

**ULI SINGAPORE AND ARUP CENTRE FOR CLIMATE ACTION IN CITIES  
CLIMATE RISK AND DECARBONISATION WORKSHOP**

Venue | 182, #06-01 Cecil Street, Frasers Tower, 069547

FRIDAY 3 March 2023 8:30AM – 5:30PM

**Module 1: Why the Real Estate Sector Should Care About Climate Change**

1.1	Beyond buzzwords – how to understand sustainability, climate risk and ESG	1.1.1	Key concepts and how not to confuse them (sustainability, climate, decarbonisation, etc...)
		1.1.2	Important sustainability and climate policy response
		1.1.3	Sustainability from a corporate and financial point of view
		1.1.4	Overall sustainability framework and how to understand it
		1.1.5	Speaker: how different concepts of Sustainability are being applied in the real estate sector  <i>Vinamra Srivastava, CSO, CapitaLand Investment</i>
1.2	Climate Risks and Opportunities for the Real Estate Sector	1.2.1	Types of climate risks and opportunities (Physical and Transition)
		1.2.2	How these risk and opportunities transmit into the sector (Micro and Macro)
		1.2.3	Important risk measurement and management measures
		1.2.4	Implications for the real estate sector and why you should care
		1.2.5	Speaker: Example of the impact of climate and sustainability risk  <i>Sybil Tan, Director, Infrastructure, PwC Singapore</i>
1.3	Implications for Singapore	1.3.1	Singapore climate action plan, Green Plan and decarbonisation commitments
		1.3.2	Example - Best practices in New Construction: Singapore NZEB and ZEB
		1.3.3	Speaker: Example of a NZEB or ZEB building and how it came about  <i>Prof Lam Khee Poh, Provost's Chair Professor of Architecture and Built Environment, NUS</i>
1.4	Our Focus for the Training	1.4.1	More on transition risk (short term) than physical risk (long term)

**FRIDAY 10 March 2023 8:30AM – 5:30PM**  
**Module 2: Existing Buildings and Portfolio**

2.1	Existing Asset and Portfolio Assessment - Various Tools including How to Prioritise	2.1.1	Various tools and how to prioritize
		2.1.2	Open Discussion: The subjective assessment of climate risk
		2.1.3	Quick Wins in Existing Buildings – Singapore <i>Wee Su Lin, Executive Director, PGIM Real Estate; and, Tan Sze Tiong, Group Director, Building &amp; Research Institute, HDB</i>
2.2	Application	2.2.1	Open Discussion: What ideas or actions would you take that's a quick win for your organisation
		2.2.2	Singapore Case Study: Keppel Bay Tower <i>Tan Szue Hann, Head of Sustainability, Keppel Land</i>

**FRIDAY 24 March 2023 8:30AM – 5:30PM**  
**Module 3: New Developments**

3.1	Whole Life Carbon Assessment - Materials, Design Options, Tools	3.1.1	An overview of the approach
		3.1.2	Whole life assessment: Materials
		3.1.3	Whole life assessment: Design Options
		3.1.4	Whole life assessment: Tools
		3.1.5	Application: What does WLCA mean to a property developer - Challenges, etc  <i>Chan Hui Min, Director, DP Architects</i>
3.2	Different Pathways to Decarbonisation	3.2.1	Through digital technology (with a case study)
		3.2.2	Through city planning
		3.2.3	Through alternative energy and other energy related methods
		3.2.4	Singapore case study highlighting one of the three different pathways above  <i>Ben Moo, Built Environment Sector Leader, Mott MacDonald</i>

FRIDAY 31 March 2023 8:30AM – 5:30PM

**Module 4: Making the Change Happen**

4.1	The Real Challenges to the Decarbonisation Transition in Real Estate	4.1.1	Decarbonisation progress: real estate versus other sectors
		4.1.2	Overview of key adoption challenges (funding/financing, impact measurement, change management)  <i>Cheng Hsing Yao, Group CEO, GuocoLand Limited; and, Tan Boon Khai, CEO, JTC</i>
4.2	Beyond the cost: Thinking about Decarbonisation ROI	4.2.1	The real cost of inaction
		4.2.2	How to measure the value of decarbonisation holistically
		4.2.3	ROI vs cost-based approach: How to make the case for decarbonisation investment
		4.2.4	Case study of applied innovative approach to decarbonisation investment
		4.2.5	Collaborative exercise: Thinking about the real value vs cost in your company
4.3	Funding and Financing: Decarbonisation as a Financial Strategy	4.3.1	Green and sustainable finance: Globally and in Singapore
		4.3.2	What it means for the real estate sector: Both a risk and an opportunity
		4.3.3	Re-thinking decarbonisation as a financial strategy as a whole
		4.3.4	Case study of how investors or company board are looking at decarbonisation from a financial angle  <i>Niel Thassim, Managing Partner, Head of Asia Pacific and Middle East, Private Funds, Brookfield Asia Pacific</i>
		4.3.5	Collaborative exercise: preparing an investment case study for a green investor
4.4	Decarbonisation from a Company Culture Perspective	4.4.1	Governance and risk management
		4.4.2	Company culture
		4.4.3	Case study of actual sustainability change management in the built environment  <i>Zheng Wanshi, Group Chief Planning &amp; Strategy Officer, Frasers Property Limited</i>