

# ZERO ON NATURE

EMBRACING NATURE TO ENHANCE  
VALUE AND IMPACT

INTEGRATED  
SUSTAINABILITY  
REPORT 2024

(17<sup>th</sup> Edition)



**Singapore Healthcare  
Management Congress  
2024:**

**“Can healthcare fix a sick  
Planet with a climate and  
nature emergency?”**

**15 August 2024**

Presented by

**Esther An**

**Chief Sustainability Officer**

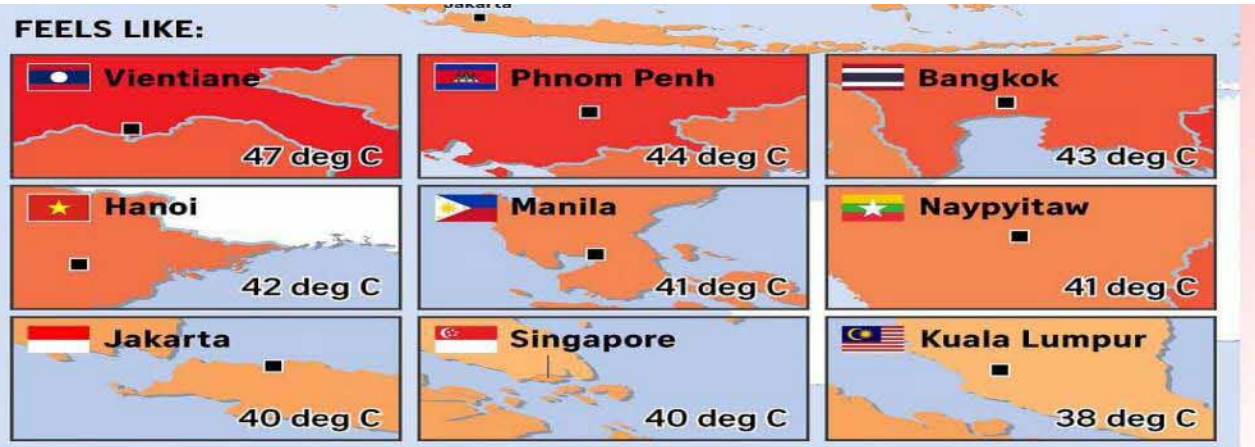


CITY  
DEVELOPMENTS  
LIMITED

# Global Warming has Ended, the Era of Global Boiling has Arrived –

Climate and Nature-related Risks are Business Risks - Threatening Humanity & Biodiversity

- **2023: the Warmest year on record** by a large margin – between **1.34°C and 1.54°C above pre-industrial levels**
- **April 2024: Hottest on record** – Severe heat hit SE Asia with temperature above **40°C**



Source: Accuweather

## Cities, Buildings & Construction's High Footprint

- **Cities: 3%** of world's landmass; accounting for **60-80%** of global energy consumption & **75%** of carbon emissions. (Source: UNEP)
- **Urban population** live in cities: 56% today >> **70% by 2050** (Source: World Bank, 3 Apr 2023)

## High Cost of Climate & Nature Threats & Inaction

- About **50% of global GDP** is dependent on **Nature** (source: World Bank 2024)
- Despite **44%** of cities' global GDP being estimated at risk from nature loss, only **35%** of the world's **500** most populous cities have developed a dedicated strategy focused on nature or biodiversity preservation. (source: WEF, Nature Positive Cities, 2024)
- **Insured losses** exceeded **USD100 billion in 2023 & by 2040, projected to add USD183 bn to property insurance cost.** (source: Swiss Re)
- Nature loss impacts **human rights > more than 1 billion people** rely on forests for their livelihoods (UN, 2022)



# A New Era of Sustainability - Net Zero as the North Star Goal to Drive Global Climate Action

## ESG & Decarbonisation are Mainstream Political & Business/Investment Priorities



Participating cities & organisations: **90% Global GDP**

- 3 Largest Economies in East Asia - China (2060), Japan & S Korea (2050)
- ASEAN countries: Malaysia, Singapore, Thailand, Vietnam (2050) Indonesia (2060)
- India (2070)

<b>1,148</b>	<b>52</b>	<b>10,274</b>
Cities	States and regions	Companies

<b>661</b>	<b>1,193</b>	<b>84</b>
Financial Institutions	Educational institutions	Healthcare institutions

### Financiers, Investors, Regulators are key Drivers for Net Zero

#### Net-Zero Asset Owner Alliance (Sep 2019):

Global institutional investors (\$11 tn in assets as of Jan 2023) made a bold commitment to transition investment portfolio to Net Zero by 2050.

#### Net-Zero Insurance Alliance (July 2021):

Global insurance using underwriting claims and risk management practices to help ensure and enable the transition to a resilient Net-Zero global economy.

#### Net-Zero Banking Alliance (Nov 2021):

> 130 banks representing US\$74 trillion in assets (41% of global banking assets) (as of Dec 2022), committed to align lending and investment portfolios with net-zero emissions by 2050. Part of the Glasgow Financial Alliance for Net Zero (GFANZ).

#### Glasgow Financial Alliance for Net Zero (Nov 2021)

> 550 firms representing US\$130 trillion in assets (40% of the world's financial assets) (as of 2023), pledging to meet the goals set out in the Paris climate agreement.

# What does Sustainability have to do with the Impact on Human Health?



**Environmental Quality:** Sustainable practices help reduce pollution and improve air, water, and soil quality, which directly affects human health. Poor air quality from carbon emissions can cause respiratory and cardiovascular issues, while water and soil contamination can lead to various diseases

**Climate Change Mitigation:** Today, contaminated water, food, and air remain major causes for suffering and death globally. Many of these problems are expected to be worsened by the ongoing climate change.<sup>1</sup> Sustainable practices help mitigate climate change, which has numerous health implications, including risks of respiratory diseases, cardiovascular problems, and the spread of infectious diseases.

**Food Security and Nutrition:** Sustainable food systems ensure better nutrition and food security, reducing malnutrition and hunger. Extreme weather events, gradual warming, and changes in humidity indirectly affect human health by disrupting healthcare delivery and endangering food security.<sup>2</sup>

**Access to Clean Water:** Sustainable water management practices ensure access to clean, safe drinking water, reducing waterborne diseases.

**Waste Reduction:** Proper waste management and reduction of toxic substances in the environment decrease exposure to harmful chemicals that can cause various health issues

**23%**  
of all global deaths  
could be prevented through healthier environments<sup>11</sup>

**250K**  
additional deaths  
per year expected to be caused by climate change between 2030 and 2050<sup>12</sup>

**5–10%**  
of emissions of greenhouse  
gases  
and other air pollutants are caused by healthcare systems<sup>13</sup>

Source: [Mckinsey Health Institute](#)

# CDL's Sustainability-Centric Business Model: Committed to Doing Well by Doing Good for Decades



## RESIDENTIAL

Developed over  
**50,000**  
residences globally



## COMMERCIAL

Owns around  
**23 million sq ft**  
of gross floor area of office,  
industrial, retail, residential for lease  
and hotel space globally



## HOTELS

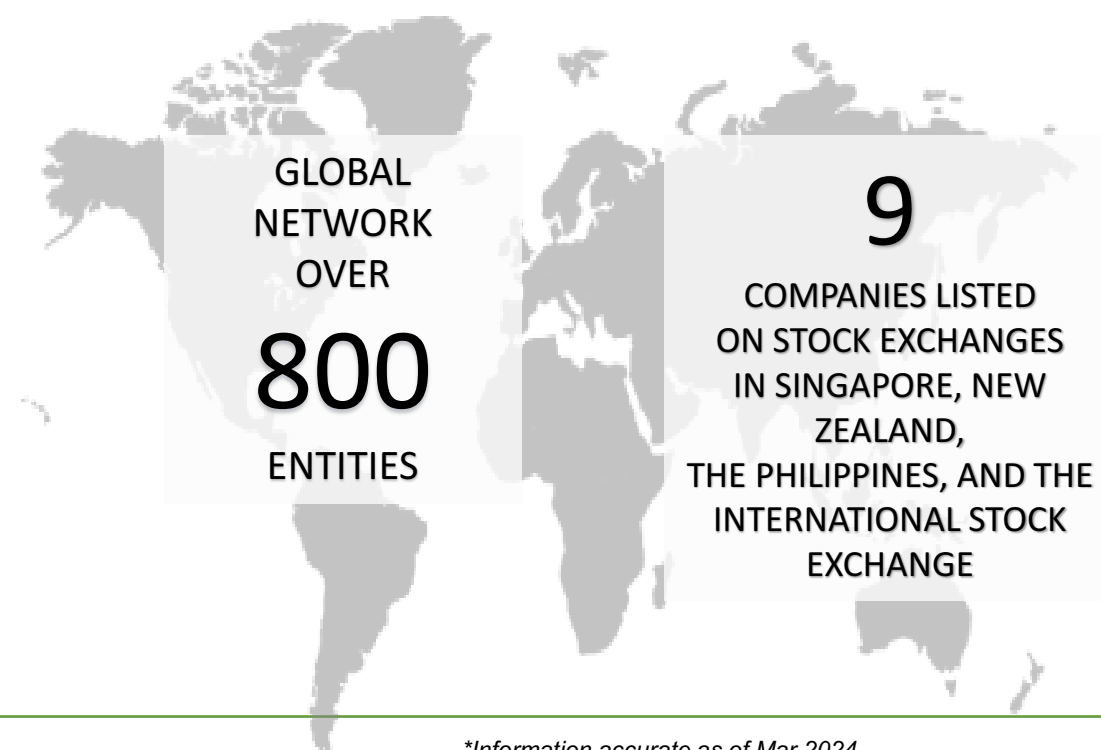
Global footprint of over  
**155** hotels  
that are owned, managed/franchised  
or operated by third-parties



## FUND MANAGEMENT

Assets Under Management (AUM)  
**US\$3 billion**

- **1963:** Established with eight employees
- **1995:** “Conserving as We Construct” corporate ethos
- **Today:** a listed international real estate operating company >15,000 employees globally
- **Privatised M&C Hotels (Oct 2019)**
- **Group revenue: S\$4.9B (June 2024)**
- **Total assets: S\$24.2B**
- **163 Locations in 29 Countries and Regions\***



<b>ASIA</b>				
<b>China</b> • Beijing • Chengdu • Chongqing • Dongguan • Fujian • Fuqing • Guizhou • Hangzhou • Hong Kong	• Shanghai • Shenzhen • Suzhou • Wuxi • Xiamen • Wenzhou	<b>Japan</b> • Tokyo • Osaka • Yokohama	<b>Maldives</b> • Meradhoo Island • Velavaru Island	<b>Thailand</b> • Bangkok • Phuket
<b>Indonesia</b> • Jakarta	<b>Malaysia</b> • Cameron Highlands • Johor Bahru • Kuala Lumpur • Penang	<b>Singapore</b> • Singapore	<b>Taiwan</b> • Taichung • Taipei	<b>Philippines</b> • Manila
<b>AUSTRALASIA</b>				
<b>Australia</b> • Brisbane • Melbourne • Perth	<b>New Zealand</b> • Auckland • Bay of Islands • Dunedin	• Greymouth • Masterton • New Plymouth • Paihia	• Palmerston North • Queenstown • Rotorua	• Taupo • Te Anau • Wellington
<b>MIDDLE EAST</b>				
<b>Iraq</b> • Sulaymaniyah • Basra	<b>Oman</b> • Muscat • Salalah	<b>Qatar</b> • Doha	• Gizan • Tabouk	<b>United Arab Emirates</b> • Abu Dhabi • Dubai • Sharjah
<b>Kuwait</b> • Al Jahra • Al Kuwayt	<b>Palestine</b> • Ramallah	<b>Saudi Arabia</b> • Hail • Madinah • Makkah	<b>Turkey</b> • Istanbul • Konya	
<b>EUROPE</b>				
<b>France</b> • Abbeville • Aurillac • Belfort • Bessoncourt • Bergerac • Blois • Brive-la-Gaillarde • Bruay-la-Buissière • Calais • Cergy • Châteauroux • Saint-Maur • Châtellerault • Cholet • Claye-Souilly • Concarnéau • Dinan Taden • Douai Lambres-Lez-Douai • Dreux • Essey-lès-Nancy	• Évreux • Fayet • Foix • Forbach • Gap • Golbey • Istres • Lannion • Laval Changé • Macon • Maizières-lès-Metz • Marseille • Paris • Pont-Audemer • Pontivy • Sables d'Olonne • Saint-Cyr-sur-Loire • Saint-Étienne-du-Rouvray • Saint-Maur • Saint-Mitre-les-Remparts	• Sarrebourg • Sens • Verdun • Haudainville • Vichy • Bellerivesur-Allier • Viriat • Georgia • Tbilisi • Germany • Berlin • Bonn • Darmstadt • Dresden • Frankfurt • Munich • Münster • Italy • Rome • Florence • Russia • Moscow	<b>Spain</b> • Madrid • Barcelona • The Netherlands • Amsterdam • Apeldoorn • Garderen • Oosterbeek • Rotterdam • The Hague • Utrecht • Vaals • Venlo • Zwolle • United Kingdom (UK) • Aberdeen • Birmingham • Cambridge • Cardiff • Canterbury • Coventry • Dudley • Gatwick	• Glasgow • Leeds • Liverpool • London • Manchester • Newcastle • Plymouth • Slough-Windsor • Southampton
<b>NORTH AMERICA</b>				
<b>United States (US)</b> • Anchorage	• Avon • Boston • Chagrin Falls	• Chicago • Durham • Kissimmee	• Los Angeles • Minneapolis • Nashville	• New York • Scottsdale • Sunnyvale



# Sustainability Integration since 1995 & Reporting since 2008: Creating Impact and Value

## 4 'I' Strategic Pillars & Robust Reporting Framework on Material ESG Performance

### INTEGRATION

*Integrating into Business, Operations & Governance Structure at all Levels – engaging External & Internal Stakeholders along Value Chain*

### INNOVATION & ADAPTATION

*Applying Technologies & Solutions to Accelerate Green Building, a Low Carbon & Circular Economy.*

### INVESTMENT

*Tapping growing ESG Funds, Sustainable Finance & Impact Investing to Accelerate Climate Action & Green Buildings Innovation*

### IMPACT

*Reaching out to Value Chain & a Larger Ecosystem of Stakeholders. Creating Positive Impact and Long-term Value for Business, People & Planet. Prompt Reporting since 2008, yearly & quarterly.*

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### CDL's Value Creation Model

A Two-Pillar ESG Disclosure & Reporting Framework, Capturing Value and Impact Embracing Major ESG Standards & Frameworks and 15 UN SDGs



**RACE TO ZERO**

Impact **GRI** Since 2008 + **ISSB** Value

# Integrating ESG/Nature into Product & Practices - Key Sustainability Milestones Since 1995



## 1995-2008

- **1995: Corp Ethos 'Conserving as we Construct'**
- **2003: EHS Policy & 1st Eco Condo** in Singapore using Solar
- **2003: First developer to achieve ISO 14001** Environmental Management System
- **2005:** First SG property firm to join UNGC & adopt its Ten Principles
- **2007: First Green Mark (GM) Platinum Award** in the private sector – City Square Mall & **First GM Platinum for Residential** – Oceanfront Condo
- **2008:** Published Singapore's First Sustainability Report

## 2009-2010

- **2009: Launched 1st CarbonNeutral® development** in Singapore and APAC region, 11 Tampines Concourse. **Carbon Neutralize HQ ops.**
- **2009:** Launched **Singapore's 1st Eco-mall, City Square Mall**
- **2010:** Joined **WGBC as a member**
- **2010:** CDL has been voluntarily conducting **BIA on greenfield sites** before construction where applicable, and environmental mitigation measures are undertaken where necessary.

## 2011-2016

- **Since 2011:** CDL voluntarily sets minimum target for all new developments to be **Green Mark GoldPLUS** certified
- **2014:** CDL was the **first developer in Asia to adopt PPVC for a large-scale residential development** worldwide (The Brownstone EC)
- **2015: Climate Change Policy** to commit to low-carbon operations
- **2016:** Early adopter of **UN SDGs**
- **2016:** 1st Singapore developer to validate GHG emissions **against ISO 14064**

## 2017-2018

- **2017: CDL FV2030 Sustainability Blueprint**
- **Amongst the first few SG companies to adopt TCFD framework** in sustainability reporting
- **2018:** First Singapore Developer to have **SBTi-validated carbon reduction targets** (59% by 2030 vs 2°C warmer world)
- **2018:** Raised carbon emissions intensity target from 25% to 38% by 2030
- Set **target to reduce embodied carbon** by 24% by 2030
- **2018:** Commenced 1<sup>st</sup> **climate change scenario study** for 2°C and 4°C warmer scenarios

## 2019-2020

- **2019:** Joined pioneer batch of 87 companies to support UNGC's **Business Ambition for 1.5°C** campaign
- **2019:** Commenced 2<sup>nd</sup> study for a 1.5°C warmer scenario to align with IPCC's Special Report. Completed in 2020.
- **2020:** Took the **United Nations Climate Neutral Now Pledge**
- **2020:** Developed **CDL Biodiversity Policy and 3S Green Building Framework**

## 2021-Present

- **2021:** Signed the **WorldGBC's Net Zero Carbon Buildings Commitment**, pledging net zero operational carbon for buildings under direct control by 2030
- Only Singapore RE company which participated in **Climate Impact X's Pilot Auction**
- Expanded WorldGBC's net zero goal to include **embodied carbon**
- **2022:** Pledged to support **COP27 Action Declaration** by Corporate Knights and Global 100
- **2022:** Completed **3rd Climate Change Scenario Study** with additional scope and parameters
- **2024:** Early adopter of **TNFD**



# 1<sup>st</sup> in SE Asia to Pledge to WorldGBC Net Zero Carbon Buildings - Tracking & Reporting Yearly

## Whole Life Cycle Commitment & Action Plan – Clear & Specific Targets



ADVANCING  
NET ZERO



SCIENCE  
BASED  
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

### Specific & Transparent Targets and Scope in 2 Phases

#### 2030: New developments & 12 Singapore assets under direct ownership & operation.

- 247, 016 m<sup>2</sup> total floor area
- 15, 044 tCO<sub>2</sub>e portfolio carbon emissions
- 16, 922 average kgCO<sub>2</sub>e/m<sup>2</sup> Whole Life Carbon Footprint
- 415 employees

#### 2050: Global portfolio



Republic Plaza - 280-m tall flagship building, CDL's HQ

### Scope of CDL's Commitment

#### 1. Commit

2030: To achieve net-zero operational carbon for new and existing wholly-owned assets under direct operational and management control. Whole Life Cycle: Maximise reduction in embodied carbon & compensate for any residual upfront emissions via offsetting for new developments and major renovations.

2050: All new and existing assets to be Net Zero.

#### 2. Disclose

Measure and publicly disclose scope 1 and 2 emissions, embodied carbon emissions and energy consumption through annual reports. Assess annual asset and portfolio energy demand and carbon emissions against set targets.

#### 3. Act

Reduce energy consumption for construction and operations of assets, through implementing energy efficiency measures and explore switching to 100% renewable energy through on-site production or procurement of clean energy e.g. REC. Adopt sustainable building designs, materials and supply chain practices to reduce upfront embodied carbon and offset any residual upfront emissions.

#### 4. Verify

Demonstrate enhanced energy performance, reduced carbon emissions and progress towards net-zero carbon assets via third-party certification by aligning with recognised and industry leading local third-party certification and verification schemes. Verify and report lifecycle assessment for embodied carbon at asset level for new developments.

#### 5. Advocate

A longstanding green building and sustainability champion, CDL will continue to engage and influence value chain and key stakeholders, to support and build towards a wider transition to a net-zero whole life carbon-built environment.

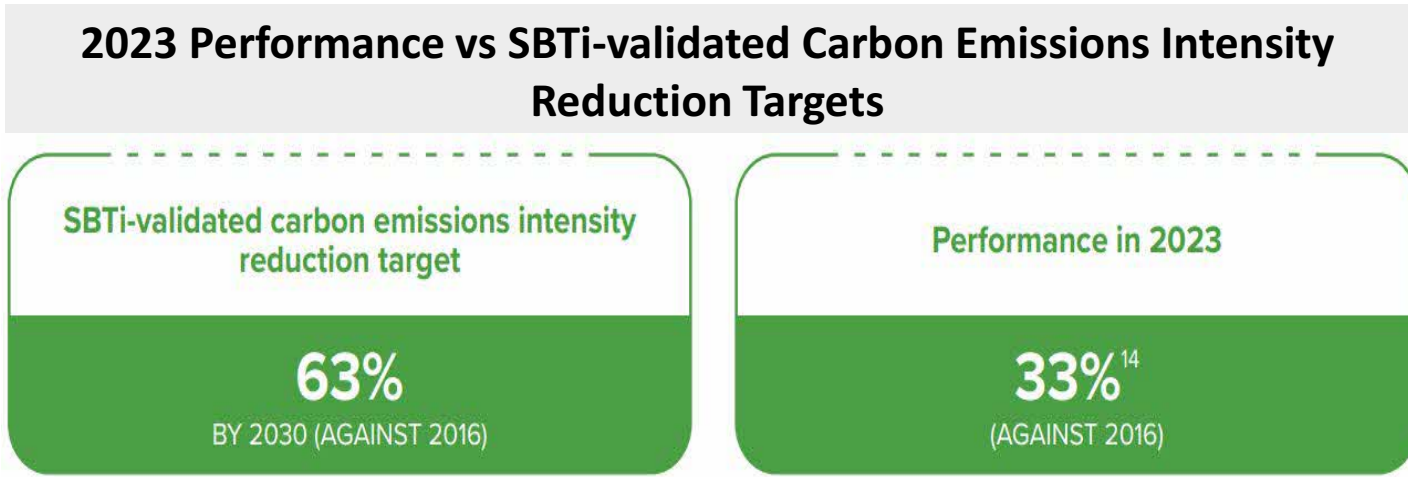




# SBTi-validated GHG Reduction Targets Since 2018: Ahead of Mandatory Scope 3 Reporting fm 2025

- **2018:** CDL was the **first real estate company in Singapore to set SBTi-validated targets** based on a **2°C warmer scenario**.
- **2021:** CDL renewed our science-based targets to align with global ambition towards a **1.5 degree C warmer scenario**. These targets have been monitored yearly and will be reviewed every 5 years by SBTi. The revised targets also **support CDL’s World Green Building Council’s (WorldGBC) Net Zero Carbon Buildings Commitment**.
- **2023:** Operational Carbon Emissions Performance **met all interim targets**
- **Ahead of ISSB’s mandatory requirement** for listed companies to report **Scope 3** from 2024

Renewed SBTi-validated Carbon Emissions Intensity Reduction Targets



# Investing in Innovative Sustainable Development: Design Strategy/Features at South Beach



**Microclimatic Canopy at South Beach (opened in 2014)**

**South Beach is a mixed-use development integrating:**

- Four heritage buildings with 2 towers
- 510,000 sq ft of Grade A office space
- 190 luxury residences (South Beach Residences)
- 32,000 sq ft of F&B and retail (South Beach Avenue)
- Luxurious hotel with Club facilities (JW Marriott)

## **Environmental design elements at South Beach include:**

- **Storms and Floods Risk Management** - designed with comprehensive site drainage system to manage rainwater run-off; siphonic drainage system to facilitate quick rainwater discharge at onset of downpour; operable flood gates to mitigate risk of flooding to basement; 2 underground storm water tanks to store and discharge rainwater into surface drainage network
- **280 metres long microclimatic canopy** – geometrically designed to induce cooling air current, enhancing natural cross ventilation and provide thermal comfort to occupants
- **Shingled façade** – upward-facing surface comprises double-glazed glass of low shading coefficient to reflect harmful UV rays; East and West-facing façades have an additional layer of sun-shading louvres to shield against direct sunlight
- **Extensive greenery** – approx. 10,000 sqm of landscape at sky gardens and open areas; pedestrian ‘green axis’ extends from adjacent Memorial Park into South Beach, comprising lush landscaping, tiered gardens and sunken courtyards
- **Thermal cool paint** – innovative paint solution that reduces surface temperature of building façade by 3.25°C to improve thermal comfort



## Tree House



**Guinness World Record for the Largest Vertical Garden from (Apr 2014 – Jun 2015)**

*[\*Study by NUS School of Design and Environment, 2014]*

- **77% of site area dedicated to landscaping and greenery**
- **Biodiversity Impact Assessment:**
  - **99 native animals & 32 plant species** were identified >> a **careful selection of tree and plant species for landscaping**, among a list of other recommendations to protect biodiversity.
- **Green wall (24-storeys):**
  - Reduces heat absorption by up to 3°C
- **Energy savings:**
  - > 2.4 million kWh per year
- **Water savings:**
  - 30,000m<sup>3</sup> per year, or S\$500,000 annually

## Amber Park



- **65% of overall site area: landscape & facilities**
- **Circularity:** 600m jogging track, made of rubber from recycled track shoes, connecting the roof gardens



## Newport Plaza on 80 Anson Road –Singapore’s First BCA Green Mark Platinum SLE Integrated Development



- **Biophilic design** using green and blue for cooling and comfort with total softscape area of 3,469 m<sup>2</sup>.
  - **Roof top solar PV system**, meeting 30% of energy use for the residential common area energy-use for lighting and lift systems).
  - **Mitigates floods** with minimum ground level (platform level) of 4 metres.
  - Heat & Energy reducing **horizontal sun shading fins for** building’s exterior on every level
- **District Cooling**: First development along Anson Road to apply it with an approximate reduction of **100tCO2 per year**.
  - Approximately **60% energy savings** above the 2005 building code.
  - **Greater energy-efficiency**: Green features to achieve cost savings of approximately **S\$450,000 per year**.
  - **Energy savings for the residential component** is estimated to be up to **1.7 million kWh per year**, equivalent to powering approximately 400 4-room HDB flats.

## Copen Grand – 1<sup>st</sup> SLE Executive Condo



Singapore’s First BCA Green Mark Platinum SLE Executive Condo

- Awarded Green Mark Platinum SLEB award with **Health & Wellbeing, Whole Life Carbon and Maintainability badge**
- First non-landed residential building with **pre-fabricated MEP (Mechanical, Electrical and Plumbing) vertical riser in Singapore**
- Incorporates **smart and renewable technologies** such as energy usage monitoring feature, solar PV systems that partially contribute to the energy produced to operate the clubhouse, function room, swimming pool and gymnasium
- Array of **eco-luxury facilities** within the development

# Tri-Sector Collaboration: Investing in Future Technology & Innovation via R & D

## NUS-CDL Smart Green Home at Zero Energy SDE4 Building (2016)



**Anti-noise tunable bedrooms**  
Noise insulative walls with nano-size or micro-size fillers that reduce noise transmission.

**Anti-fogging glass in bathrooms**  
The glass contains nano-materials that prevent the formation of fog.

**Wall coating**  
Anti-fungal properties ensure the walls are easy to clean and maintain.

**1.5m raised floor**  
To accommodate underfloor air distribution system, and monitoring and sensing system.

**Smart soundscape system**  
Technologies which can produce the sound of breeze or insects mask noise pollution from the external environment. These devices will be embedded in the ceiling and walls.

**Anti-solar windows**  
The lab will experiment with thermochromic windows, which turn a darker tint when the temperature rises.

**Self-cleaning glass**  
Dirt is broken down for ease of cleaning. It also prevents dirt from sticking to the surface.

**Anti-haze air filter**  
Mounted on windows, it can be integrated with the air-conditioning system. This helps ensure that air quality remains healthy even in haze conditions.

**Anti-bacterial floor tiles**  
Tiles contain nano-materials that release an anti-bacterial agent to prevent bacterial growth.

**Cool pavements**  
The pavements contain heat-insulative nano-materials that reflect solar heat so that the minimum is absorbed.



## NUS-CDL Tropical Technology Lab CDL's Enterprise Innovation Committee & Mgmt visit, led by Group CEO Sherman Kwek in August



PHOTO: THE NUS-CDL SMART GREEN HOME PROGRAMME;  
DEPARTMENT OF BUILDING, NUS  
STRAITS TIMES GRAPHICS



# Investment in Innovation - Advancing Growth, Transformation & Sustainability

Enterprise Innovation Committee (EIC) & Green Building & Decarbonization Dept dedicated to Drive Innovation and complement CDL's GET [Growth. Enhancement. Transformation.]

## Strategy Across Business operations

- Generates customer- and digital-centric ideas
- Innovation engine comprising 3 mutually reinforcing gears – Pipeline, People & Culture
- Invest in **venture capital funds and companies** that are synergistic to CDL's core businesses
- Gain insights and access to technology solutions for implementation
- Gain potential financial upside



# Investment in Innovation: Increasing Use of Prop-Tech Innovators for Sustainability and Increasing Positive Impact on Health



## Gush ClearCool: UV-Blocking films

for windows

- Blocks out heat, IR and UV rays without compromising on window visibility
- Made with Nano Ceramic technology, the films are highly durable.
- **Average reduction of cooling energy consumption by 14.45%**

## ClearCool IR and UV ray blocking capabilities

	Visible Light transmission	Ultraviolet Radiation	Near-infrared Radiation
Gush ClearCool 76	76%	99%	97%
Gush ClearCool 50	50%	99%	96%
Gush ClearCool 35	35%	99%	95%
Gush ClearCool 15	15%	99%	95%
Gush ClearCool 5	5%	99%	95%

**(ClearCool)** - Window Films piloted at CDL's Republic Plaza Tower Club – Ba Xian Restaurant (top) and the Singapore Sustainability Academy (bottom).



## Gush Paints:

### Indoor Paints

Improve indoor air quality: **98% reduction in paint-related VOC emissions**

### Outdoor paints

reduce temperature and **absorb carbon** from the atmosphere

Heat-blocking (Gush Cool X only)	Reflects 87% of solar irradiance with high thermal emittance. Up to <b>11.6% of cooling energy savings</b> .
Weather-resistant	Durable against weather and <b>prevents cracking</b> . Resists solar and moisture related damage
Algae-resistant	Building façade <b>resists algae growth</b> , maintaining fresh cosmetic appearance
High dirt pick-up resistance	Made possible by their <b>proprietary resin binder technology</b>
High opacity	Covers surface imperfections with a <b>full and even coat</b> of colour

# Investment in Innovation: Increasing Use of Prop-Tech Innovators for Sustainability and Increasing Positive Impact on Health

**ConcreteAI:** Enables construction projects to gain accurate in-place concrete integrity for faster completion, reduced carbon, and assured quality.

By monitoring and measuring in-place **concrete quality through AI**, construction time can be reduced by **30%**, providing quality assurance and optimise concrete design for **lower embodied carbon**.



## Additions & Alterations at CDL's City Square Mall:

Cycle time was shortened from **28 days to 21 days**, resulting in early completion for mall operations

**CarbonBits** by Singapore University for Technology & Design: Creating innovations and solutions through the combination of Design Thinking and the use of Artificial Intelligence/Machine Learning to advance solutions for climate change

- **C3™: High performance regenerative solid sorbent** that **removes CO<sub>2</sub>** within indoor environments
- Deployed through plug and play systems to manage indoor CO<sub>2</sub> levels
- CO<sub>2</sub> released can be used to **create new products**



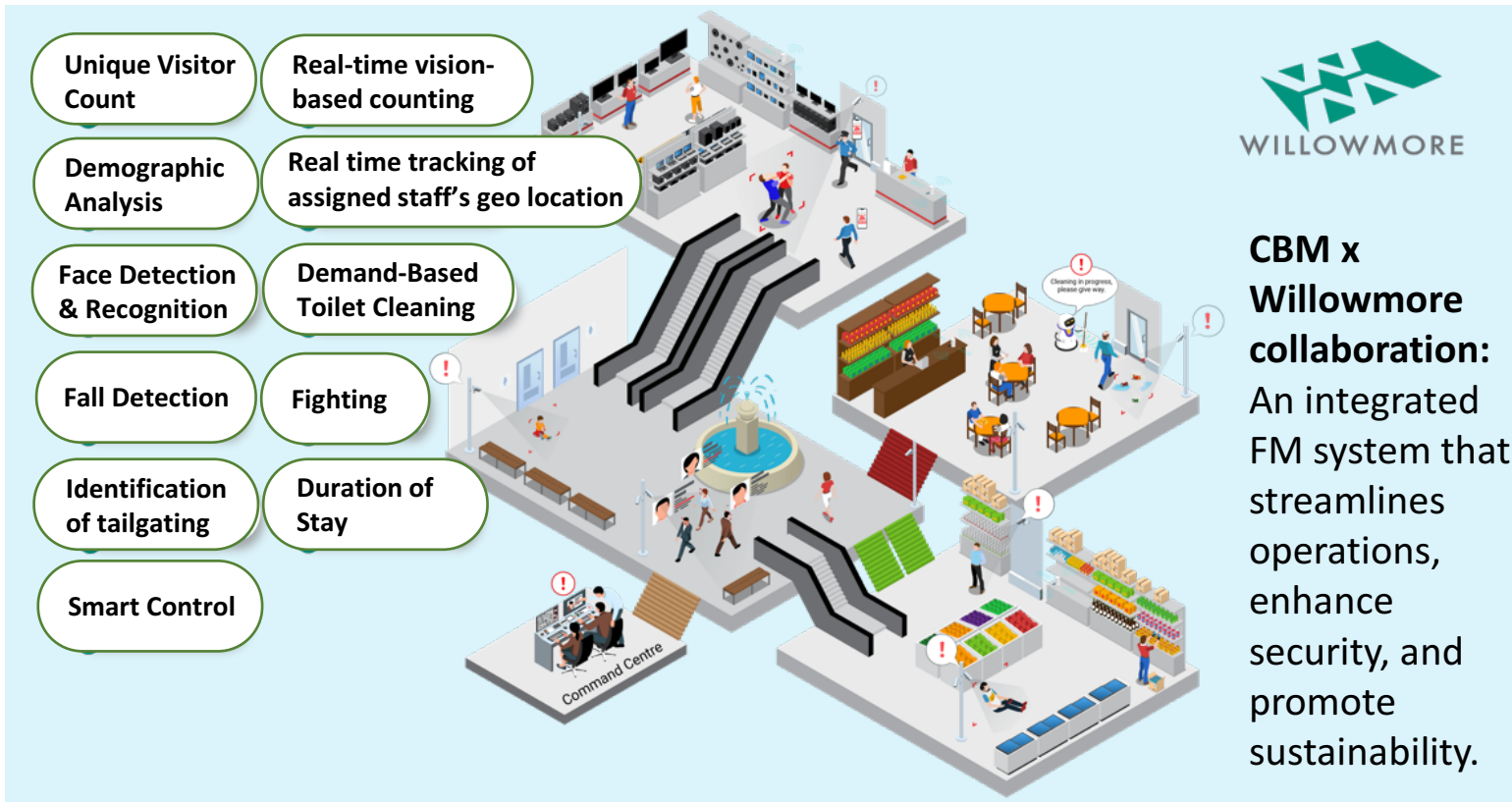


# Investment in Innovation: Increasing Use of Prop-Tech Innovators for Sustainability



A SMART enterprise platform for building performance management developed by CBM to achieve manpower and resource efficiencies.

- First-of-its-kind **sustainability-linked loan** connecting innovation and the SDGs.
- **August 2021: first Singapore entity to achieve a discount on a sustainability-linked loan** through the successful pilot of DigiHUB by CBM (CDL's FM subsidiary) at Republic Plaza; its completion was endorsed by **IMDA**



**CBM x Willowmore collaboration:** An integrated FM system that streamlines operations, enhance security, and promote sustainability.



Prioritises attaining authentic net-zero status in buildings

- Adopts a holistic approach to enhance the performance efficiency of building systems by optimising energy performance, thermal comfort, water usage, and indoor air quality
- Achieves at least **55%** increase in energy efficiency through its optimiser system



# Can Eco Entrepreneurs & Innovators Save our Planet and Humanity?

## INSPIRING SOLUTIONS: THE EARTHSHOT PRIZE

**10** YEARS from 2020

**5** EARTHSHOT

**£50** MILLION across 50 winners

TO REPAIR THE PLANET

PRIZE CATEGORIES

TO SCALE THEIR SOLUTIONS

- **2020:** Launched by Prince William to search for and scale the **most innovative solutions** to the **world's greatest environmental challenges**.
- **To-date:** 3,000 nominations, 45 Finalists, 25 Countries Represented, 15 Winners & 1 Planet to Repair

## 2023 WINNER, BOOMITRA



- Remove emissions and boost farmer profits by incentivising soil restoration and the adoption of regenerative agriculture through a verified carbon-credit marketplace
- **Boomitra** works with more than 150,000 farmers in Africa, South America and Asia

## INSPIRING LOCAL INNOVATORS



- **Associate Professor Tan Mei Chee**, SUTD, Division of Engineering Product Development
- **CarbonBits:** Pioneering indoor air Carbon Capture technology for urban environments, where **released CO2 are used to create new products**



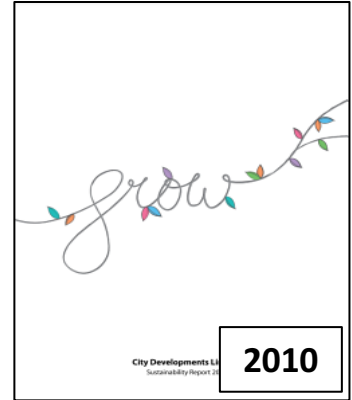
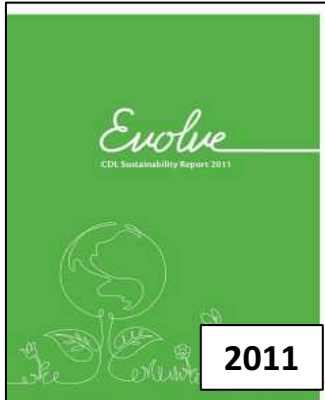




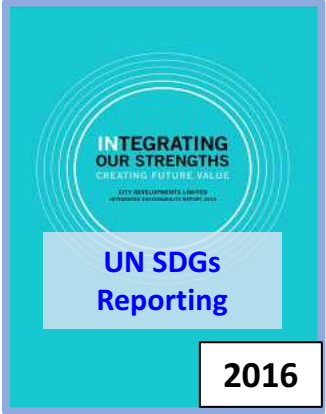


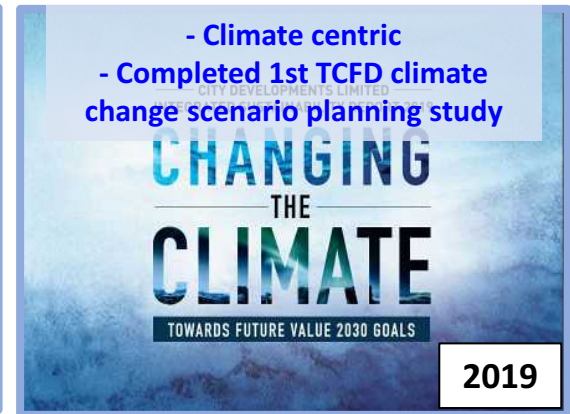

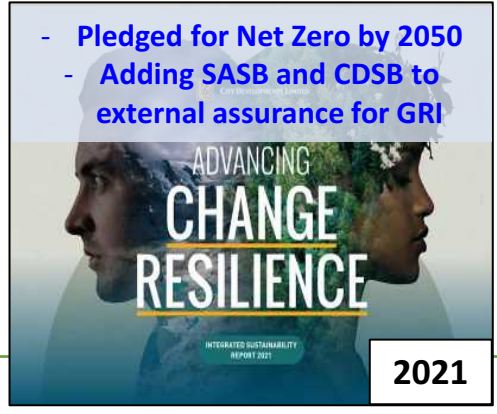





- **Zac Toh**, Founder of GWS Living Art and City Sprouts
- Develop sustainable urban nature-based solutions
- Transforming **unused urban spaces** from the ground up areas dedicated to **urban farming and food sustainability**



# 17 Years of Sustainability Reporting, 10 years of Integrated Reporting

## – Improving Strategic & Operational Performance & Driving Positive Change

<p><b>1<sup>st</sup> SR by a SG company</b></p> <p>REACHING OUT</p>  <p>CITY DEVELOPMENTS LIMITED SOCIAL AND ENVIRONMENTAL REPORT 2008</p> <p><b>2008</b></p>	<p>Began external assurance against GRI standards</p> <p>METAMORPHOSIS</p>  <p>CITY DEVELOPMENTS LIMITED Sustainability Report 2009</p> <p><b>2009</b></p>	<p>grow</p>  <p>City Developments LI Sustainability Report 2010</p> <p><b>2010</b></p>	<p>Evolve</p> <p>CDE Sustainability Report 2011</p>  <p><b>2011</b></p>	<p>IDEAS INITIATIVES IMPACTS</p>  <p><b>2012</b></p>	<p>CHANGING THE LANDSCAPE</p> <p>CITY DEVELOPMENTS LIMITED Sustainability Report 2013</p>  <p><b>2013</b></p>
<p>2014 Sustain</p> <p>Started Materiality Assessment</p>  <p><b>2014</b></p>	<p>CREATING VALUE FOR THE FUTURE</p> <p>- IIRC integrated reporting approach</p>  <p>CITY DEVELOPMENTS LIMITED SUSTAINABILITY REPORT 2015</p> <p><b>2015</b></p>	<p>INTEGRATING OUR STRENGTHS CREATING FUTURE VALUE</p> <p>UN SDGs Reporting</p>  <p><b>2016</b></p>	<p>100% digital format, Quarterly reporting, TCFD Framework</p> <p>CDL FUTURE VALUE 2030</p>  <p><b>2017</b></p>	<p>ON TRACK TO CDL FUTURE VALUE 2030</p> <p>- Validated by Science Based Targets initiative</p>  <p><b>2018</b></p>	<p>- Climate centric - Completed 1st TCFD climate change scenario study</p> <p>CHANGING THE CLIMATE</p> <p>TOWARDS FUTURE VALUE 2030 GOALS</p>  <p><b>2019</b></p>
<p>Changing priority of material ESG issues: Innovation, Climate Resilience, Energy Efficiency &amp; Adoption of Renewables</p> <p>CHANGING THE CLIMATE FUTURE</p> <p>INTEGRATED SUSTAINABILITY REPORT 2020</p>  <p><b>2020</b></p>	<p>- Pledged for Net Zero by 2050 - Adding SASB and CDSB to external assurance for GRI</p> <p>ADVANCING CHANGE RESILIENCE</p> <p>INTEGRATED SUSTAINABILITY REPORT 2021</p>  <p><b>2021</b></p>	<p>- Raised assurance level for GRI and SASB from 'Limited' to 'Reasonable' - 1st SG company to externally assure TCFD framework</p> <p>ON FUTURE VALUE</p> <p>CITY DEVELOPMENTS LIMITED INTEGRATED SUSTAINABILITY REPORT 2022</p>  <p><b>2022</b></p>	<p>Implemented 2-pillar approach covering Value for Investors and Impact for People &amp; Planet</p> <p>ZERO IN ON POSITIVE IMPACT</p> <p>INTEGRATED SUSTAINABILITY REPORT 2023</p>  <p><b>2023</b></p>	<p>1<sup>st</sup> in Singapore to publish TNFD-aligned disclosures</p> <p>ZERO IN ON NATURAL CAPITAL</p> <p>INTEGRATED SUSTAINABILITY REPORT 2024</p>  <p><b>2024</b></p>	

# CDL Scores Well on 14 Global ESG Rankings & Ratings through Robust Reporting & Disclosures

Strong ESG Track Record Gain Easier Access to ESG Investment & Sustainable Finance



FTSE4Good

Since 2002



CLIMATE WATER

2023 CDP A-List for Climate Change & Water Security (Reporting since 2010); CDP Supplier Engagement Leaderboard



2020 – 2024: Ranked Top Real Estate Company 2024: 22<sup>nd</sup> Globally; Listed since 2010



CCC B BB BBB A AA AAA

'AAA' since 2010



Ranked 2nd (2024)

Member of Dow Jones Sustainability Indices

Powered by the S&P Global CSA

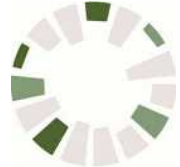
S&P Dow Jones Sustainability Asia Pacific Index (since 2011)



ESG Regional Top Rated and Industry Top Rated in 2023



2022 and 2024



★★★★★ 2023

GRESB 5-Star Rating; 4<sup>th</sup> in Asia (Diversified – Office/Retail)



iEdge SG ESG Indices

ESG Leaders Index  
ESG Transparency Index  
since 2016



Rated Prime since 2018



Member 2020/2021 ESG Leaders Indices

Since 2014



Bloomberg Gender Equality Index since 2018



Since 2024



Since 2018

# Completed over **S\$8 billion** Sustainable Finance since 2017

Apr 2017  
S\$100M Green Bond



**1<sup>st</sup> Green Bond**  
issued by a Singapore company

Apr 2019  
S\$500M Green Loans



**1<sup>st</sup> Green Loan**  
for New Property Developments

Sep 2019  
S\$250M SDG Innovation Loan



**1<sup>st</sup> SDG Innovation**  
Sustainability-linked Loan

Apr 2021  
S\$1.22B Green Loan



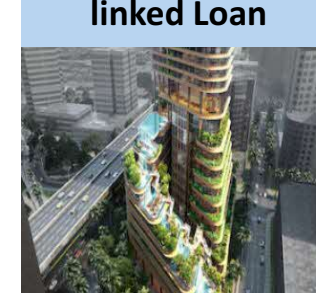
**One of SG's largest green loans** at South Beach Consortium, CDL JV

Aug 2021  
S\$847M Green Loans



Green loan for new projects - **Copen Grand, SG's 1<sup>st</sup> BCA Green Mark Platinum SLE EC**

Dec 2023  
£200M Sustainability-linked Loan



**1<sup>st</sup> SBTi net zero-aligned OCBC 1.5°C Loan** for corporates

Jun 2024  
S\$400m sustainability-linked loan



**First-of-its-kind TNFD targets-aligned** sustainability-linked loan

Sep 2019 - **S\$250M SDG Innovation Loan (Sustainability-linked Loan)**  
Oct 2022 - **Renewed the Phase 2 of SDG Innovation Loan of S\$250M**



*A SMART enterprise platform for building performance management developed by CBM to achieve manpower and resource efficiencies.*

- First-of-its-kind sustainability-linked loan connected to innovation and SDGs.
- **August 2021: first Singapore entity to achieve a discount on a sustainability-linked loan** through the successful pilot of DigiHUB by CBM (CDL's FM subsidiary) at Republic Plaza; its completion was endorsed by IMDA

## Green Loans Completed by CDL Group in 2023

<b>OCBC</b>	<ul style="list-style-type: none"> <li>• £178M 3-year green loan</li> <li>• RMB600M 5-year loan</li> <li>• £200M Sustainability-linked Loan</li> <li>• S\$15M 5-year green loan (by CBM)</li> </ul>
<b>UOB</b>	<ul style="list-style-type: none"> <li>• £178M 3-year green loan</li> <li>• S\$100M green banker's guarantee</li> <li>• S\$8M 3-year green loan (by CBM)</li> </ul>
<b>DBS</b>	<ul style="list-style-type: none"> <li>• S\$343M 5-year green loan</li> </ul>
<b>SMBC</b>	<ul style="list-style-type: none"> <li>• ¥16B 3-year green loan</li> </ul>

# Building Sustainable Communities: Zero-Energy SSA for Capacity Building, Advocacy & Networking



**Extensive engagement & outreach since opening in June 2017**

> **1,000** events & trainings (June 2017- Q1 2024)

> **34,500** in-person participants at SSA

**2,000** participants from 20 countries joined Virtual SSA live sessions in 2021 (COVID-19)

> **Partner organisations** incl global NGOs



Global Compact  
Network Singapore



- Initiated by CDL, the SSA is a **partnership supported by 6 government agencies, 15 founding industry/NGO partners**
- **3,200 sq ft solar panels** on rooftop providing solar energy to SSA since opening
- **Over 80% built with sustainable materials** including Cross Laminated Timber (CLT) and Glued Laminated Timber (Glulam) from most sustainable forest source verified by Nature's Barcode™ system
- Rent-free for NGO partner: Sustainable Energy Association Singapore (SEAS) to promote Renewable Energy in ASEAN
- Home ground for Youth4Climate, Women4Green Network and Training space for Singapore Environment Council and GCNS

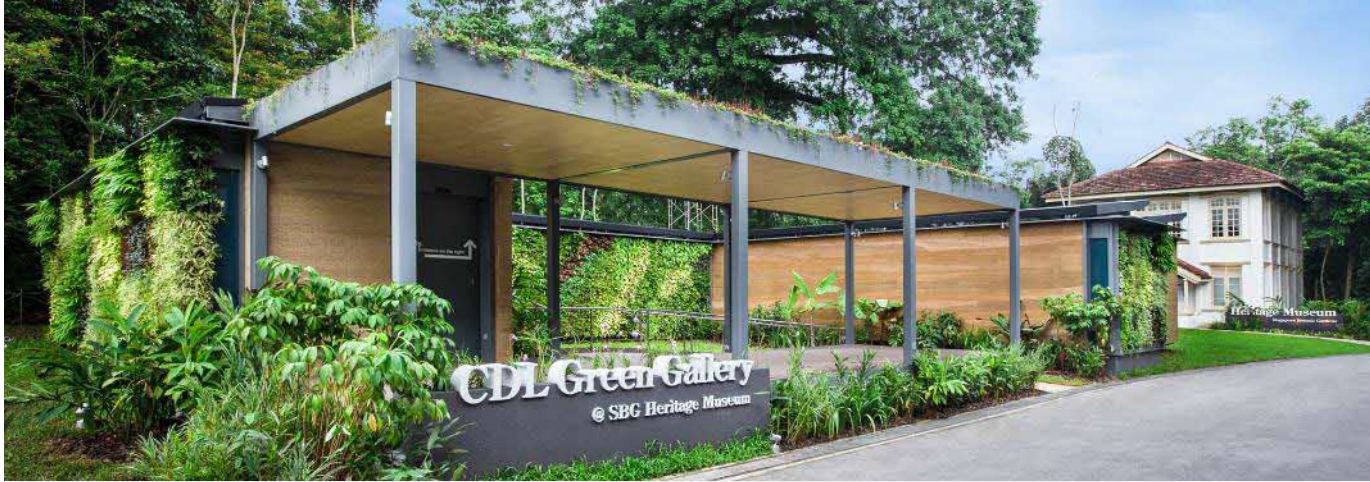
# Singapore Sustainability Academy (SSA) Annex – A Zero-energy Community & Collab Space



- A nature-inspired architecture **Zero-energy Green Mark Platinum facility**
- A community engagement platform to local & international NGOs championing UN SDGs & Race to Zero and the SG Green Plan 2030.
- An **extensive global & local partnership with Global Compact Network Singapore (GCNS)** as anchor NGO ( <https://unglobalcompact.sg/> )



## Public Education on Climate/Nature: Exhibitions at CDL Green Gallery@Singapore Botanic Gardens (2013~)



### The CDL Green Gallery Net Zero Energy & Green Mark Platinum building

- Launched by CDL and opened alongside the SBC Heritage Museum by **Prime Minister Lee Hsien Loong** in 2013.
- 2<sup>nd</sup> 10-year MOU signed, 2023-2032.
- A partnership with NParks, the Gallery has featured 20 **botanical or green or climate related exhibitions**, and has attracted **over 372,300 visitors** since its opening in 2013
- **Built within 24 hours** using prefabricated, modular construction technology
- Constructed from **Hempcrete**, a biomaterial comprising hemp plant, lime, sand and water
- **Solar photovoltaic cladded roof panels** generate 31,000kWh annually, surpassing gallery's estimated yearly energy consumption



# Building Sustainable Communities: to Advance Climate Action towards a Low Carbon Future



## Singapore's Greening Journey: 200 Years and Beyond

Jun 2019

Opened by then-Minister for National Development and then-Second Minister for Finance, Minister Lawrence Wong



## Change the Present, Save the Future

July 2021

Opened by Minister for Sustainability Grace Fu, it successfully rallied urgent action and collaboration.



## Change the Present, Save the Ocean

April 2022

Opened by Minister for National Development Mr Desmond Lee, it featured Time Magazine's First "Hero of the Planet" Dr Sylvia Earle.



## Melting Ice, Sinking Cities

June 2023

Opened by Minister Indraneel Rajah, the exhibition was anchored on the Antarctica Climate Expedition led by Ocean Geographic and Dr Sylvia Earle



# Advancing Sustainable Communities: Active/Diverse Programs at Singapore Sustainability Academy

## International Engagement

ESG Analytics & Investments, 7 Mar 2024



## Women4Green Event

Sustainable Tourism, 18 Aug 2017



## A hub for capacity building, thought leadership, and networking



**Singapore Youth for Climate Action Local Conference of Youth (LCOY) – 2, 9, 16 September 2023**  
LCOYs are under the umbrella of **YOUNGO**, the official youth constituency of the **UNFCCC**, and are organised before or during the global COY in different parts of the world to increase access of youths to opportunities for training and capacity building leading up to COP28.



**13th CDL-GCNS Young SDG Leaders Award 2023 Final Judging held at SSA, 22 July 2023**  
Spotlighted **10 finalist teams** that presented their sustainability strategy and initiatives on their respective case companies.



# Adding Purpose to Business: Empowering Youths to be A Force for Positive Change

## Youth4Climate



- Initiated in 2018, Youth4Climate Festival is one of CDL's flagship programmes in support of **youth empowerment and social good**.
- Provides Singapore's youths with a platform to express their **passion for the environment and green wishes for the future** through musical performances and other exciting fringe activities.
- Typically organised in partnership with the Ministry of Sustainability and the Environment and the NParks.

## CDL-GCNS Young SDG Leaders Award



- Launched in 2011, the YSDGLA is an annual case competition for **youths to champion the SDGs and ideate innovative business solutions for a more sustainable planet**.
- Has nurtured **over 3,700 young leaders** since inception.
- Jointly organised by CDL and Global Compact Network Singapore and supported by the Ministry of Sustainability and the Environment for the 2022 and 2023 edition.

## CDL E-Generation Challenge



- Started in 2010 to raise eco-consciousness amongst youth via races & games and revamped in 2017 to unearth & **groom young eco-champions to explore climate challenged frontiers**.
- 2022: The most deserving youth won a **dream expedition to the Antarctic with Dr Sylvia Earle**, TIME Magazine's First Hero of the Planet, on a state-of-the-art expedition vessel aptly named The Sylvia Earle. Runner-ups won **an educational trip with Earth Company, located in Ubud, Bali**.



# Embracing Sustainability for Business Resilience >> Enhancing Triple Bottom Line

Healthy Planet > Healthy People and Economy

## Opportunities

- Risks Mitigation /Adaptation
- Future-ready vs fast-evolving regulations, investor and consumer expectations
- Mobilizing capital and resources to accelerate change via sustainable finance
- Natural capital >> Financial & Organization Capital

## Challenges

- Data availability & credibility
- Putting Value to Nature & Biodiversity
- Supply Chain support
- Knowledge and capacity constraints

**THE STRAITS TIMES**

Thursday Apr 11, 2024

### S'pore firms step up as corporate investors take ESG more seriously

Their reports focus on the intricate tying of business strategy with sustainability

Sen-An Tan  
Business Correspondent

Sustainability reports should not be an afterthought for most firms, says an article in this edition, which provides the complex picture of the company's approach to doing business in the future.

They are not just an add-on to the annual report and financial statements, but provide vital information on where the firm is going and corporate governance expert Lawrence Luk.

In fact, many corporate investors are taking environmental, social and governance (ESG) considerations more seriously, adding pressure on firms to disclose such details.

Some companies have opted to be more on the occasion, giving by the latest sustainability reports released by listed firms which have focused on the intricate tying of business strategy with sustainability.

Professor Luk, who is director of the Centre for Governance and Sustainability of NUS Business School, said, "The sustainability report goes hand in hand with the annual report that tells about the business activities. They're two sides of the coin, and sustainability comprises the story of the company, so they can't be read separately."

Companies like Sembcorp Industries, UOL, Capitaland Investments, City Developments Limited (CDL) and Singtel have produced sustainability reports in the past month, showing their commitment to working on the ESG aspects of their businesses.

Nanyang Business School Associate Professor of Accounting Nathan Lee said, "To meet investors, we have witnessed a significant shift in corporate mindset, with an increasing number of companies recognising the strategic value of integrating sustainability into their core operational strategies and long-term planning."

Prof Lee said for the layman, reading a sustainability report is about discovering the story of a firm.

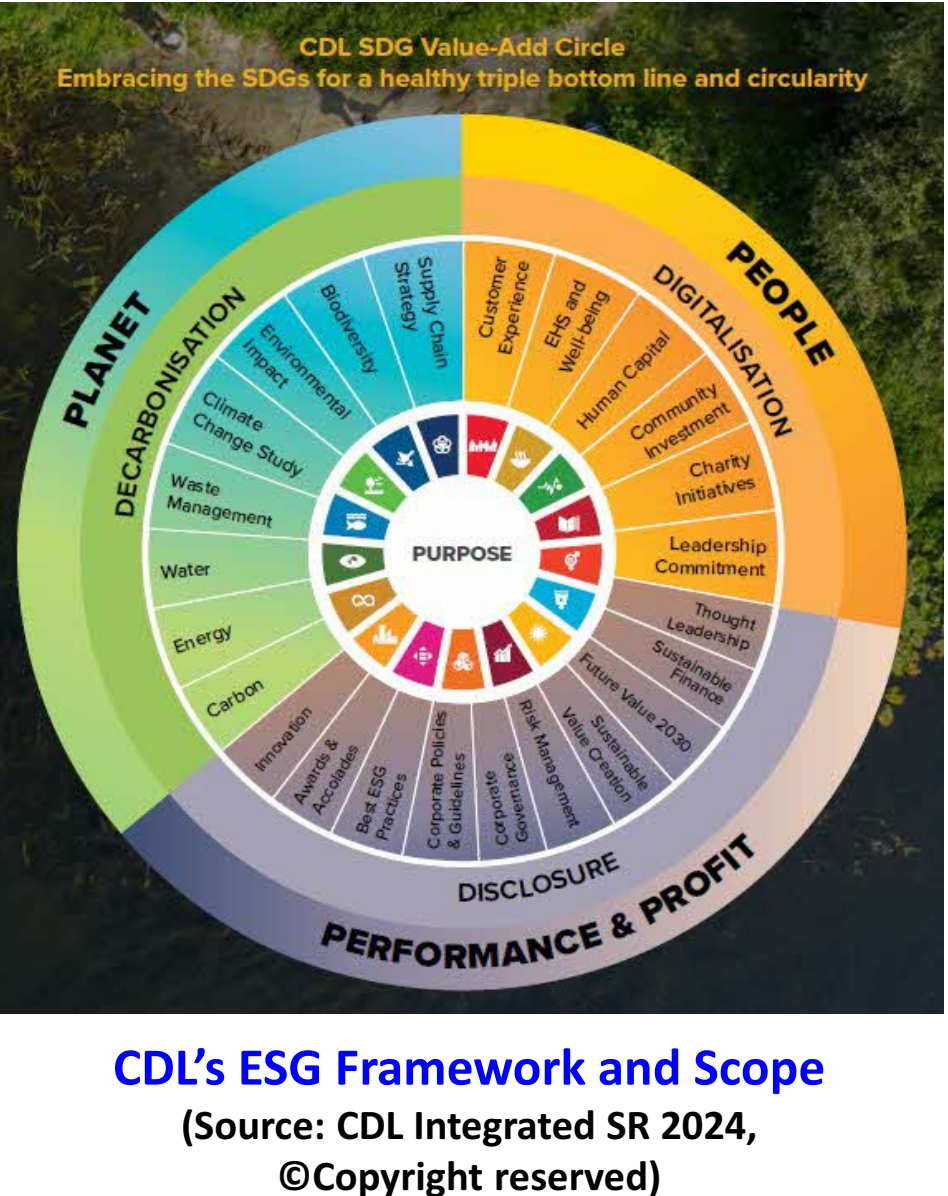
"Each sustainability report is a storybook," he said. "It's not just about checking boxes against standards, but about building a compelling story."

In fact, CDL's report is about taking leadership and steering in impact on nature, while Capitaland Investments is about

... its vision, Singtel's report on... its ESG, Singtel's report on... its ESG, Singtel's report on... its ESG.

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CDL's ESG Framework and Scope  
(Source: CDL Integrated SR 2024, ©Copyright reserved)



# ZERO ON NATURE

EMBRACING NATURE TO ENHANCE  
VALUE AND IMPACT

**INTEGRATED  
SUSTAINABILITY  
REPORT 2024**

(17<sup>th</sup> Edition)

**Accelerating Impact  
through  
Urgent and  
Collaborative Action.**

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[www.cdlsustainability.com](http://www.cdlsustainability.com)