

Nest Garage

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Education Development:
Young Scientists Hub: Discovering Fun Science
Learning to Inspire Young Passionate Minds

Human Development:
Beyond the Code- Critical Thinking and
Human Values in the AI World

Research Development:
Hodge Podge: Finding the 'Right' Mix for Research

Frontier Development:
Resources to Power Innovation:
Building the Foundations of Deep Tech Success





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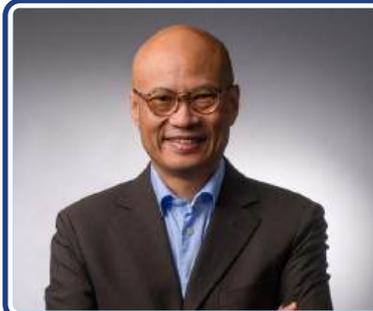
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ON THE COVER

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Dr. Tan Sian Wee is Senior Vice President (Innovation and Enterprise) at the National University of Singapore, leading initiatives like NUS Overseas Colleges, BLOCK71, and GRIP to bridge research and entrepreneurship. A Stanford Ph.D., he has a rich background in deep-tech innovation and venture creation.

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Young budding scientists step forward with confidence and curiosity into a world of discovery



Young innovators collaborate, turning ideas into creations through hands-on learning.



Exploring the science of flight, one paper plane at a time.

YOUNG SCIENTISTS HUB: DISCOVERING FUN SCIENCE LEARNING TO INSPIRE YOUNG PASSIONATE MINDS

Fueling Young Minds Through Joyful Science Discovery

Did you know? Science, despite its complex topics and hard-to-explain concepts, can actually be fun to learn and explore. Across the globe, elementary and high school students are stepping beyond textbooks and into the exciting world of science through hands-on experiments, interactive exhibits, science camps, and even playful competitions like science fairs and quiz bowls. These activities don't just make learning more engaging, they turn abstract theories into real, tangible experiences that students can touch, build, test, and sometimes even break. That's what makes science truly come alive.

Whether found in classrooms, laboratories, science camps, or research conferences, these spaces act as launchpads for exploration, discovery, and inspiration. They open doors for students to explore questions of curiosity, such as "Why do volcanoes erupt?" or "How do robots think?" in ways that are both exciting and memorable. For many, these first playful encounters with science can ignite a lifelong passion.

In this edition of Nest Garage, we shine a light on the many inspiring hubs where young minds come to play and learn. You'll discover stories, programs, and initiatives that champion the joy of discovery, proving that science is not only powerful, but also playful.

THE NEXT GENERATION EDUCATION TREND

By Ronrick Arayata, B.Sc.



The world is changing super fast. There are new gadgets, big challenges like climate change, and exciting discoveries all the time. Because of this, learning can't just happen in school alone anymore. Now, people from all parts of society, like business leaders, community helpers, scientists, and even your neighbors, are helping to teach kids new things.



Learning From the World Around Us

SOCIETAL TEACHING - This is just a fancy way of saying that everyone in the community helps teach kids, not just teachers at school. That includes people from companies, community groups, scientists, inventors, and many others.

Why is this important? Well, the world is facing some big challenges right now, like pollution, new technologies, and even how we live our daily lives together. These aren't easy problems to solve, and they need people who are not only smart, but also creative, caring, and ready to take action. But here's the thing, schools can't do it all alone. Sometimes, students need real-life experiences and stories from people who are already out there, making a difference.



Learning From the World Around Us

Let's check out some awesome ways this is already happening in different countries:

In **Japan**, there's a group called **Kids Code Club**. They bring kids together with real engineers from big tech companies to learn coding through online lessons. Kids get to build cool things with guidance from the pros!

In **Malaysia**, an engineering company named **DreamEDGE** creates science exhibits and teaches kids how to build robots. They are also able to extend their reach to kids in faraway places so that everyone can join the fun.

In **Singapore**, **Saturday Kids** runs free coding classes for kids. They partner with businesses and the government to help every child learn digital computer skills.

In the **Philippines**, there's an inspiring project led by **Brother Efen Peñaflorida**, who created the "Kariton Classroom." Instead of waiting for kids to come to school, he and his team bring the school to the streets!

Let's Learn Together!

So you see, learning Science does not need to be boring or all about memorizing facts and tricky scientific names. It can also be playful, creative, and fun, especially when we learn with people from all around us. Through the amazing help from people in our neighborhoods, companies, and communities, we can discover new things, build real projects, and make learning come alive. So keep exploring, keep asking questions, and never stop being curious.

And who knows? Maybe the next great scientist or inventor...is you.



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EXPLORE BEYOND YOUR CLASSROOM: HOW REAL INNOVATORS ARE EMPOWERING STUDENTS LIKE YOU

By Alexander Gali, Bsc.



“Did you know?”
Jeremake is a startup that’s all about making science fun and accessible!
They create tools like affordable, phone-compatible microscopes and run workshops to help students explore the tiny world around them — no fancy lab required!”

Science with Confidence—Workshops That Help You Grow

Have you ever felt nervous using a traditional microscope—worried you might break it? Now imagine having your own, easy-to-use microscope that lets you explore freely and confidently. That’s exactly what students like you experienced through the Make-roscope Initiative Workshop, created by startup innovator Jeremake.

Students who were once hesitant quickly became excited and curious—workshops that examined, for example, pond water, pollen, onion skin, and more for science research activities. With accessible tools and fun workshops, Jeremake helped turn curiosity into confidence. In fact, over 95% of teachers saw improvement in student understanding, and many students reported being more engaged and eager to learn, according to Jeremy De Leon, founder and CEO of Jeremake.

Inside the Workshop—Real Moments that Sparks Discovery

What makes this initiative workshop different? It’s not just the microscopes—it’s the experience. Jeremy De Leon and his team didn’t just drop off tools; they guided students through hands-on sessions, showing them how to explore their world scientifically. Jeremy recalls moments where students discovered moving organisms in pond water for the first time or proudly adjusted their microscopes on their own. “You could see their amusement and curiosity,” he said. “They weren’t just learning—they were discovering.”

These real-time ‘aha’ moments stayed with students long after the session ended. When you’re encouraged to ask questions, experiment, and learn by doing, science becomes something exciting and personal—not just a subject in a textbook.

Your Turn to Discover—Take the First Step into Real-World Science Application

Science and technology aren’t just subjects—they’re your journeys. And you don’t need a lab to begin. Programs like the Make-roscope Initiative Workshop from startups prove that you can start exploring now with tools, mentors, and experiences from real innovators.

If you’ve ever been curious about how the world works or wondered how scientists make discoveries—this is your chance to find out.



Jeremy De Leon
Founder and CEO
Jeremake

A Message from Jeremy De Leon:

“This is not a class. There’s no grade. There’s no right or wrong. This is your time to explore, to be curious, and to be interested. This is your window into the real world—into the industry. So take advantage of these programs. Connect with the people around you. Because once you graduate, the most valuable thing you’ll carry with you isn’t just knowledge—it’s the experience, the confidence, and the connections you’ve built.”

STUDENT STORIES FROM SCIENCE CASTLE

By Mark Chiam, Bsc.

Bridging Cultures Through Science: Nexus Students' International Journey

Participating in international science conferences has proven to be a deeply enriching experience for Ryan and Minh from Nexus International School, who recently attended Science Castle Asia and Science Castle Osaka. They observed a difference between the two events, Science Castle Osaka emphasized structure and technical depth, while Science Castle Asia offered a more interactive, *workshop-based* format that encouraged open dialogue.

Ryan and Minh's project on remoulding plastic at lower temperatures reflected their commitment to environmental sustainability and the importance of selecting a topic they understood. This familiarity enabled them to navigate the research and presentation process with confidence. They highlighted the value of transparency by openly discussing the limitations of their work, which they felt added credibility to their presentation. Additionally, they observed how presentation styles differ across cultures, learning to adapt their communication approach depending on the audience. These experiences not only strengthened their scientific skills but also prepared them for future global engagement in research.

Looking ahead, both students see these experiences as a foundation for their academic paths, particularly in STEM. Minh plans to pursue materials science & engineering and chemistry, while Ryan plans to pursue medicine. Both students valued the soft skills they developed, including communication and cultural awareness. They advise future participants to focus on learning, remain open to feedback, and embrace the journey beyond the competition.

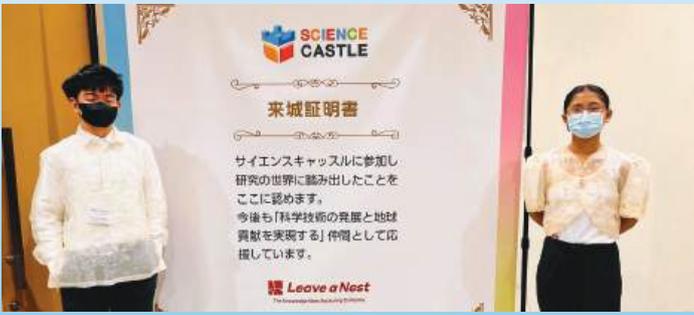


Innovation Without Borders: Toplink Global's Science Castle Adventure

Students and Teachers from Toplink Global College in the Philippines recently participated in Science Castle Osaka on the 22nd of March 2025, their first international research conference experience. Led by STEM coordinator Ms. Rizalyn C. Marcelo, the team presented their robotics research and engaged in cross-cultural exchanges with young scientists from across the region.

Students Mery Xylyn Sermonia and Rayaj-Jian Gadiaza highlighted the differences in research focus. Osaka leaned more toward biology and environmental studies, in contrast to the technology centric projects typical in the Philippines. Despite facing a language barrier, they valued the opportunity to share ideas and receive feedback that would help strengthen their work.

Beyond academics, the experience boosted their confidence, broadened their perspectives, and fostered friendships that transcended national borders. Inspired by the event, Toplink Global is planning its own STEM Expo, drawing from the Science Castle model to further nurture innovation locally.



SCIENCE CASTLE MOVEMENT IN SOUTHEAST ASIA: NURTURING THE NEXT GENERATION OF INNOVATORS

By Muhammad Basril, M.Eng

In 2025, Leave a Nest Group expanded the Science Castle series across Southeast Asia and Japan, continuing its mission to nurture young scientific minds and bridge education, research, and society. First introduced in Japan in 2012, Science Castle is not a competition, but a platform for middle and high school students to present research, receive valuable feedback from academic and industry experts, and collaborate with peers across regions. Inspired by the historical Osaka Castle, it serves as a symbol of unity and progress, empowering youth to grow their ideas and contribute meaningfully to the scientific community.

The movement began with Science Castle Philippines 2025 on 18 January at Ateneo de Manila University, where over 200 attendees gathered to witness 32 student research teams present their innovative ideas. The momentum continued with Science Castle

Japan on 22 March at Kansai University, Japan, which featured an impressive 94 participating teams, including returning participants from the Philippines.

Following that, on 12 April, Science Castle Singapore was held at Science Centre Singapore, hosting 72 teams from across the region, including several from Malaysia. The series continued with Science Castle Malaysia on 31 July at Makeramai Makerspace, Plaza Merdeka, Kuching, Sarawak. This event was especially significant as it marked Leave a Nest Malaysia's first conference in East Malaysia, and welcomed 56 student research teams.

The regional highlight, Science Castle Asia 2025, will take place on 18 and 19 October at Multimedia University, Cyberjaya, bringing together more than 400 teams from across Asia. The year will culminate with Science Castle

World on 13 and 14 December at Institute of Science Tokyo, where selected teams will showcase their work on a global stage in front of academia and industry leaders.

Complementing these events is the Science Castle Grant 2025, an initiative aimed at strengthening science education through hands-on research and mentoring. Launched in collaboration with Ajinomoto (Malaysia) Berhad, the grant program began in February with a nationwide call for student proposals. Ten outstanding teams were selected through a competitive review process and awarded RM2,000 each to develop their research projects. In May, these teams attended a special Awarding Ceremony at Ajinomoto's Smart Manufacturing Plant in Bandar Enstek, where they toured the factory and participated in a sensory evaluation workshop.

The grant program also includes a structured five-month mentoring phase, comprising two physical visits and three online mentoring sessions, supported by mentors from Leave a Nest Malaysia and Ajinomoto (Malaysia) Berhad. The journey will conclude at Science Castle Asia, where all teams will present their final outcomes, and one grand winner will earn a fully sponsored trip to represent Malaysia at Science Castle World in Tokyo.

Science Castle is more than an event. It is a growing movement that empowers students to explore, collaborate, and make a difference through the pursuit of science, nurturing curiosity, courage, and the power to contribute meaningfully to the world.

WHEN CURIOSITY MEETS COURAGE: THE STORY OF SCIENCE CASTLE GRANT 2025

by Izzaty Ismail, Ph.D

The Science Castle Grant (SCG) began just last year, in 2024, with one simple belief: **students, when trusted and mentored, can do real science.** That year, five schools took on the challenge. Their results exceeded expectations and proved that the vision was worth growing.

Now in 2025, **the movement has expanded.** The response was overwhelming: **503 applications** poured in from all corners of Malaysia. After a rigorous selection process, **10 schools** were awarded the grant, **5 from East Malaysia**, and **5 from West Malaysia** and each receiving **RM2,000**, plus structured mentoring over five months.



The journey began with an inspiring kickoff event at Ajinomoto's Bandar Enstek factory, where students met their mentors and shared their ambitious project ideas.



This year, the SCG 2025 took a bold step forward by introducing an exciting new component: the Career Talk. Designed to ignite curiosity and broaden horizons, these sessions connect high school students with real-world stories of research, innovation, and career journeys in science and technology. Though only in its second year, SCG is fast becoming a powerful platform that proves what's possible when curiosity meets guidance and opportunity.

It shows us that when young people are given room to explore, support to grow, and a community to belong to and they rise. And sometimes, the first step in that journey begins not in a lab, but with a question, a caring mentor, and a warm plate of fried rice.

This is the spirit of the **Science Castle Grant (SCG) 2025**, a journey that turns ordinary students into young scientists with bold dreams. The heart of SCG lies in its mentorship. These student teams aren't guided by their teachers, they are mentored by professionals from **Ajinomoto Malaysia Berhad (AMB)** and **Leave a Nest Malaysia**. These mentors help students sharpen their ideas, learn proper research ethics, and navigate the scientific process.

Their journey includes, **monthly online mentoring, two physical mentoring sessions** (July & September), a final showcase at **Science Castle Asia 2025** and a chance to represent Malaysia at **Science Castle World in Tokyo**.



Nasi goreng Kampung sponsored by Ajinomoto Malaysia Berhad



Dr. Hadi from Leave a Nest Malaysia sharing his research and career journey with students at SMK Tumpat



Career talk session at SMK Bandar Puchong Jaya (A)

SCIENCE CASTLE WORLD: DREAM BIG, BUILD BIGGER

By Edriel Lee, B.Sc.

Welcome to Science Castle World!

Imagine a place where your boldest scientific ideas are taken seriously. A Disney World for aspiring scientists, where curious minds come together to invent, explore, and shape the future. If that sounds like paradise, then Science Castle World is the place for you! More than just a research conference, it's a global haven for student innovators—built for collaboration, mentorship, and turning conversations into real-world results.



What is Science Castle?

Think of it as a mega science conference, but with a Leave a Nest twist. A flagship project of the Leave a Nest Group, Science Castle is a multidisciplinary research conference for high school students. Whether you're into natural sciences, robotics, climate action, health, or social innovation, your ideas matter here.

Inspired by the iconic Osaka Castle—a historic symbol of unity, progress, and innovation—Science Castle has become a hub for young innovators who dream big. Now, it's growing regionally, locally, continentally, and even globally!

Why Should You Join?

Science Castle World is your gateway to turning ideas into real-world solutions. Over two days, you'll connect with peers, gain expert feedback, and collaborate toward tangible results.

On Academia Day, you'll work with researchers to refine and advance your project. On Industry Day, you'll team up with professionals to explore its real-world impact and transform it into innovative solutions.

After all, this isn't just a two-day event—it's where your science journey begins.



SCAN FOR MORE INFO



Ready To Build The Future?

Be part of the very first Science Castle World, happening at the Institute of Science Tokyo, Ookayama Campus, on 13 and 14 December 2025! This is your chance to make a difference on a global stage.

Applications are open until September 30, 2025. Register now and learn more about the event through

<https://castle.lne.st/en/schedule/science-castle-world-2025/>



SCIENCE CASTLE ASIA 2025 CONTINUES TO EMPOWER ASIA'S NEXT GENERATION OF RESEARCHERS

By Aisyah Robi, MPhil

The vibrant world of youth scientific research is set to converge once again in Malaysia as Science Castle Asia (SCAsia) returns in 2025. Building on two successful editions, this prestigious international conference is dedicated to high school students across Asia. This two-day event celebrates youth-led innovation in Nature, Engineering, Science, and Technology (NEST).

This year, Science Castle events have taken place across all Leave a Nest subsidiaries starting in the Philippines, followed by Osaka, Singapore, Malaysia (Sarawak)- with Malaysia now hosting the final regional edition, Science Castle Asia 2025. Science Castle Asia 2025 stands as the second last event in the series before the culminating Science Castle World in Tokyo.

Over 400 students from 10 countries including Malaysia, Japan, Indonesia, Vietnam, Philippines, India, Russia, Singapore, Myanmar, and Thailand have submitted their research. Their participation reflects a growing regional passion for solving real-world challenges through science and collaboration.

Science Castle is a celebration of young minds and their ideas. Rather than being a competition, it provides an authentic academic conference experience where students proudly present their research, receive insightful feedback, and form lasting friendships with fellow young researchers from across Asia. The focus is on inspiring learning, fostering connections, and encouraging cross-cultural exchange, creating a supportive and enriching environment for all participants.



This year's SCAsia includes student presentations, keynote speeches, interactive workshops, and opportunities to engage with leading universities and industry experts. These sessions are designed to inspire and empower youth in their STEM journeys.

SCA2025 is organised by Leave a Nest Malaysia with strong support from partners who share the same mission to nurture the next generation of leaders in science and technology.



As we gather in Cyberjaya, we celebrate not only brilliant ideas but also the connections and dreams that will shape the future.

For more information, please visit
<https://linktr.ee/sciencecastle>

LEAVE A NEST PHILIPPINES EDUCATION DEVELOPMENT DIVISION: FULL FORCE AHEAD FOR 2025

By Bill Joseph Mercado, B.Sc

As the ber months roll in, most people start winding down. But for Leave a Nest Philippines—especially our Education Initiatives team—science never takes a break. Our mission to spark curiosity, build skills, and connect young innovators runs all year round, with the ber months being just one of our many exciting peaks. Here’s a quick look back at what we’ve accomplished so far, and what’s coming your way.

From First Steps to Big Leaps

In early 2025, we launched the **first-ever Science Castle Philippines**—a groundbreaking student research conference that gave young Filipino researchers a platform to share ideas and tackle real-world problems.



Participating students at Science Castle PH 2025



Participating students at our Pugad Agham Workshops

We also hosted **Pugad Agham Workshops**, the localized version of Leave a Nest’s science education workshops, covering everything from robotics to biomimicry. Schools like Trece Martires City National High School, UP Integrated School, and Top Link Global College joined us, helping us grow our network of schools and partners.



One highlight was the **Biomimicry Science Workshop** in June—our first collaboration with **Lockheed Martin**, supported by PLDT Innolab. Earlier in March, we brought Filipino educators to Japan for a **Benchmarking Tour**, where they explored the Japanese education system and joined Science Castle Osaka, returning with new ideas for local classrooms.



Participating Teachers and students at the Japan Benchmarking tour

What’s Next: Opportunities You Can Join

October 2025 – February 2026

Ki ni naru Project

Asia 2025 (Oct 18–19, Cyberjaya, Malaysia)

World (Dec 2025, Tokyo, Japan)

Philippines 2026 (Jan 17–18, Manila)

October 2025 – February 2026

YUGTO

Aug 2025 – Jan 2026

Science Castle Grant

BENCHMARKING TOUR
December 2025

Interested in our activities?
SCAN AND FILL UP OUR INTEREST FORM

The second half of 2025 is packed with programs designed to inspire and involve you:

Ki ni naru Project 2026 (Oct 2025–Jan 2026) – For high school students new to research, this program turns everyday curiosity into projects using simple, accessible materials.

Science Castle Series. Leave a Nest’s flagship research conference for Junior to Senior High School students.

- Science Castle Asia 2025 (Oct 18–19, Cyberjaya, Malaysia)
- **NEW:** Science Castle World (Dec 2025, Tokyo, Japan)
- Science Castle Philippines 2026 (Jan 17–18, Manila)

Here’s your chance to present research and meet innovators from around the globe.

Yugto 2025 (Oct 24, 2025) – Helping students explore unique college courses and careers, with interactive talks from universities and alumni.

Lockheed Martin Science Castle Grant (Aug 2025 - Jan 2026) – Get funding and support for your high school research project.

Tokyo Benchmarking Tour 2025 (Dec 2025) – Another educator trip to Japan to exchange best practices in science education.

Your Turn to Step Up!

Science isn’t just for scientists—it’s for problem-solvers, creators, and dreamers like you. Whether you’re curious about how things work, want to build something new, or are looking for your next big challenge, there’s a place for you in our programs.

So, what’s your idea? What problem do you want to solve? Let’s make it happen—together.

Join us, present your ideas, or explore opportunities by emailing us at info-asia@lne.st. The future of science is in your hands. Let’s start building it now.

Let's Explore! Fun Science Workshops at Leave a Nest Singapore

By Ayu Permata, B. Sc.



Hey curious minds! Did you know that science can be super fun and full of surprises? At the Leave a Nest office in Singapore, kids just like you joined exciting workshops where they played, discovered, and became real little scientists for the day!

Let's take a peek at some of the cool things they did...

Making Art with Leaves and Sunlight?!

In this workshop, kids turned leaves into beautiful blue artworks! They learned all about what's inside a leaf, then used a special paper and the power of sunlight to make a print. It's called cyanotype, and even famous scientists in the past used it to study plants!

What the kids did:

- Looked closely at leaf shapes and patterns
- Made their very own leaf art using sunlight
- Learnt how science and art can work together!



The Egg-citing World of Eggs!

Eggs are not just yummy, they are full of science secrets! In this workshop, kids became egg-sperts! They explored the eggshell, egg white, and yolk. They also met a real scientist, Matsuki-sensei, who told them all about egg allergies and how some people make special eggs that don't cause them.

What the kids did:

- Touched and tested real eggs in mini experiments
- Discovered how eggs are made of proteins and fats
- Learnt how science helps keep people healthy



Who Took the Cookies?! A Forensic Mystery

This one was just like being in a detective story! Someone took the cookies and the kids had to solve the mystery! They used real forensic science tools, like fingerprint dusting and paper tests, to find clues and catch the cookie thief.

What the kids did:

- Played a fun "Find Wally" warm-up to sharpen their eyes
- Used paper chromatography to test mystery inks
- Collected fingerprints and matched them to suspects
- Solved the case—and got to eat a cookie too!

Science is Everywhere and You Can Try It Too!

These workshops showed that science can be found all around us, in leaves, in food, and even in solving mysteries! The best part? You do not have to be a grown-up to start discovering. Every question you ask, every experiment you try, brings you one step closer to becoming a science hero.

So stay curious, and maybe we will see you at our next adventure! If you are interested in our science workshops, you may drop us an email at info-asia@lne.st!



HUMAN DEVELOPMENT



Conversations that matter: exploring how people and technology can work together in the age of AI



Collaboration and dialogue remain at the heart of human development, even in an AI-driven world.



Beyond the algorithms, it is people's ideas, values, and creativity that shape the future.

BEYOND THE CODE: CRITICAL THINKING AND HUMAN VALUES IN THE AI WORLD

Artificial intelligence (AI) is no longer a futuristic concept but an everyday presence transforming how people learn, work, and grow across education, research, and industry. Tools like ChatGPT are often seen as powerful enablers, making knowledge more accessible, boosting creativity, and accelerating collaboration. At the same time, they raise concerns about overreliance, the erosion of critical thinking, and the risk that human curiosity and ethical judgment may be overshadowed by convenience. These challenges are not confined to students alone but extend to all talent so that they can navigate a future where technology serves both a partner and a disruptor. The task ahead is to ensure that AI strengthens rather than diminishes the qualities that make human development meaningful: independent thought, empathy, and collaboration. Around the world, institutions and organizations are beginning to embed AI literacy and ethical awareness into training and professional growth, searching for a balance between fluency and responsibility. In this Human Development section, we will explore how AI is reframing learning and discovery, reshaping critical thinking, preserving human-centered values, and inspiring new visions for environments where technology and human potential truly coexist.

CHARTING THE FUTURE : CULTIVATING CRITICAL THINKING IN AN AI-DRIVEN WORLD

By Hannah Balisi, Bsc.

Generative AI chatbots, such as ChatGPT and Google Gemini, are becoming essential tools for people from all walks of life. Among them, students are leading the charge in adopting this technology. This raises a crucial question: Is this heavy reliance on AI hindering students' critical thinking skills, or can it be harnessed to improve their ability to analyze and reason? To explore this, we interviewed Mr. James Anthony Tan, the Chief Visionary Officer of TEASK Sdn. Bhd., to learn about his insights from the recent Add Venture Forum in Malaysia.

How Students Used Experience and AI Strategically

When interviewed about his experience during the “Validate Your Crazy Idea”, a segment in the Add Venture Forum Malaysia, is an ideathon that challenges students to develop innovative solutions for real-world problems, Mr. James shared that it was the students themselves who truly shone, pinpointing specific, deeply rooted local issues. Students identified a common frustration—unreliable bus schedules—and proposed a solution: integrating classroom and bus timetables. Mr. James highlighted the value of their firsthand experience in tackling this problem. He noted that while students often stick to familiar ideas, he observed a positive shift at the forum. They became more open to their peers' suggestions, which helped them expand and refine their initial concepts. Mr. James also noted that students used AI not to generate ideas, but strategically—for grammar and data support—while grounding their solutions in real-world experience.

Leveraging AI yet Embracing the Creative Process

Mr. James also highlighted an important concept which is “**happiness in the pursuit**”. It's undeniable: AI makes our lives easier, especially when it comes to sparking new ideas. But here's the catch—sometimes, we lean on AI to simply rush through tasks, focusing solely on the end goal. We become fixated on achieving that ideal outcome, believing happiness only awaits us there. In doing so, we often forget to find joy in the very steps we take to reach that goal. It's a powerful reminder to embrace the process, not just the finished product. He also emphasized the value of physical activity in sparking creativity—a reminder that critical thinking is not just mental but physical too.

The Human Edge: Using AI to Strengthen Critical Thinking

AI provides endless information, but it lacks the unique human capacity for critical analysis and true understanding. It can present facts, but only we can question, innovate, and connect them meaningfully. The true strength lies in using AI not as a crutch, but as a catalyst—amplifying our capacity to think critically, solve creatively, and innovate meaningfully. In this AI-driven era, critical thinking isn't obsolete—it's more essential than ever.



**Mr. James
Anthony Tan**

*Chief Vision Officer,
Tenaga Alam Sekitar Kita
(TEASK) Sdn. Bhd.*

AI IN ACADEMIA: OPPORTUNITIES, CHALLENGES, AND HUMAN-CENTRED INTEGRATION

By Mohd Izwan Zainol, PhD

Artificial intelligence comes with its challenges and benefits, and in the view of Dr. Nur Ayunie binti Zulkepli, Senior Lecturer at the Faculty of Health Sciences, Universiti Teknologi MARA (UiTM), its influence on education and research is already profound.

AI as a Transformative Force in Learning and Research

In medical laboratory science, Artificial Intelligence (AI) tools such as ChatGPT help students quickly clarify complex biomedical concepts and laboratory techniques, encouraging independent learning and problem-solving. Many learners now complement their textbooks with AI-generated content, to clarify concepts, spark the ideas for assignments, and enhance group projects, leading to more curiosity and engagement. In research, AI streamlines literature searches and summarizes findings, allowing academics to focus on experimental design and data interpretation. Dr. Nur Ayunie while recognizing these benefits, she emphasizes the importance of validating AI-generated content and maintaining academic integrity. When applied thoughtfully, AI can accelerate discovery, improve outcomes, and support deeper understanding.

Balancing Opportunities and Challenges in Academia

Dr. Nur Ayunie views AI as both an enabler and a disruptor within academia. As an enabler, it enhances access to information, accelerates knowledge acquisition, and supports productivity by helping students and researchers process large datasets, generate ideas, and refine critical analysis. Yet, AI also disrupts traditional practices, raising ethical concerns around plagiarism, authorship, and superficial learning. She has observed students rely excessively on AI for assignments or lab reports, often without engaging deeply with core concepts. To address this, she designs assignments that demand reflection, interpretation, and application, such as linking experimental results to clinical diagnoses—tasks beyond AI's capacity. Additionally, she incorporates oral presentations, viva voce assessments, and problem-based learning to ensure students can articulate and apply their understanding independently.

Human-Centered Education and the Future of AI Integration

For Dr. Nur Ayunie, sustaining a “human-centered” approach in an AI-driven era means emphasizing uniquely human qualities—creativity, empathy, ethical reasoning, and collaboration. At UiTM, steps are being taken to embed AI literacy and ethical awareness into the curriculum through modules on healthcare applications, data privacy, and human oversight. Creative projects, such as AI-generated quizzes or simulation games, allow students to explore AI's capabilities while staying mindful of its limitations. To foster AI fluency without dependency, she encourages manual analysis before AI validation, reflective commentaries on tool use, and peer collaboration that challenges AI outputs. Looking ahead, she envisions classrooms where AI complements rather than replaces human values, providing efficiency and support while leaving ethical decision-making and interpretation firmly in human hands. Her advice to fellow academics is do not fear AI but adapt to it by redesigning the pedagogical approaches that emphasize higher-order thinking, originality, and integrity. By doing so, educational rigor can be preserved, and AI can become a transformative partner in advancing both learning and research.



**Dr. Nur Ayunie
Binti Zulkepli**
Senior Lecturer,
Faculty of Health Sciences,
Universiti Teknologi Mara (UiTM)

REDEFINING HUMAN DEVELOPMENT: A PURPOSE-DRIVEN APPROACH IN THE AI ERA

By Ahmad Zaim Hussin, B.Eng

The presence of Artificial Intelligence (AI) in today's world has extended well beyond simple automation and answering routine queries. AI has developed into a powerful enabler in our personal and professional lives, including how we manage people and complete work. As this technology continues to evolve, companies are increasingly expected to integrate intelligent systems in ways that enhance performance while still preserving the central role of human talent in driving growth and innovation.

To explore this topic further, we interviewed with Ms. Hazlina Hussein, Director and CEO of HumanCapiant Consulting Sdn Bhd. As a boutique consultancy specialising in change management, HumanCapiant has led projects across a wide range of sectors. Drawing on over 20 years of experience in organisational transformation, Ms. Hazlina offered a grounded and practical perspective on how AI can support human talent development.



Ms. Hazlina Hussein, Director and CEO of HumanCapiant Consulting Sdn. Bhd.

AI as a Support System in Talent Management

AI has become an increasingly valuable tool across the entire employee lifecycle, from recruitment to exit. One of its key strengths is its ability to reduce subjectivity in processes such as hiring and performance reviews. Human subjectivity, such as favouritism, sometimes influences these processes. At HumanCapiant, one service that incorporates AI is job suitability analysis. AI is used to screen and score candidates based on specific criteria, including experience, qualifications, and relevance to the role. This significantly improves efficiency by allowing teams to manage large volumes of applications without compromising consistency.

However, while AI helps organise and filter data, it does not eliminate the need for human judgment. Ms. Hazlina emphasised that people are nuanced, and the context behind each profile matters. A candidate may possess valuable experience but be scored lower simply because their information is not effectively presented in their Curriculum Vitae (CV). In such cases, final decisions must be supported by interviews or assessments led by individuals who can understand the full picture. Human sense-making remains central to making balanced and informed decisions.

Overcoming Resistance, Building Readiness

Despite its potential, AI adoption in organisations often triggers a range of reactions. Younger employees tend to be more open and curious about experimenting with AI tools. In contrast, senior management may be more resistant due to unfamiliarity or a lack of trust in the technology. While governments and industry leaders continue to promote digital transformation, Ms. Hazlina pointed out that the real challenge lies not in technological readiness, but in the readiness of people to adapt. This includes both mindset and capability. A shift in thinking is required not only at the leadership level but throughout the organisation. Building digital skills and promoting an adaptive culture are essential for successful integration.

Ms. Hazlina also cautioned that organisations delaying AI adoption risk falling behind in a competitive landscape. She actively encourages her teams to explore and apply AI-driven tools with purpose and intention. At HumanCapiant, this proactive approach helps ensure the organisation remains responsive and future-ready. When implemented strategically, AI can enhance decision-making, improve operational efficiency, and reduce costs. At the same time, it helps preserve the human element that remains central to long-term organisational success.

Shaping Organisational Culture for the Age of AI

Implementing AI is not merely a technical upgrade; it requires a cultural transformation rooted in ethics, purpose, and transparency. In a world where information is widely accessible, a strong moral compass is critical to ensuring that AI is used responsibly and thoughtfully. Rather than allowing AI to drive decisions, organisations must establish clear guidelines on its use. Without direction, its implementation may become inconsistent, leading to misalignment with broader strategic goals. Defining its purpose from the outset is essential to maintaining clarity and cohesion across the organisation.

To facilitate this shift, internal change agents play a vital role. They are individuals within the company who actively drive and support transformation. With a deep understanding of organisational culture, they can communicate the purpose and benefits of AI adoption in relatable and practical terms. Compared to external consultants, internal individuals in the organisation are often better positioned to build trust, encourage learning, and support adoption on a day-to-day basis. With the right training, they can help bridge the gap between technological systems and human interaction.



Toward the Future: Integrating Humans and AI with Purpose

Technological disruption often sparks concerns about job security. However, history has consistently shown that innovation tends to create new roles even as it automates others. The emergence of AI is expected to follow a similar path. According to Ms. Hazlina, AI may soon handle about half of routine HR tasks, including payroll processing, responding to FAQs via chatbots, and managing basic employee data. This transition would enable HR teams to redirect their focus toward higher-value responsibilities, including strategic planning, leadership development, and employee engagement.

This shift also carries important implications for education. Graduates entering the workforce must be equipped with more than technical skills; they must also demonstrate critical thinking, adaptability, and leadership. While AI tools may be used in academic settings, Ms. Hazlina emphasised that students must interact with content meaningfully. AI should complement the learning process, not replace intellectual effort. She further highlighted the vital role of educators in preparing students for an AI-integrated future. Rather than banning AI outright, academic institutions should provide structured environments in which students are taught to use these tools ethically and effectively. Such an approach fosters digital literacy, ethical awareness, and lasting confidence.

It's not about replacing people. It's about enabling them to do more and do better.

More Than Technology: A Human-Centered Vision

The future of AI in human development is not about replacing people. It is about enabling them to grow, adapt, and contribute in new and more effective ways. When applied with clarity of purpose and thoughtful leadership, AI has the potential to significantly improve how we identify, develop, and support talent.

As quoted from Ms. Hazlina Hussein:
"It's not about replacing people. It's about enabling them to do more and do better."

Ultimately, no matter how advanced technology becomes, it must be guided by the values, ethics, and judgment of the people who use it.

FROM ADVERSITY TO OPPORTUNITY: CULTIVATING RESILIENCE IN A DIGITAL AGE

By Ng Jun Yi, MSc.

Raising Resilient Minds In A Changing World

Resilience is no longer just about enduring tough times; it's a vital skill in today's fast-paced, tech-driven world. While earlier generations emphasised grit and discipline, today's challenges demand emotional intelligence, adaptability, and proactive self-care. In an age of constant digital distractions, the question becomes: how do we ensure resilience remains a priority?



Resilience: From Endurance to Empowerment

Dr. Reena Dabas, an educator and clinical counsellor with two decades of experience, has observed a significant shift in how resilience is defined. It's not merely an inborn trait but a developed capacity to adapt, stay hopeful, and apply strategies to navigate challenges.

Building Resilience: A Lifelong Skill

Technology introduces new pressures, cyberbullying, social media dysmorphia, and imposter syndrome, especially for youth. Yet it also provides access to valuable mental health tools like teletherapy platforms (Safe Space, Mindline.sg) and wellness apps (Intellect, Calm, Headspace). This reflects a move away from silent endurance toward active emotional regulation. Still, access alone isn't enough; it's the application of knowledge that builds resilience, and it's never too late to begin.

The Power of Perspective

Resilience is cultivated through daily choices. With the right habits, anyone can develop the resilience to handle adversity. Dr Reena helps youths inculcate attitudes of resilience by shifting from self-blame to understanding that difficulties are situational. The perspective of viewing obstacles as opportunities, rather than hindrances, prepares them for future academic, social, and career pressures.

In the digital era, we are all susceptible to burnout and overstimulation. Resilience is therefore not just for youths, it's a universal need.

Small Shifts, Big Impact

Simple habits can foster mental strength. Techniques like cognitive reframing help convert setbacks into insights. Practising gratitude enhances focus on what's good, reinforcing a growth mindset. As Dr. Reena notes, *"The moment you become conscious of your feelings and habits is when you have the power to change."*



AI: A New Partner in Resilience Building

Artificial intelligence (AI) is increasingly embedded in youths' daily lives and holds transformative potential for mental wellness. By automating time-consuming tasks, AI can free up space for reflection and emotional growth. Moreover, AI can be trained to recommend personalised resources, detect emotional distress, and alert users to online dangers, positioning itself as a digital ally in resilience development. Recognising and embracing these benefits marks a crucial step forward in forging a healthier, more supportive partnership between youth and technology.

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ADD VENTURE FORUM ACROSS ASIA: EMPOWERING THE NEXT WAVE OF DEEP-TECH TALENT

By Ruchira Karjee, B Eng.

In a rapidly evolving global economy, cultivating talent that is both scientifically capable and entrepreneurially bold is vital. Leave a Nest's **Add Venture Forum (AVF)**, held across Japan, Singapore, Malaysia, and the Philippines, demonstrates a regional commitment to this mission. While unified by the theme of bridging science and society through career exploration and innovation, each AVF reflected unique national contexts, cultures, and priorities in nurturing young talent.

Localisation in Practice: Country-Level Adaptation

While the vision is shared, the implementation of AVF varies significantly across countries, influenced by educational culture, ecosystem development, and participant readiness.

Japan (Tokyo HQ): Research-Led Engagement

In Japan, AVF typically revolves around graduate-level researchers, such as PhD students and postdocs. Participants engage in deep conversations with emerging ventures, and many walk away with internship offers, research collaborations, or even entrepreneurial ideas supported by the Add Venture Forum Grants given by esteemed partners.

Objective: Enable career transitions for researchers and foster academia-startup linkages.

Style: Seminar-focused, introspective, high-touch.



Singapore: Precision in Career Exploration

IAVF in Singapore is tailored for university students and early-career researchers, often with smaller group sizes for highly curated interaction. It combines entrepreneurship workshops with venture showcases, and typically includes personalised matching between students and companies based on interests or academic discipline.

Objective: Help participants discover purpose-aligned career pathways, from startups to intrapreneurship.

Style: Guided, reflective, small-scale, focused on quality engagement.



Malaysia: Ecosystem-Wide Activation

Malaysia's AVF operates at a larger scale, often drawing hundreds of participants, including undergraduates, graduates, researchers, job seekers, startups, corporates, and public sector players. It serves as a hub for national-level talent development, incorporating government voices, career readiness programs, and startup ideation sessions.

Objective: Position talent as innovation enablers, connecting them with real-world opportunities.

Style: Large-scale, energetic, multi-stakeholder, hands-on.



Philippines: Cultivating the Adventurous Mindset

AVF in the Philippines engages large university audiences, especially younger undergraduates exploring their first career steps. With a more open and exploratory format, the event encourages participants to reimagine traditional career paths, explore startup roles, and embrace an "adventure" mindset when building their future.

Objective: Spark curiosity and build confidence to pursue unconventional career paths.

Style: Inclusive, energetic, student-driven, designed for early exposure.



Empowering Innovation, Country by Country

What makes AVF distinctive is not just its annual consistency but its adaptive flexibility. Rather than replicating a one-size-fits-all format, each forum is contextualised for local realities, respecting the pace, aspirations, and readiness of its audience.

As Asia continues to rise as a hotspot for scientific entrepreneurship, AVF remains a key enabler, not just connecting people with companies, but aligning passion with purpose in deeply human and locally relevant ways. It is, in every sense, a forum that adds ventures and value to the future of innovation.

REVVING UP TVET: MALAYSIA'S SKILLS REVOLUTION TAKES FLIGHT!

By Siti Shazwani binti Ahmad Suhaimi, MSc.

TRANSFORMING SKILLS, BUILDING NATION

Ever wondered why Technical and Vocational Education and Training (TVET) in Malaysia still lingers in the shadows despite its critical role in powering our industries and fueling economic growth? The TVET ReBRAND 2025 event, held at the innovative Centre of Garage in Cyberjaya, tackled this head-on, bringing together industry giants, education experts, and policy gurus for an explosive brainstorming session aimed at reshaping TVET's future!

The second phase of this groundbreaking initiative couldn't have come at a better time, right smack in National TVET Month. The vibrant gathering of 14 expert participants, hailing from diverse fields such as semiconductors, beauty, drones, and automation, passionately agreed: It's high time TVET sheds its "second-choice" stigma and emerges as Malaysia's go-to career path for innovation and sustainability.

The discussions were electric! Experts identified crucial roadblocks like fragmented governance (13 ministries involved!), outdated curricula, and the dire need for better industry linkages. But guess what? Every challenge unearthed a treasure trove of opportunities. Solutions flowed abundantly—ranging from establishing a unified, centralised TVET Hub to transforming the Malaysian Board of Technologists (MBOT) into a powerful national force.

What's the game plan?

Rebranding, revamping, and realigning. Catchy campaigns like "MySkills, MyFuture" and "TVET for All" were suggested to resonate with both youths and parents. Imagine Malaysia's next generation excitedly diving into careers powered by robotics, AI, beauty tech, and green innovation!

The energy from Cyberjaya echoed loud and clear: industry leaders must drive curriculum co-creation, practical internships must become the norm, and international benchmarking (think German precision and Japanese Monozukuri) should be our standard.



Experts with Leave a Nest team

With collaborative spirits high, the TVET ReBRAND 2025 initiative has fired up engines for Malaysia's skills revolution. So, industries and corporates, the question now is: are you ready to jump onboard the TVET transformation rocket? The future awaits, and TVET is your golden ticket!



TVET FGD in session



For more information, please contact Shazwani at shazwani@lne.st

SATU CREATIVE: SHAPING HUMAN-CENTRED INNOVATION FOR A MEANINGFUL FUTURE

By Nor Ilia Anisa Binti Aris, PhD, P.Eng

Satu Creative Services Sdn. Bhd. was established with a bold vision: to catalyse sustainable impact through innovation. In a world where great ideas often falter due to systemic fragmentation or lack of support, Satu Creative bridges the gap between purpose-driven ambition and real-world implementation. The company's mission is to empower changemakers, entrepreneurs, professionals, and ecosystem builders—to act with clarity, confidence, and connection. At the helm is Ahmad Azuar Zainuddin, CEO and a recognised voice in innovation, entrepreneurship, and inclusive growth in Southeast Asia. Known for his sharp insights on leadership and the future of work, Azuar is a frequent contributor to The Edge Malaysia and has spoken at key platforms across Asia, including Jakarta, Bangkok, Brunei, and Kuala Lumpur.

Human-centered for Impactful Innovation

What distinguishes Satu Creative is its commitment to human-centred and system-aware innovation. Rather than approaching problems from a distance, they co-create solutions with communities, ensuring that programmes are grounded in local realities while informed by broader systemic thinking. This philosophy is exemplified in their flagship initiatives: Creative Spark, which supports early-stage innovators through immersive workshops; Creative Sprint, a high-energy challenge-based platform; and Creative Exchange, which convenes diverse voices through roundtables and forums to foster dialogue and trust. A prime example is the collaboration with Yayasan Hasanah through the Hasanah Social Enterprise Funding (HSEF) programme. Through Creative Sprint HSEF, Satu Creative surfaced and supported impactful ventures, several of which received funding under this initiative.

“For Satu Creative, innovation isn’t about novelty alone—it’s about relevance, inclusivity, and longevity”. In higher education and youth engagement, this means cultivating environments where imagination, values, and action come together. Their approach combines design challenges, storytelling labs, and applied project development to nurture changemakers who lead with empathy and purpose.

Cultivating Innovation in Higher Education

Satu Creative recognizes that innovation within universities must go beyond adopting new technologies. It requires reshaping institutional culture to support interdisciplinary collaboration, applied learning, and engagement with real-world needs. However, many universities struggle to move promising work beyond academic boundaries due to structural silos and limited exposure to external partners. Satu Creative addresses this by encouraging flexible, agile, and mission-aligned ecosystems that support bold thinking and long-term impact.



Ahmad Azuar Zainuddin
CEO of Satu Creative

HUMAN DEVELOPMENT



The Satu Creative team empowers people to drive meaningful change

The organisation’s long-term vision is for Malaysia’s universities and those across ASEAN to evolve into living ecosystems, where teaching, research, and community engagement are interconnected. To realize this, Satu Creative advocates for deep, cross-sector partnerships. When academic institutions collaborate with industry, government, and civil society, innovation becomes not only more possible but more powerful. Ultimately, Satu Creative’s work is grounded in the belief that real change stems from purpose-driven collaboration. By centering people and communities in the innovation process, they ensure that progress is intentional, inclusive, and deeply human. Through thoughtful design and sustained engagement, Satu Creative is shaping a future where impactful innovation is not just possible, but inevitable



“Innovation is about relevance, inclusivity, and longevity”

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Project SCENT 2025: Empowering the Next Generation of Filipino Innovators

Leave a Nest Philippines proudly launches Project SCENT (Science & Technology Entrepreneurship Training) 2025, a flagship initiative aimed at bridging science, research, and entrepreneurship. Continuing our mission to cultivate science leaders, SCENT 2025 provides a unique platform for Filipino university students to explore how their academic work can drive real-world impact. Running over six months, the program offers immersive training in innovation thinking and entrepreneurship. Participants drawn from undergraduate and graduate levels are guided through a structured process of transforming research into scalable solutions. From ideation workshops to one-on-one mentorship with scientists and startup founders, SCENT creates a dynamic space where students are equipped with both technical and entrepreneurial tools.



HUMAN DEVELOPMENT



More Than a Pitch Competition

A key highlight of the program is the final pitch event, where participants present their projects to a panel of judges composed of innovation experts, startup mentors, and technology business incubator representatives. More than a competition, this pitch serves as a gateway to exposure, collaboration, and real-world opportunities. SCENT 2025 is built around five core experiences: intensive bootcamps, research mentoring, real-world testing, pitch training, and ecosystem engagement. These experiences support young innovators as they refine their ideas, test prototypes, and communicate their value to potential partners and the public.

Building an Innovation Ecosystem

By promoting a culture where research meets enterprise, SCENT reinforces Leave a Nest's commitment to a vibrant, inclusive innovation ecosystem in the Philippines. It encourages students to pursue entrepreneurship not only as a career path but as a vehicle for addressing pressing societal challenges. As we look ahead, SCENT 2025 represents more than a program. It is a movement to turn knowledge into action and ideas into lasting impact. Stay tuned for the upcoming pitch event and join us in supporting the next generation of Filipino innovators.

INVESTMENT THAT YIELDS DEEP AND LASTING REWARDS: HOW DR. MARTINEZ IS TURNING SCIENCE INTO SERVICE

By Neil Clarence Diaz, BSc.

When Dr. Joval Martinez left the Philippines to pursue his PhD in Japan, he carried with him a dream to bring world-class scientific knowledge back home. Today, as a professor at the University of St. La Salle and founder of Co-Lab Life Sciences, he's proving that when we give to our country, we don't lose—we gain purpose, community, and the chance to make real change.

From Overseas Scholar to Nation Builder

Dr. Martinez was already a full-time professor when he earned a doctoral scholarship from the Tokyo Metropolitan Government, leading to three years at Tokyo Metropolitan University studying metagenomics and microbial ecology. He later pursued postdoctoral research at Hiroshima University, deepening his expertise in metabolic engineering and biotechnology.

But what pulled him back was deeply personal. "I came home because I have a heart for the countryside," he shared. While abroad, he stayed in touch with developments in Negros and saw how rural farmers struggled—with declining crop yields, pests, and limited access to modern science. "I realized I couldn't just watch from afar. These are our people."



DR. JOVAL MARTINEZ, RMICRO
CEO and President, Co-Lab Life Sciences
Professor University of Saint La Salle - Bacolod

Building Labs, Startups and Student Dreams

Back home, Dr. Martinez faced familiar challenges—limited lab infrastructure and costly equipment. But with persistence, he secured funding and collaboration and built a research lab. His mentorship sparked student-led innovation, eventually giving rise to Co-Lab Life Sciences, a biotech startup that offers DNA sequencing and develops microbial solutions such as biofertilizers.

He also emphasizes empowering students to think beyond academic boundaries. "Startups can emerge from classrooms," he said. "Science should create solutions, not just publications."

Dr. Martinez mentored the back-to-back Visayas TECH PLANTER Grand Winners*



Lab mentoring at Co-Lab Life Sciences facility.



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The Ripple Effect of Intentional Giving

Dr. Martinez' decision to go back and establish his own startup is already bearing fruits that are impactful to different communities, starting with agriculture. Through the Co-Lab Life Sciences, they were able to help farmers battle crop infestations with science-based guidance, convince planters to adopt microbial solutions, and help draft policies informed by scientific briefs. "Science is urgent," he says. "If there's an infestation, we need an answer now—not after a peer review."

His advice to Filipinos abroad who want to do the same? **"Start small, but be intentional. Collaborate remotely. Connect with what's happening on the ground."** He also calls on scientists, engineers, social scientists, creatives, and policymakers to build grassroots partnerships with his cause. "We can't do it alone," he said. "But if we think globally and work locally, we can create ripples that last." Because when you give with purpose, you also earn something far more valuable: a future worth returning to.

"Start small, but be intentional. You don't have to uproot everything—just plant seeds, one step at a time. That's how the ripples begin."
- Dr. Joval Martinez



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BUILDING,
NOT A TIME
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**SYNERGISING
UNIQUE DIVERSE
CULTURES &
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TO SOLVE DEEP
ISSUES IN
MALAYSIA AND
BEYOND**



TWELVE YEARS OF LEAVE A NEST MALAYSIA'S JOURNEY: PLANTING THE SEED FOR LASTING GROWTH

By Arief I. Zamani, PhD.



This October, Leave a Nest Malaysia celebrates its 12th anniversary, a full cycle of growth since its first seed was planted in Malaysian soil. What started as a leap into the unknown has now grown into a thriving hub of innovation and leadership in Asia. To reflect on this journey, we spoke with Dr. Yukihiro Maru, CEO of Leave a Nest Group, and Mr. Abdul Hakim Sahidi, Managing Director of Leave a Nest Malaysia, in an interview moderated by Dr. Kihoko Tokue, the founder who first answered the call to pioneer this vision.

Founder Mindset: Exploring Uncharted Territory

When Dr. Maru first asked Dr. Tokue to establish Leave a Nest Malaysia, she was caught off guard. She had no network, no blueprint, and no prior experience in Malaysia. Yet, that was precisely the test.

Dr. Maru recounted his own PhD experience at the University of Tokyo, where he initially wanted to study reforestation but was redirected to lipids under Professor Tsuzuki. Disappointment turned into discovery, as he realized that venturing into the unknown often unlocks unexpected treasures.

That same “founder mindset” was what Dr. Tokue embodied when she set foot in Malaysia. She had no guarantees of success, only the courage to explore uncharted territory. This mindset became the DNA of Leave a Nest Malaysia.

Planting the Seed and Nurturing the Ecosystem

In the early years, the organization was little more than a fragile seedling. When Mr. Hakim joined, there were only two local members. He could have pursued offers from an established tech company, yet he chose a more uncertain road. What drew him in was Leave a Nest's vision: Advancing Science and Technology for Global Happiness.



Hakim recalled his first experience running science workshops. Surrounded by eager students, he saw how even small efforts could spark curiosity and hope. With limited resources, the team focused on building trust, planting their vision in universities, and cultivating young leaders.

Their work extended beyond classrooms, identifying gaps in Malaysia's innovation ecosystem, bridging academia with society, and nurturing projects that would one day create jobs and technological adoption. Slowly, the ecosystem began to grow roots.

Passing the Torch: Cultivating the Next Generation of Leaders

Seven years in, the COVID-19 pandemic arrived like a storm. Several key members resigned, leaving the team at its weakest point. Dr. Maru described it as “a precarious juncture where decisive choices had to be made.”

Instead of clinging tightly to control, he chose to empower younger leaders. He embraced Dr. Yuko Ueno's proposal to create a group creation system - a new structure that distributed leadership rather than centralizing it.

This was a bold experiment, but it worked. The younger members rose to the occasion, navigating through crisis and proving themselves resilient. As Dr. Maru reflected:

“At certain points, a leader must make decisive choices, accept any failure, and trust the next generation.”

The result? Leave a Nest Malaysia not only survived but emerged stronger, with a deeper leadership bench ready to carry the torch forward.

Tough Times Forge Stronger Characters

Leave a Nest Malaysia has embarked on an extraordinary 11-year journey, a testament to its unwavering resilience and remarkable growth. What began as a nascent endeavor blossomed into a formidable presence, propelled by the collective dedication of 15 visionary “nakama.” These individuals, acting as the foundational pillars, shared an ambitious vision to cultivate innovation and impact not only within Asia but reaching far beyond. This profound sense of unity and shared purpose was instrumental in transforming the Malaysian office into the undisputed SEA headquarters, strategically positioning it to extend its leadership to bring “Co-creation” of the Southeast Asia countries.

Charting the Next Cycle of 12 Years: Building for the Future

Now, as the organization steps into its next 12-year cycle, the mission is clear: to tackle real-world issues hand-in-hand with stakeholders.

At the heart of this effort is the role of the Science Bridge Communicator (SBC), a unique connector who can translate science into actionable solutions and change the way of business. Training more Science Bridge Leaders (SBLs) and Science Bridge Managers (SBMs) is key to scaling this mission.

Mr. Hakim envisions a future where SBL-certified members multiply, weaving networks across countries and industries. For Dr. Maru, the SBL is not just a certificate but a shared mindset:

“SBL is the key component of knowledge manufacturing. It’s not merely a certificate. It’s a common mindset that connects all members together in solving issues and creating projects.”

From Seeds to Forests

Looking back, the seeds planted 12 years ago have matured into strong plants capable of bearing new seeds, ready to take root in other regions. From a leap of faith with no map, Leave a Nest Malaysia has grown into a living ecosystem, one that continues to expand across borders, carried forward by its founders and future leaders.

The next cycle promises not just growth, but the creation of entire forests of innovation, each tree rooted in the spirit of exploration, resilience, and shared happiness.

Once a mere sapling, the company has since matured into a majestic tree, its robust and far-reaching branches serving as a powerful symbol of its extensive global network. These branches represent not just a physical presence but also the deep and enduring impact Leave a Nest Malaysia has achieved in fostering groundbreaking innovation and meticulously building vibrant communities across diverse regions. The journey has not been without its challenges; indeed, tough times have acted as a crucible, forging stronger characters and imbuing the organization with an unyielding spirit. This crucible of adversity has not only shaped its identity but has also laid the groundwork for a legacy of sustainable, lasting growth and a significant, undeniable global impact that continues to unfold.



Celebrating 12th Anniversary 2013 - 2025

Leave a Nest Malaysia

2013 (Oct 14)

Established as the 3rd overseas subsidiary of Leave a Nest Group by Dr. Yukihiro Maru and Dr. Kihoko Tokue.



2016

Welcomed the first local members, Abdul Hakim and Fatin Ilyani, paving the way for localisation and growth.



2015

Launched **TECH PLANTER** Malaysia, empowering researchers and startups from idea to commercialization.



2019

Abdul Hakim became the youngest and first local **Managing Director**; activities expanded with HIC, CDF, Science Castle Malaysia, and regional programs in Indonesia.



Follow Us:



linktr.ee/leaveanest

12th Year Milestone

2020-2021

Despite Covid-19 reducing the team from 7 to 4, the company showed **resilience** by shifting platforms into **virtual and hybrid formats**.



2023

Opened the **Center of Garage Malaysia (COGMY)**, the first incubation hub outside Japan, and gathered **15 visionary “nakama,”** recognized as the symbolic founders of Leave a Nest Malaysia, echoing the original **15 founders of Leave a Nest Japan**.



2022

Appointed **Mr. Ahmad Zaim Hussin and Dr. Yuko Ueno as Directors**, redefined purpose with the **Leave a Nest Malaysia Mission**, relocated to **Cyberjaya**, and rebuilt the team beyond 10 members.



2024

Appointed as the **Southeast Asia Headquarters**, expanded to 18 members, and launched the **Head of Department (HoD) system** with **Ezral, Arief, Suzianti, and Mahirah** as the first HoDs.

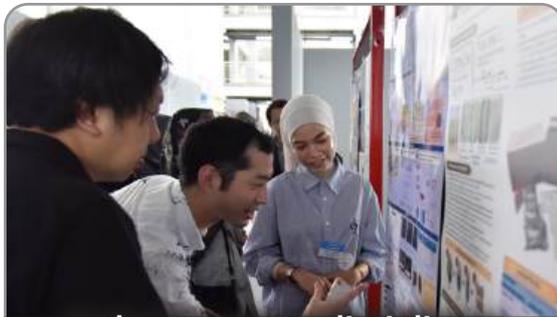


2025

Celebrates 12 years of advancing science and technology in Malaysia and Southeast Asia, looking forward to the next chapter of impact and growth.



Representatives from the industry engaging in discussions with researchers during the Sustainable Aquaculture Summit, highlighting cross-disciplines collaborative opportunities.



At the Hyper Interdisciplinary Conference (HIC), vibrant idea exchanges spark unexpected collaborations, uniting researchers across diverse disciplines and institutions.



The HIC also features a unique Mindstorms Session, where participants brainstorm transformative ideas and shape them into practical solutions for tackling local issues.

HODGE PODGE: FINDING THE 'RIGHT' MIX FOR RESEARCH

“**Hodgepodge**” refers to a confused mixture or a jumble of different things thrown together without structure or organization. At first glance, it may seem like something to avoid in research, as it can complicate processes and make it harder to reach clear conclusions. But what if, through a hodgepodge, we could spark unexpected combinations—new mixtures of ideas we’ve never seen before?

How can we discover the “right mix” in conducting research?

In this section, we explore examples of innovative “mixtures” in research — combinations of different disciplines, institutions, cultures and mindsets — and how they came together to create new solutions for real-world problems. Join us as we uncover how embracing diverse elements can lead to powerful innovations, and how you, too, might find your own “right mix” in research.

A BANGLADESHI RESEARCHER'S GROWTH ACROSS CULTURES AND FIELDS

By Farhana Shikder Lamia, MSc.

Coming from a different country, culture, or discipline isn't a setback in research—it's often the spark for breakthrough discovery. Dr. Mohammad Saiful Islam, a Bangladeshi researcher now leading innovation at Sankei Giken Kogyo Co., Ltd. in Japan, is living proof. His journey is one of quiet resilience and relentless curiosity—an inspiring reminder that research excellence knows no borders and begins with the courage to keep learning.

From Interdisciplinary Research to Global Impact

Dr. Mohammad Saiful Islam's career embodies the power of mixing disciplines to drive meaningful innovation. With a foundation in medicine, his doctoral work at Shimane University explored both the toxicological effects of environmental substances and the therapeutic potential of natural compounds. He extended this research in academic settings before transitioning into industry, where he explored the intersection of materials science, environmental health, and manufacturing. Moving between university labs and corporate R&D environments, he bridged fields that are rarely connected—pharmaceutical toxicology, plastic impact assessment, and sustainable material development.

Today, as a Principal Engineer at Sankei Giken Kogyo Co. Ltd., Dr. Mohammad Saiful Islam applies his cross-disciplinary expertise to the development of advanced bio-based plastic compounds. His work focuses on high-biomass CNF-resin composites designed to support global sustainability goals. These innovative materials have the potential to reduce CO₂ emissions by up to 60%, offering a promising alternative to petroleum-based plastics. With applications spanning the automotive industry, agriculture, and everyday consumer products, his research paves the way for a more sustainable future.



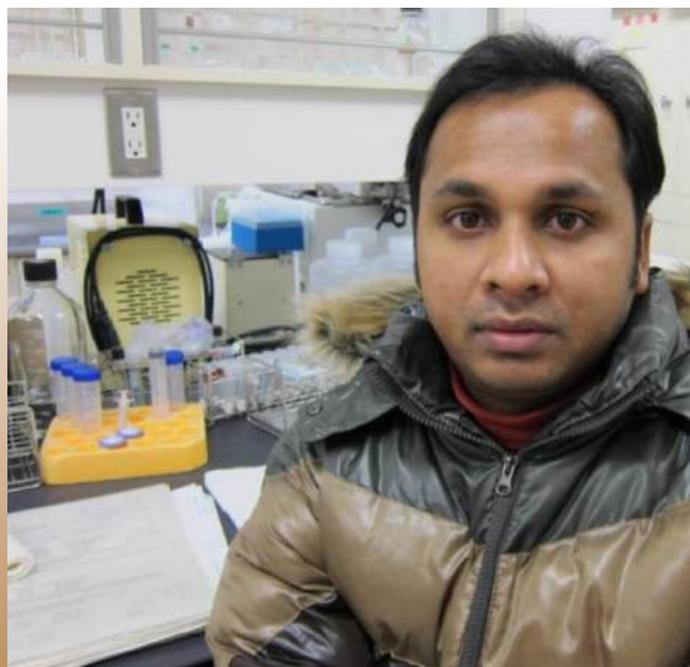
Dr. Mohammad Saiful Islam, Ph.D
Principle Engineer
Advanced Research Department
Sankei Giken Kogyo Co., Ltd.

Crossing Cultures and Disciplines Pushed Resilience

The journey was far from easy. *"I had to adapt to everything—food, culture, language, lab systems,"* Dr. Mohammad Saiful Islam recalls. Yet with the support of his professors and labmates, he gradually found both belonging and momentum. Immersed in a globally diverse environment, his communication skills grew stronger, and with them, his confidence. Looking back, he describes the experience as profoundly transformative.

"For an international researcher, discovering new technology and knowledge is an endless journey," he reflects—a journey defined not only by science, but by the courage to grow through every challenge that change brings.

In Dr. Mohammad Saiful Islam's story, we see how mixing background, culture, and discipline creates not confusion, but clarity, not limitation—but possibility, and above all, we see how belief in yourself—especially when the path is unclear—can lead to discoveries that benefit not only science, but society.



Dr. Mohammad Saiful Islam in his lab at Shimane University, 2013. Once a young student with big dreams and quiet doubts—now a great scientist.

INTRODUCTION TO NEST VENTURE LAB

By Nursyuhada Othman, Ph.D

NVL

NEST VENTURE LAB

VISION

Research & Development (R&D) gateway for academician, researchers & the industry

MISSION

To foster a cross-border and local R&D ecosystem by enabling local startups and corporations to establish their own in-house R&D, while at the same time, supporting and showcasing local researchers capabilities to advance industry with their expertise, initiating new business/market for industry.

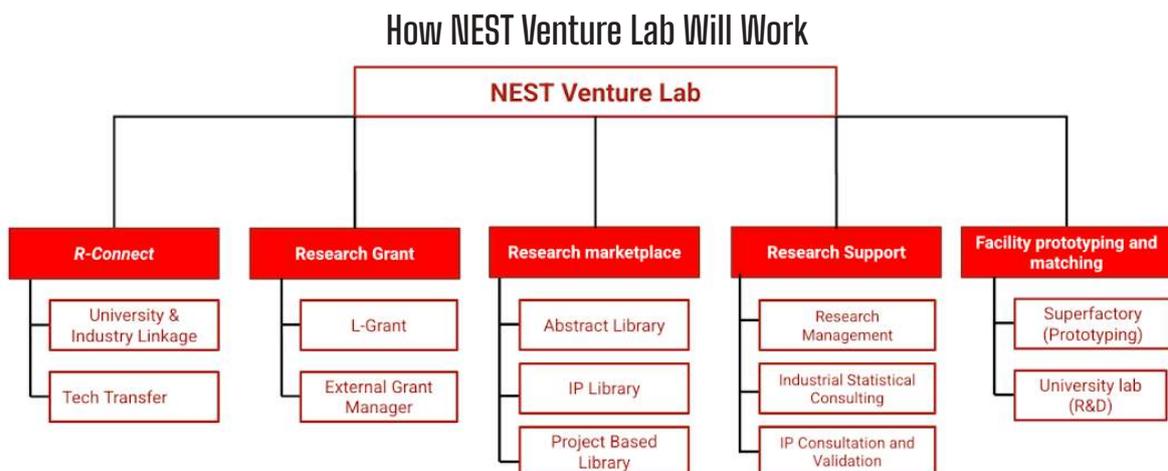
NEST Venture Lab (NVL) is a platform that bridges Malaysian academic research with industrial application, enabling researchers and corporations to collaborate in technology development and commercialization. Hence, NVL welcomes all research fields to participate. It serves as a gateway for Japanese corporations and deep tech startups expanding into Malaysia, offering access to current research and innovation, academic expertise, advanced laboratories and market insights. Through NVL, researchers can commercialize their technologies, explore IP licensing and develop new products with industry partners. Companies, in turn, can gain access to niche technologies and research through NVL's robust network. NVL also supports this collaboration by offering access to funding support, research consultation and a network of laboratories and facilities. It helps researchers showcase their expertise and services through platforms like research directories, and intellectual property guidance. For companies, NVL provides connections to the right people, resources, and facilities such as labs for testing or spaces for prototyping. By acting as a bridge between academia and industry, NVL makes it easier for both sides to work together, share knowledge and create new technologies. In doing so, NVL aims to strengthen innovation in Malaysia and support the growth of deep tech industries across the region.

Inside NEST Venture Lab

Operating as a dynamic ecosystem, NEST Venture Lab empowers researchers and innovators through five core pillars:

- R-Connect strengthens collaboration through university-industry linkages and technology transfer, ensuring that research breakthroughs reach practical applications.
- Research Grant services streamline funding access via in-house L-Grant support and dedicated external grant managers who navigate complex funding landscapes.
- Research Marketplace offers robust knowledge-sharing platforms such as an abstract library, intellectual property (IP) repository, and project-based library to foster visibility and collaboration.

- Research Support delivers critical services in research management, industrial statistical consulting, and IP consultation, ensuring research excellence and compliance.
- Facility Prototyping and Matching connects innovators to state-of-the-art resources, including the Superfactory for rapid prototyping and university R&D labs, to turn ideas into tangible prototypes.



INDUSTRY-UNIVERSITY COLLABORATION THROUGH NEST VENTURE LAB

By Nursyuhada Othman, Ph.D

Pioneering Visit to SUTRALAB: A Milestone for NVL

In April 2025, NEST Venture Lab (NVL) initiated its first official engagement under the Industry-University Lab Partnership Program with the Shimadzu-UMHIR Testing and Research Analytical Laboratory (SUTRALAB) at Universiti Malaya. This marked an important milestone for NVL's mission to foster robust collaborations between Malaysian academic research laboratories and deep tech industries entering the region. The initial visit was led by Dr. Hadi Akbar from the Research Development (RD) Division, alongside Dr. Didi Erwandy. They were joined by Dr. Nabihah, Dr. Suzy, and Dr. Syuhada, who contributed to assessing SUTRALAB's capabilities and strategic fit within the NVL network. The team conducted a thorough site tour to explore the lab's advanced instrumentation, testing services, and research environment ensuring that SUTRALAB could effectively support the analytical needs of NVL's incubated startups and international collaborators.

Looking Ahead: Building a Collaborative Future

This visit reflects NVL's broader vision of building a national ecosystem where academia and industry co-create innovation. By connecting world-class research facilities with emerging technology startups particularly those from Japan seeking market entry into Malaysia, NVL plays a critical role in translating academic expertise into real-world applications. Laboratories like SUTRALAB can offer vital services, such as product testing, quality assurance and technical validation, which are essential for startups navigating regulatory and commercialization challenges in a new environment.

To further expand this network, NVL welcomes researchers, academic labs, and university-affiliated testing centers across Malaysia to join our platform. Participation offers numerous advantages. NVL actively promotes our lab partners by featuring their services, brand logos, and facilities across our marketing channels including brochures, presentations, and outreach campaigns targeting startups, SMEs and venture partners. We also provide a centralized directory listing for all partner labs, allowing potential clients, collaborators, and investors to connect directly with you. By being part of NVL, your institution not only gains visibility but also becomes part of a vibrant ecosystem advancing frontier technologies in healthcare, agriculture, material science, and biotechnology.



First official visit between Leave a Nest Malaysia's RD Division and SUTRALAB, Universiti Malaya

As part of our commitment to mutually beneficial collaboration, NVL will offer a referral incentive for each successful project or service engagement secured through the platform (with terms open for discussion). In addition, we envision our partner labs becoming key venues for knowledge exchange, hands-on training, and technical consultation for startups and innovators. For example, SUTRALAB could serve as both a technical service provider and a training ground, where academic experts deliver workshops or support product R&D for industry partners. We look forward to seeing SUTRALAB take part in upcoming NVL-led projects, events, and innovation challenges. Together, we can showcase Malaysia's research excellence on a global stage while bridging the gap between discovery and application, between labs and the marketplace.



Facilities and equipment at SUTRALAB, Universiti Malaya

ROOTED IN COMMUNITY: CHANGING LENSES TO BRIDGE INNOVATION WITH CULTURE

By Jewel Santos, BA.



Dr. Susan Bacud began her scientific journey as a dedicated lab researcher, deeply immersed in exploring blood cells, plant tissues, and human chromosomes. Earning her Bachelor of Science in Biology from the University of the Philippines Los Baños (UPLB), she established a strong foundation for her lifelong passion for science. Her fascination with genetics research led her to pursue a Master of Science in Genetics, with a minor in Biochemistry, also at UPLB. However, an unfortunate chemical exposure that severely impacted her health left her thesis unfinished.

This pivotal health crisis became a turning point. Dr. Bacud faced a difficult choice: continue the high-intensity lab work she loved or prioritize her well-being. The decision was agonizing, ultimately pulling her away from the familiar comforts of microscopes and culture plates and thrusting her into the dynamic and unpredictable world of rural development. Embracing this new direction, she pursued a Master of Management (major in Rural Development Management) and PhD in Community Development (with cognates in Sociology and Entomology), again at UP Los Baños, redefining herself not only as a scientist but also as a committed community advocate.

Why Community Matters

Despite this unexpected career shift, Dr. Bacud remains dedicated to serving society, through engagement with farming communities including peri-urban sampaguita growers, mango and coconut farmers. With hands-on fieldwork and collaborative storytelling, she discovered that technical knowledge alone is insufficient—true development demands empathy, trust, and authentic collaboration with the very communities it aims to support.

Her new, community-focused perspective enabled her to bridge biological and agricultural sciences with the social dimensions of development. Understanding complex ecological systems, she recognized the necessity of navigating equally intricate human relationships. Dr. Bacud learned that facilitating meaningful change involved more than merely sharing scientific knowledge; it required building trust, ensuring cultural relevance, and aligning closely with community values.



Dr. Susan conducting field research with coconut farmers in Pagsanjan, Laguna, for the PCAARRD-funded project 'Building Rural Community Capacity Towards Resiliency of the Mango and Coconut Livelihoods in Luzon'—working hand-in-hand to strengthen local livelihoods.



Dr. Susan engages with and trains organic vegetable farmers in Bagong Silang, Los Baños, Laguna, as part of the project “Enhancing Utilization of College of Agriculture-UPLB Technologies Through Agri-on-Wheels, Radio, and Social Media.”

Experiments Without Equations

Dr. Bacud’s field immersion showed that innovation thrives even in the humblest corners of society. She witnessed how farmers, despite lacking formal training, practiced informal experiments—modifying propagation techniques, observing changes, and adapting methods based on tangible results. One striking example was how sampaguita growers developed a more effective way to root cuttings by using locally adapted techniques rather than a recommended scientific practice (the standard laboratory-based protocols).

These grassroots innovations underscored a vital truth: science does not reside solely in institutions. By recognizing farmers as co-experimenters, Dr. Bacud reframed the idea of who gets to be called a “researcher.” Her work continues to advocate for inclusive science—where local ingenuity is not only acknowledged but celebrated as essential to sustainable development.



Dr. Susan conducts mango processing training and collaborates with mango farmers in Batangas Province for the PCAARRD-funded project “Building Rural Community Capacity Towards Resiliency of the Mango and Coconut Livelihoods in Luzon.”

Redefining Innovation

Dr. Bacud firmly believes scientific advancement must be guided by humility, dialogue, and genuine collaboration. Her research philosophy now emphasizes co-creation, participatory design, and reflexive methodologies—approaches that empower communities as active co-researchers, not mere subjects.

Her unique blend of academic credentials and practical, field-tested wisdom distinguishes her journey—from biological laboratories to the open fields—as an example of what it means to be a modern scientist. She embodies interdisciplinary scholarship deeply rooted in human connection.

To emerging researchers, Dr. Bacud conveys a clear message: siloed expertise is no longer sufficient. True sustainability comes from systems thinking, shared power, and deep, attentive listening.

Interested to Know More?

Catch Dr. Susan Bacud as she shares her insights on the intersections of innovation, rural development, and community-driven solutions as the Keynote Speaker at the **Hyper Interdisciplinary Conference in the Philippines 2025**, themed “Decoding Traditions, Recoding Innovation: Navigating Toward Adaptive Solutions.” The said event will be on November 8, 2025, at Quezon City University.

BRIDGING THE GAP: GREAT IDEAS NEED GREAT COMMUNICATION

By Kihoko Tokue, Ph.D

From Interdisciplinary Research to Global Impact

“This is really cool and this is really new, and we get to play with the best new things!” said the interviewee, Dr. Tan, as he relived the moment at Stanford University. He mentioned that he was able to experiment with various emerging technologies. When asked if his career path was predetermined, he smiled and said, *“Not at all.”* This reflects his easygoing personality, highlighting how spotting serendipity and exploration played a role in shaping his professional journey from the start. Read the article to follow Dr. Tan’s career journey and learn from his experiences to get a head start in bringing innovation to the world.



Dr. Tan Sian Wee is Senior Vice President (Innovation and Enterprise) at the National University of Singapore, leading initiatives like NUS Overseas Colleges, BLOCK71, and National GRIP (Graduate Research Innovation Programme) to bridge research and commercialization. A Stanford Ph.D., he has a rich background in deep-tech innovation and venture creation.

The Innovation Paradox: Steadfast in Vision, Agile in Execution

Innovation demands a paradoxical balance—an unwavering commitment to vision, coupled with the agility to adapt in execution. Dr. Tan witnessed this firsthand during the early internet boom, when his colleague’s roommates founded Yahoo. *“They started with a simple telephone book at yahoo.stanford.edu, yet remained open to evolving opportunities,”* he reflected. This balance between conviction and adaptability proved crucial as technologies rapidly transformed. Much like practicing Aikido, a martial art Dr. Tan credits for building his resilience, innovation requires knowing when to stand firm and when to pivot. *“It’s like three-dimensional chess with your body—strength in one instance, flexibility in another.”*

Bridging Communication in Multidisciplinary Teams

The greatest challenge in innovation isn’t creating technology—it’s communicating its value across different disciplines. As Dr. Tan observed, *“The biggest failures I’ve seen are when management, who may not be technically skilled in that area, fail to communicate with the technical people.”* His solution is refreshingly simple: explain complex concepts as you would to a *“12-year-old niece.”* This approach stems from his own learning journey. *“I wasn’t a good student growing up, so I always needed to understand things in simple ways,”* he shared with humility. By stripping away jargon and focusing on fundamental concepts, Dr. Tan bridges the gap between the technical and business worlds. Effective communication is crucial in translating technological innovation into real-world business value.

Art of Simplifying Complexity and Spotting Transformative Ideas

Identifying truly transformative ideas requires more than technical knowledge—it demands the ability to see potential and focus on what matters most. *“It really relies on the potential growth of the idea,”* Dr. Tan emphasized. In innovation ecosystems like Singapore, where the opportunity costs for failure are high, discerning between incremental improvements and revolutionary concepts becomes critical. This skill rarely comes naturally—it’s developed through diverse experiences and exposure to a wide range of challenges. In a mature economy, such experiential learning can be difficult to come by. By cultivating the ability to evaluate potential impact of new ideas, innovators can focus resources where they matter most. As Dr. Tan reminds us, the future belongs not only to those who can create revolutionary technologies, but also to those who can effectively communicate their vision to the world.

COMMUNICATION: BRIDGE OF DISCOVERY AND IMPACT

By Sivakumar Thamizvanan, MSc.

In a mature knowledge economy like Singapore, where cutting edge research and high-tech startups are making headlines, one essential ingredient is often overlooked: the ability to communicate science clearly. The truth is, a discovery isn't truly impactful until it's understood by people beyond the lab — from clinicians and educators to investors and the general public. Science bridge communication is vital for researchers aiming for real-world impact. Here we explore this further through the lens of an expert, Associate Professor Rachel Ee, Department of Pharmacy and Pharmaceutical Science from National University of Singapore, who is working on peptide nanonets — microscopic webs that trap harmful bacteria.

The Art of Translating Complex Science

As A/Prof. Rachel Ee puts it bluntly, “If you cannot explain your research in 50 words or less to a layperson, you have failed.” Scientists are trained to write for journals, not for the everyday reader. They can describe molecular structures in painstaking detail, but may struggle when asked to explain why it matters to a patient, policymaker or investor. Rachel knows this from experience. Despite publishing in prestigious journals, her work on peptide nanonets drew little interest until her work was featured in a general news article. Suddenly, clinicians reached out. Partnerships formed. That visibility led to collaboration beyond academic walls. The takeaway: technical success alone doesn't open doors. Speaking plainly, with relevance and humanity, is what unlocks funding, partnerships, and recognition beyond academic circles.

Building Bridges in the Communities

Some of the toughest roadblocks to innovation aren't in the lab—it's communication within the broader scientific community. Academia often celebrates deep focus, but innovation ignites when disciplines cross-talk. A/Prof. Rachel Ee noticed how few spaces exist for such informal, cross-disciplinary conversations. Yet when those silos break, the results can be powerful. A prime example: Rachel's research on peptide nanonets moved closer to real-world use only after a casual coffee meeting with a doctor—sparked by accessible communication, not academic networking.

Communicate to Create Impact

Singapore is a nation of ideas — from high school science projects to cutting-edge biotech startups. But ideas alone can't change the world. They need voices. They need storytellers, translators, and bridge-builders to move discoveries from lab bench to real-world impact. Whether you're a student explaining a concept to your class, a researcher pitching a grant, or a startup founder talking to an investor, the principle is the same. As Rachel puts it: “If people can't understand your science, they can't support it”. True innovation doesn't just live in the lab. It comes alive when science meets story, and when discovery turns into dialogue. That's the mission behind Leave a Nest, an initiative that attempts to bridge the gap between scientific breakthroughs and real-world solutions by enabling collaboration across researchers, entrepreneurs, educators, industry, and government by creating the ecosystem and inviting you to be a part of the journey.



Pui Lai Rachel Ee
Associate Professor
National University of Singapore.

Associate Professor Rachel Ee has been shaping the future of pharmaceutical science at NUS since 2006 after earning her PhD in Pharmaceutics at the University of Illinois at Chicago and working as a drug discovery scientist in ProSkelia S.A.S in Paris. Her research focuses on how synthetic (bio)molecules interact with biological surfaces and how these interactions can be harnessed through smart formulations to benefit human health. Her work has been featured in top scientific journals such as Nature Biomedical Engineering, Angewandte Chemie, and Biomaterials. Within NUS, Rachel has held key leadership roles, from Chairing the University Mid-term Advisory Review Committee (STEM) to serving as Deputy Head (Research) and Director of the Pharmaceutical Science Programme. In every role, she has championed not only scientific excellence, but also the importance of communicating discoveries in ways that inspire action and collaboration.



HIC

Raise Insight. Cross Boundaries

DEVELOPING A NOVEL KNOWLEDGE MANUFACTURING PROCESS FOR SCIENTISTS TO CHANGE THE WORLD

The Story Behind Hyper Interdisciplinary Communication

By Ryuta Takeda, Ph.D & Sharifah Nabihah Syed Othman, Ph.D

Since the 17th-century Scientific Revolution, modern research has propelled progress by deepening knowledge and transforming society. Yet today’s complex challenges—like climate change and pandemics—demand more than siloed expertise. We need not just collaboration, but the purposeful combination of knowledge across domains. And the importance of its process is increasing. We, Leave a Nest, call it “**Hyper Interdisciplinary Communication**”—a process to generate new knowledge by researchers, where they lead the way in shaping our world in a better way. Let’s see how we develop this unique way of thinking.



“Hyper Interdisciplinary Gathering” in the early days: At that time we’d already stepped out from a cafe because of the increasing number of participants.

RESEARCH DEVELOPMENT

From Bragging Rights to World-Changing Dialogue

In 2002, a group of 15 students laid the foundation for what would become Leave a Nest (LVNS)—not in a lab, but in a local café. There, the 15 as budding researchers from vastly different fields gathered to present their research to one another, not for academic publication, but for passion and peer recognition—not to compete, but to *brag*. The event, dubbed the “**Hyper Interdisciplinary Gathering**”, celebrated not just the content of research but the conviction that “my science matters, and can change the world.” These weren’t career-building conferences. They were crucibles of identity, where young researchers questioned: *What would it take for my work to have real-world impact?* In those early discussions, we discovered that to break out of the academic hierarchy, we had to go beyond mere dialogue. We had to dismantle boundaries, question disciplinary norms, and rebuild our understanding of science’s role in society. Thus, Hyper Interdisciplinary Communication (HIC) was born—not as a slogan, but as a stance.

Where Hypotheses Take Flight with Empathetic Communication

6 years later, in 2008, LVNS had launched its own grant program—L-Grant—to give young scientists the resources to start freely exploring their own ideas. As word spread, LVNS network expanded across universities in Japan. But the most important shift came with the establishment of the Hyper Interdisciplinary Conference—a conference that flipped the script on traditional academic gatherings. Here, researchers don’t just report what they’ve discovered. They declare what they want to do next. And in doing so, the conference invites others—not just academic researchers, corporates, manufactures, startups, and even policymakers—to co-create the next step. Interestingly, It became breeding grounds for empathetic communication: “This model resonated not only with academics burnt out by hyper-competitive grant systems but also with companies hungry for authentic, science-driven change. Thus, Hyper Interdisciplinary Conference serves as a launchpad for turning resonant research hypotheses—those that spark collective empathy and ambition—into tangible projects and real-world impact.



Hyper Interdisciplinary Conference in Tokyo 2025: More than 1,000 participants, more than 250 research posters from more than 7 countries gathered.

Expanding Across Borders, Regions, and Sectors

As the concept matured, its reach grew—both geographically and structurally. Hyper Interdisciplinary Conference gathered attendees from Silicon Valley, Boston, Oxbridge, and Southeast Asian countries. Also, we held it not only in Tokyo, Japan where it was born, but also in other countries starting from Malaysia. From 2018, we've held 8 conferences regularly; ie., in Tokyo, Osaka, Malaysia, Singapore, Philippines, Indonesia, Thailand, Vietnam. But this wasn't just global expansion for its own sake. We began developing three complementary formats as events.

FORUM – Regional gatherings that bring together researchers to address specific local challenges through cross-border exchange.

SUMMIT – Academic field-focused events that assemble experts across disciplines to invent and define emerging/novel research areas.

Hyper Interdisciplinary Conference – A comprehensive space where stakeholders from every sector engage in deep dialogue and co-design world-changing research projects.

Through these dynamic formats, we don't just facilitate research—we *accelerate* it by bringing people, knowledge and shared vectors of purpose participants have. The old “one technology, one company” approach—like digging ever deeper beneath in search of oil—has already hit bedrock. Our direction is no longer downward but lateral: driving comb-like connections sideways across every single border, opening paths we never knew existed. *Cross Boundaries*—that is the spirit of HIC embedded into the format.

*Bell Labs was AT&T's industrial research arm in the USA, housing physicists, engineers and mathematicians under one roof. During its golden age (late 1940s-1970s), long-term monopoly funding let it pioneer the transistor, laser, information theory, UNIX, CCDs and satellite communications, earning multiple Nobel and Turing prizes through open, peer-driven rapid prototyping culture.

Designing the Long Lasting Engine for Research

To cross the boundaries that constrain us, we must first elevate our insight. With every notch we raise our intellectual altitude, the horizon widens, and the map beneath us expands, revealing patterns and possibilities that stay hidden at ground level. Here, let's learn from one of the most legendary institutions of the 20th century, Bell Labs, faced with a similar ambition: to create an enduring research engine. It wasn't just renowned for its scientific breakthroughs—semiconductors, lasers, satellite communications—but for its organizational architecture. Bell Labs brought fundamental science and applied engineering under one roof, supported by long-term investment and a culture that embraced curiosity and failure. It worked—until it didn't. As short-term KPIs and quarterly returns took precedence, that golden era came to an end. The question now is: what does it take to build the next generation of research platforms—one that lasts?

That's where “**Hyper Interdisciplinary Communication (HIC)**” comes in. Through HIC, researchers are not merely investigators. They gather collective intelligence, prototype new domains of inquiry, and co-create solutions that transcend the boundaries of their own labs. To make it happen, they can start continuous communication throughout the year by positioning the HIC event as a pivotal stepping stone. In the process, they don't just produce findings. They can build entirely new research themes, disciplines, and even institutions that are capable of confronting challenges we humankind faces.

HIC including the events may spark a new project, but its greater That very resolve, after all, is nothing less than a researcher's determination to Raise Insight. purpose is far more ambitious: to construct a **long-lasting engine for scientific imagination and action**; that is, a novel research. One that enables researchers to find questions they didn't know they could ask—and paths they could never walk alone.

Raise Insight. Cross Boundaries. Let's start “**Hyper Interdisciplinary Communication**” together.

UPCOMING 2025 SUMMIT

By Nursyuhada Othman, Ph.D



GLOBAL ALGAE SUMMIT

The Global Algae Summit (GAS) is an annual event dedicated to fostering collaboration and driving innovation in the field of algae research. Held under the theme “Algae in Action: Transforming Industry with Green Biotechnology,” GAS 2025 aims to bring together industry professionals, startups, researchers, academicians, and students to explore the latest advancements in algae-based technologies.



Global Algae Summit 2024 that was held in Monash University, Kuala Lumpur.

KEYNOTE SPEAKER Prof. Dr. Iwane Suzuki
from University of Tsukuba Malaysia

MAIN PARTNER ATOZ CARBON CYCLE

CO- ORGANISERS Euglena Co. and Universiti Putra Malaysia (UPM)

STRATEGIC PARTNER ALBIC (Microalgae Biota Technology & Innovation Research Group)

DATE 27th August 2025

TIME 9:30 AM- 5:30 PM

VENUE Auditorium Rashdan Baba,
Universiti Putra Malaysia, Selangor

**MORE DETAILS
ABOUT GAS 2025:**



SUSTAINABLE AQUACULTURE SUMMIT

The Sustainable Aquaculture Summit (SAS) is returning for its second edition. SAS 2025 adopts the theme “Charting the Future of Aquaculture: Technologies and Collaboration for a Thriving Blue Economy.” The summit serves as a dynamic platform for knowledge exchange, bringing together stakeholders across the aquaculture ecosystem. It aims to address critical challenges, uncover emerging opportunities, foster strategic partnerships, and highlight cutting-edge innovations and research. With a strong focus on regional collaboration and sustainable development, SAS supports the advancement of the blue economy and broader climate goals. A key highlight of the event is the Pocket Talks session, where startups, industry players, and researchers pitch their projects to spark new ideas and meaningful collaborations.



Sustainable Aquaculture Summit 2024 that was held in Universiti Sains Malaysia.

PARTNERSHIP Innoqua Asia Sdn. Bhd. and ARK Inc.

DATE 8th October 2025

TIME 9:00 AM to 5:30 PM

VENUE Dewan Banquet,
Universiti Sains Malaysia, Pulau Pinang

**REGISTRATION
SAS 2025:**



Welcome all stakeholders, industry experts, entrepreneurs, researchers, academicians and students, those who are passionate about shaping the future of emerging technology.

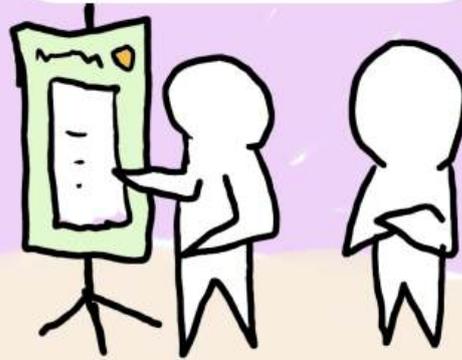
WHAT TO DO IN A CONFERENCE?

By Hadi Akbar Dahlan, Ph.D

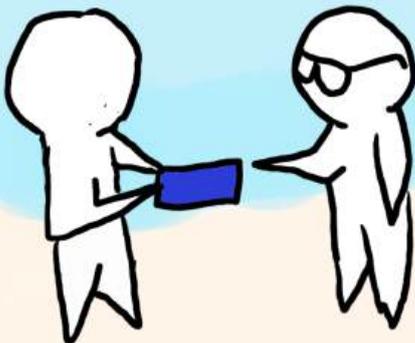
There are plenty of things to do in conference~



Share your discoveries and inspire others—your next big idea or groundbreaking experiment awaits!



The conference is buzzing with opportunities—your future supervisor or dream employer might be just a conversation away!



Entrepreneur or PI in the making? Meet your next collaborator or business partner here!



Explore Our  **HIC** platform!

GEEK IN ME

THE BIOCODER WHO PROGRAMS BACTERIA

By Anis Nadyra Zifruddin, Ph.D

We dive into the world of synthetic biology through the lens of a young researcher who is breaking the mold. With a solid foundation from Imperial College London, Mr. Hazlam Shamin Ahmad Shaberi is currently pursuing his PhD journey at the Institute of Biology Systems (INBIOSIS), Universiti Kebangsaan Malaysia, under the supervision of Dr Ahmad Bazli Ramzi, one of the pioneers, experts, and leading advocates of synthetic biology. He is not just navigating the typical postgraduate grind, he is redefining it. By blending technology and biology through interdisciplinary skills, his passion lies in making synthetic biology more efficient, impactful, and accessible. His journey is fueled by curiosity, innovation, and geekiness that could shape Malaysia's synthetic biology future.

Sci-fi Spark to Synthetic Reality

Hazlam's interest in synthetic biology started in high school, where the field felt as exciting and limitless as something out of a sci-fi movie. Torn between quantum physics and genetic engineering, he chose the latter, believing it had more potential for real-world application in the Malaysian context. During his undergraduate studies, he was inspired by professors who merged biology and engineering to design useful biological systems. Synthetic biology involves creating new biological parts, devices, and systems or reprogramming existing organisms to perform new functions. What captivated him was how this field could be applied to real challenges by essentially programming living cells as tiny biological machines to do purposeful work.



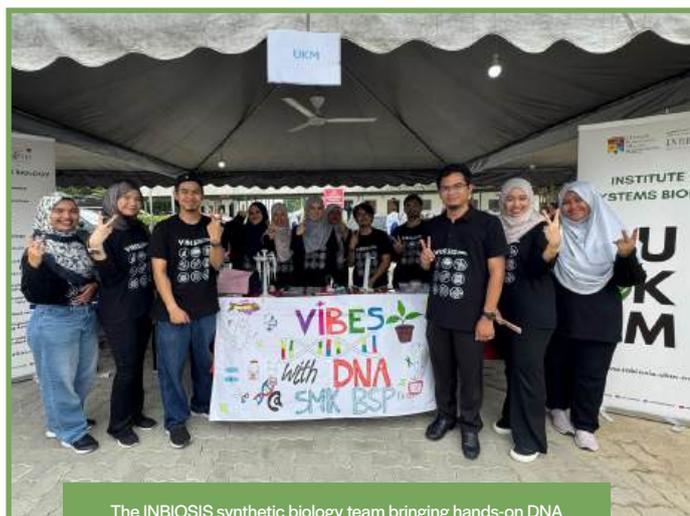
Mr. Hazlam at UKM Biofoundry, Malaysia's first automated synthetic biology lab, where biology meets robotics for faster, smarter experiments.

Fixing Plastics with Engineered Bacteria

In his study, Hazlam is addressing one of Malaysia's pressing issues, which is plastic pollution. He engineers photosynthetic bacteria to depolymerize plastic waste using only sunlight and carbon dioxide, making the process more energy-efficient and sustainable. In parallel, he modified heterotrophic bacteria to consume the byproducts of the degradation. Together, these engineered microbes form a circular bioeconomy system where plastic waste is biologically converted into valuable resources.

From the Lab Bench to a Better World

Looking ahead, he envisions a future where synthetic biology is faster, more scalable, and high-throughput, which is driven by the integration of AI, programming, and automation. He believes that by combining these technologies, synthetic biology can move beyond trial-and-error and become a more standardized, predictable discipline even when dealing with the complexity of living systems. For him, the goal is not just scientific advancement, but real-world application. He advocates for translational research and transformative technologies that directly benefit society. This vision echoes strongly with Leave A Nest's mission, where innovation is not an end in itself, but a tool to solve meaningful problems and create impact in the community that needs it most.



The INBIOSIS synthetic biology team bringing hands-on DNA science to schools, nurturing Malaysia's future bioengineers.



TECH PLANTER discovers and nurtures deep tech startups solving real-world problems through science-driven entrepreneurship and collaborative partnerships with corporate partners.



Partnership with deep tech-focused venture capital investor, **UntroD Capital Asia**.



TECH VENTURE Meetup, connecting startups with industry leaders and investors. A place to further business collaborations between startups and corporate partners.

RESOURCES TO POWER INNOVATION: BUILDING THE FOUNDATIONS OF DEEP TECH SUCCESS

Innovation in deep technology isn't powered by capital alone, it thrives on a rich ecosystem of interconnected resources. From specialised laboratories and prototyping facilities to regulatory guidance and strategic mentorship, the journey from research to real-world application demands a wide spectrum of resources. Early-stage innovators, particularly in deep tech, require infrastructure, access to funding, supportive government programs, and incubation environments that foster experimentation and iteration.

Unlike traditional tech ventures, deep tech startups often face longer development cycles and higher technical complexity. This makes it essential to engage the right resources at the right stage, whether it is public R&D grants, private capital funding or access to testbeds and pilots. As these ventures scale, industry partnerships and global market access become critical to sustained growth.

In Southeast Asia, where deep tech ecosystems are still maturing, the orchestration of these resources can make or break a startup's trajectory. To dive deeper into how these resource ecosystems are being built and shaped across the region, explore the Frontier Development Division's articles in the following pages.

LEAVE A NEST AND ESCO ASTER LAUNCH THE “BIO GARAGE” INITIATIVE — A NEW CROSS-BORDER BIOTECH COLLABORATION TAKES ROOT AT TOKYO’S TAKANAWA GATEWAY

By Haruka Sakurai, MSc.

In 2025, Singapore-based biotech company Esco Aster established its first overseas presence by joining LiSH (Link’s Scholars Hub), an urban laboratory located adjacent to Tokyo’s Takanawa Gateway Station. This move marked the beginning of a new initiative called the “Bio Garage”—a concept that aims to accelerate the societal implementation of biotechnology by leveraging the complementary strengths of Japan and Singapore across research, industry, and regulatory domains.

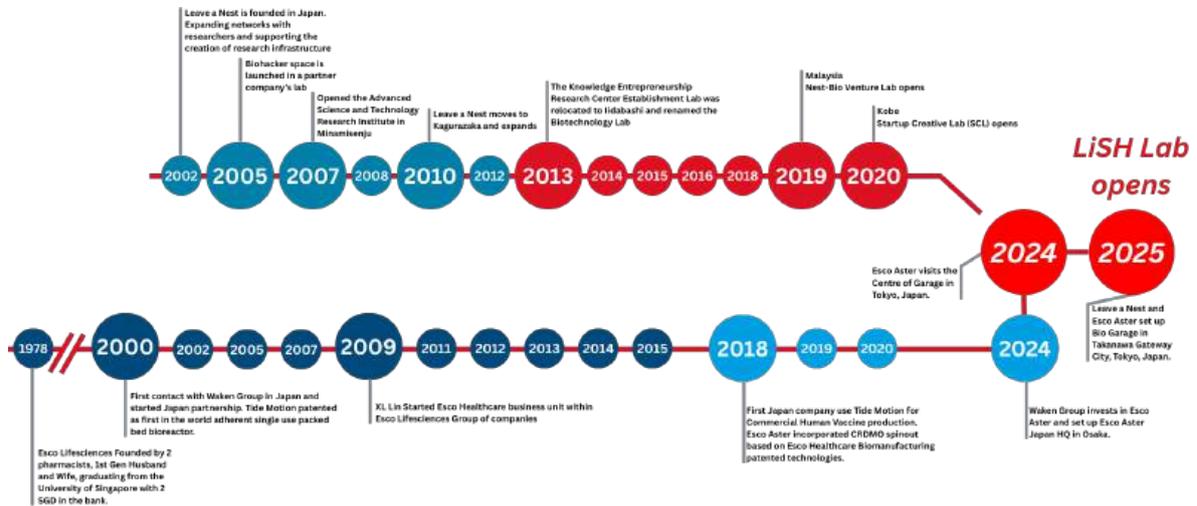
Since its founding, Leave a Nest has developed four laboratory spaces across Japan to support early-stage startups in life sciences. With the integration of both R&D and practical implementation functions into LiSH, situated within the daily fabric of the city, the Bio Garage concept is now entering a new phase.



Picture in front of Esco Aster’s Singapore Factory for Foodtech Startups
 Left: Dr Yukihiro Maru, Founder and Group CEO, Leave a Nest Co. Ltd,
 Right: XL Lin, Executive Director and Deputy CEO of Esco Lifesciences Group,
 Founder, CEO and President of Esco Aster.

Part I: The Evolution of Leave a Nest’s Bio Labs

Biotech R&D is notoriously expensive—high-end lab equipment often places it out of reach for early-stage ventures. Inspired by how software startups emerged from Silicon Valley garages, Leave a Nest has operated on the principle that life sciences innovation should also start at a personal, hands-on level. Since 2002, the company has established four labs that offer more than just space and equipment—they provide a community and a culture of co-creation.



In 2007, the first lab was opened in a repurposed industrial unit in Minami-Senju. There, Leave a Nest’s communicators not only provided access to instruments but actively collaborated with tenant startups. One early tenant, JEPLAN Inc., began developing enzyme technologies for bioethanol production from cotton waste—eventually going public. Others, such as Euglena Co., which became the world’s first to mass-produce microalgae, and IntegriCulture, known for its scalable cell culture systems, also trace their roots to these labs.

These spaces were more than just laboratories; they were ecosystems of experimentation, where ideas were nurtured hands-on, alongside trusted collaborators.

This concept eventually crossed borders. In 2019, Leave a Nest partnered with Universiti Teknologi Malaysia (UTM) to launch the Nest Bio Venture Lab, marking the country’s first industry-academic co-founded research facility. In Malaysia, Euglena successfully isolated new algae strains from local peatlands for low-cost biofuel production, while Metagen Inc. explored links between halal dietary culture and gut microbiome health. In every case, the labs became places where location-specific research could flourish.

Part 2: A Resonance with Esco Aster

Founded in 1978 as a cleanroom manufacturer, Esco Lifesciences Group built the first commercial cleanroom in ASEAN for Siemens components. Since then, the company has evolved into a global provider of mission-critical life sciences, medical, and healthcare advanced manufacturing machines — improving lives through science.

In 2017, Esco Aster was formed as a wholly owned subsidiary. It is Asia's first BioSolutions/BioIndustry CRDMO (Contract Research, Development, and Manufacturing Organization), specializing in cell-based products and derivatives.

Esco Aster has developed its own patented adherent cell Tide Motion™ packed-bed bioreactors, scalable up to 55 tonnes, with optional bio-edible scaffolds and proprietary technologies. These innovations serve as the backbone for the new world bioeconomy, supporting specialized modalities such as cellular agriculture and exosomes.

In 2024, Esco representatives visited COG (Center of Garage), Leave a Nest's deep tech incubation space and LiSH in Takanawa. During their stay, they remarked: "We realized—we've been building a Bio Garage of our own all along." They described LiSH as a "microcosm of Japan"—a compact yet vibrant space where science, policy, startups, and infrastructure converge. It was clear to them: LiSH was the ideal place to connect their infrastructure and regulatory knowledge with Japan's deep scientific and technological assets.

Today, Esco holds GMP-certified cell culture facilities in Singapore, the only country in Asia where cultivated meat and cell-based foods are legally approved for consumption. The country offers a testbed for downstream production and market validation as biofram in a multicultural city. In contrast, Japan offers unmatched strengths in basic science, stem cell R&D, and the precision of its food tech sector.

Together, this synergy opens the door to a bi-directional value cycle: startups from Singapore and Southeast Asia can prototype and co-develop in Japan via LiSH, then scale and commercialize in Singapore through Esco's infrastructure. What was previously a facility where mainly contract research services were conducted, and the research was localised within that company or region, the concept of Bio Garage has evolved to an infrastructure, becoming the engine for new cross-border innovation pipeline.



Part 3: Intersecting Histories, a Shared Future

The Bio Garage now taking shape at LiSH represents a convergence of 17 years of Leave a Nest's lab-building experience with over 47 years of Esco's infrastructure and regulatory expertise. This partnership is more than symbolic—it embodies a model for future-ready biotech ecosystems that are open, modular, and deeply embedded in urban life. Biotechnology is no longer a siloed sector. It is rapidly becoming the underlying infrastructure for domains like marine tech, agri-tech, food tech, and beyond. In this landscape, urban biotech labs like LiSH play a critical role by collapsing the distance between research and implementation, science and society.

In Singapore, CapitaLand's new Geneo life sciences hub is already demonstrating how biotech and urban infrastructure can co-evolve. The Bio Garage concept, too, will expand into a multi-city, multi-national collaborative platform, enabling startups, researchers, and governments to co-create across borders. Combining Japan's rigorous scientific foundation with Singapore's agile regulatory and commercialization frameworks, this cross-border Bio Garage network is just starting here—from Takanawa to the world.



WHERE COURAGE MEETS PATIENCE: REIMAGINING INVESTMENT WITH UNTROD

By Ayu Permata, BSc.

UntroD Capital Asia

Reframing Entrepreneurial Boldness

In the world of start-ups, courage is frequently equated with speed: launch rapidly, fail swiftly, and pivot decisively. However, UntroD, a venture and expedition platform operating across Asia and beyond, presents an alternative philosophy. For them, meaningful impact is not solely the product of audacious actions, but also of a quiet conviction to remain, to build patiently, and to believe, often well before the rest of the world takes notice.

Their approach disrupts the conventional tempo of entrepreneurship, favouring depth and enduring presence over haste and hyperactivity.

Investment as Enduring Partnership

UntroD redefines the very notion of investment. Beyond the provision of capital, they engage in long-term partnerships, assisting entrepreneurs in identifying the right talent, navigating distribution networks, and venturing into unfamiliar markets. As Henry, Director at UntroD Capital Asia, articulates, “Typically, investment is not just capital but a partnership. We want to be part of their entrepreneurship journey, helping them find the right people, distribution, navigate new markets, and support them along the way.”

This support is often extended well before outcomes are visible or products are ready for scale. UntroD positions itself beside founders at formative stages when ideas are still evolving and learning is ongoing, demonstrating a belief that genuine progress emerges not merely from financial inputs, but from staying close to the problem through its most uncertain phases.

Patience as Strategic Intent

In this context, patience is neither delay nor inaction, it is a deliberate strategy. It enables UntroD to engage with ventures characterised by long innovation cycles and complex, ambiguous terrain. Courage, in their view, is not always characterised by rapid movement or dramatic pivots; rather, it often takes the form of consistency, of continuing to show up, again and again, despite the absence of immediate results.

This same principle guides their work with local ecosystems. Rather than imposing change from the outside, they cultivate it from within, prioritising cultural sensitivity and the ability to listen deeply. As Henry reflects: “Listening to the voice of your customer and understanding their perspective.”

Stillness as a Prelude to Momentum

For those accustomed to equating success with speed and short-term gains, UntroD offers a compelling counterpoint. They propose that genuine progress often begins with stillness and that true investment requires a willingness to wait, to walk steadily through uncertainty, and to remain until the moment is right to move.



STRUCTURED FOR GROWTH:

ARQ SME BDC'S MEZZANINE AND SMART CAPITAL APPROACH TO SME SUSTAINABLE INCLUSION

ARQ SME Business Development Company ("ARQ SME BDC") is a Philippine-based SME-focused private credit investor with a mission to be the smart capital partner of promising Small and Medium-sized Enterprises (SMEs) in the Philippines with capital requirements up to Php 150 million. ARQ SME BDC provides flexible scalable multi-product debt structures to fully service the critical growth stage of a promising enterprise while providing support beyond finance.



ARQ SME BDC have supported firms in industries such as affordable housing, renewable energy, food and agriculture, financial services, and more



As the smart capital partner of SMEs in the Philippines, ARQ SME BDC is managed by investment professionals with experience in investment banking, private equity, and infrastructure deals

ARQ SME BDC emphasizes being a smart capital partner to SMEs in the Philippines through its support beyond finance, engaging with investees by offering support ranging from enhancing financial and corporate governance at the board or executive committee level to establishing regular management committee checkpoints, aimed at providing management teams with the governance and skills to sustainably grow their businesses and graduate to a large corporation.

Since 2016, ARQ SME BDC has supported over 50 SMEs across the Philippines, and has launched a dedicated gender lens product under SheSecure in partnership with Investing in Women last 2024. SheSecure aims to mobilize local capital to support promising women owned or led enterprises that are ready to scale beyond small in the Philippines with up to Php 30 million of capital and financial incentives tied to agreed gender milestones.

The SheSecure program empowers qualified Women-owned or led Small Businesses (WSBs) to scale beyond small, with WSBs defined as businesses with:

- a. At least 50% female ownership or at least 30% representation in the senior management / board of directors;
- b. At least Php 35 million in total assets or Php 50 million in annualized revenues.

Looking forward, ARQ SME BDC remains committed to building partnerships with like-minded stakeholders to achieve sustainable SME-inclusive growth in the Philippines. Learn more about ARQ SME BDC and SheSecure by visiting the website at arqcapital.com/shesecure or reach out via leads@arqcapital.com.

THE SCIENTIST-INVESTORS: HOW LEAVE A NEST CAPITAL IS REDEFINING DEEP TECH FUNDING IN ASIA

By Fariz Syafiq, MSc.

When Mr. Yusuke Shinozawa joined Leave a Nest as an intern in 2006, venture capital wasn't on his mind. Trained in agricultural life sciences, he was fascinated by how nutrients shape cell destinies. This curiosity evolved into a broader ambition: leveraging science for greater societal impact. Today, as Executive Officer at Leave a Nest Co., Ltd. and board member at Leave a Nest Capital, an investment arm run by scientists rather than bankers, he emphasizes, "We invest in science and walk beside founders."

Building a Bridge Between Research and Reality

Leave a Nest Capital is redefining deep tech funding in Asia by bridging the gap between scientific research and commercial application. Founded in 2020 as the venture arm of Leave a Nest, it addresses the longstanding challenge of groundbreaking scientific ideas remaining confined within academia due to limited market support. A 2013 survey in Tokyo's Sumida district highlighted this disconnect, revealing that fewer than 1% of over 3,000 factories were open to innovative collaborations. In response, Leave a Nest created TECH PLANTER, a platform to facilitate connections among academia, small manufacturers, and corporate partners, nurturing early-stage technologies for commercial success.



Mr. Yusuke Shinozawa
Board Member of Leave a Nest Capital



Investing in Purpose Before Profit

Leave a Nest Capital uniquely prioritizes investment at extremely early stages such as pre-seed up to pre-series A stage, often backing ideas even before formal company incorporation. The firm places less emphasis on traditional financial metrics and more on the founders' scientific integrity, conviction, and potential. Its investment committee, primarily scientists and PhDs, leverages deep scientific expertise to identify and support ventures in sectors like agrifood, marine technology, biotechnology, and robotics.

From Tokyo to Southeast Asia: Walking Alongside Founders

Recognizing growing opportunities across Southeast Asia, Leave a Nest Capital strategically expanded its reach beyond Japan. Investments in ventures such as Nomatech, producer of low Glycemic Index (GI) red rice and Crown Digital, maker of robot barista, have not only diversified its portfolio but also reinforced the firm's commitment to active, hands-on guidance. Leave a Nest Capital consistently supports founders by helping them adapt to new markets, secure local partnerships and enhance the real-world impact of their innovations.



A Vision for the Future and for the Next Generation of Scientists

Looking forward, Leave a Nest Capital aims to grow its investment capacity, broaden its geographic presence, and cultivate a robust ecosystem where scientists transition effectively into entrepreneurial roles. By equipping researchers with the resources and confidence needed to commercialize their innovations, Leave a Nest Capital seeks to establish a future where scientists lead transformative business ventures across Asia.

POWERING INNOVATION: THE PHILIPPINE GOVERNMENT'S ROLE IN NURTURING STARTUPS

By Joanna Marie Cua, BSc.

The Philippine startup scene is thriving, fueled by a tech-savvy population. The government plays a key role, providing crucial support to help innovative ideas succeed and attract both local and foreign founders. This guide outlines how the government funds and grows the country's booming startup ecosystem.

The Foundation: The Innovative Startup Act and the Philippine Startup Development Program

The Innovative Startup Act (Republic Act 11337) is the basis for government support. This law mandates agencies to create nurturing programs, streamline processes, and provide incentives. It established the Philippine Startup Development Program (PSDP), the umbrella program for key government initiatives. Key benefits include:

- **Grants and Funding:** Direct financial support for R&D, product development, and early-stage operations.
- **Tax Incentives:** Reductions or exemptions on corporate income tax, VAT, and capital gains tax for investors.
- **Intellectual Property Protection:** Expedited and subsidized patent and trademark registration.
- **Access to Facilities:** Subsidized access to government and academic laboratories, testing centers, and a talent pipeline.



Leave a Nest Philippines and the National Development Company (NDC) have signed a Memorandum of Understanding to collaborate on bridging science and technology education, supporting deep tech startups, and expanding the deep tech ecosystem in the Philippines. Being an attached agency of DTI, NDC was able to provide equity investment to SoIX Technologies, a Filipino energy tech startup under Leave a Nest Group, through their Startup Venture Fund

Who's Who in Startup Support?

Support is structured to follow a startup's growth, with different agencies specializing in each stage:

- **Department of Information and Communications Technology/DICT (Early-stage/Ideation):** DICT provides capacity-building and equity-free grants (up to PHP 1 million) to help tech startups create a prototype or MVP.
- **Department of Science and Technology/DOST (R&D and Product Development):** Once a startup has a prototype, DOST's Startup Grant Fund provides R&D funding. It also offers technical mentorship and facilities through its Technology Business Incubators (TBIs).
- **Department of Trade and Industry/DTI (Business Growth and Commercialization):** DTI helps startups scale and enter the market through initiatives like the Philippine Innovation Hub. It also manages the Startup Venture Fund, which provides matching equity investments to help startups grow and expand.

Tapping into Resources: A Guide to Accessing Government Support

For both local and foreign founders, engaging with the Philippine startup ecosystem is essential. The government's support is anchored in the Philippine Startup Development Program.

- Filipino founders should begin by registering on the central portal, <https://startup.e.gov.ph/>, which is the gateway to applying for grants and joining government-backed incubators and accelerators.
- Foreign founders can use Startup Visas for legal entry. Partnering with local entities or joining government-supported incubators provides indirect access to grants and mentorship. The DTI's Startup Venture Fund also incentivizes international investors with matching investments.

A Crucial Catalyst for Knowledge Manufacturing

Understanding these government programs is vital to effectively do Knowledge Manufacturing. They provide a framework and resources that complement existing support systems for funding and mentorship to market access including those of Leave a Nest support. By working with government agencies, this can create a more comprehensive network, ensuring promising startups have the best chance to succeed and make a significant impact. By proactively tapping into these initiatives, startups can leverage a powerful network designed to fuel innovation and drive economic growth in the Philippines.

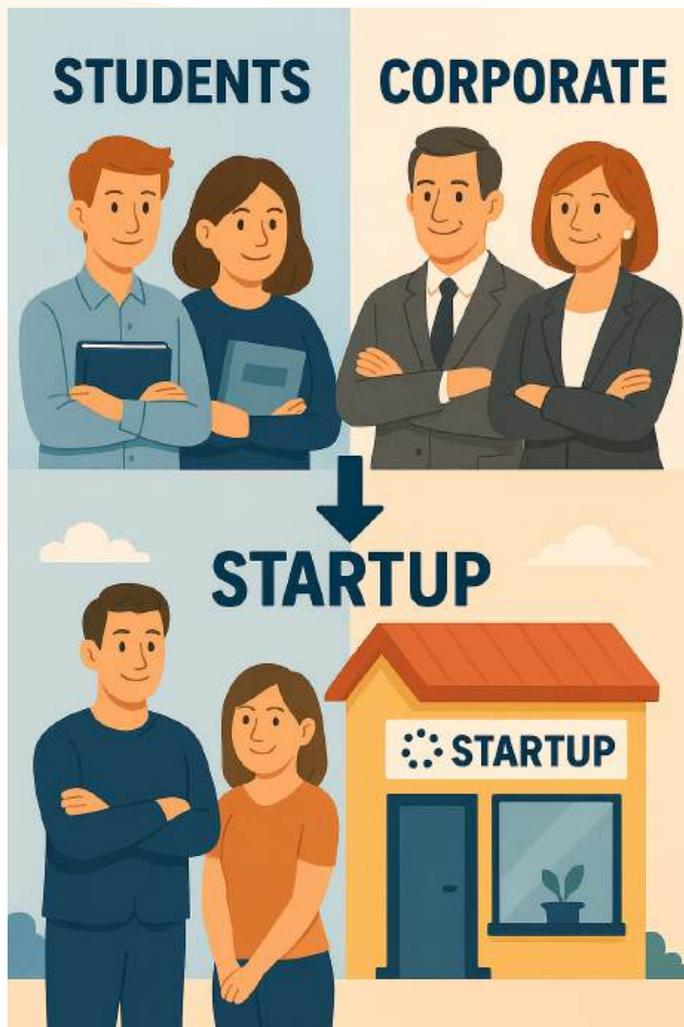
PATHWAYS TO IMPACT: HOW FOUNDERS CAN LEVERAGE RESOURCES TO BRING INNOVATION INTO SOCIETY

By Ambrose Chia, MSc.

Bringing innovation into society requires understanding that there's no single path to success. Each innovation, whether a product, service, or platform, needs a different route and set of resources to reach its intended users. For startup founders, choosing the right resource pathway is crucial.

The stage of life or career you are in also shapes what resources are available. Students might tap into university incubators and grants, while experienced professionals can leverage industry networks and strategic partnerships. Early-stage ideas often need prototyping support, while more mature ventures may require regulatory clearance or investor backing.

Recognising these variables and aligning your innovation with the right pathway and support system can greatly improve your chances of successfully introducing it to the market and, ultimately, to society.



Student and Researcher Founders

For students and researchers aspiring to become founders, the most valuable and immediate resource is often the very institution where they study or conduct research. Universities today play an increasingly active role in fostering entrepreneurship, recognising the potential of academic innovation to generate real-world impact. Most have dedicated entrepreneurship centres that offer foundational courses on startup development, business modelling, intellectual property, and market validation, equipping aspiring founders with essential knowledge.

In parallel, many institutions also operate commercialisation or technology transfer offices that assist researchers in identifying the commercial potential of their innovations. These departments often help navigate patent filing, licensing opportunities, and connections to industry partners.

Additionally, universities frequently provide early-stage support through incubators and internal grant schemes. While the funding may be limited, it is often enough to build a working prototype or pilot. Access to in-house prototyping labs, mentorship from faculty, and a collaborative student community further accelerates a founder's ability to move from concept to company.

Corporate Spinoff Founders

Today, large corporations increasingly recognise the importance of innovation in keeping their core businesses dynamic and competitive. Many have established internal innovation labs where new technologies are first developed. These technologies may evolve into new products or service offerings, and in cases where they have applications beyond the company's core focus, they are often encouraged to spin off as independent ventures. Samsung is one such example, as discussed in the article *Innovating Internally, Staying Refreshed*, published in *Nest Garage*, Volume 21, pages 18 and 19.

Spinning off gives the founders the opportunity to create a new business with the blessing and resources from the parent company. This also allowed the founders to create a new vision and mission for their startup, independent of the parent company. One such example is *Esco Aster*, a spinoff from *Esco Lifesciences Group*. It provides biotechnology services to companies that lack the necessary laboratory infrastructure and technology during their early stages.

Mid-Career Founders

Mid-career founders often bring significant advantages to the startup journey, including valuable experience, personal networks, and greater access to resources. These connections can open doors to early-stage funding from angel investors, proof-of-concept opportunities, and critical insights into market and technology development.

Many of these founders are driven by a desire to solve real-world problems they have observed in their industries or communities. This sense of purpose often leads them to explore incubators and acceleration programs aligned with their mission. The right program can provide not only funding and mentorship but also a strong network to help scale their venture.

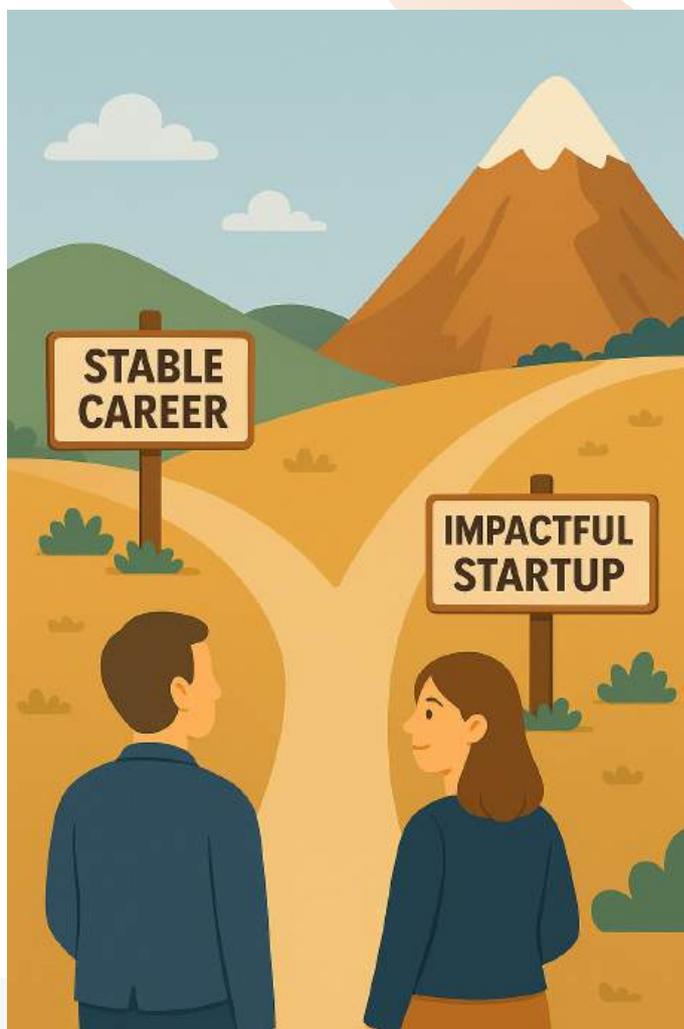
Some even choose to return to university by enrolling in executive or master's programs in entrepreneurship, gaining access to student resources, facilities, and alumni networks. Starting a venture mid-career is far from a disadvantage, in many cases, it provides a strategic edge in navigating the complexities of startup growth.

Government Institutional Support

Government institutions across Southeast Asia play a crucial role in supporting startup ecosystems by offering funding, advisory services, and access to networks. In Singapore, **Enterprise Singapore (ESG)** is the lead government agency supporting enterprise development. ESG provides funding through various grant schemes, including the **Startup SG Founder Grant**, which supports first-time entrepreneurs with early-stage capital and mentorship. In addition to this, ESG offers a suite of other grants that cater to startups at different stages of growth, from product development to international expansion.

In Malaysia, **TERAJU** serves as a key enabler for **Bumiputera entrepreneurs**, offering more than just financing. It provides a comprehensive support system that includes access to consultancy services, professional business advisors, board-level directors, and angel investment networks. This integrated approach helps native entrepreneurs build sustainable and competitive ventures.

As for the Philippines, the government's role in startup development is detailed in *Powering Innovation: The Philippine Government's Role in Nurturing Startups* (Nest Garage, Vol. 26, p. 51).



Aligning Innovation with Opportunity

Innovation thrives when aligned with the right environment, support systems, and timing. Whether you're a student with access to campus resources, a corporate professional spinning off new ideas, or a mid-career founder drawing from industry experience, there is a pathway designed for your stage and context. The key is not to follow a single formula but to identify and leverage the ecosystem around you, be it universities, corporations, government institutions, or even Leave a Nest's D-O., TECH PLANTER or Global Bridge Programs. By navigating these networks strategically, founders can not only accelerate their journey but also ensure their innovations create meaningful, long-term impact in society.

TECH PLANTER WORLD IN THE UK: A GLOBAL STAGE FOR DEEP TECH INNOVATORS

by Khalid Khalil, MSc.

TECH PLANTER World in the UK is a flagship initiative by Leave a Nest that brings together deep tech researchers, early-stage startups, and science-based entrepreneurs from across the globe. Held in London, United Kingdom, this unique program acts as a launchpad for innovators aiming to solve real world issues through science and technology, offering them access to investors, mentors, and cross border collaboration.



What Is the TECH PLANTER World in the UK?

TECH PLANTER World and the regional TECH PLANTER programs in Japan and Southeast Asia share a unified mission of empowering science driven startups, yet they differ in geographic focus, target participants, and strategic intent. The regional programs held in countries such as Japan, Malaysia, Singapore, Vietnam, Indonesia, Thailand, and the Philippines, primarily serve to strengthen local deep tech ecosystems by supporting early stage startups, university researchers, and student entrepreneurs through mentorship, pitch opportunities, and corporate engagement within their respective countries.

In contrast, TECH PLANTER World, hosted in the United Kingdom annually, is designed as a global entry point for teams that want to tap into Leave a Nest's ecosystem in the UK or for European teams to tap into Leave a Nest's pan Japan - Southeast Asian ecosystem. It offers international researchers and startups access to Leave a Nest's innovation network in Japan and Asia, including Japanese corporates, venture capitals, and R&D collaborators.

Why Join TECH PLANTER World in the UK?

- **Global Visibility:** Showcase your work to Japanese corporates, investors, and media
- **Cross-Border Collaboration:** Build partnerships with corporates, universities, and research institutions
- **Mentorship:** Receive pitch training and feedback from experienced science communicators

Whether you're building in biotech, agri-tech, robotics, or AI, TECH PLANTER World in the UK is your gateway to global impact. Don't miss the chance to grow beyond borders.



The Coring Company crowned as the Grand Winner for TECH PLANTER World in the UK in 2024.

Application Process & Timeline

Applications for the 2025 edition are now open, welcoming early-stage ventures, academic spin offs, and deep tech startups with strong technical foundations, prototypes and market tractions.

To apply:

1. Visit the official application page: <https://techplanter.lne.st/en/world/world2025/>
2. Choose the "World" track if applying from outside the UK
3. Submit your application with information on your technology, team, and potential societal impact

Shortlisted teams will be interviewed, and finalists will be selected to pitch at the Demo Day.

This year's Demo Day will be held on **1st November 2025**.



For inquiries, drop us an email at info-asia@lne.st (Attention to Michael and Haruka)

FROM ENGINEER TO SHEPHERD OF THE SOIL

By Edilyn Grace Otero, BSc.

From Corporate Hustle to Community Roots

Mr. Neil Clyde Kho is the co-founder of Arka Inc., an agri-tech social enterprise that empowers smallholder farmers through smart solutions, sustainable infrastructure, and community-driven systems. His journey into agriculture didn't begin with soil, but with personal setbacks.

Raised by a livestock farmer and a teacher, Mr. Kho was once an honor student. However, an obsession with computer games led him to drop out of Electronics and Communications Engineering, disappointing his family. Sent for a disciplinary stay in the rice fields of Leyte, he found peace and a sense of purpose. Eventually, he returned to earn a degree in Computer Engineering and pursued a promising tech career. Following the consecutive deaths of his grandmother and aunt, he took a pause. Leaving corporate life, he started selling vegetables, which led to the founding of Arka.



Engineering Meets Agriculture

At Arka, Mr. Kho combines his engineering expertise with a passion for farming, viewing agriculture not as a tradition, but as a system ripe for innovation. By applying engineering principles to real-world problems, he leads the team in addressing critical issues faced by smallholder farmers, such as securing access to land, constructing rain shelters to protect crops from climate extremes, and introducing sensor-powered drip irrigation to optimize water use. They also promote localized biotechnology, including Shukaku soil enhancers, to improve soil health and sustainability. Guided by agronomic data and grounded in the day-to-day realities of farmers, they foster better harvests and greater independence, building ecosystems where technology, nature, and communities thrive together.

Turning Skepticism into Success

When Mr. Kho left the corporate world for farming, he faced doubt from many. Yet, with the support of his co-founder, Mr. Jonathan Ybañez, and a mission-driven team, he stayed the course. What began as a personal shift soon evolved into a mission-driven enterprise, where technology meets heart to uplift rural communities. From that foundation, Arka has grown into a thriving initiative, transforming both land and livelihoods. At the heart of this effort is a belief that meaningful change is built not just for profit, but for people.

To aspiring young changemakers, Mr. Kho offers simple yet profound advice: "Your vision needs you. Don't chase money, chase purpose. Build with heart, and the impact will follow." He hopes to inspire the next generation not only to respect farming, but also to see it as something to be idolized. His journey shows that with purpose and persistence, one can build more than businesses, they can transform communities.



WHY “SCIENCE BRIDGE COMMUNICATIONS” MATTERS MORE THAN EVER

A Book That Started with a Simple Question & Passion

When Science Bridge Communicator was first published in 2014 in Japanese, its mission was clear: to bridge science and society by empowering researchers—to communicate with passion and purpose to create business. Science Bridge Communication allows us to close the knowledge gap that exists between two parties. Not only limited to researchers & society but also across disciplines and industries. Back in 2014, interdisciplinary communication and entrepreneurial science were still emerging ideas in the world, especially in Japan.

Fast forward to today, the world has caught up. Climate change, emerging technologies, and societal shifts demand more than technical skills. Tackling such issues requires individuals who can identify questions with passion, set meaningful missions, and work across boundaries. That’s exactly what this book is about.

Your Journey Begins Here

This is not a manual. It is a companion for those who want to make an impact.

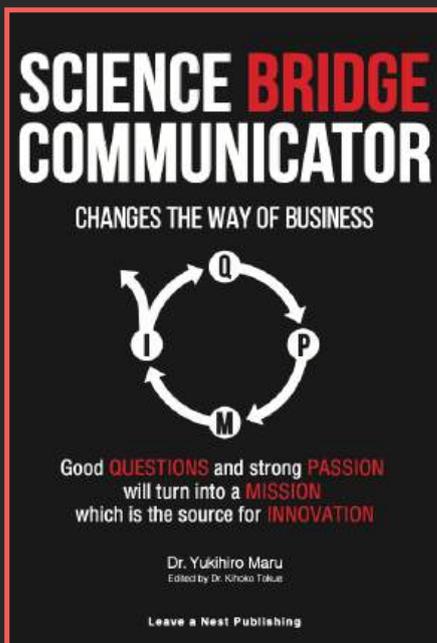
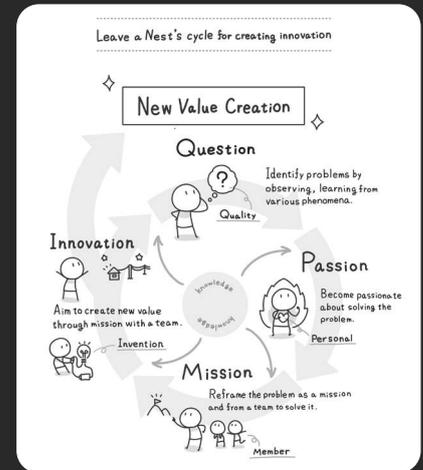
As written in the preface:

“This book is for everyone who dreams of making some impact on society to bring a change or offer new value.”

Whether you’re a university student wondering what to do with your research interest, or an educator seeking to nurture leadership, this book offers both inspiration and structure.

You may not find all the answers here, but you’ll learn to ask the right questions.

We invite you to read it, share it, and keep it close by, as a companion for your journey.



HOW TO USE THIS BOOK ?

“Effective communication to bring about change in the world and create meaningful businesses is undoubtedly challenging. Yet, there are no degrees for this. This book is your starting point.”

– Science Bridge Communicator, 2nd Edition

| Audience | How to Use the Book |
|---------------------------|---|
| Educators | Use the QPMI cycle to introduce the importance of identifying own Q & P for students. Let students engage in activities around personal mission |
| Researchers/ Team Leaders | Apply QPMI to move the project forward, align teams under a shared mission. |
| Entrepreneurs | Revisit your mission & vision. Use Science Bridge Communication to build vision-driven business which will also bring innovation to the world. |

The second English edition launches in June 2025, updated with stories from Southeast Asia and Japan with real examples from Leave a Nest Group (founded back in 2002).

This book is not just a book to read but a tool to utilize to accompany you in your journey to identify questions, realize your mission, and ultimately bring changes to the world.

You can buy your copy by contacting Leave a Nest Singapore. info@lnest.sg

