

Green Pulse

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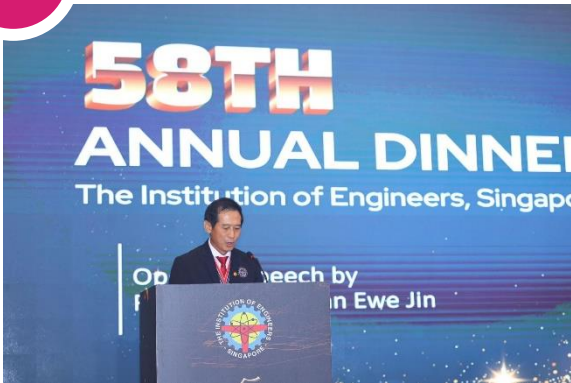
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INTRODUCTION

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 -



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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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New move to boost professional recognition of engineers

Minister for National Development and Minister-in-Charge of Social Services Integration Desmond Lee unveiled new chapter in engineering chartership and IES History Book 'Building the Nation and Beyond' at IES 58th Annual Dinner

Ms Ho Ching and Senior Minister of State Tan Kiat How recognised with top engineering honours

The Institution of Engineers, Singapore (IES) celebrated its 58th Annual Dinner today by toasting to an illustrious past and announcing a new push for professional accreditation of engineers. Minister for National Development and Minister-in-Charge of Social Services Integration, Mr Desmond Lee was the guest-of-honour of the dinner at the Shangri-La Hotel in Singapore, themed 'Empowering Engineers for Sustainable Innovation'.

New Engineering Chartership Chapter: New Chartership Engineering Board

Minister Lee launched the new Chartered Engineering Board – a merger of the Chartered Engineers Board and the Chartered Engineering Technologists and Technicians Board – to strengthen Singapore's engineering competencies to meet evolving needs. This integration seeks to accelerate the professional accreditation process for engineers, technologists and technicians across various sectors of engineering.

This will boost efforts by IES to promote upskilling and career progression of engineering professionals through both the academic and non-academic pathways. It is in line with the national SkillsFuture movement – IES is a Skills Development Partner (SDP) appointed by SkillsFuture Singapore to advance the skills development agenda of engineering professionals and sectors.

"By consolidating our accreditation boards into one single entity – the Chartered Engineering Board, we will streamline the registration process for engineering professionals, enabling faster and more efficient certifications. This will grant applicants quicker access to the training and certification required to not just survive, but thrive in their respective sectors. It will also build a robust engineering ecosystem with complementary skillsets to drive Singapore's growth," said Er. Chan Ewe Jin, President of IES.



IES President Er. Chan Ewe Jin Green Pulse | Issue: 34 2024

The Chartered Engineering Registry covers 10 engineering sectors: aerospace, built environment, chemical & energy, renewable energy, engineering project management, environment & water, infrastructure, railway & transportation, sustainability and systems.

Launch of IES History Book - Building the Nation and Beyond

Minister Lee also unveiled ‘Building the Nation and Beyond’, a commemorative book that chronicles IES’ remarkable evolution and its contributions to Singapore’s development over the past 58 years. From a secretariat size of just two clerical staff operating from a 9.5-square metre office, IES has grown significantly in size, stature and partnerships. It has made a lasting impact on the engineering landscape while advancing towards its vision of being the heart and voice of engineers and the national body and home for engineers in Singapore.

Tribute to Distinguished Engineering Leaders

During the dinner, IES paid homage to eminent engineering leaders and visionaries for their extraordinary contributions in engineering that fuelled Singapore's infrastructure, economic and societal development.

Ms. Ho Ching, Chairman of Temasek Trust and Trailblazer Foundation, received the esteemed IES Lifetime Engineering Achievement Award 2024. It is in honour of her lifetime accomplishments that have made a profound impact on the industry and community, inspiring future generations to do the same.

Senior Minister of State for National Development & Digital Development and Information Mr Tan Kiat How was conferred the title of IES Honorary Fellow for his steadfast support in advancing the interests of IES and the engineering landscape.

Professor Yeoh Lean Weng, Emeritus President of IES was the recipient of the IES/IEEE Joint Medal of Excellence Award, recognising his notable contributions to engineering and outstanding leadership in accelerating sustainable development for the benefit of society.



Launch of the Chartered Engineering Board



Launch of IES History Book

Recognising Exemplary Engineering Projects

Minister Lee also presented the **IES Prestigious Engineering Achievement Awards** to recognise projects that demonstrate noteworthy engineering skills and significantly contribute to engineering progress and quality of life in Singapore; and the **IES Sustainability Awards** to honour innovative projects and initiatives that promote sustainability and innovation in Singapore.

Emerging out of a rigorous evaluation of 35 submissions, the following projects are the winners of the IES Prestigious Engineering Achievement Awards 2024:

Applied Research and Development

- Structural Digital Twin of Jack-up Platform – Methodology Verification & Validation by Technology Centre for Offshore and Marine, Singapore, National University of Singapore (NUS), Seatrium - The project focuses on developing, verifying and validating a Structural Digital Twin for jack-up platforms to enhance operational safety and efficiency and aims to optimise asset life-cycle management
- Development and Deployment of Singapore Police Force (SPF) Community Engagement Robot by Ngee Ann Polytechnic – The robot interacts with the public and disseminates crime prevention messages through a wide range of personalised multimedia activities such as videos, games, quizzes and chats; able to communicate in local languages.
- Aqueous CO2 sequestration and utilisation in ultra-low carbon concrete production by Singapore Institute of Technology (SIT) - The team developed an innovative, cost-effective aqueous carbon sequestration system to produce sustainable ready-mixed concrete, addressing environmental and industry needs in Singapore.
- Innovative and Sustainable Solution for Seawall Construction in Coastal Development by Housing and Development Board (HDB) & NUS - This innovation aims to re-purpose excavated materials collected from the construction industry for enhanced environmental and financial sustainability.

Engineering Project

- Modification and Flow Diversion to a Live DTSS Segmental Tunnel by PUB, Singapore's National Water Agency - The project involves constructing a temporary and permanent sewer connection into Singapore's Deep Tunnel Sewerage System (DTSS) to allow LTA's Construction of the Thomson-East Coast Line (TEL) to proceed quickly by diverting impacted sewers to the DTSS.

Technology Innovation

- cyclee by cyclee - cyclee transforms any mobile device into a power data system, allowing cyclists to stay aware of their surroundings with ease and accuracy. Affordable and portable, cyclee is designed for everyday cyclists, ensuring reliable performance in a variety of riding scenarios.
- Aircraft Predictive Maintenance (APM) by Institute for Infocomm Research, Agency for Science, Technology and Research (A*STAR) - A prognostics tool that leverages sensor data recorded in the aircrafts to predict failure of components and systems in advance thus improving engineering operations and averting unplanned flight delays

A total of eight winners clinched the IES Sustainability Awards from a total of 26 project submissions:

Completed engineering projects with sustainability features and practices

- Sembcorp Cool House at the National Orchid Garden by National Parks Board (NParks) -The completed Cool House is four times larger than the original facility but consumes 30% less energy. It also increases public awareness of this threatened ecosystem and furthering the Gardens' mission of plant conservation and outreach.
- Super Low Energy Flight Simulator Building by Defence Science and Technology Agency (DSTA) - The design of this specialised training centre prioritises sustainability, modularity, maintainability and user-centricity while incorporating natural lighting and interaction spaces to create an optimal and conducive environment for both trainers and trainees.

- Punggol Digital District by JTC Corporation - The district features state-of-the-art infrastructure, green spaces, and smart technologies, making it a vibrant environment for digital transformation with a focus on sustainability.
- Samwoh Smart Hub – First Positive Energy Building in Singapore by Samwoh Corporation Pte Ltd - Samwoh Smart Hub is the first positive energy building that produces 25% more energy than what it consumes in Singapore. With the ultra-low Energy Use Intensity and remarkable energy surplus, its operational carbon is kept as low as reasonably practicable.
- SJ Campus by SJ Consultant - SJ Campus adopts regenerative design practices that contribute to a greener and healthier built environment in the tropical climate context, and demonstrates what a sustainable, maintainable, people-centric and future-ready workplace is like.
- Design & Construction of Stormwater Retention Pond at Integrated Bidadari Park by PUB, Singapore's National Water Agency - Alkaff Lake is a first-of-its-kind multi-functional drainage infrastructure for stormwater management, enhancing flood protection for Bidadari estate and the surrounding areas.

Innovative solutions for sustainability

- Realising sustainable aviation fuel production from CO₂ by Institute of Sustainability for Chemicals, Energy and Environment (ISCE2) and A*STAR - CO₂-based Sustainable Aviation Fuel (SAF) would play a crucial role in achieving 65% of the reduction in aviation emission targets by 2050 as biofuels has feedstock limitations. The technology has great potential in enabling the decarbonisation of the aviation industry
- Singapore Building Carbon Calculator by JTC Corporation, in collaboration with the Building and Construction Authority (BCA), the Singapore Green Building Council (SGBC) and the National University of Singapore – Energy Studies Institute (NUS-ESI) - The Singapore Building Carbon Calculator (SBCC), with the BECC and MECC modules, has provided our local industry with a unified, free-to-use tool to account for the upfront carbon of their projects to aid in making informed decisions regarding the selection and use of sustainable materials and products during the design stage.

Student Scholarship Awards

To nurture the next generation of engineers, IES also awarded Arshof Ahamed S/O Ansar Ahamed, an Electrical and Electronic Engineering student from Nanyang Technological University with the IES-Yayasan Mendaki Scholarship. It is in recognition of his exceptional academic performance and to spur him to pursue an engineering career.

Nickaila Hau

Nickaila Hau brings a wealth of expertise and an inspiring journey to the Chitose Agriculture Initiative. She holds a Bachelor of Business in Accountancy from RMIT and boasts over seven years of experience managing full sets of accounts and overseeing management reporting. Her financial acumen played a crucial role in supporting Chitose's foundational operations when she joined the team in May 2015.

Driven by a passion for advancing Chitose's mission, she strategically transitioned from her accounting roots to spearheading Sales and Marketing. This shift allowed her to channel her dedication to sustainability into creating impactful outreach and market strategies, helping Chitose connect more effectively with partners and consumers. In 2022, Nickaila led a significant collaboration with local farms in Singapore, focusing on enhancing their economic sustainability. This initiative became a hallmark of Chitose's efforts to drive agricultural sustainability and support the resilience of local food systems. Nickaila's journey from accountant to sales and marketing leader exemplifies her adaptability and unwavering commitment to Chitose's mission of balancing economic growth with environmental responsibility.



Can you briefly explain the ideology of "thousand years" behind the Chitose Agriculture Initiative?

The ideology behind the name "Chitose" reflects our long-term vision of sustainability and care for the land. "Chitose" means "a thousand years" in Japanese, and this aligns with our goal to create sustainable agricultural systems that will last for generations.

At Chitose Agriculture, we are committed to building a reliable food supply that benefits both local economies and the environment, ensuring that future generations can continue to enjoy high-quality, nutrient-rich, and delicious produce for the future generations, centuries to come. Our focus is on balancing high-quality food production with ecological responsibility, leaving a positive impact for the long term.

What are the unique and sustainable features of the farming techniques you use?

Our farming techniques are based on sustainable practices that work in harmony with nature. One of our key methods is microbial cultivation, where we use beneficial microbes to

enrich the soil, fostering a healthy ecosystem that naturally supports plant growth.

This allows our crops to thrive without the need for heavy chemicals, resulting in better-tasting, healthier produce. Additionally, we carefully manage environmental factors like temperature, humidity, and light to optimise the growth conditions for each crop. By focusing on eco-friendly practices, such as reducing chemical inputs and promoting soil health, we ensure that our produce is both sustainable and of the highest quality.

Can you briefly share about your role in the Chitose team and in the collaboration with local farms in Singapore? Also, give us an insight into the challenges you faced when marketing the produce in the Singapore market.

In my role at Chitose, I am involved in overseeing collaborations with local farms, helping to share our sustainable farming techniques and ensuring that the produce grown here meets our high standards. Our collaboration with local farmers is built on mutual learning; we bring our expertise in

advanced agriculture, while the farmers provide valuable insights into the local environment and growing conditions.

One of the main challenges we face in marketing our produce in Singapore is educating consumers about the value of sustainably grown, premium produce. Many consumers are price-sensitive, so it is important to communicate why our methods lead to higher-quality, more nutritious food, and that the benefits outweigh the costs. Another challenge is maintaining the farm-to-table freshness while minimising waste. We have addressed this by creating a streamlined supply chain that delivers produce quickly and efficiently.

How do you see Chitose contributing to the SG 2030 Green Plan and the larger vision of food security?

Chitose is deeply aligned with Singapore's SG 2030 Green Plan, especially in its focus on sustainable food production and reducing reliance on imports. By working with local farms, and helping them implement advanced farming techniques that are both environmentally friendly and highly efficient, we contribute to the nation's goal of increasing local food production.

Our work with local farms also helps build resilience in the food supply chain, making it more self-sufficient. Additionally, our focus on sustainability supports the broader vision of food security by ensuring that our farming methods can continue to provide nutritious, high-quality produce without depleting natural resources.

Sustainable agriculture goes beyond production sustainability, but it involves economic sustainability as well. We work with local farms to ensure that their produce is of high quality and value, as well as we help them to market their produce allowing for all round agriculture sustainability.

Your company is a leader in creating a circular bio-economy. Can you elaborate on the role Chitose plays in advancing it?

Chitose plays a significant role in advancing the circular bio-economy by focusing on creating agricultural systems that recycle resources and minimise waste. We use microbial cultivation and other natural processes to enhance soil health, ensuring that nutrients are returned to the earth rather than depleted. Our cultivation methods in Cameron Highlands involve the local community, where animal bio wastes around the area are collected, after which we create our own blend of compost for our farms.

Additionally, we're working on ways to turn agricultural by-products into valuable resources, closing the loop in our production process. By fostering a system where resources are continuously reused, we're reducing our environmental footprint while increasing the sustainability of our farming practices.

With your expertise and experience, what is your advice to entrepreneurs who are embarking into the sustainable agri-business domain?

My advice to entrepreneurs entering the sustainable agri-business field is to start with a clear commitment to both environmental sustainability and product quality. It is important to focus on long-term goals, understanding that sustainable farming is not just about immediate profitability but creating systems that can endure for generations.

Invest in research and development, be open to adopting innovative techniques, and collaborate with local farmers and experts. Lastly, educating consumers about the value of sustainably produced food is key—building awareness around the benefits of high-quality, eco-friendly produce will help you stand out in the market.

Kloth Circularity Joins Closed-Loop Partners Network to Revolutionise Circular Economy Practices in Singapore

Kloth Circularity is proud to be one of the pioneer partners of the Closed-Loop Partners Network (Network) launched by Sembcorp Industries (Sembcorp) through its wholly-owned subsidiary SembWaste on June 19 at the CleanEnviro Summit Singapore 2024. As a textile sustainability solutions provider and an all-women-led social enterprise from Southeast Asia, Kloth Circularity joins this innovative strategic partnership focused on advancing the circular economy in line with Singapore's Green Plan 2030.

The Network unites industry leaders in recycling to bridge the supply and demand gap for recycled feedstock and provide innovative waste-to-resource solutions for textiles, plastics, electronics, metals, food, biomass, tyres, and construction waste. Through this Network, Kloth Circularity will play a key role in advancing Singapore's zero-waste practices for textiles. "Our Kloth 5R principles—Rethink, Reduce, Reuse, Repurpose, Recycle—align perfectly with the Network's objectives," said Nik Suzila Hassan (Suzy), the co-founder of Kloth Circularity. "This partnership will help bridge gaps in recycling solutions and foster valuable connections with like-minded stakeholders."



Ms Grace Fu, Minister for Sustainability and the Environment of Singapore, Dr Koh Poh Koon, Senior Minister of State of the Ministry of Sustainability and the Environment, Mr Baey Yam Keng, Senior Parliamentary Secretary, Ministry of Sustainability and the Environment, together with the 10 partners who received the Closed-Loop Partners Network certificates from Mr Lee Kok Kin, CEO, SembWaste at CleanEnviro Summit Singapore 2024

Kloth Circularity offers a holistic textile solution encompassing supply, production, upcycling, and recycling. Their principled approach considers the environmental, economic, and social impacts of a circular textile industry, enabling a diverse portfolio of cause-driven brands such as Kloth Cares, Kloth Woman Up, Kloth Textile, and Kloth Wear. By providing recycling bins and pick-up services throughout Singapore, Kloth Circularity diverts unwanted textiles from incinerators and landfills. Some of these collected fabrics are upcycled into new merchandise and gifts, crafted by trained seamstresses from

marginalised and vulnerable backgrounds in Malaysia and Singapore. This initiative reduces waste while promoting social impact.

With the support of the Closed-Loop Partners Network, Kloth Circularity aims to expand its fabric recycling efforts across Singapore, enabling greater collaboration with key stakeholders to foster sustainable practices and innovation in textile waste management. “We are thrilled to engage the local communities and its key stakeholders to rethink fabric procurement and disposal practices through the Network,” Suzy added. “This will drive impactful progress in textile waste management and reinforce Kloth Circularity’s leadership in reducing textile waste.”

Kloth Circularity offers a unique approach to sustainability and has been steadfast with its philosophy, ‘Rising with #SHEconomy’. It is dedicated to women’s empowerment, integrating gender equality with environmental stewardship through one of its flagship brands, Kloth Woman Up.

“Kloth Circularity’s participation in the Network highlights our commitment to making sustainability accessible for all and driving industry change. We are empowering women from marginalised and economically struggling communities to be part of the circular economy and supply chain. The Kloth Woman Up ladies are trained in the art of creative sewing and repurpose unwanted fabrics into attractive and functional merchandise and gifts such as upcycled tote bags and pouches, which are available for sale,” Suzy noted.

Through this partnership with SembWaste and the Closed-Loop Partners Network, Kloth Circularity is poised to further its mission of reducing textile waste and fostering environmental and social impact. Together, they will enhance Singapore’s recycling infrastructure, promote circularity, and empower communities to embrace sustainable practices.



Kloth Circularity Co-founders Nik Suzila Hassan and Sarahah Kedah, along with the Head of Branding, Marketing, and Communication, Adelyn Ghwe, pose with the Closed-Loop Partners Network certificate.

About Kloth Circularity

Founded and formed on December 11th, 2013 in Malaysia, Kloth Circularity is a social enterprise that aspires to become the catalyst of the textiles, clothing, and plastics circular economy in Asia Pacific and the Middle East. To combat climate change and its impact, we are aligned with Kloth's 5R philosophy of the circular economy, 'Rethink, Reduce, Reuse, Repurpose, Recycle'. Our core principles and business operations are aligned with the environmental, social and governance (ESG) framework. Kloth Singapore Pte. Ltd. was founded on August 8th, 2022.

About Kloth Cares

Kloth Cares, a brand under Kloth Circularity, is committed to being the preferred and trusted brand for providing effective, ethical and impactful waste management solutions in enhancing recycling rates, managing, and innovating textiles, clothing, and plastic waste with a renewed life, such as new products and resources with higher material value and purpose. Our approach is to establish value chains and develop movements with various stakeholders to divert waste from incinerators, landfills, and oceans.

About Kloth Woman Up

Kloth Woman Up, a brand under Kloth Circularity, advocates 'Rising with #SHEconomy' to improve the livelihoods of women from marginalised, struggling, and vulnerable communities by creating job opportunities. Leaving no one behind, we uphold our core values of bringing women from informal sectors into the economy to earn fair wages. Our movement has benefited Malaysians and Singaporeans through training and hiring women to sew upcycled merchandise and gifts. The wonderful creations by these women are sold directly to customers (B2C) or corporations and institutions (B2B).

UN Global Compact Network Singapore announces revamped Carbon Emissions Reduction Tool

UN Global Compact Network Singapore (UN GCNS) held the UN GCNS Summit on 3rd and 4th October, culminating with the Apex Awards Gala Dinner on 4th October 2024. The two-day event was graced by guests of honour Mr Chee Hong Tat, Minister for Transport and Second Minister for Finance, and Dr Koh Poh Koon, Senior Minister of State, Ministry of Sustainability and the Environment & Ministry of Manpower. Senior leaders from public and private sector organisations participated in several plenary and fireside chats at this year's event, covering key topics such as development finance and workplace diversity.

Themed “Forward Faster: Accelerating Corporate Action for Sustainable Development,” the 16th UN GCNS Summit provided a vital platform for meaningful dialogue, collaboration, and action aimed at advancing the United Nations Sustainable Development Goals (SDGs) in the region, emphasising that purpose and profit can work in harmony. “We are pleased to share that, in Asia alone, over 300 companies across numerous sectors have already pledged their support for the “Forward Faster” initiative,” said Dr. Bicky Bhangu, President, UN GCNS.

The Forward Faster initiative offers a strategic framework that drives progress while creating meaningful change, ensuring long-term resilience and competitiveness for businesses across Southeast Asia.

Revamped Carbon Emissions Reduction Tool (CERT)

UN GCNS has also launched a revamped version of its CERT programme. This second iteration of the programme will be one of the first tools to use the new Singapore Emissions Factors, which are being launched almost simultaneously. The upgraded platform, which is aligned with GHG Protocol, ISO14064-1 will allow for faster submissions, expanded accessibility, and an enhanced user experience. Altogether, this upgraded version of CERT is set to accelerate carbon emission reductions by Singaporean companies.

Forward Faster report

UN GCNS unveiled its landmark report, “Forward Faster: Guiding Companies Towards Decisive Action for 2030”, developed in collaboration with Boston Consulting Group. Aligned with the various SDGs, the report includes both qualitative and quantitative insights from 50 senior leaders sourced at a roundtable in July this year which touched on five critical issues: climate action; gender equality; living wages; water security; and financing the green transition.

Singapore Apex Corporate Sustainability Awards 2024

The two-day event concluded with the Apex Awards and a gala dinner, celebrating leaders in sustainability and highlighting some of the most innovative sustainable solutions in the country. The Awards, now in their 9th year running, saw a record-breaking 130 nominations across three categories: Sustainable Business; Sustainable Solutions; and the LowCarbonSG Award. The Sustainable Business category honours companies which excel in integrating sustainability into their operations, while the Sustainable Solutions category recognises those developing innovative products or services to meet sustainability needs. The LowCarbonSG Award, now in its second 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.



9th Singapore Apex Corporate Sustainability Awards Winners and UN GCNS Summit Knowledge Partners with Guest of Honour, Dr Koh Poh Koon Senior Minister of State, Ministry of Sustainability and the Environment & Ministry of Manpower; and Dr Bicky Bhangu, President, UN Global Compact Network Singapore

Apex Award Winners

Category	SME/Non-SME	Company Name
Sustainable Solutions	SME	Aseuene APAC Pte Ltd
	SME	Kosmode Health Singapore Pte Ltd
	SME	Umami Bioworks
	Non-SME	Univers Pte. Ltd
Sustainable Business	SME	Call Lade Enterprises Pte Ltd
	SME	The Blue Circle
	SME	Executive Ship Management Pte Ltd, Singapore
	Non-SME	AirTrunk Singapore Pte Ltd
	Non-SME	Keppel Ltd
	Non-SME	ComfortDelGro Corporation
Low CarbonSG		Dyna-Mac Holdings Limited
		Matex International Limited
		BH Global Corporation Limited

This year’s UN GCNS Summit and Apex Awards saw a total of around 600 participants over two days and was held at One Farrer Hotel.

About UN Global Compact Network Singapore (UN GCNS)

UN Global Compact Network Singapore (UN GCNS) is the local chapter of the United Nations Global Compact. As the leading voice on corporate sustainability, UN GCNS 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, UN GCNS advances the stewardship of sustainable business practices and Singapore's national agenda of becoming a regional sustainable business hub. For more information about UN GCNS, please visit: <https://unglobalcompact.sg/>

About the UN Global Compact Network Singapore Summit 2024

With climate change and nature loss, the momentum for mandatory Environment, Social and Governance (ESG) reporting is growing in intensity. The roles and responsibilities of businesses are changing, making a just transition to a more sustainable business model a necessity to achieve Net Zero by 2050. Themed "Forward Faster: Accelerating Corporate Action for Sustainable Development", the event will host Mr Chee Hong Tat, Minister for Transport and Second Minister for Finance as the Guest of Honour, alongside distinguished industry leaders and sustainability experts. For more information about the GCNS Summit 2024, please visit: <https://summit.unglobalcompact.sg/>

About Singapore Apex Corporate Sustainability Awards 2024

Organised by UN GCNS, the Singapore Apex Corporate Sustainability Awards is the most prestigious form of recognition for companies in Singapore on corporate sustainability. The Awards recognise companies whose business operations or solutions have demonstrated excellence in embodying the Ten Principles of the United Nations Global Compact, in the areas of environment, human rights, labour and anti-corruption. The Awards also recognise companies attaining the triple bottom line. To learn more about the Singapore Apex Corporate Sustainability Awards, please visit: <https://apexawards.unglobalcompact.sg/>

About the CDL-GCNS Young SDG Leader's Award

Jointly organised by City Developments Limited (CDL) and UN Global Compact Network Singapore (UN GCNS), this annual case competition offers young people a platform to champion sustainable development and SDG integration into business for positive change. Previously known as the CDL-GCNS Young CSR Leaders Award, the competition has nurtured over 2,400 young leaders since inception in 2011. By aligning with the global goals for sustainable development, the Award seeks to educate and empower young leaders with SDG knowledge and skills, while inspiring companies in Singapore to take concrete actions for the SDGs. To find out more about the CDL and GCNS Young SDG Leader's Award, please visit: <https://youngsdgleaders.com/>

Singapore ranked first two years in a row as ASEAN leader in energy transition efforts, urged to establish robust carbon trading system, survey reveals

Singapore was ranked first by professionals in the energy sector for the second year in a row as leading in energy transition efforts in the ASEAN region. Conducted by the Sustainable Energy Association of Singapore (SEAS) with 250 individuals from the ASEAN energy sector, the annual 'State of the Energy Transition in ASEAN' survey saw close to 95% of respondents voting for the city state, with Malaysia ranking second and Thailand and Vietnam tied in the third spot.

However, less than 20% of respondents rate Singapore's efforts in the transition as 'very satisfactory' in terms of advancing towards its renewable energy targets. While a significant portion of respondents (45%) view Singapore's progress as satisfactory, 32% believe more improvements are needed, indicating that while progress is recognised, there is still substantial room for improvement to meet the nation's goals.

In terms of enablers to the energy transition, government policies (89%) and economic incentives (59%) are seen as the main drivers, underlining recognition for Singapore's efforts and the continuing critical role of policy and financial support. A new trend in growing demand for clean energy from large tech corporations (45%) is also a notable finding this year, alluding to the increased focus on AI and data centre investments.

When it comes to challenges, respondents cite limited avenues to offset carbon (40%) indicating that a push towards greater options for verifiable carbon trading could be the answer to accelerating national decarbonisation.

Singapore as a Regional Carbon Trading Hub

The survey also explored how companies have responded to Singapore's 2024 carbon tax hike. Interestingly, about a third of respondents (36%) reported minimal impact to their companies, with only a small fraction (3%) purchasing more carbon credits. However, close to a quarter of respondents indicated that the tax hike has prompted them to reconsider their long-term sustainability strategies, reflecting a growing awareness of the need for proactive carbon management.

Responding to Singapore's ambitious goals to become a carbon trading hub, the majority of respondents (67%) believe that a carbon trading system would be effective in reducing emissions, reinforcing Singapore's strategic push towards playing a central role in the regional carbon market.

The ability to offer greater avenues for carbon offsetting (61%) and the potential economic benefits (58%) of carbon trading were highlighted as primary advantages, suggesting a strong belief in the practical and financial value of carbon trading mechanisms.

There is a clear call for the establishment of comprehensive and reliable carbon accounting systems (69%) and the development of transparent regulatory frameworks (67%). This is seen as essential for fostering trust and ensuring the credibility of carbon credits within the market.

While domestic infrastructure and regulatory frameworks are a priority, forming regional and international partnerships (58%) is also considered crucial for enhancing Singapore's role in the global carbon market.

Challenges to Singapore's Carbon Trading Ambitions

Despite these opportunities, the survey also sheds light on several significant challenges that Singapore must address to fully realise its carbon trading ambitions in the region.

A major obstacle identified is the lack of uniform regulations across ASEAN countries (86%), which complicates the implementation of a regional carbon trading system. Additionally, inconsistent

enforcement and compliance mechanisms (61%) further hinder progress, emphasising the need for harmonised policies.

Uncertainty about the credibility of carbon credits (50%) and a lack of awareness and understanding of carbon trading processes (40%) are cited as significant barriers to broader participation. This highlights the importance of enhancing market transparency and providing clear regulations on carbon compliance and trading to build confidence among potential participants.

While Singapore's carbon pricing and trading mechanisms are generally viewed as moderately effective (41%), only a small percentage (5%) of respondents consider them very effective. This suggests that while the framework is in place, there is a pressing need for refinement and continuous improvement to maximise its impact.

To advance its position as a carbon trading hub, survey participants suggest that Singapore needs to focus on robust infrastructure for carbon trading transactions (58%) and enhancing market liquidity and accessibility in the carbon markets would increase participation (54%).

Establishing competitive and attractive carbon pricing mechanisms (63%) is also vital for sustaining interest and participation in the carbon market, while addressing credibility issues surrounding carbon credits and increasing awareness through targeted education and transparent processes will be crucial for long-term success.

Edwin Khew, Chairman, SEAS, commented: "As Singapore continues to lead the region in its energy transition journey, the insights from our survey underscore the critical importance of robust carbon pricing and trading systems as a means to accelerate the Net Zero transition in Singapore. What's more, the findings highlight the strategic role that Singapore can play as a carbon trading hub, not just in the region but globally, establishing benchmarks in carbon pricing, incentives and mechanisms. This will serve to encourage harmonised regulatory policies in the region, addressing the challenges and seizing opportunities that all ASEAN countries can benefit from. The inaugural Asia Carbon Summit at ACES 2024 is our contribution to the important carbon conversation, which we hope will spark innovation and action amongst both the public and private sectors."

'The State of the Energy Transition in ASEAN' was conducted online in August 2024 and gathered insights from 250 industry professionals from the energy sector based in Southeast Asia.

The Asia Clean Energy Summit (ACES), the flagship conference of the Sustainable Energy Association of Singapore, will return on October 22-24, 2024 at the Sands Expo and Convention Centre, Singapore, during the Singapore International Energy Week (SIEW), with an expanded focus on carbon markets through the inaugural Asia Carbon Summit. The summit will feature keynote speeches, panel discussions, and workshops with experts from around the globe. Topics will include the latest developments in carbon pricing, the integration of carbon markets in corporate strategies, discussions on decarbonising hard to abate sectors and innovative technologies for carbon capture utilisation and storage.

SBF partners UOB, Rajah & Tann and RSM to help Singapore companies expand into ASEAN through business missions

The Singapore Business Federation (SBF) has successfully hosted the eighth edition of the ASEAN Conference on 29th August 2024, a prestigious annual event that convenes leading decision-makers from the private and public sectors across the region. This year's conference, which took place at Singapore's Sands Expo and Convention Centre, provided a vital platform for exploring and shaping the future of international business partnerships in ASEAN.

Themed "Reimagining ASEAN for a Sustainable Tomorrow," the conference delved into emerging trends in the circular economy and explored how businesses can leverage new resources to drive their next growth phase. The event commenced with a Ministerial Dialogue featuring Deputy Prime Minister and Minister for Trade and Industry Mr Gan Kim Yong, who underscored the importance of collaboration and economic resilience in positioning the region as a hub for innovation and sustainable development in the years to come.

The conference also featured a fireside chat with Chief Minister of Johor, YAB Dato' Onn Hafiz bin Ghazi. He discussed how the Johor-Singapore Special Economic Zone will contribute to ASEAN's vision of a shared economy, highlighting its potential impact on regional integration and cross-border collaboration.

Two insightful panel discussions were also held at the event. The first panel reviewed the progress and achievements of the AEC as it approaches 2025, examining its impact on regional businesses. The second panel explored emerging trends in the circular economy and discussed how businesses can utilise new resources and financial tools to reassess and enhance their strategies within the region.

In a significant development, a Memorandum of Understanding (MOU) was signed during the conference between SBF, UOB, Rajah & Tann and RSM Singapore. The MOU aims to support Singapore companies in expanding within the ASEAN region, through collaboration on internationalisation activities and knowledge sharing. The signing ceremony was witnessed by DPM Gan Kim Yong and covers the following areas of collaboration:

- **Strategic Platform:** Utilise the ASEAN Conference platform to support the internationalisation of Singapore-based businesses.
- **Business Mission:** Partner in facilitating market exploration for Singapore companies through mission trips in ASEAN.
- **Knowledge Sharing:** Offer insights and in-market knowledge to aid business expansion within the ASEAN region.

Two additional MOUs were also signed by UOB with Lingang Group, a state-owned enterprise specialising in industrial park development and with Invest Johor, a one-stop-centre that represents the state of Johor in dealing with investment matters.

Mr Lim Ming Yan, Chairman of the Singapore Business Federation, remarked, "ASEAN holds significant economic potential, with a GDP of US\$3.6 trillion and a population of over 650 million. As we approach the milestone of the ASEAN Economic Community 2025 (AEC 2025), this conference underscores SBF's and our partners' pivotal role in steering crucial discussions on ASEAN's economic future, providing a

vital platform for strategic dialogue and collaboration among top decision-makers in Singapore and the region.”

Mr Wee Ee Cheong, Deputy Chairman and Chief Executive Officer of UOB, remarked, “Amid complex global challenges, the ASEAN economies continue to be resilient and outpace global growth. UOB is committed to Southeast Asia for the long term and our multiple partnerships with government investment agencies will enable us to continue our role as an effective gateway for companies expanding across borders.”

Mr Chia Kim Huat, Regional Head, Corporate & Transactional Practice Group of Rajah & Tann, said, “We are honoured to be part of the ASEAN Conference right from its inception. This year’s focus is on driving deeper collaboration and strengthening partnerships across ASEAN, amidst geo-political tensions and rising protectionism. Together with our conference partners, we are committed to advancing regional integration and fostering sustainable growth.”

Mr Terence Ang, Partner & Head of Advisory of RSM, said, “At RSM, we firmly believe that collaboration is key to success. The ASEAN Conference provides us with a valuable opportunity to strengthen our relationships and partnerships, reaffirming our commitment to supporting Singaporean companies in making a global impact. This MOU is a testament to our dedication to this mission.”

The conference also included regional tracks focusing on Indonesia, Malaysia, and Thailand, which discussed the digital and sustainability landscapes in Indonesia, business and investment opportunities in Malaysia, and green investments in Thailand. Notable attendees included Indonesia and Thailand Ambassadors and Malaysia High Commissioner to Singapore, Indonesia Deputy Minister for Investment Mr Nurul Ichwan and Secretary General of Thailand Board of Investment Mr Narit Therdsteerasukdi.

The event attracted more than 500 government leaders and C-suite executives from across the region, affirming its status as a premier forum for advancing regional economic dialogue and partnerships.

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About the ASEAN Conference

Launched in 2015, the ASEAN Conference is an annual signature event that brings together key decision makers from both the private and public sectors predominately in ASEAN to examine various business and investment-related topics with the vision to help the regional business communities tackle challenges, explore opportunities and concretise deals in ASEAN and beyond. Organised by Singapore Business Federation and jointly supported by United Overseas Bank, Rajah & Tann Asia and RSM Singapore as founding partners, the ASEAN Conference is a premium conference that features high-level speakers from Singapore and other ASEAN states to offer insights and contribute to the dynamic growth and development in ASEAN.

About Singapore Business Federation

As the apex business chamber, the Singapore Business Federation (SBF) champions the interests of the business community in Singapore in trade, investment and industrial relations. Nationally, SBF acts as the bridge between the government and businesses in Singapore to create a conducive business environment. Internationally, SBF represents the business community in bilateral, regional and multilateral fora for the purpose of trade expansion and business networking. For more information, please visit: www.sbf.org.sg

SCeNe Coalition welcomes RECOFTC as ninth member to enhance Nature-Based Solutions efforts across Southeast Asia



SCeNe Coalition

The Southeast Asia Climate and Nature-based Solutions Coalition (SCeNe Coalition) announced the addition of the Regional Community Forestry Training Center for Asia and the Pacific (RECOFTC) as its ninth member on 16th September 2024.

RECOFTC, known for its extensive work with local communities, community forestry and sustainable forest management across Asia brings valuable expertise to the SCeNe Coalition. Their addition enhances the Coalition's mission to accelerate and scale up support for and invest in high-quality, triple-benefit nature-based solutions (NbS) throughout Southeast Asia. Triple-benefit NbS are actions to protect, sustainably manage, and restore ecosystems, that are designed to simultaneously combat climate change, conserve biodiversity and benefit local communities and Indigenous peoples, whose lives are intertwined with these ecosystems.

Launched in June 2023, the SCeNe Coalition is a partnership of globally recognised environmental and conservation non-profits with an established presence in Southeast Asia. Its members include Conservation International (CI), The Nature Conservancy (TNC), IDH-the Sustainable Trade Initiative, Birdlife International, Wildlife Conservation Society (WCS), Mandai Nature, World Resources Institute (WRI) Indonesia, and WWF-Singapore, with strategic advice from Boston Consulting Group (BCG).

Martin Callow, Chair of the SCeNe Coalition and Regional Director, Southeast Asian Archipelago at Wildlife Conservation Society (WCS), comments: "RECOFTC's addition to the SCeNe Coalition strengthens our capacity to support the effective implementation of locally driven nature-based solutions. Their deep-rooted expertise in working with communities on the ground will be vital in scaling projects that protect ecosystems, boost biodiversity, and support sustainable livelihoods throughout Southeast Asia."

"We are collectively confronting multiple environmental crises, and NbS have the potential to address these simultaneously through integrated approaches. We can achieve long-term and effective in-situ conservation of biodiversity outside of protected areas through community forestry and agroforestry. The SCeNe Coalition and its web based NbS Tool, NbS Incubator to support project development and NbS Portfolio to guide best practices in project implementation will help us get there quicker with an ecosystem approach that considers people, nature, and climate. RECOFTC welcomes such a collaborative initiative in Southeast Asia and looks to contribute our expertise to help the Coalition achieve its objectives," said Dr. David Ganz, Executive Director of RECOFTC.

The SCeNe Coalition operates through three interconnected work streams that are pivotal to advancing its mission across Southeast Asia. The NbS Toolsupports frontline organizations (FOs) by helping them develop high-quality, triple-benefit nature-based solutions (NbS) projects, offering data analysis, project documentation, and showcasing these projects to investors. The NbS Incubator complements this by providing comprehensive support, including tailored mentorship, capacity-building workshops, and expert networks, enabling FOs to develop and scale impactful NbS projects. Finally, the NbS Portfolio establishes criteria for high-quality projects, curating case studies and showcasing initiatives that set benchmarks for success. This aligns market demand and climate finance with projects that significantly contribute to biodiversity conservation, climate resilience, and community well-being.

Singapore's Triple Transition Towards a Low Carbon Future

Excerpts from the Keynote Address at International Built Environment Week by Ravi Menon, Ambassador (Climate Action) & Senior Adviser (National Climate Change Secretariat)

Sands Expo & Convention Centre, Singapore

6 September 2024

Climate change is already happening. We are seeing more extreme storms, floods, wildfires, and heat waves. 2024 could be the world's hottest year on record. Tropical cyclones are picking up more energy from warmer ocean waters and intensifying more quickly, leading to major floods. Droughts have become persistent across many parts of the world.

To avert climate catastrophe, the world has been stepping up decarbonisation. As of June 2023, 149 countries have committed to achieve net-zero emissions. In the advanced economies, emissions have fallen to their level of 50 years ago. The share of renewables in global power generation has been growing over the years and surpassed 30% in 2023. But it is also likely that decarbonisation will not occur at a fast enough pace to stop climate change.

We are thus looking at two scenarios co-existing: a low-carbon world and a climate-impaired world. These are the two futures that Singapore needs to prepare for.

Preparing for a low-carbon world is both an international obligation and an economic necessity. Two years ago, Singapore committed to peak emissions before 2030 and achieve net-zero by 2050. We account for only 0.1% of global emissions but every country must do its part.

Preparing for a climate-impaired world is an existential issue for Singapore. We must ensure that we remain a resilient, vibrant and liveable city in a climate-impaired world.

In short, we need to fight on three fronts: drive our own transition to net-zero; strengthen our resilience to climate change; and facilitate Asia's transition to a low-carbon future.

Singapore's Triple Transition Strategy:

Singapore's low-carbon goal integrates three transitions: carbon, energy, and economic. Each addresses distinct challenges to help Singapore reach net-zero emissions by 2050 while adapting to climate impacts.

Carbon Transition: Reducing emissions from industries, transport, and buildings.

Industries: Carbon capture, low-carbon hydrogen, and renewable energy sourcing are prioritized for emission-heavy sectors like manufacturing.

Transport: Policies aim to phase out diesel vehicles and increase electric vehicle charging points.

Built Environment: The Green Building Masterplan targets 80% green buildings by 2030, requiring energy efficiency and carbon reduction standards.

Energy Transition: Developing a resilient net-zero power grid.

Solar: Singapore maximizes limited solar potential with projects like the Tengeh Floating Solar Farm.

Imports and Hydrogen: Plans to import low-carbon electricity from neighboring countries and explore hydrogen fuel are underway to diversify energy sources.

Efficiency: Building energy efficiency standards target a 60% improvement over 2005 levels by 2030.

Economic Transition: Supporting green growth and decarbonizing industries.

Greening carbon-intensive sectors like semiconductors and chemicals is critical, while fostering green finance, carbon services, and sustainable supply chains.

Scope 3 emissions, particularly for the built environment, challenge Singapore as imported materials like cement and steel dominate emissions.

Key Enablers

Achieving these transitions depends on:

Carbon Pricing: Incremental carbon taxes drive decarbonization incentives.

Technology: Investment in green tech, such as smart building controls, reduces energy consumption.

Finance and Standards: Transition finance and international taxonomies (like Singapore-Asia Taxonomy) support sustainable project funding.

Data and Disclosure: Mandatory climate reporting for large firms by 2027 enhances transparency and accountability.

Climate Resilience and the Fourth Transition

Singapore's built environment sector is strengthening resilience to sea-level rise and heat stress by elevating infrastructure and enhancing energy efficiency. This resilience planning integrates with a broader "mindset transition" emphasizing long-term, collective action on climate issues, prioritizing low-carbon strategies as competitive advantages.

Singapore River One teams with GoRental and BlueSG for a clean energy festival



Singapore River Festival 2024 was officially launched on October 4th 2024, and the event was graced by the Minister of State for Home Affairs & National Development, Associate Professor Muhammad Faishal Ibrahim. Singapore River One, the place-maker behind the Singapore River Festival, collaborated with partners such as GoRental and BlueSG to reduce the event's environmental impact.

The light shows on Cavenagh and Alkaff Bridges, along with roving music performances on the river cruise and promenade at Boat Quay during the past weekend, are fully powered by clean energy from GoRental SG, reducing carbon emissions by 5.3 tonnes. During this period, Singapore River One has teamed up with BlueSG, with its 100% electric fleet, to provide a sustainable transportation option for event-goers. Patrons are encouraged to drive BlueSG cars to the festival using a special promo code for exclusive discounts.



Festival launch



Symphony of Lights



Rhythmic Symphony

International Built Environment Week (IBEW) 2024: Solving for Tomorrow, Today

The International Built Environment Week (IBEW) was opened on 4th September 2024 by Mr. Desmond Lee, Minister for National Development, and the Minister-in-Charge of Social Services Integration. The event highlights the continued progress of the built environment industry, presenting the latest advancements, technologies, and sustainable practices that are shaping the future of the region's built environment.

As the industry evolves, IBEW continues to stay ahead of the curve in showcasing its latest trends and advancements, while supporting young talents and fostering a culture of innovation. IBEW 2024 was also aligned with the refreshed Built Environment Industry Transformation Map (ITM) 2025, and featured more than 100 speakers addressing topics in sustainability, digitalisation, and innovation, empowering participants to drive transformation and shape the industry's future today.



The opening ceremony of the International Built Environment Week. Image credit - IBEW

Solve Tomorrow's Built Environment Today at IBEW

The 3-day IBEW Conference brought together a global community of thought leaders and industry pioneers to address the critical challenges and opportunities shaping our built environment. The theme, “*Solving for Tomorrow, Today*,” emphasised the urgency for the industry to adopt an action-oriented mindset. Through keynote presentations, panel discussions, site tours to exemplary projects, and masterclasses, delegates explored innovative strategies for a sustainable and resilient future.

Kicking off the conference, Jan-Hendrik Goldbeck, CEO & Managing Director of GOLDBECK GmbH, delivered the opening keynote address. He delved into the pressing issues facing our world and illuminate the role of the built environment industry in creating a better tomorrow.

“IBEW is a catalyst for change in the built environment, where industry leaders converge to share ideas and drive tangible action. By uniting forces and embracing innovation, we’re transforming our cities into vibrant and sustainable hubs. Together, we’re not just discussing the future; we’re building it,” said Amy Marks, Executive Vice President, Global Strategy of Symetri.

ConTech Summit

ConTech Summit took the spotlight at IBEW 2024, underscoring its immense potential to revolutionise the built environment sector. This exclusive event, focused on startups, has created a dynamic platform for investors, innovators, and industry leaders to connect and explore emerging

technologies. By bringing together startups, investors, and established players, the ConTech Summit accelerated deal flow and provided commercial opportunities for these promising companies.

Attendees had the opportunity to explore cutting-edge technologies, forge valuable partnerships, and gain insights from regional experts. The summit featured a startup showcase leading into evening pitches, alongside keynote presentations and a panel discussion on "The Future of ConTech in the Region."

In addition, to the ConTech Summit, ConTech Exchange Pavilion (CTx) at Build Environment Xpo Asia (BEX Asia) spotlighted six other emerging local and overseas Built Environment startups centred around the themes of automation and robotics, site management platform, building inspection, maintenance and facility management, digital asset delivery and management. These startups contribute to the key transformation areas outlined in the Built Industry Transformation Map (BE ITM).

BEX Asia 2024

BEX Asia 2024 stood as the epicentre of groundbreaking solutions that address the key challenges and opportunities within the built environment. Major industry players showcased cutting-edge products and systems designed to set new benchmarks for sustainability and operational efficiency, ensuring a forward-looking, green, and resilient built environment. A significant milestone at BEX Asia 2024 was the signing of two Memorandums of Understanding (MoUs), signifying strategic efforts to advance education, foster innovation, and promote sustainable growth in the Built Environment sector. The event also emphasised the industry's dynamic startup ecosystem, showcasing emerging technologies poised to revolutionise the industry. Attendees explored the latest advancements in robotics, automation, smart construction solutions, green energy, and predictive analytics from over 40 companies at BEX's five startup pavilions.

BCA Awards

City Developments Ltd (CDL) and Obayashi Singapore Pte Ltd have each been accorded the prestigious BCA "Company of the Year" award for their outstanding performance and growth. Both companies have also made significant progress in their business and workforce transformation efforts. There were also five winners for the BCA "Project of the Year" award. The winners were selected based on their achievements in adopting innovative construction methods, driving digitalisation, improving productivity and advancing sustainability.

About International Built Environment Week (IBEW)

The International Built Environment Week (IBEW) is organised by BCA International, a wholly owned subsidiary of the Building and Construction Authority, in partnership with RX Singapore. Widely regarded as the most comprehensive conference and exhibition on the built environment in the Asia Pacific, the IBEW is the ideal platform for the global community to converge and share knowledge, exchange experiences and explore business opportunities. For more information, visit the official website at <https://www.ibew.sg/>.

Singapore Stories 2024 assembles its first multi-national showcase that weaves circularity into stunning runway-ready looks



- *The seventh edition of Singapore Stories brought together 12 local and international fashion designers to create and showcase 36 designs inspired by the theme 'Eternally Circular'.*
- *In conjunction with the fashion showcase, two winners of the inaugural IMPACT Award were announced, celebrating their contributions to fashion sustainability.*

*Local and international fashion designers with their works on the Singapore Stories 2024 runway
Image courtesy - Singapore Fashion Council*

On 5th October 2024, designers from eight different countries pushed the boundaries of innovation in a multinational showcase celebrating sustainable fashion for the seventh edition of *Singapore Stories*, a flagship initiative spearheaded by the Singapore Fashion Council (SFC).

Held at the Singapore Fashion Council Gala 2024, the event was attended by leaders and passionate advocates of the fashion industry, representatives from embassies and government agencies, and graced by Guest-of-Honour Ms Indranee Thurai Rajah, Minister, Prime Minister's Office, Second Minister for Finance, and Second Minister for National Development.

A united effort by the region to realise circularity through fashion design

For the first time in the long-running *Singapore Stories* initiative, SFC has engaged several countries across Asia and the Middle East to participate in the showcase, as a part of SFC's vision to turn Singapore into a vibrant hub for responsible fashion in the region.

With the support of the countries' respective fashion councils, a total of 12 local and international fashion designers from Hong Kong (China), Japan, Indonesia, Malaysia, Philippines, Saudi Arabia and Thailand were nominated to create a mini-capsule collections made up of three looks inspired by the theme '**Eternally Circular**' - a nod to the importance of embracing circularity and the perpetual cycles of regeneration, reuse, and resource optimisation in production.

The designers rose to the challenge to create a total of 36 groundbreaking looks, which debuted with a runway walk at the Gala. Each of the designers embraced circularity in different ways:

- **Incorporating Circular Design:** Some designers interpreted the theme as an emphasis on longevity through a focus on quality and end-of-life circularity. Their looks were designed strategically to promote resource efficiency and mitigate waste. This includes Thai designer Terfah who designed looks with detachable elements that allows them to be re-styled and worn in multiple ways; and

homegrown designer Esther Choy who breathed new life to clothing items left behind by loved ones, by knitting and weaving them into new fashion pieces that blends past and present.

- **Using responsible materials:** In creating their looks, designers took care to ensure that at least 50% of the materials used in the making of each collection uses sustainable materials such as certified, upcycled, recycled, or deadstock materials. For example, Dars Juson from Philippines used bedsheets, tablecloths, and found objects to create wedding gowns as a critique of the costly wedding industry; while Singapore's Anseina Eliza created three looks using approximately six kg of fabric scraps and 1,000 single-use grocery plastic bags that would have ended up in landfills.

- **Highlighting socially responsible production:** Designers also used their looks to champion the need for people working at all levels of the fashion supply chain to have equal opportunities as well as safe, healthy and respectful working environments. Singaporean designer Joanna Lim specifically worked with a garment factory in Indore, India to empower women by providing skills and fair wages, integrating their craftsmanship into the designs.

The runway walk concluded with an audience vote for the favourite looks of the night. Anseina Eliza was the winner of the audience choice, followed by Fomalhaut Zamel as the first runner-up, and Sabrina Goh who was second runner-up.

From 16 October to 15 November 2024, the public will be able to view, purchase and pre-order selective designs at a retail showcase in Design Orchard.

Commenting on the showcase, Zhang Ting-Ting, Chief Executive Officer of SFC said, "It is inspiring to see how each designer from their own unique backgrounds developed different approaches to innovate for sustainability. Their collective creativity towards tackling the important issue of fashion circularity shows that it is an achievable goal, and demonstrates the need for everyone to come together to exchange ideas and solutions. We hope this initiative opens doors for more collaborations to set the pace for Asia to be a champion for responsible fashion."

Celebrating impactful trailblazers in the sustainability fashion industry

At the Gala, SFC announced the two winners of the inaugural IMPACT (Inspiring Movement for Positive And Conscious Transformation) Award. The Award honours regional organisations, and projects in the fashion industry for their contributions to creating long-term sustainability progress and impactful efforts on the environment and society.



IMPACT Award Winners – Dorsu and ZALORA

Recognized as the winner of the organisations category is fashion label *Dorsu*, which is dedicated to ethical garment manufacturing through Cambodian craftsmanship. Dorsu operates its own production

facility that repurposes pre-consumer deadstock fabric to minimise waste and reduce emissions, and extends the lifecycle of materials through responsible production processes.

Winner of the projects category is e-commerce fashion platform *ZALORA*, which underlines their commitment to sustainability through green initiatives that are seamlessly integrated into their business model, ensuring that environmental stewardship continues to be a priority even as they grow. This includes initiatives across Southeast Asia that promote low carbon last-mile delivery methods, waste reduction, sustainable packaging, and renewable energy.

To support them further in their green journey, winners will receive a complimentary consultation with ESGpedia under the Environmental, social, and governance (ESG) Pilot Programme.

“As the theme ‘Eternally Circular’ highlights, the road to responsible fashion will always be an ongoing journey as we continue to make the conscious decision to create fashion that is sustainable, equitable, and inclusive. Along the way, we need to celebrate the wins and learn from others on how great work can be achieved. I believe this milestone is a first of many for our three IMPACT winners, and I’m optimistic about the future of fashion with these green champions in our midst.” said Zhang Ting-Ting, Chief Executive Officer of SFC.

About Singapore Fashion Council

Singapore Fashion Council (SFC) – formerly known as Textile and Fashion Federation (Singapore) is the official association for the textile and fashion industry in Singapore. Embracing a transformative vision, SFC aspires to become a Vibrant Asian Hub for Responsible Fashion.

With a focus on three key pillars: Sustainability, Innovation & Technology and Asian Craftsmanship, SFC works closely with diverse partners across the value chain to offer thought leadership, extensive networks, and resources – to drive impactful change throughout the ecosystem.

RICS/REDAS Net Zero Carbon Cities Conference 2024: A sustainable future for urban development

On Wednesday 23rd October 2024, the 7th annual 'Net Zero Carbon Cities' conference took place providing attendees with insights and ideas on creating sustainable cities across Southeast Asia. Held at the Marriott Tang Plaza hotel in Singapore, the event brought together industry leaders, city planners, investors, and policymakers to explore the challenges and opportunities of building net zero cities.

As Singapore leads with its Green Plan 2030, the conference examined how urban areas in the region can tackle rapid urbanisation and climate change. Discussions covered key topics such as future-proofing urban infrastructure, innovations in green buildings, and electrifying transport systems. The role of facility management in achieving net zero, as well as the impact of AI and digital technologies on urban sustainability, were also highlighted.

Another important theme was the need to prepare the future workforce, focusing on the skills and technology required to meet the demands of sustainable development. The significance of Environmental, Social, and Governance (ESG) criteria in real estate, financing and valuation was also discussed, along with how climate resilience strategies are essential to sustainable cities. Attendees explored new ideas in real estate leasing, adapting to the growing focus on sustainability.

President of the Royal Institution of Chartered Surveyors (RICS), Tina Paillet, emphasised the importance of collaboration, commenting: "Southeast Asia is at the crossroads of rapid urban growth and the increasing need to address climate change. This conference has shown us that achieving net zero cities is not just possible—it's an urgent reality. Through collaboration and innovation, we can turn these ideas into action and shape a more sustainable future for our cities."

The conference also showcased leading projects and policies from Singapore, with experts highlighting initiatives like the Carbon Building Framework and the city's advancements in sustainable transport and infrastructure. Attendees gained valuable insights into aligning their operations with net zero targets, while networking with experts and industry peers.

President of REDAS, Mr Tan Swee Yiow, commented: "Collaboration and knowledge-sharing are key to shaping Singapore's net-zero future. Events like today's conference allow us to come together, exchange insights, and explore innovative solutions for the built environment. We are heartened to see an almost 50% increase in conference signups this year, highlighting a growing focus on sustainability. REDAS will continue to connect stakeholders across the industry to build resilient, adaptable, and liveable cities that remain sustainable for future generations".

The guest of honour at the conference was Dr Amy Khor, Senior Minister of State, Ministry of Sustainability and the Environment and Ministry of Transport who addressed attendees with a speech. "The Government adopts a multi-pronged approach to urban development and prioritises the greening of our built environment. Using innovation and technology, we seek to build a liveable green city in every aspect of our daily lives, be it designing climate resilient buildings, greening our energy sources, or promoting sustainable commuting options," she stated.

The conference was a platform for sharing knowledge and offering participants a clearer understanding of how to achieve net zero goals and improve the sustainability of urban environments.

As Southeast Asia faces increasing urbanisation pressures and climate challenges, the conference reaffirmed the region's strong commitment to a sustainable future. The ideas shared during the event will help drive future development, making net zero cities not just a vision, but a reality.

About RICS

We are RICS. Everything we do is designed to effect positive change in the built and natural environments. Through our respected global standards, leading professional progression and our trusted data and insight, we promote and enforce the highest professional standards in the development and management of land, real estate, construction and infrastructure. Our work with others provides a foundation for confident markets, pioneers better places to live and work and is a force for positive social impact.

For more information on future conferences, visit: [Conferences \(rics.org\)](https://www.rics.org/conferences)

Infineum To Strengthen Focus On Sustainability Through New Business Unit, Energy Applications

Infineum, a global leader in the specialty chemicals industry, has announced earlier this year that they have taken a significant step in driving the industry towards a more sustainable future by restructuring its corporate structure into two strategic business units: Sustainable Transportation and Energy Applications.

The Energy Applications business unit will oversee activities for three strategic functions: ENEL (Enabling Electrification), I&I (Industry and Infrastructure), and NBD (New Business Development). This integration of resources will ultimately boost operational excellence, unlock new ways of working, and streamline decision-making.

The move into two strategic business units represents Infineum's strategic transformation into a sustainable future, with clear objectives to enable the organisation to expand the deployment of its current product offerings into more markets and hasten its decarbonisation and electrification strategies.

Bruce Royan, who has spent 25 years in various commercial planning roles at Infineum, has assumed the role of EVP of Energy Applications to lead the business unit.

"Infineum's decades of experience in developing high-performance fuels and lubricants additives for the transportation sector provides a robust foundation for creating innovative solutions for the energy applications market," said Bruce Royan. "The Energy Applications unit will have the benefit of finding synergies across the organisation's deep understanding of fluid chemistry, material science, and performance optimisation as it moves to address unique challenges posed by emerging energy technologies."

In Asia Pacific, Infineum recognises that it has an important role in solving the challenges of the sustainability transition underway in the region. In July 2023, it announced plans to collaborate with energy providers and site partners to expand solar farms, improve the renewable energy mix, and optimise its facilities in Asia and globally. It also announced its intention for a \$20 million annual investment in capital improvements to its manufacturing facilities.



(Left to right): Bruce Royan, EVP Energy Applications; John Hong, Asia Pacific Sales Director and Country Head of Singapore; Helen Clear, Head of Corporate Communication at Infineum

“From the emissions-reducing engine lubricant in India to our Infineum P5500 chemistry products in Singapore, Infineum is increasingly making an impact on every corner of the Asia Pacific region,” said John Hong, Asia Pacific Sales Director and Country Head, Infineum. “We are excited to be able to expand our offerings into energy applications, and we look forward to fast-tracking the development and deployment of new solutions in the region’s continued transition towards sustainability, as we continue to work closely with our existing partners and customers in developing innovative chemistries to support the introduction of exciting new vehicle technologies and fuels, helping our customers to achieve their ambitions.”

The three strategic functions and latest updates under Energy Applications are as follows:

- **ENEL:** Enabling Electrification’s focus on enabling electrification extends beyond traditional driveline technologies. By focusing on research and development for advanced fluids, ENEL is poised to capitalise on the growing global EV market. With a strategic pivot towards axle gear oil, ENEL is well-positioned to meet the evolving needs of this industry. This re-entry into the axle gear oil market aligns with Infineum’s broader strategy of expanding its product portfolio and diversifying into new market segments. ENEL offers high-quality, sustainable solutions that address the unique requirements of automotive applications.
- **I&I:** Industry and Infrastructure provides chemical solutions for improving the efficiency and sustainability of conventional fossil fuels in the applications that will be electrified or de-carbonised at a slower pace and is an enabler for the energy transition such as via the introduction of increasing levels of renewable fuels. Its product line-up features chemical solutions like combustion improvers that bring sustainability performance benefits in fossil fuel use and solutions like emulsion stabilisers and wax inhibitors that enhance operational efficiency and safety.
- **NBD:** The NBD function retains its remit of innovation-making and the development of sustainable growth opportunities. Themes around electrification and decarbonisation have always been part of Infineum’s sustainability roadmap and looking to participate or enable these transitions will be one of the main selection criteria for projects Infineum invests in and takes forward. Battery development is a key strategic focus for NBD.

The Energy Applications business unit is also expected to play a pivotal role in supporting Infineum’s strategic diversification into new markets and its ongoing ambition for carbon reduction. By leveraging synergies from the organisation’s technology and operational excellence, Infineum aims to accelerate its path towards net-zero scope 1 and 2 emissions from operated assets by 2050. This ambitious goal is further bolstered by the launch of energy applications, which will complement the existing focus on sustainable transportation solutions and contribute significantly to the emission intensity reduction ambition of 50% by 2030.

About Infineum

Infineum is a specialty chemicals company whose purpose is to create a sustainable future through innovative chemistry. A joint venture between Shell and Exxon Mobil, Infineum is one of the world leaders in the formulation, manufacturing and marketing of petroleum additives for lubricants and fuels with operations and production facilities worldwide.

Delivering through powerful research and development capabilities around innovative chemistry, Infineum maintains its relentless focus on technology excellence, reliability, operational excellence and collaboration to deliver customers performance they can rely on.

Four leading entrepreneurs named winners of the EY Entrepreneur Of The Year™ 2024 Singapore awards

- Lance Y. Gokongwei, President and CEO of JG Summit Holdings, Inc. conferred EYBank of Singapore Asean Entrepreneurial Excellence award
- Tecity Group honored with EY-Bank of Singapore Family Enterprise Award of Excellence

Professional services organization EY announced on 9th September the four recipients of its 23rd EY Entrepreneur Of The Year (EOY) 2024 Singapore awards:

• EY Entrepreneur Of The Year – Environmental Services

Mr. Edy Tan Wei Hock, PBM, Chief Executive Officer, Chye Thiam Maintenance

• EY Entrepreneur Of The Year – Food and Beverage

Mr. Samuel Yik, Managing Director, Dian Xiao Er Group

• EY Entrepreneur Of The Year – Technology Solutions

Mr. Anthony Chow, Chief Executive Officer and Co-Founder, igloocompany

• EY Entrepreneur Of The Year – Mobility

Mr. Zachary Wang, Co-founder and Chief Executive Officer, Neuron Mobility

One of the winners will be named the EY Entrepreneur Of The Year 2024 Singapore, and represent Singapore at the annual EY World Entrepreneur Of The Year™ (WEOY) award in 2025 to compete with contenders from over 60 countries and jurisdictions. Singapore's representative to the WEOY award will be announced at the EY EOY Awards Gala to be held on 18 November 2024. Minister for Culture, Community and Youth and Second Minister for Law, Mr. Edwin Tong, will be the Guest-of-honor at the awards gala.

The four winners had emerged from a pool of over 80 nominations and were selected by an independent judging panel, based on their merits in fulfilling the four globally benchmarked criteria, namely entrepreneurial spirit, growth, purpose and impact.

The chairperson of the judging panel is Ms. Susan Chong (钟淑娴), Founder and CEO of Greenphyto Pte. Ltd., who have served three times as a judge at the World Entrepreneur Of The Year award previously.

She comments on the winners this year: “The four winners this year epitomize the foresight, agility and courage of leading entrepreneurs. They reflect an interesting mix, coming from traditional industries as well as new sectors that emerged with the rise of the digital and sharing economy. Regardless, they have not stood still against the test of time, competition and market disruptions. Be it investing in technology and innovation to redefine established ways of operating to venturing into foreign markets beyond Singapore or carving a niche for themselves, these entrepreneurs have changed the face of their industries, created new consumer demands and uplifted quality of lives in communities.”

Mr. Liew Nam Soon (刘南顺), EY Asean Regional Managing Partner and Singapore and Brunei Managing Partner (安永亚细安兼新加坡与文莱执行合伙人), Ernst & Young Solutions LLP, explains how the winning entrepreneurs embody this year's theme of “The Art of Entrepreneurship”. He says: “Entrepreneurship is an artful balance of passion, innovation, courage and grit. Like artists, the winners have created a bold vision and pursued their goals unwaveringly, leaving a mark of difference on the communities they serve. Their pursuit of growth and innovation regardless of how long they have been in the business and seeking out opportunities in places that no others have been, serves as inspiration for many as we continue to foster a strong entrepreneurial spirit in Singapore.”

Two other honorary awards conferred for Asean entrepreneurial excellence and family enterprise excellence - Mr. Lance Y. Gokongwei, President and CEO of JG Summit Holdings, Inc., is named the winner of this year's EY-Bank of Singapore Asean Entrepreneurial Excellence award. The award is an honorary award that is presented on board the EOY platform (the award recipient does not compete for the EOY Singapore 2024 title) and recognizes successful Southeast Asian businesses that contribute to the economy and community in the region.

Mr. Liew says: "As a second-generation entrepreneur, Lance started with the company as a junior salesperson and worked his way up to eventually steer his father's company into a flourishing new phase of growth and success. JG Summit Holdings now has a dynamic portfolio in the Philippines and Southeast Asia, spanning sectors including food and retail, aviation, real estate, energy, financial services and telecommunications. His impact can be seen in his contributions to national progress by advancing quality education for the future workforce while transforming the lives of fellow countrymen."

In another honorary award, Tecity Group is named recipient of the EY-Bank of Singapore Family Enterprise Award of Excellence. Knowledge Partners, Business Families Institute @ Singapore Management University (BFI @ SMU) and the INSEAD Wendel International Centre for Family Enterprise had selected the winner. Mr. Liew says: "Now in its third generation, Tecity Group honors the legacy of its founding generation through its investment, public-listed and philanthropic arms. The Group inspires with their ability to successfully balance business and family interests, grow the business portfolio sustainably and show responsibility for others through philanthropic and social engagements. How the entrepreneurial and philanthropic spirit continues to thrive through generations is truly exemplary."

The EY EOY awards program was launched in Singapore in 2002 to honor entrepreneurs who have created and sustained successful business ventures, as well as to coincide with the government's focus on fostering entrepreneurship and grooming local entrepreneurs. Now in its 23rd year, the program has evolved into a leading business award in Singapore with an international presence and footprint.

About EY

EY exists to build a better working world, helping to create long-term value for clients, people and society and build trust in the capital markets. Enabled by data and technology, diverse EY teams in over 150 countries provide trust through assurance and help clients grow, transform and operate. Working across assurance, consulting, law, strategy, tax and transactions, EY teams ask better questions to find new answers for the complex issues facing our world today. EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity. For more information about our organization, please visit ey.com.

About EY Entrepreneur Of The Year™

EY Entrepreneur Of The Year™ is the world's most prestigious business awards program for entrepreneurs. The program makes a difference through the way it encourages entrepreneurial activity among those with potential and recognizes the contribution of people who inspire others with their vision, leadership and achievement. As the first and only truly global awards program of its kind, Entrepreneur Of The Year celebrates those who are building and leading successful, growing and dynamic businesses, recognizing them through regional, national and global awards programs in more than 145 cities in more than 60 countries. For more information, visit ey.com/eoy

Singapore Welcomes the Iconic Amerigo Vespucci for Its Historic First Visit This October

Singapore was the 25th host of the Amerigo Vespucci and Villaggio Italia for five days at the Marina Bay Cruise Centre. During its visit to the island, this Navy training ship featured an exciting array of activities and events, inviting guests on board to explore the finest offerings from Italy.

Beginning on October 24th, the emblem of the Italian Armed Forces hosted an opening ceremony with authorities from both Singapore and Italy present. Graced by the Deputy Minister of Enterprise and Made In Italy Valentino Valentini, the Italian Ambassador to Singapore H.E. Dante Brandi, the President of the Piedmont Region Alberto Cirio, the Chief of Staff of the Navy Admiral Enrico Credendino, the Captain Giuseppe Lai Commander of ship Amerigo Vespucci, the CEO of Difesa Servizi Luca Andreoli, the ceremony was a visual spectacle that marked the start of four days when the public experienced the historical excellence first-hand.

From 7.30pm on October 24th (Thursday) till 6.30pm on October 27th (Sunday) guests could board the Navy Amerigo Vespucci to learn more about what makes the custodian of the oldest naval and seafaring traditions "the most beautiful in the world".

For the Singaporean leg of this tour, the near-century-old sailing ship stood as an emblem of the Navy and ambassador of Made in Italy in the world was once again joined by the Villaggio Italia, the "World Itinerant Multi-Annual Exhibition" of Italian excellence. This offered visitors a unique experience to get to know the beauty of Italy through its art, culture, music, food, cinema, technology and scientific research. The Amerigo Vespucci's world tour is not only a unified expression of the values of the entire nation but also a showcase of Italian excellence and supply chains, a driving force for the economy and the spread of Italian culture.

The "Amerigo Vespucci World Tour - Villaggio Italia" initiative, supported by Italian Government Minister of Defense Guido Crosetto, combines the traditional training activities of the Navy's Officer Cadets on the School Ship with the promotion of Made in Italy excellence in the main ports reached through the Villaggio Italia. At the Marina Bay Cruise Centre, visitors experienced an exciting lineup of events dedicated to music, cinema, art, the beauty of Italy but also scientific research, sustainability, technology and entrepreneurship, tourism, and markets. The Villaggio Italia in Singapore served as a platform where guests could participate in the dialogue on strategic issues regarding the future: sustainability, research, markets, and entrepreneurship.



Images from the opening ceremony of Amerigo Vespucci

Villaggio Italia and Nave Amerigo Vespucci Program activities was open to the public from October 24th to 28th:

Music - In Singapore, the Villaggio Italia offered a rich musical program starting with the presence Fanfare of the Livorno Naval Academy, composed of 17 elements from various Italian conservatories and high schools of music, conducted by 1st Lieutenant Franco Impalà, who performed every day at the Villaggio Italia.

Exhibitions - Villaggio Italia hosted several exhibitions that are open to all visitors. "Italia Geniale," dedicated to the history of Italian design. Produced by the Ministry of Business and Made in Italy and the Ministry of Defense in collaboration with ADI Design Museum, the exhibition tells the story of Italian design that has conquered the world, through dozens of original objects that have been protagonists of six decades of history.

The immersive exhibition "Divine Immersive Excellence," produced in collaboration with the Ministry of Agriculture, Food Sovereignty and Forestry, offered a magical journey of colors, sounds and sensations dedicated to wine and Italy through an immersive screen that enveloped visitors.

Cinema - Every day the programming in the Villaggio Italia included screenings of a selection of internationally successful Italian films curated by the Venice Biennale's International Film Festival.

Art - The Villaggio Italia showcased the new bronze work "La David," created by Jago, one of the leading exponents of contemporary Italian art. There was an exhibition dedicated to "Navy Painters" paintings and a photo exhibition entitled "The Soul of the Vespucci," 13 shots capturing crew members of the world's most beautiful ship at work, taken by Chief of 2nd cl Naval Photographer Maurizio Lapera.

Events and conferences - The Villaggio Italia also hosted a series of conferences beginning on Friday, Oct. 25 at 9:30 a.m. with the seminar "Vespucci meets: science and physics" dedicated to the topic from cosmic radiation and the studies currently underway.

Food - Also available to visitors to the Villaggio Italia was the world's most beloved cuisine with the "Italy Restaurant" and a tasting area in which traditional Italian culinary products were be available. The Piedmont Region also brought to the Villaggio Italia in Singapore its excellence with the wines of the territory UNESCO and the prized White Truffle of Alba.



SUSTAINABLE ACTION CONFERENCE 2.0



SUNWAY RESORT HOTEL | 21st November 2024
7:30AM - 8:30AM (REGISTRATION)
8:30AM - 5:00PM (SAC 2.0 & MISA PITCHING SESSION)
5:00PM - 7:30PM (COCKTAIL)
7:30PM - 11:00PM (MISA AWARDS AND DINNER CEREMONY)



TRANSFORMING PLEDGES INTO ACTION: REALIZING A SUSTAINABLE FUTURE

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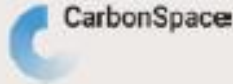
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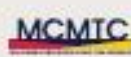
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dsm-firmenich Strengthens Innovation and Smart Production Capabilities with Two New Facilities

dsm-firmenich, the leading innovator in nutrition, health and beauty, unveiled two new innovation and smart production facilities located in Tuas on 18th September 2024. Supported by the Singapore Economic Development Board (EDB), the FutureBites - Food Design Studio and the Perfumery Automated Compounding Encapsulation (PEACE) Facility represent an investment of close to S\$30 million in Singapore to strengthen dsm-firmenich's research and development capabilities in food innovation, scale up manufacturing capacities, and to develop a stronger base of regional talent.

Opening of the facilities was officiated by Dimitri de Vreeze, CEO of dsm-firmenich, and H.E. Frank Grütter, Ambassador of Switzerland to Singapore and Brunei. Singapore Deputy Prime Minister and Chairman of the National Research Foundation, Heng Swee Keat, was in attendance.

Strategically located in Singapore and the first of its kind in Asia, the FutureBites - Food Design Studio will serve as both a regional R&D hub and a global center in plant-based foods, enabling dsm-firmenich to improve speed to market and develop customized solutions catered to the diverse cuisines and taste preferences across Asia. The facility will bring together Singapore-based experts in consumer and sensory science, food technology, flavor chemistry, and product design to create healthier, sustainable food products for the future. The company will also collaborate with local research institutes and universities, such as the National University of Singapore (NUS) and A*STAR, driving further innovation. This facility is part of dsm-firmenich's continued investment in Singapore to lead the industry in solutions for alternative proteins, following the opening of its Culinary and SmartProteins® Innovation Centre in Tuas in 2021. Consumer adoption of plant protein meat analogues in the region lags due to challenges such as poor taste, unfamiliar textures, and high costs. Current R&D efforts in Asia are fragmented, leading to mixed industry relevance and limited scalability. This represents a substantial upgrade to dsm-firmenich's existing regional leadership in innovation strategy, governance and expertise by allowing exploration of novel and emerging ingredients that can lead to a more delicious, healthier and sustainable diet.



Dignitaries at the inaugural opening



Tour of the FutureBites – Food Design Studio

The new PEACE Facility is dsm-firmenich's latest investment to improve its manufacturing and production capabilities. It is designed to scale up the company's capacity and increase the automation rate to at least 70%, thus significantly boost the ability to meet customers' increasing needs. Located within an expansive 11,000-square-meter facility, the factory is designed to provide clients with the flexibility and speed required to stay ahead in Asia's dynamic markets. The perfumery manufacturing plant centers upon compounding and mixing of up to 4000 raw ingredients following trade-secret formulas. The facility also houses dsm-firmenich's only APAC production site of its fragrance encapsulation technology for long-lasting fragrances - Popscent®. This investment further reinforces

dsm-firmenich's commitment towards sustainability and well-being. Construction of the PEACE Facility began in 2022, with the first batch of products set to be delivered by the end of September 2024.

Dimitri de Vreeze, CEO of dsm-firmenich said, “We recognize the immense potential of the Asia-Pacific region's dynamic nutrition, health, and beauty sectors. Singapore serves as the central hub for deploying and translating our global programs to the rest of Asia. Our new facilities in Tuas will drive the growth of our business and strengthen our strategic position, enabling us to offer additional innovation capabilities to our customers in Taste, Texture & Health and support fast growing demands of our partners in Perfumery & Beauty. By providing enhanced services to our customers, we help them deliver on their own business and sustainability goals, reinforcing our mission to create a healthier, more sustainable future.”

Mr. Lim Wey-Len, Executive Vice President, EDB, said, “dsm-firmenich’s new facilities in Tuas will add to its strong innovation capabilities here, and strengthen Singapore’s position as a leading global innovation hub for the Flavours & Fragrances industry. The new capabilities will enable collaborations with local research and business partners in emergent areas such as novel foods, and allow the company to more effectively serve regional demand. We look forward to dsm-firmenich driving the development of sustainable innovation and solutions from Singapore.”

“Singapore operates as dsm-firmenich's Asia regional headquarters and innovation hub. The nation’s growing ecosystem of customers in the region, research partners and skilled talent pool provides the perfect opportunity to accelerate innovation,” said Jun Saplad, Global Head, Regional and International Consumer Brands, Perfumery & Beauty and Region President, APAC. “Aside from innovation, our new facilities in Tuas enhances our ability to serve our customers, and help deliver on our sustainability commitments. As part of our journey as innovators in nutrition, health and beauty, we continue to invest in our people and drive continuous improvements across our value chain.”

Driven by dsm-firmenich’s vision to be the most trusted partner for its customers, the Tuas site will deliver services to clients worldwide, including major multinational fast-moving consumer goods (FMCG) companies. Beyond serving local clients, the plant's products also reach a diverse array of Asian markets, including East Asia, Southeast Asia, Oceania and South Asia. The taste preferences, food format and even the protein sources are very different in Asia as compared to the rest of the world. Jun Saplad continues to say that their dream is to help customers with solutions specific to their requirements that is desirable, affordable and sustainable. And to that end, the facility aims to allow customers to visit and make iterations to come up with great products through an innovation process.

Since establishing its presence in Singapore in 1974, dsm-firmenich has strategically forged significant partnerships with leading companies and research organizations across Asia, with Singapore serving as its key Asia-Pacific hub. dsm-firmenich maintains a robust Singapore presence with 600 dedicated employees and 80 scientists and innovation experts across six offices and facilities.

About dsm-firmenich

As innovators in nutrition, health, and beauty, dsm-firmenich reinvents, manufactures, and combines vital nutrients, flavors, and fragrances for the world’s growing population to thrive. With our comprehensive range of solutions, with natural and renewable ingredients and renowned science and technology capabilities, we work to create what is essential for life, desirable for consumers, and more sustainable for the planet. dsm-firmenich is a Swiss-Dutch company, listed on the Euronext Amsterdam, with operations in almost 60 countries and revenues of more than €12 billion. With a diverse, worldwide team of nearly 30,000 employees, we bring progress to life every day, everywhere, for billions of people. For more information visit - www.dsm-firmenich.com

DELTA ELECTRONICS' ENERGY-EFFICIENT PRECISION COOLING TECHNOLOGY TAKES CENTER STAGE AT DATA CENTRE WORLD ASIA 2024

Delta, a global leader in power management and provider of IoT-based smart green solutions showcased its state-of-the-art precision cooling technology at Data Centre World (DCW) Asia 2024, between October 9-10 at the Marina Bay Sands, Singapore. Seamlessly blending infrastructure with design innovation, Delta highlighted its exemplary solutions at DCW 2024, including the Air-Assisted Liquid Cooling (AALC) system and the Coolant Distribution Unit (CDU), both designed for efficient circuit separation in high-performance computing.

"Our commitment to boosting data center sustainability is reflected in our innovative energy storage solutions, which are integral to our next generation of data centers," said Mr David Leal, Vice President of SEA Business, Delta. "By tackling power resilience and reliability head-on, we're not only enhancing operational efficiency but also ensuring that our customizable solutions provide unmatched reliability and cooling measures, whether for retrofitting existing facilities or supporting scalable growth in new projects."

As AI technology progresses, the demand for more powerful and efficient servers continues to grow. High-performance servers, with central processing units or graphics processing units as their most energy-intensive components, necessitate advanced cooling solutions to manage increasing energy consumption.

At DCW Asia 2024, Delta presented its AALC system designed for High-Performance Computing and Artificial Intelligence workloads in data centers. The AALC offers a closed-loop liquid solution, eliminating the need for raised floors or facility piping, and delivers cooling density 2.5 times greater than air cooling with minimal power consumption (<3%). Additionally, Delta's AALC includes customizable options to ensure reliability through redundant components and hot-swappable features, making it an ideal choice for data center retrofits and scalable growth.



Delta Power Train Unit. Image credit – Delta, Singapore

Also on display was the CDU, an essential component in liquid cooling systems that distributes coolant or water evenly throughout the system. Delta's CDU elevates high-performance computing by efficiently separating facility and secondary circuits, with precise control of overflow, pressure, temperature, and coolant quality, while ensuring high reliability through a 10" LCD monitoring screen, pump failure prediction, stainless steel piping, a 50-micron filter, redundant sensors, and water leakage detection, all designed to enhance operational reliability and minimize data center Power Usage Effectiveness.

Delta remains dedicated to developing smart, sustainable solutions that meet the evolving needs of modern data centers. By collaborating with ecosystem partners, Delta continues to innovate and strengthen the market with energy-efficient products that not only optimize performance but also contribute to a greener future.

About Delta

Delta, founded in 1971, is a global leader in switching power supplies and thermal management products with a thriving portfolio of smart energy-saving systems and solutions in the fields of industrial automation, building automation, telecom power, data center infrastructure, EV charging, renewable energy, energy storage and display, to nurture the development of smart manufacturing and sustainable cities. As a world-class corporate citizen guided by its mission statement, "To provide innovative, clean and energy-efficient solutions for a better tomorrow," Delta leverages its core competence in high-efficiency power electronics and its ESG-embedded business model to address key environmental issues, such as climate change. Delta serves customers through its sales offices, R&D centers and manufacturing facilities spread over close to 200 locations across 5 continents.

Throughout its history, Delta has received various global awards and recognition for its business achievements, innovative technologies and dedication to ESG. Since 2011, Delta has been listed on the DJSI World Index of Dow Jones Sustainability™ Indices for 13 consecutive years. Delta has also won CDP with double A List for three times for its substantial contribution to climate change and water security issues and has been named Supplier Engagement Leader for its continuous development of a sustainable value chain for seven consecutive years.

For detailed information about Delta, please visit: www.deltaww.com

Cosentino Launches Two New Collections, Dekton Pietra Edition and Le Chic Bohème by SilestoneXM

- *Dekton Pietra Edition takes inspiration from iconic Mediterranean stones to reimagine modern and timeless architecture with the unrivaled durability of Dekton®*
- *Le Chic Bohème is inspired by the sophistication and bohemian flair of the French capital Paris*

Global architectural surface leader Cosentino introduces two new collections, Dekton Pietra Edition and Le Chic Bohème by Silestone® XM, continuing the group's mission to produce sustainable, durable and innovative surfaces that seamlessly blend into and enhance any contemporary space. Pietra Edition evokes the spirit of the Mediterranean, with textural surfaces that bring to mind oceanside villas. Le Chic Bohème is inspired by the sophistication and bohemian flair of the French capital.

Beloved by top designers and architects, Cosentino's premium surfaces can be found in luxurious homes, five-star hotels, and Michelin-starred restaurants around the globe. Cosentino continues to push boundaries to emerge as an indisputable leader in sustainable design, and elevate surfaces to an art with its products' beauty and functionality. Cosentino is the only company in the industry with its own waste management and treatment plant.

Dekton Pietra Edition

The Dekton Pietra Edition is an expansion from Argentinian architect and designer Daniel Germani's highly successful Pietra Kode collection launched in 2023 in which he reinterpreted three classic Italian stones. This time, Germani looked to the stones of the Mediterranean - Travertine, Piasentina, Ceppo Di Gré, and Campaspero – combining Cosentino's innovative technology and the unrivalled durability of Dekton with the timeless appeal of these traditional stones.

Certified carbon-neutral from cradle to grave, the ultracompact Dekton Pietra Edition adds a technological layer to the iconic natural stones with its production process and materiality making it a high-performance material that is resistant to UV rays, scratches, stains, and thermal shock. Developed by Cosentino, Dekton's exclusive TSP technology helps to create surfaces with the same or better technical performance as natural stone in the matter of hours in comparison to thousands of years of compression. - Dekton's exclusive press generates 25,000 tons of uniform pressure. Due to the ultra-compaction process, Dekton has no micro-defects that cause tensions or weak points. Dekton uses 100% renewable electricity and 99% reused water with 0% of discharge into water bodies.



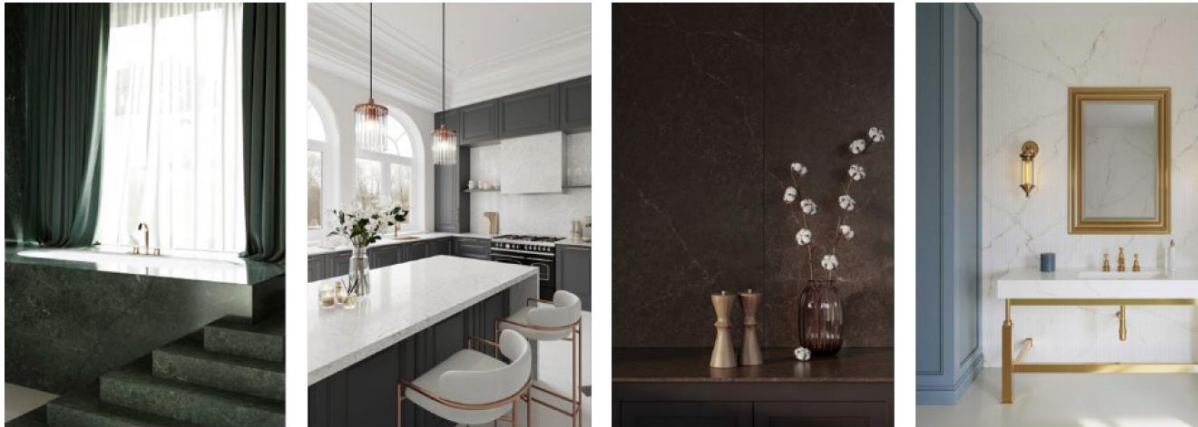
Different and new designs of Dekton Pietra - Left to right: Trevi, Nebu, Adia, Ava, Polar and Sandik

The four textures and six new serene designs bring a warmth and modern elegance to any indoor or outdoor project.

"Pietra Edition is the new journey to the origin of timeless and Mediterranean architecture already started with Pietra Kode," said Daniel Germani. "I am proud to continue my collaboration with Cosentino to bring the designs of Pietra Edition to designers, architects, and homeowners as a surface that is both timeless and innovative."

Le Chic Bohème by SilestoneXM

After revolutionising the process of transforming recycled materials into something remarkably new with EARTHIC in collaboration with Formafantasma earlier this year, SilestoneXM expands its design portfolio with Le Chic Bohème. Inspired by the sophistication and bohemian flair of the French capital Paris, Le Chic Bohème’s four new luminous hues include neutrals and rich colours fit for minimalists and maximalists alike.



New designs of SilestoneXM - Left to right: Jardin Emerald, Rivière Rose, Château Brown and Blanc Élysée

More than just an aesthetic choice, Silestone surfaces are designed to last, with unique technical characteristics that make the materials durable and robust. Fabricated with new technologies and a hybrid formulation of raw and recycled materials, Silestone is hardy, easy to clean and has a high colour consistency. In addition, Cosentino’s patented Hybriq+® technology means that the Le Chic Bohème collection is manufactured using 99% recycled water and 100% renewable energy, and includes almost 25% recycled raw materials in its composition.

Decarbonization and Circular Economy

Sustainability management continues to be one of the areas with the greatest investment in Cosentino. The milestones add to Cosentino’s sustainable achievements such as the use of 99 percent recycled water, zero dumping (with a daily recirculation of 80,000m³) practices and the use of 100% renewable electricity. Cosentino’s industrial solar energy installation project for self-consumption was completed in 2023, from which Cosentino now obtains 20% of its current annual electricity consumption. Additionally, this commitment is being extended to Cosentino “Centers” with the progressively installation of solar panels for self-consumption. The company is also researching and studying ways to implement a clean energy mix in its production and logistics model. Simultaneously, in 2023 Cosentino activated its own Urban Wastewater Regeneration Station (ERAR), giving wastewater from the neighboring towns a second life.

About Cosentino Group

Cosentino Group is a global family-owned company that produces and distributes high value innovative surfaces for architecture and design. As a leading company, Cosentino imagines and anticipates together with its customers and partners, design solutions that offer value and inspiration to people’s lives. This goal is made possible by pioneering brands that are leaders in their respective segments such as Silestone®, Dekton® and Sensa by Cosentino®. The group bases its development on international expansion, an innovative research and development program, respect for the environment and sustainability, and its ongoing corporate commitment to society and the local communities where it operates, education, equality and health & safety. For more information, visit www.cosentino.com



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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