Singapore Management University

Institutional Knowledge at Singapore Management University

Research Collection Institute of Innovation and Entrepreneurship

Institute of Innovation and Entrepreneurship

7-2023

Singapore student startup ecosystem report academic year 2022-23

K. ABDULLAH iie@smu.edu.sg

B. TAN

R. PALEJA

Z. E. LIM

R. KANG

See next page for additional authors

Follow this and additional works at: https://ink.library.smu.edu.sg/iie_research

Part of the Entrepreneurial and Small Business Operations Commons, and the Technology and Innovation Commons

Citation

ABDULLAH, K.; TAN, B.; PALEJA, R.; LIM, Z. E.; KANG, R.; TAN, D.; HOON, T.; LIM, N.; TAY, D.; LIEM, J.; BIJAY, A.; CHUA, J.; and LIM, W. E.. Singapore student startup ecosystem report academic year 2022-23. (2023). *Protégé Ventures*. 1-50.

Available at: https://ink.library.smu.edu.sg/iie_research/7

This Report is brought to you for free and open access by the Institute of Innovation and Entrepreneurship at Institutional Knowledge at Singapore Management University. It has been accepted for inclusion in Research Collection Institute of Innovation and Entrepreneurship by an authorized administrator of Institutional Knowledge at Singapore Management University. For more information, please email cherylds@smu.edu.sg.

Author K. ABDULLAH, B. TAN, R. PALEJA, Z. E. LIM, R. KANG, D. TAN, T. HOON, N. LIM, D. TAY, J. LIEM, A. BIJAY, J. CHUA, and W. E. LIM



Singapore Student Startup Ecosystem Report

AY2022/2023



Southeast Asia's First Student-run Venture Fund

Established in 2017





Protégé Venture's annual Singapore Student Startup Ecosystem Report aims to highlight the extensive opportunities for innovation and enterprise within the tertiary education institutes.

This year, we intend to delve deeper into the contributions of key stakeholders, such as university incubators, student clubs, and student startup competitions, to empower student entrepreneurs on their journey to create the next big groundbreaking innovation.

By presenting success stories that have emerged from the ecosystem in recent years, we hope to inspire aspiring student entrepreneurs, encourage collaborations between ecosystem players, and boost investors' confidence in providing capital to supercharge new ventures in this space.

We believe that this report exemplifies the immense potential of the innovation and enterprise scene in our local tertiary education ecosystem, and we hope this inspires the next generation of I&E players to take that leap of faith!

Report outline





Venture Capital Activity in Singapore



Our Belief in Student Founders



Singapore Student Startup Ecosystem



Executive Summary





Venture Capital Activity in Singapore

- Singapore is at the forefront of Southeast Asia's venture capital markets, due to its ability to attract key ecosystem players
- Singapore's deal value and volume has slumped amidst tougher macro conditions and investors becoming more prudent...
- ...but investors will still continue deploying dry powder across the region



Our Belief in Student Founders

- Student founders are the next wave of talent that can drive the future of innovative ventures in Singapore
- Protege Ventures has seen a >38% increase in the number of deals sourced, with more than half of them coming from consumer and SaaS sectors



The Singapore Student Startup Ecosystem

 Singapore's student startup ecosystem is primarily centred around tertiary institutions, where each organisation category provides its unique value-add



- About Protégé Ventures
- A word from our former and current members
- The team behind the report

Report outline





Venture Capital Activity in Singapore



Our Belief in Student Founders



Singapore Student Startup Ecosystem

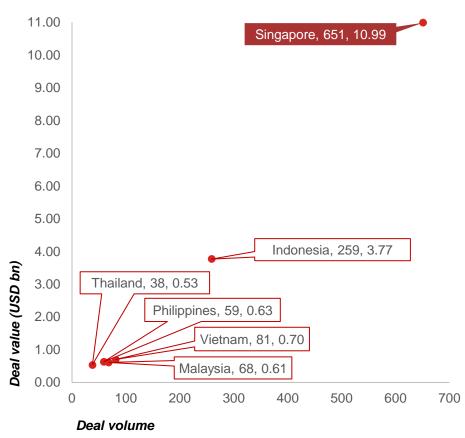


Singapore is at the forefront of Southeast Asia's venture capital markets, due to its ability to attract key ecosystem players



Singapore leads the region in equity funding by far...

Equity funding deal value and volume, by market, 2022



...due to its ability to attract strong companies, as well as investors that can take advantage of those opportunities



Strong government support

- Agencies like Enterprise SG, Economic Development Board, and Infocomm Media Development Authority provide funding, mentorship, and resources to foster growth
- Initiatives such as Startup SG and the Global Innovation Alliance offer various forms of support, including grants, networking opportunities, and market access



Supportive regulatory environment

- Ease of setting up business and pro-business immigration policies like EntrePass, Global Investor Programme, and Techpass
- Efficient dispute resolution mechanism via The Singapore International Arbitration Centre
- Transparent tax regime, extensive network of tax treaties and free trade agreements
- 1st in Asia for IP Protection, also provides efficient filing of IPs in other markets
- Faster patent grant in other countries via patent acceleration initiatives



Launchpad for SEA

Connectivity within Southeast Asia to tap on its USD4.5tn opportunity¹



Global innovation and talent hub

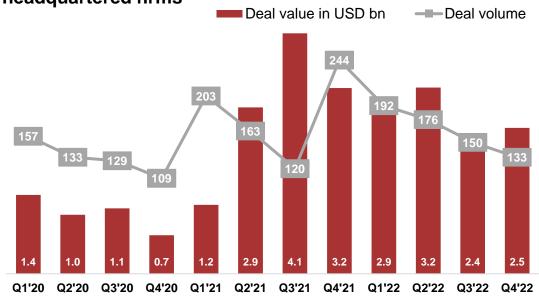
- Ability to leverage technology, knowledge and infrastructure as a financial hub and global hub for innovation and advanced manufacturing
- Pipeline for talent as operators and executives who hold leadership positions in Singapore-headquartered tech companies in MNCs often exhibit strong traits when establishing startups

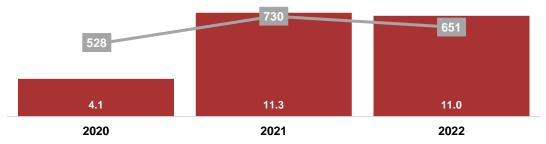
Singapore's deal value and volume have slumped amidst tougher macro conditions and investors becoming more prudent...



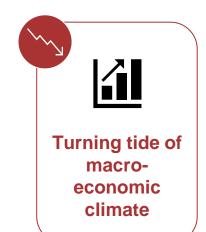
Deal volume and value in venture capital has fallen...

Equity funding deal value and volume by Singaporeheadquartered firms





...caused by some headwinds



- Private markets felt the gradual impact of the rate hikes, which increased cost of capital for start-ups
- Furthermore, this caused a shift in focus from supercharged growth at negative unit economics to net profitability, causing startups to extend their fundraising timelines



- In 2022, S&P 500 P/E ratio dropped by 35.7%, while the Russell 3000 EV/S (FY2) decreased from 12x to 6x
- This reflected a valuation reset, where investors are less inclined to pay premium multiples for companies as they once were
- This ultimately to a divergence in perceived valuation from founders and VCs, hence dropping volume

...but investors will continue deploying dry powder across the region



SEA-based VCs that raised in 2022

Sector agnostic

















iglobe partners































Key insight

- Many SEA-based VC funds tend to be stage-agnostic
- SEA-based VCs closed USD4.14bn across 31 funds in 2022, on top of USD3.5bn raised in 2021
- While there may be a shortterm slump in deal volume, VCs will continue to deploy capital early into their fund life in an attempt to improve overall fund performance

Report outline





Venture Capital Activity in Singapore



Our Belief in Student Founders



Singapore Student Startup Ecosystem



Student founders are the next wave of talent that can drive the future of innovative ventures in Singapore



We believe that student founders have unique advantages that allow them to succeed...



...with many success stories that reinforce our belief in them



Problem identification and validation

They are primed to address the problems of Gen Zs, with their exposure to technology and the crosspollination of ideas within the student startup ecosystem





Leading investors have taken part in fundraises of student and recently-graduated founders across various stages of funding



Capability building

They have the ability to leverage intellectual property from research labs in universities and have direct access to their multidisciplinary talent pipelines



Some have been accepted into **prestigious** accelerator programmes, won startup competitions, or were even acquired



They have access to unique execution strategies via student networks, and lower customer acquisition costs due to the greater concentration of early adopters at tertiary institutes



Majority of the unicorns that were incubated in the local university ecosystem were founded within 5 years of graduation

A. Leading investors have taken part in fundraises of student and recentlygraduated founders across various stages of funding



	ample artup	Description	Latest fundraise	Key investors	Founders	Education status ¹
gli	k ints	A leading job-matching and talent recruitment platform in Southeast Asia.	Series D USD50mn	endeavor catalyst dcm	Oswald Yeo [CEO, UC Berkeley BASc]	Student
	≈	Workstream is a text-based hiring tool for the deskless workforce.	Series B USD108mn	FOUNDERS FUND CTV COATUE	 Desmond Lim [CEO, Harvard MPP] Max Wang [CTO, Cornell MEng] Lei Xu [CPO, UC Berkeley BA & BS] 	Graduated <5 years ago
Sta	1 ffAny	A workforce management solution for companies who engage hourly workers.	Series A USD3.4mn	CAPITAL	 Eugene Ng [CRO, NUS BBA] Janson Seah [CEO, NUS BA] Jeremy Hon [CTO, NUS BComp] Kai Yi Lee [CPO, NUS MEng] 	Graduated <5 years ago
	ature	End-to-end no-code MLOps platform to build computer vision applications.	Seed USD2.7mn	JANUARY CAPITAL SEEDS OPENSPACE Capital	 Keechin Goh [CEO, DigiPen Institute of Technology BSc] Denzel Lee [CTO, SUTD PhD] 	Graduated <5 years ago
alte	f rpacks	A startup creating a new material from food waste to replace plastics.	Pre-seed USD1mn	PLUGANDPLAY SEEDS EARTH Capital VENTURE	Karen Cheah [CEO, SMU MSc]	Graduated <5 years ago

B. Some startups have been accepted into prestigious accelerator programmes, won startup competitions, or were acquired



Featured startup	Description	Achievements	Founders	Education status ¹
ConcreteAl	Al-Powered concrete sensor that monitors concrete strength and temperature in real-time.	Accepted into Iterative (Summer 2022)	 Xi Yi Ooi [Co-founder, NUS Beng] Isaac Siow [Co-founder, NUS BEng] Qingyang Chang [Co-founder, NUS BEng] 	Student
Metafi	Metafi is a plug-and-play SDK that allows web3 game developers to set up an embedded wallet.	Accepted into Y-Combinator (Summer 2022)	Arvind Ramesh [CTO, NTU BEng]Raimie Tang [CEO, NUS BEng & BBA]	Graduated <5 years ago
Peptobiotics	World first synthetic biology alternative to livestock antibiotics.	Won SGD250k from SLINGSHOT 2022	Jonathan Bester [University of Queensland, BSc]	Graduated <5 years ago
EEA E3A Healthcare	Non-invasive medical diagnostic and therapeutic devices, focusing on newborn health and wearables.	Won SGD250k from SLINGSHOT 2022	Shawn S. LI [CEO, NUS PhD]	Graduated <5 years ago
Refash	Singapore's largest online and offline thrift store brand.	Acquired by Carousell (May 2022)	Aloysius Sng [CEO, SMU BBM]	Graduated <5 years ago

C. Majority of the unicorns that were incubated in the local university ecosystem¹ were founded within 5 years of graduation



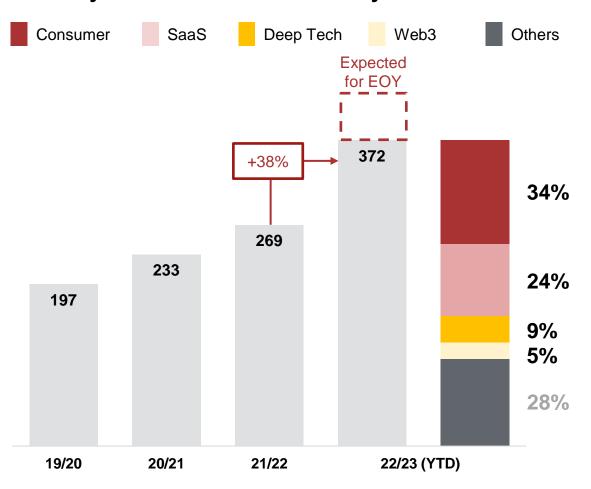
Unicorn	Description	Unicorn status funding round	Founders	Education status ²
**ajaib	An online brokerage that allows Indonesians to buy and sell stocks, ETFs and mutual funds.	Series B USD153mn	 Anderson Sumarli [CEO, Stanford MBA] Yada Piyajomkwan [CPO, Stanford MBA] Winston Lays [CTO, USC BEng] 	Student
# Biofourmis	Augments personalized care and therapies via digital therapeutics.	Series D USD300mn	Kuldeep Singh Rajput [CEO, NUS PhD]	Graduated <5 years ago
carousell	A leading online marketplace for buying and selling new and secondhand goods.	Series C USD100mn	 Quek Sui Rui [CEO, NUS BBA] Marcus Tan [Co-founder, NUS BBA] Lucas Ngoo [CTO, NUS BEng] 	Graduated <5 years ago
patsnap	An innovation intelligence platform that provides IP and R&D intelligence.	Series E USD300mn	Jeffery Tiong [CEO, NUS BEng]	Graduated <5 years ago
NIUM	A modern, modular platform for global business payments.	Series D USD200mn	 Prajit Nanu [CEO, University of Mumbai, BCom] Michael Bermingham [CBO, Monmouth University BS] 	Graduated >5 years ago

^{1 –} The startups were incubated under BLOCK71, an initiative by NUS Enterprise 2 – At the point of establishing the company

Protege Ventures has seen >38% increase in the number of deals sourced, with more than half of them from consumer and SaaS sectors



We analysed our deal flow over the years...



...and took a deeper look at the top sectors over the past year

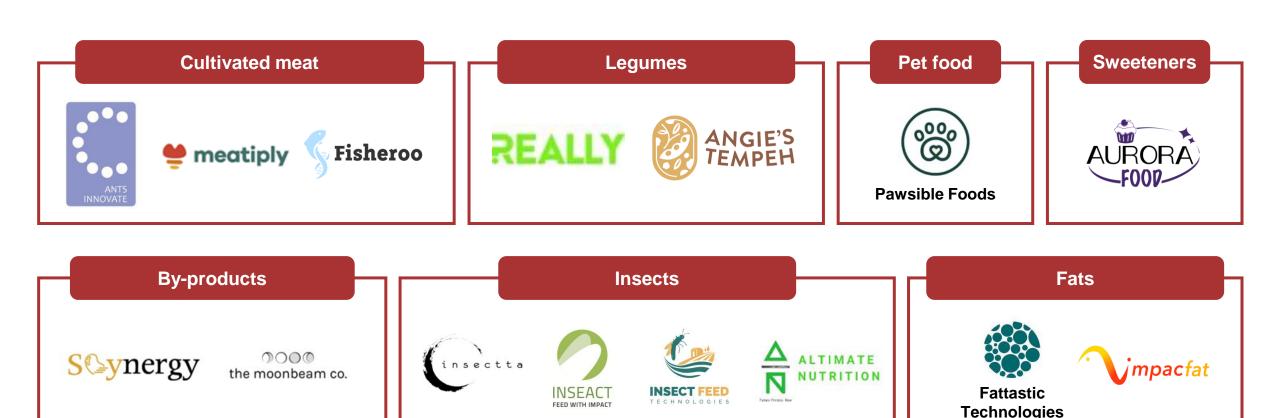
- Consumer start-ups continue to maintain interest within student founders due to the lowest barriers of entry
 - 1A With sustainability coming into greater focus postpandemic, FoodTech has seen more interest from aspiring student startup founders
 - 1B With mental and social wellness being a prevalent issue amongst youths, student founders have been creating solutions to tackle them
- SaaS continues to be a popular business model for student founders looking to create highly scalable solutions
- Singapore's university ecosystem provides strong foundations for **Deep Tech** startups to flourish
- There has been a wide range of Web3 startups founded by students with Gen Zs being early adopters and promoters of its technologies

Source: Protégé Ventures database © Protégé Ventures 2023

1A. With sustainability coming into greater focus post-pandemic, FoodTech has seen more interest from aspiring student startup founders



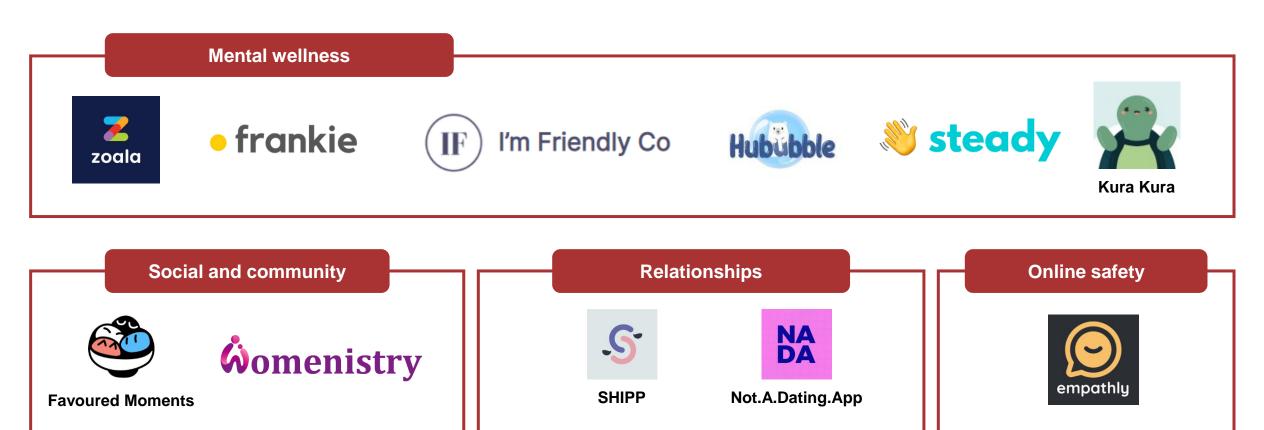
Leveraging the laboratory testing capabilities and research networks of university ecosystems, student and recent graduate-founded startups are creating FoodTech startups for humans and animals that are not just technologically and economically possible, but also greatly desirable.



1B. With mental and social wellness being a prevalent issue amongst youths, student founders have been creating solutions to tackle them



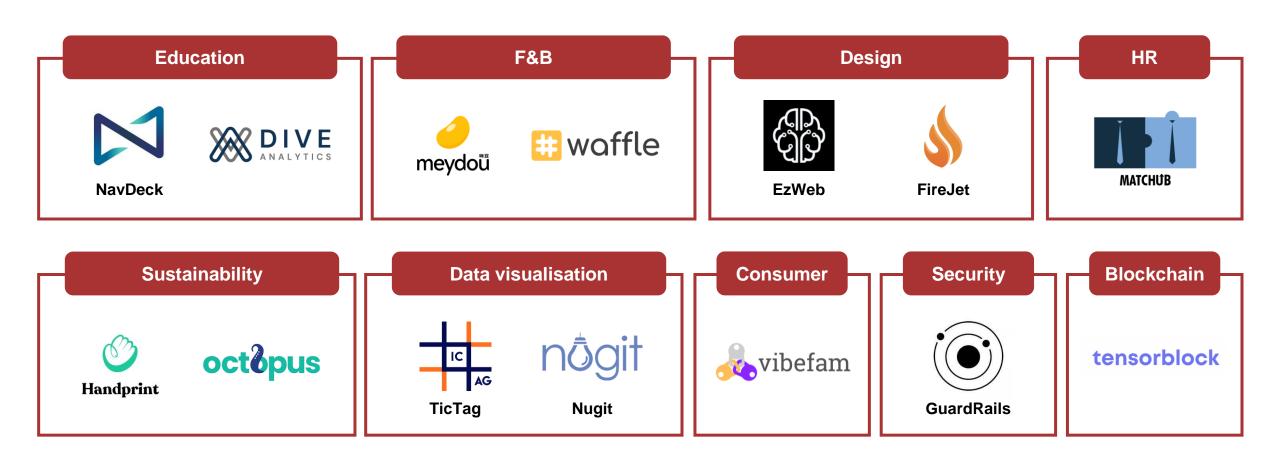
A trend that gained more traction since Protege Venture's 2021 University Ecosystem Report is the increase in startups providing social interaction and mental wellness solutions. This is not surprising as anxiety, burnout and loneliness are not uncommon ordeals of youths. This is alongside the recognition that mental health and socialisation are important for everyone, especially in a post-pandemic setting.



2. SaaS continues to be a popular business model for student founders looking to create highly scalable solutions



As students become learn more about business needs through internships, CCAs and other activities, there is a growing number of SaaS startups across various industries, including **Education**, **F&B**, **Blockchain and HR**.



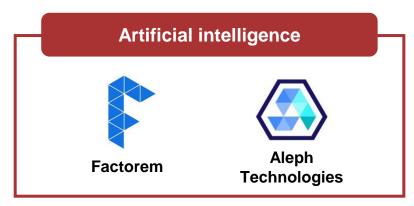
3. Singapore's university ecosystem provides strong foundations for Deep Tech startups to flourish

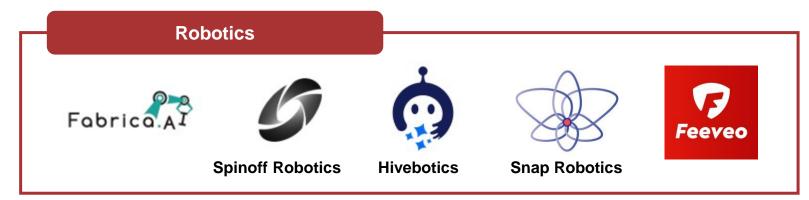


Singapore's university ecosystem is home to top-notch research institutes, corporate partnerships for innovation, and is a regional hub for researchers. All of these set the right conditions for Deep Tech startups to be founded by STEM students, university spinoffs, and commercialisation projects of research intellectual property (IP).

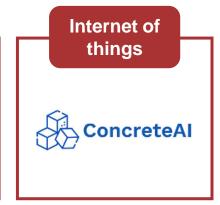








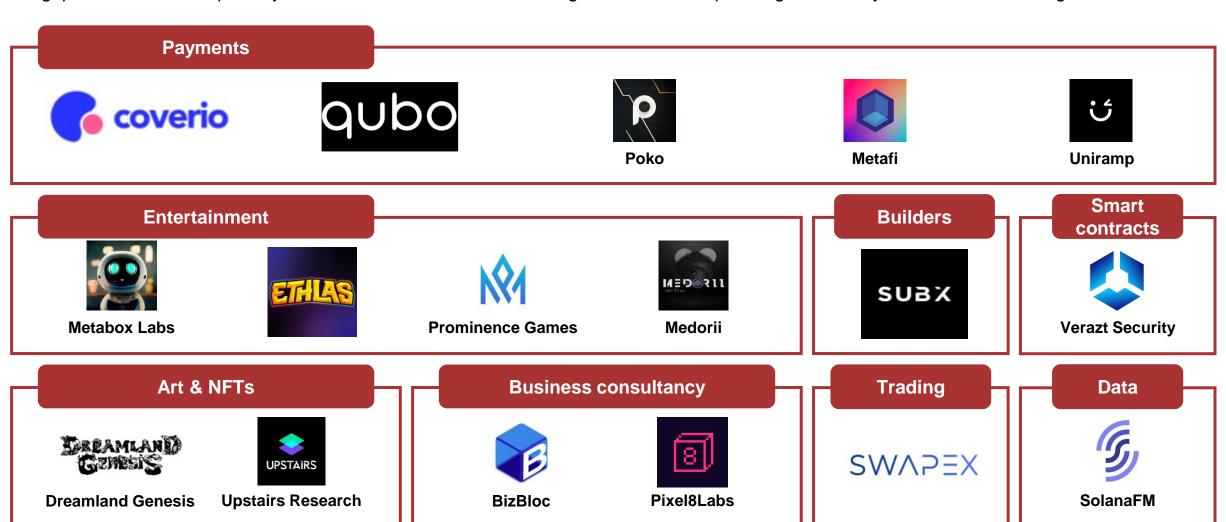




4. There has been a wide range of Web3 startups founded by students with Gen Zs being early adopters and promoters of its technologies



Globally, **Gen Zs are early adopters and promoters of Web3 technologies** such as NFTs, tokenisation technologies, and the metaverse. The Singapore student startup ecosystem is no different with a wide range of Web3 startups being founded by students and recent graduates.







Venture Capital Activity in Singapore



Our Belief in Student Founders



Singapore Student Startup Ecosystem



Singapore's student startup ecosystem is primarily centred around tertiary institutions, where each organisation category provides a unique value-add



B. Student Clubs

Students support one another through experiential learning, creating platforms for greater exposure and community building





























D. Funds & Angel Networks

Based in tertiary institutes and provide various forms of support in addition to investment capital to student founders









A. Tertiary Institutions

A source of holistic support and grant funding for budding student and alumni entrepreneurs



















C. University-based Start-up **Accelerators / Incubators**

Building strong foundations for early-stage startups to set them up for future growth

















E. Student Startup **Competitions**

Offering student entrepreneurs visibility, access to industry leaders for feedback and a platform for thought leadership

















© Protégé Ventures 2023 Note: Non-exhaustive

A. Tertiary institutions play a key role in the ecosystem by being a source of holistic support and grant funding for budding student entrepreneurs (1/2)



Deep-dive to follow

Institute

Description

Unique programmes

Grants



The Singapore Management University (SMU) **Institute of Innovation and Entrepreneurship (IIE)** is a practice-oriented institute that nurtures changemakers and founders who aspire to improve the world.



LEE KUAN YEW

GLOBAL BUSINESS PLAN COMPETITION

REMAGINE SMART, SUSTAINABLE AND RESILIENT CITIES



IIE Acceleration
Grant

Greenhouse Innovation Labs Lee Kuan Yew Global Business Plan Competition Global Innovation Immersion Up to SGD10,000 for founders in the B.I.G Incubator



NTUitive is the innovation and enterprise company of Nanyang Technological University. Post-incubation, NTUitive strives to support its students' startup journeys by providing access to resources like funding, market development, and talent.



JUMPstart

Corporate Innovation Challenge

Corporate Innovation Challenge



Makan Night! Talks **NTUitive Gap Fund**

Up to SGD250,000 for NTU researchers



SUTD Venture, Innovation & Entrepreneurship (VIE) supports in translating cutting-edge technology into real-world solutions, scaling market presence, and fundraising. They utilize grants and innovation funding, and to guide its students from idea to launch.



ARISE Programme STARTSomething @ SUTD

STARTSomething @SUTD CREATE4GOOD

Create4Good Innovation Fund Stephen Riady Innovation Grant

Up to SGD10,000 for SUTD students and alumni



NUS Enterprise, the entrepreneurial arm of the National University of Singapore (NUS), advances innovation and entrepreneurship at NUS and beyond. They do it via experiential entrepreneurial education, industry partnerships and holistic entrepreneurship support.



PYI Fellows Programme



The HANGAR



NUS Overseas College

NUS Venture Initiation Programme

Up to SGD10,000 for a 12-month term for NUS students and alumni

Note: Non-exhaustive

Source: Tertiary Institute's website

A. Tertiary institutions play a key role in the ecosystem by being a source of holistic support and grant funding for budding student entrepreneurs (2/2)



Deep-dive to follow

Institute

Description

Unique programmes

Grants



The Sandbox (TSB) at Ngee Ann Polytechnic (NP) empowers the entrepreneurial pursuits of its students and alumni community through its unique programmes, funding initiatives, incubator spaces and industry partnerships.



Maker's

Academy



G.E.I.P



NP Incubator Grant

Up to SGD10,000 for NP alumni

iDARE Project Fund



Republic Polytechnic's (RP) Office of Entrepreneurship **Development (OED)** strives to cultivate in students an entrepreneurial mindset with the relevant skills and values and promote students' numerous pathways to lifelong success.







Up to SGD3,000 Entrepreneurship for student projects



iDARE

Entrepreneurial Partnership &Innovation Community

INGAPORE POLYTECHNIC

TREPRENEURSHIP FEST



Small Project Funding

SPINOFF is the Entrepreneurship Centre of Singapore Polytechnic (SP). They provide all SP full-time students with innovation and entrepreneurship support, dedicated mentorship, co-working space as well as networking opportunities.



SP Entrepreneurship Incubation Space Festival



Fireside Chats

Up to SGD4,000 for student prototypes



Centre For IT Innovation (CITI) in Nanyang Polytechnic is a platform for major industrial collaborations, cutting-edge R & D projects and enabling students from various IT diplomas, to work together on industrial and in-house projects.



Collaborative Open Workspace



Corporate Technology Innovation Labs



Industry **Partnerships** **Small Project Funding**

Up to SGD5,000 for student prototypes



Temasek Launchpad at Temasek Polytechnic (TP) focuses on helping students, staff and alumni build up their enterprising skills through their various educational programmes, physical facilities and mentor matching and partnership networks.

Maker/pace+

Makerspace+

ORIGINATOR PROGRAMME

Originator Programme



Incubation Space

Temasek Polytechnic Pre-seed Funding

Up to SGD10,000 for TP students and alumni

Note: Non-exhaustive Source: Tertiary Institute's website

Tertiary institute feature – SMU IIE



INTRODUCTION

Singapore Management University Institute of Innovation and Entrepreneurship is a practice-oriented institute that nurtures changemakers and founders who aspire to make the world a better place.

Backed by a panel of industry pioneers and a strong regional network, IIE offers our students opportunities to develop their entrepreneurial journey and for our founders to scale their businesses to greater heights. With several long-term partnerships with overseas universities, incubators, and corporates, we strive to increase our global footprint and establish new learning pathways for students and founders through collaboration, networking, and knowledge transfer activities.

Join our community of 10,000+ start-ups, innovators, student founders, and tech gurus by subscribing to our e-newsletter – The Greenhouse Effect!

CONTACT DETAILS



linkedin.com/school/smuiie



iie@smu.edu.sg



iie.smu.edu.sg

SUPPORT PROVIDED



People & Expertise

- Protégé Ventures a completely student-run venture capitalist fund and training programme
- Commercialisation of research projects by SMU Faculty & Researchers
- Management of I&E-Centric Student Clubs

Resources

Greenhouse – an innovation lab for community building and hosting of I&E events

Programmes & Events

- Business Innovations Generator an incubation programme for early-stage start-ups and student founders
- Lee Kuan Yew Global Business Plan Competition (LKYGBPC) we bring the best university startup founders around the world to Singapore!
- Global Innovation Immersion overseas summer internships at global innovation and enterprise (I&E) hotspots
- Student Entrepreneur Internship intern at a startup of your choice to complete your 10-week internship as part of your degree requirement

Tertiary institute feature – NTUitive



INTRODUCTION

NTUitive is the innovation and enterprise company, and a wholly-owned subsidiary of Nanyang Technological University. Post-incubation, as your venture-building partner, NTUitive strives to support your startup journey by providing access to resources like funding, market development, and talent.

Our mission is to build a vibrant and sustainable entrepreneurial ecosystem to support and grow the next generation of start-ups. For investors scouting for promising NTU-affiliated startups, for industry seeking to collaborate with startups with innovative solutions, for startups trying to get access to market and talent, for entrepreneurial talents wanting to refine their ideas, acquire the necessary knowledge and support them in their journey, let's us be your first point of contact.

CONTACT DETAILS



linkedin.com/company/ntuitive



ntuitiveinfo@ntuitive.sg



ntuitive.sg

SUPPORT PROVIDED

NTU Itive NTUitive Pte Ltd

People & Expertise

- Programme & Incubation Team as well as venture builders
- Professionals technological development, legal & intellectual property
- Partners mentors and industry experts

Resources

- Financial Support grants and funding
- Business development IP strategy advice, tech commercialisation
- Incubation space at NTU campus and JTC Launchpad

Programmes & Events

- Training Programmes focusing on entrepreneurship, market validation and customer discovery
- Industry Connection innovation challenges, technological showcases, networking events and pitches to industry stakeholders

Tertiary institute feature – SUTD VIE



INTRODUCTION

SUTD VIE is here to support translating cutting-edge technology into real-world solutions, scaling market presence, or fundraising. We deploy grants and innovation funding, utilise our vast network of mentors, start-up veterans, and venture capitalists are to guide you from idea to launch. Altogether, these factors make us an outstanding partner for your venture.

We offer aspiring entrepreneurs a broad range of resources and support programs to facilitate the launch and growth of their start-ups. By working with us, you can gain access to valuable guidance on various aspects, such as creating a business plan, securing funding and investment, and networking with mentors and peers in your industry. Regardless of whether you are embarking on your entrepreneurial journey or aiming to elevate your existing business, we can assist you at every step of the way. Whether you're starting up or scaling up, we are ready to work with you and take you to greater heights. Choose SUTD-Venture Innovation & Entrepreneurship Office today!

CONTACT DETAILS



linkedin.com/company/sutdvie



entrepreneurship@sutd.edu.sg



entrepreneurship.sutd.edu.sg

SUPPORT PROVIDED



People & Expertise

- Venture Building Team to support startups to be ready for the next step
- Vast network of mentors, start-up veterans, and venture capitalists are ready to guide you from idea to launch
- Mentoring >400 hours of mentorship for start-ups, including 100 hours for social impact-related teams

Resources

- Create4Good Innovation Fund enabling social impact entrepreneurs by building a sustainable model for lasting impact in the community.
- Hardware-focused incubation centre where a CAD drawing becomes a physical product, access to 3D printers, prototyping partners and services

Programmes & Events

- StartSomething@SUTD a program for undergraduates in exploring entrepreneurship and to teaching them how to build a business
- Entrepreneurship Capstone for final year students
- **Tech commercialization programmes** for SUTD Researchers

Tertiary institute feature – RP OED



INTRODUCTION

Republic Polytechnic's Office of Entrepreneurship Development was set up with the mission to build a vibrant entrepreneurship ecosystem. The institution strives to cultivate in students an entrepreneurial mindset with the relevant skills and values, and promote students' numerous pathways to lifelong success.

Are you a student or alumni entrepreneur looking to turn your innovative ideas into successful product? Or an investor looking to support and invest in the next big thing? Or an ecosystem developer interested in collaborating with our innovative community? Look no further than our Entrepreneurial Partnership & Innovation Community (epic) at Republic Polytechnic Industry Centre. We offer a wide range of entrepreneurship programmes, including entrepreneurship immersion programmes, incubation programmes, overseas internships, bootcamps, and competitions. Join us for startup meetups and networking sessions with VC and industry partners and follow our RP Alumni Startups to find out more about their success stories. Contact us now and let's build a thriving startup ecosystem together.

CONTACT DETAILS



linkedin.com/school/republic-polytechnic



help-startup@rp.edu.sg



rp.edu.sg/oed

SUPPORT PROVIDED

OED

People & Expertise

- Specialised domain supports in areas such as Healthcare, Supply Chain, and Agrifood
- Mentorship from experienced industry experts, prototype funding and IP consultancy for start-ups to launch their businesses successfully

Resources

- iDARE Project Fund and epic Project Fund to fund startups
- Co-work@epic a co-working space with hotdesking option for early stage start-ups that adopts an open concept design to promote networking and collaboration amongst the community
- Makerspace@epic makerspace for prototyping with a variety of equipment e.g. 3D printers, laser cutters and soldering irons etc.

Programmes & Events

 Ideate@epic - an open event space for community events workshops and seminars, or host business events and activities

Tertiary institute feature – The Sandbox @ NP



INTRODUCTION

The Sandbox (TSB) @ Ngee Ann Polytechnic is committed to sparking the flames of entrepreneurial passion amongst our students and alumni community. TSB is the one-stop resource centre for our next generation of trailblazers, with its repertoire of signature programmes, funding initiatives, incubator spaces and industry partnerships.

Qualities valued in student entrepreneurs include perseverance, resilience, hard work, positivity.

CONTACT DETAILS



linkedin.com/company/npthesandbox



asktsb@np.edu.sg



np.edu.sg/student-life/the-sandbox-innovation-entrepreneurship

SUPPORT PROVIDED



People & Expertise

- Technology Management Office which provides commercialisation support and research funding to catalyse innovations between academic schools, industry and startups
- TSB Mentors that provide advice in different aspects of business building

Resources

- Kickstart Fund and NP Incubator Grant to fund startups
- AGILE Incubator an incubator space jointly launched in collaboration with United Overseas Bank that houses a co-working space and Hangout@UOB, a community space for students, founders and startups to interact
- Makers Academy a maker space that allows students to build prototypes through different machinery (e.g 3D printing, laser cutting etc) and materials

Programmes & Events

- Global Entrepreneurial Internship Programme (GEIP) allows students to intern at overseas startups and innovation ecosystems across 17 countries
- Innopoly an annual innovation & entrepreneurship festival

B. Student clubs allow students to support one another through experiential learning, platforms for greater exposure and community building



Focus

Clubs

THE SANDBOX

Value-add

Notable events

Entrepreneurship



SMU Real

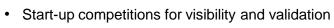
Business

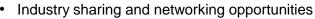






Start*j*T













UNICON NES

P.A.K SMU Eagles

IdeasSlam! The Sandbox **Advocates**

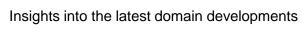
Technology Verticals

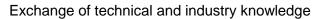


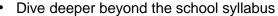
NTU entrepreneurship society

















Product Management Experience **SMU Product Club**

PRODUCT

MANAGEMENT **EXPERIENCE**

Venture Investing





- Pitch competitions to hone analytical skills
- Understanding venture investment factors
- Networking with investment professionals



APECS Venture Capital Case Competition **APECS**



Sustainable Investment Summit **SMU Sustainable Investing**

Note: Non-exhaustive

Source: Student clubs' website and social media

C. University-based start-up accelerators / incubators build strong foundations for early-stage startups and set them up for future growth



Focus

Accelerator / Incubator

Value-add

Notable alumni

Early-Stage Sector Agnostic





- · Masterclasses featuring domain experts
- Connections to prospective business partners
- Imparting best practices for fundraising







Workstream [Series B] BIG Incubator Biofourmis [Series B] BLOCK71 Ajaib [Series B] BLOCK71

Deep Technology



- IP support and technology commercialisation
- · Connections to industry-leading companies
- Access to research facilities and collaborations.





FATHOMX

Accredify [Series A] NTUitive

CYFIRMA [Series A] ICE71 FathomX [Pre-Series A] NUS GRIP

Venture Building





- · Support in product and business development
- Mentors with deep entrepreneurial backgrounds
- Networking opportunities with investors







Bifrost [Series A] SUTD VIE Datature [Seed] SUTD VIE Affable.ai [Seed] SUTD VIE

Note: Non-exhaustive

Source: Competitions' website and social media

D. Venture funds & angel networks based in tertiary institutes provide various forms of support in addition to investment capital to student founders



Category **Organisation** Investment focus Support provided Investing in pre-seed or seed stage sector-agnostic startups founded by Venture Capital **students** (undergraduate/graduate/PhD) Or recent graduates respectively (<5 years) Talent Student Connections Protégé Ventures Network Sourcing to ecosystem Investing in **pre-seed** startups Angel Network focusing on Southeast Asia Mentor Demo Founder **Days Seminars** Matching **NUS Alumni Ventures** Investing in Pre-Series A and Series A Southeast Asian startups focusing on digital transformation Venture TECHNOLOGICAL Capital and digital platforms that capture transaction flow to unlock value (e.g. Fintech, EdTech, AgriTech) Operational Go-to-Market Industry **SBI-NTU-Kyobo Digital Innovation Fund** Connections **Expertise** Network Angel Investing in startups founded by

Ngee Ann Polytechnic students

Note: Non-exhaustive

Network

Diverse and Exclusive

Alumni Network

Quarterly Pitching

Sessions

Ngee Ann Polytechnic Angel Network

E. Student startup competitions offer student entrepreneurs visibility, access to industry leaders for feedback and a platform for thought leadership



Category

Competition

Value-add

Notable winners

Entrepreneurship





- Consultations with experienced business leaders
- Platform for global and regional exposure
- Exclusive panel sessions and fireside chats







Iterative Health LKYGBPC

EzPz UNICON

Pace Fitness **Real Business** Pitch It!

Technology Development





- Working closely with corporations
- Tools and materials for prototyping
- Rapid testing and iterating of ideas







GotSurge PIER71 **Smart Port** Challenge

GreenCOP PIER71 **Smart Port** Challenge

Seadronix PIER71 **Smart Port** Challenge

Social **Impact**



- Inculcating real social impact on business
- Connecting with social impact practitioners
- Mentoring from business leaders



SampleLah! **SUSS Impact Startup Challenge Grand Finale**



Pawfoo **Social Engine**



Castomize Social Engine

Note: Non-exhaustive

Report outline





Venture Capital Activity in Singapore



Our Belief in Student Founders



Singapore Student Startup Ecosystem



About Protégé Ventures





Supported by:



Institute of Innovation & Entrepreneurship

INTRODUCTION

We are **Southeast Asia's first and Singapore's only** Student Venture Capital Fund, attracting a diverse pool of the most driven students from all tertiary institutions in Singapore.

We are industry-agnostic and invest SGD 25,000 - 50,000 in early-stage tech startups founded by students (diploma, bachelor's degree, master's degree, PhD) or recent graduates respectively (within 5 years or less) raising their pre-seed to seed rounds.

KEY PEOPLE



Rahul Paleja
Managing Partner
NUS BBA Grad



Keith TanManaging Partner
NTU BBus, Y3

HIGHLIGHTS

Our Mission

To help student entrepreneurs build scalable ventures and train the next generation of venture capitalist leaders.

Our Vision

To be the best venture capital fund to identify promising student founders for our stakeholders.

Our Key Assets

- Largest pipeline of early-stage startups founded by students and recent graduates
- High quality of analysis and rigorous training through real-life investment due diligence
- Student's perspective enabling us to build rapport with student founders

Our Portfolio





















A word from our former partners





Luiie Chen **Founding Partner** Director, Investments @ Aglaia **Investment Management**







NRF TEMASEK

In 2017, when I started brainstorming other ways to engage and support the many young founders I found around the region, I came across student venture funds like the USbased Dorm Room Fund. Recognizing that "like seeks like". I concluded that one of the most effective ways to nurture the budding ecosystem would be to train young people into becoming Venture Capitalists themselves.

Thus, alongside fellow Founding Partner Kumar Suppiah and SMU IIE Director Hau Koh Foo and the support of key players such as Paul Santos from Wavemaker Partners and Dr Jeffrey Chi of Vickers Venture Partners; Protégé Ventures was launched to provide these aspiring VCs and founders, a shot at performing typical tasks at a VC fund. From deal-sourcing and due diligence efforts all the way to writing real cheques, PV members were equipped to support their fellow student entrepreneurs in their fundraising journeys.

While initial batches of PV were experimental, two types of student profiles begin to emerge:

passionate individuals eager to launch their own startups and finance enthusiasts seeking exposure to the VC scene, a trend the team continues to observe to this day!

What then has changed? Greater awareness of PV and the VC scene and the team more actively engaging with the startup ecosystem. While PV's focus remains niche, the focus on championing young entrepreneurs remains important as it helps to forge closer ties between founders, investors and other key players in the scene at an earlier age and stage, contributing to the continued vibrancy of the student startup ecosystem in Singapore.

I also observed that PV has served as a vital link for individuals looking to transition into investment roles, not just at banks but also in the private equity world. Many PV alumni have successfully made this career leap, facilitated by the connections and experiences gained within the organization. This also helps them stay connected to the startup ecosystem even if they may pursue non-I&E-related roles.

Looking ahead, my dream for the fund is to maintain the momentum and continue nurturing a thriving community of I&E enthusiasts who actively give back to the space and help spur on future generations of entrepreneurial/VC talent in Singapore and beyond!



Jerald Low Managing Partner (2020 -2021) Associate, Global Corporate Development @ Bespin Global

BESPIN GLOBAL TO VIBRANIUM



"My time in PV cemented my conviction to work in startups rather than MNCs because of the ability to make a difference in my role."

I stumbled into Venture Capital and startups when I joined the Venture Capital Case Competition in Dec'18. I talked to one of the founding partners of PV who invited me to join PV and I've been here ever since. The motivation to stay was because of the people who were inspiring and mentally stimulating with how they saw the world and their passion for uncovering business models.

My time in PV cemented my conviction to work in startups rather than MNCs because of the agility they have in capturing market share + ability to make a difference in my role. PV has helped me to appreciate working in nebulous environments and thriving in them.

My career direction was entirely changed since joining PV. I originally wanted to work in finance in a bank, but started dreading it after understanding how fluid a startup can be. I aspire to work as an operator in a startup and eventually make a transition to VC after a few years of scaling startups.

The most memorable event in PV was leading the investment team for Intellect, our most successful Portco. It was our first Covid deal that was done entirely over Zoom. We invested in mental health in May'20 which was unheard of since it was the beginning of Covid. We did this deal ahead of the curve and it has attracted a wide range of leading institutional investors ever since.

A word from our former and current members





Jiehui Tan Principal (2021 -2022) Investment Associate @ Temasek

TEMASEK A INSIGNIA VERTURES PARTURES PARTURES PARTURES PARTURES









"Being part of PV helped me think of the bigger picture of where my company is in terms of where in the value chain it is. what is its positioning against competitors - which ultimately helps steer it in the right direction"

I have always been passionate about startups and saw VC as an integral part of the ecosystem. I had friends in PV and thought it would be a good opportunity to be part of a like-minded community.

I built up my communication and analytical skills through PV as we looked at many different investment opportunities. These skills are highly transferable to my work life.

As an entrepreneur, I have to wear many hats. Being part of PV helped me think of the bigger picture of where my company is - in terms of where in the value chain it is. what is its positioning against competitors - which ultimately helps steer it in the right direction.



Kazel Koh Associate (2022 - Present) Co-founder @ CyberLife AI









"Exchanging ideas and knowledge with a community of like-minded peers who are equally excited to work at the forefront of technological innovation is truly incredible."

Starting out as a startup founder, I always wanted to see the entrepreneurial ecosystem from the other side of the table. I first heard about PV from Keith, a PV member who first reached out to me to ask if I was fundraising. Thus, I applied to PV in order to gain experience working as a VC and increase my ability to further help the Singaporean startup ecosystem.

Being in PV allowed me to cultivate extensive industry knowledge and connections, which has helped me gain a better understanding of market trends, user needs, and best practices. This helps inform the product development process and ensure that the product is aligned with the needs of potential customers.

Being in PV allowed me to gain experience in analysing and evaluating potential investment opportunities. These skills are useful in other roles such as market research, strategic planning, or business development. As a venture analyst, I also developed a strong understanding of financial modelling, valuation techniques, and investment metrics.

PV helped me to be further involved in the entrepreneurship ecosystem. One of them is the opportunity to join the Lee Kuan Yew Global Business Plan Competition as a Japan Outreach Director, where I was given the incredible opportunity to lead a delegation to Japan to scout for startups and VCs.

The team behind the report



Project leadership



Rahul Paleja Managing Partner NUS BBA Grad





Zi En Lim Analyst SMU BBM, Y3



Nicole Lim Analyst SMU BSc, Y3





Anaanya Bijay Principal SMU BBM, Y4



Abdullah Khurshid Principal SMU BSc, Y3



Ryan Kang Associate SMU BBM, BSc, Y3



Dean TayAssociate
SMU BBM, Y2



Jolin Chua Analyst SMU BSc, Y3



Bob TanAssociate
SMU BBM, Y3



Dorothy Yuan Analyst NUS BComp, Y2



Jonathan Liem Analyst NP Business, Y2





Wen En Lim SMU BAcc, BBM, Y4



Terrence HoonAssociate
NTU BAcc, BBus, Y4



Additional information on university-based accelerators / incubators

Additional information on student startup competitions



Additional information on university-based accelerators / incubators

C Additional information on student startup competitions



	Student clubs	Description	Events & Activities
	SMU Eagles Inc.	SMU Eagles organizes activities for students to incubate and nurture aspiring student entrepreneurs and help bring their business ideas into reality	MasterclassesProfessional PanelsP.A.K ChallengeNetworking Events
	SMU Real Wasiness	SMU Real Business support budding entrepreneurs by connecting them with matured entrepreneurs and equipping them with essential skills	Company SharingsPanel DiscussionsPitch It!Masterclasses
_	SMU FINTECH SMU Fintech Society	SMU FinTech aims to be the platform for SMU students to keep abreast of developments and seek opportunities for growth in the FinTech industry	Industry ResearchFireside ChatsNetworking EventsCase Competitions
	SMU Blockchain	The SMU Blockchain Club is value-aligned with Web 3 and supports students who are looking to learn and build in the blockchain space	Professional SharingIndustry ResearchNetworking EventsCompany Visits

Source: Club's website and social media © Protégé Ventures 2023



Student clubs	Description	Events & Activities
SMU & AI SMU ARTIFICIAL INTELLIGENCE CLUB SMU AI Club	SMU AI is a student-led ThinkTank which focuses on AI and facilitates thought leadership between leading thinkers, academia and the private sector	Industry ResearchPanel DiscussionsTechnical LessonsNetworking Events
SMU Sustainable Investment (SI)	SMU SI educates students about sustainable investing through company collaborations, introductory classes and publishing research papers	Company SharingsPanel DiscussionsCase CompetitionsMasterclasses
SMU Product Club	SMU Product Club educates students on Product Management. through their learning programmes, industry sharing and networking opportunities	Industry SharingWorkshopsNetworking EventsInterview Practice
YNES Yale-NUS Entrepreneurship Society (YNES)	YNES organises events and projects to raise awareness about Southeast Asian entrepreneurship and entrepreneurship opportunities within Yale-NUS	Industry SpeakersNetworking EventsYNES Internship Programme

Source: Clubs' social media and website © Protégé Ventures 2023



Student clubs	Description	Events & Activities
NUS Entrepreneurship Society (NES)	NES promotes entrepreneurship at NUS by working with students, professors, and partners to drive innovation and entrepreneurship	UNICONGround ZeroSpark Tank X
FINTECH SOCIETY	NUS Fintech Society is for students looking for opportunities to learn more about the industry through events, industry projects, and partnerships	NUS Fintech MonthWorkshopsIndustry Sharing
Start JT NUS StartIT	NUS StartIT serves as the key platform for students passionate in the field of IT and technopreneurship to unite and expand their expertise together	Pitch CompetitionsWorkshopsNetworking Events
APECS The Asia Private Equity Club e SMU Asia Private Equity Club (APECS)	APECS offers students a learning curriculum, networking opportunities and the chance to plan case competitions focusing on venture capital and private equity	Case CompetitionsPanel DiscussionsNetworking Events

Source: Clubs' social media and website © Protégé Ventures 2023



Student clubs	Description	Events & Activities
NTU entrepreneurship society (NTU ES)	NTU ES provides a platform for NTU students to learn about the vital skills of an entrepreneur by engaging veteran leaders and mentors	WorkshopsSpeaker EventsIndustry Sharing
BLOCKCHAIN AT NTU	Blockchain@NTU fosters a vibrant blockchain community in NTU by developing the technical expertise and market awareness of its members	Industry SharingWorkshopsNetworking Events
THE SANDBOX ADVOCATES The Sandbox Advocates (TSA)	TSA are the student representatives of The Sandbox, Ngee Ann Polytechnic, Innovation & Entrepreneurship Arm	TSBA Pitch ShowdownTEDxYouth@NPideaSLAM!
SIM Young Entrepreneur Network (SIMYEN)	SIMYEN nurtures students with entrepreneurial skills by organising panel discussions, workshops and an annual business pitching competition	SIM YEN HackathonYENtrepreneur TalksSIM YEN Innovators Challenge
social impact catalyst Social Impact Catalyst (SIC)	SIC is Singapore's largest youth-centric organisation focused on social entrepreneurship and innovation with chapters across NUS, NTU, SMU and TP	Social Engine (SMU)Social Oven (NUS)TEDxSMU

Source: Clubs' website and social media © Protégé Ventures 2023



Additional information on university-based accelerators / incubators

C Additional information on student startup competitions





Accelerators /	
Incubators	

Notable alumni



BLOCK71 Global Startup Runway A year-long equity-free incubation programme for startups with customer traction and intending to scale across Southeast Asia focusing on Smart or Sustainable Environments, Health & Wellbeing, Industry 4.0 or Web 3.0

Focus

- Incubation space
- Market access support
- Fundraising opportunities

Support provided

Product development

- Patsnap (Series E)
- 99.co (Series C)
- · Nium (Series D)



A six-week market validation and customer discovery programme for Smart Port Challenge Finalists which includes entrepreneurship education from NUS Enterprise

- Pairing with mentors
- · Workshops and masterclasses
- Pitch coaching
- · Access to investors and corporates
- Aeras Medical
- Kanda (Seed)
- SkyLab



A programme for early-stage cybersecurity start-ups with existing customer transactions which are planning to scale across Southeast Asia

- Co-working Space
- Access to Investors
- Mentorship Pairing
- Testing Facilities

- CYFIRMA (Series A)
- Strobes (Pre-Series A)
- GuardRails (Seed)

Additional information on university-based accelerators / incubators (2/3)



	Accelerators / Incubators	Focus	Support provided	Notable alumni
	BUSINESS INNOVATIONS GENERATOR B.I.G Incubator	The programme is designed to help early-stage founders validate their products and get ready for seed investment	 Grant funding opportunities Access to mentors and advisors Co-working space Workshops on best-practices 	Workstream (Series B)TurtleTree (Series A)StaffAny (Series A)
-	NTUitive NTUitive	NTUitive provides a systematic incubation system and a support network to help founders overcome their challenges	Co-working spaceOverseas market accessRegular legal clinicsGrants and mentorship	AiTreat (Series A)MyDoc (Series A)Aurigin (Series A)
_	SINGAPORE UNIVERSITY OF TECHNOLOGY AND DESIGN Venture, Innovation & Entrepreneurship	SUTD VIE supports the commercialisation of research and creation of startups and spin-offs by SUTD affiliates	 Co-working space Access to labs & facilities Grant funding opportunities Participation in exhibitions & 	Affable.ai (Seed)Bifrost (Series A)Datature (Seed)

Source: Tertiary institutions' websites and social media

conferences

SUTD VIE

Additional information on university-based accelerators / incubators (3/3)



Accelerators / Incubators

Focus

Support provided

Notable alumni



Incubation Programme

A programme to understand the landscape, challenges and opportunities in the area of agriculture and food security in Singapore and around the region

- Industry mentors
- Experiential learning
- · Complete a growing cycle.

 Maiden 6-month batch is still ongoing



Supporting SUSS students and alumni who want to launch their bootstrapped startups by focusing on customer-centric methodologies and product development

- · EIR support and guidance
- · Co-working space
- · Market access to SEA and China
- · Grants and mentorship

- Fundigo
- SpedGrow
- Playnium



NUS GRIP

A twelve-month programme that helps founders in product and market validation and business development to secure seed funding and grow afterwards

- Mentorship from industry experts
- Access to labs & facilities
- Co-founder matching
- Potential investment from NUS

- Singrow (Series A)
- FathomX (Pre-series A)
- NEU Battery (Seed)

Source: Tertiary institutions' websites and social media



Additional information on university-based accelerators / incubators

Additional information on student startup competitions

Additional information on student startup competitions (1/2)

Challenge



Competition	Description	Cash prizes
UNICON	UNICON hosts TigerLaunch, the world's biggest student-run entrepreneurship pitching competition, for startups with at least one member being a full-time university student	1st Prize: SGD30002nd Prize: SGD15003rd Prize: SGD500
SMU Real Business Pitch It!	Real Business' signature business idea pitching competition where students are invited to pitch their innovative and practical ideas to industry leaders and successful entrepreneurs	1st Prize: SGD5002nd Prize: SGD3003rd Prize: SGD100
PAK P.A.K	A global student-led business plan competition for budding entrepreneurs to further develop their innovative ideas	1st Prize: SGD50,0002nd Prize:SGD15,0003rd Prize: SGD5,000
GLOBAL BUSINESS PLAN COMPETITION REMAGINE SMARE SUSTAINABLE AND RESILIENT CITIES Lee Kuan Yew Global Business Plan	A Biennial university startup challenge in organised by SMU IIE for startups founded by at least one current university student or recent graduates	 Beta Prize: SGD100,000 Infinity Prize: SGD100,000 SMU Chancellor Cup: SGD75,000

Source: Competitions' website and social media © Protégé Ventures 2023

Additional information on student startup competitions (2/2)



50

Competition

Description

Cash prizes



NTU IdeaJam

A 4-day long ideathon that encourages tertiary students to think about innovative ideas to solve prevalent problems with technology

1st Prize: SGD2000

2nd Prize: SGD1500

3rd Prize: SGD500



PIER71 Smart Port Challenge An innovation competition to find the best ideas and solutions from technology start-ups around the world to address challenges, or innovation opportunities, put forth by maritime corporates in Singapore

• 1st Prize: SGD10,000

2nd Prize: SGD5,000

3rd Prize: SGD3,000



Social Engine

A social enterprise pitching competition for all university and polytechnic students in Singapore hoping to turn their social innovation ideas into action and translate those into business solutions

 Top three teams get SGD1,000 each



SUSS Impact Startup Challenge This bootcamp is targeted at aspiring entrepreneurs (18 years and above) who want to test their ideas and develop a promising business proposal

• 1st Prize: SGD10,000

2nd Prize: SGD5,000

Source: Competitions' website and social media © Protégé Ventures 2023