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NEWS RELEASE

CapitaLand Sustainability X Challenge unveils greentech startup finalists to pilot their innovations at CapitaLand properties
Six finalists to vie for top awards in the inaugural Challenge's Grand Finale as CapitaLand seeks best-in-class sustainability innovations globally

Singapore, 24 May 2021 – CapitaLand has unveiled the six finalists from the hotly contested CapitaLand Sustainability X Challenge (CSXC) that will vie for the two top awards at the inaugural Grand Finale on 11 June 2021. The finalists will get a chance to pilot their greentech innovations at selected CapitaLand properties worldwide. The six innovations, comprising a mix of greentech startups and companies from Singapore, China, and the United States of America, stood out from over 270 entries received from more than 25 countries. Four of the companies will be showcasing their innovations for the first time in Singapore.

The six innovations¹ are:

- A portable, self-powered energy generator cum chiller which can generate clean energy and cool air affordably for buildings using ambient heat or waste heat².
- A water treatment process utilising photon vibration frequency technology to treat cooling tower water without the use of chemicals or power, achieving 60% to over 90% water savings and 1% to over 5% energy savings.
- An insulating glass retrofit technology that reduces heat gain inside a building, reducing the energy consumption used to heat or cool the building by up to 40%².
- The use of innovative construction materials for curtain wall with around 10 times less embodied carbon, and enhanced heat and wind resistance².
- A smart waste bin which uses artificial intelligence, robotics and multiple sensors to sort waste with around 90% accuracy to facilitate better recycling efforts².
- An indoor air disinfection solution that reduces virus survivability by over 99% within seconds.

The winners of the top two awards will each receive S\$50,000 to fund their pilot at CapitaLand properties. Other suitable cleantech and sustainability innovations received among the entries will also be considered for future pilots with CapitaLand. For more information on the six finalists, please see Annex A.

Ms Lynette Leong, Chief Sustainability Officer for CapitaLand Group said: "As a world-class sustainable real estate leader, CapitaLand plays an active role in not only shaping a greener built environment, but to also support sustainability innovations in the ecosystem. As part of

¹ Data provided by CSXC finalists.

² Innovations that will be showcased for the first time in Singapore.

CapitaLand's 2030 Sustainability Master Plan to elevate our sustainability commitments, the CapitaLand Sustainability X Challenge provides a global platform for CapitaLand to uncover burgeoning innovations from across the world that could contribute to our sustainability efforts. We are giving these finalists the opportunity to realise their full potential in making a positive impact on the environment. From the provision of funding, connecting them with industry experts, and offering a real-world sandbox to stress-test their inventions, the finalists can iterate faster and accelerate towards commercialisation. Through innovation and collaboration, we aim to step up our sustainability efforts including increasing the use of clean energy while greening our global portfolio, meeting our science-based targets to significantly reduce our carbon emissions intensity, improving portfolio resilience and resource efficiency, and enhancing the indoor environmental health and safety of our building occupants."

[Watch the CapitaLand Sustainability X Challenge Grand Finale Online – Live global broadcast on 11 June 2021, 4pm \(Singapore time\) or GMT+8](#)

The six innovations will compete in the Grand Finale of the CSXC for the 'High Impact Award' and the 'Most Innovative Award' on 11 June 2021. Minister for Sustainability and the Environment of Singapore, Ms Grace Fu will attend the finale as the guest-of-honour.

Each finalist will deliver their pitch, showcasing their value proposition and potential scale of their innovations. They will also address questions from CSXC's judging panel, which comprises CapitaLand's Group Chief Executive Officer, Mr Lee Chee Koon and a global line-up of experts from Temasek, The Centre for Liveable Cities, Rocky Mountain Institute and ETH Zurich.

To prepare the six finalists for the finale, they have been paired with CapitaLand executives as well as strategic partners of the CSXC for a mentorship and coaching programme. For more information on the judging panel and the mentorship and coaching programme, please see Annex B.

The Grand Finale and the finalists' pitches will be globally broadcast live on 11 June 2021 from 4pm (Singapore time) or GMT+8. The broadcast will be available on CSXC's [website](#) and CapitaLand's [Facebook](#) channel.

Winners of the two awards will each receive S\$50,000 to fund their pilot at CapitaLand properties. The CSXC will also offer winners and finalists access to its partners' global innovation programmes, where they get to connect with more potential investors and business partners, receive expert advice and be exposed to potential business opportunities to accelerate the growth of their businesses. Winners will have the chance to showcase their innovations to senior global business leaders, investors and policymakers at the annual Ecosperity Week³, organised by Temasek, the lead partner of the CSXC.

During the finale, there will be a plenary session titled "Is Sustainability The 'New Gold' In Real Estate Investments?". The plenary session will feature Mr Ben Powell, Chief Investment Strategist for APAC, BlackRock Investment Institute and Mr Steve Melhuish, Founder of PropertyGuru & CEO, Planet Rise, and will be moderated by CapitaLand's Chief Sustainability Officer, Ms Lynette Leong.

³ Ecosperity Week will take place from 28-30 September 2021 in Singapore.

For more information on the CSXC and CapitaLand's 2030 Sustainability Master Plan, please visit: <https://www.capitaland.com/international/en/about-capitaland/sustainability.html> and www.capitalandsustainabilityxchallenge.com.

About CapitaLand Limited (www.capitaland.com)

CapitaLand Limited (CapitaLand) is one of Asia's largest diversified real estate groups. Headquartered and listed in Singapore, it owns and manages a global portfolio worth about S\$137.7 billion as at 31 March 2021. CapitaLand's portfolio spans across diversified real estate classes which includes commercial, retail; business park, industrial and logistics; integrated development, urban development; as well as lodging and residential. With a presence across more than 240 cities in over 30 countries, the Group focuses on Singapore and China as its core markets, while it continues to expand in markets such as India, Vietnam, Australia, Europe and the USA.

CapitaLand has one of the largest real estate investment management businesses globally. It manages six listed real estate investment trusts (REITs) and business trusts as well as over 20 private funds. CapitaLand launched Singapore's first REIT in 2002 and today, its stable of REITs and business trusts comprises CapitaLand Integrated Commercial Trust, Ascendas Real Estate Investment Trust, Ascott Residence Trust, CapitaLand China Trust, Ascendas India Trust and CapitaLand Malaysia Mall Trust.

CapitaLand places sustainability at the core of what it does. As a responsible real estate company, CapitaLand contributes to the environmental and social well-being of the communities where it operates, as it delivers long-term economic value to its stakeholders.

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Annex A – The six finalists of the CapitaLand Sustainability X Challenge⁴

Blue Green World - Without Fossil Fuels by g-EN Pte Ltd – Making its global debut at CSXC, the CooGen™ is a self-powered cold hydraulic generator that can generate clean energy affordably for buildings, using ambient heat or waste heat of minimally 25 degrees Celsius which is abundant. The cold air from the exhaust can also be used to cool buildings. Similar to a standalone power generator, the CooGen™ is also highly portable. g-EN is based in Singapore.

Air-Conditioning and Mechanical Ventilation (ACMV) energy efficiency and water conservation - Simple, Safe and Effective by Climatec Corp Pte Ltd – ClimaControl Quantum Resonance Water (QRW) is a novel and unique solution that treats water used in cooling towers without the use of chemicals or power. The water can be recycled for other uses in the building such as plant irrigation or toilet flushing. ClimaControl QRW utilises the principle of micro-molecular water and photon vibration frequency technology created through strong magnetic fields and ceramic-based composites to treat the water. ClimaControl QRW is able to reduce blowdown water from 60% to over 90% and reduce associated downstream chiller system energy consumption from 1% to over 5%. Climatec is based in Singapore.

Insulating glass retrofit technology by INOVUES, INC. – INOVUES has developed an innovative solution to upgrade building facades and windows with the latest energy-saving and smart glass technologies without replacement or reglazing. The product can reduce noise and heat gain inside a building by up to 10 times. This increases the comfort of building occupants and reduces the energy consumption required to cool the environment by up to 40% without compromising luminosity indoors. It is a non-invasive and non-disruptive retrofit solution that can be easily installed externally or internally without removing, replacing, drilling, or alterations, saving time and reducing the cost of upgrading the windows and glass facades of existing buildings by up to 10 times. INOVUES is based in the United States of America.

GRPU curtain wall – A thermal insulation curtain wall by Taichu Guocai Materials Co. Ltd – The Glass Fibre Reinforced Polyurethane (GRPU) curtain wall is an innovative substitute to conventional aluminium curtain walls. It offers improved thermal insulation - reducing energy consumption used to heat or cool the building by up to 25%, is five times stronger and is also more heat and wind resistant. The GRPU material also has around 10 times less embodied carbon emissions compared to aluminium, making the building construction process more sustainable. A curtain wall system is non-structural and is installed on the building's facade to keep out natural elements like heat, rain and wind. Taichu Guocai is based in China.

TrashBot - Sorting waste with artificial intelligence and robotics by CleanRobotics Inc. – Making its debut in Singapore, TrashBot is a smart waste bin which uses artificial intelligence, robotics and multiple sensors to sort waste with around 90% accuracy, promoting more efficient recycling or disposal. TrashBot is also able to record data on the type of waste collected and alert building operators when the bin is full. CleanRobotics is based in the United States of America.

LumenAire - We make the air you breathe healthy and safe by ARID Builders Pte Ltd – The LumenAire UV Air Disinfection Solution is a shielded air purification device with a high-efficiency particulate absorbing (HEPA) filter and Ultraviolet Germicidal Irradiation (UVGI) technology. It could not only sanitise the air but also reduce virus survivability by over 99% within seconds, eliminating airborne pathogens to create a safer and healthier environment indoors. ARID Builders is based in Singapore.

⁴ Data provided by CSXC finalists.

Annex B – The judging panel and the mentorship and coaching programme of the CapitaLand Sustainability X Challenge

The CapitaLand Sustainability X Challenge (CSXC) is a global open call for sustainability-related innovations, encouraging innovators and organisations to share their ideas and solutions to transform the built environment. The CSXC is the first sustainability challenge by a Singapore real estate company on a global scale.

The CSXC encompasses seven challenge statements across four themes developed by CapitaLand to meet its global business needs and sustainability goals. The seven statements seek to accelerate CapitaLand’s transition to a low-carbon company, to use water more efficiently, conserve or recycle water, to step up its waste management practices and to improve the indoor air quality, developing healthier and safer buildings for the communities it operates in.

Mentors from CapitaLand will deepen the finalists’ understanding of CapitaLand’s operations and its sustainability requirements and aims, while also identifying opportunities to scale their innovations within the CapitaLand portfolio. External mentors will work with the finalists to sharpen their business plans, product positioning and enhance their understanding of the industry. Mentors can also link them up with potential external partners to further grow their business. The finalists will also have access to coaches to refine their pitch.

Judging Panel	External Mentors
<ul style="list-style-type: none"> • Mr Lee Chee Koon, CapitaLand’s Group Chief Executive Officer. • Ms Goh Swee Chen, CapitaLand’s Independent Director and Chairman of CapitaLand’s Sustainability Council. • Mr Rohit Sipahimalani, Temasek’s Chief Investment Strategist. • Dr Cheong Koon Hean, Chairman of Centre for Liveable Cities, under the Singapore Ministry of National Development. • Dr Jon Creyts, Managing Director, Rocky Mountain Institute. • Dr Chris Luebkehan, Leader of the Strategic Foresight Hub in the Office of the President at ETH Zurich. 	<ul style="list-style-type: none"> • Mr Nicolai Sederberg Rottbøll, Founder and CEO, Quercus Group from Access Cities. • Ms Melissa Ho, Senior Investment Associate, Wavemaker Partners. • Mr Steve Melhuish, Founder of PropertyGuru & CEO, Planet Rise. • Ms Hui Zhu, Senior Manager, Bain & Company. • Mr Aaron Fyke, Founder & Managing Partner, The Thin Line Capital. • Mr Nitin Vaish, Senior Vice-President, General Manager, New Markets, Rocky Mountain Institute.
	<p style="text-align: center;">External Coaches</p>
	<ul style="list-style-type: none"> • Mr David Lee, Director & Principal Consultant, Luminaries Lab. • Julian Kezelman, Program Director, RealTechX Growth Program, Taronga Ventures.