

COURSE HANDBOOK (WITHOUT CASE STUDIES)

ASEAN SUSTAINABLE LEADERSHIP IN INFRASTRUCTURE PROGRAMME

OUR URBAN CHALLENGES

We are living in challenging times. Climate change is an imminent threat to the future of our planet. Population increase is causing unprecedented congestion in our cities. Transmigration has exacerbated social inequalities. Culture has been eroded in the face of globalisation. And whilst we have shifted from an analog to a digital age, we need to ask whether our quest for technological advancement is really enhancing our lives. Such environmental, spatial, social, cultural, economic and technological issues manifest in the urban and infrastructural challenges that beset our cities of tomorrow. This necessitates a new culture of innovation, forged by informed leadership to bring about systemic change to deliver sustainable outcomes, that support the *Master Plan on ASEAN Connectivity (MPAC) 2025* and the *ASEAN Sustainable Urbanisation Strategy (ASUS)*.

ABOUT THE COURSE

In this executive leadership course, we will prepare you to make a positive impact in addressing the urban and infrastructural challenges of tomorrow. You will explore a broad range of themes relating to the project planning, preparation, appraisal, funding, procurement and future-proofing of the places that we live, work, play and learn; and the critical infrastructure that brings together these elements to make sustainable built environments that are diverse, equitable and inclusive. The case-study oriented course aligns with MPAC 2025's initiatives to promote resilience building and aims to equip ASEAN policy makers and practitioners with the skills, knowledge base and strategic thinking capabilities to implement sustainability in practice. It will also provide both clues and cues to plan, procure and 'build back better', habitats for present and future generations.



7

THEMES & KEY OUTCOMES

01

TOWARDS NET ZERO: IMPACT ON URBANISM & INFRASTRUCTURE

Support the Framework for Improving ASEAN Infrastructure Productivity through senior level knowledge exchange on upstream regional urbanism and infrastructure leadership.

02

SUSTAINABLE SYSTEMS TO DELIVER BETTER BUILT ENVIRONMENTS

Share best practice on developing and implementing robust, merit-based frameworks for project screening, planning and appraisal; including assessing value for money, commercial viability, financial affordability and operational deliverability.

03

ENABLERS TO 'BUILD BACK BETTER'

Support sustainability in practice, through procurement activities and approaches including the preservation of ecology and optimising existing infrastructure projects and assets through future proofing and repurposing.

04

PROJECT DELIVERY FRAMEWORKS

Offer participants the opportunity to attain both academic and professional accreditation through concise, flexible, online delivery.

05

SUSTAINABLE FUNDING & FINANCING

Provide a gateway to further UK education at the prestigious University of Cambridge Institute for Sustainability Leadership.

06

TOWARDS NET ZERO CONTRACTS AND PROCUREMENT

Provide pathways to further professionally-accredited education, including 5CM and CP3P certification.





07

LEVERAGING SUPPORT & COLLABORATIONS TOWARDS A NET ZERO WORLD

Attain membership to an inclusive alumni network in order to affect positive change and 'build back better'.

THEME		MODULES	HOURS
01	TOWARDS NET ZERO: IMPACT ON URBANISM & INFRASTRUCTURE	WHY ARE YOU HERE? ARUP	2
		TOTAL DESIGN: INTEGRATING URBANISM & INFRASTRUCTURE ARUP	2
		PLACES FOR ALL - DIVERSITY, EQUALITY & INCLUSION UNDP, WESTMINISTER UNIVERSITY	1.5
		RESILIENCE & FUTURE PROOFING URBAN HABITATS POMEROY ACADEMY	6
		REAL ESTATE SECTOR CHALLENGES & OPPORTUNITIES CISL	8-10
		KEY THEMES FOR A SUSTAINABLE REAL ESTATE SECTOR CISL	8-10
02	SUSTAINABLE SYSTEMS TO DELIVER BETTER BUILT ENVIRONMENTS	SYSTEMS THINKING FOR RESILIENCE CISL	8-10
		REDEFINING THE BUSINESS VALUE FOR SUSTAINABLE REAL ESTATE CISL	8-10
		DESIGN & PROCUREMENT FOR SUSTAINABLE REAL ESTATE CISL	8-10
		DEVELOPING A STRATEGY & ENCOURAGING ACTION CISL	8-10
		MAXIMISING YOUR INFLUENCE & IMPACT CISL	8-10
03	ENABLERS TO ‘BUILD BACK BETTER’	POLICY - SUSTAINABILITY IN PRACTICE HMG	1
		FRAMEWORKS - REGULATORY, LEGAL, INSTITUTIONAL ASHURST	1.5
		DE-RISKING DELIVERY THROUGH CAPACITY BUILDING CROSSRAIL INTERNATIONAL LTD	1.5
		DIGITAL TRANSFORMATION & THE GEMINI WORLD TURNER & TOWNSEND	6
04	PROJECT DELIVERY FRAMEWORKS	INTRODUCTION TO FRAMEWORK MODELS: 5CM, GREEN BOOK / CBA TURNER & TOWNSEND	4
		ASSET MANAGEMENT & ROUTEMAP TURNER & TOWNSEND	8
		PUBLIC-PRIVATE PARTNERSHIP+INTRODUCTION TO CP3P & CASE STUDIES IPA(LEAD), IFC	6
05	SUSTAINABLE FUNDING & FINANCING	GREEN FINANCING - OVERVIEW & CASE STUDIES IFC	1.5
		FINANCIAL SERVICE - CLIMATE & RESILIENCE HMG	1
		CLEAN GREEN INITIATIVE - TOOLBOX HMG	1
		NET ZERO - LENDERS' PERSPECTIVE HSBC	2
		FUNDING INNOVATION & RECYCLING ASSETS GIHUB	1.5
		ALTERNATIVE FORMS OF FUNDING: LAND VALUE CAPTURE CROSSRAIL INTERNATIONAL LTD	2
06	TOWARDS NET ZERO CONTRACTS & PROCUREMENT	GENDER AUDITING IN PROCUREMENT UNDP	1.5
		NET ZERO CONTRACTS & MEASUREMENT TURNER & TOWNSEND, RICS	4
		NEW ENGINEERING CONTRACT TURNER & TOWNSEND	6
07	LEVERAGING SUPPORT & COLLABORATIONS TOWARDS A NET ZERO WORLD	LEVERAGING SUPPORT & COLLABORATIONS TOWARDS NET ZERO POMEROY ACADEMY	6

16 | WEEKS

WEEK 0	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9
Orientation	THEME 1 Towards Net Zero: Impact on Urbanism & Infrastructure			THEME 2 Sustainable Systems to Deliver Better Built Environments					
	Why are you here? Total Design: Integrating Urbanism & Infrastructure Places For All: Diversity, Equality & Inclusion Resilience & Future Proofing Urban Habitats	Real Estate Sector Challenges & Opportunities	Key Themes for a Sustainable Real Estate Sector	Systems Thinking for Resilience	Redefining the Business Value for Sustainable Real Estate	Design & Procurement for Sustainable Real Estate	Sustainable Operation of the Built Environment	Developing a Strategy & Encouraging Action	Maximising Your Influence & Impact
	  				8-WEEK CISL EMBEDDED COURSE 				

 LIVE STREAM

 LIVE STREAM

 RECORDED

 SELF - LED

16 | WEEKS

WEEK 10	WEEK 11	WEEK 12	WEEK 13	WEEK 14	WEEK 15	WEEK 16
THEME 3 Enablers to 'Build Back Better'	THEME 4 Project Delivery Frameworks		THEME 5 Sustainable Funding & Financing	THEME 6 Towards Net Zero Contracts & Procurement		THEME 7 Leveraging Support & Collaborations Towards a Net Zero World
<p>Policy - Sustainability In Practice</p> <p>Frameworks - Regulatory, Legal, Institutional</p> <p>De-Risking Delivery Through Capacity Building</p> <p>Digital Transformation & The Gemini World</p>	<p>Intro To Framework Models: 5cm, Green Book, CBA</p> <p>Asset Management & Routemap</p>	<p>Public-Private Partnership, CP3P & Case Studies</p>	<p>Green Financing</p> <p>Financial Services - Climate & Resilience</p> <p>Clean Green Initiative Toolbox</p> <p>Net Zero - Lender's Perspective</p> <p>Funding Innovation & Recycling Assets</p> <p>Alternative Forms Of Funding: Land Value Capture</p>	<p>Gender Auditing In Procurement</p> <p>Net Zero Contracts & Measurement</p>	<p>New Engineering Contract</p>	<p>Leveraging Support & Collaborations Towards Net Zero</p>
   	 		    			

01 TOWARDS NET ZERO: IMPACT ON URBANISM & INFRASTRUCTURE

With over half the world's carbon emissions emanating from our built environment, the cataclysmic effects of 'business as usual' urban and infrastructural development is necessitating a drastic rethink as to how civil society, state, corporation and academia can collaborate to 'build back better' and shape positive sustainable outcomes. This requires leaders to identify global trends, associated risks and key themes influencing the built environment. Evidence-based, interdisciplinary sustainable design is needed to shape diverse, equitable and inclusive habitats, from the macro-scale of cities to the micro-scale of individual developments that are resilient and future-proof for the benefit of present and future generations.

MODULES

- **WHY ARE YOU HERE?**
ARUP | 2 HOURS
- **TOTAL DESIGN: INTEGRATING URBANISM & INFRASTRUCTURE**
ARUP | 2 HOURS
- **PLACES FOR ALL - DIVERSITY, EQUALITY & INCLUSION**
UNDP, UNIVERSITY OF WESTMINSTER | 1.5 HOURS
- **RESILIENCE & FUTURE PROOFING URBAN HABITATS**
POMEROY ACADEMY | 6 HOURS
- **REAL ESTATE SECTOR CHALLENGES & OPPORTUNITIES**
CISL | 8 TO 10 HOURS
- **KEY THEMES FOR A SUSTAINABLE REAL ESTATE SECTOR**
CISL | 8 TO 10 HOURS

WHY ARE YOU HERE?

MODULE PROVIDER: ARUP

COURSE CONVENORS: TONY CHAN, ANDREW HODGSON

WHAT IS THIS MODULE ABOUT?

This first module describes the impact the full course can provide to participants in their daily roles, and the change that they can help to influence and catalyse in their own organisations and respective countries. Starting with the broader drivers of change and systemic issues that are complexifying urban and economic development, the Southeast Asian context will be brought to life for participants by discussing potential future state scenarios, and importantly how these future trends could map onto their own country’s perspective. This will set the scene for a new approach to supporting continuing growth, framing the importance of integrating sustainability in long-term planning of capital infrastructure programmes. The process and application of hierarchical decision making will be introduced, drawing out opportunities and complexities with respect to the context of Southeast Asian countries and ASEAN. In addressing this context, the module will align the remainder of the course to key themes for developing sustainable futures, helping participants to focus their learning pathway through an individual goal setting activity.

LEARNING OBJECTIVES

- Describe why are we here and the value of this course
- Explain how a changing world is complexifying urban and economic development
- Describe a new approach to support continuing growth of ASEAN
- Describe the role of economic visioning, good governance, and strategy formulation in nation building
- Identify the remaining modules which will help participants develop sustainable futures

SCHEDULE (2 HOURS)

20 min	Lecture: Impact on roles and organisation and Setting the scene
20 min	Breakout session
20 min	Lecture 2: Sustainability in long term planning of capital infrastructure programs & Hierarchical decision making
	Break
20 min	Breakout session
15 min	Summary of key learnings
20 min	Individual goal setting activity
5 min	Wrap up

TOTAL DESIGN:INTEGRATING URBANISM & INFRASTRUCTURE

MODULE PROVIDER: ARUP
COURSE CONVENORS: TONY CHAN, ANDREW HODGSON

WEEK 1
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WHAT IS THIS MODULE ABOUT?

This module builds on the challenges and learnings of the first module by stepping into the current practices that exist across the infrastructure life cycle, and the impact achieved through an integrated approach to support sustainable infrastructure development. Framing this to Southeast Asia is important, and the participants will work through the legal, financial and governance barriers that might exist in actioning this practice in their respective countries. The module will introduce a selection of tools, frameworks and approaches that are available at different points in the infrastructure life cycle, and describe their role in sustainable infrastructure development. Participants will then be able to share their prior experiences with these tools, frameworks and approaches, and discuss their initial thoughts on the benefits and challenges in implementing them in the future. Lastly, a selection of case studies will be presented to showcase their application within the region or globally including the outcomes, lessons learnt and main takeaways for participants to further focus their learning in each of the following modules that provide the depth of understanding around specific concepts and tools.

LEARNING OBJECTIVES

- Recap the issues and learnings from module 1: Why are you here?
- Outline the key questions that need answering at each stage of the infrastructure development process
- Describe the tools and approaches that can address key questions at each point in the life cycle
- Describe case studies from industry professionals who are at the forefront of implementing such areas of work shaping - cities and urban areas in SE Asia, as well as globally

SCHEDULE (2 HOURS)

25 min	Lecture 1: System of Systems approach
20 min	Breakout session
25 min	Lecture 2: Tools, Frameworks and Approaches
	Break
25 min	Breakout session
20 min	Panel discussion: Case studies
5 min	Wrap up

PLACES FOR ALL - DIVERSITY, EQUALITY & INCLUSION

MODULE PROVIDER: UNDP, UNIVERSITY OF WESTMINSTER
COURSE CONVENORS: DARKO PAVLOVIC, MARION ROBERTS

WEEK 1
(☺)

WHAT IS THIS MODULE ABOUT?

This module has the objective of raising awareness of key issues and debates in and around the subject of diversity, equality and inclusion, alerting the cohort towards practical outcomes. There is a high degree of overlap between planning and urban design for sustainable infrastructure, but there are also divergences for which one cannot substitute the other. The UN SDG's, which cover gender and spatial development will be introduced. The role of the SMEs in the procurement process, specifically looking at the women owned and led businesses will be explored. The module will focus how diversity, equality and inclusion can have a positive impact on government performance; how to promote a culture of inclusion within your organization and how to make a positive impact in the planning and/or procurement process.

LEARNING OBJECTIVES

- An introductory understanding of a gendered perspective of planning
- Gaining knowledge of successful examples of gender-sensitive planning and urban design.
- Understanding the role of procurement in advancing societal transformation by promoting women's economic participation
- Understanding the positive impact of promoting gender equality as driver of economic growth
- Discovering how to apply gender lens in your organisation and onward operation
- Learning how to promote inclusivity - both in terms of benefiting from goods and services delivered by public procurement, as well as the ability to take advantage of the economic opportunity presented by public procurement
- Providing examples on how to facilitate SMEs' access to government contracts.

SCHEDULE (1.5 HOURS)

25 min	Lecture 1: Prof Marion Roberts (University of Westminster)
10 min	Pre-recorded screening: Diversity, equality and inclusion in the Asia-Pacific region; Koh Miyaoi; Asia-Pacific Gender Advisor / Gender Team Leader; Bangkok Regional Hub; UNDP
25 min	Lecture 2: Darko Pavlovic (UNDP)
	Break
15 min	Fire-side chat: Marion Roberts, Darko Pavlovic and other experts
10 min	Breakout session / Q&A session
5 min	Wrap up

RESILIENCE & FUTURE PROOFING URBAN HABITATS

MODULE PROVIDER: POMEROY ACADEMY
COURSE CONVENOR: PROF JASON POMEROY

WEEK 1
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WHAT IS THIS MODULE ABOUT?

In this module, we consider the social, economic, environmental, spatial, cultural and technological challenges that have impacted our built environment, necessitating resilient solutions. Looking at case study cities around the world, we interrogate whether implemented smart and green infrastructural innovations addressing our urban challenges are really enhancing quality of life. The smart cities will be discussed in the context of a post-pandemic world that is also threatened by climate change cataclysms. Unique insights will define 3 generations of the smart city, and the inter-relationships between civil society, state, academia and private corporation seeking to highlight the importance of inter disciplinary thinking to bring about positive urban change.

LEARNING OBJECTIVES

- Identifying our urban challenges: in the context of social, economic, environmental, spatial, cultural and technical issues
- Establishing ‘best in class’: de-bugging myths as to what constitutes smart and green infrastructure solutions through relevant global case studies in the context of cities
- Enabling condition: consideration given to the mechanisms that can bring about positive change, and the key stakeholders involved
- Identifying and then financing innovation: Auditing, identifying and implementing strategies that can yield short, medium and long term benefit to gain traction with key stakeholders

SCHEDULE (6 HOURS)

25 min	Lecture: Smart Cities Generation 1.0: The Place of Technology and the Economy
5 min	Pre-recorded screening: “Habitat” webisode - Innovation
15 min	Fire-side chat: with an academic figure (e.g. Tomas Diez to set the tone of our the digital economy and IR4.0 is impacting our built environment)
15 min	Breakout session: reflection groups with Tomaz Diez and Jason Pomeroy in carousel to discuss our urban challenges
10 min	Plenary discussion: reflection findings
20 min	World Cafe (Group Workshop 1): Explain and share positive projects from within the company and consider opportunities for improvement. How can approaches / experiences from this project be used for future success?
	Break
25 min	Lecture 2: Smart Cities Generation 2.0: The Place of Society and Culture
5 min	Pre-recorded screening: ‘Habitat’ webisode - Culture
15 min	Fire-side chat: with a state figure (e.g. Maria Vassilakou to set the tone of how community consultation can bring
15 min	Breakout session: reflection groups with Maria Vassilakou and Jason Pomeroy in carousel to discuss our urban challenges
10 min	Plenary discussion: reflection findings
20 min	World Cafe (Group Workshop 2)
	Break
25 min	Lecture 3: Smart Cities Generation 3.0: The Place of Public Space and the Environment
5 min	Pre-recorded screening: ‘Habitat’ webisode - Mobility
15 min	Fire-side chat: with a civil society figure (e.g. Bjorn Low to set the tone of how grassroots environmentalism can influence the system)
15 min	Breakout session: reflection groups with Bjorn Low and Jason Pomeroy in carousel to discuss our urban challenges
10 min	Plenary discussion: reflection findings
20 min	World Cafe (Group Workshop 3)
	Break
25 min	Lecture 4: Global Smart City Frameworks: The Importance of Interdisciplinarity
20 min	World Cafe (Group workshop 4): Explain and share positive projects from within the company and consider opportunities for improvement. How can approaches / experiences from this project be used for future successes?
40 min	World Cafe (Defence and Discussion Presentations): Each selected participant to introduce and share selected projects mini Pecha Kucha style (4 mins per project); Discussions & Questions
5 min	Wrap up

REAL ESTATE SECTOR CHALLENGES & OPPORTUNITIES

MODULE PROVIDER: CISL

COURSE CONVENORS: MARTIN ROBERTS, KIRSTEN HENSON

This module is part of the embedded CISL Sustainable
Real Estate 8-week course hosted on GetSmarter

WEEK 2



WHAT IS THIS MODULE ABOUT?

Urbanisation, while not a new trend, is increasing globally. The built environment has historically been able to expand to accommodate this shift. However, modern challenges such as climate change, growing populations, and the pressure to reduce carbon emissions mean that traditional approaches to real estate development are no longer viable solutions. This module will explore global and systemic challenges faced by the real estate sector and how they manifest in various contexts. Beyond exploring the interconnected challenges in the real estate sector, the environment and wider society, the module introduces some of the potential opportunities to manage and mitigate these risks.

LEARNING OBJECTIVES

- Discuss key global and systemic challenges and mega trends and their impact on facing the real estate sector.
- Identify key systemic challenges inherent within the real estate sector.
- Recognise how global trends and sector-specific challenges manifest in different ways in a local context.
- Describe the key impacts and dependencies between the real estate sector, the environment and wider society.
- Indicate the risks of neglecting sustainability challenges within the real estate.
- Outline potential responses for managing and mitigating these risks.

LEARNING MODEL

The learning model is designed to help participants, as working professionals, improve their skills without compromising on work and family responsibilities. The course work is broken up into 8 weekly, manageable bite-sized modules, designed to help participants pace themselves over the duration of the course and allow them the leeway to work when it suits them best.

Self-led learning: Pre-recorded videos, podcasts, readings, case studies, infographics, discussion forums

KEY THEMES FOR A SUSTAINABLE REAL ESTATE SECTOR

MODULE PROVIDER: CISL

COURSE CONVENORS: MARTIN ROBERTS, KIRSTEN HENSON

This module is part of the embedded CISL Sustainable Real Estate 8-week course hosted on GetSmarter

WEEK 3



WHAT IS THIS MODULE ABOUT?

Through this module, the cohort will gain an understanding of the key topics in the sustainable real estate sector, spanning the ecological, social, and governance aspects of the built environment. This will emphasise the potential role that cross-industry contributions can make towards net zero emissions in the real estate sector, prompting the cohort to envision a sustainable future for the industry and their role in achieving this goal. Beyond environmental considerations, the cohort will learn how sustainable real estate can create a more resilient and inclusive society, encouraging them to make more informed decisions that positively impact communities and support social cohesion.

LEARNING OBJECTIVES

- Discuss your vision of a sustainable future in the real estate sector.
- Illustrate how other sectors within the wider built environment can contribute to a net zero carbon goal for the real estate sector
- Illustrate the importance of emission reduction over carbon offsetting.
- Research the role of environmental net gain in sustainable real estate.
- Determine how the built environment can support social cohesion.

LEARNING MODEL

The learning model is designed to help participants, as working professionals, improve their skills without compromising on work and family responsibilities. The course work is broken up into 8 weekly, manageable bite-sized modules, designed to help participants pace themselves over the duration of the course and allow them the legroom to work when it suits them best.

Self-led learning: Pre-recorded videos, podcasts, readings, case studies, infographics, discussion forums

02

SUSTAINABLE SYSTEMS TO DELIVER BETTER BUILT ENVIRONMENTS

Sustainability has become embedded within all spheres of our increasingly interconnected and interdependent world. This is indicative of the need to approach our built environment through a strategic and overarching lens, with the notion that sustainability exists as part of a broader system, rather than an isolated goal. This necessitates strategic implementation of Net Zero goals throughout the entire asset lifecycle from cradle to grave, enabled by the advent of technological advancements today. By advocating a heightened environmental consciousness amongst society, we can ultimately produce more resilient and symbiotic systems across the construction, financial, and technological industries and beyond.

MODULES

- **SYSTEMS THINKING FOR RESILIENCE**
CISL | 8 TO 10 HOURS
- **REDEFINING THE BUSINESS VALUE FOR SUSTAINABLE REAL ESTATE**
CISL | 8 TO 10 HOURS
- **DESIGN & PROCUREMENT FOR SUSTAINABLE REAL ESTATE**
CISL | 8 TO 10 HOURS
- **SUSTAINABLE OPERATION OF THE BUILT ENVIRONMENT**
CISL | 8 TO 10 HOURS
- **DEVELOPING A STRATEGY AND ENCOURAGING ACTION**
CISL | 8 TO 10 HOURS
- **MAXIMISING YOUR INFLUENCE AND IMPACT**
CISL | 8 TO 10 HOURS

SYSTEMS THINKING FOR RESILIENCE

MODULE PROVIDER: CISL

COURSE CONVENORS: MARTIN ROBERTS, KIRSTEN HENSON

This module is part of the embedded CISL Sustainable
Real Estate 8-week course hosted on GetSmarter

WEEK 4
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WHAT IS THIS MODULE ABOUT?

Taking a meso-level approach that investigates the business and social value of delivering a more integrated and sustainable built environment, the cohort will look at case studies spanning real estate projects, policy frameworks, regulations and practices. Exploring these case studies will expose the cohort to key principles to create an equitable, connected, and sustainable built environment, with transferable insights that can be applied to scenarios found in their local context. This will encourage the development of systems thinking skills to shape a resilient real estate sector, where the cohort will be able to assess how developing a sustainable built environment connects communities and infrastructure.

LEARNING OBJECTIVES

- Determine how current real estate policy, regulation and practices encourage siloed thinking.
- Investigate the real estate sector as a complex interdependent system.
- Show how integrating nature-based and community-led approaches can deliver resilience within the real estate sector.
- Determine how technology can be used to integrate systems thinking.
- Investigate how an organisation can integrate system thinking into its business model.
- Analyse the key personal attributes needed to navigate the complexities of the real estate sector.
- Assess systems thinking within your own professional context.

LEARNING MODEL

The learning model is designed to help participants, as working professionals, improve their skills without compromising on work and family responsibilities. The course work is broken up into 8 weekly, manageable bite-sized modules, designed to help participants pace themselves over the duration of the course and allow them the leegroom to work when it suits them best.

Self-led learning: Pre-recorded videos, podcasts, readings, case studies, infographics, discussion forums

Live sessions: The 'Systems Thinking for Resilience' module has a live session that is also pre-recorded for participants who are unablke to attend

REDEFINING THE BUSINESS VALUE FOR SUSTAINABLE REAL ESTATE

MODULE PROVIDER: CISL

COURSE CONVENORS: MARTIN ROBERTS, KIRSTEN HENSON

This module is part of the embedded CISL Sustainable
Real Estate 8-week course hosted on GetSmarter

WEEK 5



WHAT IS THIS MODULE ABOUT?

This module explores how redefining commercial value to incorporate both social and environmental value can reduce business risk and deliver more resilient built assets. By challenging existing funding systems and models, the module will surface key issues and gaps in the current system that does not support the sustainable vision for the real estate sector. This also demonstrates the potential of alternative means of financing that will provide greener solutions and outcomes to support the built environment. The module will also highlight the economic potential of embarking on environmentally-attuned and socially responsible practices, reframing the misconception that economic and sustainable outcomes are typically at odds.

LEARNING OBJECTIVES

- Describe how a broader definition of value can be applied to organisations in the real estate sector.
- Illustrate how measuring non-commercial value creation or destruction can improve business risk management.
- Identify why the current financial system does not support the capital flows required for sustainable real estate.
- Demonstrate how rewiring the current financial system could support sustainable real estate.
- Articulate how the costing and financing of real estate projects can support sustainable real estate.
- Evaluate the advantages of taking a stewardship approach to investment in built assets.
- Analyse how delivering environmental and social value can create commercial returns.

LEARNING MODEL

The learning model is designed to help participants, as working professionals, improve their skills without compromising on work and family responsibilities. The course work is broken up into 8 weekly, manageable bite-sized modules, designed to help participants pace themselves over the duration of the course and allow them the legroom to work when it suits them best.

Self-led learning: Pre-recorded videos, podcasts, readings, case studies, infographics, discussion forums

DESIGN & PROCUREMENT FOR SUSTAINABLE REAL ESTATE

MODULE PROVIDER: CISL

COURSE CONVENORS: MARTIN ROBERTS, KIRSTEN HENSON

This module is part of the embedded CISL Sustainable
Real Estate 8-week course hosted on GetSmarter

WEEK 6



WHAT IS THIS MODULE ABOUT?

This module introduces the key design principles and strategies that help create an equitable and sustainable built environment. The cohort will gain an understanding of how the local context contributes to the development of sustainable strategies. It is imperative to thoroughly gain an understanding of the cultural and socio-economic sensitivities of a particular place to mitigate social bias and discrimination. It is through discourse and collaborative design and procurement methods that encourage the creation of a more accessible, inclusive and sustainable built environment. This will ultimately equip the cohort with the necessary skills to affect change within their own unique professional contexts.

LEARNING OBJECTIVES

- Illustrate the design principles that underpin a sustainable built environment.
- Analyse how local context influences sustainable design solutions.
- Evaluate the role of refurbishment in delivering a sustainable built environment.
- Reflect on how design can reinforce or address institutional inequality and social bias.
- Assess how collaborative project briefs, design and procurement processes can support the creation of a more sustainable built environment.
- Investigate design principles, processes or strategies that could be applied within your own professional context to deliver a sustainable outcome.

LEARNING MODEL

The learning model is designed to help participants, as working professionals, improve their skills without compromising on work and family responsibilities. The course work is broken up into 8 weekly, manageable bite-sized modules, designed to help participants pace themselves over the duration of the course and allow them the legroom to work when it suits them best.

Self-led learning: Pre-recorded videos, podcasts, readings, case studies, infographics, discussion forums

SUSTAINABLE OPERATION OF THE BUILT ENVIRONMENT

MODULE PROVIDER: CISL

COURSE CONVENORS: MARTIN ROBERTS, KIRSTEN HENSON

This module is part of the embedded CISL Sustainable
Real Estate 8-week course hosted on GetSmarter

WEEK 7
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WHAT IS THIS MODULE ABOUT?

This module encourages the cohort to reflect on the existing operating models of the built industry and consider how assets can be adapted to achieve the necessary transition towards net zero. Building performance can be enhanced by incorporating sustainability throughout the life cycle of a built environment asset to minimise carbon emissions. By exploring case studies, the cohort will understand how technology and new approaches can be applied to the operation of new and existing built assets in their own context to achieve sustainable goals.

LEARNING OBJECTIVES

- Reflect on the importance of construction quality and handover in the delivery of sustainable buildings.
- Reflect on how consideration of the full life cycle of an asset can improve sustainability performance.
- Analyse how to develop a programme to collate and interrogate the data required to deliver a sustainable built environment project.
- Investigate the role of technology and engagement in reinforcing operational sustainability.
- Evaluate how the wider built environment supports sustainable operations.
- Debate who should take accountability for developing sustainable built environment assets across the full life cycle.

LEARNING MODEL

The learning model is designed to help participants, as working professionals, improve their skills without compromising on work and family responsibilities. The course work is broken up into 8 weekly, manageable bite-sized modules, designed to help participants pace themselves over the duration of the course and allow them the legroom to work when it suits them best.

Self-led learning: Pre-recorded videos, podcasts, readings, case studies, infographics, discussion forums

Live sessions: The 'Sustainable Operation of the Built Environment' module has a live session that is also pre-recorded for participants who are unable to attend

DEVELOPING A STRATEGY AND ENCOURAGING ACTION

MODULE PROVIDER: CISL
COURSE CONVENORS: MARTIN ROBERTS, KIRSTEN HENSON

This module is part of the embedded CISL Sustainable Real Estate 8-week course hosted on GetSmarter

WEEK 8



WHAT IS THIS MODULE ABOUT?

This module explores the methods for developing a sustainable real estate strategy for effective outcomes. The cohort will be supported to develop a personal plan for a practical sustainable built environment project in which they will apply what they've learned in modules 1 to 6. This will strengthen the cohort's understanding of the material and explore innovative ways of thinking in the realm of operational sustainability. This will encourage the cohort to evaluate their spheres of influence and tap into their existing professional networks to establish a formalised strategy to affect systemic change. Beyond the individual, the model will underscore the importance of collaborative action to challenge business as usual approaches with the built environment.

LEARNING OBJECTIVES

- Identify your role in driving sustainability within the built environment.
- Articulate the current barriers and future opportunities that you could realise as a result of driving change.
- Illustrate the importance of leveraging support and collaboration to drive change across the full project life cycle.
- Investigate who in your current network and future sphere of influence can help you drive strategic action.
- Write an ambitious personal action plan to deliver a sustainable outcome in your own organisation, sector or spheres of influence.

LEARNING MODEL

The learning model is designed to help participants, as working professionals, improve their skills without compromising on work and family responsibilities. The course work is broken up into 8 weekly, manageable bite-sized modules, designed to help participants pace themselves over the duration of the course and allow them the legroom to work when it suits them best.

Self-led learning: Pre-recorded videos, podcasts, readings, case studies, infographics, discussion forums
Develop a personal action plan: Outline a vision for how your organisation can contribute towards creating a sustainable future

MAXIMISING YOUR INFLUENCE AND IMPACT

MODULE PROVIDER: CISL

COURSE CONVENORS: MARTIN ROBERTS, KIRSTEN HENSON

This module is part of the embedded CISL Sustainable
Real Estate 8-week course hosted on GetSmarter

WEEK 9



WHAT IS THIS MODULE ABOUT?

Concluding the 8-week embedded course 'Sustainable Real Estate: Creating a Better Built Environment' from the University of Cambridge Institute for Sustainability Leadership (CISL), the cohort will reflect on each other's personal action plans, providing and receiving feedback from peers of interdisciplinary professional backgrounds. This will foster cross-industry discourse, serving as a starting point for a more informed community of policy-makers and practitioners who are passionate about creating systemic change within and beyond their professional environments and networks. In the proceeding weeks, the cohort will be equipped with industry knowledge from international organisations to solidify their proposal towards a more sustainable future.

LEARNING OBJECTIVES

- Critique personal action plans and provide feedback.
- Evaluate your personal action plan using the feedback you receive from your peers.
- Reflect on what you have learnt about effectively leading change in the built environment

LEARNING MODEL

The learning model is designed to help participants, as working professionals, improve their skills without compromising on work and family responsibilities. The course work is broken up into 8 weekly, manageable bite-sized modules, designed to help participants pace themselves over the duration of the course and allow them the legroom to work when it suits them best.

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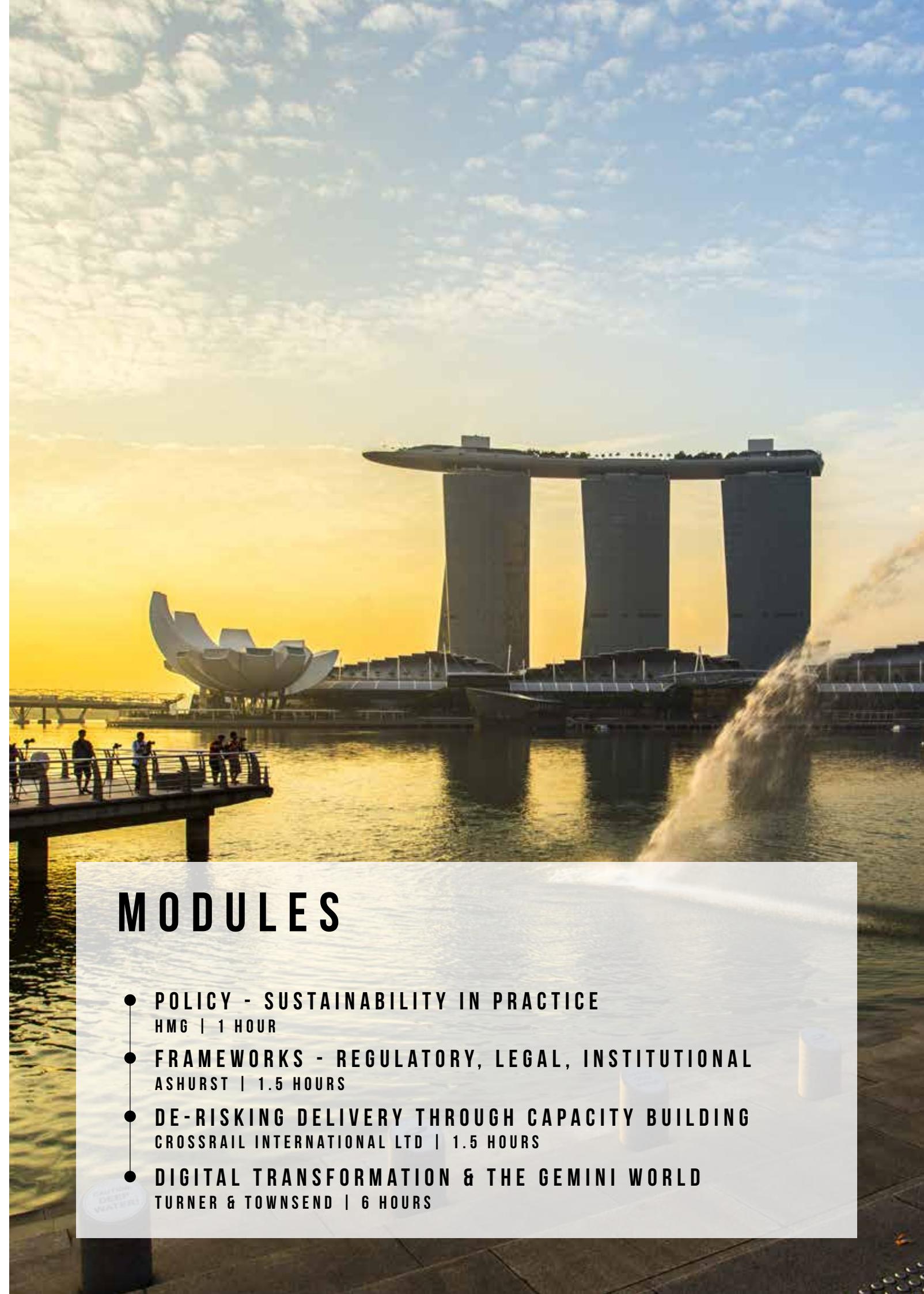
03

ENABLERS TO 'BUILD BACK BETTER'

In the spirit of the global pursuit to 'Build Back Better', governmental frameworks encompassing the regulatory, legal and institutional parameters are needing to be re-evaluated and re-focused to respond to the cues of a post-pandemic world grappling with the intensifying effects of climate change. Institutions and businesses are also accelerating efforts to anticipate challenges and assess the risks that come with increasingly volatile economies. As we 'Build Back Better', it has become apparent that digital transformation is also a key component to safeguard our future. Through the strategic harnessing of city-wide data as demonstrated through digital twinning, cities are working towards creating technologically-inclusive and adaptive environments ready for the future.

MODULES

- **POLICY - SUSTAINABILITY IN PRACTICE**
HMG | 1 HOUR
- **FRAMEWORKS - REGULATORY, LEGAL, INSTITUTIONAL**
ASHURST | 1.5 HOURS
- **DE-RISKING DELIVERY THROUGH CAPACITY BUILDING**
CROSSRAIL INTERNATIONAL LTD | 1.5 HOURS
- **DIGITAL TRANSFORMATION & THE GEMINI WORLD**
TURNER & TOWNSEND | 6 HOURS



POLICY - SUSTAINABILITY IN PRACTICE

MODULE PROVIDER: HMG
COURSE CONVENORS: ELEANOR KILOH

WEEK 10
(••)

WHAT IS THIS MODULE ABOUT?

This module will provide delegates with an understanding of how government approaches to infrastructure development have evolved over the past 20 years. We will learn about the increasing importance of sustainability when planning infrastructure development and considering individual projects, what the drivers of this shift have been, and how different stakeholders interpret and apply their definition of ‘sustainability’. UK government policy will be looked at in detail, and the module will also draw on examples from around the world, including the role of multilateral groupings in driving and shaping policy change.

LEARNING OBJECTIVES

- Participants will understand how infrastructure policy has evolved and why, drawing on examples from around the world.
- They will appreciate the links between the global context, including the role of multilateral bodies, and individual government policies.
- Participants should be able to couch their own work in this broader policy context, and to identify what policy challenges and opportunities their work could offer.

SCHEDULE (1 HOUR)

25 min	Lecture
10 min	Breakout session
	Break
10 min	Breakout session
10 min	Conclusion
5 min	Wrap up

FRAMEWORKS - REGULATORY, LEGAL, INSTITUTIONAL

MODULE PROVIDER: ASHURST
COURSE CONVENORS: RICHARD GUIT, GILES ASHMAN, ZHENG HAO CHAN

WEEK 10
(☹)

WHAT IS THIS MODULE ABOUT?

Policy and fiscal frameworks of government are underpinned by laws and regulations. Effective infrastructure planning and procurement can be materially enhanced if the laws and regulations facilitate the creation of appropriate bodies (and mechanisms) to deliver on policy objectives, longer term strategic planning, and appropriate procurement models. This unit will focus on enhancing procurement success through creating the right institutions, delivering clear messages to the market, streamlined public sector approvals, and developing an understanding the views of the private sector in shaping delivery strategies. The unit will also touch on the roles of independent bodies in planning infrastructure separately from electoral cycles.

LEARNING OBJECTIVES

- An appreciation that strong market appetite (from those who build, operate or finance infrastructure) is materially increased if procurements are streamlined and have certainty through strong regulatory and institutional frameworks (noting that strong market appetite leads to price competition and value for money)
- An understanding that streamlined procurements require clear regulatory, policy and institutional frameworks that work for all stakeholders
- Knowledge of best practice approaches (both global and UK) where successful programs have been delivered
- An understanding of the role and benefits of independent infrastructure planning bodies

SCHEDULE (1.5 HOURS)

25 min	Lecture: Introduction to Frameworks
10 min	Pre-recorded screening: Interviews - Global current trends paving the way
25 min	World Cafe (Group Workshop): What works well in your own country?
	Break
15 min	Fire-side chat: Capacity building and institutional frameworks – an insider perspective
10 min	Breakout session: ASEAN member state priorities
5 min	Wrap up

DE-RISKING DELIVERY THROUGH CAPACITY BUILDING

MODULE PROVIDER: CROSSRAIL INTERNATIONAL
COURSE CONVENORS: KATE MYERS

WEEK 10
(☺)

WHAT IS THIS MODULE ABOUT?

Shortfalls in capacity and capability development can significantly impact a project’s timeline, budget and socio-economic outcomes. Experience from large-scale infrastructure projects, however, shows that early planning and a clear strategy can provide a platform for developing skills and employment programmes - building not only client teams, but also transforming the labour market and bringing wider benefits to the lives of citizens. This module will outline the approach developed on major UK programmes such as Crossrail and High Speed Two (HS2), including a detailed examination of capacity building strategies that provide the skills needed for successful delivery and a lasting legacy.

LEARNING OBJECTIVES

- Develop a clear understanding of how consideration of capacity building was critical to the delivery of Crossrail
- How lessons learned were applied across the infrastructure sector to raise the bar for future programmes such as HS2
- Ability to cite worked examples of successful implementation of a Capacity Building (Skills and Employment) Strategy and the wider benefits of the programme that were secured
- Identify enablers and blockers from Crossrail and HS2, and potential ASEAN application

SCHEDULE (1.5 HOURS)

25 min	Lecture 1: Capacity building to de-risk portfolio / programme and project delivery
10 min	Breakout session
	Break
25 min	Lecture 2: Knowledge into action - Case Studies from Crossrail and HS2
25 min	Pre-recorded screening: Case studies
10 min	Plenary discussion: Enablers and blockers of the case studies in an ASEAN context
5 min	Wrap up

DIGITAL TRANSFORMATION & THE GEMINI WORLD

MODULE PROVIDER: TURNER & TOWNSEND (T&T)
COURSE CONVENORS: ALEX NESBITT

WEEK 10
(☹)

WHAT IS THIS MODULE ABOUT?

Spotlight on the role and impact of Digitalisation in driving infrastructure productivity and transparency across the supply chain. This module should cover the principles of how to best prepare, both in the public and private sector, for a shift towards digitally-delivered infrastructure – including building data structures and training schemes for standard softwares.

LEARNING OBJECTIVES

- Gain an understanding of how some of the built environments biggest challenges are being addressed through emerging best practices and technology
- Understand the trends of digital adoption around the world and how this may impact you
- A basic understanding on the principles of digital delivery, including the steps for setting up major programmes successfully.
- Understand how BIM and information management underpin successful digital projects (including their handover)
- Gain an understanding of on-going national initiatives around the world focused on fostering better outcomes from their built environments
- A basic understanding of how to transition to digital delivery by adopting the digital toolkit

SCHEDULE (6 HOURS)

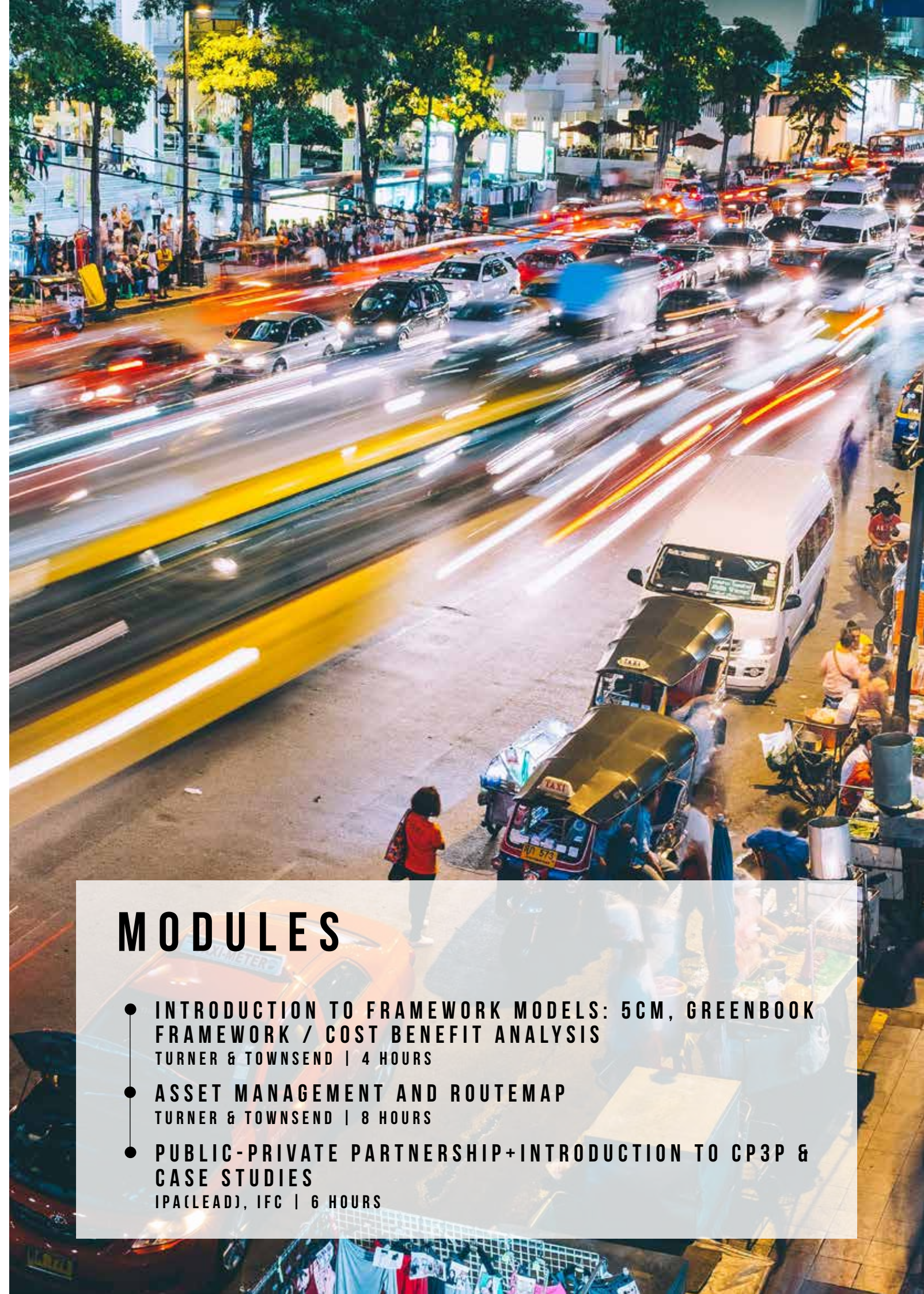
25 min	Lecture 1: Key challenges major projects face and how emerging digital ways of working are solving them
20 min	Breakout session / Pre-recorded screening / Fireside chat
25 min	Lecture 2: Drivers for private and public sector clients to demand digital project delivery
20 min	Breakout session / Pre-recorded screening / Fireside chat
	Break
25 min	Lecture 3: The scalable principals for improving productivity and increasing transparency through digitally enabled projects (Part 1)
20 min	Breakout session / Pre-recorded screening / Fireside chat
25 min	Lecture 4: The scalable principals for improving productivity and increasing transparency through digitally enabled projects (Part 2)
20 min	Breakout session / Pre-recorded screening / Fireside chat
	Break
25 min	Lecture 5: Case studies of how Singapore is driving national digital twin initiatives
20 min	Breakout session / Pre-recorded screening / Fireside chat
25 min	Lecture 6: Case studies of how the United Kingdom is driving national digital twin initiatives
20 min	Breakout session / Pre-recorded screening / Fireside chat
	Break
25 min	Lecture 7: Taking first steps to digital - An overview of the international BIM framework
20 min	Breakout session / Pre-recorded screening / Fireside chat
5 min	Wrap up

04 PROJECT DELIVERY FRAMEWORKS

Bearing witness to the influence of accelerated human activities on the environment, society, corporations, and governments are progressively becoming more environmentally enlightened. Yet, we are at the threshold of a society that ostensibly envisions a Net Zero future, but may not be equipped with a clear directive to execute a formalised action plan. Project delivery frameworks provide a structured methodology that has the potential to influence policy and decision makers to evoke realistic and foreseeable change. This will see the implementation of sustainable interventions modelled after best-practice approaches that optimise economic, social and environmental returns for a greener and more inclusive world.

MODULES

- **INTRODUCTION TO FRAMEWORK MODELS: 5CM, GREENBOOK FRAMEWORK / COST BENEFIT ANALYSIS**
TURNER & TOWNSEND | 4 HOURS
- **ASSET MANAGEMENT AND ROUTEMAP**
TURNER & TOWNSEND | 8 HOURS
- **PUBLIC-PRIVATE PARTNERSHIP+INTRODUCTION TO CP3P & CASE STUDIES**
IPA(LEAD), IFC | 6 HOURS



INTRODUCTION TO FRAMEWORK MODELS

MODULE PROVIDER: TURNER & TOWNSEND (T&T)
COURSE CONVENORS: MAJID SADDIQUE

WHAT IS THIS MODULE ABOUT?

Public sector investments follow rigorous governance scrutiny and approvals centred around cost-benefit assessment. In our mission to drive best in class application of robust business case development, this module addresses the unlikely success of public sector driven projects which do not fully assess all aspects of its strategic need, economic, social and environmental cost and benefits, delivery and procurement model and its overall management. Having authored, reviewed and managed delivery of all 5 Cases in compliance with relevant sector-based guidance, our business case 5CM trainers have a rich experience of delivering business cases in multiple sectors.

LEARNING OBJECTIVES

- 5CM principles and methodology overview,
- An overview of the business case stages and how they should link to Governance approvals
- Application of Cost Benefit analysis across various sectors

SCHEDULE (4 HOURS)

25 min	Lecture 1: Introduction to 5CM International Guidance
15min	Breakout session / Pre-recorded screening / Fireside chat
25 min	Lecture 2: 5CM Cases Overview
15 min	Breakout session / Pre-recorded screening / Fireside chat (DfT Case Study)
	Break
25 min	Lecture 3: Business Case Development Processes and Stages
15 min	Breakout session / Pre-recorded screening / Fireside chat (A303 Case study)
25 min	Lecture 4: Value Toolkit based on Dublin MetroLink PPP
15 min	Breakout session / Pre-recorded screening / Fireside chat
	Break
25 min	Lecture 5: Updated 5CM Guidance - Net Zero focus
15 min	Breakout session / Pre-recorded screening / Fireside chat
25 min	Lecture 6: Key Lessons for Developing Successful Business Cases
15 min	Breakout session / Pre-recorded screening / Fireside chat
5 min	Wrap up

ASSET MANAGEMENT AND ROUTEMAP

MODULE PROVIDER: TURNER & TOWNSEND (T&T)
COURSE CONVENORS: FREDRICK LEVY, PAUL BURCOMBE

WHAT IS THIS MODULE ABOUT?

The module seeks to develop Asset Management (AM) professionals and leaders. Good Asset Management is critical to the success of businesses which depend on the availability and reliability of physical assets. Our specialist Asset Management Academy brings training expertise from world leading Asset Management thought leaders, offering a range of learning options, either via our virtual global e-learning platform “AMA”, or in person/remote training courses for Asset Management for all levels of an organization. The Institute of Asset Management (IAM) qualifications are essential tools for building and demonstrating the competences of Asset Management teams, providing endorsed courses for the IAM Foundation Award, IAM Certificate, IAM Diploma and CAMA.

LEARNING OBJECTIVES

- Provide an overview of asset management, ISO55000 and alignment
- Understanding of management of risk
- Overview on the concept of whole life decision making
- People as enablers to successful Asset management
- Provide an overview and introduction to Routemap

SCHEDULE (8 HOURS)

25 min	Lecture 1: What is Asset Management?
15 min	Breakout session / Pre-recorded screening / Fireside chat
25 min	Lecture 2: Stakeholders and Top Management
15 min	Breakout session / Pre-recorded screening / Fireside chat
	Break
25 min	Lecture 3: ISO 55000 and alignment
15 min	Breakout session / Pre-recorded screening / Fireside chat
25 min	Lecture 4: Understanding and Management of Risk
15 min	Breakout session / Pre-recorded screening / Fireside chat
	Break
25 min	Lecture 5: Whole life decision making
15 min	Breakout session / Pre-recorded screening / Fireside chat
25 min	Lecture 6: Monitoring and Assurance; Asset Information
15 min	Breakout session / Pre-recorded screening / Fireside chat
	Break
25 min	Lecture 7: People in Asset Management
15 min	Breakout session / Pre-recorded screening / Fireside chat
25 min	Lecture 8: The AM Journey
15 min	Breakout session / Pre-recorded screening / Fireside chat
	Break
25 min	Lecture 9: Overview to the Project Routemap and UK Guidance
15 min	Breakout session / Pre-recorded screening / Fireside chat
25 min	Lecture 10: The 10-step Process: Setup; Diagnosis
15 min	Breakout session / Pre-recorded screening / Fireside chat
	Break
25 min	Lecture 11: The 10-step Process: Action Planning
15 min	Breakout session / Pre-recorded screening / Fireside chat
15 min	Lecture 12: Routemap Modules
15 min	Breakout session / Pre-recorded screening / Fireside chat
5 min	Wrap up

PUBLIC-PRIVATE PARTNERSHIP+INTRODUCTION TO CP3P & CASE STUDIES

MODULE PROVIDER: INFRASTRUCTURE & PROJECTS AUTHORITY (IPA)
COURSE CONVENORS: JAMES BALLINGALL, JAVIER ENCINA, KARINEH GRIGORIAN

WHAT IS THIS MODULE ABOUT?

Governments across the ASEAN region seek to drive post-COVID economic recovery through the mobilisation of private capital and expertise to deliver, finance and manage sustainable infrastructure. The module will expose participants to best practice and key lessons learned (good and bad) from UK and global PPP experience, and will cover a wide range of practical issues, including setting PPP policies, developing capital investment programmes, delivering and managing successful projects, and attracting private finance into public infrastructure. The programme will combine presentations, case studies, thematic workshops and roundtable discussions.

LEARNING OBJECTIVES

- Understand best practice, lessons learned, and cutting-edge initiatives to attract private capital and expertise into public infrastructure;
- Tailor and apply world-leading approaches to mobilise the private sector for the design, construction, financing, operation and maintenance of infrastructure in the ASEAN region;
- Adapt and use key guidance, tools and techniques for the preparation, appraisal and approval of PPP projects;
- Discuss strategic infrastructure issues with their UK Government and IFC counterparts; and
- Learn how to further their PPP knowledge and understanding through, e.g. internationally accredited training courses.

SCHEDULE (6 HOURS)

25 min	Lecture 1: UK's lessons learnt and best practice for the delivery, financing and management of public infrastructure with private participation
5 min	Pre-recorded screening
15 min	Fire-side chat: How to build an enabling environment to attract private capital and expertise into sustainable infrastructure?
15 min	Breakout session: reflection groups
10 min	Plenary discussion: reflection findings
20 min	World Cafe (Group Workshop 1): Evaluate case studies of successful PPP programmes and projects around the world
	Break
25 min	Lecture 2: The importance of front-end loading in the initiation, preparation and assurance of investment programmes and infrastructure projects
5 min	Pre-recorded screening
15 min	Fire-side chat
15 min	Breakout session: Review of a project using international best practice and tools to optimise project delivery
10 min	Plenary discussion: reflection findings
20 min	World Cafe (Group Workshop 2): Derive insights from case studies that discuss the challenges, opportunities and considerations involved in designing up and delivering a Net Zero Carbon infrastructure programme.
	Break
25 min	Lecture 3: Innovative models for the design, construction, financing, operation and maintenance of infrastructure
5 min	Pre-recorded screening
15 min	Fire-side chat: How to drive innovation and embed sustainability in ASEAN infrastructure through stronger public-private partnerships?
15 min	Breakout session: reflection groups
10 min	Plenary discussion: reflection findings
20 min	World Cafe (Group Workshop 3): Discuss some of the most exciting UK-ASEAN initiatives to support the development of economically affordable, environmentally sustainable and socially inclusive
	Break
15 min	Fire-side chat
10 min	Plenary discussion: interactive Q&A with Mentimeter
20 min	World Cafe (Group Workshop 4)
40 min	World Cafe (Defence and Discussion Presentations): Each selected participant to introduce and share selected projects mini Pecha Kucha style (4 mins per project); Discussions & Questions
5 min	Wrap up

05 SUSTAINABLE FUNDING & FINANCING

While society strives towards achieving Net Zero goals, economic trade-offs are inevitable. Having a clear understanding of sustainable approaches to funding and financing allows greater room for negotiation between the pursuit of greener solutions and economic viability, which are inescapably at odds. By gaining an understanding of the mechanisms that have been put in place in both the public and private sectors, we can explore alternative forms of funding to bring us closer to our Net Zero goals. The shift in perspective towards an ecosystem that allows for sustainable solutions with economic benefits will put forth many potential interventions in the creation of a greener future.

MODULES

- **GREEN FINANCING - OVERVIEW & CASE STUDIES**
IFC | 1.5 HOURS
- **FINANCIAL SERVICE - CLIMATE & RESILIENCE**
HMG | 1 HOUR
- **CLEAN GREEN INITIATIVE - TOOLBOX**
HMG | 1 HOUR
- **NET ZERO - LENDERS' PERSPECTIVE**
HSBC | 2 HOURS
- **FUNDING INNOVATION & RECYCLING ASSETS**
GIHUB | 1.5 HOURS
- **ALTERNATIVE FORMS OF FUNDING: LAND VALUE CAPTURE**
CROSSRAIL INTERNATIONAL LTD | 2 HOURS

GREEN FINANCING

MODULE PROVIDER: INTERNATIONAL FINANCE CORPORATION (IFC)
COURSE CONVENORS: PUSHKALA RATAN

WHAT IS THIS MODULE ABOUT?

Climate change, sustainability and climate risks pose some of the most pressing and unique challenges for regulators, markets, corporates and the financial sector. This Module will focus on trends in green financing, investor outlook and requirements, the diversification of thematic climate financial products, international guidelines, best practices, disclosure and reporting and what is urgently needed to scale and replicate across multiple climate asset classes. The focus will be on seizing opportunities, creating business value and managing climate risks in these rapidly changing markets where green finance, net zero and sustainability are becoming mainstream.

LEARNING OBJECTIVES

- Clear view on Lenders’ and Investors’ requirements and checks and balances needed
- Developing bankable business models and projects
- Guidelines to limit green washing.

SCHEDULE (1.5 HOURS)

25 min	Lecture: Green Financing: Issuer and Investor Perspectives
10 min	Plenary discussion: Interactive Q&A with Mentimeter
	Break
25 min	Fire-side chat: HSBC, CICERO, IFC
10 min	Plenary discussion: Interactive Q&A with Mentimeter
10 min	Breakout session: Discussion on Capital Markets and Carbon Credits
5 min	Wrap up

FINANCIAL SERVICE - CLIMATE & RESILIENCE

MODULE PROVIDER: HMG
COURSE CONVENORS: ALEX VLEMING

WEEK 13
(☹)

WHAT IS THIS MODULE ABOUT?

The UK is a global financial hub and lead player in green finance and resilience solutions – the strength, maturity and international role of its financial sector is proven not just in volume (deals, capital, revenues) but also in international presence and initiative. UK institutions benefit from a unique ecosystem that attracts capital, know-how and talent, and the political will in the UK to tackle climate change and to transition the global economy and financial system.

LEARNING OBJECTIVES

- Discuss the application of existing financing tools, insurance solutions and risk transfer which will allow emerging economies to utilise global capital pools that might not be sustainable on an individual country basis.

SCHEDULE (1 HOUR)

25 min	Welcome note and Presentation
5 min	Pre-recorded address from Lloyds of London - John Neal, CEO - Lloyds of London
	Break
15 min	Fire-side chat with David Howden / Charlie Langdale + ASEAN perspective
10 min	Breakout session
5 min	Wrap up

CLEAN GREEN INITIATIVE - TOOLBOX

MODULE PROVIDER: HMG
COURSE CONVENORS: MARK SMITH

WEEK 13
(••)

WHAT IS THIS MODULE ABOUT?

This module will provide delegates with an overview of the Build Back Better World, and in particular will explore the themes and assistance available, in particular the structure of the UK Clean Growth Initiative, and the tools and assistance available, which will address key lessons to be learned for future complex infrastructure projects. A detailed examination will be given of the UK tools and how, where and when these can be applied, and how these shape project delivery, sustainability goals and can be part of the Build Back Better World. Finally, the module will look at other international examples that are helping to shape good practice to inform future projects.

LEARNING OBJECTIVES

- Attendees will have a clear understanding of the tools and assistance available and how these can be applied to local projects, as well as providing insights and overview of the institutional governance mechanisms, and overarching role of policy in driving clean growth.

SCHEDULE (1 HOUR)

25 min	Lecture: Masterplanning and sustainability (Infrastructure and Projects Authority / National Infrastructure Commission)
5 min	Pre-recorded screening / Case Study: Reconstructing Hope (Peru)
	Break
15 min	HMG Support: Finance (UKEF / CDC(BII) / Technical)
10 min	Group Discussion
5 min	Wrap up

NET ZERO-LENDERS' PERSPECTIVE

MODULE PROVIDER: HSBC
COURSE CONVENORS: JONATHAN DREW

WEEK 13
(••)

WHAT IS THIS MODULE ABOUT?

In this module, we will explore a wide range of issues addressing the role of financial institutions in tackling the sustainability challenges of today. This includes the investigation of how financial institutions assess, at the transaction, client and portfolio level, the big question: what is sustainable? The module will explore the type of products and services banks offer to support their clients to implement their transition plans. This includes the assessment and categorisation of sustainability risks and understanding the information required to execute this. The module discusses the skills bankers and allocators require in the efforts to influence the industry to re-think true value creation.

LEARNING OBJECTIVES

- Understand the roles of financial institutions in addressing sustainability
- Discuss how financial institutions assess sustainability and how they support clients transition to more sustainable modes
- Learn about sustainability risks and the knowledge and skills required to execute this

SCHEDULE (2 HOURS)

10 min	Pre-recorded screening
25 min	Lecture
25 min	Case Study
5 min	Break
50 min	Group Discussion
5 min	Wrap up

FUNDING INNOVATION & RECYCLING ASSETS

MODULE PROVIDER: GLOBAL INFRASTRUCTURE HUB (GI HUB)
COURSE CONVENORS: MAUD DE VAUTIBAULT, MICHAEL TWYCROSS, DANIEL DEL RIO

WHAT IS THIS MODULE ABOUT?

How a project is financially structured is integral to delivery of infrastructure. Understanding the different solutions for structuring bankable projects and attracting private investment is critical. This session will introduce the GI Hub’s Innovative Funding and Financing Tool and explore the three main levers for attracting private capital to infrastructure: revenue, risk management and financing levers, through case studies. In particular the funding levers of value capture and ancillary revenue (through the use of asset recycling) will be explored with a focus on understanding their applicability to ASEAN markets.

LEARNING OBJECTIVES

- Understand the funding and financing levers available to use when structuring a project
- Identify the use of specific levers in different contexts (through case studies)
- Evaluate what levers are and aren’t available in your jurisdiction

SCHEDULE (1.5 HOURS)

25 min	Lecture: GI Hub & The Innovative Funding and Financing (IF&F) Tool
10 min	Pre-recorded screening: Revenue Levers
5 min	Break
20 min	Fire-side chat: Case study discussion
15 min	Breakout session: Reflection groups discussion
15 min	Plenary discussion: Interactive Q&A with Mentimeter
5 min	Wrap up

ALTERNATIVE FORMS OF FUNDING: LAND VALUE CAPTURE

MODULE PROVIDER: CROSSRAIL INTERNATIONAL
COURSE CONVENORS: MARTIN BUCK, IAN LINDSAY

WHAT IS THIS MODULE ABOUT?

Crossrail’s innovative funding model brought together an array of local and national contributions to project costs, including private developers, a Community Infrastructure Levy, borrowing against future farebox revenues, and business rates supplements. This module will describe the commercial structure of Crossrail’s funding and financing model and key lessons learned for future complex infrastructure projects. The second part of the module will provide an introduction to value capture, and how, in particular, Crossrail worked with developers to help realise the value potential from oversite developments.

LEARNING OBJECTIVES

- Develop a clear understanding of how alternative funding and financing mechanisms helped secure Crossrail’s viability for the project’s Sponsors and how the institutional governance mechanisms put in place for Crossrail protected the project’s future progress.
- Ability to cite worked examples of successful land value capture (LVC) and transit-oriented development (TOD) strategies delivered in parallel with rail infrastructure projects, based on examples and selected global benchmark.

SCHEDULE (2 HOURS)

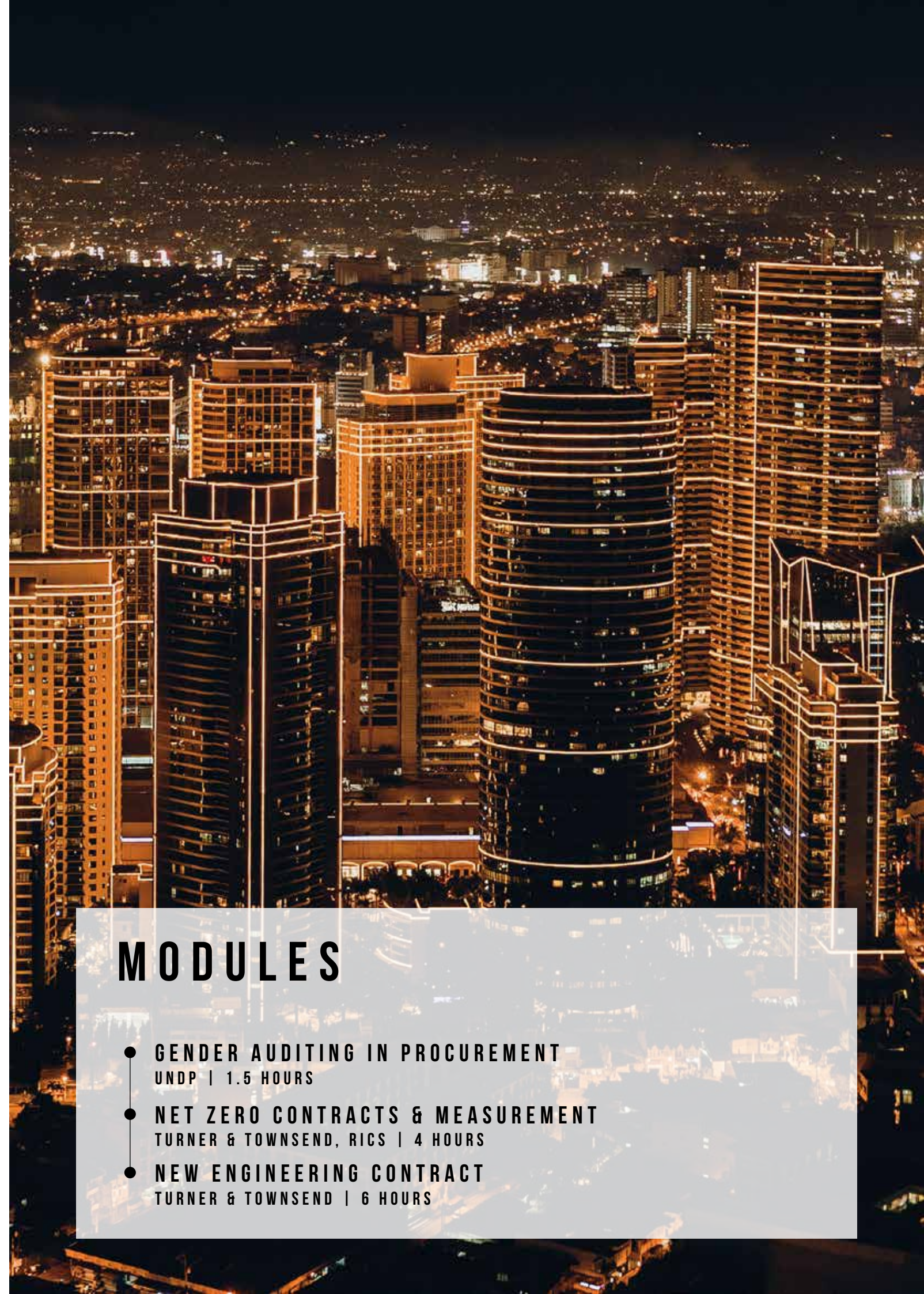
25 min	Lecture 1: Martin Buck: Global use of alternative funding and financing solutions for complex infrastructure projects; Crossrail case study: alternative sources of funding and financing
15 min	Breakout session: reflection on key lessons learned from Crossrail
10 min	Plenary discussion: Interactive quiz with Mentimeter
5 min	Break
25 min	Lecture 2: Ian Lindsay: Emergence of land value capture (LVC) and transit-oriented development / communities (TOD/TOC); global case studies from Hong Kong, Manila, Sydney, Tel Aviv, Toronto; Crossrail
15 min	Breakout session: reflection on key lessons learned from Crossrail
10 min	Plenary discussion: Interactive quiz with Mentimeter
15 min	Fire-side chat: Martin Buck, Ian Lindsay and an expert panel discuss alternative funding: LVC and TOD/TOC
5 min	Wrap up

06 TOWARDS NET ZERO CONTRACTS & PROCUREMENT

'Building Back Better' to a Net Zero world requires not only sustainable design principles and systems to deliver positive outcomes: it also requires carefully considered procurement processes, performance-based measurement targets and contracts that reflect a goal to achieve net zero. Moving beyond the specification of materials and end-products to consider climate, culture, people and place; and the lifecycle of developments and their socio-economic impact are key considerations for leaders to ensure that the procurement of our urban and infrastructural projects are resilient and sustainable.

MODULES

- **GENDER AUDITING IN PROCUREMENT**
UNDP | 1.5 HOURS
- **NET ZERO CONTRACTS & MEASUREMENT**
TURNER & TOWNSEND, RICS | 4 HOURS
- **NEW ENGINEERING CONTRACT**
TURNER & TOWNSEND | 6 HOURS



GENDER AUDITING IN PROCUREMENT

MODULE PROVIDER: UNDP
COURSE CONVENORS: SARA D'ANZEO

WEEK 14
(☺)

WHAT IS THIS MODULE ABOUT?

Today only 1% of public and private spending goes to women -owned businesses. During this session we will examine the participants' perception of gender. We will raise awareness on the challenges and opportunities of creating a more inclusive procurement system. We will learn about how procurement practitioners play a critical role to promote gender inclusion and provide successful approaches of gender inclusion in the infrastructure sector.

LEARNING OBJECTIVES

- Assess participants perception of gender in infrastructure and procurement
- Raise awareness on the barriers of an inclusive procurement process
- Learn about the opportunities of promoting gender inclusion in organizations
- Draw inspiration from good practices and approaches used to promote gender equality

SCHEDULE (1.5 HOURS)

15 min	World Cafe (Group workshop) using Mural
10 min	Plenary discussion
25 min	Lecture: Sara D'Anzeo
10 min	Pre-recorded screening: The Infrastructure Transparency Initiative (CoST)
	Break
15 min	Fire-side chat: Sara D'Anzeo and relevant technical experts
10 min	Breakout session
5 min	Wrap up

NET ZERO CONTRACTS & MEASUREMENT

MODULE PROVIDER: TURNER & TOWNSEND (T&T)
COURSE CONVENORS: ANDREW MACGREGOR

WEEK 14
(☹)

WHAT IS THIS MODULE ABOUT?

This module is aligned with our mission to drive procurement excellence to support achievable sustainable outcomes. Defining and implementing impactful Environmental & Social Governance (ESG) against the backdrop of ever increasing legislative, consumer and investor pressure remains a challenge for many organisations. Transforming ESG values & objectives into reality across the supply chain requires ambition, specificity and wider evolution of procurement norms to weave in ESG objectives into the everyday operations. Turner & Townsend are passionate about overcoming these challenges by utilising our dedicated Intelligent Procurement Model expertise to help create innovative procurement models.

LEARNING OBJECTIVES

- Provide an overview of sustainability / social value in a legislative context
- ISO 20400 introduction, including potential impact and benefits
- Overview on sustainable procurement fundamentals, strategy and policy
- Understanding of organisational enablers
- Driving sustainability into contract award and management

SCHEDULE (4 HOURS)

25 min	Lecture 1: Sustainability / social value overview
15 min	Breakout session: What does sustainability mean to you?
25 min	Lecture 2: ISO 20400 Introduction
15 min	Breakout session: Map known supply chain environmental / social impacts for attendee's organisation
	Break
25 min	Lecture 3: SP Fundamentals
15 min	Breakout session: Rate importance of each driver for organisation
25 min	Lecture 4: Sustainability into Strategy and Policy
15 min	Breakout session: Comparison between 2 sustainable procurement policies; highlight the good/bad/indifferent
	Break
25 min	Lecture 5: Organisational Enablers
15 min	Breakout session: Metric creation exercise (linking organisational goals to metrics)
25 min	Lecture 6: Sustainability into Contract Award & Management
15 min	Breakout session: Create a balanced scorecard - linking organisation goals and using metrics from previous session
5 min	Wrap up

NEW ENGINEERING CONTRACT

MODULE PROVIDER: TURNER & TOWNSEND (T&T)
COURSE CONVENORS: DANIEL CHEUNG

WEEK 15
(☹)

WHAT IS THIS MODULE ABOUT?

This module seeks to drive consistent knowledge of NEC contracts to mitigate contractual risk. Our procurement & contract management trainers are qualified procurement and legal professionals with deep understanding of the real estate, infrastructure and natural resources sectors with experience in transferring pragmatic knowledge to project teams.

LEARNING OBJECTIVES

- Introduce the background of NEC4 suites of contract and the collaborative behaviors required for success
- Explain the appropriate contract strategies and options available
- Appreciate the structure of the Engineering and Construction Contract (ECC) and related key documents (e.g. Contract Data, Scope and Site Information)
- Run through important ECC provisions e.g. early warning, programme and compensation events

SCHEDULE (6 HOURS)

25 min	Lecture 1: Introduction to the background of NEC4 suites of contract
20 min	Breakout session / Pre-recorded screening / Fireside chat
25 min	Lecture 2: Collaborative behaviours required for success
20 min	Breakout session / Pre-recorded screening / Fireside chat
	Break
25 min	Lecture 3: Contract strategies and options available
20 min	Breakout session / Pre-recorded screening / Fireside chat
25 min	Lecture 4: Structure of the Engineering and Construction Contract (ECC)
20 min	Breakout session / Pre-recorded screening / Fireside chat
	Break
25 min	Lecture 5: Key Documents (e.g. Contract Data, Scope and Site Information)
20 min	Breakout session / Pre-recorded screening / Fireside chat
25 min	Lecture 6: Key ECC provisions - early warning, programme and compensation events
20 min	Breakout session / Pre-recorded screening / Fireside chat
	Break
25 min	Lecture 7: Introduction to Target Cost Management Approaches
20 min	Breakout session / Pre-recorded screening / Fireside chat
5 min	Wrap up

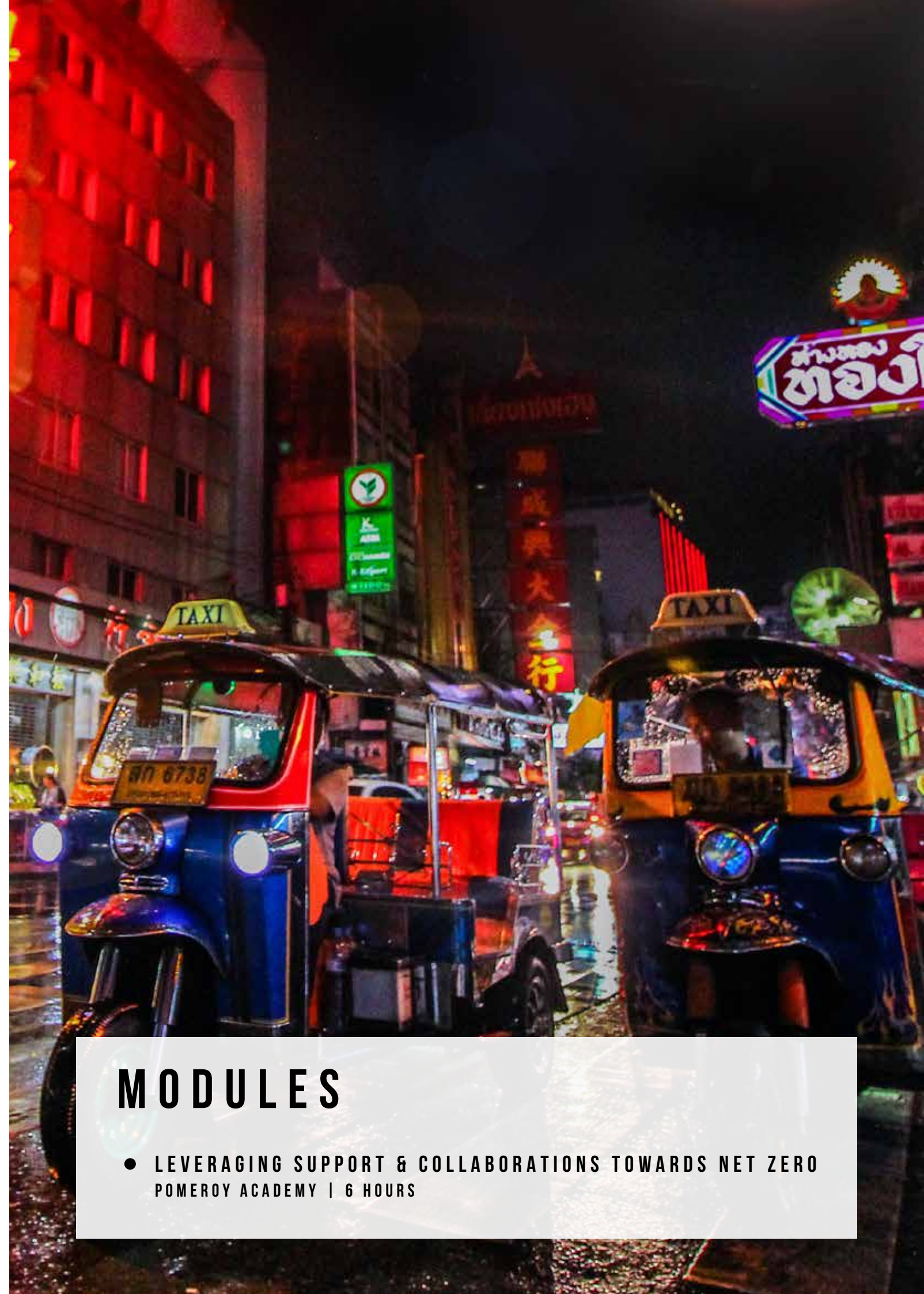
07

LEVERAGING SUPPORT & COLLABORATIONS TOWARDS A NET ZERO WORLD

As we find ourselves amid an increasingly complex and volatile world, it is difficult to navigate the uncertainties that impede progress towards Net Zero goals. This underscores the importance of collective action across all sectors of society to accelerate impactful change. Starting from the individual, it is imperative to hone effective communication skills and foster relationships amongst social groups, organisations, and industry leaders. In the re-evaluation of one's spheres of influence, we can then leverage support and collaboration to drive change and challenge the status quo.

MODULES

- LEVERAGING SUPPORT & COLLABORATIONS TOWARDS NET ZERO
POMEROY ACADEMY | 6 HOURS



LEVERAGING SUPPORT & COLLABORATIONS TOWARDS NET ZERO

MODULE PROVIDER: POMEROY ACADEMY
COURSE CONVENORS: PROF JASON POMEROY

WHAT IS THIS MODULE ABOUT?

Built environment professionals collectively demonstrate the importance of moving away from a silo driven design process to a collaborative and interdisciplinary process to deliver more sustainable products. This module considers the importance of greater stakeholder engagement throughout the design process to better understand the motivations and agendas from different perspectives, enabling us to adopt a ‘big picture’ understanding of our urban challenges today. By leveraging interdisciplinary support, we can pinpoint flaws in the system and strategise effective solutions towards a Net Zero World as we strive to become a force for good in delivering greener more sustainable and resilient built environments.

LEARNING OBJECTIVES

- An understanding of the correlation between the built environment, carbon emissions and climate change
- Highlighting the importance of interdisciplinary design processes to deliver sustainable built environments

SCHEDULE (6 HOURS)

25 min	Lecture 1: Stakeholder Engagement
5 min	Pre-recorded screening: ‘Habitat’ webisode - Globalisation and the Culture of Place BSD City Video
15 min	Fire-side chat: with an academic figure (e.g. Kayla Friedman to set the tone on how interdisciplinarity is crucial driver for future sustainable projects)
15 min	Breakout session: reflection groups with Kayla Friedman and Jason Pomeroy in carousel to address our urban challenges
10 min	Plenary discussion: reflection findings
20 min	World Cafe (Group Workshop 1)
	Break
25 min	Lecture 2: Pull together: collaborative sustainable processes to deliver sustainable products
5 min	Pre-recorded screening: The Idea House
15 min	Fire-side chat: with a corporate figure (e.g. Sufian Abdullah to set the tone of how sustainable design may bring positive change to conventional built environment)
15 min	Breakout session: reflection groups with Sufian Abdullah and Jason Pomeroy in carousel to discuss our urban challenges
10 min	Plenary discussion: reflection findings
20 min	World Cafe (Group Workshop 2): Explain and share positive projects from within the company and consider opportunities for improvement. How can approaches / experiences from this project be used for future successes?
	Break
25 min	Lecture 3: Towards Zero Carbon Development
5 min	Pre-recorded screening: Managing Asia - Designing the first sustainable sports hub Kallang Alive video
15 min	Fire-side chat: a state figure (e.g. Lim Teck Yin to set the tone of how active living can drive social innovations to achieve positive impact in the physical, social, economic and environmental realms)
15 min	Breakout session: into reflection groups with Lim Teck Yin and Jason Pomeroy in carousel to discuss our urban challenges
10 min	Plenary discussion: reflection findings
20 min	World Cafe (Group Workshop 3)
	Break
25 min	Lecture 4: Scaling a Sustainable Future and Influencing the System
20 min	World Cafe (Group workshop 4)
40 min	World Cafe (Defence and Discussion Presentations): Each selected participant to introduce and share selected projects mini Pecha Kucha style (4 mins per project); Discussions & Questions
5 min	Wrap up

COURSE CONVENORS



COURSE CONVENORS

ARUP

ARUP



Tony Chan
Associate Principal of Cities and Planning (SE Asia)

Tony has degrees in Town Planning (Honours) and Built Environment (Sustainable Development) from the University of New South Wales in Sydney, Australia. He also has additional post-graduate studies in Business Economics and Project Management from the Imperial College, London and the University of Technology, Sydney. His expertise lies in delivering multi-disciplinary projects in an integrated manner, developing master planning and urban design to address natural resource consumption and around transit stations. Tony has worked with the private sector and governments of all levels mainly at the State, city and local levels during his working experiences particularly in China, Hong Kong, Australia, Malaysia and other South-East Asian countries.



Andrew Hodgson
Principal & Advisory Services Leader (Singapore)

Andrew has around twenty years of experience in multi-disciplinary infrastructure projects, with a particular focus on City and Transport Development. His primary specialism has been technical and strategy advisory, where Andrew leads on the identification of problems, issues and opportunities, as well as definition and appraisal of potential value-add interventions. With experience gained from over 20 countries, he brings a rounded view which draws from his working with policy makers, federal and local government agencies, financial institutions and the private sector.

ASHURST

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Richard Guit
Partner and Global Co-head of International Projects

Richard has spent 25 years advising on the legal aspects of government procured infrastructure in the UK, Australia and Asia. From large hospitals, to social housing and schools, railways and rolling stock, to energy, roads, waste and water infrastructure. Most of this infrastructure has been financed or provided by the private sector under various models. Richard lives in Singapore and is currently leading on projects across Asia. This includes waste-to-energy in Indonesia, rooftop solar in Singapore, regional power grids involving Indonesia/Malaysia/Singapore, and procurement of a new PPP hospital in Manila.



Giles Ashman
Counsel, International Projects

Giles is a senior lawyer in Ashurst's Singapore office, and based in Asia since 2007. Prior to that, he was based in London and worked on a large number of infrastructure projects in Europe. Giles has worked on and closed many high profile infrastructure projects in Asia, including the Singapore Sports Hub Project and the (now suspended) Kuala Lumpur to Singapore High Speed Rail Project. He has spent a year living in Manila, on secondment to Asian Development Bank, where he worked on many transport and social infrastructure projects as transaction adviser to government procuring authorities.



Zheng Hao Chan
Associate, International Projects

Zheng Hao is an associate lawyer in Ashurst's Singapore office. Prior to joining Ashurst, he worked as legal counsel and investment specialist at the Asian Development Bank (ADB) in Manila and Bangkok focusing on infrastructure finance, public private partnerships (PPPs) and sovereign finance across Asia. Zheng Hao began his career in London and has also worked in Tokyo - developing particular experience with infrastructure finance and development, as well as other financing transactions across Africa, Latin America and Asia. Zheng Hao is a Singaporean national.

CAMBRIDGE INSITUTE FOR SUSTAINABILITY LEADERSHIP



Martin Roberts
Director of Digital Learning

Martin has a passion for applying technology to make education accessible at the scale needed to accelerate change in the 21st century. He has designed and delivered CISL's portfolio of popular online courses that have equipped thousands of business leaders to effectively reshape their organisations and apply innovative business models of the future. Martin leads CISL's open, customised and blended digital learning programmes. He is an expert in digital education, sustainability, and business leadership, having worked in diverse sectors around the world, including the private and public sectors in several African countries, where he built the capability of leaders to address their natural resource challenges.



Kirsten Henson
KLH Sustainability
Director

Kirsten has a proven track record in innovation to deliver challenging sustainability objectives on cost, space and time-constrained large construction projects. She is a technical advisor to the International Olympic Committee, provides sustainability input to range of Quality Review Panels within London including HS2, and is a guest lecturer at a number of UK Universities. After many years working on the London Olympic programme, Kirsten started KLH Sustainability in 2010. KLH Sustainability is a successful and highly-regarded sustainable construction consultancy offering a range of technical and strategic services to the planning, design and construction industries.

CROSSRAIL INTERNATIONAL



Kate Myers
Director and Expert Adviser,
Capacity Building

Kate is an expert in capacity building, skills employment and education, and social impact. She has over 20 years' experience in UK government and major rail projects, including stakeholder relations, communications, delivery, policy and strategy. Prior to joining Crossrail International in 2021, Kate was Head of Skills, Employment & Education (SEE) at High Speed 2 Ltd. Her extensive knowledge, skills and expertise in the rail infrastructure sector includes seven years at Crossrail and a secondment to the UK government's Department of Transport as a Senior Policy Advisor where she was a key member of the pan-industry team created to deliver the Transport Infrastructure Skills Strategy.



Martin Buck
Expert Adviser, Alternative
Funding and Financing

Martin led the structuring and funding of the £16Bn Crossrail project in London, UK, Europe's largest infrastructure project. As Commercial Director he was responsible for the procurement of more than £10bn of supply chain contracts and established the Crossrail Learning Legacy, capturing the lessons learned for the benefit of the wider industry and later incorporated into the UK Government's Infrastructure and Projects Authority's (IPA's) Project Initiation Route Map which has seen wide industry adoption. As a member of the HM Treasury Infrastructure Client Group, Martin led the work stream Project 13, to produce a blueprint document for applying an 'enterprise approach' to future infrastructure projects.



Ian Lindsay
Expert Adviser, LVC and TOD/
TOC

Ian is a land & property expert supporting the delivery of complex infrastructure schemes across the globe. Specialising in advice on implementation of innovative land-value capture and transit-orientated development frameworks and systems created during the life-cycle of the Crossrail project, many of which are now recognised as UK and international 'best practice'. He is a Chartered Surveyor drawing on c.30 years of client-side experience in land acquisition and complex, mixed-use property development, particularly in the rail and major infrastructure project environment, having led property teams at Network Rail & Crossrail.

COURSE CONVENORS

GLOBAL INFRASTRUCTURE HUB



Maud de Vautibault
Director of Practical Tools and Knowledge

Maud is a senior infrastructure policy and legal advisor with over 18 years of experience in the public and private sectors. She joined the GI Hub in January 2019 under a cooperation agreement with the French Treasury where she was a Project Manager and Head of Legal Affairs at the Infrastructure Finance and PPPs Unit. During her time in France's Ministry of Finance, one of her roles was advising public procurement authorities on contractual options involving concession, traditional public procurement, and PPP contractual structures.



Michael Twycross
Senior Infrastructure Specialist

Michael is an infrastructure professional with significant experience across government, private and not-for-profit organisations in Asia and Australia. As a Senior Analyst with the GI Hub, Michael works across a range of projects and initiatives including the Country Engagement Programs and infrastructure guidance tools. Before joining the GI Hub, Michael has been a Senior Policy Adviser with Infrastructure Partnerships Australia, a Trade Adviser with the Australian Trade Commission, and a Civil Engineer with Spaceframe China. Michael holds a Bachelor of Civil Engineering and a Diploma in Languages (Chinese) from the University of Queensland, and has also completed studies at Tianjin University, National Taiwan Normal University and Tecnologico de Monterrey.



Daniel del Rio
Infrastructure Specialist

Daniel is an Infrastructure Specialist at the Global Infrastructure Hub. Daniel works across a range of projects and initiatives including innovative funding and financing, the circular economy and transformative infrastructure post-COVID-19. Prior to joining the Global Infrastructure Hub, Daniel was part of EY's Infrastructure Advisory team where he provided financial and commercial advice to the public and private sectors. Daniel is experienced in financial modelling, financial analysis and infrastructure procurement. Daniel holds a Bachelor of Laws and a Bachelor of Economics from the Australian National University. Daniel is an admitted lawyer, a Chartered Accountant and has passed all three levels of the Chartered Financial Analyst (CFA) exams.

HER MAJESTY'S GOVERNMENT



Eleanor Kiloh
Regional Director,
Strategic Issues

Eleanor has experience with international management, having previously worked for McKinsey & Company serving clients worldwide in the private, public and social sectors on their most complex and important challenges. With experience working out of Singapore and covering the Asia-Pacific region, she has worked with multiple teams to ensure maximum impact for our public and social sector clients in Asia. Eleanor is also a British diplomat specializing in political analysis, development issues and Asia.



Mark Smith
Built Environment Lead,
Infrastructure

Mark has worked in the Department for International Trade and its predecessor departments for over 20 years in a variety of roles, including an overseas posting to the British Consulate General in Houston. Working with DIT's UK and international networks, construction and water sector stakeholders Mark leads on the development and delivery of strategies and activities aimed at supporting the UK's supply chain access overseas infrastructure opportunities. Mark also leads on identifying and supporting inward investment projects with particular focus on opportunities to build the UK's capability in clean and green infrastructure.



Alex Vleming
Insurance Specialist

Alex Vleming is a Specialist advisor on Insurance to the UK Government, the Department for International Trade. Alex has a varied career in finance, first as an investment banker specialised in the financial services and insurance industries, then as a private equity investor in the insurance and insurtech industries as Swiss Re's head of principal investments for Europe, Middle East and Africa, and more recently as an independent consultant, IC member and a board director with a number of companies around the world. Throughout his career, Alex has been particularly active in emerging markets and he has been increasingly active in the impact/ESG space.

COURSE CONVENORS

HSBC



Jonathan Drew
ESG Solutions Group Head,
Global Banking

Jonathan graduated with an MA in Economics from Cambridge University and is a Chartered Accountant. Starting his banking career more than 20 years ago in London, he has been based in Hong Kong since 1997, witnessing first-hand the rapid growth of Asia. He has been involved in successful transactions across industrial and services sectors, advising and arranging finance for projects and business, structuring and managing the delivery of sustainable bonds and loans for corporate and institutional clients in the creation of sustainable investment opportunities. Jonathan is an Executive Committee member of the Hong Kong Green Finance Association and chairs the Asia Pacific Loan Market Association Green and Sustainable Loan Committee.

INTERNATIONAL FINANCE CORPORATION



Pushkala Ratan
Climate Finance - Asia Lead,
Financial Institutions Group

Pushkala is the Asia Lead for Climate Investments in the Financial Institutions Group for IFC, based in Singapore and covering South Asia, East Asia and the Pacific. She is the Climate Lead for several market firsts in Green Bonds, certified Green Loans and Blue Bonds and co-leads a core team at IFC working on the blue economy. She has extensive experience in Sustainability across Finance and Investment (Debt, Equity, Capital Markets) and Technical Services in global markets. Pushkala has a Masters from The American University, Washington DC and a PhD from the Indian Institute of Technology.

INFRASTRUCTURE AND PROJECTS AUTHORITY



James Ballingall
Head of International Team

James leads the International team at the Infrastructure and Projects Authority (IPA), the UK Government's Centre of Expertise for infrastructure and major projects. The IPA reports to Her Majesty's Treasury and the Cabinet Office. James advises and provides strategic support to governments around the world in the establishment of Infrastructure and finance policies, laws, units, contracts, development of public sector capacity and national infrastructure programmes. James and the international team work closely with the Foreign, Commonwealth and Development Office (FCDO) and the Department for International Trade (DIT), as well as with regional development banks and multi-laterals agencies.



Javier Encina
Deputy Head of International
Team

Javier is an infrastructure and finance specialist with over 20 years of experience in infrastructure delivery, corporate & project finance and management consulting. Javier advises governments and multilateral agencies on the development and implementation of PPP units and policy, and on the planning, delivery and financing of infrastructure programmes and projects. Prior to joining the UK civil service, Javier worked in the financial and business services industry, undertaking strategy consulting and corporate finance assignments in the UK, France, Switzerland, China and India. Javier is an APMG certified Business Case Practitioner, holds MBA and M.A. degrees in finance, and is fluent in Spanish, English and French.



Karineh Grigorian
Commercial Manager of
International Team

Karineh has been with IPA's International team since January 2014. In her role as a Commercial Specialist, she is involved with providing training and technical advisory services to overseas governments for their infrastructure planning capacity. Karineh is an APMG International accredited Better Business Cases Reviewer and Practitioner. Her previous roles have been with a number of major UK PPP projects, as well as a Secondment to the UK's National Audit Office's PPP unit. Karineh is an IPA certified PPP Subject Matter Expert and a 'High Risk Assurance Reviewer' for the Government's Major Projects Portfolio (GMPP). She has also contributed to the World Bank's PPP Reference Guide (Version 3).

COURSE CONVENORS

POMEROY ACADEMY



Prof. Jason Pomeroy
Founding Principal

Jason Pomeroy is an award-winning architect, academic, author and TV presenter, regarded as one of the world's thought leaders in sustainable design. He is the Founder of Pomeroy Studio, Jason Pomeroy Architects and Pomeroy Academy: sustainable urbanism, architecture, design, research and education firms. His career has included critically-acclaimed green cities, buildings and landscapes: from the microscale of the first zero-carbon house in Asia, to the macroscale of Indonesia's 'Silicon Valley'. Pomeroy teaches a sustainable urbanism module at Cambridge University; and his books, lectures and TV series raise cultural awareness of cities. He gained Bachelor and Master degrees from the Canterbury School of Architecture and the University of Cambridge, and a PhD from the University of Westminster.



Ivana Dobnikar
Associate

Ivana is an interior architect with expertise in sustainable design at both architecture and interior scale. She received her Master's Degree in Architecture from the University of Belgrade, Serbia, in 2014. Her practice experience spans over a decade with projects of diverse typologies in both the public and private sector. She has an advanced knowledge of sustainable and innovative architecture, and has contributed her LEED (Leadership in Energy and Environmental Design) Green Associate knowledge to her design projects. Bridging the gap between the built environment industry and academia, Ivana is involved in curating lectures, workshops, conferences, and publications. She has contributed to the specialist modules for the Master of Planning and Urban Design program at James Cook University of Singapore.



Denise Lim
Architectural Designer

Denise graduated with a B.Sc Architecture and Sustainable Design and M.Arch from Singapore University of Technology and Design. She has international experience with projects based in Singapore, Hong Kong and Spain, spanning hospitality, exhibition design and applied research. She has honed her research skills as Senior Research Assistant for the Social Urban Research Groupe at SUTD where she was involved in the New Urban Kampung Research Programme, in collaboration with Singapore's Housing & Development Board (HDB) and Ministry of National Development (MND) to leverage behavioral-mapping, data analytics, place-making and smart technology to boost construction productivity and strengthen community resilience.

TURNER & TOWNSEND



Alex Nesbitt
Associate Director

Alex leads Turner & Townsend's digital and technology business across Asia. He supports our Clients with strategic and technical advice enabling them to unlock value from digital ways of working. Recently, he has been the acting digital leader on Singapore's largest aviation programme for the past 5 years and has helped many of our large property portfolio owners transform their businesses to deliver projects more efficiently. Alex believes that adopting digital ways of working is the answer to better project delivery with time and cost savings being a natural by-product throughout the supply chain.



Andrew MacGregor
Senior Consultant Programme
Advisory

Andrew is a chartered MCIPS qualified procurement specialist with over 12 years' experience across the Defence, Nuclear and Construction sectors. Most recently Andrew has led the creation of a Sustainable Procurement service line – based on ISO 20400 - which is delivering value to clients as they progress towards more sustainable outcomes. He has helped evolve end-to-end procurements to embed sustainability & social value into procurement strategy, functional enablers and the procurement execution. His wider experience includes delivering strategic sourcing of CapEx and OpEx procurements - within a challenging and limited supply chain - across high value (£500m+) bids and projects.



Daniel Cheung
Director, Head of Contract
Services Asia, Strategic Lead for
South China and North East Asia
Infrastructure Lead

Daniel is a business leader, professional engineer and contract specialist with strong commercial acumen and excellent advisory capability. He believes and advocates collaborative approach in contract risk management which adds value to his client's projects. He has extensive exposure in the international construction industry with professional legal, commercial, engineering and business management experience and qualifications. He has expertise in advising board level executives in various major organisations on innovative procurement strategies, commercial models, contract drafting, project risk management, dispute management, cost assurance and major project delivery. He is also a claim specialist and has been appointed as independent expert.

COURSE CONVENORS

TURNER & TOWNSEND



Frederick Levy
Principal Consultant

Frederick is a chartered civil engineer and principal consultant with over 15 years' experience in the infrastructure sector. He has led teams in the academic, engineering and delivery orientated client and consultancy institutions. He has been updating the Project Routemap on behalf of the UK Infrastructure and Projects Authority, a rigorous collaborative methodology to ensure major projects and programmes are setup for success. This has included delivering Routemap pilot assessments for transport infrastructure clients. Frederick is also responsible for providing and updating the Routemap training material to project professionals. Frederick also holds an MBA, specialising in scenario planning and a doctorate in geotechnical engineering.



Paul Burcombe
Senior Trainer, Asset
Management Academy

Paul has extensive experience of implementing Asset Management principles over a large and diverse portfolio of assets, both from an asset owner perspective and as a consultant in manufacturing, airports, rail and energy sectors. Having held senior roles within airport companies, Paul is a proven leader in technical and people management disciplines. Experienced in diagnosing and improving businesses through Asset Management assessment techniques including PAS55, ISO 55001 & GFMAM 39 Subjects. Paul is also an accomplished trainer in Asset Management principles and techniques with experience in developing and delivering bespoke training programmes and delivering IAM Endorsed Training to public attendees.



Majid Saddique
Associate Director,
Programme Advisory

Majid has 22 years' experience in providing business case guidance and strategic advisory services to the UK and overseas social infrastructure, transport, and major economic infrastructure sectors. He has delivered major infrastructure projects, advised local government, regional government, central government departments, Police and Fire authorities as well as private sector clients across the full spectrum of infrastructure services and transactions. Majid has experience of leading and advising on the development of business cases for major infrastructure programmes. Majid developed the Street Lighting Toolkit, which included the business case development guidance (SCM compliant) and a bespoke financial model, which assists local authorities in creating a more sustainable future in their regions.

UNITED NATIONS DEVELOPMENT PROGRAMME



Darko Pavlovic
Bangkok Regional Hub
Regional Project Manager

Darko has 18 years of professional experience on governance issues, focusing on transparency and accountability, ensuring effective management, monitoring and support in resource mobilization and partnership building on the public procurement platform. He has worked with UNDP in Afghanistan, Serbia, Oslo, and New York. Prior to working for UNDP, Darko worked as a currency analyst on Wall Street, and two years in Belgrade District Court where he passed Serbian Bar Exam. He has earned Master's Degrees from Columbia University School of International and Public Affairs and LLM from Golden Gate University in San Francisco.



Sara D'Anzeo
Business Engagement Specialist

Sara is an Italian-American professional that brings over 12 years of expertise in research and development in international trade both in the non-profit & private sector. She is the Business Engagement Specialist of FairBiz "Promoting a Fair Business Environment in ASEAN" where she manages the Diversity and Inclusion Platform, and leads initiatives that promote gender empowerment in integrity. Before joining UNDP, Sara covered regional and national managerial roles of commercial development in private multinationals in USA, Europe and South-East Asia. She has a Master's degree in Law from Macerata University, Italy with final thesis on Comparative Law completed at the University of Miami School of Law, Florida.

UNIVERSITY OF WESTMINSTER



Dr Marion Roberts
Professor Emeritus

Dr Marion Roberts is Professor Emeritus of Urban Design at the University of Westminster, where she was engaged in teaching and research for nearly three decades. Before that she was educated as an architect at UCL and Cardiff universities and worked in practice. Her scholarly work on gender in urban development started with the joint publication, Making Space, (republished in Verso's Feminist Classics series) and continued with a PhD. Gender issues continued as a theme in her writing and teaching but came to the fore again through her collaboration and publications as a gender expert in two European research networks.

REGISTRATION

Join us and make a positive impact in addressing the urban and infrastructural challenges of tomorrow.



info@aslip.net