ASEAN University Network

University Innovation & Enterprise

THE UNIVERSITY STARTUP FUNDING PLAYBOOK

Navigating Grants, Angels and Venture Capital for Cross-Border Growth in Southeast Asia



Co-led by

Chula Chulalongkorn University

SMU Singapore Management University

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aunuie.org



Foreword



Professor Lim Sun Sun
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University-affiliated startups in Southeast Asia occupy a distinctive and often underserved position in the innovation ecosystem. They draw on the research capabilities of their home institutions, operate within the frameworks of technology transfer offices, and must navigate government grant systems and private capital markets simultaneously — frequently across multiple countries with different regulatory environments, business cultures, and investor expectations.

Yet despite this complexity, there has been no comprehensive resource tailored to the funding challenges these startups face. The guides that exist are either oriented toward mature ecosystems in North America and Europe, or address commercial startups without accounting for the structural realities of university-linked ventures.

This playbook was developed to address that gap. It is the product of the inaugural AUN-UIE Webinar Series, which brought together investors, government funding agencies, and social enterprise leaders to examine the most consequential funding decisions university-linked startups make — and the most common mistakes they should seek to avoid.

We expect it to be debated, challenged, and improved by contributors from across the network. If it helps even a small number of university-linked startups make better funding decisions, it will have served its purpose. We are delighted to launch this Playbook series that captures the wisdom and energy undergirding our ASEAN university innovation and entrepreneurship ecosystem, and may the insights within accelerate our innovation flywheel.

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Playbook Advisory Panel

This playbook was developed with guidance from the following advisory panel members, each of whom contributed practitioner insights and reviewed the final document.



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1. The Funding Landscape



Before examining which type of funding is appropriate for a given stage, it is important to establish a shared understanding of the funding categories available to university-affiliated startups.

1.1 Grants

A grant is non-dilutive capital — funding that does not require the startup to surrender equity in exchange. Grants are typically awarded by government agencies, foundations, or institutional programmes for a specific purpose, and come with reporting and milestone requirements.

In Southeast Asia, government grants are the primary early-stage funding source for most university-linked startups. Key programmes include NIA Thailand's innovation grants, Enterprise Singapore's Startup SG suite, Malaysia's MTDC and Cradle Fund, and various national science and technology funds across ASEAN member states.

An important nuance is that not all grants are purely non-dilutive. Some government grant programmes include an equity component. Singapore's Startup SG Tech programme, for example, provides up to S$400,000 for Proof-of-Concept and up to S$800,000 for Proof-of-Value projects. However, Enterprise Singapore retains the right to exercise a share subscription of up to 50% of the awarded grant amount (capped at 49% of total shareholding) when a qualifying equity financing round occurs. Founders should understand these terms before accepting, as they affect cap table structure and future fundraising.

SPOTLIGHT: STARTUP SG TECH (SINGAPORE)

What: Government grant for Proof-of-Concept (up to S$400,000) and Proof-of-Value (up to S$800,000) for deep tech startups.

Equity component: Enterprise Singapore may exercise a share subscription of 50% of the grant amount, capped at 49% of total shareholding, at the next qualifying equity round.

Capital matching: Startups must inject 10% (POC) or 20% (POV) of the grant as paid-up capital.

Sectors: Advanced manufacturing, biotech, clean tech, ICT, precision engineering, food science.

Key insight: This is a grant with equity characteristics. Factor the share subscription into cap table planning before accepting.

Source: Enterprise Singapore / startupsg.gov.sg

SGTECH
WHERE TECH MEETS

1.2 Angel Investment

An angel investor is an individual who provides equity capital to early-stage startups, typically at the pre-seed or seed stage. Angels invest their personal funds and often bring domain expertise, industry connections, and mentorship alongside their capital. Unlike VCs, who are accountable to limited partners and operate under fund lifecycle pressure to return capital within five to seven years, angels invest their own money and can be patient for ten years or more.

In Southeast Asia, angel investment is more relationship-based and less formalised than in North America or Europe. Cheque sizes are generally smaller — individual tickets can range from as little as S$1,000 at pre-seed (where risk is highest) to S$25,000–30,000 for experienced angels — though the total raise through a syndicated group can reach S$100,000–150,000 per founder.

Structured angel networks have become an increasingly important part of the ecosystem. These networks pool individual investors, coordinate due diligence, and invest through a syndicated vehicle that appears as a single clean line item on the startup's cap table — even when 35–50 individual angels are behind it. This addresses the historical concern that angel investment fragments the cap table and deters subsequent institutional investors.

Founders should understand that each investor type has different motivations and patience levels. VCs need to return their fund within a defined period, which shapes every decision they make. Angels believe in the founder and can afford to wait.

Many family offices may prioritise strategic outcomes or capital preservation. This can be done to avoid over-generalisation. Choosing the wrong investor type for your stage and timeline is one of the most common funding mistakes (see Section 3, Mistake 5).

Unlike VCs, who are accountable to limited partners and operate under fund lifecycle pressure to return capital within five to seven years, angels invest their own money and can be patient for ten years or more.



SPOTLIGHT: KEY ANGEL NETWORKS IN SOUTHEAST ASIA

AngelCentral (Singapore / SEA) — Active angel investment network for Singapore and Southeast Asia. Over 1,000 angel investors trained, over 1,000 startups featured, S$38M+ invested by members into startups. Offers curated deal flow (40–50 startup investment opportunities per year), syndication services, and a comprehensive curriculum of angel investing workshops. Based at Block 71, Ayer Rajah Crescent, Singapore. Corporate sponsors include Enterprise Singapore and Monk's Hill Ventures.

Epic Angels (Singapore / APAC) — Founded by Hester Spiegel. Over 800 women investors globally. 72% of portfolio is impact-driven, compared to 0–23% in the global seed portfolio. Top sectors: sustainability, health, and fintech. Operates a self-service deal flow platform where angels review deals, access pitch decks and videos, and indicate investment interest. Deals are syndicated through a regulated third-party vehicle. After investment, optional round tables connect the founder with their specific syndicate's networks for hyper-personalised support. Also runs the Build programme for senior/ex-corporate founders.

An emerging source of early-stage capital is student-led venture funds. In Southeast Asia, **Protégé Ventures** is the region's first and Singapore's only student venture capital fund, drawing members across IHLs and Polytechnics, including SMU, NUS, NTU, Ngee Ann Polytechnic etc. The fund invests S$25,000 – 50,000 per deal in student-led startups using SAFE notes, and has made thirteen investments to date, including two Y Combinator-backed companies. Its portfolio companies have gone on to raise over S$35 million in follow-on funding.

Similar models operate in the United States, including A-Level Capital at Johns Hopkins University (40 investments from an alumni-backed fund) and the Husker Venture Fund at the University of Nebraska (US$1 million committed). These funds demonstrate that student-managed capital can serve as a meaningful early-stage funding source for university-affiliated startups.

1.3 Venture Capital

Venture capital is institutional equity investment from professionally managed funds. VCs invest with the expectation of significant returns within a defined fund lifecycle — typically seven to ten years. In exchange, VCs take equity (usually 15–30% per round), board seats, and governance rights. Less than 0.1% of new businesses receive VC funding, yet those that do account for a remarkable concentration of economic value: in the United States, VC-backed public companies now constitute 42% of total market capitalisation and 94% of R&D spending among public companies founded in the past 50 years.

However, the VC model is under significant structural strain. According to the World Economic Forum and Stanford Graduate School of Business (May 2026), companies now stay private for an average of 12 years before IPO — up from five to seven years historically. US technology IPOs have collapsed from 1,598 in the 1990s to just 227 in the 2020s. Approximately 1,900 venture-backed unicorns remain privately held globally, representing an estimated US$3 trillion in unrealised value sitting on VC fund balance sheets. This creates a liquidity squeeze: when VCs cannot exit, they cannot return capital to their limited partners, and the entire innovation-funding cycle decelerates.

For university startup founders, this structural context has practical implications. VC failure rates can reach 75% — approximately three out of every four VC-backed companies either fail outright or do not return the initial investment. Separate data suggests that startups with VC capital may have a 41% survival rate after five years, compared to 61% for bootstrapped startups. These findings do not argue against VC — they argue for timing. VC is the right capital for scaling a proven product, but may introduce counterproductive pressures when applied to a startup that has not yet validated its model.

The WEF report also notes that only 26% of technology company IPOs in the past five years were profitable at listing, compared to 60% in the 1990s. VCs are more cautious now not because they lack conviction, but because the structural economics of their own funds demand it. When a VC is pressuring a founder for faster returns, it is often because the VC's own limited partners are pressuring them for distributions that are not coming.

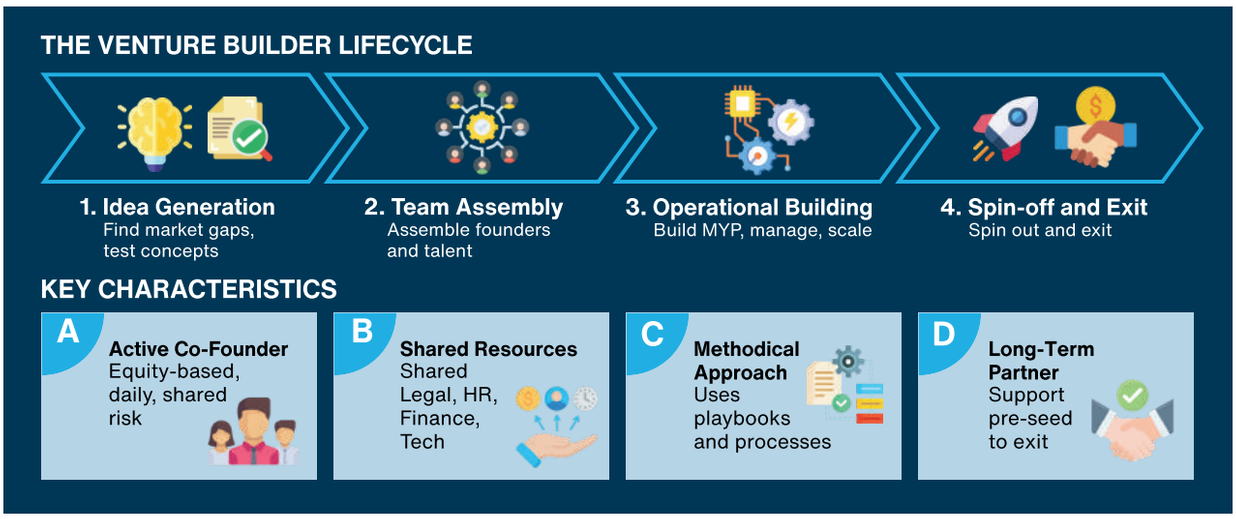
VC failure rates can reach 75% — approximately three out of every four VC-backed companies either fail outright or do not return the initial investment.

Associate Professor Liang Chen, Associate Professor of Strategy & Entrepreneurship at Singapore Management University's Lee Kong Chian School of Business, observed that while venture capital in the United States and China has grown increasingly willing to underwrite a scientific breakthrough — wagering on which AI trajectory will emerge as the dominant design and capture first-mover advantage — investors across much of Asia remain anchored to near-term returns and expect to see "monetizable solutions." This, he noted, can compel a venture to temper its founding ambition, pivoting toward more incremental, marketable offerings simply to survive to the next round.

1.4 Venture Builders

A venture builder — also known as a venture studio, startup studio, or company builder — is an organisation that creates startups from scratch, rather than investing in or accelerating existing ones. Where an angel provides capital and advice, and a VC provides capital and governance, a venture builder provides capital, an operational team, and hands-on co-creation of the startup itself. The venture builder acts as a co-founder with permanent involvement in the company's development. The key distinction from accelerators and incubators is the point of entry. An accelerator accepts applications from founders who already have a startup and a minimum viable product. A venture builder starts earlier: it generates or identifies the idea, validates the market, builds the business model, assembles the founding team, and invests early capital. The builder creates the startup; the accelerator scales it. Global data suggests the model produces measurably stronger outcomes than traditional startup creation. Studio-built startups have been found to achieve approximately 30% higher long-term success rates than typical VC-funded startups. They also reach Series A significantly faster — an average of 25 months compared with 56 months for traditional startups — by leveraging the studio's concentrated resources, shared infrastructure, and standardised processes.

This model is particularly relevant for university spinoffs, where the founding team is typically academic. Venture builders address the team gap — discussed further under the KTH IRL Team dimension in Section 2.1 — by placing commercial operators around the researcher, allowing the professor to remain focused on the technology while experienced operators handle business development, market entry, and fundraising. This approach has proven more effective than earlier models that asked professors to leave their academic positions to lead startups directly.



Venture builders typically take 20–50% equity — more than an accelerator (5–15%) but justified by the depth of operational involvement. Their engagement lasts two to four years, significantly longer than accelerator programmes, and encompasses product development, talent recruitment, legal and financial structuring, and market entry support. For university spinoffs navigating the valley of death, the venture builder model offers a structured bridge between research funding and venture capital readiness.

1.5 Hybrid and Impact Capital

Hybrid and impact capital encompasses blended instruments that combine elements of grants and equity investment. For mission-driven university startups, hybrid capital can offer a more appropriate structure than pure VC. raiSE Singapore's accelerator programmes, which have committed S$4.65 million to 68 startups across six countries, exemplify this model.

1.6 Cross-Border Funding

University startups in Southeast Asia increasingly raise capital from investors outside their home country. This is not simply cross-border expansion — it is cross-border funding, where the capital itself comes from a different jurisdiction than the startup's home base. The structural case for cross-border funding is compelling. According to the World Economic Forum, the ability to scale startups into world-leading enterprises varies dramatically by region. In North America and Asia, approximately one in 60 VC-backed companies becomes a unicorn. In Europe, the figure is one in 135. In Sub-Saharan Africa, it is one in 330. These differences reflect variations in capital market depth, regulatory structures, and talent mobility. For university startups in ASEAN countries with smaller domestic ecosystems, accessing capital, mentors, and partners from deeper ecosystems is not optional — it is a structural necessity for scaling.

Several mechanisms facilitate this. Angel networks such as Epic Angels operate across multiple geographies, with dedicated deal channels for different markets. Government programmes such as NIA Thailand's "Gateway to ASEAN" initiative explicitly fund cross-border market entry. raiSE Singapore Accelerators — open to overseas impact startups. Past international participants have come from countries including Vietnam, Korea, Taiwan, Malaysia, Indonesia, and the Philippines, though participation is not limited to these. Startups must establish a Singapore entity, with funding for social impact creation in Singapore. S$4.65M committed to 68 startups since 2022.

For university spinoffs, cross-border funding introduces both opportunity and complexity. The opportunity is access to a larger pool of investors, mentors, and market-entry partners than any single ASEAN country can provide. The complexity lies in navigating different regulatory frameworks, foreign ownership restrictions, and currency considerations. Founders pursuing cross-border capital should seek legal advice on corporate structuring early — many ASEAN startups establish a Singapore holding company to simplify multi-country investment, but this has implications for IP ownership, tax, and governance that vary by country.

Associate Professor Liang Chen, Associate Professor of Strategy & Entrepreneurship at Singapore Management University's Lee Kong Chian School of Business, characterised Southeast Asia as "a mosaic of distinct regulatory and cultural landscapes." On that basis, he argued that university founders need partners whose deep local networks can contextualise the go-to-market strategy for each new market — not merely capital.

SPOTLIGHT: CROSS-BORDER PROGRAMMES FOR UNIVERSITY STARTUPS

Epic Angels Cross-Border Deal Channels — Dedicated deal flow channels for different geographies (e.g. Hong Kong, Singapore), allowing startups to access angel investors across jurisdictions through a single platform.

NIA Thailand "Gateway to ASEAN" — Market expansion grants and landing programmes connecting Thai startups with partners in China, Korea, Japan, and across ASEAN.

raiSE Singapore Accelerators — Open to overseas impact startups from Vietnam, Korea, Taiwan, Malaysia, Indonesia, and the Philippines. S$4.65M committed to 68 startups since 2022.

Startup SG (Enterprise Singapore) — Various programmes supporting international startups establishing in Singapore, and Singapore startups expanding overseas.

EPIC ANGELS · NIA สำนักงานนวัตกรรมแห่งชาติ · raiSE SINGAPORE Centre for Social Enterprise · STARTUP SG

KEY TAKEAWAY

Each funding type serves a specific stage and purpose.

Grants de-risk early innovation. Angels bridge with capital and expertise. Venture builders co-create the company around the researcher. VCs scale proven products. Cross-border funding expands the pool but requires careful structuring.

Understanding what each type requires is the foundation for every funding decision that follows.



2. The Funding Decision Framework

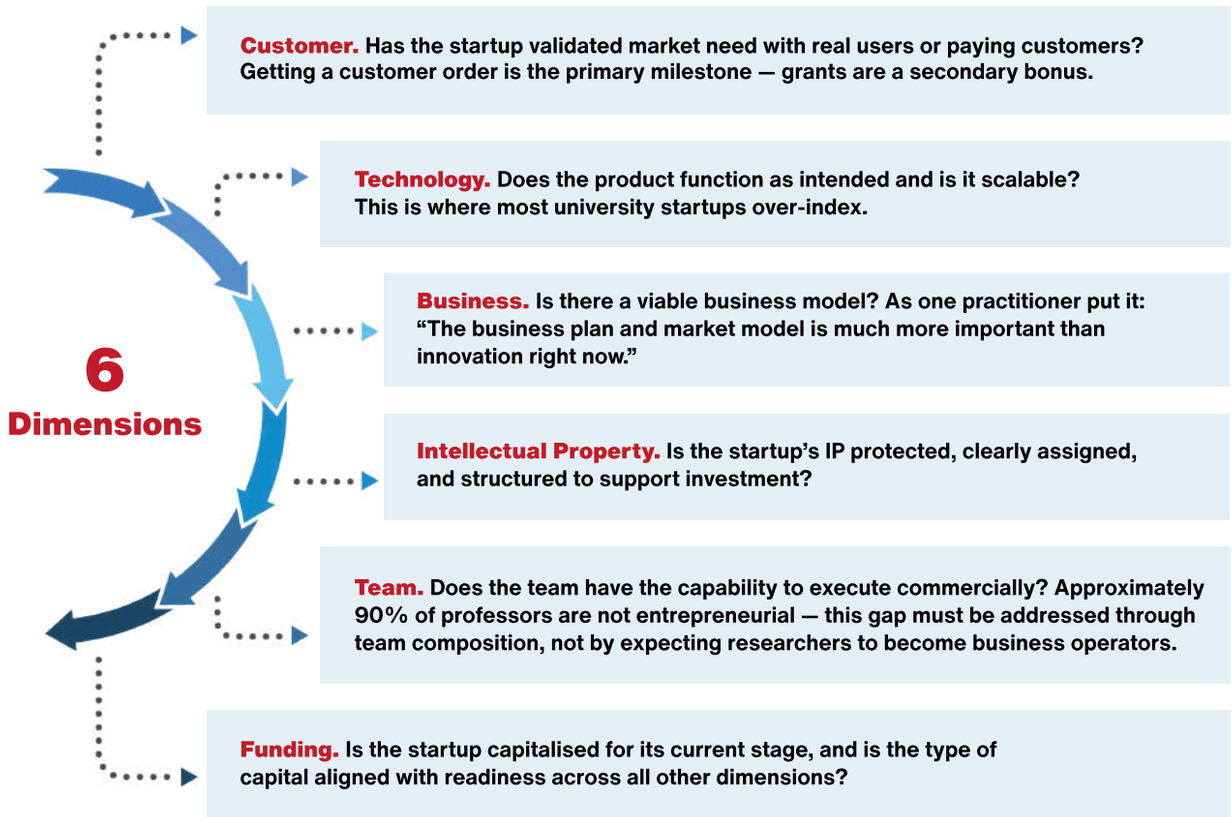


Funding is not the first problem a startup needs to solve. Readiness is. The frameworks presented in this section are designed to help founders assess their true readiness across multiple dimensions before pursuing any type of capital.

2.1 The KTH Innovation Readiness Level

Most university startups assess their readiness on a single dimension: technology. The evidence suggests otherwise — the majority of university startups that fail in the valley of death do so not because the technology failed, but because customer validation, business model design, IP structuring, or team composition were inadequate. To address this gap, this playbook adopts the Innovation Readiness Level model developed by KTH Royal Institute of Technology in Stockholm. The KTH IRL was selected for three reasons: it measures readiness across six dimensions simultaneously, it was designed specifically for university innovation environments, and it has been adopted by hundreds of organisations globally — including Vinnova, Volvo, Ericsson, and university incubators across Europe.

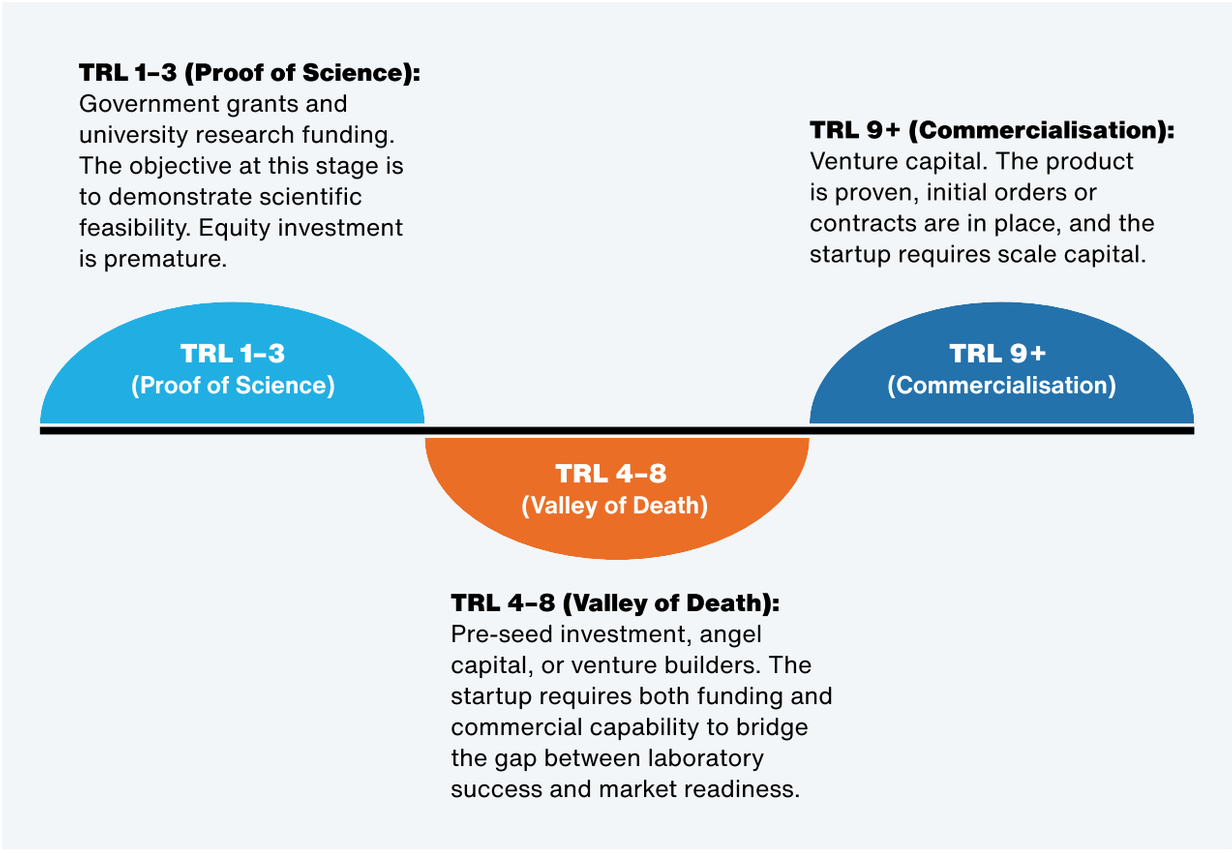
The validity of a multi-dimensional readiness approach is independently confirmed by leading US institutions. The University of Michigan's Innovation Partnerships Ventures team uses both a Technology Readiness Level and an Investment Readiness Level in its quarterly Startup Pipeline report, reflecting a growing consensus that single-dimension assessments are insufficient.



Founders are encouraged to rate their startup 1–5 on each dimension before approaching any funder. If any dimension scores below 3, address that gap first.

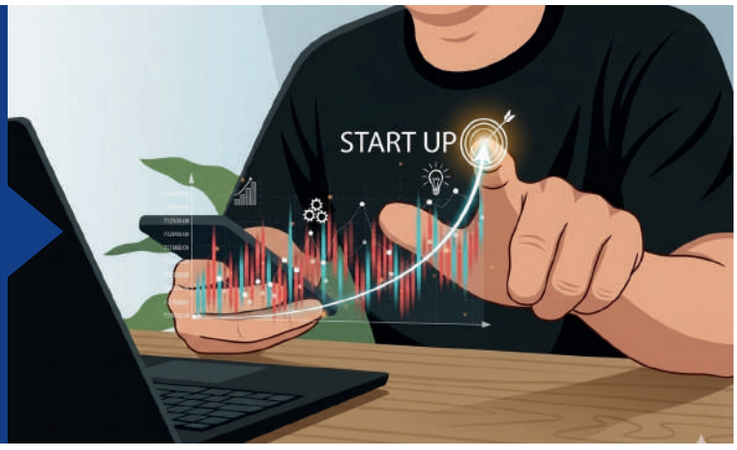
2.2 Mapping Technology Stage to Funding Type

Once a startup has confirmed balanced readiness across the KTH IRL dimensions, the Technology Readiness Level provides a complementary lens for matching technology maturity to the appropriate category of capital.



The KTH IRL and TRL are complementary. The KTH IRL assesses whether the startup is ready. The TRL assesses whether the technology is ready. A startup at TRL 7 but with a KTH IRL Customer score of 1 is not ready for venture capital — the technology may be there, but the market is not validated. Conversely, a startup at TRL 4 with strong scores across Customer, Business, and Team may be ready for pre-seed investment because the team has demonstrated the ability to execute.

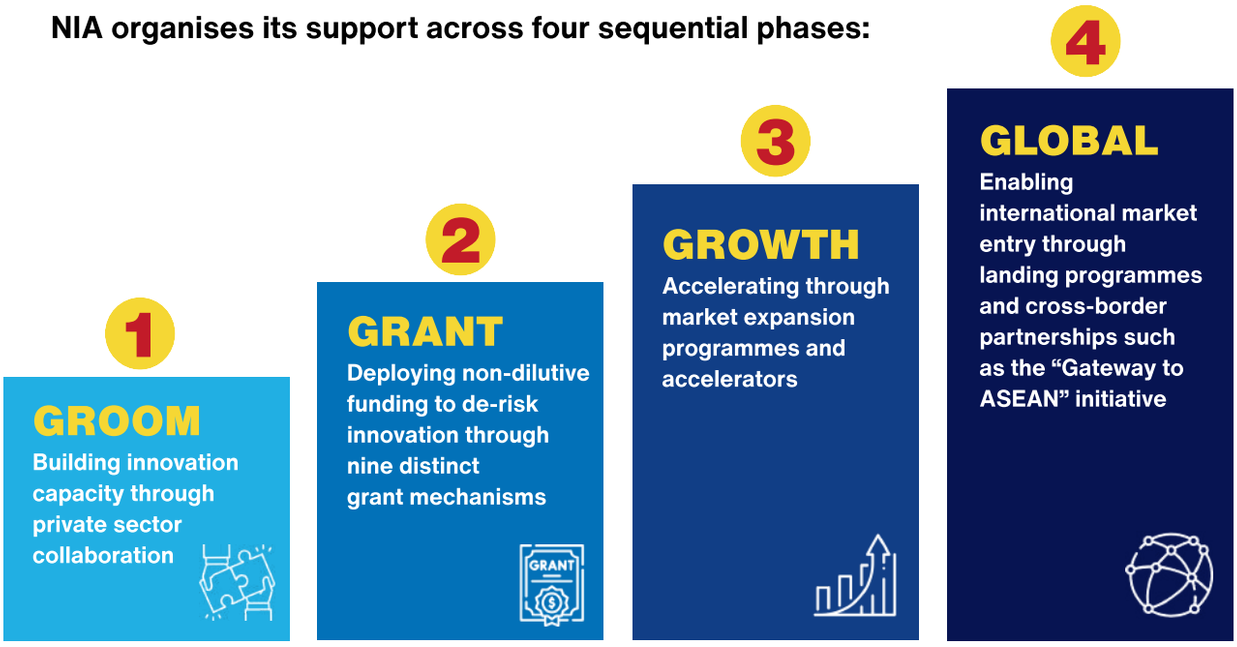
A startup at TRL 4 with strong scores across Customer, Business, and Team may be ready for pre-seed investment because the team has demonstrated the ability to execute.



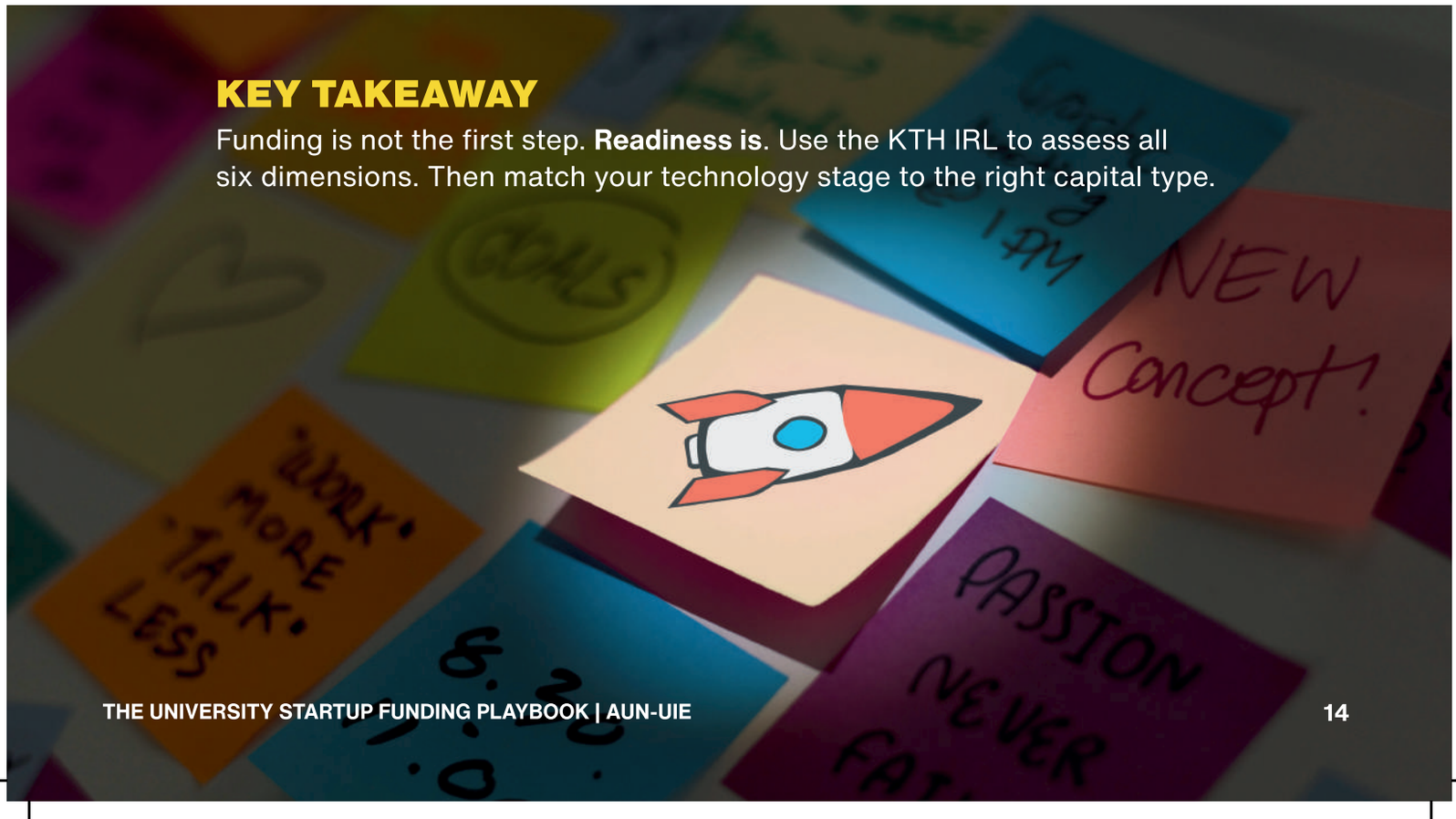
2.3 Navigating Government-Supported Ecosystems

For founders operating within ASEAN countries where government grants constitute the primary early-stage funding source, the framework developed by Thailand's National Innovation Agency offers a useful model for understanding how public support is structured.

NIA organises its support across four sequential phases:



The principle underlying this model is consistent with the broader framework of this playbook: government funding is designed to build readiness for private capital, not to replace it. Founders who understand this distinction use grants strategically as a stepping stone. Those who do not risk the grant dependency pattern described in Section 3, Mistake 4.

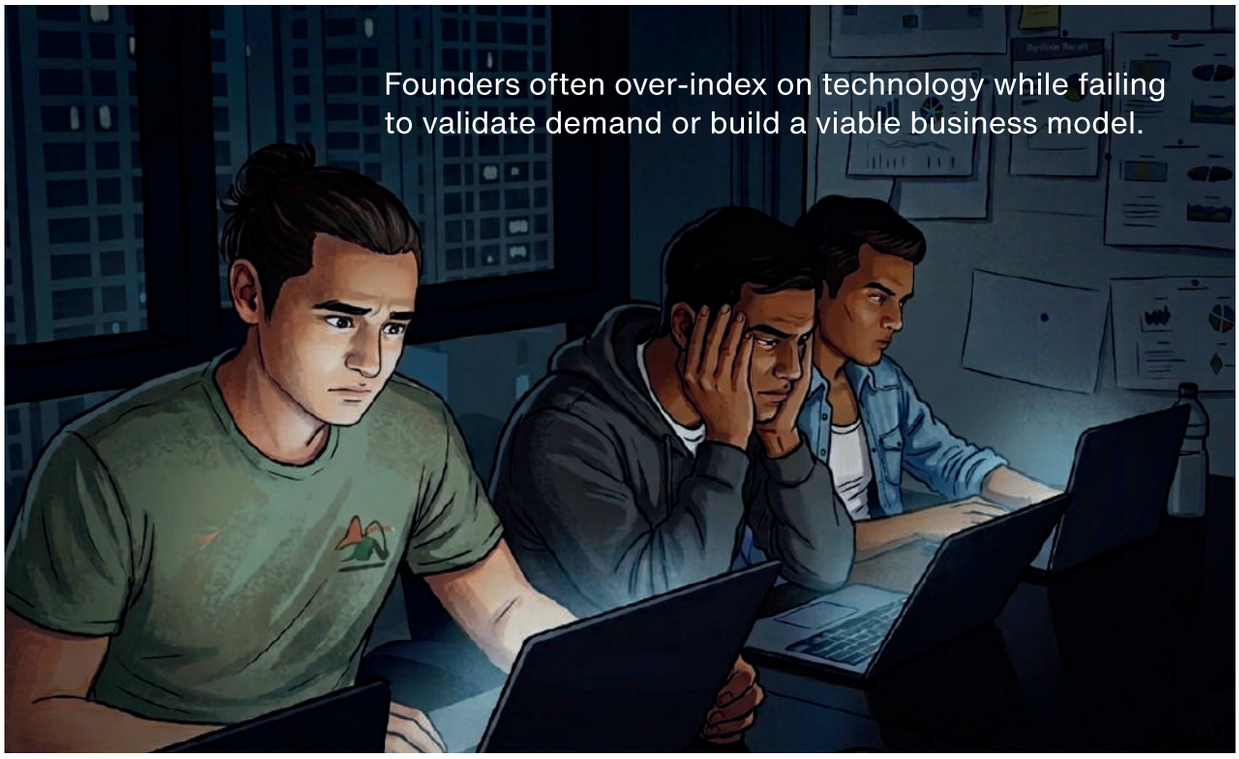


A Recurring Pattern

Each mistake below is tagged with the specific KTH IRL readiness dimension it reflects. Across the panel discussions that informed this section, one pattern was consistent: the commercial dimensions — Customer and Business — were the most frequently underweighted by university startup founders. Founders tended to over-index on Technology while underestimating the importance of validating demand with a real buyer and building a viable business model around the innovation.

Dr Krithpaka Boonfueng, Executive Director of NIA Thailand, noted that across the startups her agency reviews, it is rarely the technology that is the bottleneck — the differentiator between those that succeed and those that do not is whether the founding team has built a business model that can bring the innovation to market. Clarence Tan, Founder of Origgin Ventures, reinforced the point from the investor side: "More important is to secure your first order. Funding can come naturally."

Professor Pradeep Varakantham, Professor of Computer Science at SMU, Director of the CARE.AI lab and Founder of Aacharya Labs, put it plainly from the founder's seat: “funding is mostly for growing a company that already makes money — not for finding out whether the idea makes money in the first place."



Founders often over-index on technology while failing to validate demand or build a viable business model.

This does not diminish the other dimensions — IP, Team, and Funding gaps can each be fatal on their own. But the case studies in the mistakes that follow suggest that when founders address Customer and Business readiness first, progress across the remaining dimensions tends to follow.

3. Five Funding Mistakes — What Happens When Readiness Is Neglected

FROM THE TRENCHES



The best lecture we can get is from mistakes. It is a privilege to learn from the mistakes of others and try not to repeat them.

Professor Ronnakorn Vaiyavuth
Deputy Exec Director, Innovation & Commercialisation, Chulalongkorn School of Integrated Innovation (CSII), Thailand. Co-Lead, AUN-UIE Network

Mistake 1: Choosing the Wrong Type of Capital for the Stage of Development

READINESS GAP:
Technology + Funding mismatch —
capital type does not correspond to the startup's stage of development.

University startups frequently pursue capital that is mismatched to their stage of readiness. The most common manifestation is seeking venture capital before market validation, or remaining on grant funding long after the startup should have transitioned to equity investment.

The evidence on VC timing warrants careful consideration. According to the World Economic Forum, approximately 75% of VC-backed companies fail outright or do not return the initial investment. Separate research suggests that startups with VC capital may have a 41% five-year survival rate, compared to 61% for bootstrapped companies. While these figures reflect different contexts and methodologies, the pattern is consistent: taking VC before a startup is ready to absorb the associated timeline pressure, governance complexity, and growth expectations can introduce risks that outweigh the capital received.

Government grants carry their own risks when founders optimise for grant milestones rather than business milestones. Practitioner experience shows that startups can hold grant funding for years yet remain unable to attract VCs — because grants do not demonstrate commercial traction.

According to the World Economic Forum, approximately 75% of VC-backed companies fail outright or do not return the initial investment.



FROM THE TRENCHES



Venture capital is like rocket fuel. But if your rocket is not built yet, the fuel just burns through your runway.

Clarence Tan
Founder, Origgin Ventures



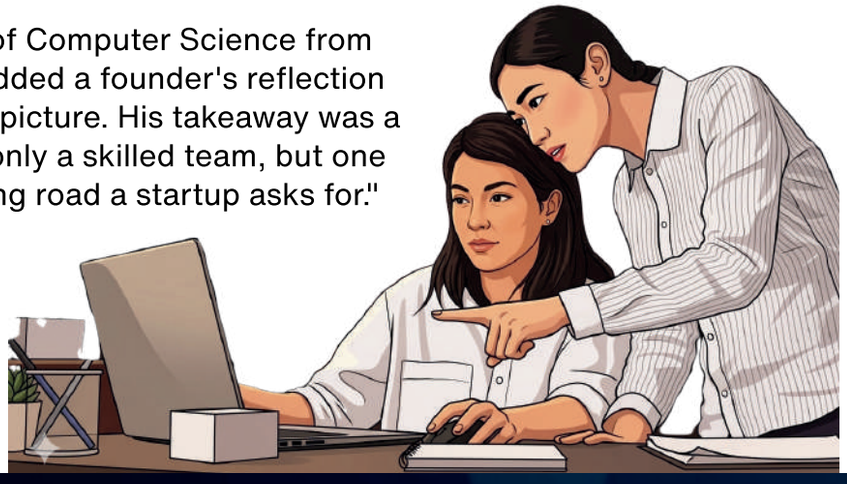
When people give something for free, it comes with certain expectations. We see cases of startups that end up not being able to pivot because they spend too much resources just trying to meet the grant milestones.

Koh Wei Shan
Director of Strategic Initiatives, raiSE Singapore

FOR FACULTY ADVISORS

Monitor whether student ventures are building revenue milestones alongside grant milestones. As discussed in Section 2, most professors are researchers by disposition, not business operators. The gap is best addressed by composing the team with commercial capability rather than expecting researchers to transform into entrepreneurs.

Professor Robert H Deng, Professor of Computer Science from Singapore Management University, added a founder's reflection that capability alone is not the whole picture. His takeaway was a generous one: “the right team is not only a skilled team, but one that is genuinely committed to the long road a startup asks for."



KEY TAKEAWAY

Capital type should correspond to readiness stage. Grants are appropriate for proving the science. Pre-seed, angel, or venture builder capital is suited to bridging the valley of death. Venture capital is designed for scaling a product with demonstrated market traction.



Mistake 2: Expanding Without a Country-Specific Strategy

READINESS GAP:
Customer dimension — market need not be validated in the target country.
Team dimension — no local partner.

Southeast Asia comprises ten distinct markets. Founders who treat the region as a single expansion target consistently underestimate the cost, complexity, and time required to enter each individual market.

The most effective approach is to identify an anchor partner in each target market — a local corporate, institutional, or government partner who can provide a first proof of concept or commercial order. Practitioner experience suggests that startups which secure a customer order often find that subsequent funding follows, rather than the other way around.

Professor Robert H Deng, Professor of Computer Science from Singapore Management University, framed the same sequence from the founder's seat, locating the decisive work in positioning rather than in the raise: “understand your market, understand the real user requirement, and have a proposition that is unique and adds value. The funding question, on this view, tends to resolve itself once the positioning is right."

FROM THE TRENCHES

Every country is different. You cannot say that China is the same as Indonesia. The operating environment is very, very different.



Clarence Tan
Founder, Origgin Ventures

To reduce the risk for the startup, we have to prepare all the knowledge, all the connections, and help them find the life partner in the destination country.



Dr Krithpaka Boonfueng
Executive Director, National Innovation Agency (NIA), Thailand

FOR FACULTY ADVISORS

Before a student team pitches a “Southeast Asia expansion plan,” require them to identify a specific anchor partner in a specific country.





KEY TAKEAWAY

Effective cross-border expansion begins with a single target market, a specific anchor partner, and a concrete proof-of-concept or first order. Revenue traction in a real market is a stronger signal to investors than a multi-country expansion plan.

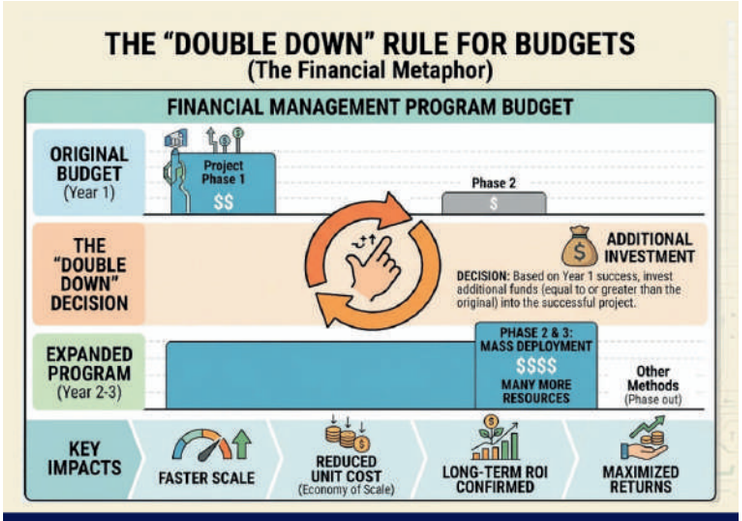
Mistake 3: Underestimating the Capital Required for Multi-Market Scaling

READINESS GAP:
Funding dimension — insufficient runway.
Business dimension — best-case projections.

Entrepreneurs tend to plan for best-case scenarios. In the context of cross-border expansion, this optimism frequently leads to budgets and timelines that do not account for the realities of operating across jurisdictions.

In Southeast Asia, where market entry is substantially relationship-based, negotiations with government-linked entities, state-owned enterprises, and large corporates routinely take longer than anticipated. Hidden costs compound the problem: legal structuring in a new jurisdiction, regulatory compliance, localisation of product and marketing materials, talent acquisition in unfamiliar labour markets, and the simple overhead of managing operations across time zones and languages.

The discipline of conservative financial planning — referred to by practitioners as the "double down rule" — is a risk management practice: if a startup estimates a budget of $500,000, it should raise $1 million. If it expects six months, it should plan for twelve. Fundraising itself also takes longer than founders anticipate — VC processes can extend from three months to twelve months, and founders should maintain a minimum of twelve months' runway at all times.



The Double Down rule for budgets means concentrating remaining funds or adding investments into the most promising and successful project to maximize returns and growth.

FROM THE TRENCHES



If you expect $500,000, raise $1 million. If you expect six months, plan for twelve. You must have enough firepower to last.

Clarence Tan
Founder, Origgin Ventures

Fundraising timeline benchmarks:

- **Family and friends: days to weeks**
- **Angel investors: 2–4 weeks**
- **Government grants: 3–6 months**
- **Pre-seed venture builder: approx. 3 months**
- **Venture capital (Seed–Series A): 3–12 months**

FROM THE TRENCHES

You have to think like the VC. If you didn't have any exit plan, or you have no Plan B, it is impossible.



Dr Krithpaka Boonfueng
Executive Director, National Innovation Agency (NIA), Thailand

FOUNDER VOICE: SENSOR STARTUP → CHINA

A sensor technology startup, commercialising wireless Fiber Bragg Grating sensors for structural health monitoring, entered the Chinese market expecting a six-month timeline. The partner proved to be a state-owned enterprise with extended approval cycles. After more than twelve months, negotiations negotiations are still ongoing and took longer than expected.

Principle: The double down rule should be applied to every budget and timeline assumption.



FOR FACULTY ADVISORS

When reviewing student startup financial projections, consider applying the double down rule as a stress test. If the team's plan depends entirely on best-case assumptions, it may warrant further scrutiny before approving expansion activity.

KEY TAKEAWAY

Conservative financial planning is a discipline that warrants consistent application. Maintaining twelve months of runway and initiating fundraising processes early provides the buffer needed to navigate the extended timelines typical of cross-border expansion in Southeast Asia.



Mistake 4: Poor Sequencing Between Public Funding and Private Capital

READINESS GAP:
Business dimension — no scalable revenue model beyond grants.
Funding dimension — stuck on non-dilutive capital.

The transition from grant-funded operations to equity-backed growth is one of the most critical junctures in a university startup's development. When managed well, grants serve as a credible foundation for subsequent private investment. When managed poorly, they create a pattern of dependency that signals to investors that the venture cannot sustain itself without non-dilutive capital.

Professor Pradeep Varakantham, Professor of Computer Science at SMU, Director of the CARE.AI lab and Founder of Aacharya Labs, framed the gap from the founder's side: grants reward the novelty of the idea; "VCs reward execution and traction — market size, a road to profitability, evidence it works. It's not just a different pitch; it's a different mindset."

Grant dependency typically develops incrementally. A founder receives an initial grant and optimises for its milestones. As the grant period concludes, a second grant is available — and since grants carry no equity cost, the perceived cost of applying is zero. The founder applies, receives the second grant, and optimises for its milestones. Before long, the startup has been on grants for three years with no revenue, no customer traction, and no experience managing investor expectations. The structural incentive at each step was rational, but the cumulative effect is a venture that private investors will not fund.

As Professor Ronnakorn summarised during the webinar: "Don't plan to be a grant dependence model — be a revenue-driven startup."

Progressive government agencies are addressing this structurally. NIA Thailand includes VCs and corporate partners on its accelerator selection panels, building the bridge between public and private funding from the outset rather than leaving it to the startup to navigate after the grant period concludes.

FROM THE TRENCHES



FOUNDER VOICE: NIA THAILAND AND CHULALONGKORN UNIVERSITY

NIA Thailand operates a co-funding programme with Chulalongkorn University: 50% from NIA, 50% from the university, for student thesis projects with commercial potential. No VC, no equity dilution, no complex cap table. A model any AUN-UIE member institution could adapt.

FOR FACULTY ADVISORS

Consider tracking the grant-to-revenue ratio for each venture under supervision. Two or more consecutive grants without any revenue generation may indicate a pattern of grant dependency that warrants discussion with the founding team.





KEY TAKEAWAY

While on a grant, it is advisable to begin building the metrics that private investors prioritise: revenue generation, customer traction, and unit economics. A clear progression narrative — from grant-funded validation to commercially sustainable operations — strengthens the case for subsequent private investment.

Mistake 5: Investor Misalignment and Unrealistic Funding Timelines

READINESS GAP:
Team + funding dimension — investor cannot support the startup's growth strategy.

A single-country investor who lacks presence in the startup's target markets can create a compounding problem: the startup faces pressure to deliver returns to an investor who cannot contribute operationally to its growth, while simultaneously lacking the connections required to enter new markets.

The structural context is important for founders to understand. According to the World Economic Forum, VC-backed companies now stay private for an average of 12 years, and approximately US$3 trillion in unrealised value sits on VC fund balance sheets globally. When investors apply pressure for faster returns, this often reflects the constraints of their own fund lifecycle — their limited partners require distributions that have been delayed by the broader liquidity environment. Founders who understand this dynamic are better positioned to assess whether a particular investor's timeline is compatible with their own growth trajectory before entering into an agreement.



FROM THE TRENCHES

Money is good, but smart money is better. The connections, the orders, the proof-of-concept opportunities — that will be more than the money can buy.



Clarence Tan
Founder, Origgin Ventures

Public capital is catalyst to de-risk innovation, not a long-term operating subsidy.



Dr Krithpaka Boonfueng
Executive Director, National Innovation Agency (NIA), Thailand



Koh Wei Shan
Director of Strategic Initiatives, raiSE Singapore

Start early to engage and have clarity. Build a trust base and spend time to understand the expectations of your funders.

FOUNDER VOICE: raiSE CROSS-BORDER ACCELERATOR

raiSE Singapore's accelerator programmes have committed S$4.65 million to 68 startups since 2022. Past international participants have come from countries including Vietnam, Korea, Taiwan, Malaysia, Indonesia, and the Philippines — though the programme is not limited to these countries. Startups are required to establish a Singapore entity, with funding directed toward social impact creation in Singapore. Cross-border expansion does not always require equity-based VC.

FOR FACULTY ADVISORS

Before a student team accepts any investment, it may be valuable to require them to assess whether the prospective investor has operational presence in their target markets and to speak with the investor's existing portfolio companies about the quality of support provided.





KEY TAKEAWAY

Investor selection warrants the same rigour that investors apply to startup selection. Regional presence, sector expertise, portfolio track record, and alignment of timeline expectations are among the most important factors to assess before accepting capital.

4. Practical Tools

4.1 KTH IRL Self-Assessment*

Dimension	Score	Key Question
Customer	/5	Have real customers validated my product?
Technology	/5	Does my product work and can it scale?
Business	/5	Can I explain how I make money?
IPR	/5	Is my IP protected and clearly assigned?
Team	/5	Do I have the people to execute commercially?
Funding	/5	Is my capitalisation matched to my stage?

*KTH IRL - KTH Innovation Readiness Level™

4.2 Red Flags Checklist

- ☐ Any single investor is requesting more than 25% equity prior to Series A.
- ☐ A grant application has been in process for more than six months without a decision.
- ☐ The investor's expected exit timeline does not align with the startup's growth trajectory.
- ☐ A non-participating entity holds more than 10% of the cap table.
- ☐ The primary motivation for fundraising is validation rather than a specific capital requirement.
- ☐ The investor lacks operational presence in target expansion markets.
- ☐ Budget and timeline assumptions have not been stress-tested using the double down rule.
- ☐ Grant milestones are driving business decisions rather than market signals.
- ☐ There is no contingency plan if the primary deal does not materialise.
- ☐ Fundraising is being initiated with fewer than nine months of remaining runway.



4.3 “Before You Raise” Checklist

1. What are my KTH IRL scores? Is any dimension below 3?
2. How much capital do I need? Have I applied the double down rule?
3. What non-financial support do I need?
4. Is my cap table structured for future rounds? University equity below 10%?
5. Is there a documented contingency plan?
6. What is my TRL? Does it match the funding type I am pursuing?
7. What ownership or decision rights am I prepared to concede?
8. Does my timeline align with the funder’s expectations?
9. Can this investor help me in my target markets?
10. Am I raising for a specific need, or for validation?

4.4 Funding Stage Matrix

Funding Type	Pre-Seed	Seed	Series A	Growth
Grants	Best fit	Useful	Diminishing	Transition
Angels	If terms align	Best fit	Bridge	-
Venture Builder	Best (deep tech)	Transitioning to VC	-	-
Venture Capital	Premature	If deep tech	Best fit	Best fit
Hybrid/ Impact	Mission-driven	Appropriate	Appropriate	Selective

4.5 Funding Type Comparison

Use this side-by-side reference when evaluating which type of capital to pursue.

	Grants	Angels	VC	Venture Builder
Equity Cost	Non-dilutive (some exceptions)	5–25%	15–30% per round	20–40%
Time to Close	3–6 months	2–4 weeks	3–12 months	~3 months
Primary Benefit	De-risking; no dilution	Speed; domain expertise	Scale capital; governance	Operational team; co-creation
Primary Risk	Grant dependency	Excessive dilution	Timeline pressure	Higher equity; reduced autonomy
Best For	TRL 1–3	TRL 4–8; bridging	TRL 9+; scaling	TRL 4–8; deep tech spinoffs
Duration	6–30 months	Ongoing, hands-off	5–10 years	2–4 years, intensive

5. Contributed Profile: A Venture Builder Model

This section profiles one venture builder's approach to working with university spinoffs. It is included as a contributed case study to illustrate the venture co-creation model described in Section 1.4. Inclusion does not constitute endorsement by AUN-UIE.

Origgin Ventures — Venture Co-Creation for Deep Tech

Founded: 2016 | Headquarters: Singapore |
Website: origginventures.com

The Model

Origgin Ventures is a deep tech venture creator that enters at TRL 4 — before a startup formally exists. The company co-creates startups alongside professors and universities through a process called Venture Co-Creation (VCC®). At this stage, Origgin invests at pre-seed, placing an interim commercial team around the professor so that the researcher can remain focused on the technology. This venture-building process typically takes 18 to 36 months, after which the company is handed over to a full-time management team that can then raise from institutional VCs at seed stage.

Selection Criteria

Three criteria are used to assess potential investments: (1) whether the IP is strong and defensible, based on a review of patent documents; (2) whether the research team or professor is credible, verified through publications and peer references; and (3) whether the addressable market exceeds USD 1 billion. If all three criteria are met, Origgin invests.

Equity Structure

Based on nine years of iteration, Origgin recommends a balanced allocation: approximately 30–40% for the research team, 30–40% for the commercial team, and around 20% or less for the investor. Origgin typically takes under 20%, sometimes as low as 5–10%.

As a cautionary example: in one case, a founding professor retained 90% of the company and declined to allocate meaningful equity to a CEO. The venture builder returned its stake at no cost because the governance structure was unworkable. The company did not survive. Balanced equity allocation is not generosity — it is a structural requirement for attracting the talent and capital needed to commercialise university research.

Portfolio
As of May 2026: 45 startups, 23 from NUS, operating across Singapore, Malaysia, Thailand, Japan, and China. Reported survival rate: 65%.

2025 Exits

MetaOptics — Singapore metalens company (A*STAR T-Up programme). Listed on SGX Catalist, 9 September 2025, ticker 9MT.

Phaos Technology — NUS-origin advanced microscopy company. Listed on NYSE American, 13 November 2025, ticker POAS.

EMASS — NTU spinoff, edge-AI IoT chips. Acquired 100% by Nanoveu (ASX: NVU). Planned 2026–2027 IPOs

Contact: enquiry@origgin.com

GoTechUp (Tech Up Advance) — From Non-Dilutive Grants to Aligned Private Capital

Founded: 2018 | Headquarters: Singapore (relocated from Malaysia)
Website: gotechup.org

GoTechUp is a Malaysia-founded EdTech social enterprise that pivoted to a virtual, web-based robotics simulators after COVID-19. In Singapore, the company received a S$95,000 grant from raiSE SG. The funding was tied to one-year milestones for delivering to and training social service agencies in Singapore. Because these activities had to take place in Singapore, GoTechUp, a Malaysian company, had to relocated to meet the grant's conditions. Beyond the capital, the grant improved the company's profiling and made subsequent conversations with venture investors easier. It offered value beyond its cash amount — through credibility and network access.

Contact: hello@gotechup.org

6. Directory of Resources

The following organisations are referenced in this playbook. University startup teams and innovation offices may find them useful as entry points into the broader funding ecosystem.

Organisation	Focus	Contact
AngelCentral	Angel investment network (SG/SEA)	angelcentral.co
AUN-UIE	ASEAN university innovation network	aunuie.org
Enterprise Singapore	Startup SG programmes	startupsg.gov.sg
Epic Angels	Women angel investor network, APAC	epicangelnetwork.com
KTH Innovation	Innovation Readiness Level model	kth.se
NIA Thailand	National innovation agency	nia.or.th
Protégé Ventures	Student VC fund (Singapore/SEA)	protege.vc
raiSE Singapore	Social enterprise support	raise.sg

7. About AUN-UIE

The **ASEAN University Network — University Innovation & Enterprise (AUN-UIE)** is a thematic network established in 2018, co-led by Chulalongkorn University and Singapore Management University. 30 member universities across all ten ASEAN member states.

In 2026, AUN-UIE is delivering three thematic webinars, each producing a practical playbook:

Q1 — Funding (this playbook)
Q2 — Intellectual Property & Technology Transfer
Q3 — Incubation



Call to Contribute

This playbook is a living document. We invite AUN-UIE member universities to submit case studies, country-specific funding data, and practitioner insights for Q2 — Intellectual Property & Technology Transfer.

Submit contributions to: iie@smu.edu.sg

Website: aunuie.org

8. Acknowledgements & Sources

Webinar Contributors
Inaugural AUN-UIE Webinar, 23 March 2026.
Moderator: Professor Ronnakorn Vaiyavuth, CSII, Chulalongkorn University.

Panellists:
Mr Clarence Tan, Founder, Origgin Ventures
Dr Krithpaka Boonfueng, Executive Director, NIA Thailand
Ms Koh Wei Shan, Director of Strategic Initiatives, raiSE Singapore

Host: Ms Gabrielle Tan, Assistant Director, SMU IIE; Lead, SMU Secretariat for AUN-UIE

Frameworks
KTH Innovation Readiness Level — KTH Royal Institute of Technology, Stockholm.
Technology Readiness Level (TRL) — Originally developed by NASA.
Groom–Grant–Growth–Global Model — NIA Thailand.

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