



#### **News Release**

5 June 2017

# CDL and SEAS Officially Open Singapore Sustainability Academya visionary initiative in support of global and national climate actions

- First major People, Public and Private initiative in support of global and national sustainability goals articulated in Sustainable Singapore Blueprint and Climate Action Plan, and newly-launched Public Sector Sustainability Plan
- First time a local private-sector property developer and non-profit organisation have teamed up to create a major training and networking facility on sustainability
- A platform for the first Singapore network for women in sustainability, Women4Green
- First-of-its-kind sustainable and zero energy building with construction materials certified as coming from responsible sources

Earlier today, in conjunction with World Environment Day, the Singapore Sustainability Academy (SSA) (新加坡可持续发展学院) was officially opened by Mr Teo Chee Hean, Deputy Prime Minister (DPM) and Coordinating Minister for National Security, together with Mr Masagos Zulkifli, Minister for the Environment and Water Resources. Jointly created by City Developments Limited (CDL) and the Sustainable Energy Association of Singapore (SEAS), the Academy is the first major People, Public and Private (3P) ground-up initiative in support of global and national goals to tackle climate change.

This is also the first time a local private-sector property developer and non-profit organisation have teamed up to create a major training and networking facility on sustainability. The SSA aims to promote a low-carbon economy, resource efficiency, and sustainable practices among businesses and the community, in particular, youths. It will focus on advocacy, building capacity and collaboration, education and training, information and resource sharing as well as user engagement.

Globally, sustainability integration has gained strong momentum with the Paris Agreement and alignment of corporate agendas to the United Nations Sustainable Development Goals. In Singapore, the Government is leading the way with the Sustainable Singapore Blueprint; Climate Action Plan and the Green Building Masterplan which aims to green 80% of all buildings by 2030; pledge to reduce Greenhouse Gases emissions intensity by 36% by 2030; and the newly-launched Public Sector Sustainability Plan 2017-2020 which outlines the public sector's plans to improve resource conservation.

The SSA is supported by six government agencies — Building and Construction Authority (BCA), Ministry of the Environment and Water Resources (MEWR), National Climate Change Secretariat (NCCS), National Environment Agency (NEA), National Parks Board (NParks), and Urban Redevelopment Authority (URA) — and 15 founding industry partners [See Annex A]. It will be governed by an advisory board, chaired by Professor Tommy Koh, and a programme committee that will provide strategic direction and implement programmes to its mission. [See Annex B]

At the official opening, it was also announced that the SSA will be a platform for the Women4Green initiative by CDL, the first Singapore network for women in sustainability. Women4Green brings together women executives in green industries who contribute to climate action, sustainable business, and social change. It will harness the collective knowledge and expertise of these female leaders to empower other women to incite meaningful change in areas such as green building, technology, energy, financing, consultancy and non-governmental organisations. [See Annex D]

To raise awareness of climate issues and build a larger community for change, the SSA will also partner Eco-Business, a leading media company on sustainable development, to set up a Sustainability Studio. The studio will produce films on sustainability for various digital platforms.

Mr Sherman Kwek, Deputy Chief Executive Officer of CDL, said, "CDL firmly believes that sustainability creates immense value for businesses, stakeholders, the community and the environment. Sustainability is strategically integrated into CDL's business and operations from developing green buildings and managing them in an energy-efficient and resource-efficient manner, to engaging and influencing stakeholders on sustainable development. The SSA and Women4Green initiatives will further advance CDL's stakeholder engagement to achieve a greater impact in building a sustainable future."

Mr Edwin Khew, SEAS Chairman said, "SEAS as the voice of the sustainable energy industry in Singapore has been promoting sustainable technologies, project development as well as financing of clean energy projects locally and regionally. Our partnership with CDL for the SSA will provide a platform for not just the industry but also the youth and community to learn and collaborate on sustainable development, mitigation of carbon dioxide emissions and to fight and adapt to climate change and its effects."

# <u>First-of-its-kind Sustainable Building in Singapore Featuring Innovations and Responsibly-Sourced</u> Construction Materials

In line with its mission to promote sustainability among the industry and community, the SSA is the first in Singapore to have its construction materials, Cross Laminated Timber (CLT) and Glued Laminated Timber (Glulam) verified by the Nature's Barcode<sup>™</sup> system as coming from responsible sources. This entails scientific tests like DNA analysis to minimise the risk that the wood comes from illegal logging. CLT is a sustainable material harvested from sustainably-managed forests and fabricated by binding layers of timber perpendicular to each other with structural adhesive whereas Glulam's layers of timber are cut in the same grain and then joined together. They are light yet structurally robust making them a lightweight alternative to steel or concrete.

Both CLT and Glulam are game-changing technologies that support the concept of Design for Manufacturing and Assembly to significantly boost productivity. For the SSA, the use of CLT and Glulam increased productivity by more than 30% and saved around 130 man days. Pre-fabricating the timber components off-site improves efficacy in assembly. This also keeps on-site pollution to a minimum, resulting in a cleaner and safer worksite.

The zero-energy building features solar technology with about 3,200 square feet of photovoltaic panels extensively covering the 4,300 square-foot SSA which comprises classrooms, a veranda, an office, and an exhibition gallery. It also features a real-time tracker of energy generation and consumption. The made-in-Singapore solar panels are expected to generate an annual energy yield of over 60,000 kilowatt hours (kWh). This is more than the SSA's estimated annual energy consumption of about 50,000 kWh. There will also be an automation control and energy monitoring system that adapts lighting and air-conditioning to situations, providing maximum energy savings while maintaining full comfort.

#### Towards Zero-Waste: Upcycling SSA's Residual Building Materials

At the official opening of SSA, DPM Teo also met the winners of the 6<sup>th</sup> CDL Singapore Sculpture Awards, introduced by CDL since 2002 to nurture artistic talent amongst youths and local artists, foster greater appreciation for this art form and enrich Singapore's cultural landscape through the commissioning of winning works for public display.

Centred on the theme of 'Towards Zero-Waste!', the submissions, which drew inspiration from the concept of a circular economy and Singapore's vision of becoming a zero-waste nation by 2030, utilised the SSA's residual building materials, including CLT, Glulam and timber decking. Through this theme, CDL hopes to shift mindsets and change behaviour from a linear 'take-make-dispose' model to a more circular one, in which resources are circulated back into the economy and used for a prolonged period.

Selected from more than 300 entries, the winning work of the open category is the creation by Ms Toh Ah Lan, a full-time artist. The winner of the student category is Ms Joanne Lim Sok Hua, a Secondary 4 student from the Singapore Chinese Girls' School. The winning sculpture from the open category will be displayed outside the SSA to remind and inspire all to conserve resources for a sustainable future. [See Annex E]

### For more information, please refer to:

- Annex A About the SSA
- Annex B SSA Advisory Board and Programme Committee
- Annex C SSA's Programme Schedule
- Annex D About Women4Green
- Annex E About the 6<sup>th</sup> CDL Singapore Sculpture Awards

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# **About City Developments Limited**

City Developments Limited (CDL) is a Singapore-listed international real estate operating company with a global presence spanning 97 locations in 26 countries. As one of Singapore's largest companies by market capitalisation, its income stable and geographically-diversified portfolio comprises residences, offices, hotels, serviced apartments, integrated developments and shopping malls, totalling over 18 million square feet of floor area globally.

Globally, CDL has developed over 40,000 homes and is one of Singapore's largest commercial landlords, with one of the biggest landbanks amongst Singapore private-sector developers.

Since 1995, CDL has integrated sustainability into its business with its ethos of 'Conserving as we Construct'. Incorporating sustainability across its entire value chain, CDL adopts a holistic three-pronged approach which includes designing and developing sustainable and green buildings, managing buildings in an energy and resource-efficient way, and engaging and influencing stakeholders to support CDL's commitment towards sustainable development.

CDL's sustainability efforts have received international recognition. It is ranked Top Singapore Company and the Most Sustainable Corporation in Real Estate Management & Development in the eminent Global 100 Most Sustainable Corporations in the World in 2017, and is the only Singapore company listed in the ranking for eight consecutive years. CDL is also the first Singapore company to be listed on four of the world's leading sustainability benchmarks – FTSE4Good Index Series (since 2002), MSCI Global Sustainability Indexes (since 2009), Global 100 Most Sustainable Corporations (since 2010) and Dow Jones Sustainability Indices (since 2011). Since 2014, CDL has also been Asia's Top Property Developer, Top Singapore Company and Top 10 Companies in the Channel NewsAsia Sustainability Ranking.

For more information on CDL, visit <a href="www.cdl.com.sg">www.cdl.com.sg</a>
For more information on CDL's sustainability efforts, visit <a href="www.cdlsustainability.com">www.cdlsustainability.com</a>

#### About Sustainable Energy Association of Singapore

The Sustainable Energy Association of Singapore (SEAS) represents the interests and provides a common platform for companies in Renewable Energy, Energy Efficiency, and Financial Institutions to meet, discuss, collaborate and undertake viable projects together. The Association 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 development, market development, as well as training and learning platforms. SEAS plays a strategic role in aiding the realisation of Singapore's vision; to be a global centre for sustainable energy, where products and solutions are developed and exported.

For more information about what the Association does and its services, please visit www.seas.org.sg



# Annex A

# ABOUT THE ZERO-ENERGY SINGAPORE SUSTAINABILITY ACADEMY (SSA)

— a collaboration by City Developments Limited (CDL) and Sustainable Energy Association of Singapore (SEAS)

About the Academy	I both CDL and SEAS combined			
Vision	To contribute to a cleaner, greener and more sustainable future.			
Mission	In support of global and national climate actions, the Academy aims to promote a low-carbon economy, resource efficiency, and sustainable practices among businesses and the community, in particular, youths.			
Target Audience and Activities	The SSA is a dynamic hub for:  Thought Leadership and Advocacy Capacity Building — Education, Training and Mentorship Networking and Collaborations Information, Resource and Solutions Sharing Stakeholder and Community Engagements  SEAS, operating from the new SSA, will continue to work with local industry and business as well as key initiatives with the Asian Development Bank and International Enterprise Singapore, to provide policy makers in the region with insights and share experiences on policy, technology and project financing in the areas of energy efficiency, renewable energy and energy access. It will invite senior policy and decision makers to share on these subjects and explore other crucial sustainability topics pertaining to the banking, energy, building and infrastructure sectors.			



	To build capacity and collaborations among businesses and supply chains, practitioners and youths, academics and the industry, as well as solution providers and adopters, the SSA will harness the collective knowledge and expertise of thought- and industry-leaders through multiple training and engagement initiatives.  For more info about the programmes that will be conducted at SSA, please refer to: <b>Annex C – SSA's Programme Schedule.</b>
Sustainable Features	<ol> <li>The zero-energy SSA was conferred the BCA Green Mark Platinum Award, the highest green building standard in Singapore. The SSA will feature solar technology with 3,200 sq ft of photovoltaic panels extensively covering the 4,300 sq ft building and monitors real-time energy generation and consumption.</li> <li>✓ The solar system is expected to generate an 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.</li> <li>✓ There will be an automation control and energy monitoring system that adapts lighting and air-conditioning to situations, providing maximum energy savings while maintaining full comfort.</li> <li>The SSA will be the first in Singapore to have its construction materials, Cross Laminated Timber (CLT) and Glued Laminated Timber (Gluam) verified by the Nature's Barcode™ system as coming from responsible sources. This entails scientific tests like DNA analysis, to minimise the risk that the wood comes from illegal logging.</li> <li>✓ CLT and Glulam are light yet structurally robust, making them a lightweight alternatives to steel or concrete.</li> <li>✓ CLT is a sustainable material harvested from sustainably managed forests.</li> <li>✓ CLT and Glulam provide a high level of thermal performance, which will reduce cooling costs.</li> <li>✓ The use of CLT and Glulam encourages advance planning and coordination, as part of the Design for Manufacturing and Assembly process.</li> <li>✓ 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.</li> <li>✓ For the SSA, the use of CLT increased productivity by more than 30% and saved around 130 man days.</li> </ol>
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In support of	SUSTAINABLE DEVELOPMENT GOALS	Sustainable Singapore
Supporting Government Agencies	<ul> <li>Building and Construction Authority (BCA)</li> <li>Ministry of the Environment and Water Resources (MEWR)</li> <li>National Climate Change Secretariat (NCCS)</li> </ul>	<ul> <li>National Environment Agency (NEA)</li> <li>National Parks Board (NParks)</li> <li>Urban Redevelopment Authority (URA)</li> </ul>
Founding Industry Partners	<ul> <li>Arcadis Singapore Pte. Ltd</li> <li>Building System &amp; Diagnostics Pte Ltd</li> <li>Eco-Business</li> <li>Interface, Inc.</li> <li>Meinhardt Singapore Pte Ltd</li> <li>Mitsubishi Electric Asia Pte Ltd</li> <li>ONG&amp;ONG Pte Limited</li> <li>Rankine&amp;Hill Pte Ltd</li> </ul>	<ul> <li>REC</li> <li>Schneider Electric Singapore Pte Ltd</li> <li>Singapore Green Building Council</li> <li>Venturer Pte Ltd</li> <li>VMW Group – Visualmediaworks</li> <li>Woh Hup (Private) Limited</li> <li>World Green Building Council</li> </ul>



# **Founding Industry Partners**

# 1. Arcadis Singapore Pte. Ltd

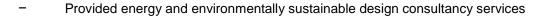
- Provided quantity surveying consultancy services



For over 80 years, Arcadis has contributed to Asia's natural and built asset environments by creating places of distinction. Through the work that they do and working in partnerships with clients, they address the toughest challenges within the built and natural environments, delivering value for them and sustainable outcomes to the communities and cities. Globally, Arcadis employs more than 27,000 consultants in over 70 countries and deliver US\$3.4 billion in revenue. Within the Asia region Arcadis has access to over 5000 people based in more than 50 offices and enjoy a successful history dating back more than 80 years. Some of their legacy brands include Langdon & Seah, EC Harris, Hyder Consulting, inProjects and SENES. By coming together as one single organization, Arcadis can more fully harness the collective power within the business and bring the very best of Arcadis to their clients.

https://www.arcadis.com

# 2. Building System & Diagnostics Pte Ltd





Building System & Diagnostics Pte Ltd (BSD) started off as a spin-off company of the National University of Singapore, pioneering the use of high performance building simulation tools to optimise building design. Since then, it has evolved into an independent building consultancy firm that provides specialised advisory services in the fields of sustainable built environment from design, construction, operation, maintenance, to upgrading in order to enhance the energy and environmental performance of the development.

BSD's quest to innovate and create has allowed the company to add value to more than 300 projects that it has provided advisory for, both locally and internationally. BSD also collaborates with government agencies, tertiary institutions and major industry players on research and application projects. To date, it has successfully completed more than 10 of such projects that are focused on energy efficiency, human comfort conditions and urban heat island. BSD has offices in Singapore, Malaysia and China (Beijing and Chengdu).

www.bsd.com.sg



#### 3. Eco-Business

- Partner for programs and the upcoming Sustainability Studio



Eco-Business is the leading media company serving Asia Pacific's sustainable development, clean tech and responsible business community. Its platforms include the award-winning Eco-Business.com site, quality custom publications, and high-impact bespoke events catered to deepen discussions on sustainability. Its aim is to build a strong and sustainable social enterprise that helps Asia Pacific's businesses along an environmentally and socially responsible, low-carbon path.

### www.eco-business.com

#### 4. Interface, Inc.

Provided sustainable carpets for interior

# **Interface**®

Interface is the world's largest manufacturer of modular carpet and a leader in sustainable business. Our journey started in 1994 with a bold vision, Mission Zero - towards a business focused on sustainability, using a cyclical model mimicking nature. By 2020, we're aiming to be at zero with our products, factories and suppliers, and we're getting close and proving it's possible. Today, Mission Zero has been called one of the most ambitious sustainability plans in history. Poised to reach this milestone by 2020, we're compelled to take on an even more audacious goal, the next powerful step in our journey: Climate Take Back. This new mission sets the bar even higher. We are ready to go beyond mitigating harm to running our business in a way that helps reverse global warming.

http://www.interface.com



#### 5. Meinhardt Singapore Pte Ltd

Provided civil and structural consultancy services



Meinhardt Group International is the largest global engineering company owned and headquartered in Singapore. We employ over 4,300 staff in 45 offices worldwide and have worked on some of the largest and most complex building and infrastructure projects. Our integrated approach to delivering all engineering services under one roof, empowers us to deliver highly innovative, cost effective and powerful engineering designs for our projects.

Meinhardt is committed in designing and constructing greener buildings. We have led the way in delivering innovative and highly buildable designs that always consider our clients' commercial objectives and global environmental concerns. Through environmentally responsible and financially sustainable solutions, we offer clients a pragmatic approach to integrating sustainability into their operations, with the aim of creating high-quality built environments.

www.meinhardtgroup.com

#### 6. Mitsubishi Electric Asia Pte Ltd

- Provided air-conditioning systems



Mitsubishi Electric Asia is a subsidiary of Mitsubishi Electric Corporation, a world leading manufacturer of products ranging from home electronics to satellite systems. Since its incorporation as Melco Sales Singapore in 1977, Mitsubishi Electric Asia has been providing reliable, high-quality products to homes, businesses, and industries in Asia Pacific. Located in Singapore, Mitsubishi Electric Asia seeks to be established as a marketing and engineering hub with its well-networked and strategic presence in the region. Mitsubishi Electric Asia lives by its pledged commitment to change for the better with every move it makes.

www.mitsubishielectric.com.sq



#### 7. ONG&ONG Pte Limited



- Provided architectural consultancy services

With a track record of more than four decades in the industry, ONG&ONG has earned an unparalleled reputation for integrating skilled architecture, clever interior design, and creative landscape design. Its success lies in the high level of creativity, excellence, and commitment provided to clients. It continually strives to uphold its mission to be the designer of our age – a premier design practice both locally and in the region. Currently operating in 13 cities, ONG&ONG is managing projects in over 20 cities spread over three continents.

Partnering with clients in their race to the top, ONG&ONG now offers a complete 360° Solution – i.e. a parcelled cross-discipline integrated solution, encompassing all aspects of the construction business. Some projects undertaken by ONG&ONG include CDL's City Square Mall and City Square Residences.

www.ong-ong.com

#### 8. Rankine&Hill Pte Ltd



- Provided M&E consultancy services

Rankine&Hill's space saving and environmentally sensitive designs are installed in business establishments, institutional complexes, residential developments, places of worship and in infrastructural projects throughout Asia. Repeated commissions from clients bear testimony to the value placed on its innovative solutions. Another distinctive trait of Rankine&Hill is the participation of its principals throughout the duration of the project. The depth and breadth of their experience ensure that all input is appropriate and timely. The expertise of its technical staff is also constantly upgraded through continual education, a cornerstone of its practice, thereby allowing the company to provide an all-encompassing solution. With a greater emphasis on life safety, performance-based fire safety engineering analyses provide unique solutions for the complex buildings of today. Rankine&Hill is now able to provide consultancy expertise in this vital area.

www.rankine-hill.com



#### 9. REC

ENERGIZING LIFE TOGETHER



- Provided the rooftop solar system and ground mounted demonstration sets

Celebrating its 20th anniversary in 2016, REC is a leading European brand of solar panels. Through integrated manufacturing from polysilicon to wafers, cells, panels and turnkey solar solutions, REC strives to help meet the world's growing energy needs. Founded in 1996, REC is a Bluestar Elkem company with headquarters in Norway and operational headquarters in Singapore. REC concluded 2015 with 2,000 employees worldwide, 1.3 GW solar panel production capacity, and annual revenues of USD 755 million.

www.recgroup.com

#### 10. Schneider Electric Singapore Pte Ltd

Provided automation control and energy monitoring systems



Schneider Electric is the global specialist in energy management and automation. With revenues of ~€27 billion in FY2015, our 160,000+ employees serve customers in over 100 countries, helping them to manage their energy and process in ways that are safe, reliable, efficient and sustainable. From the simplest of switches to complex operational systems, our technology, software and services improve the way our customers manage and automate their operations. Our connected technologies reshape industries, transform cities and enrich lives. At Schneider Electric, we call this **Life Is On**.

www.schneider-electric.com/sg



#### 11. Venturer Pte Ltd



- Provided specialist contracting services for Engineered Wood Structures

Headquartered in Singapore, Venturer has been serving customers requirements in timber since 1995. It specialises in design supply and installation of timber-hybrid and prefabricated structural systems.

Venturer operates in S.E. Asia, the Maldives, India, UAE and Europe and is expanding steadily into new markets. Its regional contracting activities extend to resorts and bridges to commercial structures and residential projects. It is equipped to interpret customers' needs to achieve attractive, practical, and economic solutions using cutting-edge construction methodologies whilst remaining sensitive to environmental issues and influences.

Venturer has the resources and capability to undertake contract work that ranges from small scale local to multi-million dollar projects. Support from a variety of financial institutions and partnerships, coupled with regional manufacturers and international timber design and contracting companies, allows it a broad scope of opportunities.

www.venturer.biz

# 12. VMW Group - Visualmediaworks



Provided architectural visualisation

VMW Group is a collective of creative entities comprising of Visualmediaworks (VMW), Attic Films, Obilia and Blanct. With the core of our enterprises gravitating around the field of architectural visualisation, our expertise has expanded to include visual consultancy, 3D rendering, video production, branding and interactive design, hence providing a one-stop service in providing customised real estate visual marketing solution.

VMW is the pioneer in popularising computer architectural rendering, animation and virtual content in the South East Asia region. Our 16 years of expertise in this field has crossed international boundaries and has established our name as the leading firm in our field. We provide a vital marketing advantage to our clients, turning their bold visions into breath-taking realities. Today, VMW remains at the forefront of excellence in creativity and, with an eye clearly on the future, we embrace and explore the applications of new visualisation technologies.



A name synonymous with consistent high quality and reliability, VMW is the region's most respected and established leader in architectural visualisation.

www.vmw.com.sg

#### 13. Woh Hup (Private) Limited



Provided main contracting services

Backed by more than eight decades of experience, Woh Hup is one of Singapore's leading construction and civil engineering specialists, recognised for shaping the landscape with high quality, innovative building solutions. Established in 1927, Woh Hup is Singapore's largest privately owned construction and civil engineering specialist, with a dedicated 1,000-strong workforce, and a body of work spanning many of Singapore's most notable and iconic developments.

In its efforts to continuously raise the industry bar, Woh Hup introduces innovative new building solutions and broadens its skills through strategic joint-venture partnerships with overseas counterparts. This has seen the company emerge in recent years from being a principal player in the building of private residential and commercial developments to becoming a leader in large-scale civil engineering works, cementing its position at the forefront of the construction industry, locally and regionally.

Recent CDL projects undertaken by Woh Hup include City Square Residences, H<sub>2</sub>O Residences, and Coco Palms.

www.wohhup.com



# 14. World Green Building Council



The World Green Building Council is a global network of Green Building Councils which is transforming the places we live, work, play, heal and learn.

We believe green buildings can and must be at the centre of our lives. Our changing climate means we must reshape the way we grow and build, enabling people to thrive both today and tomorrow.

We take action - championing local and global leadership, and empowering our community to drive change. Together, we are greater than the sum of our parts, and commit to green buildings for everyone, everywhere.

http://www.worldgbc.org/

#### 15. Singapore Green Building Council



Established in 2009, the Singapore Green Building Council (SGBC) is an industry organisation with a mandate to elevate the profile of green building in Singapore. Supported by a wide network of public and private partners, SGBC champions efficient green building design, practices and technologies that go toward building environmental sustainability in the building and construction industry.

Through the Singapore Green Building Product & Services Certification schemes, SGBC is the first dedicated certification body for green building products/services for the building and construction industry. SGBC also remains on the pulse of the industry, conducting highly relevant and specific seminars and workshops to build awareness, knowledge and adoption of green building practices.

Further strengthening its position on the green building scene, SGBC is an established member of the World Green Building Council since 2010, part of a wide global network of green building councils in more than a hundred countries.

http://www.sgbc.sg/



#### Annex B

# SINGAPORE SUSTAINABILITY ACADEMY (SSA) ADVISORY BOARD AND PROGRAMME COMMITTEE

SSA is governed by an advisory board, comprising global and local sustainability leaders, to share their insights and invaluable guidance on the direction, mission and good governance of the Academy. In addition to providing broad strategic advice, the Board will help connect the Academy to relevant organisations or individuals that will contribute to the mission of the Academy.

Also, a programme committee is formed by key partners, who are from the public, private and people sectors, to plan and implement activities and initiatives to support the commitment of the Academy.

## **Advisory Board**

Chairman

#### **Professor Tommy Koh**

Ambassador-At-Large, Ministry of Foreign Affairs; Special Adviser of the Institute of Policy Studies and Chairman of the Centre for International Law, National University of Singapore

#### Members

#### Mr Choi Shing Kwok

Permanent Secretary, Ministry of the Environment and Water Resources

# Dr Cheong Koon Hean

CEO, Housing and Development Board

#### Mr Ronnie Tay

CEO, National Environment Agency

#### Mr Hugh Lim

CEO, Building and Construction Authority

#### Mr Edwin Khew

Chairman, Sustainable Energy Association of Singapore

#### Mr Sherman Kwek

Deputy CEO, City Developments Limited

#### Mr Bambang Susantono

Vice President for Knowledge Management and Sustainable Development, Asian Development Bank

# Ms Terri Wills

CEO, World Green Building Council

#### **Professor Arnoud De Meyer**

President, Singapore Management University

### **Professor Tom Magnanti**

President, Singapore University of Technology and Design

# **Professor Lam Khee Poh**

Dean, School of Design and Environment, National University of Singapore



#### Professor Alexandar J.B. Zehnder

Professor and Member of the Board of Trustees, Nanyang Technological University

#### **Programme Committee**

Chairperson

#### Ms Esther An

Chief Sustainability Officer, City Developments Limited

Members

#### **Ms Sueanne Mocktar**

Divisional Director, 3P Network Division, National Environment Agency

#### Mr Lee Kheng Seng

Director, Communications and 3P Partnership, Ministry of the Environment and Water Resources

#### Ms Stella Wong

Director, 3P Partnership Department, Building and Construction Authority

# Ms Kavita Gandhi

Executive Director, Sustainable Energy Association of Singapore

#### Ms Jacqueline Teo

Director Garden City Fund, National Parks Board

## Ms Christina Lee

Founder & Group CEO, Global Green Economic Consulting



# Annex C

# **SSA'S PROGRAMME SCHEDULE**

Date	Time	Event	Details	Organised by	Target Audience	
June: N	June: Nation's Call for Climate Action					
5-Jun	10.00 am - 12.00 pm	Official Opening of Singapore Sustainability Academy	In conjunction with World Environment Day, the Singapore Sustainability Academy (SSA), will be officially opened by Mr Teo Chee Hean, Deputy Prime Minister and Coordinating Minister for National Security, together with Mr Masagos Zulkifli, Minister for the Environment and Water Resources.  By invitation only.	CDL & SEAS	Industry and business leaders	
17 – 18 Jun	8.30am – 1.00pm	Youth Environment Envoy Workshop	Youth Environment Envoy (YEE) Workshop is a training programme that aims to groom young leaders and strengthen their environmental knowledge, and interpersonal and project management skills to enable them to take on proactive roles as leaders in meaningful projects.  To register, visit: <a href="http://www.nea.gov.sg/events-programmes/programmes/youth/youth-environment-envoy-programme">http://www.nea.gov.sg/events-programmes/programmes/youth/youth-environment-envoy-programme</a>	NEA	Students	
July: C	July: Circular Economy					
27-Jul	8.30am - 1.30pm	CDL-Global Compact Network Singapore Young CSR Leaders Award Judging	Launched in 2011, as a cross-sector partnership between City Developments Limited (CDL) and Global Compact Network Singapore (GCNS), the award seeks to cultivate a new generation of young leaders to	CDL & GCNS	Students	



			champion a sustainable future for Singapore and beyond.			
September: Green Building						
2-Sep	9.00am - 12.00pm	CDL E-Generation Challenge Judging	Initiated by Singapore's leading green developer and eco-champion City Developments Limited (CDL), the CDL E-Generation Challenge is an annual eco-themed national competition to raise the level of eco-consciousness amongst Singapore youths.	CDL	Students	
11-Sep	2.00pm - 6.00pm	IGBC Green Mark Tour	Specially curated site tours to the award winning Green Mark projects.	BCA	Industry and business leaders	
11-Sep	Noon	WGBC APN Meeting	Asia-Pacific Network Meeting	WGBC	Industry and business leaders	



# **Vision**

To celebrate, inspire and empower women to create a financially, environmentally and socially sustainable future.

# **Mission**

Creating and expanding opportunities for women are fundamental to sustainable growth and beneficial to societies and humanity at large. The Women4Green network aims to bring together women executives in the various green industries contributing towards climate action, sustainable business, and social change.

In support of the United Nations Sustainable Development Goals (SDGs), global and national climate action, the network will harness the collective knowledge and expertise of successful female leaders to empower other women to incite meaningful change in industries such as green building, technology, energy, financing.

Women4Green will complement the mission of the Singapore Sustainability Academy (SSA) as a hub for knowledge sharing, networking and partnership. It will be a specific platform to bring women together to actively develop ideas, foster growth and engage the community to call for a future where all women and girls have equal opportunities and rights.

Interested individuals may contact us at <a href="mailto:CSREnquiries@cdl.com.sg">CSREnquiries@cdl.com.sg</a> for more information.

#### **Voices of Women Leaders**

"Women's leadership is increasingly indispensable as we seek solutions for a more sustainable human future. It is leadership that can help us break out of our silos and move towards more integrated and long-term thinking. It is leadership that can harness the idealism of our youth to evoke that vibrant spirit to move us forward together for an inclusive, sustainable and prosperous future. Congratulations to the Singapore Sustainability Academy and the Women4Green network initiated by CDL."

Dr. Noeleen Heyzer, Under-Secretary-General, United Nations (2007-2015)

"In dealing with climate change and promoting green buildings, men and women have equally important roles to play. It is an honor to be entrusted a leadership role in the global building and construction sector. I sincerely hope that my work in the World Green Building Council will inspire more women to empower themselves for climate action, sustainable business and social change. At the end of May 2017, we issued our WorldGBC "Call to Action" report which sets out the urgency for sustainability — all new buildings must be net zero by 2030; and all buildings must be net zero carbon by 2050. In order to achieve these goals, it is essential that women everywhere are supporting one another in leading the world to net zero — for this reason, Women4Green is a timely and critically important initiative."

Terri Wills, Chief Executive Officer, World Green Building Council

"Sustainability is no longer a choice for today's business nor communities, it is a necessity. The Singapore Sustainability Academy and Women4Green initiated by CDL are not merely a platform for sustainability, but also a way to forge partnerships and promote urgency in people to act on climate change. I am truly inspired by their commitment, and it is a great honour to be part of this growing momentum — working towards meeting the global Sustainable Development Goals together."

## Christina Lee, Founder & Chief Executive Officer, Global Green Economic Forum

"The sustainability challenge requires leadership from all three sectors – Public, Private, and People – and from men and women alike. The world has created the frameworks through the Sustainable Development Goals and the Paris Agreement on climate change through which the sectors can come together to meet that challenge. Now is the time for all of us to ensure that we have the knowledge and skills needed for that collaboration to succeed on a scale commensurate with the challenge."

# Professor Ann Florini, Director, Master of Tri-Sector Collaboration, Singapore Management University

"Research has made clear that increasing women leadership roles in both the public and private sectors lead to better outcomes for challenges such as hunger and malnutrition, climate change and inclusive growth, yet women are often marginalised in the economic and political spheres where key decisions are made.

This is why I've dedicated Eco-Business to reporting on these issues; it's my hope that more women will realise their full potential and participate more in their local workforce and communities. Initiatives such as the SSA and the Women4Green network are great steps in that direction, providing support and resources for the wider community to achieve both the Global Goals and gender equality."

## Jessica Cheam, Managing Editor, Eco-Business

"Women bring a different perspective to the global challenge of climate change. Women often play pivotal roles in bringing the community and families together, and are thus perfect agents of change. My role in the Singapore Green Building Council has allowed me to make a difference to the buildings that we spend most part of our days in. Building green not only reduces the impact to the environment but also has a positive impact on human health.

The Women4Green platform is a great way to bring women together to make a difference to our environment."

#### Yvonne Soh, Executive Director, Singapore Green Building Council

"Women4Green highlights two important global issues – climate and women's opportunities for economic participation. Business value is invariably created when companies integrate climate, environment and society into their business governance. Companies who include the other half of the workforce into their talent pool enlarge their resources to bring value creation within reach. The activities of the Women4Green network will extend public understanding of these universal truths, advancing the day when climate and women's economic participation are as natural as we now regard universal suffrage and education to be – part of everyday life."

#### Yeo Lian Sim, Special Advisor, Diversity, Singapore Exchange

"Global warming and climate change concerns are real!

As building professionals, it is not only our professional responsibility but also our moral obligation to embrace green and sustainable approaches in the design, creation and operation of our built environment. On this note, I applaud CDL for its pioneering initiatives as well as extend my heartiest

congratulations to its successful launch of the Singapore Sustainability Academy and the Women4Green network!

Given our role as wives and mothers, we women are at the pivotal position to shape the mind-set and influence the habit of our young generations; to reduce waste, reuse and recycle the limited resources that we have."

# Rita Soh, Managing Director, RDC Architects Pte Ltd

# **Ambassadors**

# **W4G Founder**



**Esther An** 

Chief Sustainability Officer City Developments Limited

#### **W4G Ambassadors**

#### Asia



**Christina Lee** 

Founder & Chief Executive Officer Global Green Economic Forum

# **Europe**



Susan van Boxtel

Advisor for Innovation, Technology & Science Holland Innovation Network, Embassy of the Kingdom of the Netherlands in Singapore and in Malaysia

#### **Australia-New Zealand**



**Mabel Wong** 

Executive Director CSR Asia

## **Profiles**



Esther An
Founder, Women4Green
Chief Sustainability Officer, City Developments Limited

A pioneer CSR practitioner for over 20 years, Esther is instrumental in building up CDL's sustainability leadership.

CDL is the first and only Singapore company listed on the Global 100 Most Sustainable Corporations in the World for eight consecutive years and is currently ranked top real estate company. It is also the first to be included in leading global sustainability benchmarks such as the FTSE4Good Index Series since 2002, MSCI ESG Research (AAA rating) since 2009 and Dow Jones Sustainability Indexes since 2011. Furthering its position as a sustainability leader, CDL successfully issued a green bond in April 2017, the first in Singapore by a local company.

A committee member of the Global Compact Network Singapore, which is the local network of UN Global Compact for CSR, Esther is a member of the World Green Building Council's Corporate Advisory Board and the Urban Land Institute Women's Leadership Initiative Singapore Steering Committee. Her latest appointments include: member of the UNEP Finance Initiative Property Working Group, GRI Corporate Leadership Group for Integrated Reporting and Sustainable Stock Exchanges' Green Finance Advisory Group.



Dr. Noeleen Heyzer Under-Secretary-General, United Nations (2007-2015)

Dr. Noeleen Heyzer, a social scientist, was an Under-Secretary-General of the United Nations and the highest ranking Singaporean in the UN system during her term.

She was the first woman to serve as the Executive Secretary of the UN Economic and Social Commission for Asia and the Pacific since its founding in 1947. Under her leadership (Aug 2007-Jan 2014), the commission focused on regional co-operation for a more resilient Asia-Pacific, founded on shared prosperity, social equity, and sustainable development. She was at the forefront of many innovations including for regional disaster preparedness, inclusive socio-economic policies, sustainable agriculture and urbanisation, energy security and regional connectivity. She was also the United Nations Secretary General's Special Adviser for Timor-Leste, working to support peace-building, state-building, and sustainable development in fragile states.

As the previous Executive Director of the UN Development Fund for Women, she was widely recognised for the formulation and implementation of Security Council Resolution 1325 on Women, Peace, and Security. Dr. Heyzer was a founding member of several international women's networks and has served on numerous boards and advisory committees of international organisations,

including the UNDP Human Development Report, the High-level Commonwealth Commission on Respect and Understanding chaired by Nobel Laureate Prof Amartya Sen, appointed a jury member of US, Secretary of State Hillary Clinton's Innovation Award for Women's and Girl's Empowerment 2010, and on the Board of Trustees of the National University of Singapore.

She holds a BA (Upper Hons) and a MSc from Singapore University, a PhD from Cambridge University, and has received numerous international awards for leadership.



Terri Wills
Chief Executive Officer, World Green Building Council

Terri Wills is the CEO of the World Green Building Council. She is responsible for developing and implementing the strategy for the organisation, and working with the Board of Directors, its various Committees, and the staff. Terri reports directly to the Chair of WorldGBC.

Previously, Terri was with the C40 Cities Climate Leadership Group where she spearheaded C40's networks that have had a direct impact on policy in over half of C40 cities. Terri also served as the London City Director for the Clinton Climate Initiative, worked with the Government of Ontario on clean technology and creative industry development, and worked for the BBC as a Head of Strategy.

In March 2017, Terri was named as one of 10 women leading the global push towards climate action, gender equality and social justice for all by Eco-Business.



Christina Lee Founder & Chief Executive Officer, Global Green Economic Forum

A visionary business professional with experience in media, business strategies and cross cultural management. Christina is deeply passionate about sustainability and business. She founded Global Green Economic Consulting (GGEC) in Singapore in 2012. GGEC successfully spin-off its business conference, Global Green Economic Forum (GGEF), to become a social enterprise since 2015. GGEC provides consulting service to help companies incorporate sustainability into their business with particular focus on stakeholders engagement. GGEC has a vast network in China and its effort in promoting sustainability is well recognised by the business community. Recently, GGEC has become the Belt & Road Initiative Strategic Partner to the Chinese largest privately owned clean-energy CHP provider, BROAD Group.

Prior to becoming an entrepreneur, Christina was appointed as Asia Managing Director of the leading global business media, Bloomberg Businessweek (formerly known as BusinessWeek) where she worked for 12 years. She oversaw the company's business operations, business development, events and local language editions in Asia. She played a significant role in the company's sales and business development where her contribution was highly recognised.

Previously, she also held senior positions at Yahoo! Inc., Star Television (News Corporation) and Avenue Magazine New York.

Actively in supporting media industry and business communities, Christina was the Deputy Chairman of SOPA (The Society of Publishers in Asia) and Chairman of its China Projects Group Sub-Committee. She is currently the Advisor of Tsinghua University x-lab, a board of director for Canaan Garden Charity, Permanent Member of Chiu Chow Chamber of Commerce and the Youth Elite Association in Hong Kong. Christina holds a Masters Degree in Management from Macquarie University (MGSM), Sydney. An avid sports enthusiast, she was honored to be a torch bearer for the 2008 Beijing Olympics.



Professor Ann Florini
Director, Master of Tri-Sector Collaboration, Singapore Management University

Professor Ann Florini is Professor of Public Policy, School of Social Sciences, Singapore Management University, and Non-resident Senior Fellow in the Foreign Policy Studies Programme at the Brookings Institution in Washington, DC.

Prof Florini has spearheaded numerous international projects, including the Global Governance Initiative on behalf of the World Economic Forum (2000-2005) and the International Task Force on Transparency, Initiative for Policy Dialogue, Columbia University (2000-2005). Before joining SMU,

she was the Founding Director of the Centre on Asia and Globalisation at the National University of Singapore (2006-2011).

She is author/ editor of four books and has published numerous scholarly and policy articles in journals such as Energy Policy, Foreign Policy, Global Governance, Global Policy, International Security, and International Studies Quarterly.

Prof Florini received her Ph.D. in Political Science from University of California, Los Angeles (UCLA) and a Master's in Public Affairs from the Woodrow Wilson School of Public and International Affairs at Princeton University.



Jessica Cheam Managing Editor, Eco-Business

Jessica is the Managing Editor of Eco-Business, an award-winning journalist, TV presenter, director, producer and a social entrepreneur.

She has more than a decade of experience in journalism with a particular expertise in sustainable development, and is also a columnist for The Straits Times where she was formerly the political and environment correspondent. She is an adjunct research associate for the Centre for Liveable Cities, a Singapore think tank focused on creating and sharing knowledge on liveable and sustainable cities.

She studied at the University of Warwick and University of London's Goldsmiths College, and has written for London-based publications such as The Independent, The Times and The Ecologist.

She is the winner of many journalism awards, including the Earth Journalism Awards at the UN climate change meeting in Copenhagen in 2009, Young Journalist of the Year by Singapore Press Holdings in 2010, and the Asean Green Technology Journalism Award in 2011. She also has a merit award for the environmental leadership category from the Ten Outstanding Young Persons awards by JCI Singapore.

She founded Eco-Business in 2009 with a vision to provide a platform for the region to discuss and advance sustainability issues. Under her leadership, Eco-Business beat other media giants to clinch the Lee Foundation Excellence in Environmental Reporting by a Media Organisation Merit Award at the Asian Environmental Journalism Awards (AEJA) 2013. In 2015, Jessica was given the AEJA's Sustained Environmental Reporting by a Journalist Award for her efforts in contributing to environmental journalism over the last decade.

Jessica's passion is in advocating sustainable development and gender equality. She is frequently invited to speak at events and moderate discussions across the globe on her areas of expertise.



Yvonne Soh Executive Director, Singapore Green Building Council

Yvonne is a passionate advocate on the use of recycled materials and adoption of sustainable construction practices, an interest she developed during the 10 years spent at the Building and Construction Authority (BCA). She spearheaded BCA's sustainable construction initiative as Director of the Centre for Sustainable Buildings and Construction, where she successfully collaborated with the United Nations Environment Programme (UNEP) on sustainable resource management in the building sector.

From her various portfolios, ranging from policy, regulatory, industry development, to research & development in BCA, Yvonne fully understands the fine balance between public and private partnerships. She played a key role in initiating a number of innovative building projects particularly in the use of alternative materials and minimisation of carbon emissions.

Yvonne is a Professional Engineer and graduated with a Bachelor of Engineering (Civil) from NTU in 1993 and obtained her Master of Science (Civil Engineering) degree from NUS in 1998. She gained her industry experience as a civil engineer at P&T Consultants, an international multi-disciplinary building and construction consultancy firm, before joining BCA. Prior to joining SGBC, Yvonne was instrumental in setting up the secretariat office and obtaining government funding and support for the Waste Management and Recycling Association of Singapore (WMRAS).

She actively contributes her knowledge and expertise through her appointments in a number of SPRING Singapore Standards Committees as well as the Singapore Accreditation Council.



Rita Soh Managing Director, RDC Architects Pte Ltd

Rita Soh graduated with honours from the National University of Singapore in 1987. In 2011, she obtained her Master of Science (Sustainable Building Design) from University of Nottingham (UK). This is to reinforce her strong belief in the need to have all buildings designed sustainably, with good environmental comforts for its occupants as well as to use mother earth's natural resources responsibly.

Ms Soh has been involved in many feasibility studies, design and project management of healthcare, hospitality, residential, commercial, industrial, institutional and infra-structure projects, both local and overseas.

Ms Soh is a Board member at Sentosa Development Corporation and a member of Appeals Board (Land Acquisition), BCA Productivity Gateway Advisory Panel as well as the HomeTeamNS Infrastructure Development Advisory Panel.

Regionally, she is Convenor for Architects Regional Council Asia (ARCASIA) Fellowship and was a Founding Chairman of Arcasia Committee on Professional Practice (2004-2008) as well as Chairman of Committee on Social Responsibilty (2015-2017)

Ms Soh served as President, Board of Architects Singapore for six years (2010-2015) and a Nominated Member of Parliament (12th Session)(2014-2015). She was also President of the Singapore Institute of Architects from 2004-2007 and was instrumental in establishing a Blueprint for the architectural profession in its pursuit of Architectural Excellence as well as a Pro-Enterprise approach in architecture.



# Susan van Boxtel Advisor for Innovation, Technology & Science, Holland Innovation Network, Embassy of the Kingdom of the Netherlands in Singapore and in Malaysia

Susan van Boxtel is Advisor for Innovation, Technology & Science at the Embassy of the Kingdom of the Netherlands. She heads the regional team of the Holland Innovation Network, reporting to the Netherlands Enterprise Agency (RVO) and the Dutch Ministry of Economic Affairs. The Holland Innovation Network informs, inspires and connects governmental agencies, companies and universities from the Netherlands to partners for innovation in Singapore and in Malaysia.

The Singapore-Netherlands innovation collaborations are mainly in the topics of Water (Urban Resilience, Drinking water); High Tech (Smart Industry & Autonomous Vehicles); Energy & Environment (Energy Efficiency, Renewables and Circular Economy), Health (Medical Technology, and Ageing Society).



Yeo Lian Sim Special Advisor, Diversity, Singapore Exchange

Lian Sim is Special Adviser at the Singapore Exchange (SGX) after 10 years as head of regulation and risk management. As regulator, she had charge of listed companies, member brokers and trading surveillance for a fair, orderly and transparent market. Risk management responsibilities covered financial risk of clearing and settlement and oversight of enterprise risk.

Before joining the SGX, Lian Sim was for many years at the Monetary Authority of Singapore in various roles including managing foreign reserves, responsibility for exchange rate and monetary

policy and regulating the capital market. She was also seconded to Temasek Holdings (Private) Limited.

Lian Sim is a director of Shared Services for Charities Limited and has also served on the boards of various charitable organisations. She graduated with Honours from the University of Singapore and holds a Master's degree from the London Business School, London University. Lian Sim was awarded the Public Administration Medal (Gold) at the Singapore National Day Honours 1994.



Mabel Wong Executive Director, CSR Asia

Mabel is Executive Director of CSR Asia. In her last eight years with CSR Asia, Mabel has engaged with and advised various multinational and local companies. Clients have included Accor hospitality group, adidas, Citi, City Developments Limited, Credit Suisse, Prudence Foundation and UNICEF with projects including advisory on sustainability strategy, stakeholder engagement, social impact assessment, corporate community investment and sustainable supply chains. She is also an experienced trainer and facilitator, and contributes to research that aims to build capacity on sustainable business practices in Asia.

Mabel leads on CSR Asia's initiatives in Australia, supporting Australian companies with their sustainability practices in Asia, she is also responsible for CSR Asia's Community Investment Round Table (CIRT) – a member-based regional network of corporate community investment practitioners. The CIRT envisions companies in Asia to play a key role in creating positive change for communities and plays an active role to share best practices in corporate community investment.

Prior to CSR Asia, Mabel had extensive experience in the development sector. In her last role, Mabel was in an Asia-Pacific regional role liaising with senior government representatives, NGOs, corporates and UN bodies, providing technical assistance to countries starting up national child protection helplines.

Mabel holds a BA (Political Science and Psychology) and a Master's in Public Administration (Policy, Public and Non-Profit Program) from the Robert F. Wagner Graduate School of Public Service, New York University.



#### Annex E

# ABOUT THE 6<sup>TH</sup> CDL SINGAPORE SCULPTURE AWARDS

Beyond a builder of living spaces, City Developments Limited (CDL) firmly believes in being a developer of lives and community. The CDL Singapore Sculpture Awards is part of its long-standing commitment to support Singapore's arts and youth development. Introduced by CDL since 2002, the biennial award nurtures artistic talent amongst youths and local artists, fosters greater appreciation for this art form and enriches Singapore's cultural landscape through the commissioning of winning works for public display.

Centred on the theme of 'Towards Zero-Waste!', the submissions drew inspiration from the concept of a Circular Economy and Singapore's vision of becoming a zero-waste nation by 2030.

Through this theme, CDL hopes to shift mindsets and change behaviour from a linear "take-make-dispose" model to a more circular one, in which resources are circulated back into the economy and used for a prolonged period.

To encapsulate the spirit of sustainability and the essence of a circular, zero-waste economy, all design submissions had to utilise residual building materials taken from the <u>Singapore Sustainability Academy (SSA)</u>, including Cross Laminated Timber, Glued Laminated Timber, and timber decking.

For more information, visit http://www.cdl.com.sg/sculptureaward2017/

# Winning submissions

#### **Open Category**

All Singapore citizens and Permanent Residents residing in Singapore and abroad as well as work permit, professional and student pass holders.

Ms Toh Ah Lan, 56 Full-time artist

#### "Growth Within"

The design concept came from the water urn used by our Indian friends while the interior is inspired by our nature, the sea. This marquette is constructed by using numerous ice cream sticks, stacked one on top of the other, row by row. Similarly, the actual sculpture will be made of numerous timber strips which are remnant building materials of the Singapore Sustainability Academy (SSA).

This symbolises the united spirit, likened to how school of fish swims together. Nothing is wasted in a sea, even waste discharged from the fishes become a natural fertilizer. Together with the sunlight through the windows, the seed has sprouted and the leaves sway along to the rhythm of the wind.

This winning sculpture will be displayed outside the SSA to remind and inspire all to conserve resources for a sustainable future.







# **Student Category**

Students from Secondary Schools, Junior Colleges, Institute of Technical Education, Polytechnics, Singapore Universities, International Schools, Private Schools and Arts Institutions in Singapore.

Ms Joanne Lim Sok Hua, 16 Secondary 4 Singapore Chinese Girls' School

# "空 - The Void"

The sculpture was inspired by the concept of a circular economy. Its design was influenced by Tom Stogdon's circular sculptures.

Tom Stogdon, a well-known sculptor based in London, was born into a fourth generation of greengrocers and worked in the fruit trade. His experiences with natural elements have influenced the repetition and movement in his pieces.

Adapting Stogdon's designs in her artwork, the artist wanted to make a circular sculpture out of wood to represent the 0 (zero) in waste. She also felt that a circle represents trash, life, and the concept of a circular economy.









Prizes	Open Category	Student Category
Winner	S\$10,000	S\$5,000
First Runner-Up	S\$3,000	S\$2,000
Merit Award	S\$1,500	S\$1,000
Award Recipients	Judges	
Open Category		
<ul> <li>Winner</li> <li>Ms Toh Ah Lan, 56, Full-time artist</li> </ul>	Mr Baet Yeok Kuan Mr Tang Kok Thye Mr Yeo Chee Kiong	
First Runner-Up  • Ms Wang Lihui, 32, Architect	Ms Esther An	
Merit Award  • Ms Felicia Toh, 30, Architect		
Student Category		
Winner	Mr Baet Yeok I	
Ms Joanne Lim Sok Hua, 16     Secondary 4	Mr Yang Kok T	
Secondary 4 Singapore Chinese Girls' School	Mr Yeo Chee K Ms Esther An	ciong
First Runner-Up  • Ms Chang Wei Tong, Valantia, 20 Nanyang Technological University Year 1, School Of Art, Design and Media		
Merit Award		
Ms Nicole Gong Xin Ting, 17     ITE College Central, School of Interior Design		