgetown Holdings, backed by billionaires Peter Thiel and Richard Li.

#### FUNDING SOCIETIES



Funding Societies is an online platform that provides business financing to small and medium-sized enterprises (SMEs).

company Zendesk acquired it for nearly \$37 million.

Another supporter of the NOC is Mr James Tan, managing partner at Quest Ventures, a top venture capital firm which has invested in the early rounds of more than a dozen NUS student start-ups, including Carousell.

He said NOC alumni think big, unlike some other young Singaporeans.

"I sit in what I call the lucky ad-

It announced in February that it had raised US\$144 million in an oversubscribed Series C+ equity round led by SoftBank Vision Fund 2.

NOC alumnus Kelvin Teo (pictured), 35, co-founder and group chief executive of Funding Societies, said he and co-founder Reynold Wijaya started Funding Societies in 2015 with the vision of empowering SMEs. Currently, the start-up is financing SMEs in Singapore, Indonesia, Malaysia, Thailand and Vietnam.

To date, Funding Societies has disbursed loans amounting to US\$2.9 billion.

#### SHOPBACK



ShopBack was born one night when NOC alumni Henry Chan (left), 37, and Joel Leong, 35, were discussing start-up ideas in a car. They roped in other co-founders, locked themselves in a hotel room and conceived a prototype.

Today, ShopBack is Asia-Pacific's top shopping and rewards app. The platform, which has over 35 million users across 10 markets, including Taiwan, South Korea and Australia, powers more than US\$3.5 billion in annual sales for 10,000 retail partners, and has given back over US\$280 million to users.

#### 99.CO



The 99.co portal enables individuals to rent, buy and sell properties, and get important information such as land title and surrounding property transactions.

Within its first three years, the company gathered financial support from start-up investment firms Sequoia Capital and East Ventures, as well as Facebook co-founder Eduardo Saverin.

Founder Darius Cheung, 41, co-founded mobile security firm tenCube in 2005 after his Silicon Valley NOC stint. Software giant McAfee acquired tenCube in 2010.

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dress, unit 03-14 at Block71 in Ayer Rajah Crescent, because the likes of Carousell and PatSnap incubated here," he added.

He feels that NOC student founders often come up with ideas that are unique, solve large problems and meet the needs of many people around the world.

"That's why Quest Ventures has invested in more than a dozen NOC student start-ups."

Sandra Davie