

# Vertical Cities

a **marcusevans** event



InterContinental Grand Stanford  
Hong Kong

5th - 7th March 2012

HKIPM members will be certified with 6 CPD hours per day for attending this event.

"We all have to **expand our capabilities to encompass the changing world, its growing diversity** and, indeed, its **complexity**"

Lachlan Murdoch

Revolutionising today's soaring metropolises to achieve sustainability by reinventing the very idea of a city through conceptual technology and integrated strategies for enhanced liveability

**marcusevans**

## Showcasing presentations and case studies by key distinguished speakers:

**Dr. Ken Yeang** Chairman and Director of Design

**Llewelyn Davies Yeang, UK**

*Dr Ken Yeang is also principal of sister company, T. R. Hamzah & Yeang Sdn. Bhd. (Malaysia)*

**Julien De Smedt** Founder & Director

**Julien De Smedt Architects, Brussels & Copenhagen**

*Won 21st for 21 Award – World Architecture News Award for 21 leading Architects of the 21st century and European Steel Construction Prize*

**Silas Chow** Director

**Skidmore Owings & Merrill, China**

*Silas is the China Program Co-Chairman for Hong Kong AIA and has delivered projects on Wall Street Financial Center.*

**Eugene Dryer** Director

**TFP Farrells, Hong Kong**

**James Law** Chairman & Chief Cybertect

**James Law Cybertecture International Holdings Limited**

*Achieved both HKICT Best Lifestyle Bronze Award 2011 as well as Design For Asia Bronze Product Award 2011 with his innovative Cybertecture Mirror*

**Michael Grove** ASLA Principal

**Sasaki Associates, Inc., US**

Senior Representative

**Zumtobel**

Senior Representative

**China Singyes Solar**

**Eloy Celaya Escribano** Principal

**Torre Bionica ECE Arquitecturas, S.L, Spain**

**Lawrence S. Ng** Principal

**Pelli Clarke Pelli Architects, United States**

*Lawrence was Project Manager & Design Team Leader for the Petronas Twin Towers, International Finance Centre in Hong Kong & the World Financial Center in New York City*

**Colin Henson** Senior Transport Planner, Aurecon, Australia

**Former Principal, Arup**

*He is also Governor of Warren Centre for Advanced Engineering, University of Sydney and has contributed to the successful bid for the London Olympics 2012*

**David L. Andersen** Principal

**Sustainable Architecture and Planning, United States**

*Authored Guyana's Highly Regarded National Plan on Ecotourism, Environmental Services Trade Mission to Vietnam (USAID )*

**Ian Milne** Design Director

**Atkins, Hong Kong**

**Steven Townsend** Global Director - Urban Design

**Woods Bagot, Hong Kong**

Senior Representative

**Siemens**

Senior Representative

**Momentive Performance Materials**

**Marshall Strabala** Design Partner

**2DEFINE Architecture**

*He is the Chief Architect of the Shanghai Tower will present the building as the world's tallest double skin vertical city. New Italian Blood NIB awarded it's First Prize to the Shanghai Tower*

**Layton Reid** Founder

**Desitecture, UK**

*Ravensbourne Head of IDEA Interior Design Environment Architectures / Architecture*

**Jason EJ Pomeroy** Director

**Broadway Malyan, Singapore**

*Jason is an award winning architect at the forefront of the Asian green agenda. He is the designer of the multi award winning zero carbon 'Idea House', and is currently designing what is targeted to be Asia's first triple platinum / zero energy mixed use office tower*

**Donald Davies, P.E., S.E.** Principal

**Magnusson Klemencic Associates, US**

**Dominic Bettison** Director

**WilkinsonEyre.Architects, UK**

**Cathy Yang** Vice President

**Taipei Financial Center Corp, Taiwan**

**Jonathan Wall** Senior Associate - Director, Asia Projects

**NBBJ, Hong Kong**

Senior Representative

**Thyssenkrupp, Hong Kong**

## Featuring key presentations from global statutory, association & research bodies:

**Prof. Li Shirong** Deputy Director

**Chongqing Foreign Trade and Economic Relations Commission, China**

**Dr Tan Puay Yok** Deputy Director

**Centre for Urban Greenery and Ecology, National Parks Board, Singapore**

**Professor Fan**

**Hongwu Shanghai Research Institute of Building Sciences, China**

**Tadashi Matsumoto** Senior Policy Analyst

**Organisation for Economic Co-operation and Development (OECD), France**

*Regional Policies for Sustainable Development Division*

**Philip Lo** Founding President

**IFMA HK Chapter**

*Hon. Fellow - HKIFM and CEO of Lexco Group*

**Prof. Bernard V. Lim** Founding President

**Hong Kong Institute of Urban Design, China**

Principal

**AD+RG Architecture Design and Research Group**

*Member of the Building Committee, Hong Kong Housing Authority*

**Stephen Y.C. Yim** Senior Architect, Development &

Construction Division

**Hong Kong Housing Authority, HKSAR**

**Vijay K Dhar** Chair Professor and PEARL Coordinator

**National Institute of Urban Affairs, New Delhi**

**Davina Jackson** Steering Committee and Communications

Strategy Partner

**UN-Habitat - World Urban Campaign, Australia**

*Digital Cities and Vision 2020 - Working Groups INTERNATIONAL SOCIETY FOR DIGITAL EARTH & Strategy Director SMART LIGHT,*

*Sydney 2009, Singapore 2010, 2012*

**Jay Simson** President

**ACECNY (American Council of Engineering Companies, New York)**

**David M. Motzenbecker** President and Mayor's Representative

**Minneapolis City Planning Commission, United States**

Associate Partner

**BKV Group.**

*Was honored with the Lob Pine Award - the highest award given to a landscape architect in the State of MN*

**Raymond W M Wong** Lecturer and Research Fellow

**City University of Hong Kong**

*Member of the Hong Kong Institution of Engineers and the Chartered Institute of Building. He is actively involved towards urban planning and revitalization projects in Guangzhou and Shanghai*

**Ron Zimmer** President & CEO

**Continental Automated Buildings Association (CABA), Canada**

**Jim Sinopoli PE, RCDD** Managing Principal

**Smart Buildings, United States**

*Mr. Sinopoli is author of the book "Smart Buildings", renowned author and speaker, US Editor for Intelligent Buildings International*

**Exclusive 3rd Day Conference focusing on GreenBuild: Towards Eco Sustainability**

**Exclusive Site Tour to The Tallest Building in the World's Most Vertical City: Hong Kong's latest addition- International Commerce Center, Sky 100**

Sky100 is the highest indoor observation deck in Hong Kong! Soaring high above the city on the 100th floor of the International Commerce Centre, the tallest building in town, sky100 offers visitors a magical bird's-eye sweep of this world-famous sight with an unbeatable 360° panoramic view

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# Monday 5th March 2012

- 0800 Registration and morning coffee**
- 0830 Opening and welcome remarks from the chairperson**
- 0840 Plenary One – Vertical Urbanism: Designing the green tower as a ‘sustainable city in the sky’ to adjust to different climatic needs**  
**Dr. Ken Yeang** Chairman and Director of Design  
**Llewelyn Davies Yeang, UK**
- 0920 Plenary Two – Tall ambitions for megacities: Creating mixed use & sustainable high rise buildings with all services of a classical city to augment land use density and minimise land use**  
**Julien De Smedt** Founder & Director  
**Julien De Smedt Architects, Brussels & Copenhagen**
- 1000 Morning refreshment**
- 1020 Plenary Three – Exploring best-in-class vertical transportation such as scenic lifts, sky lobbies, double deck lifts to complement the building design**  
 Senior Representative  
**Thyssenkrupp, Hong Kong**
- 1100 Plenary Four – Leveraging on high performance materials for enhanced strength, durability, resistance and for greater efficiency of design and construction**  
 Senior Representative  
**Momentive Performance Materials**
- 1140 Plenary Five – Spaces In-Between: Addressing landscape architectural design as a key component to enhancing the vertical cities of the future and the present**  
**David M. Motzenbecker** President and Mayor’s Representative  
**Minneapolis City Planning Commission, United States**
- 1220 Networking lunch**



## Stream One Masterplanning and Typology

- 1320 Chairperson’s opening remarks**
- 1330 Masterplanning vertical cities: Revitalising the city core through the inclusion of iconic high rise structures**
- Exploring new models of urban architecture to take on the specifics of Asian urban development
  - Addressing the issues of urban sprawl, traffic congestion and pollution to enhance liveability and well-being of the inhabitants
  - Designing solutions towards a balanced environment for urban life where public amenities and work opportunities are within easy access
  - Encouraging efficient and clean modes of travels that contribute to a more sustainable environment
- Lawrence S. Ng** AIA, RAIC Principal  
**Pelli Clarke Pelli Architects, United States**
- 1410 Justifying investment in vertical mixed use developments to gain commercial value and create cities that support economic growth**
- Creating vibrant urban centres by including a wide range of building types and heights for efficient urban densification
  - Enhancing the public realm in high rise architecture and civic buildings by creating plazas and urban rooms
  - Dollars and Sense: Why and how environment friendliness means to the city
- Prof. Li Shirong** Deputy Director  
**Chongqing Foreign Trade and Economic Relations Commission, China**
- 1450 Afternoon refreshments**
- 1510 Integrating well planned transport infrastructure with other aspects of vertical city development to reduce congestion, pollution and increase mobility**
- Incorporating the connections of existing buildings
  - Enhancing the “ped-shed” (pedestrian catchment area) to improve property lease values and increase retail foot traffic
  - Using GIS to investigate land – use issues and designing pedestrian simulation programs using Mass Motion model
- Colin Henson** Senior Transport Planner  
**Aurecon, Australia**  
 Former Principal  
**Arup**
- 1550 Delivering a whole new level of vibrancy and business synergy by integrating a ‘mix of uses’ vertically: World class Mixed Use Developments**
- Re-creating and reinforcing the form of traditional urban commercial districts through mixed use developments
  - Solving the complex issues affecting our towns, cities and neighbourhoods through mixed use vertical cities
  - Providing for a mixed-use environment of residential, office and institutional uses in addition to social, cultural and recreational facilities
  - Encouraging pedestrian activity and provides housing choices close to goods and services given the added height & diversity Speaker to be confirmed
- Silas Chiow** Director  
**Skidmore Owings & Merrill, China**
- 1630 Chairperson’s closing remarks**
- 1640 End of day one**

## Stream Two Engineering and Structural Design

- 1320 Chairperson’s opening remarks**
- 1330 Standing tall yet sustainable: A case study of the Shanghai Tower, the world tallest double skin vertical city**
- Designing robust buildings that are catastrophe resistant and incorporating innovative evacuation solutions in case of extreme events
  - Recognising urban density and the rising cost of energy
  - Symbiotic mixed uses and urban connections to enable people flow and vertical transportation for 18,000+ people
  - Building movements that relate to the second façade
- Marshall Strabala** Chief Architect  
**Shanghai Tower, China**
- 1410 Augmenting the use of Performance Based Design (PBD) in conjunction with design and construction to counter fire related issues: Fire Protection Engineering**
- Utilising structural steel and concrete PBD towers in high seismic regions
  - Evaluation tools to assess whether proposed solutions meet the stated criteria
  - Assessing the need for validation and verification of results against performance targets
- Donald Davies, P.E., S.E.** Principal  
**Magnusson Klemencic Associates, US**
- 1450 Afternoon refreshments**
- 1510 Wind Power Generation in Tall Buildings: A case study on Bahrain’s first intelligent building - World Trade Center**
- Strengthening wind bracing for supertall structures
  - Extending performance based wind engineering towards increasingly taller and irregularly shaped complex building structures
  - Strategies for shaping tall buildings for wind structural systems
- Ian Milne** Design Director  
**Atkins, Hong Kong**
- 1550 Integrating advanced large space structures, base isolation and vibration control with restrained braces in steel for earthquake prone countries**
- Aligning modification of existing structures to make them more resistant to seismic activity, ground motion and soil failure
  - Reducing seismic demand sensitivity with supplementary damping and/or use of base isolation systems
  - Allowing passageways bridges to accommodate additional movement between seismically independent structures
- Speaker to be confirmed
- 1630 Chairperson’s closing remarks**
- 1640 End of day one**

## Stream Three Sustainability and Revitalisation

- 1320 Chairperson’s opening remarks**
- 1330 The vertical greening of Singapore: Motivations, policies and outcome**
- Establishing the rationale for the promotion of the vertical greening of Singapore
  - Creating the right mix of policies, programmes and targets to accelerate local adoption of vertical greening
  - Sharing recent examples of implementation, and insight on how the implementation might improve the quality of the urban environment and the city’s liveability
- Dr Tan Puay Yok** Deputy Director  
**Centre for Urban Greenery and Ecology, National Parks Board, Singapore**
- 1410 Incorporating Built-In Photo Voltaics (BIPV) in building facades to capture solar energy thereby minimising energy consumption**
- Integrating solar technology with the architectural aesthetics to replace conventional building materials for building envelopes
  - Improving the aesthetic outlook of the building and the energy-saving function by using advanced materials in the exterior facade
  - Generating electricity for its own and the neighbouring buildings (if grid-connected), to ease the supply pressure of electricity
- Senior Representative  
**China Singyes Solar**
- 1450 Afternoon refreshments**
- 1510 Cybertecture: Tall buildings that are not simply tall**
- Development of sustainable high-rise for the future
  - Emerging structures that foster iconic landscape and challenge spatial flexibility
  - Making a difference with today’s Intelligent systems for tomorrow’s generation
  - Rebuilding our planet through a new technological understanding of our planetary system of nature and science
- James Law** Chairman & Chief Cybertect  
**James Law Cybertecture International Holdings Limited**
- 1550 Greening Taipei 101 - Becoming the world’s tallest green building – Case Study**
- Green features and sustainable design assistance for energy use and creation for existing buildings
  - Energy saving efforts and ensuring operating system are meeting the requirements
  - Meeting the design criteria and carefully assessing the work and costs necessary for LEED considerations
  - Platinum level performance
- Cathy Yang** Vice President  
**Taipei Financial Center Corp, Taiwan**
- 1630 Chairperson’s closing remarks**
- 1640 End of day one**

## Tuesday 6th March 2012

- 0800 Registration and morning coffee**
- 0830 Opening and welcome remarks from the chairperson**
- 0840 Plenary One – Discussing frontiers on the evolution of high rise architecture models and on building Vertical: A case study of "Bionic Tower" Vertical City**  
**Eloy Celaya Escribano** Principal  
 Torre Bionica ECE Arquitecturas, S.L, Spain
- 0920 Plenary Two – Sustainable Urbanisation and Compact Cities: Spatial strategies to avoid urban sprawl and achieve Green Growth**  
**Tadashi Matsumoto** Senior Policy Analyst  
**Organisation for Economic Co-operation and Development (OECD)**  
*Regional Policies for Sustainable Development Division*
- 1000 Morning Refreshments**
- 1020 Plenary Three – Awake at night: Illuminating the city sky line through luminous vertical cities**  
**Davina Jackson** Steering Committee and Communications Strategy Partner  
 UN-Habitat - World Urban Campaign, Australia
- 1100 Plenary Four – Vertical sustainable city design approach for public housing in Hong Kong**  
**Stephen Y.C. Yim** Senior Architect, Development & Construction Division  
 Hong Kong Housing Authority, HKSAR
- 1140 Plenary Five – Social spaces in the sky: the role of the skycourt and skygarden in the Singaporean context**  
**Jason EJ Pomeroy** Director  
 Broadway Malyan, Singapore
- 1220 Networking Lunch**

### Stream One Masterplanning and Typology

- 1320 Chairperson's opening remarks**
- 1330 Incorporating sense of functionality, place and design while consolidating the old and new blueprints for cities**
- Structuring blue print for next class cities
  - Tackling the urbanisation challenge by building tall
  - Creating an integrated and sustainable approach towards Vertical city development
  - Case Study on Vertical City Venezuela
- Layton Reid** Founder  
 Desitecture, UK
- 1410 Positioning high rise as a sustainable model for urban growth whilst integrating mixed use solutions and public transport**
- Integrating 'placemaking' into the planning process to create vibrant, multi-use vertical cities
  - Combining tall buildings and transport systems at their base
  - Moving towards high rise, high density developments linked with a transport hub to minimise overcrowding
  - Enabling the urban fabric to be multi-functional thereby turning high rises into urban hubs and mini cities
- Eugene Dryer** Director  
 TFP Farrells, Hong Kong
- 1450 Afternoon Refreshments**
- 1510 Regenerative Cities - Role of proper planning and design at the master plan and landscape level to help foster social, cultural, and ecological stewardship**
- Designing and Planning of Sustainable Habitat in India-Case Study Auroville, the Sustainable City and Society
  - Discussing the sustainable developments in an urban
- Vijay K Dhar** Chair Professor and PEARL Coordinator  
 National Institute of Urban Affairs, New Delhi
- 1550 Sky High Culture - Capitalising on the opportunities and overcoming the pitfalls in a Vertical world**
- Designing vertical city structures to reduce human impacts on natural resources and economise on transportation and energy uses
  - Advancing on high speed elevators, structural innovations and enhanced building technologies
  - Justifying design and environmental considerations: What is a sustainable building and how it will contribute to sustainable cities
- David L. Andersen** Principal  
 Sustainable Architecture and Planning, United States
- 1630 Chairperson's closing remarks**
- 1640 End of day two**

### Stream Two Engineering and Structural Design

- 1320 Chairperson's opening remarks**
- 1330 Extended Session Drawing on the experience of Hong Kong and China in the construction of super high-rise structures"**
- Assessing the structural forms for super high-rise buildings
  - Common methods and planning approaches to construct super high-rise structures
  - Delving into the practicality of constructing and using super high-rise buildings
  - Trends in the design and construction of these mega structures
- Applying precast and prefab techniques in the construction of high rise structures under dense city environments**
- Structural systems and methods to apply precast techniques in the construction of various high-rise structures.
  - How the techniques enhance the productivity and performance of works. (this will include some curing methods)
  - Constraints in the use of precast and prefab techniques especially under congested urban environment for high-rise buildings.
- Raymond W M Wong** Lecturer and Research Fellow  
 City University of Hong Kong
- 1430 Seismic resistance: Delving into advanced earthquake resistant structural design techniques**
- Considering seismic loading for building structures to resist earthquakes with acceptable damage
  - Visual and technical solutions for wind, seismic load and sustainability considerations
  - Quantifying level of the actual or anticipated seismic performance associated with an individual building subject to a specified magnitude
  - Dissipating the wave energy inside a superstructure with properly engineered dampers
- Speaker to be confirmed
- 1510 Afternoon Refreshments**
- 1530 Optimising high rise structural design by incorporating wind load reduction strategies**
- Applying damping strategies to reduce the effect of wind loads applied to tall buildings
  - Increasing the lateral stiffness against wind loads using braced frames and MRFs followed by tubular, outrigger or diagrid structures
  - Improving the aerodynamic properties of tall buildings to reduce wind forces through the treatment of building masses and forms
  - Reducing wind load effects and building responses through irregular complex forms of buildings
- Professor Fan**  
 Hongwu Shanghai Research Institute of Building Sciences, China
- 1610 Exploring fire safety design for Vertical Cities**
- Addressing the egress and people movement with the extended vertical travel distance in order to ensure occupant safety
  - Overcoming the challenges of increased occupancy and fire load due to the multiple stacking of floor upon floor
  - Evaluating the present alternative options for protection without evacuation
- Speaker to be confirmed
- 1650 Chairperson's closing remarks**
- 1700 End of day two**

### Stream Three Sustainability and Revitalisation

- 1320 Chairperson's opening remarks**
- 1330 Sandcastles to skyscrapers: Ensuring sustainability and energy management through integrated retrofit systems**
- Designing high rise structures with energy conservation and sustainability as the principal criteria
  - Retrofitting of existing tall buildings for greater energy efficiency
  - Utilising computerised "smart" energy management technology that can adjust temperatures floor by floor
  - Installing solar panels, wind turbines and including sky gardens to change the black exterior to reflect heat and cut down on air conditioning
- Philip Lo** Founding president  
 IFMA HK Chapter, Hon. Fellow - HKIFM
- 1410 Delivering verifiable building performance using retro - commissioning to achieve zero energy buildings and for 'adaptive reuse'**
- Projecting architectural expression of building through retrofitting
  - Refurbishing thereby extending building life and enhancing performance
  - Safeguarding the diversity of life in building design, construct and operational matters with action and initiatives
- Speaker to be confirmed
- 1450 Afternoon Refreshments**
- 1510 Linking tall buildings to smart grid for greater cost advantage**
- Showing how smart grids and tall buildings can work together to benefit everyone and increase building values
  - Bringing substantial change to the way tall buildings can operate and profit from smart grids through green and renewable energy choices and new technology
  - Enabling technologies that are being deployed by utilities including smart meters, demand response systems and networking building technologies
  - Examining the "killer applications" for the smart energy in tall buildings: Customer service tools and energy management systems
- Ron Zimmer** President & CEO  
 Continental Automated Buildings Association (CABA), Canada
- 1550 Re-living existing and commercial buildings**
- Undergoing significant refurbishment or transformation in order to extend useful life of the building
  - Improving serviceability of their buildings and applying ecological sustainable development principles
  - Electing to re-life existing building rather than create new buildings
  - Designing appropriate performance specifications while guarding the original design intent
- Speaker to be confirmed
- 1630 Chairperson's closing remarks**
- 1640 End of day two**

## Wednesday 7th March 2012

### GreenBuild: Towards Eco Sustainability

- 0800 Registration and morning coffee**
- 0830 Opening and welcome remarks from the chairperson**
- 0840 Plenary One – Building a better tomorrow: Integrating green building initiatives into mainstream design and construction to address the inherent challenges in sustainable construction**  
Speaker to be confirmed
- 0920 Plenary Two – Value of design and sustainability in meeting the growing demands of urban dwelling and in reshaping the landscape of modern cities**  
**Jay Simson** President  
**ACECNY (American Council of Engineering Companies, New York)**
- 1000 Morning Refreshments**
- 1020 Plenary Three – Panel discussion: What's next in green buildings - Green building rating systems for different building types and life cycles**  
Speaker to be confirmed
- 1100 Plenary Four – Making sustainability mainstream: Implementing energy efficient technologies through the use of the right design and materials**  
**Ron Zimmer** President & CEO  
**Continental Automated Buildings Association (CABA), Canada**
- 1140 Networking Lunch** 

### Stream One Innovative Technologies

- 1240 Chairperson's opening remarks**
- 1250 Combining materials with new technologies to enhance sustainable design integration in China and Hong Kong**
- Establishing the need to transform the building sector
  - Applying structural technologies for sustainable buildings
  - Using intelligent building technologies to integrate the operational functions of a building for maximum efficiency
  - Case studies on Hong Kong Community College and Hai Tan Street Residential Development, China
- Prof. Bernard V. Lim** Founding President  
**Hong Kong Institute of Urban Design, China**
- 1330 Building systems and operational tools for vertical cities**
- Analysing software tools for building system analytics and "continuous commissioning"
  - Examining the financial and operational benefits of systems integration
  - Designing integrated automation: Operational tools, including energy management integrated with the grid and the marketplace
- Jim Sinopoli PE, RCDD** Managing Principal  
**Smart Buildings, United States**
- 1410 Afternoon Refreshments**
- 1430 Coordinating structural engineering and building services using 4D/3D - (BIM) Building Information Modelling thereby minimising errors and optimising space usage**
- Providing insights into entire building Life Cycle Management (LCM) using 4D model in a digital construction site
  - Combining geographic information, 3D geometry, spatial relationships and attributes to demonstrate the exterior and interior of the building
  - Resolving internal conflicts between components and activities during the pre-construction phase to avoid costly errors during construction
- Speaker to be confirmed
- 1510 Design integration between structures and facades: Drawing on double skin, climate sensitive facades for better environmental control and energy savings**
- Enhancing building energy performance and architecture using double skin building envelopes and form
  - Ensuring optimum comfort inside the building over time without recourse to special building installations
  - Meeting the requirements of fluctuating weather conditions and changing needs inside the building using smart technologies and components
  - Developing double-skin facade systems that combines airflow windows with solar chimneys
- Speaker to be confirmed
- 1550 Chairperson's closing remarks**
- 1600 End of Conference**

### Stream Two Smart & Sustainable Materials

- 1240 Chairperson's Opening Remarks**
- 1250 Promoting sustainable developments using eco technology and locally sourced materials and innovative technologies**
- Designing a replicable and resource sufficient building to keep the best balance between ecology and economy
  - Incorporating energy efficient and eco-friendly features like rain water harvesting, sewage treatment plants, organised garbage disposal
  - Evaluating technical requirements and assessing the selection, commercial and procurement criteria
  - Traditional, prefabricated and modular construction: Assessing the type of systems currently available
- Vijay K Dhar** Chair Professor and PEARL Coordinator  
**National Institute of Urban Affairs, New Delhi**
- 1330 Innovative transparency: Drawing on innovative materials such as high strength reinforced concrete and ETFE to address structural issues**
- Withstanding tensile stress caused by wind, earthquakes, vibrations in structural applications using reinforced concrete
  - Leveraging on reinforced concrete for long spans in funicular compression forms including vaults, shells, and domes
  - Utilising ETFE instead of glass or plastic in modern buildings to minimise costs and withstand heavy loads
  - Adjusting shading, thermal and aesthetic characteristics in response to climatic changes thereby benefiting designs, budgets and building performance
- Speaker to be confirmed
- 1410 Afternoon Refreshments**
- 1430 Integrating resilient, long lasting, disaster resistant materials into your design of vertical cities to create sustainable projects**
- Applying the right technology and concept as an effective solution to conserve natural resources
  - Drawing on strong, durable, climate resistant materials to make structures stronger, taller and lighter
  - Minimising the cost per square metre of construction using affordable yet innovative materials
  - Incorporating building materials from reclaimed construction debris for greater sustainability
- Davina Jackson** Steering Committee and Communications Strategy Partner  
**UN-Habitat - World Urban Campaign, Australia**
- 1510 Minimising your carbon footprint: Case study on the The Idea House – Future Tropical living today**
- Drawing on high strength concrete and steel to withstand extreme conditions
  - Considering factors such as flexural ductility and deformability whilst increasing flexural strength of concrete
  - Protecting the building shell for a longer material lifespan using high performance materials to save on maintenance costs
  - Augmenting the strength without depleting the ductility & deformability using both HSC and HSS in concrete beams
- Jason EJ Pomeroy** Director  
**Broadway Malyan, Singapore**
- 1550 Chairperson's closing remarks**
- 1600 End of Conference**



## About our business partners

### Why you cannot miss this event:

Today's world is soaring and rising high with Vertical Cities boasting of cutting-new edge 'urban architecture' i.e. new buildings and preserving the heritage buildings recognisable around the world.

The epitome of Vertical Cities is an integration of buildings within a city life with important sociocultural implications. Vertical Cities is a collaboration of typical high-rise forms which includes retail malls and multi-use towers that stack and mix commercial, retail, and residential functions.

In a congested city, the main concerns are designing of sustainable high density built environments where the problems of urban sprawl, traffic congestion and pollution have threatened the prospects of biodiversity, greenery, livability and general well-being of the inhabitants. The solution to cope with high density cities is to build upwards. In the past, many countries have deployed tall buildings as a way to solve urban problems, while at the same time creating national identity for the country through a powerful skyline. Vertical cities are now a sought-after urban habitat in upcoming cities. Vertical cities are seen as the only solution to achieving economies of scale and to address issues pertaining to space, high land prices and density challenges.

**Vertical Cities** is specifically designed to meet all building industry practitioners' demands to secure and guarantee their investments. This conference will highlight through practical case studies and panel on its importance to the building sector be it upcoming or existing buildings; will have to adopt green initiatives and energy efficiency to remain competitive and at the same time sustainable. It will offer participants insights on state-of-the-art techniques that can be drawn upon from the vast experience of our global speaker line-up

With more ambitious projects of Vertical Cities such as the dream of building a city within a city, one has to examine the typologies, design, engineering considerations and technology for future development of a city's skyline. Don't miss this opportunity to meet the line up of key international speakers and to network with a very niche and targeted group of delegates from across the world.

Follow your own agenda with a choice of three streams over the 3 days:

#### Day One & Day Two

- Stream I : Masterplanning and Typology
- Stream II : Structural Engineering and Design
- Stream III : Sustainability and Revitalisation

#### Day Three GreenBuild: Towards Eco Sustainability

- Stream I : Innovative Technologies
- Stream II : Smart & Sustainable Materials

### Who should attend:

Top level decision makers such as CEOs, COOs, CFOs, Heads, President, VP, SVPs, Directors, GMs and senior personnel of:

- Building Owners
- Designers
- Legal advisors
- Property / Real Estate Agents
- Facilities Management Directors / Managers
- Architects
- Developers and Funders
- Financial Advisors / Bankers
- Insurers
- Surveyors and land acquisition

#### Local Government, Government Departments, Agencies and Authorities:

- Directors of Planning / Planning Services
- Urban Designers
- Environmental Strategists
- Statutory Planning Directors / Managers
- City / Town Planners
- Policy and Project Directors / Officers

#### Engineers, Consultants, Project Managers and Contractors involved in:

- Electrical
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- Air Conditioning
- Environment
- Building materials
- Structural
- Wind
- Health and safety
- Lighting
- Construction

### Acknowledgement

**marcus evans** would like to thank all the world-leading visionaries, solution providers, associations, operators, end-users and delegates who have contributed to and supported the **marcus evans Vertical Cities** large scale event. We would particularly like to mention our speakers for their help in the research behind the event and also our sponsors for their continued support and commitment.

On behalf of **marcus evans** we hope you have a rewarding, enjoyable and productive time. We personally look forward to meeting you all and working with you at our future regional events planned in 2012. See you in February!

### Business Opportunities

A limited amount of sponsorship opportunities are available for this conference. These include, but are not limited to opportunity to present case studies, exhibit, host networking functions, and benefit from the extensive branding and marketing exposure generated throughout the lifecycle of the event.

For further information please contact **Peter Morgan** on + 61 2 9238 7200 or email [peterm@marcusevansau.com](mailto:peterm@marcusevansau.com)

### About the Supporting Organisation



The **Meetings and Exhibitions Hong Kong (MEHK)** office of the Hong Kong Tourism Board (HKTB) is especially established to promoting Hong Kong as the premier destination for meetings, incentives, conventions and exhibitions in Asia Pacific. We offer a host of services designed to make organizing conventions even simpler, smoother and more satisfying.

### About the Endorsers



The **Continental Automated Buildings Association (CABA)** is an international not-for-profit industry association dedicated to the advancement of intelligent home and intelligent building technologies. The organization is supported by an international membership of nearly 400 companies involved in the design, manufacture, installation and retailing of products relating to home automation and building automation. Public organizations, including utilities and government are also members.



The **International Society of City and Regional Planners (ISOCARP)** is a global association of experienced professional planners. ISOCARP encourages the exchange of professional knowledge between planners, promotes the planning profession, stimulates and improves planning research and education and enhances public awareness and understanding of major planning issues. The association's main event is the annual World Congress. [www.isocarp.org](http://www.isocarp.org)



The **Hong Kong Institute of Urban Design (HKIUD)** was established on June 17, 2010. We are professional institute who aims at promoting urban design through accreditation, discussion and education.



**IFMA - Hong Kong Chapter International Facility Management Association** ([www.ifma.org.hk](http://www.ifma.org.hk)) are the leading FM authority in the Asia Region, established on 14th September 1992 by ten facility managers, now with over 180 members. IFMA is a non-profit association dedicated to serving the facility management profession. The Hong Kong Chapter has a busy program of educational and special events offering many opportunities for professional growth and networking.



**RICS** is the world's leading qualification when it comes to professional standards in land, property and construction. Over 100 000 property professionals working in the world have already recognised the importance of securing RICS status by becoming members. RICS Asia supports a network of over 11 000 individual professionals across the Asia region. For more information, please visit: [www.ricsasia.org](http://www.ricsasia.org).



**Hong Kong Institute of Real Estate** is a professional body in real estate. The Institute conducts consultancy and real estate research in collaboration with Universities, and provides real-estate training programs for people in the real estate industry. HKIR has published 10 real-estate reference books for the industry, and has currently about 2000 members, including professional in real-estate development, planning, marketing, agency and law.

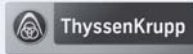


The **Chartered Institution of Civil Engineering Surveyors (ICES)** is an international qualifying body dedicated to the regulation, education and training of surveyors working within civil engineering.

ICES sought to encourage and regulate the professional aspirations of quantity surveyors and land surveyors working within the civil engineering sector and to increase the value of their services to the public.

## About our business partners

### About the Platinum Sponsors



**ThyssenKrupp Elevator** provides advanced solutions for moving people from one place to the next vertically, horizontally and diagonally, with a special focus on solutions for the high-rise buildings that are commonplace here in 21st century Asia, the new home of the vertical city.

We are one of the world's leading elevator companies and the only German manufacturer and service provider with a global presence. Customers in 150 countries depend on our solutions supported by a network of over 44,000 employees in 900 locations worldwide. In the fiscal year 2009/10, we generated sales of over EUR 5.2 billion.

Our portfolio of solutions includes Asia's widest range of passenger & freight elevators, escalators, moving walks, stair lifts, platform lifts, passenger boarding bridges - manufactured, installed, serviced and modernised by us.

So when we tell customers we're 'with you all the way' - it's more than just a slogan, it's a promise.

[www.thyssenkrupp-elevator-ap.com](http://www.thyssenkrupp-elevator-ap.com)



Construction Sealants

**GE pioneered silicone sealants** in the 1940's and led innovative evolution of those products for decades. That same commitment to innovation, quality and service is unwavering. But today, with a clear focus on product mastery and unparalleled technical support, the company is called Momentive Performance Materials (Momentive). In 2006, the GE Advanced Materials business was sold to form Momentive, which is the exclusive global licensee of GE-branded sealants. Momentive offers a robust line of GE-branded sealants, adhesives and coatings around the world for use in a wide variety of weathersealing, structural glazing, insulating glass, glazing, and specialty applications. To learn more visit [www.ge.com/silicones](http://www.ge.com/silicones).

### About the Silver Sponsor

# SIEMENS

The Building Technologies Division of **Siemens** is the world leader in the market for safe and energy-efficient buildings ("green buildings") and infrastructures. As a service provider, system integrator, and product vendor, Building Technologies has offerings for building automation, heating, ventilation and air conditioning (HVAC), fire protection and security. In 2010, our products and solutions enabled customers to reduce their carbon dioxide (CO2) emissions by 270 million tons, an amount equal to the total annual CO2 emissions of the megacities Hong Kong, London, New York, Tokyo, Delhi, and Singapore. For more information, visit <http://www.siemens.com/buildingtechnologies>

### About the Endorsers



**Hong Kong Institute of Project Management (HKIPM)** is committed to promote continuous professional development in project management for its members. HKIPM provides platform for professions to reach out to the Asia Pacific networking as it is one of the 16 countries members of the Asia Pacific Federation for Project Management.



**Business Environment Council (BEC)** has been at the forefront of advocating Hong Kong's environmental and sustainable development since 1989. Founded by businesses for businesses, BEC provides the perfect platform for promoting the uptake of best practices, building capacity and facilitating partnerships amongst business, government and community in the transition to a low carbon economy.

### About the Gold Sponsors



**China Singyes Solar Technologies Holdings Limited (Singyes Solar)** focuses on renewable energy system integration with the core of building energy saving, and dedicates to economical solutions for green building. Listed on the main board of HKEx(code: 0750), Singyes Solar has subsidiaries around the country and overseas, including Zhuhai Singyes Green Building Technology Co.,Ltd, Zhuhai Singyes Renewable Energy Technology Co.,Ltd, Zhuhai Singyes Opto-electrical Technology Co.,Ltd, Hunan Singyes Solar Technology Co.,Ltd, Singyes Engineering (H.K.) Company Limited, etc..

Singyes Solar specializes in system design, processing, assembling and operation of curtain wall, building integrated photovoltaic/photothermal (BIPV/BIPT) and industrialized solar house. It also devotes into development of solar related products such as PV modules, solar thermal collectors, air-source heat pumps. For sustainability innovation, Singyes Solar sets up independent R&D center to maintain the core patents, and cooperates with reputable universities and research institutions in domestic and overseas.

Following the strategy of "Scale Industries, Global Market, Professional Personnel, Standardized Management", the cultural concept "Singyes connecting people with science & technology" and "Harmonious Singyes, Mutually-beneficial Development", Singyes Solar aspires to be a leading company in renewable energy application area.



The **Zumtobel** brand is the internationally leading provider of integral lighting solutions enabling people to experience the interplay of light and architecture. As a leader in innovation, the luminaire manufacturer provides a comprehensive range of high-quality luminaries and lighting management systems for façade illumination and the most varied application areas of professional interior lighting – including offices and educational facilities, retail and presentation, hotels and wellness, health and care, art and culture as well as industry and engineering. Zumtobel is a brand of the Zumtobel AG group with its head office in Dornbirn, Vorarlberg (Austria) and international production facilities and representation offices worldwide.

### About the Luncheon/ Exhibitor Sponsor

**Dow Corning Corp.** is a global leader in the development and manufacture of silicon-based products and services, with more than three decades of experience serving the construction industry.

Dow Corning® brand building sealants, adhesives, coatings, and treatments provide an envelope of strength and protection from the roof to the pavement for new structures or renovation of existing ones.

Dow Corning brand silicon-based adhesives and sealants, structural silicone glazing, and weather-sealing products provide an effective, reliable and economic solution to adhere building components - such as glass, ceramic, metal, stone, and composite panels - to building frames. With Dow Corning brand silicon-based glazing, architects and designers have the freedom to create dramatic façades while ensuring security and peace of mind for building owners and occupants.



**AET's** a leading engineering-company, provides comprehensive products and services including E&M engineering consultancy, maintenance, and specialize on UFAC.

AET works to ensure major cost, time and operational benefits for all parties.

You can rely on AET's expertise and vast-experience to deliver the high-standards of support-and-service both you and your clients.