

News Release

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CDL EXPANDS SINGAPORE SUSTAINABILITY ACADEMY WITH A NEW ANNEX TO ACCELERATE COLLABORATIVE CLIMATE ACTION

- An extension of the Singapore Sustainability Academy (SSA), the zero-energy SSA Annex will boost capacity building and collaboration in climate action and sustainable development, housing the United Nations Global Compact Network Singapore as its anchor NGO partner
- Incorporates state-of-the-art and innovative sustainable features to achieve net-zero operational energy

The Singapore Sustainability Academy Annex (SSA Annex) was officially opened this morning by Guest-of-Honour Deputy Prime Minister (DPM) Mr Heng Swee Keat. Developed by City Developments Limited (CDL), the SSA Annex is an extension of the existing 4,300 square feet (sq ft) SSA, a first-of-its-kind sustainable and net-zero building with construction materials certified as coming from responsible sources. Opened in 2017, the SSA is Singapore's first major People, Public and Private (3P) ground-up initiative supporting global and national goals to tackle climate change. The SSA Annex expands on this commitment towards climate action.

Located on the roof terrace of City Square Mall, Singapore's first eco-mall, the 2,690 sq ft SSA Annex aims to promote sustainable practices, advocate for a low-carbon economy, and engage businesses and the community. Focus areas include capacity building, education and training, resource sharing, user engagement and fostering sustainability thinking. It serves as a collaborative and community space for local and global Non-Governmental Organisation (NGO) partners, with conference facilities for in-person and virtual meetings. The SSA Annex will also help to forge partnerships, build capacity, and bring partners together to develop innovative solutions to drive collaborative climate action. The SSA itself provides classrooms and a gallery for sustainability-related training programmes and advocacy events, through engaging and educating partners and attendees, including members of the public.

Strategic Partnerships to Advance Climate Action and Sustainable Development

The Building and Construction Authority (BCA) Green Mark Platinum¹ zero-energy SSA Annex houses the United Nations (UN) Global Compact Network Singapore (GCNS) as its anchor Non-Governmental Organisation (NGO) partner. This reflects CDL's commitment to supporting local and international NGOs championing the UN Sustainable Development Goals (SDGs) and Race to Zero, as well as the Singapore Green Plan 2030. CDL has also partnered with various NGOs, community stakeholders, government agencies and international organisations to facilitate 3P sector collaboration and knowledge sharing, including World Green Building Council, World Business Council for Sustainable Development, CDP, Global Reporting Initiative, Ocean Geographic, One Young World, Climate Force, Stewardship Asia Centre, Food Bank and others. The official launch of the SSA Annex showcased innovators like TA.LE, ChopValue, City Sprouts and Vidacity, Aerosprings, resavour and Fogo Fungi.

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¹ Based on the Green Mark criteria for Retail (Version 1).

Mr Sherman Kwek, CDL's Group Chief Executive Officer, said, "Addressing climate change requires collaborative efforts across industries, governments and organisations. Through strategic partnerships, we can harness diverse expertise and resources to accelerate innovative solutions for a sustainable future. Since opening the SSA seven years ago, the facility has hosted over 1,000 events and training sessions, welcomed over 35,000 visitors and engaged more than 100 partners. The timely expansion of the SSA with the SSA Annex reflects CDL's dedication to leveraging partnerships for knowledge and capacity building, driving towards a net-zero future in Singapore and beyond."

Dr Bicky Bhangu, GCNS President, said, "I extend our warmest congratulations to CDL on the official opening of the SSA Annex, a testament to the long-standing partnership between CDL and GCNS. This remarkable facility embodies our commitment to a multilateral and inclusive approach to building a robust sustainability ecosystem. We deeply appreciate CDL's dedication to creating a space that reflects the values we uphold, fostering collaboration, innovation, and capacity building. The SSA Annex not only provides GCNS with a new home but also strengthens our collective efforts towards achieving our national and global sustainable agenda. Together, we chart a path to a sustainable and equitable future for all."

For more information, please refer to:

- Annex A Fact Sheet on the SSA and SSA Annex
- Annex B List of partners at SSA Annex

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ANNEX A





Located on the roof terrace of City Square Mall, Singapore's first eco-mall, the entire facility – SSA and SSA Annex – measures 6.990 sq ft.

About SSA

Designed and built by CDL with industry partners in 2017, the SSA is the first major People, Public and Private ground-up initiative and zero-energy facility in Singapore dedicated to capacity building and thought leadership for climate action and the SDGs.

Involving an extensive partnership with six government agencies and 15 industry and non-governmental organisation (NGO) partners, the SSA is a BCA Green Mark Platinum and net-zero carbon building. Dedicated to the sharing of sustainability best practices, the 4,300 sq ft SSA comprises classrooms, an exhibition gallery cum auditorium, and an office for CDL's NGO partner, Sustainable Energy Association of Singapore (SEAS).

In support of global and national climate goals, the SSA aims to promote a low-carbon economy, resource efficiency, and sustainable practices among businesses and the community through:

- Thought Leadership, Advocacy & Networking
- Capacity Building Education, Training and Mentorship
- Collaborations for Innovation, R&D, Resource and Solutions Sharing
- Stakeholder and Community Engagements

SEAS provides a common platform for companies within the Renewable Energy, Carbon Trading, Energy Efficiency, and the Financial Investments arenas to collaborate for technology sharing, capacity building and market access sourcing to assist its members in achieving sustainable growth.

The SSA features solar technology with 3,200 sq ft of photovoltaic panels that covers the building and monitors real-time energy generation and consumption. The solar rooftop system generates an approximate annual energy yield of over 60,000 kilowatt hours (kWh), which is more than the SSA's estimated annual energy consumption of about 50,000 kWh per year.

The SSA was constructed using Cross-Laminated Timber (CLT) and Glued Laminated Timber (Glulam). It is the first in Singapore to have its construction materials, CLT and Glulam verified by the Nature's Barcode[™] system as coming from responsible sources. CLT is a material harvested from sustainably-managed forests, and fabricated by bonding layers of timber together with structural adhesive. This entails scientific tests like DNA analysis, to minimise the risk that the wood comes from illegal logging. CLT and Glulam are light yet structurally robust, making them a lightweight alternative to steel or concrete. They provide a high level of thermal performance, which will reduce cooling costs. The use of CLT and Glulam encourages advance planning and coordination, as part of the Design for Manufacturing and Assembly process. Pre-fabricating the timber components off-site improves efficacy in assembly, and keeps on-site pollution to a minimum, resulting in a cleaner and safer worksite. For the SSA, the use of CLT increased productivity by more than 30% and saved around 130-man days.

CDL also retrofitted the SSA with an outdoor deck made from recycled resources. Made from 95% recycled materials comprising 65% reclaimed Forest Stewardship Council certified wood and 30% polyethylene, the deck is highly durable, safe, and has a low environmental impact. It has been awarded the highest-tiered certification by SGBC. CDL also took the opportunity to retrofit the SSA partnership name plaques with recycled acrylic at the SSA Partnership Green Wall, which features hundreds of supporting partners in name plaques. Compared with the earlier plaque that was made of wood, the recycled acrylic plaque is durable, low-maintenance, and has a low environmental impact as it has been sustainably upcycled from other materials.

SSA Annex – Green Mark Platinum Zero-energy Extension

Designed for climate resilience, the 2,690 sq ft SSA Annex incorporates the latest green building technologies and features such as Mass Engineered Timber panels. These panels are part of a 100% Glulam framework sourced from sustainably-managed forests. In addition, Laminated Veneer Lumber (LVL) is used for the flooring and infill wall panels. The timber panels are lightweight yet structurally robust alternatives to steel or concrete, providing a high thermal performance and helping to reduce cooling costs.

The SSA Annex is powered by a 31.6 kilowatt peak (kWp) rooftop Solar Photovoltaic (PV) System enabling it to achieve net-zero operational energy. It also uses "Solar-hybrid" air-conditioning system that prioritises renewable energy use. Additionally, it is equipped with an energy-efficient smart lighting system with a low Lighting Power Density of 5.33 watt per square metre (W/m²).

Other energy efficient features include an Energy Management System, a low ETTV value of 19.16 W/m² incorporating thermal break in metal framing, solar film on the glass for enhanced heat insulation, as well as an exterior green wall to reduce surface temperatures. Collectively, these green features are expected to achieve energy savings of 37,543 kW per year, while the PV System is expected to generate an annual energy yield of 29,956 kW.

The SSA Annex comprises a collaboration space, a conference room, and office space for UN GCNS.

ANNEX B

SSA Annex Partners



Innovators Showcase

1. UN Global Compact Network Singapore

UN Global Compact Network Singapore (GCNS) is the local chapter of the United Nations Global Compact. As the leading voice on corporate sustainability, 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. GCNS is also proud to have the Singapore Business Federation, National Trades Union Congress and Singapore National Employers Federation as Principal Members.

2. Sustainable Energy Association Singapore

The Sustainable Energy Association of Singapore (SEAS) represents the interests, and provides a common platform for companies in Renewable Energy, Energy Efficiency, Carbon Management, e-mobility, smart grids and Financial Institutions to meet, discuss, collaborate and undertake viable projects together. It is a non-profit, non-government business association, and its mission is to assist its members in achieving sustainable growth locally and regionally through business and market development. SEAS plays a strategic role in supporting and promoting Singapore's vision to be a global centre for sustainable energy, where products and solutions are developed and exported.

3. TA.LE

TA.LE is a Singapore-based Architectural Design Practice incorporated in 2014. It is founded on the belief that good design can have a positive influence on society in general. With an emphasis on the user experience, its approach to design is one that is innovation-driven and challenges the status quo in the construction industry.

TA.LE is conscious of the environmental impact that construction has on the world. It includes upcycling of building materials into its design process to promote 'circularity' and aims to contribute to a more sustainable environment for the future generation.

TA.LE's main portfolio includes commercial projects and private residential developments. Notable completed projects and A&A works in Singapore include Palais Renaissance, King's Centre, ESR Business Park at Changi, Nordic European Centre Business Park. Their clients include CDL, CapitaLand, Changi Airport Group and Marina Bay Sands.

4. ChopValue

ChopValue is the world's first circular economy franchise that designs and manufactures products made entirely from recycled chopsticks. ChopValue's urban harvest from restaurants, offices, hospitals and schools in Singapore allows it to transform waste into a new material that outperforms solid wood. Stronger than oak, harder than maple, each piece is locally handcrafted, from a simple coaster to a 12-seater table. Through its ambition of lean sourcing, manufacturing, and distribution, ChopValue helps create a carbon negative future.

5. City Sprouts and Vidacity

City Sprouts is the nexus of sustainability and community, reconnecting individuals with environmentally-conscious communities through shared discovery. Through engaging with its farmers, people are able to trace the roots of their food and forge meaningful connections. City Sprouts aims to empower individuals with knowledge and insights to drive positive change and shape a more sustainable future for Singapore.

Vidacity is a sustainability innovation hub and living lab that brings together startups, businesses and researchers to drive innovation and tackle social and environmental challenges. It focuses on scaling solutions in Agri-Food, Biodiversity, Circular Economy, Decarbonisation and Water Security.

6. Aerosprings Hydroponics

Aerospring Hydroponics believes that everyone should experience better health, nutrition and taste from fresh produce. Founded and manufactured in Singapore since 2015, Aerospring Hydroponics manufactures patented, vertical hydroponic systems, accessories and consumables, bringing accessible sustainability to homes, offices, schools, shipping vessels and elsewhere.

Given the challenges in the world today, including food safety, food security and sustainability, Aerosprings Hydroponics believes there is a need to think about where food comes from, and how to grow it ourselves, to inspire the next generation to live a more sustainable life.

7. resavour

resavour exists to turn every bite into an opportunity for wellness, environmental regeneration, and social empowerment. Every delicious treat is made with byproducts like spent coffee grounds and barley grains, that are nutritious and sustainable. By harnessing the full potential of every ingredient, youth communities bake goods that are kind to bodies and planet, while gaining employment, vocational skills, and experiences.

8. Fogo Fungi

Fogo Fungi is a Singapore Agrifoodtech startup on a dedicated mission to grow the best mushrooms possible for the people and our planet. It harnesses the power of fungi to upcycle food waste to produce high-quality gourmet mushrooms. Using its technology and processes, Fogo Fungi ensures that potential end-of-the-line waste is repurposed as valuable resources to cultivate fresh gourmet mushrooms, closing the loop of broken food systems and contributing to a circular economy. Fogo Fungi is home to Singapore's largest indoor mushroom farm, and together with its cutting-edge proprietary technology, it enables customers to enjoy better, fresher, and different mushrooms closer to home.