

Green Pulse

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SIT Officially Opens Punggol Campus



Highlights of SIT's Punggol Campus

KEY SPACES

- 1 The Ngee Ann Kongsi Library**
Learning & community hub with study pods & communal spaces.
- 2 Kwek Leng Beng University Tower**
Flexible workspaces for staff & faculty collaboration.
- 3 Ho Bee Auditorium**
800-seat venue for events such as performances, industry talks, open houses, career fairs & convocation ceremonies.
- 4 Multi-Purpose Hall**
Super Low Energy (SLE) buildings; event space for exams, sports etc.; at least 40% energy savings.
- 5 Food@Food Court**
Super Low Energy (SLE) building; dining venue with food-waste composting & segregated recycling.
- 6 Singapore Hokkien Huay Kuan Collaboration Loop**
Shaded, naturally ventilated link bridge for self-study & group discussions.
- 7 Collaboration Loop**
Iconic red link bridges connecting all SIT buildings & the JTC Business Park.

TEACHING & LEARNING LABS

- 8 Lim Leng Swan Home Living Lab**
Simulated home-care environment for practical training.
- 9 Bioprocessing Upstream & Downstream Labs**
Integrated upstream-to-downstream line from cell culture to purification.
- 10 SIT x NVIDIA AI Centre (SNAIC)**
Applied AI research & innovation, accelerating AI adoption across industries & nurturing a pipeline of AI talent.
- 11 OCBC Analytics & Innovation Lab**
Finance & analytics tools including Bloomberg terminals.
- 12 Power & Energy Lab**
Supports teaching & research in electrical energy & power systems.

LIVING LABS

- 13 Multi-Energy Microgrid (With SP Group)**
10,000 m² of photovoltaic solar panels; powers ~1,000 four-room flats/year.
- 14 District Cooling System (With ENGIE)**
Chilled-water cooling with up to 30% lower energy & carbon footprint than conventional systems.
- 15 Integrated Building Management System**
Powered by IoT with more than 20,000 sensors that collect real-time data to optimise energy usage & activate cleaning needs campus-wide.



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Looq AI Now Compatible with Trimble Business Center

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INTRODUCTION

SUSTAINABILITY TRAININGS

Sustainable practices
Urban Agriculture
Design Thinking
Circularity and Green Economy
Carbon Footprint Calculation

*"We do not inherit the Earth
from our ancestors; we borrow it
from our children."
- Native American Proverb*

We aim to be the link between the end user and the technology



Upcycling Workshop
Horticulture Therapy
Microgreen Workshop
Eco-tourism learning
Zero-waste Workshop

HANDS-ON LEARNINGS

Our motto is the 3 A's -



*Do get in touch with us at:
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We at Green in Future present the various trainings and workshops we conduct based on our motto:

- promote AWARENESS
- change ATTITUDE
- help to ADOPT

We aim to promote sustainability to the masses by bridging the gap between the technology and the common man and have some offers for the festive season. To know more, contact us at:

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SIT Officially Opens Punggol Campus, Driving Applied Learning, Innovation and Skills-Based Hiring for Singapore's Future

- Purpose-built campus within the Punggol Digital District supports both talent development and applied research
- In partnership with JTC and IMDA as founding partners, and supported by SIT's Innovation-as-a-Service (IaaS) platform, Punggol Digital District will be positioned as a precinct level test-bed that enables industry partners to co-develop, pilot and scale real world solutions.
- Global partnerships with Shanghai Jiao Tong University and SLAMTEC forged to advance global applied research and talent development
- SIT joins forces with SkillsFuture Singapore to enhance skills assessment capabilities to drive skills-based hiring and workforce development, with StarHub and Cragar Industries onboard as first movers

The Singapore Institute of Technology (SIT) today marked the official opening of its new Punggol Campus, a milestone for Singapore's university for industry. **Officiated by Guest-of-Honour Prime Minister and Minister for Finance Lawrence Wong**, the opening reinforces SIT's mission in elevating applied learning, advancing skills-based hiring, and driving industry transformation.

Purpose-built within JTC's Punggol Digital District (PDD) — Singapore's first smart and sustainable ecosystem for key tech sectors — the SIT Punggol Campus is designed as a living lab and a dynamic platform where academia, industry and community collaborate and innovate. The campus' teaching and research facilities and advanced digital infrastructure provide authentic, real-world learning experiences for SIT students, while accelerating the translation of ideas into market-ready solutions.

Transforming Punggol into Singapore's Hub for Real-World Innovation



The SIT Punggol Campus will anchor PDD as **Singapore's first precinct-scale test-bed** where companies can experiment, refine and scale solutions in areas such as smart city infrastructure, robotics, Artificial Intelligence (AI), quantum-safe cybersecurity and sustainability. Companies can rapidly co-create and pilot their solutions with PDD's Open Digital Platform and vibrant ecosystem of partners, reducing the cost of experimentation and time-to-market.

SIT's Living Lab Network will be integrated with PDD's Open Digital Platform. With this integration, companies can interoperate and test technologies, from autonomous embodied AI-driven robots (e.g. for logistics delivery, facilities management and maintenance of public safety) to next-generation cybersecurity solutions, in PDD's real-world environment. Thousands of students, faculty, and industry professionals will be able to collaborate on-site, accelerating technology transfer, creating new market opportunities and strengthening Singapore as a hub for innovation.



Panoramic view of Campus Heart and Campus Court. Credit – SIT and Gareth Phua

JTC CEO Ms Jacqueline Poh said, “For the first time in Singapore, we see a business park and university sitting side by side and fully integrated. Companies in PDD get direct access to young talent, while students can test what they learn in the real world. We designed the space to allow these connections to happen naturally every day.”

For this test-bed to thrive, a foundation of trust needs to be built. SIT is partnering IMDA to enable trusted interactions with robots by robust cybersecurity measures and in refining safety standards for robotics. These efforts will facilitate safe and resilient robotics operations and secure communications for robotics deployed in public areas and strengthen trust in digital interactions. There are also plans to partner other government agencies and industry partners for this precinct test-bed.

Complementing this precinct-scale test-bed is SIT's new **Innovation-as-a-Service (IaaS) platform**, which serves as a solutions-focused, open-innovation partner for industry. IaaS unites the innovation

capabilities of SIT and its network – Singapore’s Institutes of Higher Learning (IHLs), SIT’s Overseas University partners, research institutions and industry partners to help companies, particularly Small and Medium-sized Enterprises (SMEs) and start-ups, develop and scale higher-value solutions. Acting as a focal point for applied research, test-bedding and talent development, IaaS offers direct access to expert resources, leading-edge infrastructure, applied research support and a pipeline of talent from students and academic staff.

The IaaS platform tackles common challenges in innovation, such as limited resources, lack of access to advanced facilities and expertise and difficulties in moving ideas to market. Through IaaS, companies can tap into SIT’s purpose-built infrastructure, connect with its network of trusted partners such as A*STAR’s SIMTech, Innovation Partner for Impact, Singapore’s IHLs, and leverage PDD’s test-bed capabilities to trial solutions in live operational environments. IaaS’ end-to-end support from problem definition and prototyping to piloting and scaling, lowers the barriers to innovation, and accelerates the delivery of impactful, market-ready solutions.

Building on this commitment to collaborative innovation, SIT has also widened its global ties by forging **new partnerships with leading Chinese institution Shanghai Jiao Tong University (SJTU) and robotics innovator SLAMTEC** to advance applied learning, research, and innovation in fields critical to Singapore’s future economy. The partnership will harness SJTU’s applied research strengths, and SLAMTEC’s expertise in robotics and embodied intelligence, to co-develop solutions with real-world impact. Joint research projects will contribute to innovations at the precinct test-bed, in target key areas such as robotics applications, maritime technologies, and embodied AI.

The collaboration will open new opportunities for SIT students to participate in student mobility programmes at SJTU’s Student Innovation Centre, and to work on real-world projects at the upcoming SIT-SJTU-SLAMTEC Joint Innovation Lab. For example, the Joint Innovation Lab will use the demanding dynamics of sports for test-bedding, to push robotic agility, intelligence and human-machine interaction. The capabilities developed will have industry applications in logistics, healthcare and smart cities. The collaboration will also extend to academic and industry exchange programmes that will give both students and faculty valuable international exposure, fostering cross-cultural learning, and a deeper understanding of global industry practices. The alliance also extends to Continuing Education and Training (CET), with joint programmes designed to address the evolving manpower needs of industry.

Driving the Shift Towards Skills Validation and Skills-Based Hiring



The water catchment and microgrids that are conscious design decisions towards a sustainable campus. Credit – SIT and Gareth Phua

As part of its next 10-year strategic plan, SIT is strengthening its Competency-based Education (CBE) approach to advance applied learning pedagogy and ensure workforce readiness. As Singapore's first university of applied learning, SIT has established itself as a pioneer in CBE, ensuring its learning outcomes align with industry needs. Building on this foundation, SIT is partnering with SkillsFuture Singapore (SSG) on **a new initiative to enhance capabilities in skills assessment and validation**.

SIT and SSG will lead the effort in skills validation to support skills-based hiring, workforce development and lifelong learning. By formalising and strengthening skills recognition and validation, SIT and SSG aim to ensure that competencies gained through both formal and informal learning are validated and trusted in the workplace. This enables employers to confidently identify and leverage the full range of talents within their teams, while employees can pursue targeted professional development knowing that their acquired skills can be validated and hence valued. As technology and industry needs evolve, such robust recognition systems allow the workforce to adapt swiftly and effectively, improving overall competitiveness.

SIT and SSG will engage employers and industry experts to develop customised assessments that are aligned with industry requirements, reinforcing a "skills-first" approach to talent acquisition and workforce development. Technology-enabled tools and globally aligned frameworks will also be developed to ensure skills are validated efficiently and consistently. From October 2025, SIT will roll out online skills assessments for AI-related skills and cross-cutting competencies such as problem-solving and effective communication, for employers to understand their organisation's skills stock and for individuals to understand their skills proficiency and skills gaps. To ensure global relevance, SIT has also signed Memoranda of Understanding (MOUs) with Educational Testing Service (ETS) in USA and Stichting Cito Instituut voor Toetsontwikkeling (CITO) in the Netherlands, bringing international assessment expertise to Singapore.

Leading organisations such as StarHub Ltd and Cragar Industries Pte Ltd will be among the first to implement these assessments to evaluate and enhance the technical competencies of their workforce, with a particular focus on AI-related skills. The assessments will enable companies to take stock and understand the skillsets of their employees, visibility into the skill stock of their staff, help hiring managers recruit with more confidence, and support employees in their upskilling and career growth.



Food court at the SIT Punggol campus. Credit - SIT

Mr Tan Kok Yam, Chief Executive of SkillsFuture Singapore said, “SSG eagerly looks forward to the new partnership forged with SIT, that will bring to bear its capabilities and experience in Competency-based Education to the adult learning space. Stronger skills validation will raise confidence among learners and employers alike in the quality of training, and will also help the training sector improve its offerings over time.”

SIT President Professor Chua Kee Chaing said, “The SIT Punggol Campus is more than a new home – it is a platform to advance applied learning, innovation, and skills recognition. By bringing industry, community, and academia together in one integrated precinct, we are helping Singapore build a future-ready workforce and drive innovation that benefits both the economy and society. This campus reflects SIT’s commitment to preparing our students not just for their first job, but for lifelong growth and impact. By deepening our focus on research-driven solutions and fostering a culture of innovation, we are equipping our community with the tools and skills to address real-world challenges, and to lead transformative change in industry and society.”

Honouring Donors Who Made the Punggol Campus Possible



Views of the various campuses in SIT Punggol showcasing how landscape gives relief to the building blocks. Credit – SIT and RSP

As part of the campus opening celebrations, SIT recognised its benefactors who gifted to named facilities in the Punggol Campus, including The Ngee Ann Kongsi, Mr Kwek Leng Beng and City Developments Limited, Dr Chua Thian Poh, OCBC, Estate of Eng Liat Kiang, Singapore Hokkien Huay Kuan, Mrs Wong-Mah Jia Lan, Diana Koh Foundation, AM Family Capital Foundation and the Foundation of Rotary Clubs Singapore.

About Singapore Institute of Technology

As the university for industry and Singapore's first university of applied learning, the Singapore Institute of Technology (SIT) offers industry-relevant degree programmes that prepare its graduates to be work- and future-ready professionals. Its mission is to maximise the potential of its learners and to innovate with industry, through an integrated applied learning and research approach, so as to contribute to the economy and society.

The University’s unique pedagogy integrates work and study, embracing authentic learning in a real-world environment through collaborations with key strategic partners. Its focus on applied research with business impact is aimed at helping industry innovate and grow. SIT’s new centralised campus within the larger Punggol Digital District features a vibrant learning environment where academia and industry are tightly integrated with the community.

Eric Fan

Eric Fan is the CEO of Bridge Data Centres and a key member of the senior management team. He oversees critical operations including development and delivery, R&D, and drives strategic initiatives for the company's growth. With more than a decade of leadership experience, Eric previously held significant roles at Saint-Gobain, Dow Chemical and Honeywell. Eric earned a bachelor's degree in information science from Zhejiang University and a Ph.D. in engineering science from the University of Oxford, underscoring his strong foundation in the data center industry



With a background in information science and engineering science, how do you find your qualifications helping your current role? And how does sustainability play a crucial part in how you perform?

My academic background in information science and engineering science shaped how I approach my role as CEO of Bridge Data Centres (BDC). The information science training gives me a clear understanding of the core digital and IT principles that underpin data centre operations, including data management and network architecture. Meanwhile, my Ph.D. in engineering science equips me with a systems-thinking approach and the technical rigour needed to solve complex engineering challenges, optimise infrastructure design, and lead innovation in construction and operations. Together, these qualifications allow me to bridge the gap between the digital demands of hyperscale computing and the physical realities of building highly-efficient and scalable data centres. They also empower me to guide our R&D teams in developing innovative solutions, such as advanced cooling technologies and AI-driven energy optimisation platforms.

I believe that sustainability is an opportunity for our industry to drive meaningful change, and that belief is very much aligned with the ethos of BDC's ESG initiatives as well. The engineering mindset drives me to evaluate the environmental impact of our infrastructure and to pursue innovations that reduce energy and water use while maintaining performance. ESG

at BDC represents our pledge to transparency, resilience, and long-term value creation for all stakeholders. Leading BDC's sustainability roadmap means championing measurable goals like carbon neutrality and renewable energy adoption.

With presence in Singapore, Malaysia, India, and Thailand, how different are the challenges and opportunities in terms of sustainability and how do you navigate them?

The sustainability challenges and opportunities BDC faces across the region are diverse and reflect the distinct regulatory, resource availability, and market maturity in each country.

Regulatory Compliance and Market-Specific Constraints

Across Southeast Asia, varying levels of policy maturity, land availability, and environmental regulations are shaping how data centres are designed and built. These factors demand innovative approaches to create compact, energy-efficient, and sustainable facilities tailored to local conditions.

To navigate this, BDC partners with governments, utilities, NGOs, and industry groups in all markets to shape sustainable data centre ecosystems. Examples include a partnership with the Malaysia Digital Economy Corporation and our latest [MoU](#) with Singapore's Building and Construction Authority International. These collaborations accelerate technology adoption, regulatory alignment,

knowledge sharing, and workforce upskilling to support local government sustainability goals.

Water and Cooling Resource Management

Adapting sustainable cooling technologies in hot, humid climates with water scarcity are concerns in the region. BDC deploys advanced cooling methods like liquid cooling and

Congratulations on signing the MoU with BCAI recently. How significant is this in your company's growth and in effecting changes in Singapore's current market?

BDC's MoU with BCAI will advance sustainable data centre practices across global markets and support Singapore's ambitions as a global leader

Based on our physical risk scenarios, BDC has implemented—and continues to refine—a portfolio of resilience measures tailored to address projected high/medium-risk exposures across specific sites. These include infrastructure fortification, system redundancy, and site-specific climate adaptation plans designed to safeguard continuity under various potential climate scenarios.

Physical Risks		Potential Impacts	Our Responses
 Acute Risks	Extreme Precipitation	Extreme precipitation may lead to operation disruption, asset damage, construction disruption and other risks, increasing operation costs and capital cost.	BDC selects data centre sites that are free from flood-prone areas and natural disaster exposure to ensure resilience under extreme weather. During construction, integrated drainage, waterproofing, and flood-prevention systems are systematically implemented.
	Moisture Trend	Elevated humidity levels may impact the performance and reliability of electrical systems, increasing the risk of service disruption.	BDC enforces comprehensive humidity control protocols, equipping facilities with humidifiers and dehumidifiers to ensure internal environments remain within optimal operational thresholds.
 Chronic Risks	Warming Trend	Rising ambient temperatures may impair cooling systems, reduce energy efficiency, and cause server room overheating, leading to potential service interruptions.	BDC deploys high-efficiency cooling technologies and real-time monitoring systems. Uninterruptible Power Supply (UPS) systems are also installed to safeguard against power-related disruptions.
	Drought Trend	Data centre operations depend heavily on water availability. Droughts may reduce water supply, increase costs, and impact operational continuity.	BDC implements water-saving initiatives, including rainwater harvesting and recycling systems, to reduce dependence on freshwater and improve overall WUE.
	Wind Speed Trend	High wind conditions may delay construction projects and increase safety risks to personnel, heightening the probability of accidents and liabilities.	BDC incorporates wind-resistant engineering in design and strengthens safety management systems at construction and operational sites.
	Sea-level Rise	Rising sea levels may cause flooding in coastal data centres and increase the risk of ground subsidence, threatening facility stability.	BDC includes sea-level rise risk assessments in the early stages of site selection and design planning to ensure long-term climate resilience.

Physical Risk Impact and BDC's Responses

immersion cooling, plus water reclamation and membrane bioreactor (MBR) treatment systems (notably in [Johor](#)), tailored to local resource constraints and local government initiatives for the data centre industry. This initiative supports Malaysia's 12th Malaysia Plan and National Water Policy, which call for greater water security and circular economy practices. By pioneering reclaimed water use in data centres, BDC is aligning Johor's digital growth with the country's sustainability and investment agenda. BDC takes a tailored approach in each market to turn these challenges into opportunities. Through regulatory and community engagement and driving innovation for efficiency and sustainability, we aim to deliver high-performance, sustainable infrastructure while aligning with global frameworks and our own net zero roadmap.

in green digital infrastructure.

Our partnership will focus on promoting sustainability and innovative construction methods in green and smart data centre development — areas which we recently gained recognition for with the BCA-IMDA Green Mark Platinum Award, affirming that we build to the highest international standards across our campuses. Key areas include knowledge exchange, capacity building, and best practice sharing. The collaboration also creates new opportunities for Singapore-based built environment firms to expand internationally. These initiatives will support BDC's regional data centre projects, promote sustainability through the BCA Green Mark certification, and develop industry talent. They will also deepen collaboration to advance innovative digital infrastructure globally.

Our partnership with BCA International underscores a shared commitment to sustainable, future-ready data infrastructure as we address the region's growing demand for hyperscale capacity. We look forward to working with Singapore's built environment firms to advance green data centre practices and to build partnerships that support our ongoing commitment to achieving 100% renewable energy usage.

What are the next milestones we can expect from Bridge Data Centres? And how are they going to help Singapore realise their sustainability goals?

campuses in Malaysia, Thailand, and beyond, indirectly supporting Singapore's digital economy by providing resilient, energy-efficient digital infrastructure within the region.

BDC is also advancing projects like water reclamation plants in Johor set to fully commission by the fourth quarter of 2025, showcasing cutting-edge sustainable water use solutions that serve as models for Singapore's resource efficiency goals. Smart water metering and rainwater harvesting are part of a broader sustainability strategy that aligns with Singapore's approach to water and energy management.



BDC has signed a MoU with PacificLight Power to source power from a "hydrogen-ready" natural gas plant on Jurong Island, expected to start operations by 2029. This facility aims to incorporate at least 30% hydrogen fuel, supporting Singapore's transition to cleaner energy for data centre operations, increasing resilience and sustainability in power supply. Earlier this year we secured US\$2.8 billion in financing to fuel our data centre expansion, marking one of the largest-ever bank facilities for pan-Asian data centre operators. We plan to accelerate the development of hyperscale

What do you look for when collaborating with organisations, to expand your growth and make a positive difference in the market?

Partnership is central to how we work. In Malaysia, India, and Thailand, we have built strong collaborations with government agencies, utilities, and local suppliers.

We are ready to collaborate with power producers, grid operators, and industrial partners to co-develop cutting-edge solutions in areas such as renewable integration, waste heat

recovery, and energy efficiency. The MOU we recently signed with [BCA International](#) and [Pacific Light Power](#) are two examples of how we anchor our sustainability commitments with institutions, and we are open to joint ventures or strategic partnerships that enhance the region's position as a green, resilient digital hub.

For BDC, these partnerships are about embedding ourselves in Singapore's broader energy and digital ecosystem, helping create synergies that will allow the next generation of data centres to operate more sustainably while delivering strategic value to the country. BDC seeks partners aligned on sustainability, technological innovation, market expansion, and collaborative leadership to jointly create resilient, efficient, and sustainable data centre infrastructure across the region.

What is the advice you give to someone who is just entering the data science field and is looking for sustainable ways to function?

For someone entering the data science field with a focus on sustainability, my advice would be:

- Understand the environmental impact of data science and recognise that data science workloads, especially AI and machine learning, can be energy-intensive. Being

conscious of the carbon footprint associated with data processing, model training, and data storage is the first step toward sustainable practices.

- Prioritise energy-efficient computing and select hardware that balances performance with lower energy consumption. Consider using data centres, AI and cloud providers that prioritise renewable energy and efficient cooling technologies.
- Integrate sustainability metrics into your work by developing the habit of measuring and reporting energy use, emissions, and resource consumption related to data projects. Use those metrics to improve model design choices and operational decisions.
- Collaborate with or choose partners who utilise green data centres like those employing advanced cooling, water reclamation, and renewable energy sources. Awareness of the infrastructure hosting your workloads can inform more sustainable choices.

By adopting these principles early, data scientists can help build a future where technology advances hand-in-hand with sustainability goals, making a measurable positive difference in their work and the broader ecosystem.



World Engineers Summit 2025 Spotlights Smart Sustainable Cities with New Special Sessions and Distinguished Global Line-Up

The World Engineers Summit (WES) 2025 took place between 22nd to 24th October 2025 at Orchard Hotel Singapore, uniting global leaders, policymakers, academics and industry professionals to drive solutions for climate-resilient, intelligent and inclusive cities. The opening ceremony was graced by Mr Desmond Tan, Senior Minister of State, Prime Minister's Office and Deputy Secretary General, National Trade Union Congress, as Guest-of-Honour. Organised by the Institution of Engineers, Singapore (IES), the biennial summit is now in its seventh edition since 2013 and has grown into one of the world's leading platforms for knowledge-sharing and collaboration in engineering.



His Excellency Hiroshi Ishikawa Ambassador Extraordinary and Plenipotentiary of Japan to Singapore

Themed “Shaping Tomorrow: Engineering Smart Sustainable Cities”, WES 2025 comes at a pivotal moment as the global climate crisis intensifies. Earlier this year, Singapore submitted its updated national emission reduction targets to the United Nations, underscoring the urgent need for innovation and collaboration. The summit spotlights how engineers are reimagining cities to be more resilient, inclusive and sustainable while harnessing advanced technologies to improve quality of life. A new highlight at WES 2025 is the addition of three Special Sessions, providing deep dives into emerging areas such as systems engineering, asset management and Vision Zero for safer, more sustainable urban futures.

Delegates also heard from five distinguished plenary speakers this morning: His Excellency Hiroshi Ishikawa, Ambassador Extraordinary and Plenipotentiary of Japan to Singapore; Mr Thomas Ardian

Siregar, Deputy Chief of Mission, Embassy of the Republic of Indonesia in Singapore; Mr Richard Lim, Deputy Chairman, Land Transport Authority and Immediate Past Chairman of the Energy Market Authority; Mr David Foo, Deputy Chief Executive (Operations & Technology) & Chief Data Officer of the Maritime and Port Authority of Singapore; and Professor Liu Bin, Deputy President (Research and Technology) and Tan Chin Tuan Centennial Professor at the National University of Singapore.

The programme includes four technical tracks on technological solutions for a climate resilient and greener future, urban mobility innovations for sustainable cities, designing for sustainability in green building practices and future-proofing engineers through educational technology and skill development. Delegates will also have the opportunity to take part in technical site visits on day three of the summit, to the Punggol Digital District and the SingSpring Desalination Plant, two landmark projects showcasing how innovation and sustainability are applied in practice. With the involvement of the World Federation of Engineering Organizations (WFEO), the ASEAN Federation of Engineering Organisations (AFEO) and the Federation of Engineering Institutions of Asia and the Pacific (FEIAP), along with delegates representing more than 10 countries including Singapore, Malaysia, Japan, South Korea, China, India, Nepal, the United Kingdom, Spain, the Netherlands and Australia, WES 2025 stands as a global stage for the exchange of ideas and solutions.



Left to Right - Dr Adrian Ang, Ms Jasmine Foo, Dr Aaron sham, Er. Lim Peng Hong, President, PEB, Dr. Er. Lee Bee Wah, Er. Ng Beow Suan, SMS Desmond Tan, Er. Chan Ewe Jin, Er. Chong Kee Sen

“The climate crisis is the defining challenge of our time, demanding urgent action and collective resolve. Engineers are at the heart of this transformation, designing solutions that make cities more resilient, inclusive and sustainable. WES 2025 provides the platform for our profession to contribute ideas, share expertise and build partnerships that will help societies meet these global challenges head-on,” said Er. Chan Ewe Jin, President of IES. “This year’s programme is one of our most comprehensive yet, with plenary sessions, four technical tracks and three new Special Sessions. Delegates can expect fresh insights, practical solutions and opportunities to collaborate across borders,” said Ms Jasmine Foo, Chair of WES 2025 Organising Committee.

The Singapore Shift: Fashion Meets Sustainability

By Guest Writer Shivank Mathur

On 25 September 2025, the Be The Change Summit returned to the Sands Expo & Convention Centre with one clear message: the future of fashion depends on collaboration, circularity, and conscious design.

Now in its fourth year, the summit has evolved into Singapore's central stage for fashion transformation - uniting policy makers, brands, innovators, and creators to confront the industry's sustainability challenges head-on. Organised by the Singapore Fashion Council (SFC), this year's theme, "Fashion Futures," explored how technology, inclusivity, and impact-driven investment can shape a more responsible ecosystem.

Building the Circular Fashion Economy

A highlight of the summit was the launch of the Textile Circularity Consortium (TCC) - an industry-led alliance working to develop Singapore's first closed-loop textile system. Every year, the country imports over S\$1 billion worth of textiles and generates roughly 41,000 tonnes of textile waste. The TCC aims to turn that linear flow into a regenerative one by linking recyclers, manufacturers, and innovators to keep materials in use longer.

To guide this transition, SFC also announced a partnership with the Centre for Impact Investing and Practices (CIIP) to co-create a 3-to-5-year sectoral sustainability roadmap. Due in 2026, the plan will provide fashion businesses with clear pathways to reduce emissions, adopt ESG tools, and scale sustainable design capabilities across Southeast Asia.

SFC CEO Zhang Ting-Ting summed it up simply: "Collaboration and innovation are key to establishing a foundation for a sustainable future. The strong support we've received signals a shared commitment to make Singapore a hub for responsible fashion in Asia."

Next-Gen Innovators Step Forward

The Bridge Fashion Innovator Launch Pad also spotlighted the next generation of changemakers. Winning ideas ranged from EcoLens, an AI-powered platform helping designers pick eco-friendly materials, to ROYO, the world's first cardboard-based vegan leather. Some turned pomegranate waste into natural dyes, while others used landfill microbes to treat textile wastewater. Backed by venture-building partners like Wavemaker Impact, these founders represent the creative backbone of fashion's new circular economy.

Runway With a Purpose

Just a day after the summit, Singapore Stories 2025 brought these ideas to life on the runway. Designers from six countries showcased 50 looks built around Fashion Futures, with garments made from rice sacks, noodle packaging, and 3D-printed textiles. Every collection carried a message: innovation and sustainability are not opposites - they're intertwined. The showcase also crowned the winners of the "Every Body Matters" Inclusive Design Competition, highlighting adaptive and tech-integrated fashion that celebrates diversity in shape, size, and ability.

Inside the Mind of SFC's Leader

In an exclusive conversation with Ms. Zhang Ting-Ting, she reflected on how lessons from architecture and tech can accelerate fashion's transformation. "In architecture, every stakeholder - the engineers, cost planners, client - sits at the table from day one. Fashion rarely works like that. Collaboration starts too late," she explained. Her vision is for fashion to adopt digital-first design workflows that allow teams to prototype, test, and refine virtually - cutting waste, costs, and time.

Zhang's personal mission goes beyond technology. "Equity and sustainability are deeply intertwined," she shared, referencing the Rana Plaza disaster as a turning point. "We can't talk about sustainable fashion without addressing the inequality embedded in its supply chains." Her pragmatic view on progress: sustainable innovations must be cost-neutral to scale, and brands need long-term partnerships with responsible suppliers to make that happen.

Looking ahead to 2035, she envisions Singapore achieving a functioning open-loop textile ecosystem - where discarded garments re-enter the economy as high-value materials or biofuels, creating new markets rather than new waste.

Toward a Responsible Fashion Future

Through Be The Change Summit and Singapore Stories, the Singapore Fashion Council is rewriting the region's fashion narrative - one grounded in shared accountability, innovation, and hope. The industry's next era won't just be about trends. It'll be about systems that last - and people who care enough to change them.

Grundfos launches Whitepaper on Reducing Energy Emissions in Semiconductor Manufacturing

Energy-efficient water systems emerge as a key lever to cut emissions in the energy-intensive industry

Grundfos, a global leader in advanced pump solutions and water technologies, announced the launch of its new whitepaper, “*Smart Pumps, Green Tomorrow*”, on 30th October 2025, developed in collaboration with management consultancy Arthur D. Little. The report aims to support the semiconductor industry in accelerating its sustainability journey by outlining practical pathways to improve energy efficiency in manufacturing operations and demonstrating how smart, energy-efficient water system technologies can help unlock substantial energy savings, reduce costs, and strengthen long-term sustainability performance.

This will be critical as the global semiconductor industry enters a transformative decade of growth. Global semiconductor sales are projected to exceed US\$1 trillion by 2030, with a forecasted CAGR of ~8% between 2025 and 2030. In line with this growing demand, fab operators – which are concentrated in Asia – are expected to increase equipment spending at a CAGR of 7% from 2024 to 2028, reaching an estimated US\$143 billion.

As production expands and manufacturers transition to more advanced chip technologies, energy demand will increase rapidly due to the greater complexity of fabrication processes. This growth places added pressure on the industry to operate sustainably by managing its rising electricity use and associated Scope 2 emissions.

Nestor Bernad Folia, Semiconductor Business Development Manager, Grundfos said, “We are proud to launch this whitepaper at a pivotal moment for the industry. With our expertise in sustainable water pump solutions, this report highlights how smarter water systems can provide practical solutions to improve energy efficiency while reducing Scope 2 emissions. At Grundfos, we are committed to helping the industry balance growth with sustainability through solutions that enable meaningful, immediate impact.”

The study evaluates the combined energy use of five leading semiconductor companies – TSMC, Samsung Electronics (Device Solutions), Intel Corporation, SK Hynix, and Micron Technology – providing critical insights into one of the world’s most energy-intensive industries. These case studies illustrate how real-world improvements in industrial water systems can drive measurable reductions in energy use, motivating wider adoption across the sector.

Key highlights from the whitepaper:

1. **Strong sector growth:** The semiconductor industry is on a strong growth trajectory, driven by surging demand from artificial intelligence (AI), cloud computing, Internet of Things (IoT), 5G infrastructure, electric vehicles (EVs), and other high-growth applications. This expansion underscores a pivotal shift toward next-generation chip performance. However, the industry’s increasing output comes with a steep rise in energy usage – posing both an environmental and operational challenge.
2. **Sustainability challenges:** As chip designs become increasingly advanced, manufacturing them will require more power, which further drives up electricity demand. Newer production technologies, essential for the latest generation of chips, add to this pressure – making energy efficiency a growing challenge for manufacturers worldwide. This escalating energy demand directly impacts Scope 2 emissions, underscoring the urgent need for innovative solutions to accelerate reduction efforts.

3. Optimizing Scope 2 reduction: The whitepaper outlines two key strategies semiconductor operators can adopt to lower their environmental footprint: reducing emissions factors and cutting overall energy consumption. While emissions factors often depend on external conditions, energy consumption can be directly reduced through measures within operators' control, including equipment upgrades, process improvements, and operational policies. Among these levers, optimizing water systems represents one of the most immediate and impactful opportunities to deliver measurable savings.

4. Energy-efficient water systems as a key enabler: Unlike many process tools, water systems are typically owned and operated in-house, giving operators the ability to make swift, independent improvements. While significant efforts have been directed toward improving the energy efficiency of process tools, water systems remain an untapped resource for meaningful energy reduction – positioning them as a vital enabler in semiconductor sustainability strategies.

Daniel Chow, Principal, Arthur D. Little, said, "Our analysis shows that the semiconductor industry faces a growing challenge in balancing rapid production growth with sustainability goals. This whitepaper highlights practical, data-driven ways that manufacturers can reduce energy consumption and Scope 2 emissions, particularly through optimizing water systems. We are pleased to partner with Grundfos to provide insights that can help the industry make meaningful progress toward more efficient and sustainable operations."

On 11 November 2025, Grundfos will host the Semiconductor Sustainability Summit in Penang, the heart of Malaysia's semiconductor industry. The event will bring together industry leaders and experts to discuss how the sector can advance sustainability by optimising both energy and water efficiency in semiconductor manufacturing. Beyond energy savings, the Summit will also highlight the importance of water conservation and circular water management – reflecting Grundfos' belief that true sustainability can only be achieved by simultaneously addressing both resources.

About Grundfos

Grundfos pioneers solutions to the world's water and climate challenges and improves the quality of life for people. As a leading global pump and water solutions company, we promise to respect, protect, and advance the flow of water by providing energy and water efficient solutions and systems for a wide range of applications for water utilities, industries and buildings. For more information, please visit: Grundfos.com

About Arthur D. Little

Arthur D. Little has been at the forefront of innovation since 1886. We are an acknowledged thought leader in linking strategy, innovation and transformation in technology-intensive and converging industries. We navigate our clients through changing business ecosystems to uncover new growth opportunities. We enable our clients to build innovation capabilities and transform their organizations.

Our consultants have strong practical industry experience combined with excellent knowledge of key trends and dynamics. ADL is present in the most important business centers around the world. We are proud to serve most of the Fortune 1000 companies, in addition to other leading firms and public sector organizations.

BCA Launches New Licensing Regime to Enhance Quality and Safety Standards for Building Works and Lift and Escalator Systems

Mr Chee Hong Tat, Minister for National Development announced at the International Built Environment Week (IBEW) Industry and Awards Dinner that the Building and Construction Authority (BCA) will implement a new licensing regime from 2027 for firms that provide certification services for lift and escalator systems, as well as site supervision services for large-scale structural works from 2028. This ensures that the industry leverages firm-level resources and expertise to meet evolving demands of increasingly complex projects and new technological developments to deliver safer and higher quality infrastructure for Singaporeans.

Under the new licensing regime, modern lift and escalator systems designed and installed in accordance with SS550:2009 and SS626:2017 1 or later, and building projects valued above \$75 million, will require the appointment of BCA-licensed firms to carry out such works. This move addresses the increasing complexity and sophistication of works undertaken in the built environment sector:

- a) Lift and escalator systems have evolved from largely mechanical equipment to complex electromechanical equipment requiring specialised expertise for proper certification.
- b) Large-scale building projects involve more specialist works such as complex facades, long-span composite structures and more sophisticated methods of construction requiring a broad range of competencies to supervise.

The shift to a firm-based regime aligns with international practices and recognises that professional firms are better equipped with expertise and resources to uphold safety standards. Licensed firms will be able to implement proper governance and procedures to enable collaboration, coordination and retention of critical technical knowledge and skills. Firms will also be able to invest in advanced technologies and provide structured training and specialised resources to support professionals to carry out their duties. This will ensure higher safety and quality standards, more consistent and efficient professional services, as well as better talent development and knowledge retention in the built environment sector.

To facilitate the transition, the mandatory accreditation and licensing of firms is targeted to be implemented in 2027 for firms involved in the certification of lifts and escalators, and 2028 for firms undertaking the supervision of structural works. Developers and building owners are encouraged to engage accredited firms ahead of the mandatory implementation of BCA's firm-based regime.

Driving Transformation by Encouraging Industry Adoption of CORENET X

As a crucial part of ongoing transformation efforts for the built environment sector, the current regulatory approval for building works has been redesigned under CORENET X. This move transforms the separate and individual agency submissions to a customer-centric one, and brings together the various agencies to collaborate and jointly review the submission. CORENET X brings about time and cost savings, offers one-stop approvals and enables building with confidence and clarity.

Regulatory agencies have also made several enhancements to CORENET X to address the industry's feedback on navigating the multiple agencies' processes, forms and requirements, including:

- a) Streamlining manual project information collection on applications,
- b) Providing visibility on agency clearance statuses through the implementation of project dashboards,

- c) Allowing concurrent submissions to both the Design Gateway and Piling Gateway
- d) Allowing concurrent demolition and new erection applications, and
- e) For agencies to begin CORENET X submission processing immediately upon receipt of proof of payment, rather than waiting for payment verification to complete [to be implemented in 4Q2025].

Project of the Year and Company of the Year Award winners Lauded for their Achievements in Pushing the Boundaries of Industry Transformation

The BE sector has been undergoing continuous transformation, pushing boundaries for meaningful change and a more resilient future. Six Singapore BE projects have received the prestigious BCA “Project of the Year” (PoY) award for outstanding achievements in adopting innovative and productive construction methods, driving digitalisation, transforming the workforce and value chain, and advancing sustainability.

Among the PoY winners is Mandai Rainforest Resort by Banyan Tree, which features off-form precast concrete wall panels. Salvaged tree barks and branches were repurposed into moulds, embedding natural textures directly into the façade. This eliminated the need for additional finishes while achieving a nature-inspired design. As a result, the speed of completing the building’s exterior doubled, saving a significant 3,740 man-hours. The project team also adopted a fully digital approach across design, construction and operations, including 6D digital assets for handover. This enabled automated data transfer from the building model to the Facilities Management system, potentially reducing man-hours needed to process operational data by 30 times, from 1,200 hours to just 40.

Another PoY winner is the New Central Manpower Base (CMPB), supported by elliptical column fins which are 32-metre tall and 3-metre wide, constructed using a modular ‘Tatekata’ steel joint system. This eliminated the need for extensive temporary supports and sped up construction by 20% (equivalent to saving 544 man-hours). Apart from digitally rehearsing the façade installation to ensure safety and high-quality execution of actual works, the project team was among the first institutional projects to adopt BCA’s Virtual Temporary Occupation Permit (TOP) inspection with the use of 360-degree capture technology, resulting in 300 man-hours saved.

Kimly Construction and Kajima Overseas Asia (Singapore) have each been accorded the “Company of the Year” (CoY) award for the Small/Mid Firms and Large Firms category respectively, for demonstrating commitment in business and workforce transformation at the enterprise level.

Recognised as one of The Straits Times Singapore’s Best Employers 2025, Kimly Construction excels in building up their staff capabilities through an in-house competency framework. In addition, Kimly works to attract prospective young talent via internships and hosting site visits. On the innovation front, Kimly implemented several initiatives to improve productivity, such as introducing the sustainable CREE hybrid timber system in its Eunoia Junior College project to boost productivity, and digitalising its internal financial and procurement workflows. The streamlined workflow minimises administrative touchpoints across procurement, contracts, project management, and HR systems, leading to increased efficiency.

The other winner of the CoY award, Kajima Overseas Asia (Singapore), has built a strong talent pipeline through frequent student engagement and organising a structured Graduate Development Programme. Committed to operational efficiency and innovation, it launched The GEAR smart living lab for ecosystem players to collaborate, co-create and refine technologies, while deploying its innovative Gyro Pile method to significantly shorten construction time on a project.

An Excerpt of the Speech by Minister Indranee Rajah at the 17th UNGCNS Summit, Singapore

With each passing year, there is greater urgency to address climate change. The data is clear. Asia is warming nearly twice as fast as the average. Closer to home. 2024 was warmest year on record. Extreme weather events are becoming more intense and unpredictable, but internationally the climate agenda is being squeezed by economic and geopolitical uncertainty. It was already challenging to secure international commitments. And societal buy in when inflation was low, and economic conditions were more favourable.

Climate change will not wait for us to get our act together, and the clock continues to tick on the 2030 agenda for the UN sustainable development goals, the key challenge of our time. Is how we can mobilize and sustain the collective will to act. And this is why the theme of this year's summit is so aptly named, 'Forward Faster Collective Action and Leadership for a Sustainable Future'.

There is no doubt that we must press on with urgency, but we also need to understand that the path ahead will not be smooth straight line to net zero. We have to keep adapting and advancing the agenda, most importantly by managing the trade-offs instead of ignoring them. And we need to bring all stakeholders alongside this journey instead of leaving them behind as we push ahead on the shifts that are needed for transition. It is critical to build this capacity for collective action as governments, businesses, nonprofits, and people so that we can move forward together, and that is the only way that we can move forward faster.

First by paving the path with critical standards. Second, cultivating confidence with the right tools. And third, advancing our ambition with grounded action. The path towards a low carbon future must be paid with credible and transparent standards to set the right conditions to mobilize capital. By some estimates, there is a shortfall of over 800 billion US dollars in climate financing for the Asia Pacific region to meet its mitigation and adaptation needs. But investments will not flow without credible standards. Investors need to know that their money is going towards initiatives with tangible impact, and that is why we launched the Singapore Asia Taxonomy for Sustainable Finance for SAT in 2023.

Our issuances have deepened market liquidity for green bonds and encouraged more private sector green financing. Take Equinix, for example. The data center developer raised over 1 billion Singapore dollars across two Azure issuances this year. Next, we must equip businesses with the right tools to make clear and informed decisions to cultivate confidence in their sustainability journey.

I'm pleased to share that the SEFR will it expand its database of emission factors to help companies accurately measure their scope 3 emissions by the end of this year. The registry will include new sector specific emissions factors, namely for cleaning, security and professional services. Emissions factors for info communications technology will be released in 2026. In addition. Emissions factors for specific for products and services will be added early next year. I'm especially excited by what our youth can do to advance our climate ambition. We must empower and encourage them to be part of the conversation as they will shape the future of climate action.

In spite of global headwinds, we will press on when with the right thing to do. For us, there is added urgency as a low nine state. It's not only about economic competitiveness. Our very survival depends on each country and the world taking collective action to address climate change. This summit is itself a beacon for collective action as become together to exchange notes on concrete actions, to develop capabilities and manage trade-offs needed.

Singapore Strengthens Regional Sustainability Leadership as UNGCNS Marks 20 Years with Bold Corporate Action Initiatives

UN Global Compact Network Singapore (UNG CNS) conducted its annual flagship event: the 17th UNG CNS Summit, which took place on 8 October followed by the 10th Singapore Apex Corporate Sustainability Awards, on 9 October which were held at Equarius Hotel, Resorts World Sentosa.

The two-day event was honoured by distinguished Guests of Honour: Ms Indranee Rajah, Minister, Prime Minister's Office, Second Minister for Finance and Second Minister for National Development, who graced the 17th UNG CNS Summit; and Mr Lim Boon Heng, Chairman of Temasek Holdings, who attended the 10th Singapore Apex Corporate Sustainability Awards.

Centred on the theme "Forward Faster: Collective Action and Leadership for a Sustainable Future," the Summit convened senior leaders from both public and private sectors. Participants engaged in plenary and breakout discussions on pressing topics, including corporate sustainability leadership in a polarised world, Singapore's clean energy transition, and the growing challenges of Scope 3 emissions and supply chain climate risks.

The Summit also marked UNG CNS' 20th anniversary, celebrating two decades of advancing responsible and purpose-driven business. This milestone comes at a pivotal time of renewal, with Executive Director David Fogarty bringing over 20 years of ESG and climate expertise to the organisation. Under new leadership, UNG CNS will seek to strengthen regional collaboration, scale collective solutions, and position Singapore at the forefront of sustainability action across Asia Pacific.



Minister Indranee Rajah at the 17th UNGCNS Summit

Reflecting on the milestone, Dr. Bicky Bhangu, President of UNG CNS, said: "This year marks a decisive moment for sustainability in Singapore and the wider region. As we celebrate 20 years of UN Global Compact Network Singapore and 25 years of the UN Global Compact, the message is clear: businesses can and must be engines of measurable impact. The Summit is not just a platform for dialogue – it is a catalyst for bold leadership, collaboration, and solutions that advance both Singapore's Green Plan and the global SDGs. By acting with urgency and integrity, we can demonstrate that sustainability can be a driver of long-term business value."

Looking ahead, UNGCNS remains committed to catalyse global, regional and local partnerships that accelerate collective action. Building on its legacy, the organisation will continue to shape Singapore's role as a regional sustainability hub and a driving force in advancing the global Sustainable Development Goals.

Underscoring the power of collective action, the Summit announced four new initiatives aimed at deepening partnerships and driving impact across local, regional, and global fronts.

1. **Green Impact Gap Report with Schneider Electric** UNGCNS, in collaboration with Schneider Electric, released *"Bridging the Green Impact Gap in Singapore."* Drawing on responses from 1,000 business leaders across startups, SMEs, large local enterprises, and multinationals, the report shows that 91% of Singapore companies continue to prioritise sustainability, with investments in energy efficiency, electrification, digital solutions, and AI driving measurable impact. Nearly three-quarters of respondents also see Singapore playing a leading role in promoting regional sustainability cooperation.
2. **Global Biodiversity Insurance Study** In partnership with Nanyang Technological University and the UN Global Compact Office, UNGCNS launched a pioneering study on biodiversity and insurance. Surveying around 250 insurers worldwide, the study aims to understand how biodiversity risks are integrated into underwriting, risk management, and investment practices, paving the way for next-generation insurance models that incentivise positive outcomes for nature.
3. **Strategic Partnership with OCBC on ESG Readiness Assessment Tool for SMEs** UNGCNS has embarked on a strategic partnership with OCBC to co-brand and develop an ESG readiness assessment tool for SMEs across Southeast Asia. Free to use and tailored to the regional context, the tool enables SMEs to benchmark and improve their environmental, social, and governance (ESG) performance, while linking progress to sustainable finance opportunities through OCBC's green financing solutions. The ESG readiness assessment tool is expected to be launched in the 1st Quarter of 2026.
4. **Revamp of LowCarbonSG Programme** UNGCNS will unveil an upgraded LowCarbonSG programme to accelerate corporate decarbonisation. Featuring a three-tier framework enabled by the enhanced CERT (Carbon & Emissions Recording Tool), the programme supports companies in tracking emissions reductions, accessing third-party verification, and linking progress to sustainable financing mechanisms such as Sustainability-Linked Loans (SLLs) with OCBC. The programme also includes expanded Scope 3 coverage, advanced analytics, and new workshops to build enterprise capabilities in emissions reduction planning.

As Host & Strategic Sustainability Partner of the Summit, Resorts World Sentosa (RWS) provided a platform for meaningful conversations around sustainability. Ms. Lee Shi Ruh, CEO of RWS, remarked: "We're proud to have supported the 17th UNGCNS Summit as Host & Strategic Sustainability Partner. At RWS, we champion sustainability, from Green Mark certified buildings to guest offerings like sustainable seafood. Beyond our resort, we make meaningful partnerships that drive impact beyond our doors and contribute to building a more resilient future."

Singapore Apex Corporate Sustainability Awards 2025

The two-day event concluded with the Apex Awards gala dinner, celebrating leaders in sustainability and highlighting some of the most innovative sustainability solutions in the country.

The Awards, now in its tenth year, saw nominations across three categories: Sustainable Business; Sustainable Solutions; and the LowCarbonSG Award. The Sustainable Business category honours companies excelling in integrating sustainability into their operations, while the Sustainable Solutions category recognises those developing innovative products or services to meet sustainability needs.

The Low CarbonSG Award, now in its third year, celebrates businesses that have reduced Scope 1 and 2 emissions by at least 5% over the past 24 months through significant efforts or investments.

Companies who perform exceptionally well in each sustainability category of the awards stand a chance of winning the highly coveted Apex Winner Award. This year we recognise **Mandai Wildlife Group and Keppel Ltd.** as **APEX winners in the Sustainable Business and Sustainable Solutions category, respectively.**

About UN Global Compact Network Singapore (UNGCNS)

UN Global Compact Network Singapore (UNGCNS) is the local chapter of the United Nations Global Compact. As the leading voice on corporate sustainability, UNGCNS drives multi-stakeholder action to forge a more sustainable future, founded on the Ten Principles of the United Nations Global Compact and the Sustainable Development Goals. Through various platforms and partnerships, UNGCNS advances the stewardship of sustainable business practices and Singapore's national agenda of becoming a regional sustainable business hub. For more information about UNGCNS, please visit: <https://unglobalcompact.sg/>.

2025 Singapore Apex Corporate Sustainability Award Winners

Category	SME/ Non-SME	Company Name	APEX Winner
Sustainable Business	SME	Seven Clean Seas Profoto Digital Services Constellar Venues Pte Ltd	
	Non-SME	Mandai Wildlife Group Frasers Hospitality International Pte Ltd APRIL Group	Mandai Wildlife Group
Sustainable Solutions	SME	Midori Climate Partner Pte. Ltd. Evercomm Greenphyto Pte. Ltd.	
	Non-SME	Keppel Ltd. OCBC Maybank Singapore Limited	Keppel Ltd.
Low CarbonSG		Far East Group Limited Hitachi Elevator Asia Pte. Ltd. BH Global Corporation Ltd	

SWITCH 2025 becomes a platform for SP students to exhibit their talents in harnessing AI

Next-generation entrepreneur students from Singapore Polytechnic (SP) showcased their startups and innovations today at the SP Pavilion during Singapore Week of Innovation and Technology (SWITCH) 2025.

Videotta: Innovation Turning Long Videos into Viral Shorts with AI

Videotto, an AI-driven video automation startup co-founded by Singapore Polytechnic (SP) and Ngee Ann Polytechnic's (NP) students, has successfully secured venture capital funding for its next stage of growth.

Born out of a joint polytechnic collaboration, Videotto transformed long-form videos such as live streams, podcasts, and interviews into an endless stream of short, high-performing social clips tailored for each channel. This helped creators, agencies, and live stream sellers multiply their content volume without expanding their editing teams.

Led by Tay Yao Ming (SP's Diploma in Engineering with Business student) and Ian Lee (NP's Diploma in Electrical and Computer Engineering student), the dynamic duo is supported by AI specialists, Felix Isaac Lim (SP's Diploma in Applied AI & Analytics student) and Chong Kah Hian (SP's Diploma in Information & Technology student). Together, the team has built a platform that turns hours of footage into ready-to-post social content within minutes.

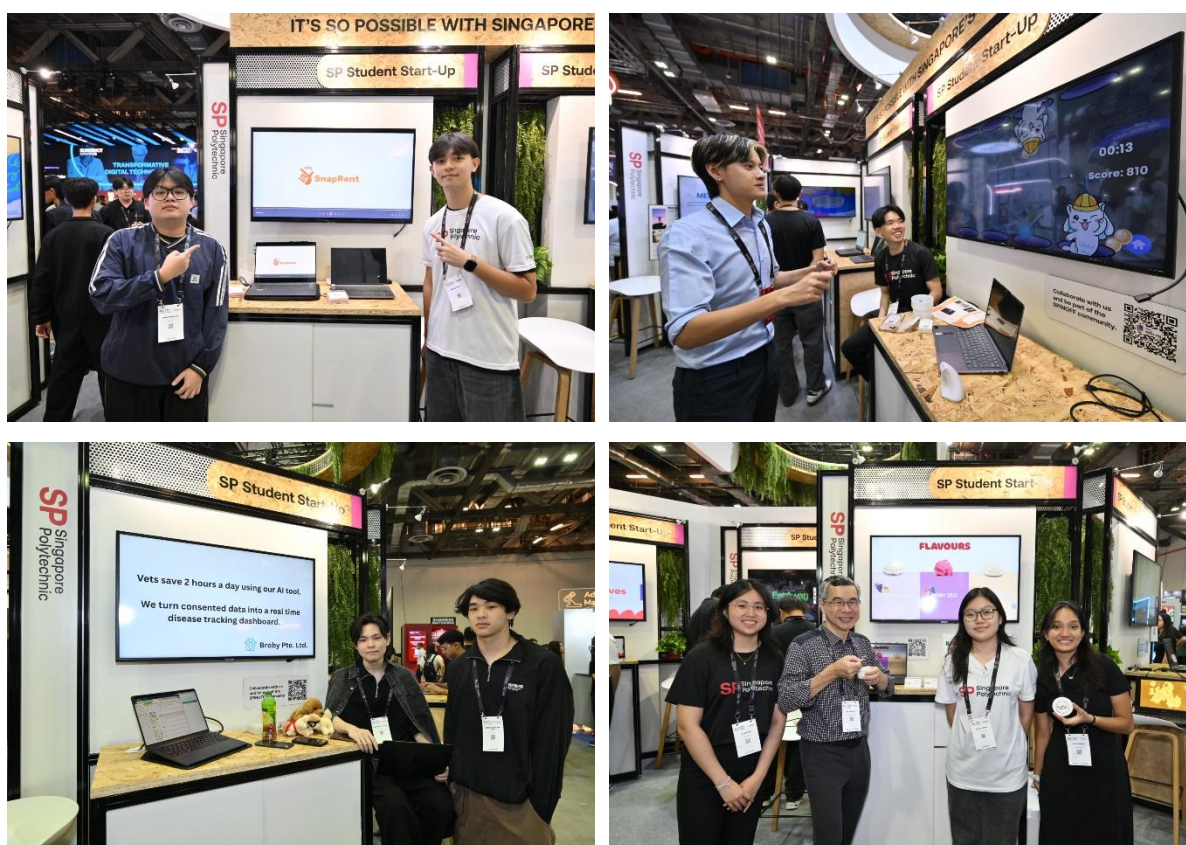


Soh Wai Wah, Singapore Polytechnic (Principal and CEO), with student entrepreneurs and SP staff at SWITCH 2025 (Image Credits_ Singapore Polytechnic)

SP Students harness the power of AI to drive innovation

AI continues to take the spotlight as Singapore Polytechnic's student startups harness its power to solve real-world challenges and drive innovation across industries.

- **SnapRent** – A smart, AI-driven rental platform that connects users for short-term item rentals.
- **Rehabify** – Uses computer vision and AI to turn physiotherapy and active ageing into an engaging, game-like experience.
- **Broby Pets** – An AI medical scribe that helps veterinarians save time by generating real-time, professionally formatted consultation notes.
- **Enjoy a healthy treat with Bucha Scoops** – Aside from exciting tech startups, Bucha Scoops brings a twist from the F&B sector, offering kombucha sorbet made with natural, plant-based ingredients for a healthier, guilt-free treat. So far, they have participated in public events such as the Bukit Batok National Day Fair and cater to student club events. The team plans to enter the Singapore mass market and explore brand collaborations, with long-term goals to partner with larger companies and potentially bring their product onto flights.



The startups of SP students showcasing their ventures into AI to solve real world issues. Credit – Singapore Polytechnic

Advantech Celebrates 30 Years in Singapore with “Insight to Impact: Edge AI x IoT Forum” — Showcasing Edge Intelligence Driving Sustainable Innovation

Advantech, a global leader in intelligent IoT systems and edge computing, marked a significant milestone with its 30th anniversary in Singapore through the “**Insight to Impact: Edge AI x IoT Forum**” held at Carlton Hotel on 24th October 2025.

Serving as Advantech’s strategic hub for the Asia and Intercontinental regions, Singapore plays a pivotal role in accelerating the adoption of Edge AI and IoT innovations across ASEAN markets — enabling co-creation with local partners and driving the region’s digital and sustainable transformation.

The event showcased how Advantech’s Edge Computing and Edge AI technologies are revolutionizing industries, empowering businesses to accelerate digital transformation, sustainability, and operational intelligence. Bringing together ecosystem partners, customers, and academia, the forum highlighted how real-world innovation is being co-created at the edge – from smart cities to sustainable manufacturing and beyond.

Adding to the excitement, the forum featured live technology demonstrations that brought Advantech’s brand statement of “**Edge Computing & WISE Edge in Action**” to life. Highlights included the Advantech iFactory solution for smart manufacturing, the Intelligent Energy Monitoring Solution for sustainability and efficiency, and the Edge AI Solution for real-time decision-making at the industrial edge. The Advantech Transportation Solution, powered by Ouster LiDAR technology, demonstrated how AIoT is reshaping smart mobility and safety. Ecosystem partners such as Microsoft and Ubuntu showcased embedded OS and Advantech secure device management capabilities, while Robotics innovators using ROS demonstrated collaborative automation systems. The forum also featured AI partners presenting advanced applications in security, surveillance, healthcare, and even emerging humanoid solutions. Complementing the industry showcases, academic partners exhibited robotics and urban farming technologies, emphasizing the importance of applied learning and innovation in sustainability.

At the heart of Advantech’s success is its **Co-Creation Model**, which unites ecosystem partners to accelerate innovation and digital transformation across industries. Through close collaboration with global technology leaders, software innovators, and system integrators, Advantech co-develops

domain-focused solutions that address real-world challenges in areas such as smart manufacturing, intelligent energy, healthcare, and transportation. This collaborative approach not only enhances solution interoperability and speeds time-to-market but also strengthens an open, scalable ecosystem that transforms technology insight into business impact – fostering sustainable growth and shared success across the industry.

While working closely with local academic partners, Advantech is committed to nurturing the next generation of digital talent through hands-on learning powered by its AI and IoT platforms. Students are leveraging Advantech's Edge AI platform MIC-743 accelerated by NVIDIA® Jetson Thor™ to develop high-performance Edge AI applications for innovation competitions, while others are utilizing low-power LoRaWAN and Edge platforms to design smart urban farming solutions. These initiatives not only strengthen applied learning in emerging technologies but also contribute directly to the Singapore Green Plan 2030, advancing national goals in food security and sustainable development.

“As we celebrate 30 years in Singapore, we remain focused on empowering industries and communities through edge intelligence,” said **Vincent Chang, General Manager, Advantech Singapore and Managing Director, Asia & Intercontinental Region**. “By working hand-in-hand with our partners and academia, we are turning insight into impact – fostering innovation that drives both technological progress and sustainable growth.”

As Advantech commemorates three decades of innovation and partnership in Singapore, the company reaffirms its commitment to driving Edge Intelligence for a Sustainable Future. Through continuous technology advancement, open collaboration, and talent development, Advantech aims to empower organizations across Asia to transform **insight into impact** – bridging **technology, people, and purpose** at the intelligent edge.

About Advantech

Advantech is a global leader in IoT intelligent systems and embedded platforms, with the corporate vision of "Enabling an Intelligent Planet." To embrace the trends of edge computing and artificial intelligence, Advantech fully deploys its sector-driven strategy and focus on Edge Computing and Edge AI, targeting five key markets: Edge Intelligence Systems, Manufacturing, Energy and Utilities, iHealthcare, and iCity Services & iRetail. In the meantime, Advantech is enhancing its global presence and core competitiveness by integrating its Edge Computing hardware platform, the WISE-IoT software platform, and sector-specific Edge AI solutions with domain expertise. The integration will form an "Orchestration" model for seamless industrial chain connections, benefiting both our partners and clients. Advantech is also working with business partners to co-create business ecosystems that accelerate the goal of industrial intelligence.

Control Union Malaysia Launches State-of-the-Art Laboratory in Selangor to Strengthen Malaysia's Global Competitiveness

Control Union Malaysia celebrated the official launch of its state-of-the-art analytical testing laboratory in Klang on 23rd October 2025, marking a major milestone in its journey toward becoming a fully integrated Testing, Inspection, and Certification (TIC) organization in Malaysia.

The launch event was attended by distinguished guests including H.E. Jacques Werner, Ambassador of the Kingdom of the Netherlands to Malaysia, and Mr. Dirk Teichert, Regional Director of Control Union Asia Pacific, alongside representatives from the Malaysian Government, industry partners, and clients from across the country.

A Vision Realized: From Dream to Reality

In his welcome address, Mr. Supun Nigamuni, Managing Director of Control Union Malaysia, shared that the new facility reflects Control Union's commitment to quality, innovation, and sustainability. "This moment marks the realization of a dream — to complete our value chain and strengthen Control Union's position as a fully integrated TIC organization in Malaysia. In less than a year, this laboratory has come to life thanks to the dedication and perseverance of our team," said Mr. Nigamuni.

He emphasized that Selangor was chosen as the hub for the new facility as it is home to over 50% of Control Union Malaysia's 200-strong workforce and houses the company's core operations spread across nine locations in East and West Malaysia. The facility, which will initially serve palm oil, agriculture, food, biofuels, biomass, metals and minerals, environmental, and microbiological sectors, brings the full scope of TIC services under one roof — ensuring faster turnaround, traceability, and assurance for Malaysian industries.

"With this new laboratory, we have completed the missing link in our Testing, Inspection, and Certification scope — adding the 'T' right here in Selangor. This facility enables faster, more reliable testing that will serve both products coming into Malaysia and those exported to global markets, ensuring that everyday Malaysian lives are safer and local industries remain globally competitive. It reinforces our mission to make trade more transparent, sustainable, and trusted," Mr. Nigamuni added.

Sustainability at the Core

Reaffirming Control Union's global mission, Mr. Nigamuni noted that sustainability remains the core of everything Control Union does.

"Just yesterday, at our flagship Sustainable Action Conference 2025, held at the Grand Hyatt Kuala Lumpur with over 550 participants joining physically and virtually, we signed our Zero Waste to Landfill Pledge — an initiative to accelerate Malaysia's circular economy ambitions. We also celebrated our flagship CSR program, 'From Children to Children,' which empowers students to design sustainability projects in partnership with the Selangor State Education Department. This new laboratory stands as an extension of that same vision," he said.

The new facility has been designed following green building principles and features rooftop solar panels capable of generating up to 31 kilowatts at peak hours — further enhancing its energy efficiency and cost savings. “This laboratory embodies our dedication to efficiency, transparency, and technical excellence, ensuring that trade is conducted with trust while contributing positively to Malaysia’s sustainability goals,” added Mr. Nigamuni.

Regional and International Collaboration

Mr. Dirk Teichert, Regional Director of Control Union Asia Pacific, praised the Malaysian team’s leadership and innovation.

“This facility is not just an investment in infrastructure, but in trust, technology, and talent. It will serve as a regional hub of excellence for testing across palm oil, biomass, minerals, and environmental performance — enhancing Malaysia’s position as a leader in sustainable production and export readiness,” he said.

H.E. Jacques Werner, Ambassador of the Kingdom of the Netherlands to Malaysia, emphasized the enduring collaboration between both nations. “This laboratory is a testament to the long-standing Dutch-Malaysian partnership in innovation, sustainability, and trade. It bridges expertise and ambition — driving shared prosperity through transparency and science,” said the Ambassador.

Message from the Chief Minister of Selangor

YAB Dato’ Seri Amirudin Shari, Dato’ Menteri Besar Selangor, conveyed his apologies for not being able to attend in person due to parliamentary commitments but shared his full support for the launch.

“I am absolutely delighted by Control Union’s laboratory opening its curtains here in Malaysia. With proximity to Port Klang — now the 10th busiest port in the world — and Control Union’s expertise in certifying industries from metals and minerals to seeds, food, agriculture, and recycling, this will be instrumental for companies in Selangor seeking to export their goods.

This certification process will help break the stigma that some countries may have of Malaysian goods being second rate. With a globally recognised system, this certification will be a ticket to success for local SMEs in Selangor. On behalf of the State Government, I commend your efforts and appreciate your commitment to elevate the capacity of companies in the state.”

About Control Union Malaysia

Established in 1987, Control Union Malaysia is part of the global Royal Peterson Control Union Group, providing certification, inspection, testing, and assurance services across multiple sectors including agriculture, palm oil, biofuels, textiles, biomass, and energy. The company’s mission is to create positive impact through transparency, integrity, and sustainable trade. The new laboratory represents a 100% Dutch investment, reaffirming Royal Peterson Control Union Group’s long-term commitment to Malaysia’s industrial, export, and sustainability agenda.

Looq AI Now Compatible with Trimble Business Center

Faster, Smarter Workflows for Surveying, Engineering, and Utility Teams

Looq AI, an innovator in ground-based reality capture, announced on 23rd September 2025, that its AI-powered, photogrammetric data capture platform is now compatible with Trimble® Business Center (TBC) software. This compatibility enables engineering professionals to efficiently extract and utilize high-accuracy Looq Platform data within Trimble's desktop workflows for survey and engineering professionals—without the need for custom conversions or manual preparation.

The Looq Platform produces survey-grade, georeferenced, ground-classified point clouds and orthomosaic images, ready for direct use in TBC. This seamless workflow supports a wide range of topographic and design tasks, helping project teams deliver faster, more accurate results while staying aligned with trusted tools.

This milestone builds on a year of innovation from Looq AI. The company's AI-enabled platform streamlines infrastructure digitization through a scalable, ground-based capture process. By combining handheld photogrammetry with advanced 3D computer vision algorithms, the Looq Platform delivers high-resolution spatial data and reliable data processing for projects of all sizes. Recent industry advancements—including improved GNSS precision, underground asset capture, support for standard export formats, and alignment with open standards—have further strengthened Looq's ability to meet the demanding needs of professional surveyors and engineers.

Trimble supports greater compatibility with emerging technologies like Looq AI to align with and foster open, technology-agnostic ecosystems.

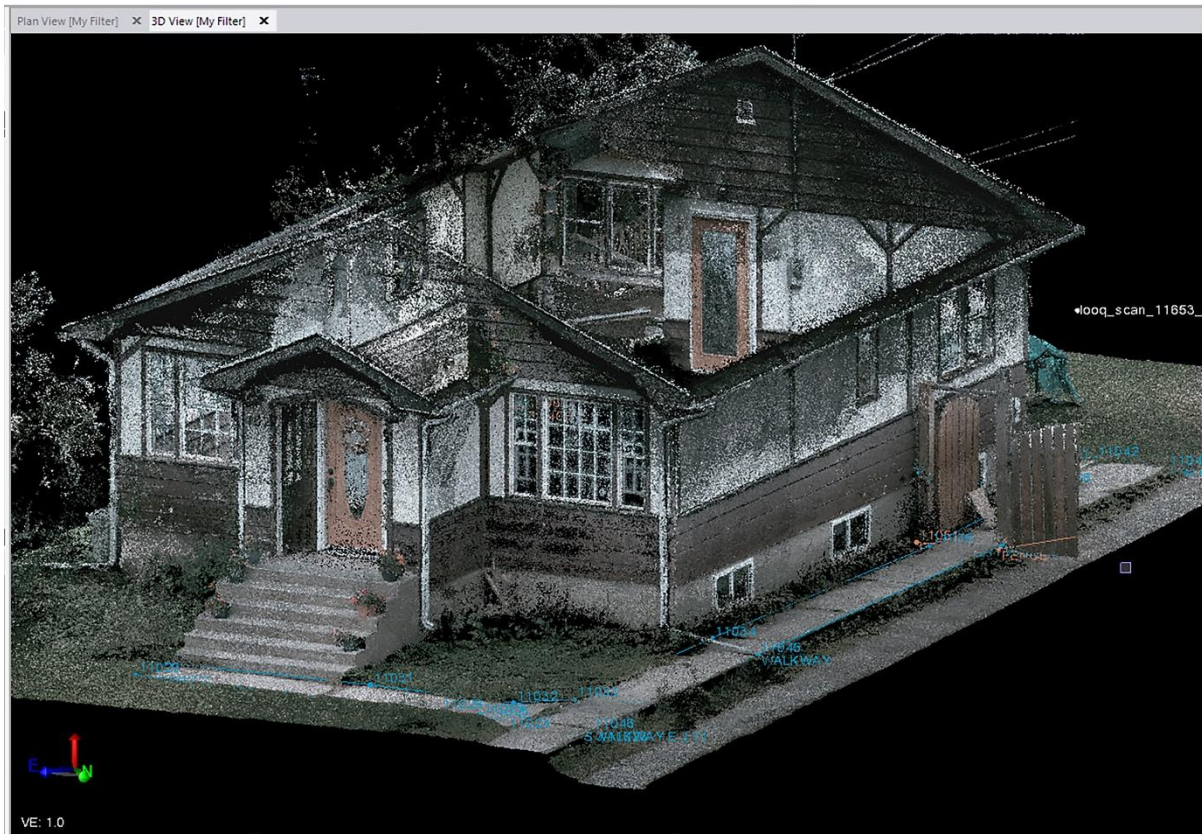
"We're pleased to see Looq's platform is now compatible with Trimble Business Center," said Gareth Gibson, Strategic Marketing Director, Mapping & GIS and Utilities at Trimble. "This kind of integration supports our goal of transforming the way the world works by enabling users to more seamlessly incorporate high-accuracy, ground-based data into their existing workflows. It's another step toward driving industry innovation and helping customers achieve better business outcomes."

AJ Surveying, a San Diego-based firm specializing in utility corridor mapping, is already realizing the benefits of the Looq–Trimble workflows. On recent undergrounding projects in wildfire-prone regions, AJ Surveying used the Looq Platform to collect topographic data in drone-restricted and challenging environments, reducing turnaround times by 60% and survey costs by 43%. The team leveraged TBC and the Trimble Connect common data environment and collaboration platform to manage and share project deliverables efficiently.

"With Looq and Trimble Business Center, we've transformed the way we collect and deliver data on critical infrastructure projects," said Amanda Jones, PLS, Owner of AJ Surveying Inc. "We can now tackle challenging environments more quickly and cost-effectively, while keeping our workflows aligned with the platforms our clients already trust."

McElhanney, a leading Canadian engineering and geomatics firm, has also adopted Looq to enhance mapping and topographic surveys.

"Looq has helped us bring new levels of efficiency and adaptability to our field workflows," said Ben Giesbrecht, Project Manager at McElhanney. "The ability to capture and deliver high-accuracy data directly into Trimble Business Center keeps our teams productive and enables seamless collaboration with clients and partners."



Colorized point cloud from the Looq Platform in Trimble Business Center. Image Courtesy: McElhanney

“Our mission at Looq is to empower surveyors and engineers with tools that deliver uncompromising accuracy and unmatched efficiency,” said Dominique Meyer, CEO of Looq AI. “By ensuring our platform is fully compatible with Trimble Business Center, we’re joining a growing ecosystem of innovative solutions designed to help professionals meet today’s infrastructure demands with confidence.”

Looq joins a robust network of technologies that are fully compatible with Trimble Business Center, further expanding the options available to survey and engineering teams seeking to modernize their workflows while staying within proven platforms.

About Looq AI

Looq AI is a high-growth technology platform company dedicated to advancing critical infrastructure digitization and diagnosis. The company has developed a fundamental new camera technology that makes survey-grade 3D capture cost-effective at scale. The Looq Platform is a handheld, ground-based capture system—offering creation, visualization, analysis, collaboration, and integration capabilities to digitize the built world. Users work more efficiently and get accurate results for topographic mapping and modeling of transmission and distribution assets. Learn more at loooq.ai.



Green In Future is a novel venture of like-minded professionals with achieving a sustainable future as the target. Among the many services provided, the diffusion of technology to as many as possible and as far as possible, educating and generating awareness by being the link between the producer and the user, giving adequate training to the interested to adopt an innovation in Urban Landscaping, Urban farming, Education, Environmental issues and Health etc. are in the forefront.

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