

**GLOBAL  
CONNECT  
@SBF**

Connecting  
your business to  
global opportunities

AN INITIATIVE OF  
 **SINGAPORE  
BUSINESS  
FEDERATION**  
Apex Business Chamber

SUPPORTED BY  
**Enterprise  
Singapore**

IN PARTNERSHIP WITH  
 **UOB**

Welcome to SBF Global's  
**Sustainable Financing Awareness Series - Episode 1**  
**Green Building Financing**

4 May 2021, Tuesday | 3.00pm to 4.30pm (GMT +8)



**GLOBAL  
CONNECT  
@SBF**

Connecting  
your business to  
global opportunities

AN INITIATIVE OF  
 **SINGAPORE  
BUSINESS  
FEDERATION**  
Apex Business Chamber

SUPPORTED BY  
**Enterprise  
Singapore**

IN PARTNERSHIP WITH  
 **UOB**

**Sign up for a complimentary one-on-one  
Business Consultation Session with  
representatives from SBF, UOB, and KPMG after  
this webinar.**



**Chan Zhiquan**  
**Manager, Infrastructure**  
**SBF Global**  
**zhiquan.chan@sbf.org.sg**

Scan here to  
learn more about  
SBF Infrastructure  
Committee



Sign up with  
Infrastructure  
Interest Group  
and be informed  
of our activities





## DISCLAIMER

**The information in this webinar is intended to provide general information only and does not contain or convey any legal or other advice.**

**All efforts have been taken to ensure the information provided in this webinar is accurate as of publication date.**

**The organiser and speakers reserve all rights in the material provided.**



## COURTESY POINTS



**By default, you would be muted when you join the webinar.**



**Have a question?**

**Type it into the Q&A Panel and we will read it out during the Q&A.**

**For the questions that are unanswered during the webinar, we will work with the panelists and share their responses with all participants after the webinar.**



**Need help?**

**Click the "Raise Hand" tool - you can access it by opening the participant's window.**



## PROGRAMME LINE UP

3.00 pm **Welcome Note**  
By SINGAPORE BUSINESS FEDERATION

3.05pm **Understanding Sustainability And  
How It Impacts Businesses**  
Ms ESTHER CHANG  
Executive Director, Global Compact  
Network Singapore

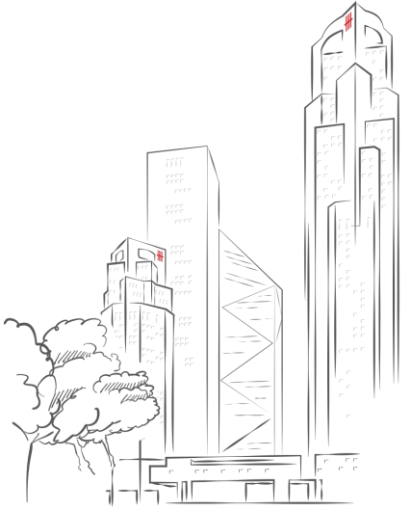
3.20pm **What Is Green Financing?**  
Mr IVAN CHENG  
Senior Vice President, Sector Solutions  
Group, UOB

3.35pm **Green Business Solutions**  
Mr KELVIN NGO YONG-WEI  
First Vice President, Real Estate &  
Hospitality, Sector Solutions Group, UOB

3.50pm **Green Finance To Future Proof Assets**  
Ms CHERINE FOK  
Practice Lead, Sustainability Services,  
KPMG Impact, KPMG Singapore

4.05pm **Q&A**

4.25pm **Closing words and preview of  
what's next by SBF Global**



# UOB – SBF Green Building Financing Seminar

What is Green/ Sustainable Financing

May 2021

# Agenda

---

## Topics

---

1. What is Green / Sustainable Finance / Types of Green / Sustainable Finance
  2. UOB Sustainable Finance Frameworks
  3. MAS Green & Sustainability-Linked Loan Grant Scheme (GSLs)
-



# What is Green Financing / Types of Green Financing



# Types of green/sustainability finance



## Sustainability Linked Loans

Encourage borrower to improve sustainability practice



External  
ESG rating



Achievement  
of KPIs



## Green Loans

Use of proceeds eligible for green projects only



## Green/Sustainable Bonds

Distributed in the public markets

# Key differences between Green Bonds, Green Loans, and Sustainability Linked Loans



Classification/ labelling system	Verification Standard	Purpose/ Proceeds Clause	Guidelines	Estimated Costs
1. <b>Green, Social, Bonds</b>	<ul style="list-style-type: none"> <li>Internal Bank Review;</li> <li>Second Party Opinion;</li> <li>Third-party Assurance;</li> <li>CBI Verification<sup>1</sup></li> </ul>	Must have a framework and specific use of proceeds	ICMA <sup>2</sup> Green, Social, Sustainability Bond Principles	S\$100K  (MAS grant applicable for certain qualifying bonds)
2. <b>Green Loans</b>	<ul style="list-style-type: none"> <li>Internal Bank Review;</li> <li>Second Party Opinion;</li> <li>or</li> <li>Third-party Assurance</li> </ul>	Must have a framework and specific use of proceeds	APLMA/LMA <sup>3</sup> Green Loan Principles	S\$30K-50K
3. <b>Sustainability Linked Loan</b>	<ul style="list-style-type: none"> <li>No Second Party Opinion required; however</li> <li>Require an ESG Rating or achievement of KPIs</li> </ul>	No framework No specific use of proceeds Sector Agnostic	APLMA/LMA <sup>3</sup> Sustainability Linked Loan Principles	S\$10K-30K

<sup>1</sup> Climate Bond Initiative (CBI)

<sup>2</sup> International Capital Market Association (ICMA)

<sup>3</sup> Asia Pacific Loan Market association (APLMA)



# A Framework is a Pre-condition for any Green Loans/ Bonds



Each qualifying green bond/loan will necessitate the set up of a framework referenced to ICMA's Green Bond Principles (GBP) or APLMA's Green Loan Principles (GLP) and curated for industry requirements

## Framework Set-Up

The GBP/GLP has four core components:

1. Govern the use of proceeds
2. Process for project evaluation and selection
3. Management of proceeds
4. Impact reporting

*(Examples of Impact reporting include: Amount of renewable energy generated (kwh), Amount of GHG avoided (tCO2e))*

The GBP/GLP are guidelines to recommend transparency, disclosure and promote integrity of the issuer/borrower

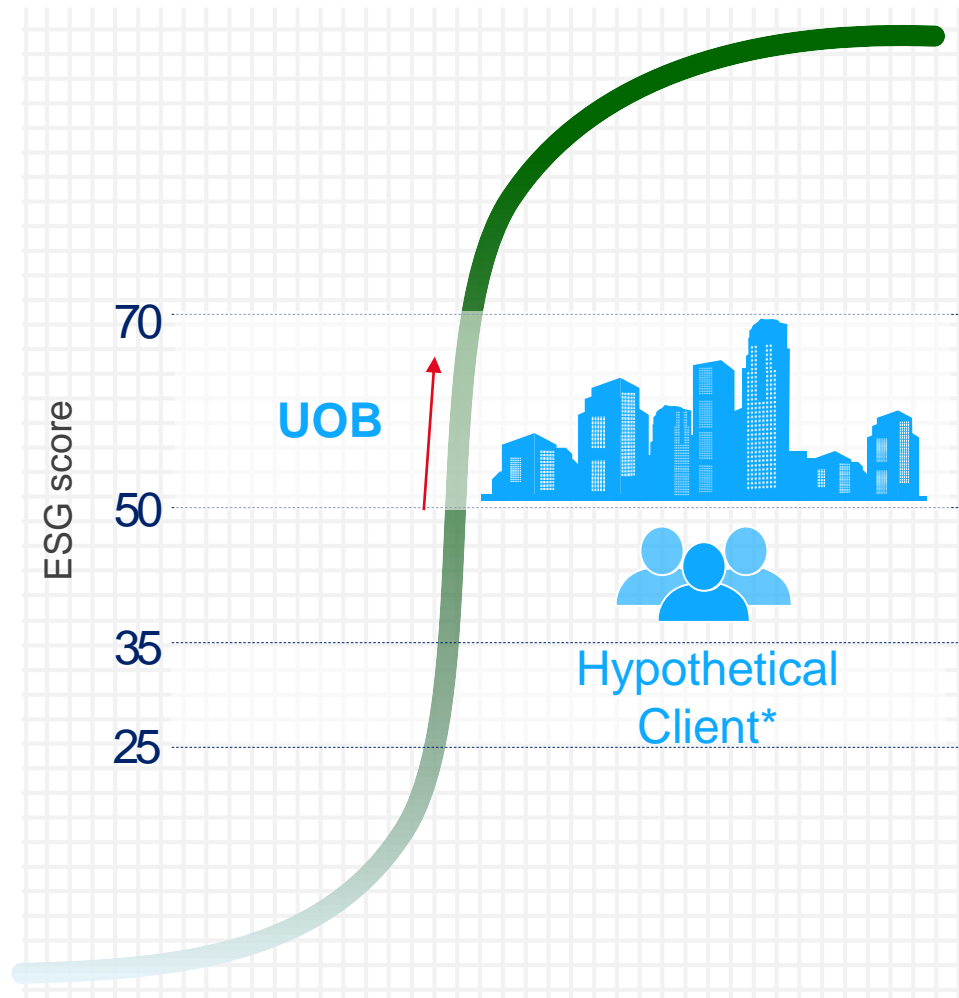
- Cost of setting up a framework is in the region of S\$30K to S\$50K, depending on complexity



## Post disbursement

- Borrower will need to report on the use of proceeds as well as key impact metrics as per the green framework in order to continue "greening" the loan on an annual basis
- Process is similar to ongoing accounting and regulatory reporting

# Transition Finance – Sustainability Linked Loan (SLL)



- Borrower needs to have a CSR strategy and communicate its Sustainability Performance Targets (SPTs). Encouraged to disclose any standards or certifications they are seeking to conform
- **Option 1:** Obtain an external **ESG score** from a competent third party. An ESG score will take 8-10 weeks and the assessment framework will look at 3 key areas of the company:
  - ✓ Environmental policies
  - ✓ Social and labour policies
  - ✓ Governance structure
- **Option 2:** In lieu of an ESG rating, a SLL can be structured based on achievements Key Performance Indicators (KPIs). KPIs will be based on materiality<sup>1</sup> and may include<sup>2</sup>:
  - ✓ reduction in CO<sub>2</sub> emissions,
  - ✓ reduction in energy consumption
  - ✓ reduction in waste generated

<sup>1</sup> Materiality will vary for different companies

<sup>2</sup> A SLL verification letter on loan inception will be required



# Key assessment parameters for an ESG rating



## Environmental

- Environment Strategy
- Energy Use
- Atmospheric Emissions
- Use and disposal of products
- Input Consumption
- Supply chain management
- Transportation



## Social

- Labour Rights
- Health and Safety
- Product Safety
- Community Involvement
- Diversity
- Philanthropy
- Labour Practices
- Career Management



## Governance

- Board of Directors' Skills and Independence
- Board Level ESG Integration
- ESG Objectives and Reporting
- Risk Management and Prevention of Corrupt Practices

**Parameters are weighted for materiality based on different sectors. A filter is applied to take into the size of the company and a blended ESG score is obtained.**

# Introduction to UOB Green Frameworks



# Simplifying sustainability with three UOB Sustainable Finance Frameworks



Frameworks guide businesses across sectors through a streamlined and transparent process to access sustainable financing.



## Real Estate Sustainable Financing

- Covers both green and sustainability linked financing for global real estate financing across 7 asset classes
  - ✓ Office
  - ✓ Industrial
  - ✓ Residential
  - ✓ Retail
  - ✓ Data Centres
  - ✓ Hotels
  - ✓ Restaurants
- Advised by KPMG



## Smart City Sustainable Financing Framework

- Supports companies contributing to the creation of sustainable and smart cities through the following:
  - ✓ Renewable Energy (Solar, Wind, Geothermal & Mini Hydro)
  - ✓ Green Buildings Construction
  - ✓ Energy Efficiency
  - ✓ Green transport
  - ✓ Water Management
  - ✓ Waste Management
  - ✓ Climate Change Adaptation
- Framework was supported by MAS and Carbon Trust provided Second Party Opinion (SPO)



## Green Circular Economy Framework

- Supports companies in the 3R (recycle, reuse and reduce) businesses. Potential applications:
  - ✓ Plastics recycling
  - ✓ Metals recycling
  - ✓ Consumer electronics recycling
  - ✓ Circular designs
  - ✓ Sharing business models
- Innovators and facilitators to facilitate a circular economy network (e.g. reverse logistics)
- Second Party Opinion (SPO) on the framework issued by Vigeo Eiris

# UOB Real Estate Sustainable Finance Framework<sup>1</sup>



## OBJECTIVES

- ✓ **Provide green classification** for bilateral loans
- ✓ **Support green classification** for syndicated/club loans
- ✓ **Facilitate classification** for sustainability linked loans



### Green Loans for Green Buildings

Enjoy reduced frictional costs and greater convenience via framework



### Green Loans for Specific Improvement Projects

Improve client's sustainability profile while upgrading assets



### Sustainability Linked Loans (SLL)

Enjoy incentives on general corporate financing tied to company's sustainability performance

Real Estate Sustainable Finance Framework, **supports sustainable financing** in any of these **asset class**:



Data Centres



Industrial



Residential



Retail



Hotels



Offices



Restaurants



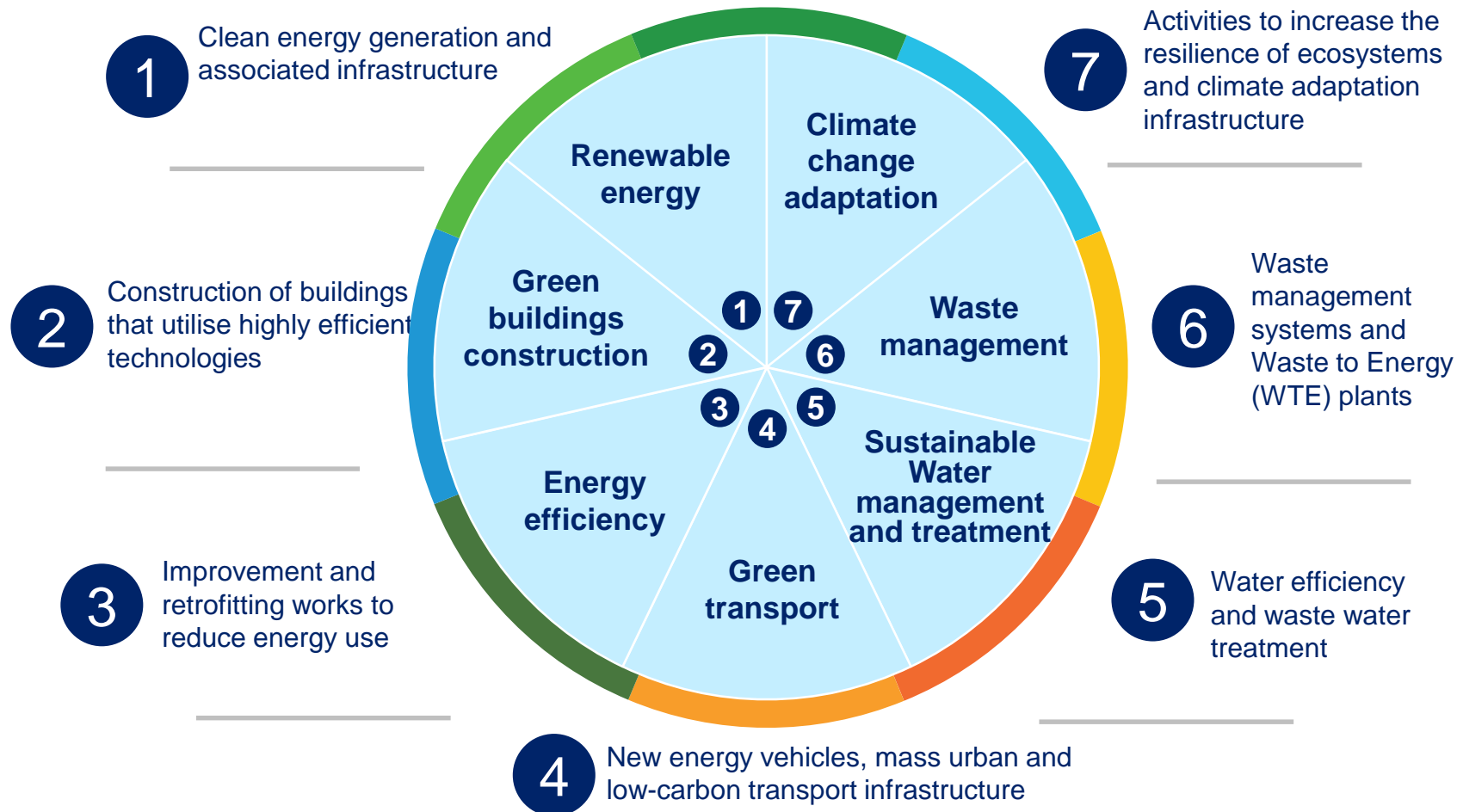
Source: United Nations

<sup>1</sup> In alignment to Loan Market Association (LMA)'s Green Loan Principles and Sustainability Linked Loan Principles

# UOB Smart City Sustainable Finance Framework



For green/sustainability-linked loans, trade facilities, deposits and retail products



## How it works:

The framework sets out the eligible activities under each green category and the qualifying criteria for sustainability-linked loans, such as:

- Sustainability strategy and objectives
- Sustainability performance targets

For more information, companies can contact their UOB relationship managers or email [Sustainable-city@UOBgroup.com](mailto:Sustainable-city@UOBgroup.com)

## Carbon Trust provided Second Party Opinion (SPO)



Benefits to clients

**Streamlined process**  
Saves time and reduces complexity

**Low costs**  
A universal “umbrella”

**Common reporting**  
Standards for impact reporting



# UOB Green Circular Economy Framework (GCF)



**Vigeo Eiris provided Second Party Opinion (SPO) on the framework and the highest level of assurance has been given that the eligible projects contribute to sustainability.**





# MAS Green & Sustainability- Linked Loan Grant Scheme (GSLS)

# MAS Green and Sustainability-linked Loans Scheme

## Track A

### Green & Sustainability-linked Loans



To facilitate **Corporates'** access to Green and Sustainability-linked Loans

## Track B

### Green & Sustainability-linked Loan Frameworks



To encourage **Banks** to develop Green and Sustainability-Linked Loan Frameworks



# MAS Green and Sustainability-linked Loans Scheme



## Track A

## Green & Sustainability-linked Loans for all companies

Grant amount	Up to <b>SGD100,000*</b> per loan over a 3-year period from the applicant's first claim
Loan size	Min <b>SGD20mn</b> per loan over a 3-year period from the applicant's first claim
Tenure	Min <b>3 years</b>
Eligible expense	Pre-origination and post-origination activities (from developing frameworks and certification to external review and reporting)
Bank requirements	>50% of gross revenue from the loan is attributable to Financial Sector Incentive (FSI) companies Assessment work of the green or sustainability-linked aspects of the loan to be <b>performed in Singapore</b>
External provider	> 50% of gross revenue from the sustainability assessment and advisory work must be <b>attributable to Singapore-based providers</b>

### External review requirements

#### GREEN LOANS

##### ① Pre-origination

External review to demonstrate alignment of the loan with internationally recognised green loan principles

#### SUSTAINABILITY-LINKED LOANS

##### ① Pre-origination

- External review to demonstrate:
  - a) Alignment of the loan with internationally recognized sustainability-linked loan principles
  - b) Minimally 2 of total SPTs in SLL contribute to environmental objectives
- OR ESG rating

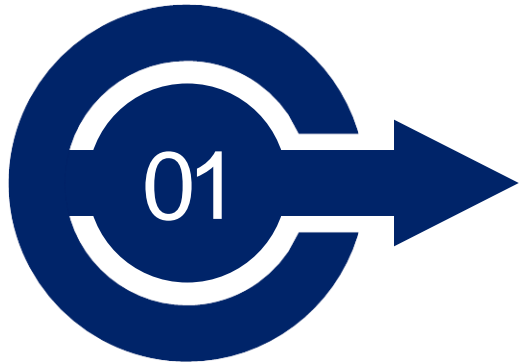
##### ② Post-origination

- External review on an annual basis to verify the attainment of SPTs

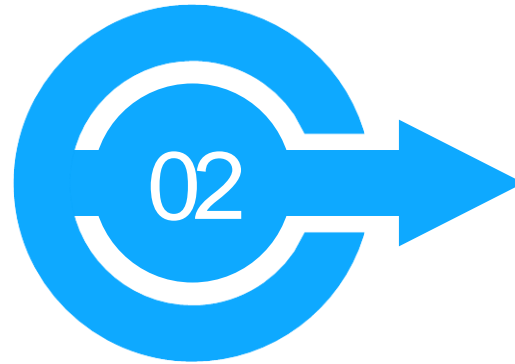
# Eligible expenses covered in the scheme

## Pre-origination

## Post-origination



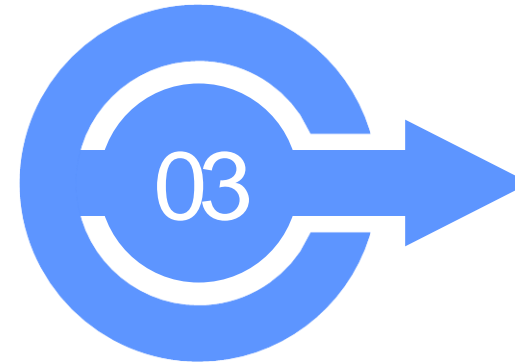
- Develop green loan framework
- Set Sustainability Performance Targets (SPTs) for SLLs



### External Review

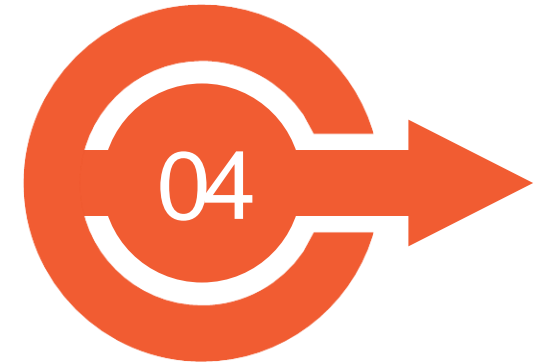
- SPO
- Verification
- Certification (i.e. CBI)\*
- Ratings

\*Asset level certification like BCA Green mark and industry certifications (RSPO) are not covered.



### External Review

- Assurance
- Rating

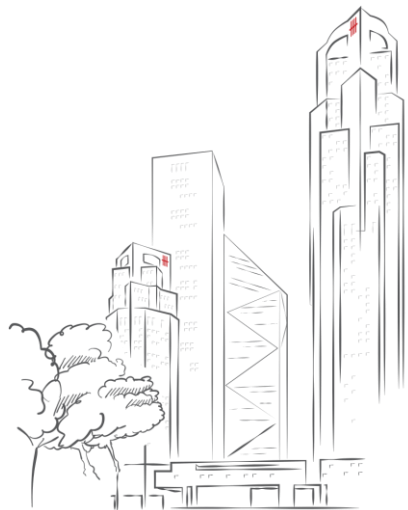


- Reporting on the use of proceeds, impact of project or SPTs



RIGHT BY YOU





# UOB Real Estate Green & Sustainable Financing

Green Building Solution for Corporates





May 2021

Private and Confidential

# Agenda

Topic	Page
Sustained Regulators' Push for 2020 and Beyond	3
UOB Real Estate Sustainable Finance Framework	6
What Are Green Loans?	11
What Are Sustainability Linked Loans?	19
Q&A	

# Sustained Regulators' Push for 2020 and Beyond

Environmental Regulations on Buildings Worldwide		Incentives for Developers Complying with Regulations	
 <b>Singapore</b>	<b>Transforming Singapore for the built environment sector</b> As at Dec 2020, SG has greened more than 43% of its buildings (by GFA), on its way toward the 2030 national target of 80%. Under latest SG Green Plan 2030 (Mar 2021), 80% of new green buildings targeted to be Super Low Energy (SLE) building from 2030. Best-in-class green buildings to see an 80% improvement in energy efficiency (over 2005 levels) by 2030. To support the push towards more energy efficient buildings, BCA plans to raise the minimum energy performance standards for both new and existing buildings in the coming years.	<b>(i) BCA funding</b> For existing buildings, BCA can co-fund up to 50 per cent of the cost of auditing the performance of chilled water central air-conditioning systems, which is one of the biggest sources of energy consumption.	
	<b>Housing Development Board (HDB) push for solar panels</b> Housing & Development Board (HDB) plans to more than double its capacity for solar power by 2030, this can reduce carbon emissions by 324,000 tonnes per year.	<b>(ii) GM Incentive Scheme for Existing Buildings and Premises (GMIS-EBP)</b> Owners and their tenants can tap onto the GM Incentive Scheme for Existing Buildings and Premises (GMIS-EBP) which co-funds up to 50 per cent of the cost of energy-efficient equipment.	
 <b>Malaysia</b>	<b>Nationwide Promotion of Energy Efficiency</b> The National Green Technology Policy (NGTP) launched since 2009 promotes the application of renewable energy (RE) and energy efficiency (EE) in buildings, and the application of green building index.	<b>(i) Green Investment Tax Allowance – GITA (Project)</b> GITA Investment Tax Allowance of 100% of qualifying capital expenditure incurred from the date of application received by MIDA until the year 2023 which comprises of Renewable Energy, Energy Efficiency, Green Building, Green Data Centre and Integrated Waste Management Activity.	
		<b>(ii) Green Income Tax Exemption</b> 100% of statutory income from the year of assessment where the date of application received by MIDA until the year 2023 which encompasses Renewable Energy, Energy Efficiency, Green Building, Green Data Centre, and Green Township.	
 <b>Thailand</b>	<b>Thailand Green Building Energy Code (GBEC)</b> Issued by the Minister of Energy under Section 19 of the Energy Conservation Promotion Act, the code prescribes standards to be adhered to for the building envelope system and electrical lighting system among others within the building.	<b>(i) Thailand government support</b> Ministry of Energy's Energy Conservation Revolving Fund (EERF) loaned \$235m for 294 projects to help finance equipment, installation, consulting design, piping and civil works aimed toward energy efficiency.	
		<b>(ii) Thai tax code offers incentive for nascent green building sector</b> The government has approved 350 energy efficiency projects for its five-year, 25% corporate tax credit.	
 <b>Indonesia</b>	<b>Government-Directed Building Requirements</b> The Jakarta gubernatorial decree stipulates that developers must comply with green requirements with energy and water efficient buildings or fail to receive a construction permit.	<b>(i) Financing Incentives</b> As per Financial Services Authority (OJK) Regulation No. 51/POJK.03/2017 on sustainable finance, projects that promote green buildings will be eligible to obtain enhanced financing.	



# Sustained Regulators' Push for 2020 and Beyond

## Environmental Regulations on Buildings Worldwide

## Incentives for Developers Complying with Regulations

### Buildings Energy Efficiency Ordinance

Minimum energy efficiency standards must be complied with for key building service installations of newly constructed buildings (and existing buildings which undergo major retrofitting works).



Hong Kong

### (i) Electrical and Mechanical Services Department's Energy Efficiency Registration Scheme

New or existing buildings/premises that achieve a "Final Bronze" rating under BEAM Plus are eligible for accelerated deduction under profits tax on capital expenditure incurred in the installation/construction of energy efficient building installations registered under HKEERSB.

### (ii) CLP Eco Building Fund

Provides subsidies to carry out energy efficiency enhancement works on buildings and nearby ancillary facilities.

### (iii) Deduction on profits tax

According to the Inland Revenue Department, buildings can apply for a deduction on profits tax for 20 per cent of cash spent on certain environmentally friendly installations, including renewable energy installations.

### (iv) Concessions on buildings

Financial Secretary Paul Chan Mo-po announced another HK\$800 million in 2018 to promote the installation of renewable energy facilities at government buildings, venues and community facilities.

### Guidelines for Establishing the Green Financial System 2018

Outlines reporting obligations for banks against predefined key performance indicators (KPIs) on E&S risks (including climate risk) and green finance flows.



China

### Revamping climate sensitive projects

Since 2012, China has issued over 60 energy savings standards targeting energy intensive industries, created an evaluation system to track energy savings; and invested close to \$800 million across more than 2,000 projects.

### (i) China reduction in carbon footprint

China's NDC pledges to lower the carbon intensity of GDP by between 60 percent and 65 percent below 2005 levels, increase the share of low-carbon energy to total energy supply to about 20 percent, and increase its forest stock volume by 4.5 billion cubic meters, by 2030.

### (ii) Industrial Energy Efficiency

China's 13th FYP establishes a target to reduce energy intensity by 40 – 45 percent from 2005 levels by 2020 and 60 - 65 percent by 2030.



Australia

### Guidelines for new commercial projects in Australia

Some local governments have decided that regulation is appropriate for their community and now require large commercial projects to achieve a minimum 4 star Green Star Rating.

### (i) Government subsidies on green buildings

The government announced a one-off 50% deduction of the cost of "improving the energy efficiency of existing commercial buildings. Local governments around Australia are stimulating green building with a range of incentives including: investment assistance, rate reductions for certified green buildings, and sustainable development grants.

# Rapid market growth in sustainable financing



<b>Sustainability Linked Loan</b>  <b>Amount</b> : S\$300m <b>Purpose</b> : General Corporate Purposes <b>Financed by</b> : DBS <b>Year</b> : 2018 <b>SPTs</b> : DJSI Listing; and ESG indicators <b>Margin ratchet</b> : Yes <b>SPO</b> : No	<b>Sustainability Linked Loan</b>  <b>Amount</b> : S\$200m <b>Purpose</b> : General Working Capital <b>Financed by</b> : OCBC <b>Year</b> : 2019 <b>SPTs</b> : Reference rooftop solar installations <b>Margin ratchet</b> : Yes <b>SPO</b> : No	<b>Sustainability Linked Loan</b>  <b>Amount</b> : S\$300m <b>Purpose</b> : General Corporate Purposes <b>Financed by</b> : Credit Agricole <b>Year</b> : 2019 <b>SPTs</b> : DJSI Listing; and ESG indicators <b>Margin ratchet</b> : Yes <b>SPO</b> : No	<b>Sustainability Linked Loan</b>  <b>Amount</b> : S\$250m <b>Purpose</b> : General Working Capital <b>Financed by</b> : DBS <b>Year</b> : 2019 <b>SPTs</b> : Sustainability-related performance targets <b>Margin ratchet</b> : Yes <b>SPO</b> : No	<b>Sustainability Linked Loan</b>  <b>Amount</b> : S\$100m <b>Purpose</b> : Refinance existing borrowings <b>Financed by</b> : BOC <b>Year</b> : 2020 <b>SPTs</b> : 4 star GRESB rating <b>Margin ratchet</b> : Yes <b>SPO</b> : No
<b>Syndicated Green Loan</b>  <b>Amount</b> : A\$600m <b>Purpose</b> : Refinance existing debt <b>Financed by</b> : Barclays, ANZ, Mizuho <b>Year</b> : 2019 <b>SPTs</b> : 5 star GRESB rating <b>Margin ratchet</b> : Yes <b>SPO</b> : No	<b>Green Loan</b>  <b>Amount</b> : S\$785m <b>Purpose</b> : Northpoint City <b>Financed by</b> : OCBC, DBS, BOC, SMBC <b>Year</b> : 2019 <b>Green loan framework</b> : Frasers Property's Green Loan Framework <b>SPO</b> : No	<b>Green Loan</b>  <b>Amount</b> : S\$200m <b>Purpose</b> : Several properties <b>Financed by</b> : OCBC <b>Year</b> : 2019 <b>Green loan framework</b> : Framework following LMA principles <b>SPO</b> : No	<b>Green Loan</b>  <b>Amount</b> : S\$945m <b>Purpose</b> : Duo Tower <b>Financed by</b> : UOB, DBS, SCB <b>Year</b> : 2019 <b>Green loan framework</b> : Ophir-Rochor Commercial's green loan framework <b>SPO</b> : Yes	<b>Green Loan</b>  <b>Amount</b> : S\$81m <b>Purpose</b> : Jewel @ Killiney <b>Financed by</b> : UOB <b>Year</b> : 2019 <b>Green loan framework</b> : UOB's Real Estate Sustainable Finance Framework <b>SPO</b> : No
<b>Green Loan</b>  <b>Amount</b> : S\$333m <b>Purpose</b> : Land parcel at Dairy Farm Road <b>Financed by</b> : DBS, OCBC, UOB <b>Year</b> : 2019 <b>Green loan framework</b> : No <b>SPO</b> : Yes	<b>Green Loan</b>  <b>Amount</b> : S\$332.5m <b>Purpose</b> : Ophir-Rochor Hotel <b>Financed by</b> : OCBC <b>Year</b> : 2019 <b>Green loan framework</b> : Hoi Hup Realty's green loan framework <b>SPO</b> : No	<b>Green Loan</b>  <b>Amount</b> : S\$60m <b>Purpose</b> : Unspecified <b>Financed by</b> : UOB <b>Year</b> : 2019 <b>Green loan framework</b> : UOB's Real Estate Sustainable Finance Framework <b>SPO</b> : No	<b>Green Loan</b>  <b>Amount</b> : S\$670m <b>Purpose</b> : Mapletree Business City <b>Financed by</b> : DBS, OCBC, BOC, Citi, SMBC <b>Year</b> : 2019 <b>Green loan framework</b> : MCT Green Loan Framework <b>SPO</b> : No	<b>Green Loan</b>  <b>Amount</b> : S\$237m <b>Purpose</b> : Grand Part City Hall <b>Financed by</b> : UOB <b>Year</b> : 2020 <b>Green loan framework</b> : UOB's Real Estate Sustainable Finance Framework <b>SPO</b> : No



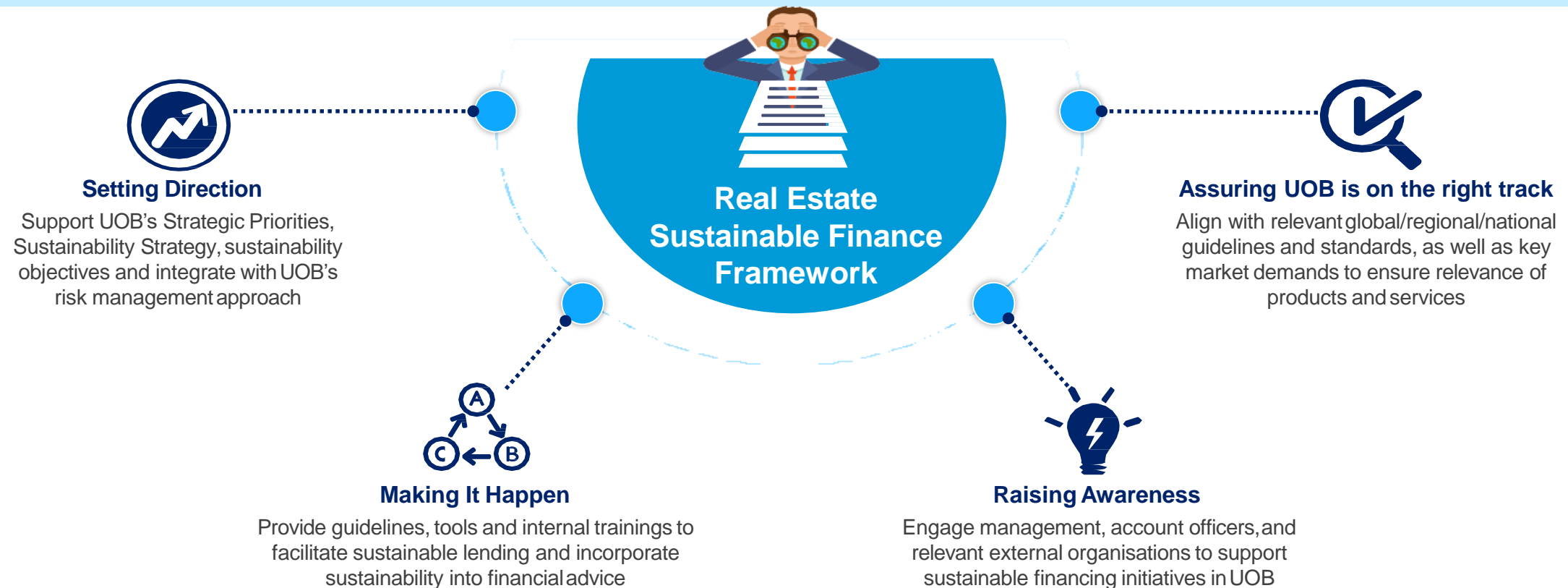
# UOB Real Estate Sustainable Finance Framework

# Why did UOB create Singapore's first Sustainable Lending Framework?



## Objectives of the UOB Real Estate Sustainable Finance Framework







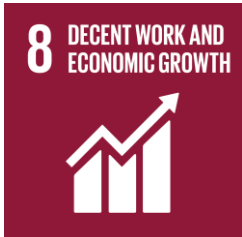


- Established Singapore's first sustainable lending framework in June 2019.
- To create a cogent and consistent process by which UOB can transact green and sustainability linked loans that is in alignment with UOB's ESG objectives and targets
- Allow creation of innovative green/sustainable financing structures within framework to support clients and increase the % of "green loans" in UOB's loan portfolio
- UOB's maiden US\$1.5bn sustainability bonds issuance in April 2021, the first such offering from Singapore, was driven by our sustainable finance framework.





# UOB Real Estate Sustainable Finance Framework addresses these Sustainable Development Goals (SDGs)



 <p><b>3</b> GOOD HEALTH AND WELL-BEING</p>	<ul style="list-style-type: none"><li>• Improved indoor environment quality</li><li>• Reduced emissions from buildings</li></ul>	 <p><b>9</b> INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	<ul style="list-style-type: none"><li>• Green buildings must be designed to ensure their resilience and adaptability, which drives innovation and technology</li></ul>	 <p><b>13</b> CLIMATE ACTION</p>	<ul style="list-style-type: none"><li>• Buildings are responsible for 40% of global GHG emissions</li><li>• Green buildings produce less GHG emissions</li></ul>
 <p><b>7</b> AFFORDABLE AND CLEAN ENERGY</p>	<ul style="list-style-type: none"><li>• Improves energy security by reducing energy consumption and utilising local renewable energy</li></ul>	 <p><b>11</b> SUSTAINABLE CITIES AND COMMUNITIES</p>	<ul style="list-style-type: none"><li>• Green buildings are key to building sustainable communities and cities</li></ul>	 <p><b>15</b> LIFE ON LAND</p>	<ul style="list-style-type: none"><li>• Green buildings use responsibly sourced materials</li><li>• Green buildings incorporate considerations for biodiversity and ecosystems</li></ul>
 <p><b>8</b> DECENT WORK AND ECONOMIC GROWTH</p>	<ul style="list-style-type: none"><li>• Increasing global demand for green buildings create jobs and boosts the economy</li></ul>	 <p><b>12</b> RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	<ul style="list-style-type: none"><li>• Green buildings adopt circular economy principles, where resources are not wasted</li></ul>	 <p><b>17</b> PARTNERSHIPS FOR THE GOALS</p>	<ul style="list-style-type: none"><li>• Strong global partnerships have been created, such as the launch of Global Alliance for Building and Construction in 2015</li></ul>

# Simplifying sustainability for businesses with the UOB Real Estate Sustainable Finance Framework<sup>1</sup>



**A streamlined and transparent process to:**



**Provide green classification** for your bilateral loans through self certification



**Support green classification** for your syndicated/club loans



**Facilitate sustainability classification** for your sustainability linked loans



## **Green Loans for Green Buildings**

Enjoy reduced frictional costs and greater convenience with self certification via our framework



## **Green Loans for Specific Improvement Projects**

Boost your company's sustainability profile while upgrading your assets



## **Sustainability Linked Loans (SLL)**

Enjoy interest rate reductions on your general corporate financing tied to your company's sustainability performance

<sup>1</sup> In alignment to Loan Market Association (LMA)'s Green Loan Principles and Sustainability Linked Loan Principles

With our Real Estate Sustainable Finance Framework, obtain sustainable financing for any of these asset types:



# What are Green Loans?



# Loan Market Association's Green Loan Principles (GLP)

“Green loans are defined as any type of loan instruments made available exclusively to finance or re-finance, in whole or in part, new and/or existing eligible Green Projects. Green loans must align with the four core components listed below.”



# Eligibility Criteria – Green Building



The scope of acceptable certifications is not pre-defined by APLMA and the justifications for inclusion of these certification standards is largely driven by local industry practices and adoption of local standards by major real estate players. Any other certification standard(s) that deviates from the list below would require an additional SPO/technical consultant, unless waiver exception granted to assess the environmental benefits of the proposed projects

	<b>LEED</b> ( <i>Leadership in Energy and Environmental Design</i> )	<b>EDGE</b> ( <i>Excellence in Design for Greater Efficiency</i> )	<b>BCA Green Mark</b> ( <i>Building &amp; Construction Authority</i> )	<b>BEAM Plus</b> ( <i>Building Environmental Assessment Method</i> )	<b>Green Building Evaluation Label</b>	<b>NABERS</b> ( <i>National Australian Built Environment Rating System</i> ) <i>Energy for Data Centres</i>	<b>SS 564 Green Data Centres – Energy and Environmental Management Systems</b>
<b>Establishment</b>	US Green Building Council	Green Business Certification Inc.	Building and Construction Authority	Hong Kong Green Building Council	Green Building Evaluation Label	NSW Office of Environment and Heritage	Infocomm Media Development Authority of Singapore
<b>Adopted</b>	Global	Global	Singapore	Hong Kong	China	Australia	Singapore
<b>Validity</b>	5 years	No expiry	3 years	5 years	2 years	1 year	No expiry
<b>Categories</b>	Energy and Atmosphere	Operational Energy Consumption	Smart and Healthy Building	Site Aspects	Indoor Environment Quality	Operational Energy Efficiency	Energy Management Systems
	Sustainable Sites	Water Use	Resource Stewardship	Material Aspects	Resource/Material Efficiency		
	Innovation and Design Process	Embodied Energy in Materials	Advanced Green Efforts	Energy Use	Water Efficiency		
	Materials and Resources		Building Energy Performance	Water Use	Energy Efficiency		
	Indoor Environmental Quality		Climatic Responsive Design	Indoor Environmental Quality	Land Efficiency		
	Water Efficiency			Innovations and Additions	Operational Management		
<b>Ranking</b>	<ul style="list-style-type: none"> <li>Platinum: 80+ Points</li> <li>Gold: 60-79 Points</li> <li>Silver: 50-59 Points</li> <li>Certified: 40-49 Points</li> </ul>	A building that demonstrates a 20% reduction in the above categories will receive <b>certification</b>	<ul style="list-style-type: none"> <li>Platinum: 90+ Points</li> <li>Gold<sup>Plus</sup>: 85-89 Points</li> <li>Gold: 75-84 Points</li> <li>Certified: 50-74 Points</li> </ul>	<ul style="list-style-type: none"> <li>Platinum: 75+ Points</li> <li>Gold: 65-74 Points</li> <li>Silver: 55-64 Points</li> <li>Certified: 40-54 Points</li> </ul>	<ul style="list-style-type: none"> <li>One to Three-Star Ranking</li> </ul>	<ul style="list-style-type: none"> <li>6 Stars – Market Leading</li> <li>5 Stars – Excellent</li> <li>4.5 Stars – Good</li> <li>3 Stars – Average</li> <li>2 Stars – Below Average</li> <li>1 Star – Poor</li> </ul>	A data centre that meets the requirements will receive <b>certification</b>

# Eligibility Criteria – Green Building



The scope of acceptable certifications is not pre-defined by APLMA and the justifications for inclusion of these certification standards is largely driven by local industry practices and adoption of local standards by major real estate players. Any other certification standard(s) that deviates from the list below would require an additional SPO/technical consultant, unless waiver exception granted to assess the environmental benefits of the proposed projects

	<b>BREEAM</b> ( <i>Building Research Establishment Environmental Assessment Method</i> )	<b>Green Star Certification</b>	<b>Green Building Index</b>	<b>GreenSHIP Certification</b>	<b>TREES</b> ( <i>Thai's Rating of Energy and Environmental Sustainability</i> )
<b>Establishment</b>	Building Research Establishment (BRE) Group	Green Building Council Australia	Green Building Index Malaysia	Green Building Council Indonesia	Thai Green Building Institute
<b>Adopted</b>	Global	Australia	Malaysia	Indonesia	Thailand
<b>Validity</b>	1 year	3 years	3 years	3 years	-
<b>Categories</b>	Energy	Indoor Environment Quality	Energy	Energy Efficiency	Building Management
	Health and Well-Being	Energy Transport, Water Use	Water	Water Conservation	Site and Landscape
	Innovation	Emissions	Materials	Material Resources	Water Conservation
	Land Use	Land Use and Ecology		Indoor Health and Comfort	Energy and Atmosphere
	Materials			Building Environment & Management	Materials and Resources
	Management				Indoor Environmental Quality
	Pollution				Environmental Protection
	Transport, Waste , Water				Green Innovations
<b>Ranking</b>	<ul style="list-style-type: none"> <li>Outstanding</li> <li>Excellent</li> <li>⋮</li> <li>Unclassified</li> </ul>	<ul style="list-style-type: none"> <li>6-star certification</li> <li>5-star certification</li> <li>⋮</li> <li>1-star certification</li> </ul>	<ul style="list-style-type: none"> <li>Platinum – 86 to 100 pts</li> <li>Gold – 76 to 85 pts</li> <li>Silver – 66 to 75 pts</li> <li>Certified – 50 to 65 pts</li> </ul>	<ul style="list-style-type: none"> <li>Platinum – Above 56 pts</li> <li>Gold – 44 to 55 pts</li> <li>Silver – 35-43 pts</li> <li>Bronze – 27 to 34 pts</li> </ul>	<ul style="list-style-type: none"> <li>Platinum – Above 75 pts</li> <li>Gold – 55 to 74 pts</li> <li>Silver – 45 to 54 pts</li> <li>Certified – 35 to 55 pts</li> </ul>
<b>Adoption</b>	<b>21,614 certified projects across 85 countries</b>  464 Outstanding certifications (2.1%) 5,479 Excellent certifications (25.3%) 11,491 Very Good certifications (53.2%) 4,180 ≤ Good and below certifications (19.3%)	<b>2,653 certified projects</b>  278 6-star certifications (10.5%) 727 5-star certifications (29.7%) 422 4-star certifications (15.9%) 1,166 ≤ 3-star certifications (44.0%)	<b>18 projects</b>  5 Platinum (27.8%) 12 Gold (66.7%) 1 Silver (5.6%)	<b>119 projects undergone evaluations</b>  6 Platinum (9.8%) 31 Gold (50.8%) 12 Silver (19.7%) 12 Certified (19.7%)	<b>494 projects</b>  21 Platinum (4.3%) 109 gold (22.1%) 54 Silver (10.9%) 310 Certified (62.8%)
<b>Adoption by Key Real Estate Players</b>	Lendlease, AXA Real Estate Investment Managers, Grosvenor, Cadogan Estate, and The Crown Estate	Australand, Brookfield Properties Australia Pty Ltd, ING Real Estate, Lendlease Building Pty Ltd, and Pembroke Real Estate Australia	Sunway Berhad, IOI Group, SP Setia, The (Suruhanjaya Tenaga) ST Diamond Building, and Grand Hyatt Kuala Lumpur	PT. AIA Financial, PT L'oreal Indonesia, Menara BCA PR Grand Indonesia, and Graha Telkomsigma	CP All Public Company Limited, LPN Development Public Company Limited, Ananda Development Public Company Limited

# “5 One Central” (former Manulife Centre) in Singapore



## BCA Green Mark Platinum Award

- Joint Green Club loan with another local bank for the acquisition and renovation of the Manulife Centre, to be renamed 5 One Central. Highlight is the Green Loan classification is achieved on basis that the undertaken AEI works will lead to an award of the Green Mark Platinum Award
- Design features include sustainable management covering energy, water, and waste recycling policies; building energy performance, which includes a 15% air distribution improvement, and resource stewardship which includes the use of green products and materials.
- Featured in both The Straits Times and The Business Times, we hope this transaction will encourage other developers (esp. SMEs) to seek green renovation opportunities and in turn provide UOB with a stronger value-chain play.



# “One 55 Fanshawe” in New Zealand



## 6 Green Star Design Rating

- UOB's first Green Loan in **New Zealand**
- Office Development has been awarded a “**World Leadership**” design award by the New Zealand Green Building Council
- Green Star is an internationally recognized rating system for the design, construction and operation of building and fit outs
- Design features include seven floors of flexible working space, relaxed stack floorplates



## BCA Green Mark Platinum

- Conversion of existing term loan for the construction of an Integrated Construction and Pre-fabrication Hub (ICPH) to a green loan.
- ICPH attained the BCA Green Mark Platinum certification.
- Teambuild Construction is one of the earliest adopters of prefabricated pre-finished volumetric construction (PPVC) technology in Singapore, a building method that involves making modules and completing finishes in factories before assembling them on-site.
- The building is equipped with green walls and rooftop solar panels with a total solar capacity of 58.9 megawatt-peak.
- Loan was extended under UOB's Real Estate Sustainable Finance Framework, the first lending framework for the sector established by a Singapore bank.



## BCA Green Mark Platinum

- Conversion of existing S\$82.03m loan to green term loan facility for the acquisition of freehold property and proposed six-storey 4-star hotel redevelopment.
- The proposed hotel development is expected to meet the BCA Green Mark Platinum.
- The building's design will include climate-responsive features and are expected to lead to 30% in cost savings.
- Loan was also extended under UOB's Real Estate Sustainable Finance Framework.



# What are Sustainability Linked Loans (SLL)?



# Loan Market Association's Sustainability Linked Loan Principles (SLLP)



“Sustainability Linked Loans are defined as any type of loan instruments which incentivise the borrower’s achievement of ambitious, predetermined sustainability performance objectives, measured using Sustainability Performance Targets (SPTs)”



# Sustainability Linked Loans – Eligibility Criteria<sup>1</sup>

Developers/Owners can use Sustainability Linked Loans for general corporate financing purposes, with interest rates pegged to your achievement of pre-determined Sustainability Performance Targets (SPTs).



## Sustainability Strategy and Objectives

The Borrower must have an overall **clear sustainability strategy** and objectives set out



## Attainment of ESG ratings and/or Sustainability Indices

Borrowers must **demonstrate their adherence** to the requirements set by a recognised Index or Organisation



## Clear, Achievable Targets

The SPTs agreed between the Borrower and the Bank should be **clear, achievable and meaningful** to the Borrower's business and should be tied to a sustainability improvement in relation to a pre-determined performance target benchmark.

<sup>1</sup> An Second Party Opinion (SPO) is recommended for Sustainability Linked Loans

# Sustainability Linked Loans – Acceptable ESG ratings



Our Real Estate Sustainable Finance Framework caters for a wide range of ESG rating agencies and indices

Index	Rating Description
<b>MSCI</b>	<ul style="list-style-type: none"> <li>Listed as constituent of the ESG Leaders Indexes</li> <li>Awarded ESG Rating of BB and above</li> </ul>
<b>Dow Jones</b>	<p>Constituent of any of the following:</p> <ul style="list-style-type: none"> <li>Sustainability Index Family (DJSI World, DJSI Asia Pacific, and DJSI Emerging Markets)</li> <li>Sustainability Diversified Index Family (DJSI World Diversified, DJSI World Diversified Select, DJSI World Developed Diversified, DJSI World Developed ex-Korea Diversified, DJSI Asia Pacific Developed Diversified, DJSI Emerging Markets Diversified, DJSI Emerging Markets Plus Diversified*)</li> <li>Global Green RESI, Dow Jones Global ex-U.S. RESI and Dow Jones Japan Green RESI</li> </ul>
<b>RobecoSAM AG</b>	<ul style="list-style-type: none"> <li>Awarded as Gold Class, Silver Class, Bronze Class or Sustainability Yearbook Member in the most recent Sustainability Yearbook</li> </ul>
<b>S&amp;P</b>	<ul style="list-style-type: none"> <li>Listed as constituent of Fossil Fuel Free &amp; Carbon Efficient Index families</li> </ul>
<b>GRESB</b>	<ul style="list-style-type: none"> <li>Awarded Global Sector Leader, Regional Sector Leader, Asia Sector Leader, Infrastructure Fund Sector Leader or Infrastructure Asset Sector Leader in most recent assessments</li> </ul>

Index	Rating Description
<b>FTSE</b>	<p>Constituent of any of the following Russell Sustainable Investment Index Series:</p> <ul style="list-style-type: none"> <li>EPRA Nareit Green Indexes,</li> <li>Environmental Technology Index Series,</li> <li>Environmental Opportunities Index Series,</li> <li>Developed ESG Index,</li> <li>Emerging ESG Index,</li> <li>All-Share® ESG Index,</li> <li>Russell 1000® ESG Index,</li> <li>FTSE4Good Index,</li> <li>FTSE4Good Emerging Indexes,</li> <li>FTSE4Good ASEAN 5 Index,</li> <li>FTSE4Good Bursa Malaysia Index,</li> <li>All-World Green Revenues Index,</li> <li>Developed Green Revenues Index,</li> <li>Emerging Green Revenues Index,</li> <li>Asia Pacific Green Revenues Index,</li> <li>All Share Green Revenues Index,</li> <li>China Green Revenues Index,</li> <li>Global All Cap ex US Choice Index,</li> <li>Developed ex Australia ex Non-Renewable Energy/Vice Products/Weapons Index)</li> </ul>
<b>iEdge</b>	<ul style="list-style-type: none"> <li>Listed as constituent of iEdge SG ESG Sustainability Indices such as iEdge SG ESG Leaders Index and or the iEdge SG ESG Transparency Index</li> </ul>
<b>Sustainalytics</b>	<ul style="list-style-type: none"> <li>Awarded an ESG Risk Rating of Medium Risk and below</li> </ul>
<b>Others</b>	<ul style="list-style-type: none"> <li>Other ratings and SGX sustainability indices deemed relevant by UOB</li> </ul>

## CapitaLand Mall Trust



**Bilateral Sustainability Linked Loan**  
*for general corporate funding requirements*  
Sept 2020

## Sustainability Linked Loan (SLL)

- Conversion of existing revolving credit facility into an SLL from UOB which is also CapitaLand Mall Trust's (CMT) first SLL. Proceeds are to be used for general corporate purposes.
- The SLL is explicitly linked to CapitaLand's achievements in the Global Real Estate Sustainability Benchmark (GRESB), a leading environmental, social and governance (ESG) benchmark for real estate and infrastructure investments across.
- This follows a green loan secured in Oct 2019 to finance CMT's BCA Green Mark-certified properties, marking another milestone in CMT's journey to continually strengthen their ESG standards while creating long-term value for their stakeholders.
- CMT was recognised as the leader in the Asia "Retail – Listed" category in GRESB 2019. UOB takes a holistic approach in partnering with our clients through their sustainability journey.

Questions?



# Sector Solutions Group Real Estate & Hospitality Team



**Lam Li Min**

Head of Real Estate & Hospitality  
Sectors Solutions Group  
Lam.LiMin@UOBgroup.com



**Martin Davis**

Real Estate & Hospitality  
Sectors Solutions Group  
Martin.Davis@UOBgroup.com



**Derrick Chen**

Real Estate & Hospitality  
Sectors Solutions Group  
Derrick.ChenWY@UOBgroup.com



**Cara Tan**

Real Estate & Hospitality  
Sectors Solutions Group  
Cara.Tan@UOBgroup.com



**Kelvin Ngo**

Real Estate & Hospitality  
Sectors Solutions Group  
Kelvin.Ngo@UOBgroup.com



RIGHT BY YOU



# Green Finance to Future Proof Assets

**Green Building Financing Webinar**

---

4 May 2021

# ESG is gaining momentum in real estate

With an estimated 40% of all global carbon emissions being driven by construction and operation of buildings, real estate is a particular industry of focus among ESG investors.

35% of REITs properties globally are exposed to climate hazards. Of these, 17% properties are exposed to inland flood risk, 6% to sea level rise and coastal floods and 12% to hurricanes or typhoons.



Across all real estate sectors, investors are looking for sustainable assets and products.

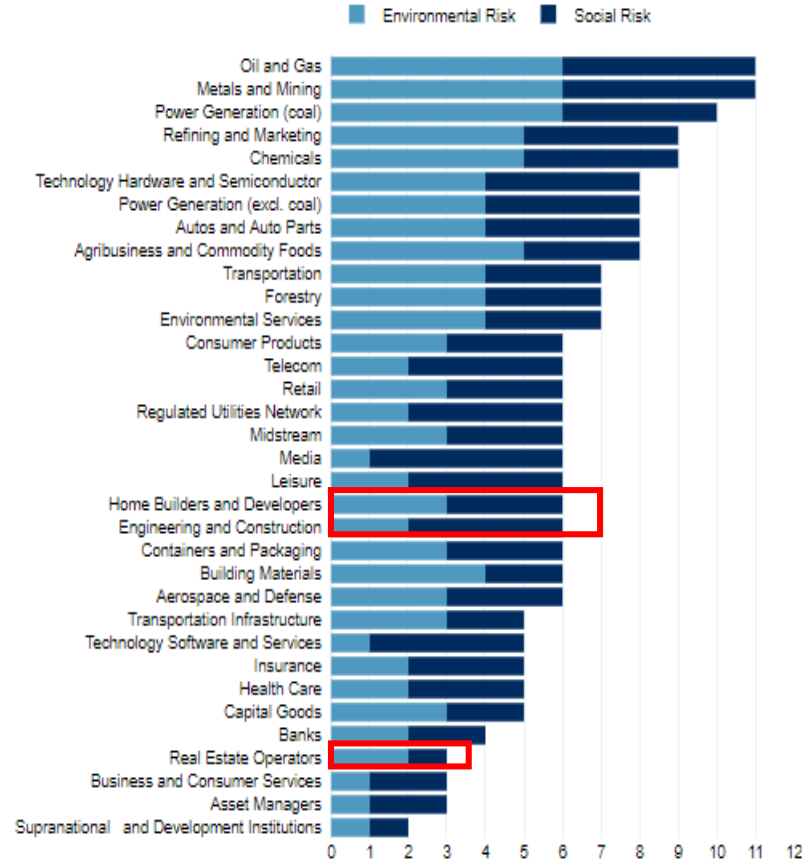


Leading frameworks:

- Global Real Estate Sustainability Benchmark (GRESB)
- Investments: UN PRI (Principles for Responsible Investment)



## Sector Risk Atlas



Rising ESG Focus Fees Launch of Another Green REIT Index

The REIT Market Improves ESG Reporting

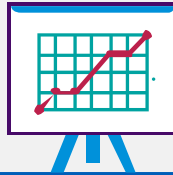
“Green premium is clear” - Aviva Investors ESG boss tells property podcast

# What these could mean for you



## MAS Environmental Risk Management Guidelines

- Asset managers and financial institution to disclose and **stress-test** resilience of portfolios to climate risk
- **More capacity building** and training to assess, manage and monitor environmental risk
- **Stronger governance** of climate-related risks and opportunities



## Green Finance Industry Taskforce

- Encourages **independent verification** of ESG data and alignment to internal standards (e.g. LEED)
- Increase **flow of capital** to support the transition to a low-carbon economy



## SG Green Building Masterplan

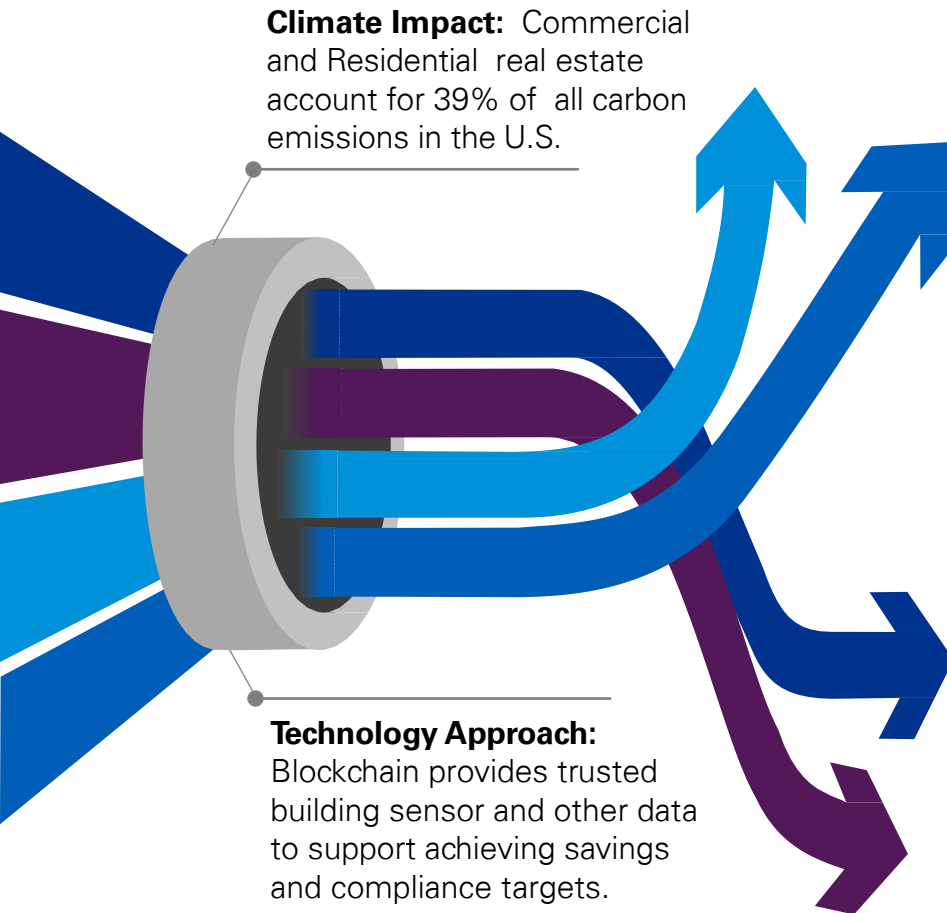
- **80% green buildings** by 2030
- Rise in **circular economy**
- Demand for healthy and **green buildings**
- **Cost efficiency** for building tenants and owners

digital solutions and disclosures, product labelling/ certifications, sustainable financing



# Climate Accounting Infrastructure (CAI) tool

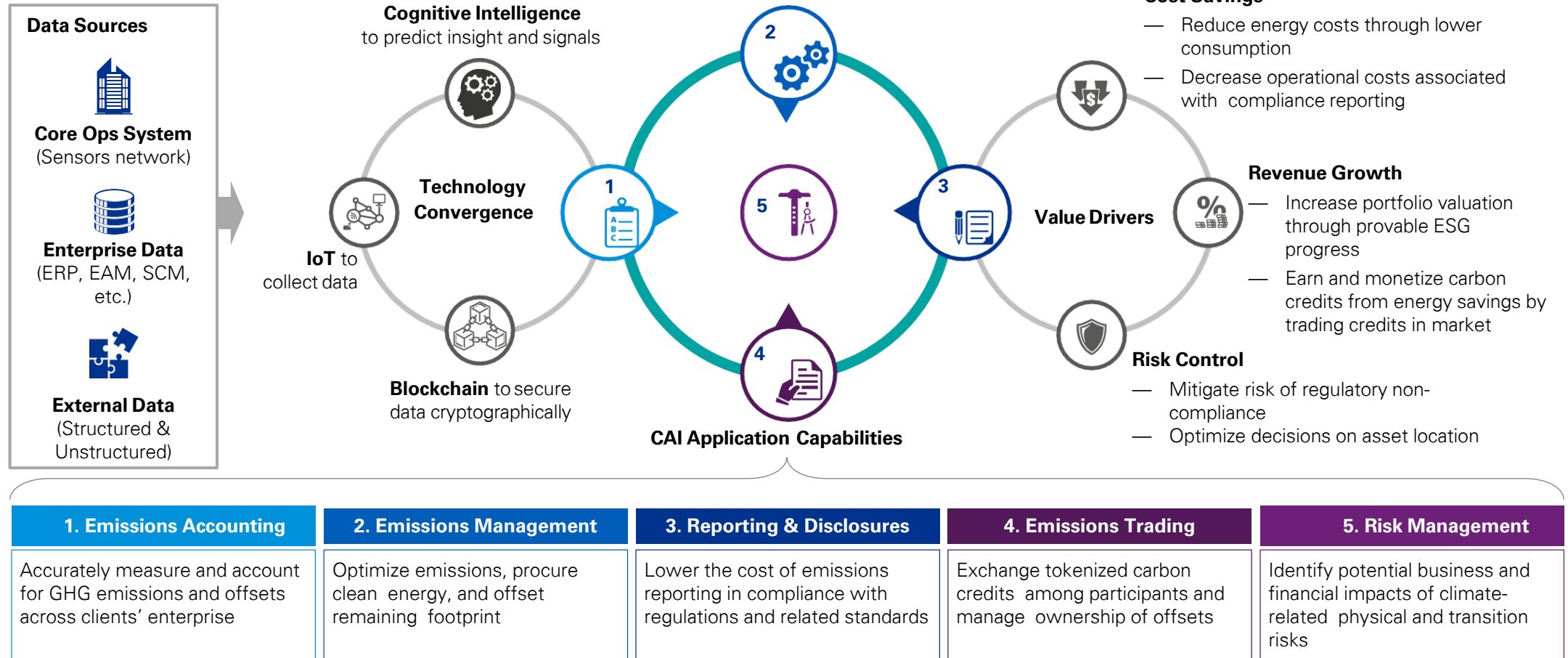
**For real estate owners, tenants, and investors, reducing carbon emissions lowers costs and improves asset valuation**



<b>Core Issue</b>	ESG assessments are an increasingly important driver of value within a real estate portfolio. Being able to demonstrate provable progress toward emissions reduction in a way that supports common disclosure frameworks can have a significant impact on an asset's ESG score and subsequent valuation.
<b>Market Drivers</b>	Along with investor and consumer pressure for more sustainable and carbon-friendly practices, an increasing number of jurisdictions globally have passed – or are drafting – regulations to cap real estate emissions. As a result, a growing number of companies are making carbon neutrality commitments.
<b>Objectives</b>	Real estate owners want to neutralize carbon liabilities and realize market value by pursuing energy-efficiency upgrades and accurately measuring, accounting and reporting on building emissions to meet or exceed guidelines.
<b>ROI</b>	“Greener” buildings attract higher levels of tenancy, while verifiable emissions across a real estate portfolio supports streamlined disclosure reporting. These collectively can improve asset valuations across the portfolio.

# Climate Accounting Infrastructure (CAI) tool

**Solving for climate accounting requires a converged technology approach that addresses data capture, verification, enrichment, and insight generation**



# Next steps









# Appendix

# GFIT's proposed green taxonomy...what does it mean?

The **Green Finance Industry Taskforce (GFIT)**, convened by the **Monetary Authority of Singapore (MAS)**, issued a proposed taxonomy in **January 2021** for Singapore-based financial institutions to identify activities that can be considered green or transitioning towards green. As with the EU taxonomy, the proposed Singapore taxonomy will evaluate and classify activities based on tolerance thresholds and will cover specific industry sectors, one of which is the **real estate sector**. It also encourages market participants to seek **external verification**.

## The proposed taxonomy's objectives:

	<b>Climate change mitigation</b> Activities that reduce the release of GHG emissions in the atmosphere.
	<b>Climate change adaptation</b> Activities that substantially reduce the adverse impact of the current and expected future climate on either (i) other people, nature or assets, or (ii) the economic activity itself.
	<b>Protect biodiversity</b> Activities that include the sustainable management, conservation and restoration of ecosystems to provide services that help people adapt to the adverse effects of climate change.
	<b>Promote resource resilience</b> Activities that ensure the safe and secure supply of critical resources, overcome resource constraints by maximising resource efficiency, and close resource loops through the circular economy and waste management.

## Example activities:

<ul style="list-style-type: none"> <li>• Avoid GHG emissions.</li> <li>• Reduce GHG emissions.</li> <li>• Facilitate low carbon performance or substantial emissions reduction.</li> </ul>
<ul style="list-style-type: none"> <li>• Implement measures to increase own resilience (e.g. installed more efficient cooling facilities in anticipation of an increase in warmer days).</li> <li>• Enable other economic activities to adapt to climate change (e.g. installed sensors for flood monitoring).</li> <li>• Do not adversely affect adaptation efforts by others.</li> </ul>
<ul style="list-style-type: none"> <li>• Promote protection, restoration and sustainable use of coastal and marine environment.</li> <li>• Enhance sustainable forest management (e.g. afforestation, reforestation).</li> </ul>
<ul style="list-style-type: none"> <li>• Waste management.</li> <li>• Promote water pollution control measures.</li> </ul>

## Industry standards:

<b>BREEAM</b> – Building Research Establishment Environmental Assessment Method
<b>LEED</b> – Leadership in Energy and Environmental Design
<b>EDGE</b> – Excellence in Design for Greater Efficiencies





## Contact us



**Lau Kam Yuen**

Partner, Governance and Risk  
KPMG IMPACT  
kamyuenlau@kpmg.com.sg  
+65 9852 1423



**Cherine Fok**

Director, Sustainability Services  
KPMG IMPACT  
cherinefok@kpmg.com.sg  
+65 8201 5527

The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2021 KPMG Services Pte. Ltd. (Registration No: 200003956G), a Singapore incorporated company and a member firm of the KPMG global organisation of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

The KPMG name and logo are registered trademarks or trademarks of KPMG International.