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SPECIAL FEATURE Playground Equipment

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On the Cover: Quzhou Sports Campus in Quzhou, China. Image: © MAD Architects

Cover design by Fawzeeah Yamin

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Hello readers, we are back with another issue of *Southeast Asia Building* with some great projects, industry developments and interview.

In the architecture section, we explore some new and upcoming sports facilities in Asia, Middle East and Europe. These days, stadiums and sports amenities are being designed to not only host international games but also to serve as a community venue for the public to interact and engage with one another. Check out the colourful spreads of the articles inside.

In the playground equipment section, we look at the design and the challenges of putting together custom-made playgrounds.

In the interview section, Dr Raymond Yau, General Manager, Technical Services and Sustainable Development of Swire Properties, speaks on how the company has been actively promoting and championing its sustainability efforts in Hong Kong.

I hope you enjoy our stories and happy reading!

Amita Natverlal



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TRIDIUM

Hilton launches its first international upscale hotel in New Taipei City

Taipei City, Taiwan – The recent launch of the first international upscale hotel in New Taipei City marks the return of the iconic Hilton Hotels & Resorts brand to Taiwan. Combined with new openings including Hilton Goa Resort, Hilton Clark Sun Valley Resort in The Philippines and Hilton Dili Palm Springs in East Timor, the launches reinforce the brand's focus on ambitious growth in key destinations in the Asia Pacific region.

Up to Q4 2018, Hilton Hotels & Resorts operates 106 properties across 29 countries in Asia Pacific, with 90 hotels in the pipeline. Currently, nearly half of all Hilton Hotels & Resorts' global openings are in Asia Pacific. Hilton Hotels & Resorts' ambitious new openings in Asia Pacific include the launches of Hilton Da Nang, Hilton Manila, and Hilton Guangzhou Science City. Elsewhere across the region, Hilton Hotels & Resorts continues to explore untapped and emerging destinations in Japan and Australia, shaping cityscapes and offering more choices to guests.

Marking the return of the Hilton brand to Taiwan after more than 15 years, the opening of Hilton Taipei Sinban is set to satisfy diverse guests, from long-haul international business travelers to leisure visitors from all over the world, reflecting the property's versatility, diversity of attractions and vibrant mix of facilities. The opening of Hilton Taipei Sinban allows Hilton Hotels and Resorts to bring its industry-leading innovation, service standards and distinctive experience to meet the city's burgeoning need for accommodation from its growing leisure and business traveler market.

Ideally located in central Banqiao District, New Taipei City, it sits just 37 minutes from Taoyuan International Airport and 17 from Tongshan airport. Local government, shopping, entertainment and computer, communication and consumer electronics business zones are on the doorstep. What's more, world-famous destinations including Taipei 101, The National Palace Museum and Chiang Kai-Shek Memorial Hall are all

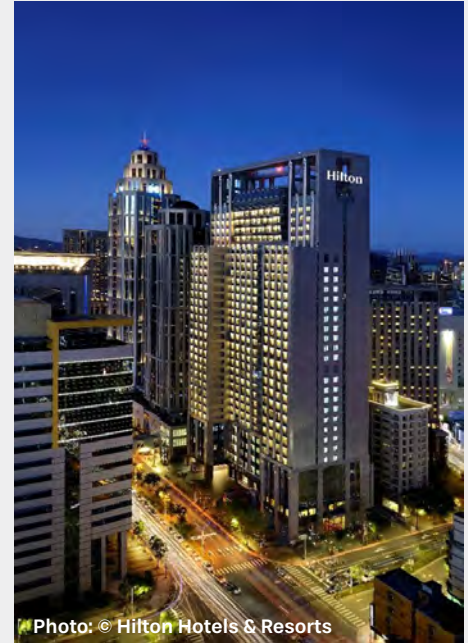


Photo: © Hilton Hotels & Resorts

easily accessible. The hotel offers 398 stylish rooms boasting dynamic city or verdant mountain views with 38 deluxe and 14 premium suites.

Centara Hotels & Resorts celebrates grand opening of Centara West Bay Residences & Suites Doha

Bangkok, Thailand – Centara Hotels & Resorts, Thailand's leading hotel operator, has celebrated the grand opening of its dramatic new waterfront hotel in Doha, introducing the company's elegant Thai hospitality to the State of Qatar for the first time.

The 265-key Centara West Bay Residences & Suites Doha is a striking new hotel located in the city's West Bay district, which is home to many of downtown Doha's most stunning skyscrapers. Overlooking the Arabian Gulf, the hotel is just moments away from the lively Doha Corniche and 25-minutes' drive from Qatar's Hamad International Airport.

The launch of this new landmark marks a major milestone for Centara, as the company continues to expand its international footprint. One of the Middle East's most eagerly-anticipated new hotels, Centara West Bay Residences & Suites Doha harmoniously blends luxurious interiors and facilities with the timeless charm of Thai hospitality, while also showcasing authentic Qatari culture.

The grand opening event featured traditional Thai and



Centara executives celebrated the grand opening event of Centara West Bay Residences & Suites Doha. Photo: © Centara Hotels & Resorts

Qatari performances, including a falconry show, plus executive speeches, a ribbon-cutting ceremony and VIP dinner created by Michelin starred chef, Alfred Prasad.

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Hong Kong's Happy Valley Underground Stormwater Storage Scheme receives Water Science and Technology Medal

Hong Kong SAR – Happy Valley Underground Stormwater Storage Scheme (HVUSSS) has been awarded the 2018 Dai Yu Science & Technology Medal of the Chinese Hydraulic Engineering Society for outstanding achievement in the areas of innovation and technology development.

Black & Veatch was the hydraulic designer of the HK\$1 billion HVUSSS project, which was managed by the Drainage Services Department (DSD) of the Government of the Hong Kong Special Administrative Region.

"We are proud to contribute to a project that is recognized for its innovation, economic and social benefits. We are committed to promoting advanced technology usage to mitigate the risks of climate change," said Andy Kwok, Managing Director, Black & Veatch Hong Kong.

The Dai Yu Water Science and Technology Awards has been organised annually since 2002. This is the first time a local drainage project, implemented by Black & Veatch project and DSD, in conjunction with the Hong Kong University of Science and Technology, has won this award.

HVUSSS uses a large underground tank to store the surge of stormwater runoff which reduces downstream flooding risks during severe rainfall events. This is another example of Black & Veatch's strategy to increase flood protection for communities



Hong Kong's Happy Valley Underground Stormwater Storage Scheme uses a large underground tank to store the surge of stormwater runoff which reduces downstream flooding risks during severe rainfall events. Photo: © Black & Veatch

and critical infrastructure. Central to the company's approach is close collaboration with utilities to mitigate risks in a timely, cost-effective manner.

Azizi Developments marks milestone 90 percent completion of Azizi Aliyah

Dubai, UAE – Azizi Developments, one of the leading private developers in the UAE, marked another important milestone in its pursuit of timely project delivery, achieving this month 90 percent completion of the Azizi Aliyah Residence.

The elegantly designed homes in the AED 470-million residential project in Dubai Healthcare City will be delivered to homeowners in Q2 2019.

Azizi Aliyah is built on the concept of maximising terrace space through staggered slabs and unroofed balconies. The uniquely architected, 16-storey building overlooks the surrounding Healthcare City area that encompasses the Dubai Creek and a stunning skyline. Situated on Al Khail Road, 15 minutes from Dubai International Airport, and in proximity to various business hubs, hospitals, and Wafi Mall, this



Photo: © Azizi Developments

development delivers on consumer demand for residential buildings in that area. Since its launch, Azizi Aliyah has recorded a strong response from customers for its strategic location and the effortless access to varied leisure attractions and family-oriented activities offers to residents.

The architectural finishes of its interiors are currently underway, and the external works are progressing at an accelerated pace. All infrastructure work is also being completed in a timely manner with the support of Dubai Healthcare City.

Azizi Developments deployed a full force of contracting teams to ensure 100 percent completion as per the delivery schedule. Working closely with the contractors on every project, Azizi Developments focusses on handing over its projects as per the initial schedule and, through careful planning, strives to announce completion dates as realistically as possible.

Azizi Aliyah has 346 residences comprising 191 studios as well as 135 one- and 20 two-bedroom apartments, along with 16,000 square feet of upscale retail space.

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Association of Malaysian Bumiputra Timber & Furniture Entrepreneurs (PEKA)

Wilson Associates returns studio to downtown Singapore



Photo: © Wilson Associates

Singapore – Wilson Associates, a leading global interior design firm, has announced the official opening of its newly relocated Singapore office. The move signals a reinforcement of the company's presence within the social fabric of the city and is intended to better serve the needs of local clients.

After a seven-year stint in the suburbs of Singapore, the studio's designers shared a collective urge to reconnect with the cultural hub of the city, where design inspiration and innovation converge. Moving back to Downtown Singapore, where the Wilson Associates' Singapore office first called home in 1990, represents a strategic decision to reenergise the studio and its creative design work.

"Our objective is to remind our team that both work and play can co-exist within a space that provides an equally fun, productive, and cohesive work environment," said Wilson Associates Design Principal Aldwin Ong.

Recalling the experience of exploring an art gallery, the front office displays modern artwork that matches the bespoke lighting and focal furniture pieces, such as the inviting reception counter that doubles as a bar. An overall project highlight important to note – Philips Hue smart lighting controls maintain the warm colour palette found throughout the office. The lighting, coupled with vibrant accents seen in the soft furnishings and artwork, define a rich, yet understated ambience, equivalent to that of a modern luxury hotel. The space dedicated to Wilson Associates' F&B studio Blueplate, takes the shape of an "open kitchen" with a series of gallery walls and see-through display shelving.

The Wilson Associates Singapore office is located at 6 Raffles Boulevard, #03-308 Marina Square, Singapore, 039594.

BCA launches S\$6 million funding to drive more innovation in the built environment

Singapore – On 22 February 2019, Minister for National Development and Second Minister for Finance, Mr Lawrence Wong officially launched the Built Environment Accelerate to Market Programme (BEAMP) in Singapore.

This is an initiative by the Building and Construction Authority (BCA), supported by Enterprise Singapore, and JTC Corporation (JTC), which aims to bring inventors and companies together to fast track the entire innovation process to solve real world industry challenges.

A S\$6 million funding support will be provided for the development and commercialisation of innovative solutions through Enterprise Singapore's Gov-PACT initiative. Local SMEs will receive up to 70 percent of the qualifying project cost, while local non-SMEs will receive up to 50 percent. Beyond funding support, Enterprise Singapore is working closely with BCA to connect solutions providers, including startups, to companies in the Built Environment sector seeking innovative solutions for their current needs. JTC will offer relevant spaces in selected buildings and estates to collaborators to test-bed and/or pilot their new solutions. In addition, Facebook is one of the sponsors for the first phase of BEAMP and will provide a shortlisted winner with a prize, a mentorship programme and the opportunity to work with Fortis Construction as they build Facebook's data centre in Singapore.

14 industry stakeholders have been identified as demand drivers, also known as Challenge Statement Owners (CSO), for this programme. These are industry firms and public agencies which are seeking solutions for various aspects of the building lifecycle and they were given the opportunity to present their challenge statements to potential solution providers. A total of 16 challenge statements were revealed, spanning across a wide range of topics including smart project management and facilities management, construction manufacturing and fabrication, building inspections, knowledge management and data capture, and construction safety. BCA CEO, Mr Hugh Lim said, "Research and innovation plays an important role in boosting the transformation of our built environment sector. Our BuildSG transformation office has regular engagements with the Trade Associations & Chambers (TACs) and industry stakeholders, and some have given feedback that innovation in the sector often does not progress beyond the first prototype or pilot-testing due to the lack of support and follow-through for full-scale development and adoption. This accelerator programme will help to bridge the current gap between solution seekers and providers. By attracting and matching more innovators to industry firms, we aim to accelerate our drive toward an advanced and integrated sector with progressive and collaborative firms."

Interested parties can find more details about this programme at the BEAMP website www.tnb.vc/BEAMP.

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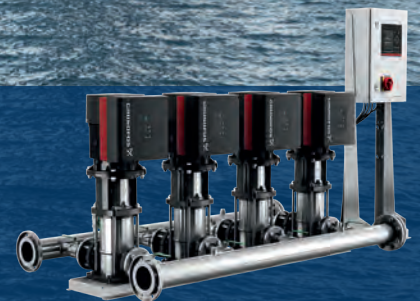
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BMAM Expo Asia 2019 – the meeting point for the FM professionals

Bangkok, Thailand – BMAM Expo Asia 2019, the international exhibition and conference on building maintenance and facilities management is scheduled to take place at IMPACT Exhibition and Convention Centre, Bangkok, Thailand, from 27 to 29 June 2019.

This leading building and facilities management event is expected to attract more than 150 exhibitors and 4,000 FM professionals and key decision makers from ASEAN.

Running alongside with the exhibition will be series of conferences, seminar and workshops, focusing on three key segments – FM products and services; green facilities management (green FM); and smart building solutions. One of the major highlights is the Building & FM Conference, which will be addressing how technology disruption drives the transformation of the facilities management industry.

The Dealer & Distributor Tour, organised in collaboration with industry associations, including the Asia Pacific Security Association; RFID & IoT Association; Smart Cities Thailand Association; Thailand Cleaning Contractor Club; and BIM Club Thailand, aims to recruit dealers and distributors from related segments for exhibitors who are seeking new distribution channels.



Photo: © BMAM Expo Asia 2018

The BSA Building Safety Awards acknowledges organisations with the best building safety records, whilst the Consultancy Clinic provides the opportunity for building owners to meet leading consultants to gain comprehensive information and advice on building and facilities management.

LED Expo Thailand + Light ASEAN 2019 comes packed with fresh show highlights

Bangkok, Thailand – MEX Exhibitions Pvt. Ltd. and Impact Exhibition Management Co. Ltd are all set to launch the 7th edition of LED Expo Thailand + Light ASEAN from June 27–29, 2019 in Bangkok. The Expo will act as a destination where all stakeholders of the industry can converge and create awareness around LED-centric applications, which can be put to use in various spheres. It has now been expanded to include solar products, LED signage, LED technology for entertainment, agriculture, etc., thereby creating new possibilities for both exhibitors and visitors.

The upcoming chapter of LED Expo Thailand will have better segmentation with new highlights, targeted at fulfilling the aspirations of varied exhibitors, and would help them to connect with their target audience in a better way. The Show will encompass three highlights – LED Technical Conference, Lighting

Demonstration and Build. There will also be four specific highlight zones in the form of Smart Lighting & Smart City Zone, Made in Thailand, LED Signage and PCB Zone.

LED Technical Conference will include a wide range of academic sessions by renowned leaders in the world of lighting. Lighting Demonstration will be an area where exhibitors will showcase their advanced lighting solutions, while BUILD will be comprehensive conference represented by Industrial Linkage Development Division of Thailand's Board of Investment (BoI). It will target key buyers mainly in Electrical, Electronics and PCB industries.

Amongst the zones, Smart Lighting & Smart City Zone will be a special pavilion for new technologies that can play part in making smart cities, Made in Thailand will be a dedicated zone for leading Thai LED manufacturers, LED Signage will be



Photos: © LED Expo Thailand 2018

a platform for display of innovative and trending LED signage, while the PCB Zone will feature high performance PCB technology, products and services.

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Former Indonesian President BJ Habibie's billion-dollar project to transform Batam reaches next milestone

Singapore – Batam locals and travellers can look forward to the island's very first mega-mall, Pollux Mall Batam, equivalent to the size of Singapore's Ngee Ann City.

Pollux Mall Batam is just one part of the Meisterstadt Batam project, a masterplan to transform the skyline of Batam, helmed by former Indonesian president Dr. Ing. H. Bacharuddin Jusuf Habibie. He also serves as honorary chairman to Pollux Habibie International, the company overseeing the project.

The Meisterstadt Batam project will cover a sprawling land space of over 8.6 hectares, and will include the 860,000 square-foot Pollux Mall Batam, eight residential towers, a hotel, a hospital that will benefit locals in Batam, and a 100-storey office building measuring 350 metres, around twice the height of Singapore's famous Marina Bay Sands.

The project reached a new milestone on 5 March 2019 with a topping-off ceremony for its second residential tower. The ceremony was attended by Dr Ilham Akbar Habibie, son of Dr B.J. Habibie and President Commissioner of Pollux Habibie International, as well as Mr Po Sun Kok, Chairman of Pollux Group.

"We're heartened to be so close to bringing the first phase of Meisterstadt Batam to both the locals and the many tourists visiting the island. This is just a small step in our long-term vision to transform Batam Island. After Phase 1, we look forward to unveiling more groundbreaking constructions that will become iconic landmarks of the Batam skyline," said Mr Ilham Habibie.



Mr Isdianto S. Sos, MM, Deputy Governor of Riau Islands Province (Second from left), Dr Ilham Akbar Habibie, President Commissioner of Pollux Habibie International (Third from left). Photo: © Pollux Habibie International

Pollux Habibie International aims to complete the construction of four residential towers, known as the Wunderbar Residences, and a portion of the mall by this year, as the first phase of the Meisterstadt Batam project. By the second quarter of next year, visitors to Batam and locals can visit Pollux Mall Batam, which will consist of popular brands and F&B outlets, some of which are the first-of-their-kind in Batam, as well as a cinema.

Tafawuq wins Abu Dhabi World Trade Center FM contract



Chris Roberts, CEO, Eltizam Asset Management Group. Photo: © Eltizam Group

Dubai, UAE – Tafawuq Facility Management, a subsidiary of the UAE-based Eltizam Asset Management group, has been awarded an integrated facilities management services contract by the World Trade Center Abu Dhabi for an initial period of three years.

Chris Roberts, CEO, Eltizam Asset Management Group, said: "Winning this contract reflects the success of our strategic roadmap for business growth and expansion in the region. We look forward to announcing more such partnerships in the future."

Under the terms of the agreement, Tafawuq's scope of work will include provision of permanent staff in specific locations; implementation of international cleaning standards as per BICS and provision of comprehensive cleaning services; zoning of premises; waste management; landscaping, irrigation and internal planting. Tafawuq will also provide high-level window, roofs and facades cleaning along with pest control services.

The firm offers its services to more than 200 clients and operates in the residential and commercial space. Tafawuq also operates in sectors such as ports and aviation, IT and data centres and healthcare.

Farnek breaks ground on AED 150 million state-of-the-art staff accommodation

Dubai, UAE – Leading UAE-based technology and sustainability-driven facilities management (FM) company Farnek, has broken ground on its new AED 150 million state-of-the-art staff accommodation in Dubai Investments Park.

The 100,000 square feet facility, which will become home to some 5,000 Farnek employees, will be completed by the summer of 2020. The low-rise (basement, G+5) building will raise the bar for intelligent buildings, employing the latest smart technology and the most energy, water and waste-efficient accommodation centre of its kind, not only in the UAE but throughout the region.

Farnek has worked extremely closely with an architectural team on the building design, to ensure that it would operate as efficiently as possible rather than having to do that retroactively. That is what typically happens when competent FM companies are not consulted about design," commented Markus Oberlin, CEO, Farnek.

Three areas of design that Farnek paid particular attention to, were energy, water efficiency and waste management. "Designing a sustainable home for 5,000 people, will come with certain operational challenges, such as waste and sewage management. We have designed a unique solution that will reduce the volume of waste generated that would ordinarily go to landfill," said Oberlin.

Some of the other design highlights include solar panels on the roof of the building covering 150 square metres, which will meet all hot water requirements. Over 4,000 LED-lights are to be installed throughout, supplying 90 percent of the total amount of lighting required. The low-energy lighting system also works in tandem with occupancy sensors and photocells installed in the common areas such as the corridors and externally in the parking areas, to optimise the building's energy-efficiency. Further energy-efficient features include reflective glazing which reflects and absorbs the sun's rays, reflective exterior paint, wall and roof insulation, energy recovery ventilation and energy-efficient air-conditioning.

The facility's 800 rooms will be managed by a bespoke software solution, so that new employees can be welcomed 24/7 at a dedicated reception lobby, sign in and be shown to their rooms in minutes. Other features include, a prayer room, medical clinic, restaurant, library, gym, and a barber shop.



From left to right: Joanna Spruce, Director of Business Development & Marketing, Farnek, Lukas Eigenmann, COO, H&G, Markus Oberlin, CEO, Farnek and Abdullah Al Mamoon Director of HR, Farnek. Photo: © Farnek

Tekka Place marks structural completion with topping out ceremony



Overview of Tekka Place as seen from intersection of Serangoon Road and Sungei Road. Photo: © LaSalle Investment Management

Singapore – Tekka Place, an upcoming hospitality-and-retail integrated development comprising a 10-storey main block and seven-storey annex block with rooftop deck at 2 Serangoon Road, is on schedule for completion by the end of the year. It celebrated the milestone at the topping out ceremony at the site on 1 March 2019 graced by Minister for Communications and Information, Mr S. Iswaran.

Construction of the development, awarded by the Lum Chang-LaSalle joint venture to Lum Chang Building Contractors, commenced in mid-2017. With structural works now concluded, the developers will focus on the architectural and services works of the development, in preparation for opening in the fourth quarter of 2019.

By then, this newest development at the gateway to Little India, will not only cater to the needs of nearby residents, office workers and commuters of both the North East and Downtown MRT lines, its housing of the new 'Citadines Rochor' serviced residences, will also attract new international visitors to this cultural and heritage precinct. Its completion is timely given that Singapore tourism experienced its third consecutive year of growth, where visitor arrivals grew 6.2 percent in 2018 to reach 18.5 million, and numbers are set to grow in 2019.

Occupying over 10,000 square feet in the mall, is 'XinTekka', a new food hall concept by Mr Andrew Tan, the veteran restaurateur and F&B consultant who brought fresh concepts such as 'PasarBella' and the multi-concept Japanese eatery, 'Eat at Seven', at Suntec City, to Singapore. Offering a spread of local culinary favourites with a twist, 'XinTekka is set to be Singapore's newest dining destination.

Chapel of Sound wins 2019 Progressive Architecture Award

Beijing, China – OPEN Architecture's Chapel of Sound, a unique semi-outdoor concert hall in northern China, has been awarded a Citation in the 66th annual Progressive Architecture (P/A) Awards. One of the foremost accolades for creative practice in North America, the P/A Awards recognise and celebrate innovative ongoing work, contractually scheduled to be built, whose design excellence promotes new thinking in the field of architecture.

Located at the base of a remote valley north of Beijing, the Chapel of Sound is designed in harmony with its natural surroundings, and shaped by the natural properties of sound. The project, currently under construction, was one of 10 honoured in this year's Awards, where it was commended for offering a new paradigm for an opera house and "an opportunity for a sound experience that anyone can take part in."



Photo: © OPEN Architecture

Mitsubishi Electric to launch NEXIEZ-LITE MRL

Tokyo, Japan – Mitsubishi Electric Corporation announced today that its subsidiary Mitsubishi Elevator India Private Limited (IMEC) will launch the NEXIEZ-LITE MRL elevator, an Indian-produced model that does not require a machine room, on 1 April 2019. The model will be added to the NEXIEZ-LITE series of elevators for midrise and low-rise residences, office buildings and hotels in India, the world's second-largest elevator market. Manufacturer IMEC aims to sell 1,000 units in 2021.

One of the features of NEXIEZ-LITE MRL is that the machine room-less model meets special needs in the Indian market. It responds to Indian-market needs, including demands for architectural design freedom and effective usage of floor space. Also, local production shortens delivery time and reduces costs for greater competitiveness. The newly developed, locally produced model creates new opportunities for machine room-less elevators in India,

which previously had to be imported from Japan and Thailand. An additional advantage is local production avoids customs duties, lowers transport costs, and quickens delivery and installation.

The elevator market in India continues to expand as the national economy grows. Annual demand for new installations in the fiscal year ending in March 2019 is believed to have totaled about 52,000 units, second only to China, and is expected to continue rising. Up to now, machine room-less elevators manufactured in Japan and Thailand have been supplied to India. In view of the local demand for architectural design freedom and effective usage of floor space, however, IMEC decided to introduce the NEXIEZ-LITE MRL in the NEXIEZ-LITE series, which is sold exclusively in India. Mitsubishi Electric and IMEC now look forward to providing customers with safe and reliable products and services in the expanding Indian market.



Photo: © Mitsubishi Electric Corporation

dormakaba introduces Skyfold acoustic vertically folding retractable walls

Singapore – Skyfold is a world leader in acoustic vertically folding retractable walls. The wall systems are completely electric and provide superior acoustics. With a simple turnkey operation, a room can be quickly and quietly reconfigured to provide the user with tremendous space flexibility. There is no longer any need for manual intervention to position the wall in order to change a room's configuration!

Storage pockets are not needed as Skyfold walls store neatly in the ceiling when not required. This not only provides the user with additional floor space, but also greatly reduces the risk of damage to the walls as there is no manual manipulation involved.

The wall systems are also aesthetically pleasing as there are no visible hinges or hardware. Skyfold is available in a variety of standard or custom finishes, including vinyl, fabric, various metals, wood veneers and paint finishes. There are no floor or wall tracks as the perimeter seals set automatically and secure themselves against the permanent walls once the Skyfold wall has been fully deployed. The seals automatically retract before the wall moves back up into its stored position in the ceiling.

With an available system STC of up to 60 (RW59), panel STC of up to 66 (RW 64) and an available NRC of up to 0.65, sound transmission is no longer a concern for this fully electric system that can be fully deployed in a matter of minutes!



Skyfold is a durable, reliable product that carries an industry leading 10-year warranty. For more information on the full range of Skyfold vertically folding retractable walls, please contact dormakaba Singapore Pte Ltd.



WORLDBEX 2019 explores theme of "A World Built Bolder"



WORLDBEX 2019 - World Trade Center Metro Manila Opening Ceremony. From left to right: H.E. Gerardo Lozano Arredondo - Embassy of Mexico in the Philippines, Mr. Stephen Wong - Philippine Hardware Foundation, Inc., H.E. Capaya Rodriguez Gonzzales - Embassy of Venezuela, Asec. Angelo Taningco - Department of Trade and Industry (DTI), H.E Vasin Ruangprateepsaeng - Embassy of Thailand, Usec. Catalina Cabral - Department of Public Works and Highways (DPWH), H.E Ly Quoc Tuan - Embassy of Vietnam, Mr. Joseph Ang - WSI Founding Chairman, Ms. Tessa Prieto-Valdes, Ms. Levi Ang - WSI Co-Founder, Ms. Tessie Roque - WSI Director, Mr. Rodel Emmanuel Adiviso, President - PCIE and Arch. Francisco Flameño Jr. - WSI Executive Director. Photo: © Worldbex Services International

Manila, Philippines – WORLDBEX 2019, the Philippines' largest building and construction exposition, held its 24th edition from 13 to 17 March 2019 in Manila. The exhibition which had a theme of "A World Built Bolder", paid tribute to industry leaders who have boldly dedicated their craft in improving communities throughout the country.

The grand opening ceremony was held at the lobby of World Trade Centre Metro Manila in the presence of invited guest of honour DPWH Undersecretary Catalina Cabral, DTI Assistant Secretary Angelo Taningco and HLURB CEO Atty. Distinguished guests also included Lloyd Christopher Lao and Worldbex Services International's (WSI) Founding Chairman Joseph Ang, Co-Founder Levi Ang, Executive Director Arch. Francisco Flameño Jr, Managing Director Jill Ang and Directors Rene Ramos and Tessie Roque.



WORLDBEX 2019 - SMX Convention Center Manila Opening Ceremony. From left to right: Ms. Caroline da Silva - British Chamber of Commerce Philippines, Arch. Arnel Colol - Philippine Institute of Architects (PIA), Ms. Christina Stieber - Commercial Counselor, Embassy of Austria, Mr. Juan Gabriel Espejo Ceballos - Head of Bilateral Cooperation and Economic Affairs, Embassy of Mexico in the Philippines, H.E. Capaya Rodriguez Gonzzales - Embassy of Venezuela, Ms. Levi Ang - WSI Co-Founder, Mr. Joseph Ang - WSI Founding Chairman, Engr. Jeffrey Singson - Philippine Society of Mechanical Engineers (PSME), Mr. Stephen Wong - Philippine Hardware Foundation Inc. (PHFI), Engr. Abner Pahilanga - Philippine Society of Plumbing Engineers (PSPE), Ms. Myla Vasquez - Executive Director, Philippine Wood Producers Association (PWPA), Mr. Dennis Perales - President, Philippine Association of Electrical Industries Inc. (PAEII), Ms. Jill Aithnie Ang - WSI Managing Director. Photo: © Worldbex Services International

Bringing together only the finest and most influential players in the field such as architects, engineers, interior designers and key decision makers to construction companies, design firms, manufacturers and stakeholders, this year's WORLDBEX had a mission to contribute to the continuous development of the industry. With this in mind, visitors were treated to a wide range of product showcase and events that were aimed at improving the quality of Filipino communities.

Dynamic displays and intensified global reach

Simultaneously held at the World Trade Centre Metro Manila and the SMX Convention Centre Manila, WORLDBEX 2019 boasted an exhibition space of nearly 33,000 square metres.



Various attendees visited WORLDBEX 2019 to forge business opportunities and meet their construction and design needs at the same time. Photo: © Worldbex Services International



Proving to be a haven of trends and information, WORLDBEX 2019 also hailed its 21st WORLDBEX seminars held at the SMX Convention Center Manila. Photo: © Worldbex Services International



Various design perspectives at the WORLDBEX 2019's Interior Designer's Gallery. Photo: © Worldbex Services International

It offered some 700 local and international exhibitors an opportunity to present their wide array of building and construction products, services and technologies. In total, there were about 1,500 booths at WORLDBEX 2019 and they also included associations and embassies from various countries.

As WORLDBEX 2019 continued to strengthen its ties between the local and international industry sectors, 16 countries participated at this year's show. They included China, India, Czech Republic, South Korea, Australia, New Zealand, Germany, Malaysia, Thailand, Spain, Denmark, Italy, Singapore, Vietnam, Taiwan, and UAE.

Besides being a platform for exhibitors to showcase their products, WORLDBEX 2019 aims to be a prime venue for industry professionals and investors alike who are seeking to expand their B2B opportunities on a domestic and international scale.

Setting trends for the future

Apart from showcasing the widest array of product and service displays, WORLDBEX 2019, as usual, organised events to show innovative trends and pioneering ideas in the design community. To give visitors some future insights in interior

design and architecture, WORLDBEX had set up the Interior Designer's Gallery, the Architect's Gallery, City of Tomorrow and the Mañosa exhibit. An inter-school competition called Projéto Manila Design Competition was held in conjunction with the exhibition.

Knowledge and innovation in one mega expo

As an advocate of continued learning, WORLDBEX hosted a series of events aimed at fostering innovative excellence and promoting meaningful dialogue among industry professionals. With topics ranging from the latest trends in construction and design to the most pressing issues faced by the urban community, the WORLDBEX Seminars aimed to address those issues by inviting architects, engineers and design professionals from the Philippines and Southeast Asia to share their experience and solutions.

WORLDBEX Seminars are CPD-accredited for architects, engineers, interior designers and other peers in the industry. In addition, the WORLDBEX MiniCon was a one-day seminar hosted by a handful of the supporting associations at this year's show.

ASA join forces with NEO to elevate Architect'19 as a leading exposition in ASEAN



Bangkok, Thailand – The Association of Siamese Architects under the Royal Patronage (ASA) and N.C.C. Exhibition Organizer Co., Ltd. (NEO) announced the readiness in elevating Architect'19 to emerge as the leading exposition in ASEAN.

This year, entrepreneurs from over 850 companies from 40 countries worldwide are showcasing over thousand brands of their products, services and technology in architecture and construction materials. The Architect'19 is to be held on 30 April – 5 May 2019 at Challenger 1-3, IMPACT Exhibition Center, Bangkok, Thailand.

Ajaphol Dusitnanond, President of the ASA, stated that: "The Architect'19 is ASEAN's largest building technology exposition. The expo aims to showcase the advancement in architectural design, which reflects the potential of the entrepreneurs and the role that architects play in the society. Still, Architect'19 is not limited only to those in architecture professions but it also widely opens to other related fields as well as the general public who are interested in design and construction."

Architect'19 will be held for the 33th year under the concept of "Living Green", presenting the architectural design concepts and innovative building materials that could revolutionise the industry while bringing in local wisdom to tackle the environmental problems with sustainable solutions. On this auspicious occasion, Her Royal Highness Princess Maha Chakri Sirindhorn is graciously presiding over the opening ceremony of the Architect'19 on Tuesday, 30 April 2019.

Dr. Ancharawan Chutarat, the chairperson of the Architect'19 committee, revealed that "Apart from showcasing innovative products from multiple countries, Architect'19 also features the Thematic Exhibitions specially held by ASA on eco-friendly building material innovation and adoption of local wisdom and technology in tackling the environmental issues in the present day context. Visitors can witness first-hand the Green Experience in every aspect from selecting eco-friendly building materials to continuously using different materials

after the expo."

Dr Ancharawan added: "At Architect'19, visitors can also experience 'ASA International Design Competition 2019' under the design concept, 'Uncanny Sustainability.'" The objective of this competition is to seek the innovative design ideas based on the sustainability and the originality of the solutions. Besides, the stage will also feature ASA Forum 2019 which will be participated by the world-renowned architects, namely, Mr Kai Uwe Bergmann from Bjarke Ingels Group (BIG), Mr Nico Kienzl from Atelier Ten, Ms Sanne van Der Burgh from MVRDV, Mr Asawin Chuchottaworn from Foster + Partners, Mr Apichart Srirojanapinyo and Mr Chanasit Cholasuek from Stu/D/O and Mr Kamron Suthi, Eco Architect Co., Ltd.

As for the readiness in hosting Architect'19, the expo has attracted the leading Thai and international exhibitors from over 850 companies and 16 pavilions from overseas comprising Australia, Taiwan, Turkey, UK, USA and Vietnam, while over 400 fruitful business matchings are expected at the expo.

"NEO has also extended the invitation to other leading companies in architecture and construction across the Southeast Asia region, especially the neighbouring countries, Cambodia, Laos, Myanmar and Vietnam. The total trade value from the Expo is anticipated to reach over 10,000 million baht," added Sakchai Pattarapreechakul, President of N.C.C. Exhibition Organizer Co., Ltd.

Ajinveat Vhonthong, Senior Project Manager, N.C.C. Exhibition Organizer Co., Ltd., said: "This year, the Architect'19 is held under the theme "Living Green" to invite every visitor to experience the environmentally-friendly products and technology. At present, green building has received increased attention and has been growing by 13 percent every year till 2020. Thailand has also continuously embraced this green building concept as the number of green buildings in Thailand has significantly increased from 55 to 240 buildings in 2018. This year, the number is speculated to go up to 252 buildings."

CDL expands green financing streams from bonds to loans

Singapore – City Developments Limited (CDL) has secured its first green loans amounting to S\$500 million, marking the first time that green loans in Singapore will be used for new property developments.

A green loan of S\$400 million, with a three-year term, is provided by DBS Bank Ltd. (DBS), which is the Advisor for this green loan.

Another green loan of S\$100 million, with a two-year term, is provided by The Hongkong and Shanghai Banking Corporation Limited (HSBC), which is the Structuring Advisor for this green loan. This is the first multi-currency green loan secured by a Singapore company. It allows CDL to finance new green developments in Singapore and overseas. The green loans will be used to finance eligible green development projects as defined in the CDL Green Finance Framework¹, which was developed to demonstrate how CDL and its group entities intend to fund projects that will deliver environmental benefits to support the Group's business strategy and vision. The framework also stipulates how the financing proceeds are to be applied to eligible projects.

CDL's green loans follow its inaugural green bond issuance in 2017, the first by a listed Singapore real estate company. The green bond raised S\$100 million which was allocated towards various initiatives to enhance energy and water efficiency at Republic Plaza, CDL's flagship Grade A office building in the heart of Singapore's Central Business District.

Mr Sherman Kwek, CDL Group Chief Executive Officer, said: "Green financing plays a pivotal role in channeling capital to build greener and more climate-friendly infrastructure. CDL's inaugural green bond in 2017 and our new green loans have enabled us to tap on investors and banks that are supportive of our sustainability best practices. With the global shift to a low carbon economy, CDL will continue to explore sustainable financing to develop more green buildings that not only bring economic savings but also benefit occupants and the environment."

As at December 2018, CDL has accumulated a total of 100 Green Mark developments and office interiors awarded by Singapore's Building and Construction Authority (BCA), the highest tally among private sector real estate



The Tapestry, an 861-unit condominium in Tampines, is a BCA Green Mark Platinum project. Photo: © CDL

companies in Singapore. CDL is also the first and only private sector developer to receive the BCA Built Environment Leadership Platinum Star Award.

¹ The CDL Green Finance Framework is aligned to the Green Bond Principles 2018 and Green Loan Principles 2018. Green Bond Principles 2018 is administered by the International Capital Market Association; Green Loan Principles 2018 is administered by the Loan Market Association, the Asia Pacific Loan Market Association and the Loan Syndications and Trading Association.

The National Archives of Singapore unveils revamped building

Singapore – The revamped National Archives of Singapore (NAS) building at 1 Canning Rise officially reopened on Sunday, 7 April 2019 after being closed for a year and a half for upgrading.

The occasion coincided with the 50th anniversary of NAS, which started in June 1969, celebrating half a century of the institution as the keeper of archival materials of national and historical significance.

The revamped building boasts new facilities such as the 132-seater Oldham Theatre, three oral history recording studios, new microfilm readers at the Archives Reading Room and expanded conservation labs. The public can also expect to be brought closer to our archives with regular talks, guest speaker



Photo: © The National Archives of Singapore

sessions, workshops and group tours hosted in the revitalised space. The renovated space will be a lively hub for present and future generations of Singaporeans to connect with history and heritage.

In terms of renovations, NAS restored the external facades of the building and reinstated key aspects of the original design from 1955 (when it was the Anglo-Chinese Primary School) that were removed prior to the building being conserved in 2005. These

restorations included a verandah and distinctive scalloped-shaped shelters.

The revamped building meets the Building and Control Authority's Green Mark standards.

Danfoss presents energy-efficient solutions for Southeast Asia



Welcome speech by Dorte Bech Vizard, Ambassador of Denmark to Singapore. Photo: © Danfoss

Singapore – Danfoss, a world-leading supplier of energy efficiency technologies for several technologies in many markets, hosted a one-day event called the Energy Efficiency Summit at the National Museum of Singapore on 28 March 2019, in partnership with the Danish Embassy and Eco-Business.

The event attracted over 180 participants comprising of Danfoss' customers, industry players, decision makers, policy makers, and academicians.

In the morning, the event featured a keynote presentation by Mr Soren Kvorning, President Asia Pacific, Danfoss, and then followed by a panel discussion with him and government, research

institute and private sector professionals, who explored how innovative technologies have the potential to develop Southeast Asia's (SEA) cities into "climate-smart" cities.

Mr Soren Kvorning, President Asia Pacific, Danfoss, said, "Smart solutions can eliminate up to 270,000 kilotonnes of greenhouse gas (GHG) emissions in SEA cities every



Mr. Soren Kvorning, President Asia Pacific, Danfoss, speaking at his keynote presentation. Photo: © Danfoss



From left to right:
 (1) Ms. Jessica Cheam, Managing Editor of Eco-Business
 (2) Mr. Ang Kian Seng, Group Director, Environmental Sustainability Group, Building and Construction Authority
 (3) Ms. Dorte Bech Vizard, Ambassador of Denmark to Singapore
 (4) Professor Nilesh Jadhav, Programme Director, Eco Campus, Energy Research Institute at Nanyang Technological University
 (5) Ms. Lauren Sorkin, Regional Director Asia Pacific, 100 Resilient Cities
 (6) Mr. Soren Kvorning, President Asia Pacific, Danfoss

Photo: © Danfoss

year, with the potential to extract twice as much economic value from the energy we use today. As a pioneer of sustainability, Singapore has already reduced their emissions by 37 percent between 2000 and 2014, and supported by Danfoss technology, progressive solutions can be implemented across the region to save more energy, reduce emissions and lower costs for developers."

"Denmark is not only committed to make a strong response to climate changes – we want to push global actions and ambitions. To step up the engagement across the field, we continuously seek to foster and strengthen public-private partnerships ensuring green growth and a sustainable future for all," said Dorte Bech Vizard, Ambassador of Denmark to Singapore.

In the afternoon, the Summit was divided into three different track events on Commercial Buildings, Cold Chain and Electrification/Marine, to focus on specific solutions and technologies for the participants from the diverse industries.

Arup expands cities capabilities across Southeast Asia with new leadership appointments

Singapore – Arup, a global design and consulting firm, announced two new additions to the senior leadership team with the appointment of Andy Hodgson, as Singapore's Advisory Services Leader and Tony Chan, as Associate Principal, Southeast Asia's Cities and Planning team. Together they will support the firm in expanding its capabilities across Southeast Asia, furthering the aspirations of the Arup Future Cities Hub.

"Andy and Tony both bring strong experience working in Asia, furthering our mission to deliver the best quality work for clients and shape better cities across the region. They are both solid integrators of multidisciplinary teams and have a long track record of leading sizeable projects and successful teams. We are excited to have them on



Andy Hodgson. Photo: © Arup

board," said Marianne Foley, Consulting Sector Leader, Arup.

With more than 17 years of experience in infrastructure advisory, Andy specialises in providing strategic counsel to a range of clientele including developers, investors and government institutions.



Tony Chan. Photo: © Arup

As the Advisory Services Leader at Arup, he will help clients across the region formulate infrastructure strategies, assess technical and commercial viability of investments, unlock enterprise value and set long term plans to achieve economic development

aspirations. He previously served as Director and regional Transport Advisory Lead for Atkins Acuity in Singapore and Southeast Asia.

With a strong background of 19 years in sustainable urban development, Tony specialises in leading multidisciplinary teams to efficiently integrate masterplanning and urban design with infrastructure projects. Tony joins from CPG Singapore and was previously a founding member of Arup's Planning, Development and Design team in Shanghai, where he led various award-winning projects. Tony has since played a key role in a number of pivotal projects across the region such as the creation of the Eastern Economic Corridor in Thailand.

Khidmah awarded seven facilities management contracts across the UAE

Abu Dhabi, UAE – Khidmah, one of the region's leading Facilities Management companies, announced getting awarded seven new contracts spanning the emirates of Abu Dhabi, Dubai and Umm Al Quwain. The scope of the contracts varies in line with Khidmah's customized customer centric approach to Facilities Management (FM) delivery.

The FM and maintenance company will provide facilities management for the World Trade Center, Shinning Towers, Al Saadiyat Island, Al Raha Beach and Gate Towers in Abu Dhabi; Cleaning and Hospitality services to the General Authority of Customs in Abu Dhabi, Al Ain

and Al Dhafra Region, and Mechanical, Electrical and Plumbing (MEP) services for Al-Sagr Properties in Dubai which includes Sama Tower, Business Avenue, Al Sagr Business Tower and Al-Quoz camp. The company also secured an External Cleaning Services and Pest Control contract with a prestigious client in Umm Al Quwain.

Khidmah Executive Director, Stephen Fenn, said, "We are delighted to have won 7 new contracts after a very competitive bid process. This is a testament to our facilities management approach that focuses on providing value for money and high-quality, uncompromised



Gate Towers is one of the projects which Khidmah will provide its facilities management services to. Photo: © Khidmah

service delivery that is customised to our clients' needs."

Sustainability champion to lead GBCA

Sydney, Australia – Sustainability industry leader Davina Rooney will join the Green Building Council of Australia (GBCA) as the new chief executive officer.

The former General Manager of Sustainability and Corporate Procurement at one of Australia's largest diversified property groups, Stockland, Davina brings her experience as an engineer and change agent to Australia's authority on sustainable buildings and communities.

GBCA Chair Rod Fehring said Davina's inspirational leadership capacity together with her deep technical knowledge would enhance the organisation's industry perspective as it furthered its goals to make communities more productive, liveable and healthy.

Davina said she was excited by the opportunity to work across industry at this pivotal time and would focus on achieving real outcomes for low-energy buildings and communities. "Property provides an unparalleled opportunity to build ongoing sustainable communities that positively impact people, communities and the world environment. I am passionate about developing happier, healthier and more sustainable outcomes, while working collaboratively across the industry,"



Davina Rooney

she said.

Davina is a civil engineer and supports the Women in STEM initiative. She has a variety of sustainability experience, from environmental projects, not-for profit boards and overseas community development work, spending eight months working in the Indian Himalayas on the construction of a school which won multiple international awards.

Davina has been recognised in her field with awards including the NAWIC NSW 2016 Sustainability Award, PCA 2014 Future Leaders Award and Sydney University Engineering Young Alumni Award. She has contributed to the GBCA as a member of the Green Star Steering Committee for the last three years, and the

Green Star Advisory Committee over the last 12 months and has recently completed her two-year term as the Chair of the Property Council's National Sustainability Roundtable.

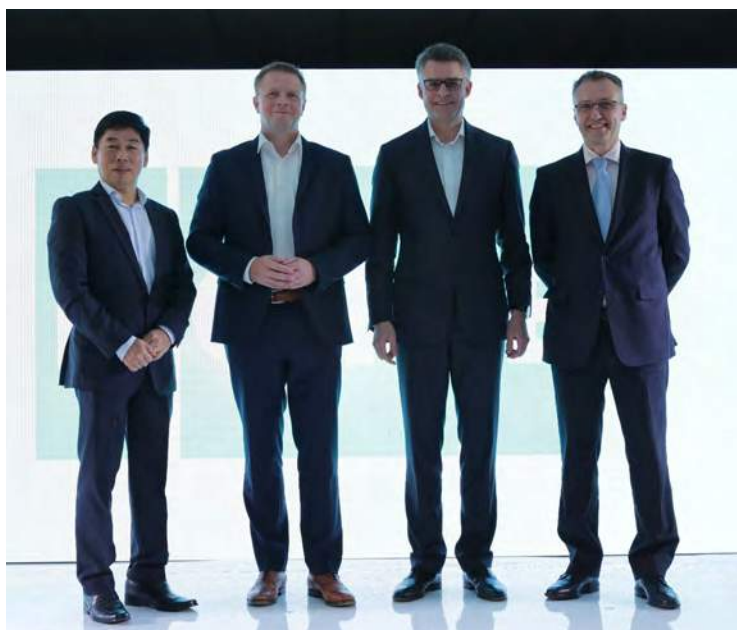
Mr Fehring took the opportunity to once again thank outgoing chief executive officer Romilly Madew AO for her more than 13 years leading the GBCA. She is departing to take on the role of Infrastructure Australia chief executive officer.

Davina's appointment commences on 11 June 2019.

KONE expands office in Jakarta to support growing Indonesian operations

Singapore – KONE has inaugurated its new office in Jakarta, Indonesia. Indonesia is one of the fastest growing economies in the Asia Pacific region and infrastructure is undergoing rapid transformation to create cities of the future. Riding on the country's strong growth momentum, KONE's new office is part of the company's ongoing commitment to investing into its growing operations in Indonesia and providing quality service for their customers through introducing intelligent solutions.

The office is located in the newly completed MNC Land Tower in the heart of Central Jakarta, a 37-floor mixed-use office and luxury hospitality development. It houses KONE Indonesia's head office and is also the base for KONE's Customer Care Center in Indonesia.



From left to right: Yandy Januar, Managing Director of KONE Indonesia, Axel Berkling, Executive Vice President of KONE Asia Pacific, Henrik Ehrnrooth, President and CEO of KONE, and Jari Sinkari, Ambassador of Finland to Indonesia at KONE Indonesia's office inauguration. Photo: © KONE

Urbanisation levels in Indonesia has increased tremendously with 56 percent of its population living in cities. Together with the ongoing push by the government towards developing smart cities as part of their 100 Smart City Movement, this has brought about an increased demand for smart buildings.

According to Frost & Sullivan, smart and green buildings will comprise around 20 to 25 percent of Indonesia's market by 2025. The growth in the elevator and escalator market in Indonesia is led by the residential and commercial markets in Jakarta together with an increasing number of mixed-use developments in other cities such as Surabaya, Makkasar and Batam.

The opening ceremony for the KONE office was led by Mr Henrik Ehrnrooth, President & Chief Executive Officer, Mr Axel Berkling, Executive Vice President of KONE Asia Pacific and Mr Yandy Januar, Managing Director of KONE Indonesia along with Guest of Honour, Mr Jari Sinkari, Ambassador of Finland to Indonesia.

Mr Berkling, Executive Vice President of KONE Asia Pacific said, "I'd like to express my heartfelt congratulations to our Indonesian colleagues on the opening of their new state-of-the-art office in Jakarta. We are proud of the tremendous growth and success KONE has achieved in both Indonesia and the wider APA region and reaffirm our commitment through our ongoing investment into the region to better service our customers."

"Indonesia mirrors the regional trend of rapid urbanisation and increased connectivity for infrastructure development. With more people living in cities than ever before, smart and sustainable homes and offices are essential for quality and green city living. We are continuing to see an increasing demand for effective, safe and reliable People Flow solutions as standards of living continue to improve across communities," added Mr Berkling.

Wilson Associates reimagines high-end cocktail lounge in Singapore's Marina Bay



MO Bar at Mandarin Oriental. Photo: © Wilson Associates / Limelight Studio

Singapore – Global interior architecture design firm Wilson Associates has announced that the firm has completed MO Bar, a luxurious, yet multi-functional, bar and lounge located within the five-star Mandarin Oriental in the heart of Singapore's Marina Bay. With surrounding views of Marina Bay, MO Bar offers high tea in the afternoon and cocktails in the evening – both menu selections are influenced by the flavours and aromas of the region.

Commissioned by Mandarin Oriental Hotel Group to overhaul the 7,534-square-foot bar area, Wilson Associates drew its design inspiration from the tribal cultures of the "orang laut" ("sea people" in Malay, referring to the indigenous sea nomads and sea gypsies of Singapore). This ethnic group of Malay origin is known for living almost entirely at sea around Singapore, peninsular Malaysia and the Riau Islands, and is some of the last true nomads of the ocean. The sea nomads are believed to have sailed in Singapore's waters from the 16th Century onwards. Infusing elements of the sea nomadic culture into MO Bar, Wilson's designers explored ways to showcase their way of life featuring the relationship with the water, as well as local tales of the ocean, moon, and stars.

Wilson Associates brought in natural materials and fauna like plants from the Philippines, which are embedded into the resin of the coffee tabletops to create a rustic, yet refined feel. Incorporating the visual language inspired by nomadic symbols, the design team conceived a ceiling lattice and movable lattice screen inside the VIP area – based on nomadic tribal tattoo patterns – as well as wave-like materials at the counter base of the main bar. Sourced from New Zealand, China, and Europe, the artwork shares global-inspired themes that complement the overall design aesthetic.

The defining highlight of MO Bar is the bar's marble countertop, achieved from the latest breakthrough technology. Slabs of marble were cut and bent to form one piece, creating one continuous bar countertop. Additionally, the design team implemented a wave-washed-up effect that ties into the coastal tribe culture. Symbols of local seamen were imprinted on the ceiling and sliding panel and can be found on the staff uniforms, further enforcing this motif.

CetraRuddy's ARO Tower, with multi-storey outdoor lounges, nears completion in NYC

Manhattan, New York, USA – The architecture and interior design firm CetraRuddy is set to debut ARO, a new 62-storey, 426-unit luxury rental tower developed by Algin Management and located in Manhattan's Midtown West neighbourhood.

With its sinuous upper-floor balconies, a step-back podium wrapped with monumental outdoor stairs and large landscaped terraces, and its striking facade of glass and white metal lattice, ARO creates a distinctive and fresh skyline presence with appealing "skylife" at its base.

The through-block building's unique cantilevered shape allows for larger apartments on the upper floors, while the podium base combines 15,000 square feet of retail with ample tenant amenities and multi-storey, indoor-outdoor city life. The architect John Cetra, FAIA, is available to discuss the design.

"The result of our collaboration with Algin Management is inventive and effective as much as it is responsive to the Midtown neighbourhood," said Cetra, co-founding principal

at CetraRuddy. "In creating a tall, slender tower, we were able to bring more space, light and air around the building, incorporating plentiful outdoor spaces and amplified views. The building twists and cantilevers as it grows to optimise spectacular views and light within the residences, and its rounded corners create unique interior layouts and views."

CetraRuddy's design for ARO's residential mix includes studio, one-, two- and three-bedroom residences, all of which offer floor-to-ceiling windows and living spaces with 10-foot ceilings. ARO residences feature high-end finishes such as solid surface quartz countertops, custom cabinetry, and premier stainless-steel appliances. Spa-inspired baths feature Carrara marble floors, Dolomiti marble-tiled walls, glass-enclosed showers, and custom vanities. Residents have access to 40,000 square feet of amenity space, including a series of landscaped terraces and multi-storey indoor/outdoor lounge areas with skyline views, two pools, a fitness centre with yoga and pilates facilities, club/game room, and a chef's kitchen.



Image: © Binyan for IF STUDIO

Sir Nicholas Grimshaw receives 2019 Royal Gold Medal for Architecture



Sir Nicholas Grimshaw. Photo: © Morley von Sternburg

London, UK – Sir Nicholas Grimshaw was awarded the 2019 Royal Gold Medal, the UK's highest honour for architecture, at a special ceremony at the Royal Institute of British Architects (RIBA) on 14 February 2019.

Presented by the RIBA in recognition of a lifetime's work, the Royal Gold Medal is approved personally by Her Majesty The Queen and is given to a person or group of people who have had a significant influence 'either directly or indirectly on the advancement of architecture'.

Playing a leading role in British architecture for more than half a century, Nicholas Grimshaw is arguably best known for the landmark International Terminal at London's Waterloo station and the visionary Eden Project in Cornwall.

Coinciding with the presentation of the Royal Gold Medal, the RIBA has opened a free exhibition charting the story of Sir Nicholas Grimshaw's career from the 1960s to the present day.

MVRDV begins construction on Downtown One in Tirana, a skyscraper presenting an image of Albania

Rotterdam, The Netherlands – MVRDV has begun construction on Downtown One, a 140-metre-tall mixed-use skyscraper in Tirana that will become Albania's tallest building. The most striking element of the 37-storey tower is its relief of cantilevered houses and offices, which form a pixelated 'map' of Albania, each representing a town or city, turning this building into an icon in the heart of Tirana, Albania. Completion of the building, which was designed for developer Kastrati Construction, is expected in 2024.

Downtown One is envisioned as an expression celebrating the progress of Albania, located in central Tirana on the Bajram Curri Boulevard, to the south of the Lana River. On its principle facades the 140-metre rectilinear tower features a series of cantilevered houses and offices, forming a relief pattern on the building's surface. Every house or office represents a village or town, so that when viewed from a distance, these cantilevers form an abstracted map of Albania.

The importance of the cantilevers is not only iconographic; for occupants of the building, the projecting bay windows offer spectacular panoramic views of the city and the mountains, while the terraces created enable communication and connection between residents to give the feeling of a vertical village. Residents will also be able to identify their home by reference to the geography of the Albania: somebody will live in the 'Tirana pixel', somebody else in the 'Durrës pixel', and so on.

"Albania has come a long way. Ten years ago it was the poorest country in Europe. Now it is a country with energy and ambition, working towards great economic improvements. We want to express this with our building," said Winy Maas, co-founder of MVRDV.



Photo Copyright: MVRDV 2018 - Winy Maas, Jacob van Rijs and Nathalie de Vries

With a floor area of 77,000 square metres, Downtown One will give the centre of Tirana an important boost through the mix of apartments, shops, offices, and restaurants. The 37-storey tower does not sit parallel to Bajram Curri Boulevard, but is rotated on its plot so that its principal facade faces toward Skanderbeg Square. At its base is a park with local vegetation and an educational playground, while the inside of the building is divided into several layers: above the ground floor commercial spaces and underground parking, the lower half of the tower is devoted to office space, while apartments occupy the top 18 floors.

Groundbreaking for 77,000 square metres mixed-use building in Bremen

Nordhavn, Denmark – On 14 February 2019, a groundbreaking was held for the 77,000 square metres Europahafenkopf on the harbour front in the German city of Bremen. The project, designed by COBE, is a milestone in the transformation of Bremen's industrial port to a new city quarter. With its prominent position at the end of the harbour and its characteristic saddle roof skyline the project is going to connect the historical city core with Bremen's new urban neighbourhood.

The Europahafenkopf project consists of four buildings, all containing a series of halls on the ground floor that invite passers-by in with a wide range of public functions, including cafés, shops, galleries and a sprawling street food market. Housing and offices will be placed on top of the halls, which encircle green and intimate courtyards.

The project is financed and built by the local Gustav Zech Foundation and scheduled to be completed in 2021.



Illustration: © COBE

Aarhus Harbor Bath provides new ways for the public to enjoy the water in all seasons

Aarhus, Denmark – Aarhus Harbor Bath is an extension of BIG's current development plan for Aarhus' new waterfront neighbourhood named Ø4. Similar to BIG's first harbour bath in Copenhagen from 2002 which has come to define the Danish capital as one of the most livable cities in the world, Aarhus Harbor Bath and adjacent Beach Bath provide new ways for the public to enjoy the water in all seasons.

Together with urban life expert Jan Gehl, BIG's strategy was to create a framework for maximum amount of life with the minimum amount of built substance. The harbour bath zig-zags gently into the island, extends all the way out into the harbor pool and back again. The swimmers can enjoy the circular diving pool, a children's pool, the 50 metres long lap pool or one of the two saunas that are tucked underneath the public boardwalk which doubles as a viewing platform who those who prefer to stay dry.

In front of the bath, a series of freestanding restaurants, a children's theater, beach huts for various activities and other life-creating public oriented programmes were designed before the private buildings blocks which will rise in the coming years. As a result, the private residential buildings at Ø4 become subordinate to the needs of the public realm.

Aarhus Harbor Bath gives the residents and visitors of



Image: © Rasmus Hjortshøj

the island a more engaging and adventurous waterfront experience who can use the harbor bath not only in swim shorts but as a walkway that extends the public realm into the water, breathing new life into an area historically reserved for industrial purposes.

Shortlist announced for MK:U international design competition

London, UK – On 28 March 2019, Milton Keynes Council (MKC) together with Cranfield University and Malcolm Reading Consultants (MRC) announced the shortlist for the MK:U International Design Competition for a new model university in the Oxford to Cambridge innovation arc. Details of the twelve-strong jury were also announced.

The first stage of the competition, which launched in January 2019, attracted 53 team submissions comprising 257 individual firms from across the globe.

The five finalist teams are:

- Co:MK:U – WilkinsonEyre and AECOM with Spaces that Work, Mecanoo, dRMM, Publica and Contemporary Art Society
- Hawkins\Brown with KCAP,

Grant Associates, BuroHappold Engineering and Sam Jacob Studio

- Hopkins Architects with Prior+Partners, Expedition Engineering, Atelier Ten and GROSS. MAX.

- Lifschutz Davidson Sandilands with Henning Larsen, Architecture 00, Heyne Tillett Steel, Hoare
- Lea, Bradley-Hole Schoenaich Landscape Architects, Ken Baker, Steer, Icen, Abell Nepp and FiD
- OMA with BuroHappold Engineering, Planit-IE, Nicholas Hare Architects, Carmody Groarke and Galmstrup

Collaboration between established and emerging talent, and between UK and international talent, was encouraged for MK:U. Stage one criteria included a demonstration of qualifications:

company information; details of the proposed team; and examples of relevant experience.

The teams will now attend a site visit in Milton Keynes (MK) and receive a detailed briefing. They will have 10 weeks to create a masterplan for the 10-hectare site and concept designs for 61,120 square metres of built area in phase one, including key buildings. This phase has a construction budget of approximately £188 million.

MK:U is a new model university and one of the flagship projects of the MK Futures 2050 programme, which supports MKC's ambition to create a city of opportunity for all. The new university is intended to create a new higher education exemplar that is open, accessible, dynamic, technologically focused, innovative, diverse, business-

oriented and entrepreneurial.

Through its ambitious curriculum focused on digital economy skills, MK:U will honour the innovative spirit of nearby Bletchley Park, the birthplace of modern computing, and further MK's pioneering work in 'Big Data', transport innovation and urban design. MK:U will go beyond the scope of a traditional university, using its own University Quarter and the wider city as a 'living lab' to test out new concepts and ideas, and inspire MK's students and citizens.

The international jury, chaired by Professor Sir Peter Gregson FREng, Chief Executive and Vice-Chancellor of Cranfield University and chair of the MK Futures 2050 Commission, will include a starry line-up from the worlds of business, science, tech, academia, the arts and MK itself.

Members include: Professor Dame Madeleine Atkins, President, Lucy Cavendish College, Cambridge; Sir Peter Bazalgette, Non-Executive Chairman, ITV; Joe Berridge, Partner, Urban Strategies Inc.; Nathan Bostock, CEO, Santander UK plc; Rebecca Kurth, Chair, Central Milton Keynes Town Council; Councillor Pete Marland, Leader, Milton Keynes Council; Sumit Paul-Choudhury, Founder and Managing Director of Alternity and former Editor-in-Chief, New Scientist; Professor Lynette Ryals OBE, Pro-Vice-Chancellor, Cranfield University and Chief Executive, MK:U; Phil Smith, Former Chairman, Cisco UK & Ireland; Anthony Spira, Director, MK Gallery; and Paul Williams OBE, Principal Director, Stanton Williams Architects.

MK:U is expected to open to its first students – undergraduates, returners and mature learners – by 2023. All three phases are due to complete within 15 years, when the university will serve 15,000 students.

Located at the heart of the Oxford to Cambridge innovation arc and just 30 minutes from London by train, MK, now known as a Smart City, has excellent connectivity; its proximity to the M1 motorway and rail network means twenty million people can reach it within 60 minutes.

Team Paul de Vroom + Sputnik completes apartment complex in Moscow

Rotterdam, The Netherlands

– In Wellton Park, a district in Moscow with a very high building density, the Dutch architecture firm Team Paul de Vroom + Sputnik has completed two apartment buildings with outspoken brick facades.

When the client requested "Dutch" architecture, the architects let themselves to be inspired by the Amsterdam School style of the early 1900's, and re-invent it for a contemporary high-rise design.

The project 'Dutch House' is part of the re-development of District 75, situated in the western part of Moscow.

Renamed Wellton Park, the district has been transformed by Russian construction-industrial company KROST, over a period of 20 years, into a luxury residential area with a very high density and a carefully landscaped ground level. Amidst the white and light grey apartment buildings, Dutch House catches the eye with its outstanding red brick colour. The two buildings with a height of 75 and 65 metres, contain 360 apartments on top of a two-layered underground parking.

The conditions of the project Dutch House are exceptional. The rectangular building plot is enclosed on all four sides by residential slabs that are mostly higher than the two new blocks. Because of this the site acts as a large confined room with only a few openings through which views are possible. What was therefore needed was a strong concept to make living in the new apartments into a pleasant experience.

In the design for Dutch House the enclosed site is considered as a stage on which the two new buildings are the actors. In order for these actors to perform well they need to have a specific identity and moreover to be in harmony with each other and with the 'theatre' around them. Therefore, on this location the buildings and the public space needed to be designed in close coherence.

Connection is the key word for the design of the public space. The positions of both buildings seem to be at random, but in fact they are derived from the strict Russian rules regarding the entrance of sunlight. By introducing a 'connecting carpet', it was possible to interrelate all divergent directions, between both buildings and all outside activities.

The brief of the project expressly asked for architecture from Holland. Mindful of the need for identity and cohesion, a modern architecture was developed based on the idiom of the 'Amsterdam School': explicit plasticity with preferably rounded forms, rhythmic repetition of volumes, vertical articulation and repetitive square windows. Subsequently the Amsterdam School stands out by its balanced use of materials like brick, wood, glass, natural stone, concrete and metal, in combination with monumental wooden entrances and exceptional details.



Image by photographer Ilya Ivanov

MoederscheimMoonen Architects designs residential building with spectacular balconies in Rotterdam

Rotterdam, The Netherlands – MoederscheimMoonen Architects will design a new residential building in the centre of Rotterdam, The Netherlands. Local developer and builder Stebru has chosen the competition entry by the Rotterdam architectural firm as the winning design.

The starting point for the design was to preserve the iconic existing architecture of the current office buildings as much as possible. This turned out to be challenging but also guided the design towards the end result of a wonderfully dynamic winning design. The building will have a mix of different apartment types and commercial functions, with the outdoor space in the form of generous balconies giving the residents a spectacular experience of the city centre.

The location of the new building is part of the Maritime District and was originally a port area, which is now being transformed into a high-quality

residential and living area.

The design by MoederscheimMoonen takes maximum conservation of the existing buildings as a starting point for further expansion.

Architect Erik Moederscheim said: "Our design is not as much about being the highest tower of the area, as about elegance and class which, together with maximum transparency and fluently designed balconies, will make it a very special place to live. Between the existing buildings and the new building is also a special floor where we have designed a communal space in the form of a living room and a roof garden. This will be the meeting point of the building." The scheme is designed within an efficient volume with a maximum footprint that conforms as much as possible to the facade at the old harbour.

The aim is to be able to begin construction on the residential building by mid-2020.



Photo: © MoederscheimMoonen Architects

Cevisama 2019 boosts international character with foreign visitors numbering over 20,000 for first time

Feria Valencia, Italy – More than 20,000 foreign professionals visited the 37th edition of Cevisama, the international fair for ceramic tiles, bathroom furnishings and natural stone, which took place at Feria Valencia from 28th January to 1st February 2019. As well as the quality of the products on show, the amazing staging created by the exhibitors and a higher volume of business having been done, figures have now been released that confirm that this year's fair was the best ever, particularly taking into account that machinery was not part of the event this year (it joins the showcase in even-numbered years only).

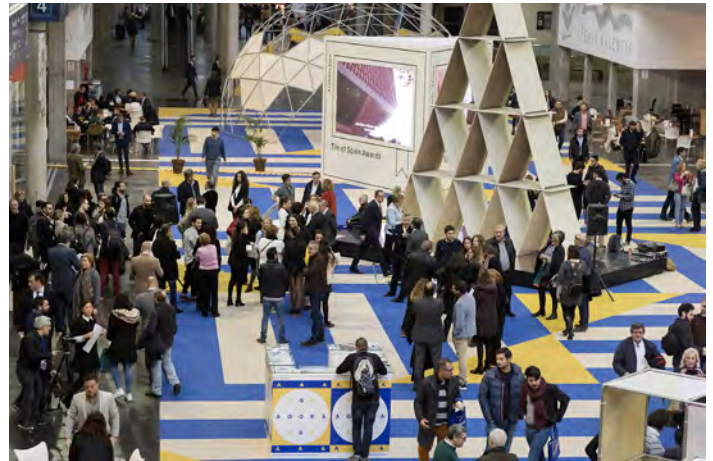
Specifically, 91,179 professionals visited the fair from 155 countries (compared with 90,572 from 154 countries in 2018). Of these, 20,181 were foreign visitors (as against 17,651 last year), a figure that had never been reached before and that confirms the positioning of an event that is increasingly international every year. The figures have led Cevisama to claim that foreign professionals accounted for 22 percent of the total number of visitors and that the fair attracted visitors from the industry's

key markets, given that 55 percent of foreign buyers came from the traditional European markets: Italy, France, Portugal, the United Kingdom and Germany (which accounted for 36.84 percent of all foreign visitors), plus Russia, Algeria, Morocco, the United States, Belgium and Poland.

The profile of the visitors to Cevisama was primarily retailers, distributors, manufacturers, sales agents, buying groups and specifiers, especially architects and decorators. The latter group are becoming increasingly interested in Spanish manufacturers and Cevisama's organisers are therefore focusing on growing attendance by these professionals even more. It should be remembered that several new initiatives were launched this year with precisely that aim in mind, including a hall dedicated exclusively to the Contract sector. The investment is beginning to pay off and, in fact, the organisers' have calculated that architects and interior designers as a percentage of all visitors increased from 10.25 percent in 2018 to 13.67 percent in 2019. According to the final report on the fair, 73.6 percent of visitors were interested in ceramic tiles, 51.7 percent in bathroom

furnishings, 38 percent in natural stone, 34 percent in roof tiles, bricks, glass bricks and display furniture and 26 percent in raw materials, frits, glazes and colours for ceramic tiles.

The fair's president, Manuel Rubert, highlighted how satisfied he was with the results, not just the positive figures but particularly "the quality of the visitors, because they included a greater range of different profiles such as architecture and project professionals, because more visitors came from key markets such as the USA and because the exhibitors have told us they have done good business through the fair, whereas the industry's expectations had been modest on opening day." Rubert also highlighted "the historic number of attendees, yet again, from other markets, which further boosted the international character of the fair and is an incentive for us to continue working along the same lines."



LMN Architects celebrates 40 years in practice

Seattle, Washington, USA – LMN Architects is pleased to celebrate 40 years of architecture, interior design, and urban design. The firm will be organising several events to commemorate this significant anniversary and has recently established the LMN Architects Endowed Fellowship at the University of Washington.

Since its 1979 founding in Seattle, Washington, LMN Architects has dedicated its practice to the health and vitality of communities of all scales. Internationally recognised for the planning and design of environments that elevate the social experience, the firm works across a diversity of project typologies, encompassing higher education facilities, science and technology, cultural venues, conference and convention centres, urban mixed-use projects, transportation, and other programs that celebrate community.

40 years ago, George Loschky, Judsen Marquardt, and John Nesholm envisioned a practice devoted to the public realm. Innovative design inquiry and collaboration have continued to drive the core practice, and the firm is now composed of architects, interior designers, urban planners, computer scientists, and specialists committed to advancing the principles that define LMN's philosophy of practice.

Today LMN Architects is led by partners John Chau, Sam Miller, Walt Niehoff, Wendy Pautz, Mark Reddington,



The new Hyatt Regency Hotel Downtown is one of the recently completed projects by LMN Architects in Seattle. Photo copyright: Tim Griffith

George Shaw, Stephen Van Dyck, and Rafael Viñoly–Menendez, and employs 150 professionals. The quality of LMN's work has been recognized with nearly 300 national and international design awards, including the prestigious 2016 National Architecture Firm Award from the American Institute of Architects (AIA).

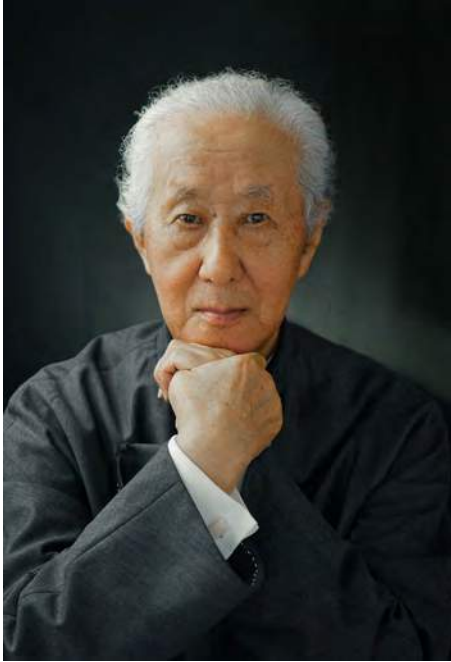
The firm's commitment to civic life has been a strong force in helping shape the city of Seattle, exploring the potential of architecture to strengthen the cultural identity and create sustainable places that bring people together around civic life.

LMN has designed 240 projects and delivered more than 100 projects in the Seattle metropolitan area, including many of the landmark projects that define its cultural life.

Significant Seattle projects include Benaroya Hall; McCaw Hall; MOHAI; Seattle Asian Art Museum; numerous planning and design assignments for Sound Transit including the recently completed station at UW; various projects at the University of Washington such as PACAAR Hall and Dempsey Hall at the Foster School of Business, and the Paul G. Allen Center for Computer Science & Engineering. LMN also designed the Seattle Central Library in a joint venture with the Office of Metropolitan Architecture (OMA).

Current and recently completed projects in Seattle include the new Hyatt Regency Hotel Downtown; the Bill & Melinda Gates Center for Computer Science & Engineering at the University of Washington; the Washington State Convention Center Expansion, currently under construction; and the Seattle Aquarium Ocean Pavilion on the new waterfront, currently in design.

Arata Isozaki receives the 2019 Pritzker Architecture Prize

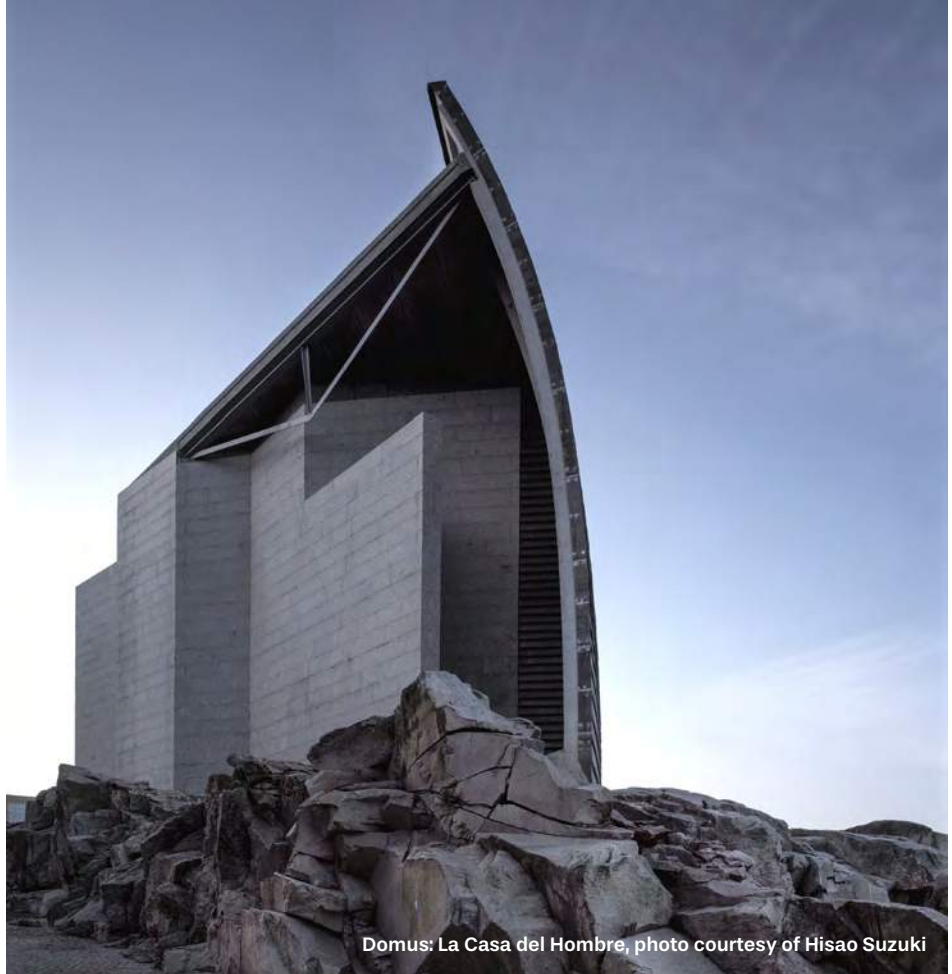


Arata Isozaki

Chicago, Illinois, USA – Arata Isozaki, distinguished Japanese architect, city planner and theorist, has been selected as the 2019 Laureate of the Pritzker Architecture Prize, the award that is known internationally as architecture's highest honour.

Lauded as a visionary amongst his international contemporaries, Isozaki's forward-thinking approach, deep commitment to the "art of space," and transnational methodology have been evidenced since the 1960s. The prolific architect has been credited with facilitating dialogue between East and West, reinterpreting global influences within architecture, and supporting the development of younger generations in the field. His precision and dexterity are demonstrated through his mastery of an intercontinental range of building techniques, interpretation of site and context, and intentionality of details.

The 2019 Jury Citation states, in part, "Possessing a profound knowledge of architectural history and theory, and embracing the avant-garde, he never merely replicated the status quo, but his search for meaningful architecture was reflected in his buildings that to this day, defy stylistic categorisations, are



Domus: La Casa del Hombre, photo courtesy of Hisao Suzuki



Ceramic Park Mino, photo courtesy of Hisao Suzuki



Kitakyushu Central Library, photo courtesy of FUJITSUKA Mitsumasa

constantly evolving, and always fresh in their approach".

Isozaki's early successes in architecture transpired during the era following the Allied occupation of Japan, when the country sought to rebuild itself after the ruins of the Second World War. "I wanted to see the world through my own eyes, so I traveled around the globe at least 10 times before I turned 30. I wanted to feel the life of people in different places and visited extensively inside Japan, but also to the Islamic world, villages in the deep mountains of China, Southeast Asia, and metropolitan cities in the U.S. I was trying to find any opportunities to do so, and through this, I kept questioning, 'what is architecture?'," recalled the Laureate.

Not only did he extend efforts to physically reconstruct his native hometown with buildings including Ōita Medical Hall (1959–60) and Annex (1970–1972 Ōita, Japan), and the Ōita Prefectural Library (1962–1966 Ōita, Japan, renamed Ōita Art Plaza in 1996), but also redefined mutual exchange between eastern and western societies, allowing Japanese vision to inform European and American design, particularly in the 1980s.

"Isozaki was one of the first Japanese architects to build outside of Japan during a time when western civilizations traditionally influenced the East, making his architecture – which was distinctively influenced by his global citizenry – truly international," commented Tom Pritzker, Chairman of Hyatt Foundation. "In a global world, architecture needs that communication," he added.

His buildings appear geometrically simple, but are infused with theory and purpose. The Museum of Contemporary Art, Los Angeles (1981–1986 Los Angeles, United States) was the

architect's first international commission. Though controversial and geographically challenging, the red Indian sandstone building was resolved by Isozaki's eloquent awareness of scale through an assemblage of volumes, while employing the golden ratio and yin yang theory throughout, evoking the complementary nature of western and eastern relationships.

Isozaki's avant-garde approach is fluid, adjusting in response to the needs and influences of each environment through a concept of interrelated time and form called "ma". Thoughtful connectivity between global universality and local identity is made apparent through his comprehensive cross-cultural and interdisciplinary solutions that reflect deep sensitivity to specific contextual, environmental and societal needs.

Ceramic Park Mino (1996–2002 Gifu, Japan), a ceramics museum situated in a cascading valley, preserves surrounding vegetation while serving as an extension of the topography through outdoor terraces, observation decks and overlooks, detailed with regional stoneware bricks and ceramic. Palau Sant Jordi (1983–1990 Barcelona, Spain), designed for the 1992 Summer Olympic Games, is positioned partially below ground to minimise the profile of the 17,000-person facility and instead highlight the surrounding Montjuïc hillside. The domed roof was built referencing Catalan vault techniques, while the sloped forms were inspired by those of Buddhist temples, and local materials including brick, tile, zinc and travertine were used as finishes.

The Jury also notes the Laureate's spirit of generosity, as he has, and continues, to promote architects at the onsets of their careers who have since gone on to become distinguished figures within the discipline.

OMA / Reinier de Graaf's nhow Amsterdam RAI Hotel tops out

Amsterdam, The Netherlands – The OMA / Reinier de Graaf-designed nhow Amsterdam RAI Hotel has reached its highest point of construction at a height of 91 metres. With 25 floors and 650 hotel rooms, it will be the largest hotel in the Benelux.

Located next to the RAI Amsterdam Convention Center, and connected via an underground concourse, nhow Amsterdam RAI will be a high-quality headquarter hotel for visitors, exhibitors, speakers and organizing teams onsite. The hotel, operated under NH Hotel Group's nhow brand family (NH Hotel Group), will also serve as a new hub for business travellers, tourists and Amsterdam locals alike, with high-end gastronomy, spa facilities, meeting and conference rooms and lounges.

Lead designer Reinier de Graaf said: "Amsterdam taxi drivers are the kind of people who tell you their honest opinion. Whenever we pass the RAI Nhow Hotel, their unsolicited comments are positive without exception. As the architect, I take this as a big compliment."

With its three characteristic triangular volumes, stacked in such a way that the floor plan of the building rotates 60 degrees with each ascending volume, the design takes inspiration from the once-famous triangular advertisement post called 'Het Signaal' (The Signal) on Europaplein, the square in front of the RAI.

The project is developed by COD with Being Development, and is expected to open to the public early 2020.



Photo by Walter Herfst, courtesy of OMA

Morphosis designs multi-bridged form commercial building in Sejong City

Culver City, California – In 2003, the government of South Korea announced ambitious plans to move the capital out of Seoul, in an effort to encourage more balanced development and political influence across the country. Seoul was eventually retained as the national capital but many governmental departments and ministries were moved to Sejong City, a new planned metropolitan centre designated as a special administrative zone. Construction on the new city commenced in 2009, following a unique masterplan for a network of government

and civic buildings linked end-to-end by skybridges and rooftop garden paths. A corresponding network of private and commercial buildings would be joined by a walkable 'high-line' at the third storey.

The Sejong M-Bridge, designed by California-based Morphosis Architects, is one of the first large-scale commercial projects to be completed in the new masterplan, with a multi-bridged form that references the lifted connections of the neighbouring governmental buildings. The development



Rendering: © Morphosis Architects

is tasked with nurturing a welcoming public realm in this new city, with a green park, outdoor amphitheater, and riverwalk connecting to ground-floor retail and cinema. Further retail and dining outlets line the lifted pedestrian walkway, while at the eleventh storey a skybridge links the three office towers with a public observation deck and retail space. Supporting the client's desire to create an exemplary green building, the façade is wrapped in a distinctive brise-soleil, designed to allow for optimum shading, energy conservation, and views.

Construction on the Sejong M-Bridge started in 2016 and it is expected to complete in 2019.

Goldsun HQ in Taipei receives planning approval

London, UK – Designs for the new headquarters of the Goldsun Group in Taipei have been revealed following a successful Urban Design Approval. Part of the Nangang urban regeneration project, the project seeks to introduce a new mixed-use typology to the area by replacing the existing Goldsun factory with a unique mid-rise building that establishes new connections with the surrounding urban fabric.

Grant Brooker, Head of Studio, Foster + Partners said: "It has been a wonderful challenge working with our client to transform this existing industrial site into a unique contemporary urban complex – combining workplace, retail and living spaces around a series of tree-filled courtyards. We hope that it will be a vibrant new social focus that will bring life to the area and form the centrepiece of its regeneration."

The complex, which contains office spaces alongside residential and retail areas, is arranged around a central courtyard – an outdoor event space that forms the social heart of the project with the buildings lifted off the ground, the courtyard creates a diagonal route through the site, connecting a new park to the northeast with the green area across the street to the southwest.

Nature plays a key role in the project



Aerial view at night. Photo: © Foster + Partners

with skygardens located on various levels throughout the complex, offering a variety of social spaces for the public and office employees to enjoy. The skygardens also encourage naturally daylight and ventilated spaces throughout the buildings. With rooftop photovoltaic panels and other sustainable measures, the project targets a LEED Gold rating.

The building blocks are supported by six cores that combine structure and services. These glazed 'floating volumes' are suspended between each of the solid

cores using steel mega-trusses that form an expressed structural system, creating flexible, large-span floorplates.

The office block is located along the main commercial road towards the north, while the special social spaces take advantage of the views towards the mountains to the south. The top floors of the north and south blocks are occupied by quadruple-height event spaces featuring meeting spaces, auditoria and entertainment areas, set against the backdrop of the Taipei skyline.

SGBC announces new president and board



Dr Ho Nyok Yong. Photo: © Singapore Green Building Council

Singapore – Dr Ho Nyok Yong, Immediate Past President of the Singapore Contractors Association Limited, will head the new Singapore Green Building Council (SGBC) Board for the 2019/2021 term.

Dr Ho takes over from 5th SGBC President Mr Tan Swee Yiow, Chief Executive Officer and Executive Director of Keppel Land International Limited. The new SGBC Board Members were formally introduced at SGBC's 10th Annual General Meeting held on 28 March 2019 at the Grand Copthorne Waterfront Hotel, which was attended by more than 80 industry representatives from across the building and construction industry.

"The new Board is particularly significant as we have arrived at an important junction of our young history and journey," said Dr Ho. "While it is important to look back at what we have achieved the past decade, we

must also gear up for the future which holds challenges but also tremendous opportunity. With the new Board, I am confident that SGBC will be able to accelerate green building adoption to transform the building and construction industry."

The new Board is representative of the green building industry, comprising all key stakeholders including real estate owners & developers, architects, engineers, government agencies as well as members of the academia. With a wide spectrum of strengths and networks, the new Board is well poised to advance, connect and engage with the green building industry. SGBC Board Members are elected for a two-year term by a vote of SGBC's Member companies during an election exercise which was conducted in February 2019. The new SGBC Board's term will begin from April 2019 to April 2021.

Singaporean named as climate champion on International Women's Day

Singapore – The campaign theme for International Women's Day 2019 is #BalanceforBetter – and it is backed by the women leading the global green building movement.

The World Green Building Council (WorldGBC) has named Ms Yvonne Soh, Executive Director of the Singapore Green Building Council (SGBC), a climate champion for using her expertise and passion to build a better place for everyone.

Despite being a young country, in Singapore, the old boys clubs still have power. Ms Yvonne Soh has gotten used to being outnumbered by men – the gender balance has not changed much since she was an engineering student. She said: "I have got to the stage now where I am valued for my input. I have been championing alternative and recycled materials for many years now – and in Singapore there is no choice, we simply have no natural resources."

Not only is Ms Soh's input highly valued, but she has put sustainability at the core of new buildings in her city state. She has made it her mission to bring the green message to the masses – and has contributed to making Singapore one of the greenest urban areas in the world.

Her passion for sustainability grew during the 10 years Yvonne spent at the Building and Construction Authority (BCA) and eventually led her to current role. It is the collaborative nature of her position, working with other leaders within the WorldGBC that continues to inspire her.



Ms Yvonne Soh. Photo: © Singapore Green Building Council

Emirates Green Building Council and International Living Future Institute sign MOU

Dubai, UAE – In a move that will further advocate for decarbonising the built environments in the United Arab Emirates, the Emirates Green Building Council (EmiratesGBC), an independent forum aimed at conserving the environment by strengthening and promoting green building practices, signed a memorandum of understanding (MOU) with the International Living Future Institute (ILFI).



Saeed Al Abbar, Chairman of Emirates Green Building Council. Photo: © EmiratesGBC

ILFI is an environmental non-governmental organisation that works to make 'communities socially just, culturally rich and ecologically restorative.' In 2006 the Institute established the Living Building Challenge, an advanced green building certification programme that aims to encourage the creation of regenerative and sustainable built environments.

Under the MOU, ILFI and EmiratesGBC will partner on the development of ILFI's Zero Energy (ZE) and Zero Carbon (ZC) Certifications that will be adapted for the UAE market and launched during the Living Future UnConference in 2019. ILFI and EmiratesGBC will also raise awareness around the ZE and ZC certificates among industry stakeholders, and the Council will act as the exclusive auditor of the two certifications in UAE. The MOU between EmiratesGBC and ILFI is an important strategic step for the Council that will further support efforts to transform the United Arab Emirates' construction industry and to support advanced climate action by setting ambitious targets to eliminate operational carbon emissions from new building portfolios by 2030 and to advocate for all existing buildings to be net zero by 2050.

Saeed Al Abbar, Chairman of EmiratesGBC, said: "Our partnership with the International Living Future Institute is an affirmation of the Council's leading role in advancing toward a net zero carbon built environment in the UAE in line with World Green Building Council's net zero targets and Paris Agreement goals. The MOU is a foundational step in transforming the UAE built environment towards decarbonisation and the fulfilling of Dubai's goal of having the lowest carbon footprint worldwide by 2050."

The collaboration will also support the tangible expansion and work of EmiratesGBC's 'Net Zero Centre of Excellence,' a think-tank and accelerator which provides an important platform for government, academia and the private sector to learn and share knowledge on how to advance net zero carbon buildings in the UAE. The MOU with ILFI delivers on the objectives of the Centre of Excellence to engage as many entities as possible in this global movement toward net zero.

"We are thrilled to see the United Arab Emirates embrace its commitment to zero carbon buildings through this new partnership between the International Living Future Institute and EmiratesGBC," said Amanda Sturgeon, CEO of ILFI.

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Ottavio Bottecchia Velodrome



4,000 square metres of track have been completely restored using MAPECOAT TNS CYCLE TRACK, a specifically developed system for sports surfaces.





In this page. The team of Dagnoni- Barbieri, who won the Italian Deryn Championship, in action and on the podium. Right, Viviani and Meyer.

The Ottavio Bottecchia velodrome in Pordenone was built in 1925 by a group of local businessmen who later donated it to Pordenone City Council, which is still the rightful owner. Even though it is now 85 years old, the structure itself is still in good working order from a technical point of view and was recently approved by the International Cycling Union (UCI).

With a view to maintaining this high technical standard, and to even improve on it, Pordenone City Council decided to invest more resources into the quality of the track. Mapei took part in this project

by supplying products specifically developed for this special type of sports surface.

The intervention involved completely renovating the surface of 4,000 square metres of track. After removing the old surface (installed 20 years ago), cracks in the substrate were sealed with EPORIP two-component, solvent-free epoxy adhesive and the surfaces were treated with PRIMERSN two-component, fillerized epoxy primer.

Work on the track was carried out using MAPECOAT TNS CYCLE TRACK, a multi-layered, acrylic resin-based





system specifically developed for tracks for outdoor velodromes installed on bituminous or cementitious substrates.

This system – which comprises the application of successive coats of MAPECOAT TNS FINISH 1, MAPECOAT TNS PAINT, MAPECOAT TNS PRIMER EPW and MAPECOAT TNS WHITE BASE COAT – is used to create a surface with good mechanical properties, high resistance to abrasion and an excellent combination of low friction and high stability for cycle tyres, thereby helping riders reach a higher level of performance.

The joints in the reinforced concrete structure were then sealed with MAPEFOAM closed-cell, polyethylene foam cord and MAPEFLEX PU 45 FT paintable, rapid, high modulus, polyurethane adhesive and sealant, suitable for joints subject to movements of up to 20 percent.

This tried and tested system was developed thanks to the company's experience over the years of installing tracks in velodromes in Italy and abroad.





The "Tre Sere Citta' Di Pordenone" event marks the beginning of a new era

Pordenone Velodrome-Arena is named after the legendary two-time Tour de France winner Ottavio Bottecchia. As well as international events, it also hosted several editions of the Italian Track Cycling Championships.

The first event to be hosted at the Bottecchia velodrome after the

repair/modernisation operations were completed was the "3 Sere Internazionali Città di Pordenone" (3 International Evenings in the City of Pordenone), which was a great success with both the general public and sponsors. The organisers decided to keep the name "3 Evenings" even though the event was actually held over four days. As well as a normal Six Day event for teams of two riders, the organisers also scheduled

the Italian Deryn Championships for men and women, and other specialist events for both professionals and young amateur riders.

Apart from the Italian Deryn Championships, all the other races were standard international events featuring highly motivated riders racing for UCI ranking points. The standings determine who will take part in the World Track Racing Championships and Olympics. The first of the four days featured a spectacular men's omnium with riders from seven nations competing over four events, i.e. a scratch race, tempo-race, elimination race and points race.

The Olympic Omnium champion, Elia Viviani, won the scratch race ahead of the Australian rider Cameron Meyer and a promising young rider called Matteo Donegà. Meyer was then in great form in the tempo-race (a variation on the points race) winning easily ahead of the Hungarian rider Krisztian Lovassy with Donegà finishing third. This took Meyer to the top of the standings. Viviani was back to his winning ways in the elimination race with the Russian rider Sergey Rostovtsev finishing second and Meyer third.

Meyer then showed his class by winning the decisive points race to claim overall victory in the City of Pordenone





2



3

PHOTO 1. Spray applying MAPECOAT TNS WHITE BASE COAT.

PHOTOS 2 and 3. The coloured section of the track were painted with MAPECOAT TNS PAINT.

PHOTO 4. After completion of the works, MAPECOAT TNS PROTECTION transparent finishing product was applied on the surfaces.

omnium with a final score of 210 points. "When Meyer is in that kind of form, he is unbeatable," so Viviani told us. The rider from Verona then went on to talk about the track: "I am extremely pleased with the new Bottecchia track, it is fast and high-performing."

The sprinter Riccardo Minali won the Italian Derny Championship. Leonardo Fedrigo came second riding behind Marco Cannone's derny and Andrea Guardini finished third (behind the derny rode by Cordiano Dagnoni). The Italian women's championship was won by Rachele Barbieri, who raced behind Cordiano Dagnono, with Marta Cavalli (riding behind Cristian Dagnoni, Cordiano's brother) winning the silver and Letizia Paternoster (accompanied by Fabio Perego) taking the bronze.

"Of all the outdoor tracks with resin/cement-based surfaces – so Dagnoni noted – the Bottecchia is the fastest in Italy. And I can assure you it is one of the fastest in Europe. I would like to congratulate whoever refurbished it, because it has just the right surface texture. A totally smooth track would be no good, because there would be no grip (and not just round the bends) at any speed. The roughness of the track at Bottecchia velodrome is the ideal mix to ensure maximum speed and safety.

And bearing in mind that this is a 400-metre track with long straights, a derny can reach higher speeds than on indoor tracks".

The audience at the Bottecchia velodrome cheered on the cyclists in the pairs race. After four days of fantastic battles in the Madison, elimination, scratch, 200 metres Flying TT and points race, the winners were Andrea Guardini and Paolo Simion ahead of Matteo Donegà and Filippo Ferronato. Davide Plebani and Carlo Alberto Giordani finished third, one lap behind.

Mapei Products

Preparing the substrates: Eporip, Primer SN, Mapefoam, Mapeflex PU 45

Rebuilding the track surface: Mapecoat TNS Finish 1, Mapecoat TNS Paint, Mapecoat TNS Primer EPW, Mapecoat TNS White Base Coat, Mapecoat TNS Protection

Article source: Realtà Mapei International no. 71/2018

For more information, email mapei@mapei.com.sg.

PROJECT DATA

Project Name: Ottavio Bottecchia Velodrome,
Location: Pordenone (Italy)
Year of Construction: 1925
Year of the Mapei Intervention: 2018
Intervention by Mapei: Supplying products for renovating the cycling track
Client: Pordenone City Council
Design and Works Direction: Alberto Endrigo
Project Manager: Guido Lutman, Pordenone City Council
Contractor for the Track: Tagliapietra Srl
Mapei Coordinators: Marco Cattuzzo and Luca Nordio, Mapei SpA (Italy)
Photos: Roberto Munizzi

Unique land art:

Quzhou Sports Campus







The Quzhou Sports Campus designed by MAD Architects, led by Ma Yansong, broke ground in the historic city of Quzhou, in China's eastern coastal province of Zhejiang recently. Spanning almost 700,000 square metres, the first and second phase have a total construction area of approximately 340,000 square metres, and include a stadium (30,000 seats), gymnasium (10,000 seats), natatorium (2,000 seats), national sports complex, outdoor sports venue, science & technology museum, hotel accommodations, youth centre and retail programs. MAD's design embeds the functions of the sports park within natural forms, creating an earth-art landscape in the centre of the city – a poetic landscape that falls somewhere between that of Earth and Mars. "We dream not only of creating an urban space about sports and ecology, but also turning it into a unique land art park for the world, establishing a relationship between the city's heritage and history of Shanshui culture," said Ma Yansong.

Quzhou is a city with thousands of years of history, containing deep traditional culture and philosophical ideas; complemented by beautiful scenery, with lush forestland covering more than 70 percent of the land. It is the region's profound historical culture and natural landscapes that are its most precious resources. With this in mind, MAD envisions a surreal, ethereal and tranquil artistic landscape in this modern city, like a mirage, that has the potential to become a place of spiritual belonging for the future of the city.

The perimeter of the site is surrounded by a dense forest of high-standing trees that secludes the uninhabited land from the city. As one enters, the view suddenly opens up towards





broad horizons and the bright sky, while simultaneously appearing as a martian landscape, mysterious and illusory. The overall environment stretches in large expanses and undulates; and the terrain of the mountains exists in a way that is sometimes open, sometimes huddled, and sometimes overlapping. As people move through the park, they drift, climb, and traverse the terrain. In the middle of park, there is a lake that has also been conceived as a sunken garden. Here, one's line of sight looks straight out across the stillness of the water, offering the experience of an untouchable spiritual atmosphere as it reflects the mountains and the sky.

Resembling a crater, the stadium sits into the ground, forming a deep space. It is crowned by a translucent "halo" that gently hovers above the ground like a floating cloud. Its proximity to the earth makes it seem within reach – close but untouchable – inviting people to engage in a dialogue between the earth and the sky, and discover spiritual truth. The adjacent rolling "hills" on the northeast side form the gymnasium, natatorium, and training centre. Above are public spaces and natural scenery that attract people to look up and pause in a moment of contemplation.

The buildings in the park breakaway from that of traditional stadiums and athletic complexes that typically highlight structural power, transformed by a more intrinsic and subtle beauty. The interiors and exteriors of the buildings are connected to nature, providing an openness towards the landscape for people from anywhere, so that they always feel like they are immersed in nature. Pathways between the mountains and the lake meander over and through the architecture. They encourage people to slowly walk around the park, run along the trails, or just enjoy a seat on the lawn to take in the scenery.

The "peaks" and "mountainsides" of several of the "hills" are designed with platforms or skylights that allow natural light to flood onto the interior, and provide natural ventilation through the buildings. The exteriors are covered in greenery, which while being energy-saving, are also human-scale and accessible. They invite people to climb the "mountain", walk along the "mountain" trails, and form a closer

“The relationship between man and nature is not only about ecology and sustainability, but it is also about spirit and mood. This is the culture and philosophy that has long existed in the history of this land and needs to be applied in the development of our future cities.”



– Ma Yansong, Founder of MAD Architects

physical and emotional connection with heaven and earth.

Quzhou Sports Campus abandons the traditional urban construction model of conventional large square landmarks. Drawing on land art and the natural landscape, it forms a unique urban space, one that is embedded in the spiritual understanding of the people, nature, and culture of the city. In the early stages of humankind entering

modern civilisation, the Olympics put forward the slogan: "faster, higher, stronger". This coincides with the challenges of conquering nature in the rapid development of our modern cities over the past century. As people move forward, the future of urban development has the potential to change and open up in new directions – towards a future where people pursue the harmonious relationship between man and nature.

PROJECT DATA

Project Name: Quzhou Sports Campus
Location: Quzhou, China
Client: Quzhou West District Development Committee
Architect Firm: MAD Architects
Site Area: 699,040 square metres (Phase One: 327,370 square metres; Phase Two: 371,670 square metres)
Completion: 2021
Images: ©MAD Architects

Multi-purpose sustainable stadium: **Kai Tak Sports Park**





Main Stadium (external view)



Main Stadium – internal view



Public Sports Ground

On 28 December 2018, The Government of the Hong Kong Special Administrative Region announced that after an open tendering exercise the contract for the design, construction and operation of the Kai Tak Sports Park has been awarded to the Kai Tak Sports Park Ltd.

"The Kai Tak Sports Park, occupying 28 hectares of land, is the Government's most important investment in sports infrastructure in recent decades. When completed, it will become the biggest sports venue in Hong Kong. We are looking forward to working closely with Kai Tak Sports Park Ltd's team to create a world class sports park with high quality facilities for the use and enjoyment of the sports sector and the Hong Kong community," said a Government spokesman.

Kai Tak Sports Park Ltd is a subsidiary of New World Development Company Limited and NWS Holdings Limited established specifically for the project. Its project team comprises overseas and local experts experienced in design, construction, venue management, sales and marketing, and retail and operation. Project team members like Populous, SMG and Lagardère Sports are recognised global industry leaders with extensive experience in the design and operation of large scale international projects as well as the management of major sports venues.

Sustainable design features

The design by Kai Tak Sports Park Ltd consists of a covered Kai Tak Sports Avenue running in the north-south orientation as the main axis, connecting all key facilities of the Sports Park with

the adjacent Station Square, Kai Tak MTR Station and Sung Wong Toi MTR Station and leading to the harbourfront promenade. The focal point of the Sports Park is the 50,000-seat Main Stadium, with "Pearl of the Orient" as its facade design theme. With a soundproof retractable roof and flexible pitch surface the Main Stadium is ideal for hosting major football and rugby games. Through the installation of separation drapes, stage setting and various equipment, the Main Stadium can also be used for hosting entertainment and community events of a different nature and scale.

The Indoor Sports Centre will provide a large multipurpose space, and with most of its 10,000 seats retractable or removable it is not only suitable for hosting major competitions but will also provide many indoor sports courts for everyday community use. The 5,000-seat Public Sports Ground is suitable for hosting school athletics meetings, athletics training and local football

league games. It will also be open to the public free of charge for jogging and exercise.

The Kai Tak Sports Park will also provide large open space for public enjoyment, with facilities such as outdoor ball courts, open lawn areas, children's play areas, fitness stations and more. Other facilities in the precinct include a health and wellness centre, a bowling centre, retail, food and beverage outlets and about 850 parking spaces.

There are various energy conservation and sustainability design features such as a photovoltaic system, roof greening, vertical greening and parking spaces with electric vehicle charging facilities. There are also smart city initiatives including an intelligent building management system, wi-fi hot spots, an indoor positioning system, an intelligent car park management system and mobile applications to facilitate precinct information, booking of facilities and wayfinding.



Indoor Sports Centre in community sports mode.



Dining Cove at the Harbourfront Promenade.

The contract for the Kai Tak Sports Park is for 25 years, including four to five years for design and construction and approximately 20 years of operation. The Government will fund the construction cost of \$29.993 billion, while Kai Tak Sports Park Ltd is required to cover all operating costs and pay the Government 3 per cent of the gross income plus \$1.724 billion during the operation period.

The construction works will commence in the first quarter of 2019 and are scheduled for completion in 2023. When it commences operation, the Kai Tak Sports Park will provide high quality sports facilities to support the future sports development of Hong Kong.

PROJECT DATA

Project Name: Kai Tak Sports Park
Location: Hong Kong
Client: The Government of the Hong Kong Special Administrative Region
Project Team: Populous, SMG and Lagardère Sports
Site Area: 28 hectares
Completion: 2023
Photos: © Kai Tak Sports Park Limited and © Populous Limited

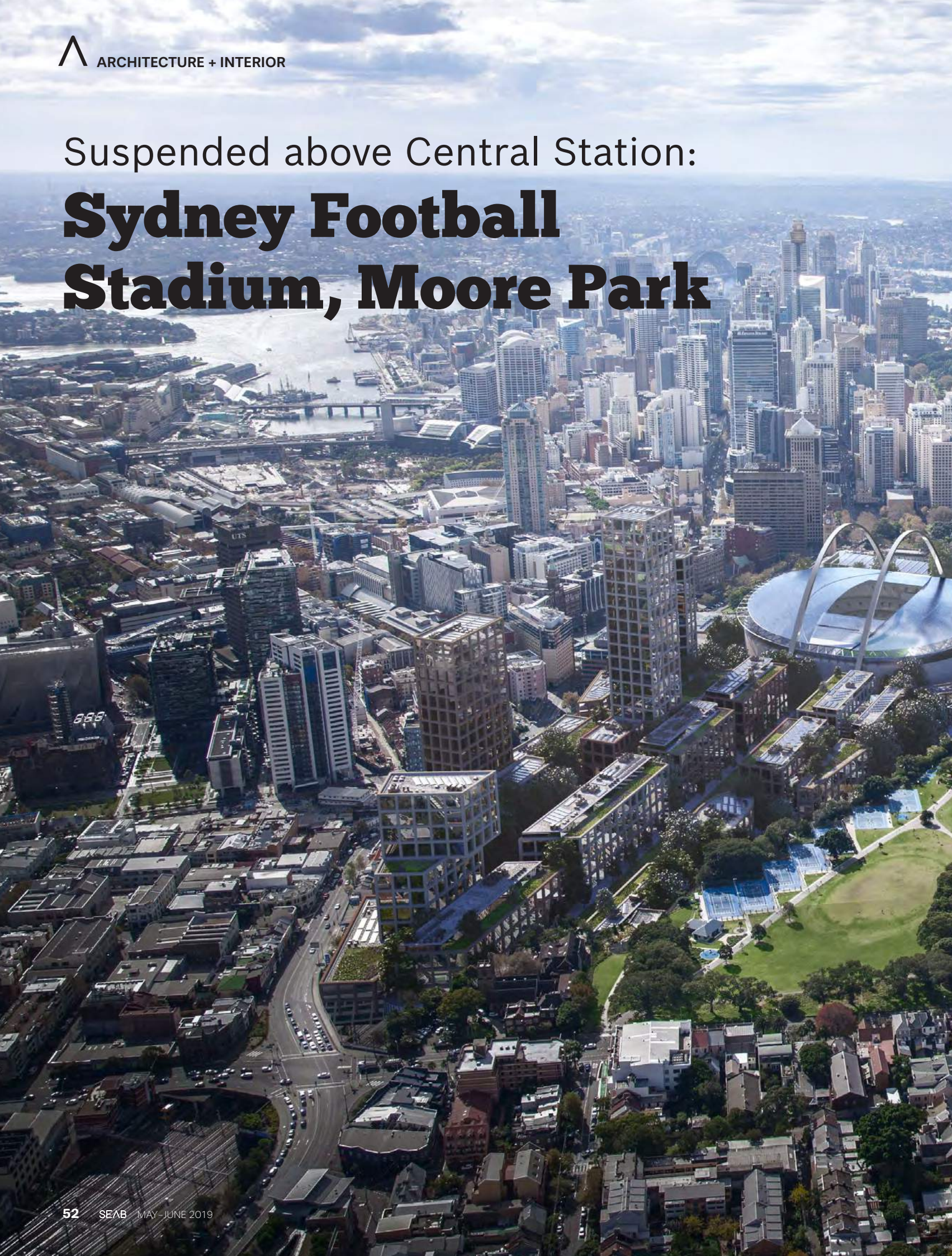
“At its heart, the design inspiration for Kai Tak Sports Park is to create a park for the people of Hong Kong. The location and scale of the site offers a unique opportunity to connect the surrounding parks of Kowloon Bay and to celebrate sport and activity in daily life.”



– Richard Breslin,
Senior Principal of Populous

Suspended above Central Station:

Sydney Football Stadium, Moore Park





Central Station — proposed

The New South Wales State Government in Australia is proposing to demolish the main Sydney Football Stadium in Sydney's south-eastern suburbs and replace it with a new stadium on the same site at a cost of \$705 million. There has been broad public opposition to the proposal based on the wasteful use of government funds to demolish and rebuild.

Australian architecture and design practice Bates Smart believes there are three main issues with the Government's proposal:

- Moore Park Stadium is not well serviced by public transport
- Moore Park Stadium does not have the surrounding entertainment and hospitality venues to extend the game experience and maximise visitor expenditure
- The redevelopment does not catalyse wider economic benefits for urban or infrastructural renewal.

In view of this, Australian architects Bates Smart has revealed bold plan to build new Sydney stadium suspended above Central station. Philip Vivian, Director, Bates Smart revealed his alternative proposal to Sydney Football Stadium which involves constructing a 45,000-seat stadium over the rail yards of Sydney's Central Station.

Philip Vivian, Director, Bates Smart commented: "The

Coliseum in Rome established the concept of the stadium as a public space embedded in the fabric of the city; a monumental piece of infrastructure for public spectacle. In modern times however with the advent of the motor vehicle and the suburbs, stadiums became mono-functional objects, isolated on the periphery of the city and surrounded by car parking. Today a renaissance is underway, with stadiums once again being integrated into the city fabric and acting as catalysts of urban renewal. Stadiums, such as Camden Yards in Baltimore and Docklands Stadium in Melbourne, are anchors for entertainment districts and have reintroduced urban spectacle into our cities."

The relocation of Moore Park Stadium to Central Station Railyards has major public and economic benefits for Sydney and New South Wales.

Public transport

Stadiums are required to be accessible to vast numbers of people in a short period of time. Central Station is the most accessible public transport node in NSW; and will capitalise on the NSW Government's investment in transport infrastructure with the new Metro Station, and the Light Rail line both being implemented at Central.

“We propose that Moore Park Stadium’s replacement be built over Central Station’s railyard; creating the benefits of public transport accessibility, catalyzing the development of the railyards to connect Surry Hills to Chippendale, and having broader economic benefits for the state, the city and surrounding neighbourhoods.”



- Philip Vivian,
Director, Bates Smart



Moore Park – proposed

Urban renewal

A stadium over Central Railyards would create an ideal link between Surry Hills and Chippendale; reconnecting the two sides of the railway lines that have long been disconnected; and anchoring a vibrant new precinct.

Major events and urban spectacle

Embedding a stadium in the fabric of the city creates an urban spectacle, enhancing the experience of attending events. The spillover benefit is that the broadcasting of major events will promote Sydney as a destination to broader audiences. Further, crowds from major events will have a multiplier effect on the economy of Sydney as people access surrounding entertainment and hospitality venues in the city.

Value capture

The NSW Government has a highly valuable land holding in the Central Railyards; which should have demonstrable public as well as economic benefits for the State. It is proposed that the development rights for Central Railyards be provided in return for the construction of a new stadium. Not only does this off-set the cost of the stadium to Government, it also

provides a revenue generating attractor to catalyse further development, creating value for the state and the developer.

More park for Moore Park

Finally, of course, there are benefits for the existing Moore Park Stadium, which can continue to operate during construction of the new stadium without interruption; and upon completion the Moore Park Stadium and surrounding carpark can be returned to public parklands. Restoring Moore Park to its original size and replacing parkland lost to the light rail line will have immeasurable public benefits to the local community.

PROJECT DATA

Project Name: Moore Park Stadium
Location: Sydney, Australia
Client: Concept Design
Architect Firm: Bates Smart
Photos: © Bates Smart

First reusable stadium in the world:

The Ras Abu Aboud Stadium





Spanish firm Fenwick Iribarren Architects (FIA), led by architects Mark Fenwick and Javier Iribarren, won a public competition to design the Ras Abu Aboud Stadium for the Qatar 2022 World Cup.

This is the architect firm's third stadium design to be built for the World cup event out of a total of eight. Fenwick Iribarren was previously awarded the designs for the Qatar Foundation and Al Thumamam Stadiums, which are both currently being built and will also host games for the 2022 World Cup.

Seen as the Ras Abu Aboud Stadium is one of great structural complexity, FIA has teamed up with the engineering company Schlaich Bergemann Partner to develop this innovative structure, and who have contributed their vast experience to find a unique solution in the world of sports architecture.

World's first transportable and reusable stadium

The Ras Abu Aboud Stadium a capacity of 40,000 spectators, a surface area of 120,500 square metres and fulfils all the FIFA requirements for the Qatar 2022 World Cup.

The concept of sustainability is at the very core of Ras Abu Aboud Stadium. Constructed using shipping containers, removable seats and other modular 'building blocks', not only will this innovative, 40,000-seat venue have a remarkable design, but it will be completely dismantled and repurposed following the tournament. Its parts will be used in other sporting or non-sporting projects, setting a new standard in sustainability and introducing bold new ideas in tournament legacy planning and providing invaluable infrastructure to sporting projects far and wide.

In its short lifetime, Ras Abu Aboud Stadium will create an innovative blueprint that will give global stadium developers and tournament planners a fine example to follow. It will guide the way towards more sustainable and more legacy-driven sporting competitions, opening up hosting opportunities to countries all over the world.

Going beyond the physical legacy left by this remarkable arena, it will not only inspire football fans to pick up a ball and emulate the superstars they saw in action at the Qatar





2022 FIFA World Cup. It will also show those planning future stadium development and bids for future editions of the World Cup and other sporting events that a temporary venue can be visually appealing, easily disassembled and cost-effective.

People who live close to the stadium site will enjoy a verdant waterfront development that will occupy the site once the stadium has gone. Work will begin soon after the final whistle brings the venue's Qatar 2022 FIFA World Cup quarter-final match and the stadium's tournament duty to an end.

As football fans make their way to Ras Abu Aboud Stadium, enjoying stunning views of Doha's skyscrapers from across the bay, they will marvel at a football stadium unlike any other. This 2022 Qatar FIFA World Cup venue will be constructed using shipping containers and modular steel elements, echoing the nearby port and Doha's long maritime history. The result will be a distinctive, boldly colourful and thoroughly modern arena that will almost look like it is made from building blocks.

Located on the shores of the Gulf, looking across to Doha's dazzling West Bay skyline, Ras Abu Aboud Stadium will be a spectacular venue for matches up to the quarter-finals of the Qatar 2022 FIFA World Cup. Following the tournament's

conclusion, the stadium will be dismantled and make way for a waterfront development for local people to enjoy.

The design uses prefabricated and modular elements. This approach reduces the waste generated during production of stadium components and the waste created on site during construction. The use of modular elements also reduces the venue's construction duration.

The venue's temporary nature and clever modular design will mean that fewer building materials will be required than in traditional stadium building, helping to keep construction costs down. And with other projects reusing the seats, roof and other components of the arena, parts of the venue will be utilised for years and even decades to come. Minimising construction costs and ensuring regular future use are the key ingredients in making a new stadium and sporting mega events sustainable.

The design concept will result in the swift, cost-efficient construction of a stunning arena, which will have an elegant curved square form. The enclosed shape of the stadium will ensure a memorable atmosphere for fans and players alike at the Qatar 2022 FIFA World Cup fixtures up to the quarter-final stage.





“We are delighted to be part of another project for the Qatar 2022 World Cup and very proud that our design of the Ras Abu Aboud Stadium is the first transportable and reusable in history. We are confident that this innovative and sustainable concept will serve as an inspiration for other architects from all over the world.”



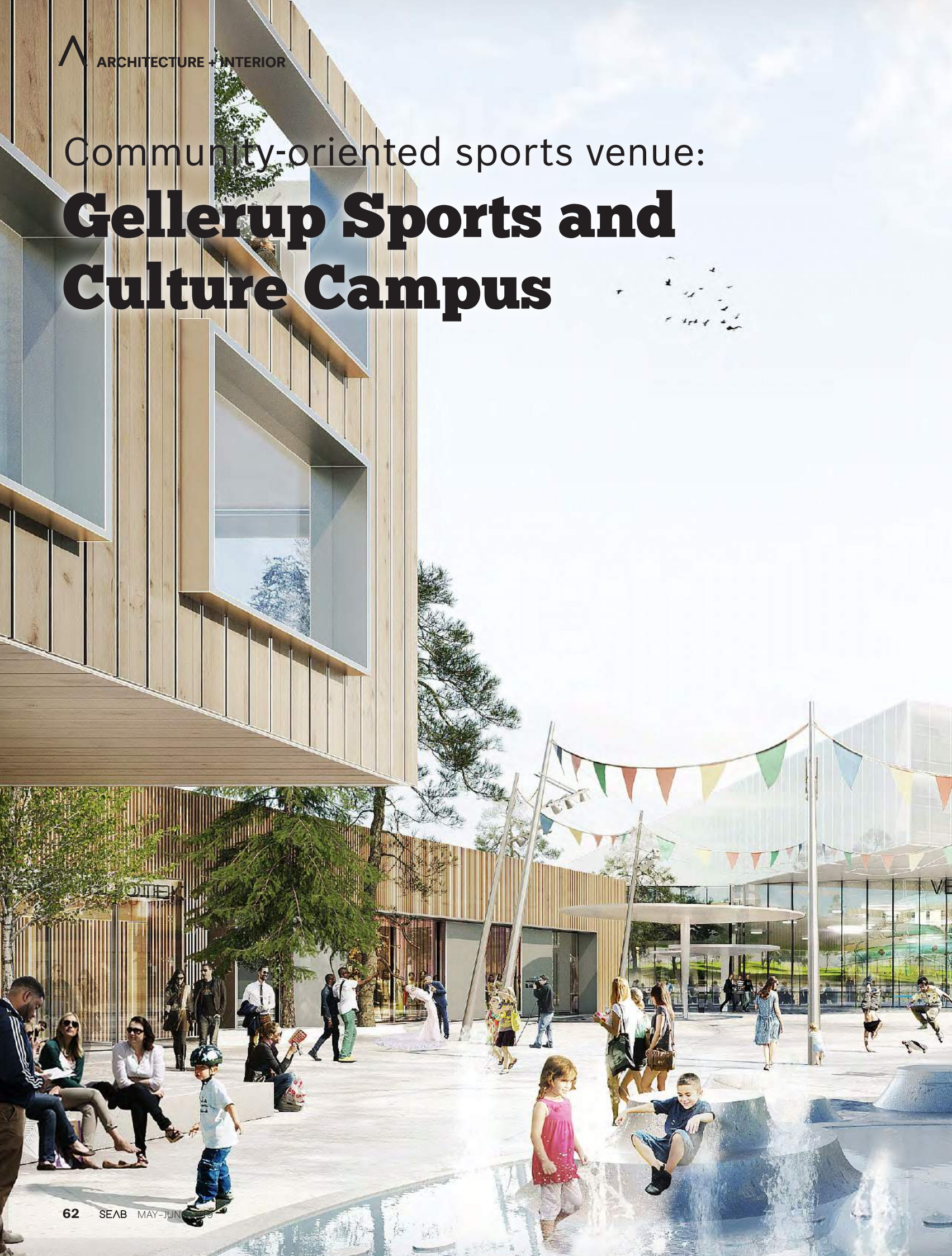
- **Mark Fenwick**, Managing Partner,
Fenwick Iribarren Architects

PROJECT DATA

Project Name: Ras Abu Aboud Stadium
Location: Doha, Qatar
Client: Supreme Committee for Legacy & Delivery
Architect Firm: Fenwick Iribarren Architects
Site Surface Area: 45,000 square metres
Completion: 2020
Photos: © Fenwick Iribarren Architects

Community-oriented sports venue:

Gellerup Sports and Culture Campus





ERD ENÇAD

CIRK(H)USE
MUSEUM



A jury commissioned by Aarhus Kommune and Brabrand Boligforening selected Schmidt Hammer Lassen Architects along with a collaborative team that includes MASU Planning ApS, Loop Architects and COWI A/S to design a new Sports and Culture Campus in Gellerup.

Located in a community in western Aarhus that is seeing an influx of redevelopment and revitalisation, the sprawling Gellerup Sports and Culture Campus will comprise a library, facilities for local residents, a playful activity house for circus, soccer, school and climbing – and potentially a unique public swimming pool. The campus is expected to attract more than 600,000 visitors annually.

“When designing the campus, our intention was to create a welcoming place that is open and relevant for the local community, while also appealing to residents from across Aarhus and the world,” said Rasmus Kierkegaard, Partner at Schmidt Hammer Lassen Architects.

Located in the western part of Aarhus Kommune, Gellerup is the city's most culturally diverse district with residents relocating to the neighbourhood from all corners of the globe. The Gellerup Sports and Culture Campus is a part of the city's ambitious Master Plan, a project aimed at improving the quality of life and safety in the area in collaboration with the community's residents. The winning proposal presented an inviting building structure that breaks up the city's existing boxy grid with an open, flowing layout that strengthens community ties, neighbourhood democracy and cohesion. The architecture supports openness and creates space for people to meet each other by overlapping buildings and spaces in an intuitive way.

The winning team, selected after a competition that also included Danish architectural firms 3XN and CEBRA, will now begin work to develop a detailed design. Work on-site began in early 2018, with completion estimated to be in 2021.

“We hope to draw people into the campus’s various elements with architecture that is rooted in the local environment, but also speaks to an international audience.”



- Rasmus Kierkegaard,
Partner at Schmidt Hammer
Lassen Architects

PROJECT DATA

Project Name: Gellerup Sports and Culture Campus
Location: Gellerup, Aarhus, Denmark
Client: Aarhus Kommune and Brabrand Boligforening
Architect Firm: Schmidt Hammer Lassen Architects
Gross Floor Area: 8,500 square metres
Completion: 2021
Photos: © Schmidt Hammer Lassen Architects



Iconic green roof:

New Sports Arena in Munich Olympia Park







On February 14, 2019, the Bavarian Capital City of Munich, FC Bayern Basketball, SAP and Red Bull jointly presented the winning design for the new multipurpose sports arena to be built on the site of the former Olympic cycling track stadium in Munich Olympic Park.

The contract for building the arena was awarded to 3XN Architects of Copenhagen, Denmark, together with LATZ+PARTNER, a German landscape and urban planning firm. The sports arena, with match seating of up to 11,500, will be the future home of German ice hockey champions Munich Red Bulls and German basketball champions FC Bayern Munich. To improve the local sports infrastructure

for schools, amateur clubs and young talents, three additional canopied ice rinks will be built next to the sports arena as training facilities and for recreational use. Therefore, a comprehensive agreement on guaranteed opening times for the ice rinks has been closed with the City of Munich. The building owner of the project is Red Bull Stadion München GmbH.

"We are delighted to design the new multipurpose sports arena at the Olympic Park in Munich, which will be the fourth arena project for 3XN Architects. It's a great opportunity to become part of the inspiring, historic architecture of the park. During the design process, we continually thought about the park's original design and asked ourselves how



“It was important to us to create a flexible, multipurpose arena with a strong identity while respecting the history and vision of the original Olympic Park and fitting in quite naturally. We want to create the perfect backdrop for a fantastic fan experience.”



- Jan Ammundsen,
3XN Architect’s Head of Design

Günter Behnisch would have approached the task,” said Jan Ammundsen, 3XN Architect’s Head of Design.

The new sports arena is a separate oval structure that naturally and respectfully melds into the world-famous Olympic Park with its many iconic buildings. This impression is enhanced by the green roof and vertical facade structure. The facade is dominated by vertical lamellas, swinging upwards over the glass-paneled entrances which are thus beautifully accentuated. The training areas are partially underground and modelled to form a green hill, picking up the topography and enabling a coherent continuation of the pathways and landscape design of the Olympic Park.

SAP secured the right to the name of the future multipurpose sports arena in September last year. As a world market leader for business software, SAP will also be the project’s technology and innovation partner. On February 14, a naming competition for the new multipurpose sports arena is being launched using the hashtag #NameGameOn. Future fans and spectators are invited to help find a name for the venue and may enter their suggestions at www.NameGameOn.com. The deadline for entries is March 4, 2019. A jury consisting of representatives of Red Bull, FC Bayern Basketball and SAP will then select a shortlist of names. Finally, members of the public will get to vote for their favorite name online.

PROJECT DATA

Project Name: New Sports Arena in Munich Olympia Park
Location: Munich, Germany
Client: Bavarian Capital City of Munich
Architect Firm: 3XN Architects
Gross Floor Area: 62,500 square metres
Completion: 2021
Photos: © 3XN Architects

PLAYPOINT DESIGNS THE DISCOVERY SLIDES ATTRACTION FOR JEWEL CHANGI AIRPORT

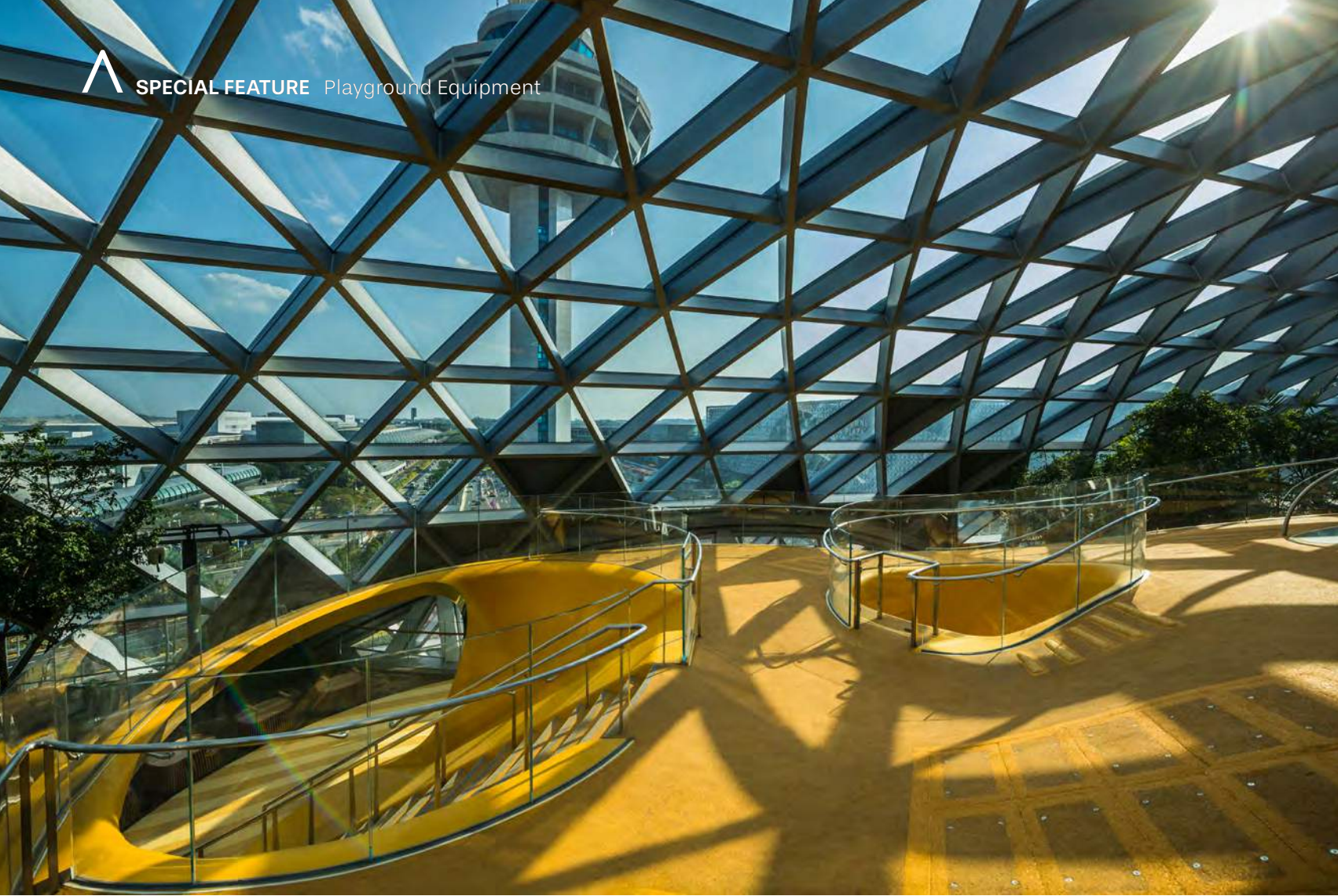
All photos courtesy of Playpoint (Singapore) Pte Ltd



Playpoint (Singapore) Pte Ltd is proud to present the latest attraction designed for Jewel Changi Airport (Jewel), the upcoming multi-dimensional lifestyle destination at Singapore Changi Airport. The Discovery Slides attraction is located at Canopy Park, located at the topmost floor of the complex. This attraction has a mirror finish that takes its inspiration from the Cloud Gate sculpture in Chicago.

Playpoint and Carve teamed up once more to design the Discovery Slides. Spanning over 18.8 metres by 16.7 metres in length with the highest point of the viewing platform at 6.5 metres, the Discovery Slides will be the most complex structure ever built for a playground.



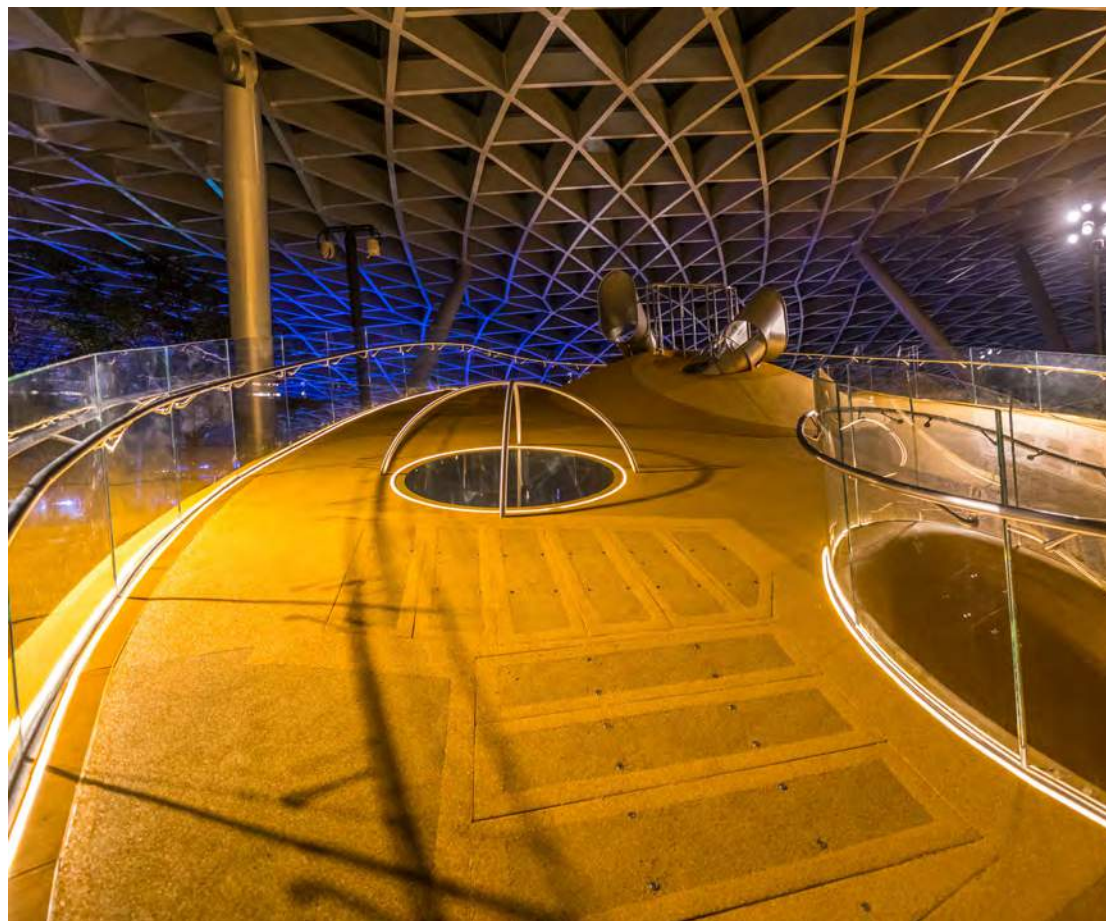


It is the world's first to combine an art sculpture and slides into one single attraction – targeting both the young and young-at-heart.

Four slides of varied gradients and heights offer different thrilling experiences that open up distinct views of Canopy Park. The viewing platform on the Discovery Slides will also be an excellent spot to capture vantage views of Jewel's centerpiece attractions, the lush Forest Valley and magnificent Rain Vortex.

The Discovery Slides will incorporate fibre optic lights as part of its design, as well as air-conditioning to ensure a pleasant experience for everyone on the slides. To achieve the smooth mirror finish of the slides sculpture, plates of stainless steel were welded, hammered and polished to achieve a blemish free appearance.

From concept design to realisation, this project took two years for it to be completed. A true work of art, that involved specialists from different countries and background to create the sculpture and bring imagination to life.



CUSTOM PLAYGROUNDS VS PROPRIETARY (CATALOGUED) PLAYGROUNDS

Text by Patrick Lee, Director, CT-Art Creation Pte Ltd



Custom Playground by Recreology. Photo courtesy of CT-Art Creation



Proprietary Playground by Playworld.
Photo courtesy of CT-Art Creation

With my experience in building both custom and proprietary playgrounds over the past 25 years, I thought that a summary of major issues will be timely for this issue.

As developers and architects are tasked to build more exciting play facilities for their properties to provide better and unique facilities, they sometimes think about planning a custom playgrounds mostly to enhance the history or background of the property.

I would summarise my thoughts by describing what they are and illustrate the pros and cons with a table of comparisons.

Proprietary (Catalogued) Playgrounds

Many playground manufacturers have distinct styles, for example rope play, post and platform system; with slides, climbers etc, stainless steel designs, timber playgrounds, adventure slides tree house, themed playgrounds like insects, animals, independent play items like spinners and see saws.

All the designs are in the catalog with details of safety zone, fall heights, play value and material specifications.

Quality manufacturers have research and design teams to create new play ideas, use suitable materials, ensure safety compliance through laboratory certifications, provide finished product details, technical specifications, product

liability insurance, maintenance and installation instructions.

Custom Build Playgrounds

The designer creates a concept of a playground, may be nature, biophilic, animal, fruit, artistic design, designs that reflects the past and present character of the area, terrain, commemoration of famous persons, etc. The design can incorporate multi colours not available with proprietary playgrounds.

Idea generation can come from the community and stakeholders on the design of the custom playground.

A higher budget is required for custom playgrounds, and longer project period is required. A period of design and development is required to produce final drawings for approval of the property/location.

Ideas generated are exciting and some technical details are usually not available when the ideas are under design and development.

The safety compliance of the playground is subjected to many factors and much unforeseen situations will arise where design reviews have to be conducted.

Below is a summary of issues relating to building a custom or proprietary playground.

ISSUES ON PROPRIETARY VS CUSTOM BUILD PLAYGROUNDS

S/N	ISSUES	PROPRIETARY PLAYGROUNDS	CUSTOM BUILD PLAYGROUNDS
1	Selection of Play Equipment	Wide selection of equipment and designs.	Designers develop imaginative ideas to create a custom playground.
		Allow pick and choose to integrate into play area.	Limited play items to be integrated into custom design.
2	Designs	Equipment and materials are researched, designed, tested for maximum loading, manufactured for quality in a factory environment.	Less control on manufacturing, some playground manufacturers may undertake custom design work. Most factories feel it is not productive to produce custom designs.
		Subject to colour palletes available in the catalogue.	All colours are available.
3	Costs & Lead time	Value for money	Increased budget
		Less lead time	Increased lead time to include design and development.
4	Play Value	Can be very rich in play value, climbing, rocking, balancing, swinging, spinning.	Ideas for custom design are mostly based on the aesthetic appeal to adults and surrounding infrastructure.
		Equipment can be easily selected for age appropriateness.	In-depth knowledge on age-appropriate play equipment is needed to create play space for different age groups.
5	Play Value / Inclusivity	Inclusive play equipment are specially designed for different physical challenges.	A person knowledgeable in inclusive play requirements and play safety is required to create an inclusive playground.
6	Safety	Designers follow instructions and details from catalogue.	Designers must have knowledge of playground safety requirements.
		Design and safety zone details are available so as to minimise safety non-compliance.	Designs do not meet safety requirements, for example, swings should not be attached to a structure.
		Equipment are tested and improved in-house by third party professional playground auditors before they are put into catalogues for sale.	Equipment can only be audited after installation. A local professional engineer can oversee the structural design at construction stage.
7	Product Liability & Warranties	Manufacturers insure their designs against injuries with insurance companies.	Difficult to get insurance companies to provide product liability insurance.
		Manufacturers can do product recall if the design is faulty and causes injury to users.	There is no recall and the Company must be trusted to be able to rectify any defects.
		Manufacturers provide the liability insurance.	The Owners/Architect/Playground Company is responsible in event of any accidents occurring due to the design.
8	Installation and Maintenance	Manufacturers produce installation and maintenance instructions.	Playground company usually produce an in-house installation and maintenance instruction on an ad-hoc basis.

by Patrick Lee

“Sustainable development (SD) has always been a part of the Swire Properties’ philosophy and thinking, and an integral part of our history.”

– An interview with **Dr Raymond Yau** of Swire Properties



Swire Properties, a leading developer in Hong Kong, won the Business Leadership in Sustainability Award at the World Green Building Council's (WorldGBC) Asia Pacific Leadership in Green Building Awards 2018. In this issue, Dr Raymond Yau, General Manager, Technical Services and Sustainable Development of Swire Properties, speaks on how the company has been actively promoting and championing its sustainability efforts in Hong Kong.

SEAB: Congratulations to Swire Properties. How do you feel after winning this award?

RAYMOND: We are delighted and honoured to receive such a remarkable recognition from the World Green Building Council. It is wonderful that our sustainable development (SD) works have been recognised and this is a great encouragement to everyone in Swire Properties, from senior management to all working levels of our employees that have been dedicated in contributing to sustainable development. I would like to thank them for their hard work.

SEAB: The Business Leadership in Sustainability Award rewards companies that push boundaries, integrate sustainability into their business models and make an outstanding contribution to a sustainable built environment. Can you tell briefly how Swire Properties incorporated sustainability into its overall business?

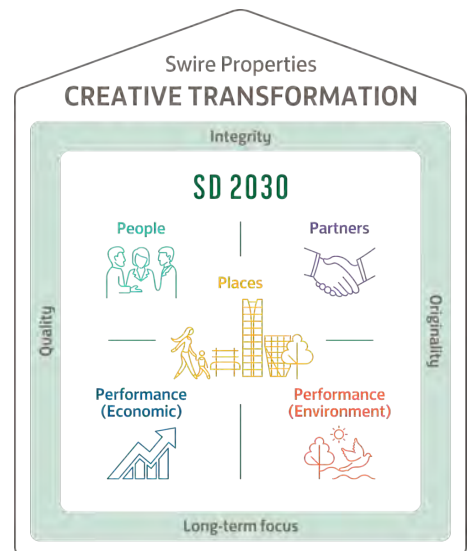
RAYMOND: SD has always been a part of the Swire Properties' philosophy and thinking, and an integral part of our history.

20 years ago, we initiated Hong Kong Building Environmental Assessment Method (HK-BEAM), which was at the time the second green building assessment scheme in the world, and is the only scheme recognised by the Hong Kong government. We helped lead the way in SD reporting, and since 2003, we have published and shared our environmental achievements through EHS / SD reports. Fast forward to present times, Swire Properties is the Platinum patron member of the Hong Kong Green Building Council (HKGBC) and we have celebrated multiple SD milestones.

In 2016, we refreshed our strategy to introduce a new SD vision: "To be the leading sustainable development performer in our industry globally by 2030".

In order to achieve this bold SD vision,

we formulated our SD 2030 Strategy in the same year, a long-term plan that aims to ultimately create vibrant high-quality sustainable communities. The Strategy, which includes over 60 measurable KPIs and targets, enables the company to



“People are a key part of our SD 2030 Strategy and we take the health and wellbeing of our employees, tenants, building users and community very seriously.” – Dr Raymond Yau

track the improvements over time. This strategy comprises of five pillars: Places, People, Partners, Performance (Economic) and Performance (Environment).

The Strategy is aimed at ensuring that SD is integrated into every facet of our business. Therefore, it is so vital that everyone at Swire Properties understands the Strategy and what we are trying to achieve, and gets engaged to contribute to the Strategy altogether.

Our employees are critical to the implementation of the strategy and it is great to see them getting involved at every working level. To ensure our SD 2030 is properly integrated across business units, functions, levels, portfolios, and geographies, we have developed a robust and inclusive sustainable development management structure, which includes employees with different backgrounds and expertise, levels of seniority and work experience. The key elements of this management structure are captured as follow:

SD Steering Committee: Our SD Steering Committee is chaired by the Chief Executive, and comprises the Finance Director and five other members of senior management. Through its Chairman, the committee directly reports relevant SD matters to the Board, as appropriate. The Committee is responsible for reviewing and overseeing the implement of our SD 2030 Strategy.

Working Groups: Each pillar is supported by a working group that is responsible for recommending specific KPIs for achievement by 2020 and 2030 within their respective focus areas. Members of the group are cross-functional and cross-geographical.

Communication and Engagement Committee: It is responsible for identifying, prioritising, and overseeing

the implementation of communication and engagement plans for SD initiatives that support our SD 2030 Strategy.

In addition to our inclusive management approach on SD, our business units have also incorporated SD considerations into their annual budgets and shared the proposed budget allocations of the year with the relevant SD working groups.

We also engage directly with all major business units in Hong Kong, Mainland China and U.S.A. to integrate our SD 2030 Strategy into our operations and investment decisions at the asset and functional levels.

SEAB: How has this Award raised the bar for you to meet new sustainability goals for the company?

RAYMOND: With our vision to be a global leading SD performer in the industry, we continue to be forward-looking, and to continuously explore and innovate in order to achieve our sustainable development goals.

In 2018, we launched our first 10-year green bond, raising US\$500 million at a coupon rate of 3.5 percent due 2028. As at 30th September 2018, around 80 percent of the proceeds from the bond have been allocated to different green projects, including the green building development for One Taikoo Place, our newest Grade-A office development in Hong Kong. These include the adoption of some innovative technologies: a pilot testing of dual-level roof fitted with an integrated PV system and green roof; Bio-diesel tri-generation system; Air handling units with electronically commuted plug fans, and more. We have also published a Green Bond Report to disclose the proceed allocation and to highlight the estimated environmental benefits achieved by the bond proceeds. In addition to the issuance of green bond, we have committed to the Science-Based Targets initiative (SBTi) to establish long-term decarbonisation targets in line with the Paris Agreement. We are the first real estate company in Hong



Kong and Mainland China to commit to the SBTi, an initiative developed among the United Nations Global Compact, World Resources Institute, the CDP and the World Wide Fund for Nature, which encourages corporations to play a substantive role in reducing global greenhouse gas emissions and aims to make science-based target setting a standard business practice by 2020.

We are also undertaking a climate risk assessment to identify key risks posed by climate change to our business operations, and the findings of the assessment will be used to develop an action plan for mitigating risks and building resilience strategies across our portfolios.

SEAB: Swire Properties also received the Better Places for People Special Recognition which spotlights companies that have truly embraced health and wellbeing practices, in line with the aims of WorldGBC's Better Places for People project. Can you briefly describe to us how Swire Properties has created a conducive working environment for their employees to work in?

RAYMOND: As part of our SD 2030 Strategy, we aim to create an environment where our employees will be healthier, happier and more productive, to invest in our employees and to provide rewarding career paths so as to develop a diverse and industry-leading team.

People are a key part of our SD 2030 Strategy and we take the health and wellbeing of our employees, tenants, building users and community very seriously. Apart from tailored employee well-being programmes, we recognise the importance of good indoor air quality / indoor environmental quality and strive for excellence in building services provision. We are proud of the achievements so far.

Employee Engagement

We value our employees and work to strengthen their health and wellbeing through a wide variety of events and activities in and out of the office. These events contribute to employee health and wellbeing, improve communication between employees, and strengthen employee engagement.

We care about the mental health of our

employees – by providing counselling services and learning opportunities through our Employee Assistance Programme. The Programme offers in-person counselling 24-hour telephone support from relevant professionals. We also host regular events for our employees, such as luncheon talks and training sessions, to promote mental and emotional wellness and work-life balance.

In 2018, we introduced Employee Wellness Programme, which includes sharing session of frontline employees on a range of topics, such as office ergonomics, visual comfort, maintain work-life balance, getting sufficient sleep and good nutrition. A dedicated Work-Life Balance Week was organised in September 2018 to offer employees a wide range of health and wellbeing-related activities, including yoga, meditation, and garden therapy. A sponsorship fund was also introduced to provide financial support on internal sport and recreational clubs initiated by our employees.

Excellent Indoor Air Quality

Under the Performance (Environment) pillar, occupants' health and well-being considerations have been incorporated into our developments. In Hong Kong, we have been assessed by the Government's IAQ scheme for common areas and have achieved "Excellent" Class, the highest rating, for our core office buildings, for many years. Apart from the Government scheme, we have measured indoor fine particulate matter (PM2.5) levels in our core buildings and will work on mitigation measures to improve IAQ. We have set 2020 targets to ensure that all our portfolios will achieve IAQ excellence class for common areas.

Furthermore, in order to understand the real-time indoor air quality at our flagship shopping mall in HK, we have installed sensors and an environmental performance dashboard in our Pacific Place mall, which can capture temperature, relative humidity, CO₂ and PM2.5. This allows us to closely monitor outdoor/indoor IAQ parameters, and building sustainability performance for the benefits of end-users.

INDIGO, Beijing was rated by a social media platform as one of the two best performing shopping malls in Beijing in

respects to indoor air quality, with PM2.5 concentration under 100. INDIGO strived to provide shoppers with high-quality indoor air by selecting relevant building materials and adjusting day-to-day operations.

In 2016, we worked with Tsinghua University and implemented strategies to minimise outside air infiltration and rebalance indoor air composition. Automatic doors were installed in underground parking and delivery areas to prevent outdoor air from flowing into the mall, and a static electricity filter was installed to improve the performance of ventilation systems and air-conditioning units.

As a result, we were able to reduce pollutant penetration and lower PM2.5 concentrations within the mall to better protect the health of shoppers. Building on this project, we engaged consultants to help us implement initiatives to reduce indoor PM2.5 concentrations across our Hong Kong and Mainland China developments.

WELL Standard – One Taikoo Place

We are committed to improving occupant experience and building performance through programmes such as the International WELL Building Institute's WELL certification scheme. Our newest Grade-A development in Taikoo Place, One Taikoo Place, uses air-handling units equipped with sanitizing ultra-violet lights, activated carbon filters, and MERV 13 filters to improve indoor air quality, and reverse osmosis filtration systems to provide clean drinking water, and obtained WELL Platinum pre-certification in 2018.

SEAB: How easy or difficult has it been to promote sustainability in your building projects as well as in your organisation?

RAYMOND: We work collaboratively with both internal and external parties on the planning, design, and construction of our building projects to promote sustainability. To achieve our sustainability objectives, we adopt integrated design approach to our projects. This requires members of the project team, namely architects, designers, engineers, our projects, leasing, technical and sustainability teams and other relevant persons, to work together from the outset to achieve the required sustainability goals.

At the earliest stages of project development, the project team members work with one another to consider the entire building and its systems throughout its life cycle. This approach allows us to take into account not only the design and construction of the building, but also how it will be operated and maintained in the future.

Within our organisation, we believe our inclusive management approach helps to ensure that our SD 2030 Strategy is properly integrated across our operations. Our SD management approach is inclusive of employees with different backgrounds and expertise, as well as different levels of seniority and work experience.

The successful implementation of our SD 2030 Strategy requires the support of our employees. In 2018, we modified our

employees' Performance Development Review system to incorporate elements of our SD 2030 Strategy. Beginning in 2019, we will ask our office employees to align their annual performance goals with our SD 2030 pillars in order to further engage them in our Strategy.

SEAB: What are some of the key challenges that you have faced while championing green buildings in Hong Kong and why?

RAYMOND: Enhancing the sustainability performance of existing buildings is one of the key challenges that we encounter, and I believe this is a common challenge across our industry.

In addition to the payback period of investments that are concerned by many building owners, our concern is more on the effectiveness of enhancing the

sustainability performance of existing buildings. For example, there are uncertainties on retrofitting existing buildings for better sustainability performance – these include climate change, service changes, occupants' behavioural changes and technological changes. All of these need to be holistically considered and fully integrated in the planning and development processes involved.

Incentives for building owners/property developers to enhance the sustainability performance of existing buildings have to be further enhanced. In Hong Kong, GFA (gross floor area) concession incentive is available in new building developments but not yet for existing buildings.

This however would not deter us from upgrading our existing buildings, we



"We have committed to the Science-Based Targets initiative (SBTi) to establish long-term decarbonisation targets in line with the Paris Agreement." – Dr Raymond Yau

strive to achieve certification for our buildings under relevant environmental building assessment schemes that provide benchmarks and objective standards against which we can measure our performance. As of end of 2018, 92 percent of all our existing buildings are certified green buildings, of which 75 percent have achieved the highest ratings.

SEAB: What are your plans for Swire Properties to become more sustainable in the next 2 to 3 years?

RAYMOND: Under Performance (Environment), a set of strategies and polices are in place to address environmental risks and opportunities, as well as emerging SD issues, such as climate and water risks. We are on track to meet our 2020 goals (selected ones below) to improve our SD performance over time, stimulates innovation and strengthen engagement with our business partners and the wider community.

- Reduce 64 million kWh/year energy consumption by 2020 for HK portfolios as comparing with 2008 baseline;
- Reduce 27 percent carbon intensity by 2020 as comparing with 2008 baseline; and
- Recycle 80 percent demolition waste and 60 percent construction waste for HK projects under development by 2020



We are starting to develop our targets for 2025 and 2030 to further enhance our SD performance.

To honour our commitment to SBTi, we will develop "science-based targets" – ambitious carbon reduction targets in line with the Paris Agreement, to keep global temperature increases below two degrees Celsius compared with pre-industrial levels.

To echo that, we will also ramp up our current energy reduction efforts through monitoring-based commissioning of our air conditioning systems, and to continue

to work with Tsinghua University to develop new methods for increasing energy efficiency in our portfolio. We also strive to procure more renewable energy from our Mainland China portfolio.

SEAB: What advice would you give to property developers who have the same vision as you to achieve a sustainable built environment?

RAYMOND: For property developers that are aiming to create sustainable and green buildings, we believe a holistic approach could be adopted starting from the design phase of a project.

Integrated Design Approach

A comprehensive stakeholder engagement process is crucial for a building project. Swire Properties has adopted an integrated design approach, and we work closely and engage with all the project team members during the building design phase, including architects, designers, engineers, our projects, leasing, technical and sustainability team and other relevant persons. Communication and engagement is an important element, which helps everyone in team understands the expectations of the project, and at the same time, stimulates creativity and innovation, and identifies and resolves potential issues before they arise. The team also applies a life cycle approach to take into account both design and construction of the building,



as well as how it will be operated and maintained in the future.

As part of an ongoing pilot study, we are working with our contractors and suppliers to collect data on carbon emissions arising from the construction of One Taikoo Place. We are working with a research team from the Hong Kong University of Science and Technology's Department of Civil and Environmental Engineering to utilise this data to develop a carbon accounting methodology that will allow us to identify carbon reduction opportunities for future development projects.

Corporate-wide vision and strategy

In the bigger picture for incorporating sustainable development practices into an organisation, it is vital for a company to incorporate the concept of sustainable development into its policies, processes, as well as business planning so that continuous improvements could be achieved.

In order to get everyone in the company engaged with the concept of sustainable development, seeking top management support is the top priority. The board of directors, the Chief Executive, and other senior executives must be actively engaged, and in Swire Properties, we understand

"In order to get everyone in the company engaged with the concept of sustainable development, seeking top management support is the top priority task."

– Dr Raymond Yau

top management buy-in is important for formulating our SD 2030 Strategy. During the preparation stage of formulating our SD 2030 Strategy, we conducted a comprehensive review of our strategy with our middle- and senior-level executives, as well as external stakeholders through interviews, discussions, and focus group sessions to understand the trend and discuss on how to further integrate the strategy into every facet of our business. This is an important process on how we work towards sustainable development – because we believe our senior management needs to lead by example, and to set the direction for the whole company.

By adopting an inclusive approach

to the management of sustainable development, employees with different backgrounds and expertise, in addition to different levels of work experience, were involved in the process to help Swire Properties to develop a bold and clear SD vision with measurable and realistic targets and action plans. This is indeed an important element for us to ensure that SD Strategy can be properly integrated across our operations.

This is just part of our journey on sustainable development, and we believe we have so much more to do. As an industry leader in this space, we will continue to positively influence the industry and join hands with our peers to contribute to sustainable development altogether.



Tridium introduces Niagara Edge 10

Tridium is excited to introduce Niagara Edge 10 – Tridium's first IP-based IO controller that harnesses the full power of the Niagara Framework® at the edge.

By running Niagara at the edge, systems integrators can reduce training costs, learning curves and proprietary tools with an industry standard framework. In addition, they can take advantage of new and improved workflows that will save on installation time and maintenance costs.

Building owners can take advantage of high-value apps from the Niagara Community and connect directly to apps hosted in the cloud. Built-in analytics create smarter, more efficient buildings, and improve decision-making. Additionally, Niagara's world-class security features protect all levels of the building infrastructure – giving owners greater peace of mind.

A flexible solution for the Niagara Community

Tridium's goal with Niagara Edge 10 is to bring the power of the Niagara Framework to the edge and make it easier to connect and control systems and optimise performance within the IoT. That's why Tridium is evolving its software to include tools to assist in the configuration and management of edge devices. These tools are open and available for everyone running Niagara, regardless of hardware platform.

Niagara Edge 10 device management made easy

(1) Quickly build your network

Based on the volume of edge devices at a site, adding devices to your Supervisor may be a challenge. Join edge devices to your network more quickly with tools that ease the process of adding and managing a field of edge devices, which reduces overall installation and configuration time.

(2) Easily manage and deploy updates

Edge devices typically have a single purpose, with multiple devices serving the same function. Use Niagara to create application templates and deploy to multiple devices with specific properties unique to each device.

(3) Keep your network secure

Security is always critical, but implementing it across numerous devices on a network can be tedious. Tridium has built tools that assist systems integrators in provisioning and managing security settings across devices.

Applications of Niagara Edge 10

- Fan coil unit
- Single-stage air handling unit
- Water source heat pump
- Zone control
- Boiler with hot water reset
- Others



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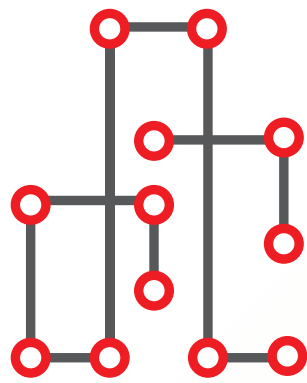


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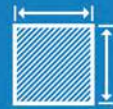
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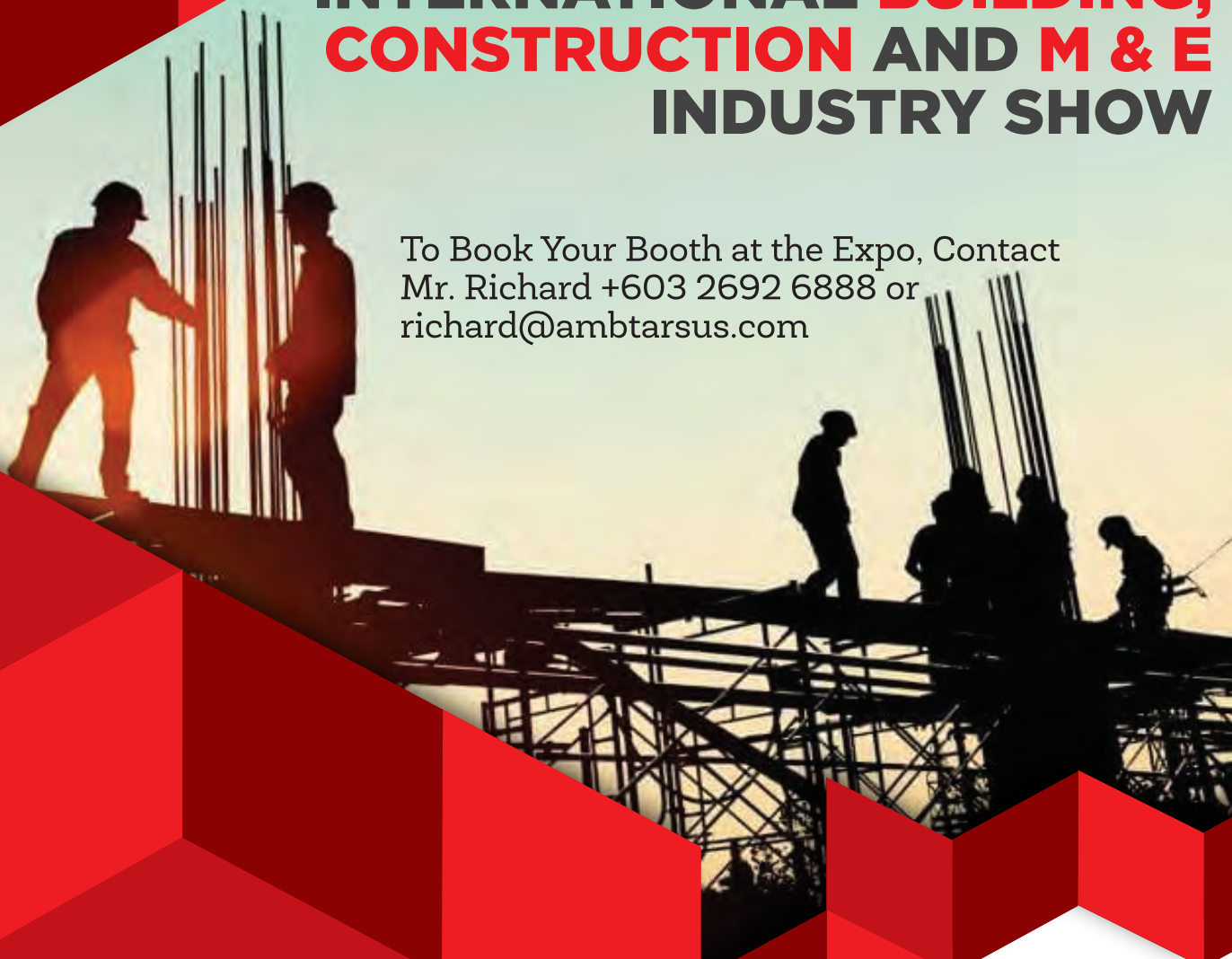
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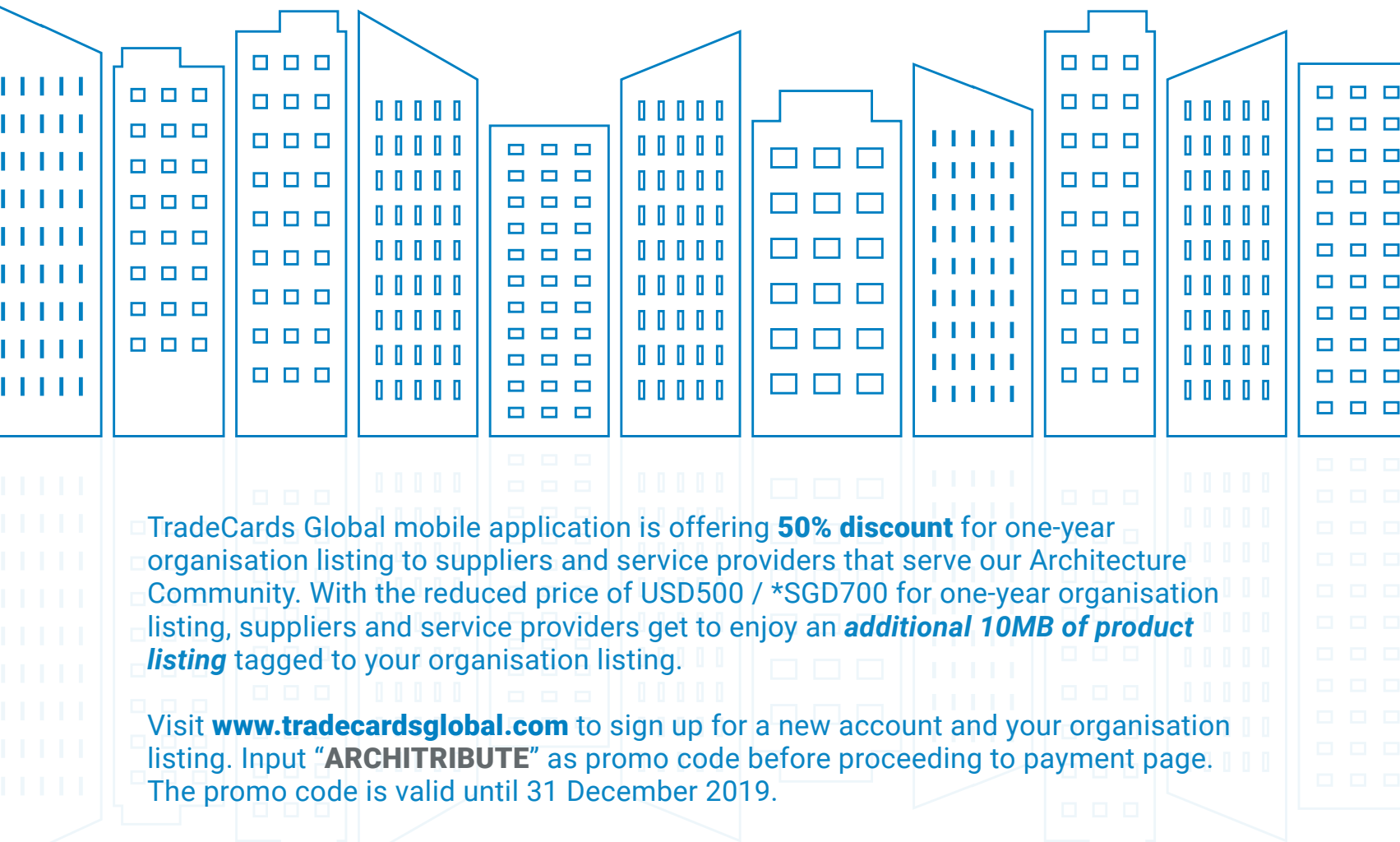
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Archidex 2019	3 – 6 Jul 2019	Kuala Lumpur	Malaysia	www.archidex.com.my	83
Cambuild 2019	18 – 20 Sep 2019	Phnom Penh	Cambodia	www.cambuildexpo.com	87
ArchXpo 2019	1 – 3 Oct 2019	Singapore	Singapore	www.archxpo.com.sg	84
Myanbuild 2019	28 – 30 Nov 2019	Yangon	Myanmar	www.myanbuild.net	89
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