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MAY - JUNE 2025

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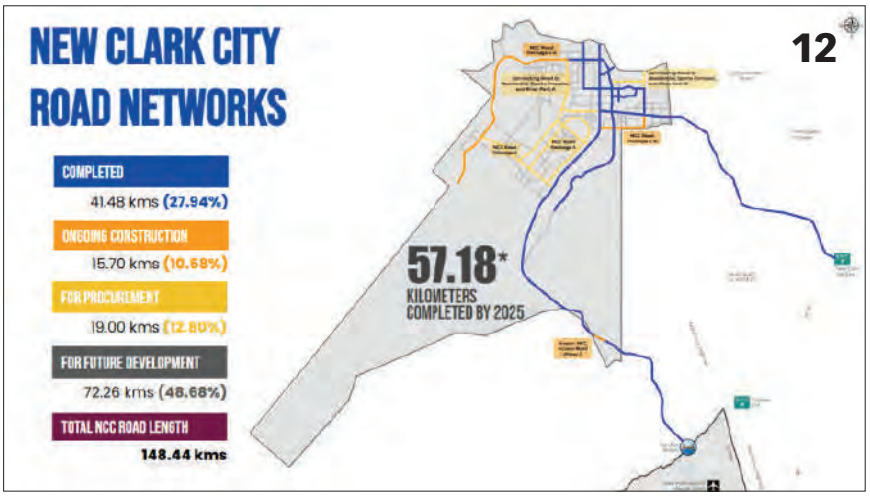

On the cover:
Kai Tak Sports Park, Hong Kong
(page 32)

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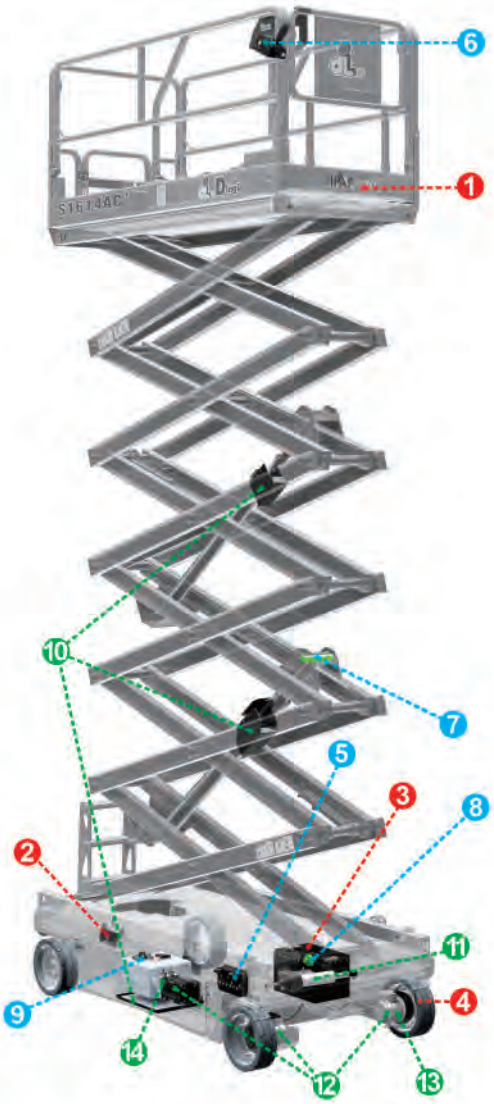

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SOUTHEAST ASIA CONSTRUCTION is published six times a year by:
Trade Link Media Pte Ltd. RCB Registration no: 199204277K
Address: 1 Paya Lebar Link, #04-01 Paya Lebar Quarter 1 (PLQ 1), Singapore 408533
Tel: +65 6842 2580 Email: info@tradelinkmedia.com.sg
Website: http://seac.tradelinkmedia.biz

The magazine is available free-of-charge to applicants in the building and construction industries who meet the publication's terms of control. For those applicants who do not qualify for free subscription, copies will be made available, subject to the acceptance by the publisher, of a subscription fee which varies according to the country of residence of the potential subscriber. Airmail (per year): Singapore - S$70; Malaysia and Brunei - S$120; Rest of Asia - S$180; Japan, Australia, New Zealand, Middle East, Europe and USA - S$220 (Inclusive of GST / Reg: M2-0108708-2).

Printed in Singapore by Fuisland Offset Printing (S) Pte Ltd.
MDDI (P) 067/08/2024 • ISSN 2345-7082 (Print) and ISSN 2345-7090 (E-Periodical)

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Almost 60 km of roads in Philippines' New Clark City to be completed by end-2025

The Philippines' Bases Conversion and Development Authority (BCDA) continues to expand transportation and utility corridors in New Clark City, Tarlac, with built roads expected to reach nearly 60 km by the end of the year.

As road and underground construction works continue, New Clark City's road network will stretch 57.18 km by end-2025, covering almost 40% of the 148.44-km total road length planned throughout the entire development.

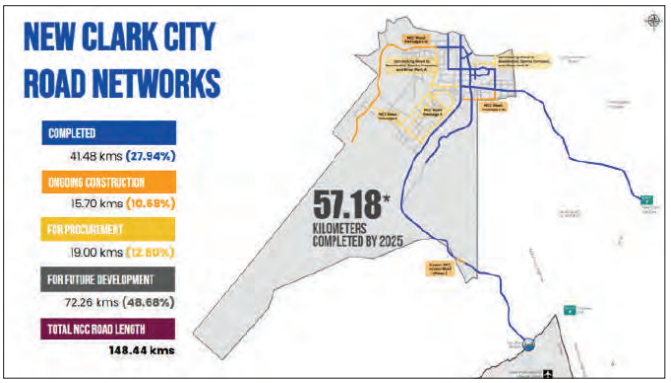
"One of the main elements that makes Clark so attractive to investors is its unmatched connectivity, supported by its own international airport, a nearby seaport and major expressways. But we need to further build on this connectivity and invest more on infrastructure," said BCDA president and CEO Joshua M. Bingcang.

New Clark City's road projects involve multiple lanes, complete with bicycle and pedestrian lanes, solar street lights and linear parks, and drainage and slope protection structures to provide residents and locators of New Clark City with convenient access to institutional, residential and mixed-use developments within the city. They also feature underground utility corridors to prepare for the needs of present and future locators in the area.

As of November 2024, about 41.48 km of New Clark City's road network has already been completed, including the 12-km access road from New Clark City to the Subic-Clark-Tarlac Expressway and the 19.8-km One Clark Boulevard connecting New Clark City to the Clark International Airport.

Meanwhile, 15.7 km of roads are now undergoing construction, a large part of which includes the New Clark City Connecting Road Package 2. With a total length of 10.1 km, this road package will traverse New Clark City's industrial area, as well as the Virology and Vaccine Institute of the Philippines, and Bangko Sentral ng Pilipinas Complex.

Road packages 3 and 4, covering 7.5 km and 6.7 km respectively, will soon be offered for bidding. Also for procurement are connecting roads leading to New Clark City's sports complex, residential area and the river park. Some 72.26 km of roads are also in the pipeline for future development.



New Clark City's extensive road network will form the backbone of the planned transit-oriented development in the whole Clark Freeport and Special Economic Zone (SEZ).

Spanning 9,450 ha, New Clark City is envisioned to be the country's first smart, sustainable and future-ready metropolis. Once fully developed, it is projected to have a population of 1.2 million and a total workforce of 600,000.

The city's extensive road network will form the backbone of the planned transit-oriented development in the whole Clark Freeport and Special Economic Zone (SEZ), establishing robust interconnectivity within the SEZ and its neighbouring communities. This will give way to the construction of multi-modal transport hubs, which will become pivotal in driving investments and creating sustainable, active communities. ■

L&T achieves breakthrough in India's longest rail tunnel on Rishikesh-Karnaprayag rail line

Larsen & Toubro (L&T) has achieved a breakthrough in India's longest railway tunnel – the 14.57 km Tunnel No. 8 – on the 125-km Rishikesh-Karnaprayag Broad Gauge Rail Link Project of Rail Vikas Nigam Limited (RVNL). Tunnel No. 8 stretches between Devprayag and Janasu in Uttarakhand.

The breakthrough was achieved using a single-shield tunnel boring machine (TBM) named Shakti, of 9.11-m diameter. This is also the largest TBM to be deployed in the Himalayan region, said L&T. Excavating at an average rate of 413 m per month, 10.4 km of the tunnel was completed with TBM. The New Austrian Tunnelling Method (NATM) was used to complete the remaining 4.11 km of the tunnel.

"This significant breakthrough in one of the most challenging terrains, reflects our commitment and strong collaboration between our client RVNL," said S V Desai, whole-time director and senior executive vice president (civil infrastructure) at L&T. "This milestone fosters a deep sense of collective achievement within our team, proving that with dedication and innovation, no challenge is insurmountable."

L&T's role in RVNL's 125-km Rishikesh-Karnaprayag railway line project which connects Rishikesh, Devprayag, Srinagar, Rudraprayag, Gauchar and Karnaprayag across five Himalayan districts, cutting travel time from seven to two hours and supporting the Char Dham Yatra, covers Packages 2 and 4.

In Package 4, L&T is building India's longest railway tunnel (14.5-km upline, 13.1-km downline). Package 2 includes 26.6 km of tunnel excavation, 28 km of tunnel lining, two railway bridges, one road bridge, and embankments. ■

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South Korean contractor DL E&C wins hydropower project in Indonesia

South Korean contractor DL E&C has signed a US15 million construction management contract with PT. Siborpa Eco Power for the 114-MW Siborpa Hydropower project in Indonesia. The plant will be built on the Bilah River located in the northeast of Sumatra island.

Once completed, this new facility is expected to generate power for more than one million people in the region per year. DL E&C will be responsible for the overall engineering and construction management of the project until August 2030.

According to DL E&C, the company was selected thanks to its alternative engineering solution. The client's initial plan for the water channel was to build an underground tunnel stretching over 4.5 km, but this move would have been highly risky due to unstable ground conditions on the island, which is situated on the Circum-Pacific Belt.

Instead of a tunnel, DL E&C proposed an open water channel (on the surface), enhancing the efficiency of the construction work, time and cost. The client welcomed the proposal, which led to the awarding of this project.

DL E&C has been involved in hydropower business since the 1990s. In Indonesia, the company also takes part in the construction of Karian Dam, the third-largest dam in the country, as well as the Upper Chisokan Hydropower project, which is the first pumped storage hydropower plant in the country..■

DL E&C signed the contract with PT. Siborpa Eco Power on 14 March 2025.

AECOM engaged to commence investigation for Northern Metropolis Highway project in Hong Kong

AECOM has been engaged by the Highways Department of the Hong Kong government to deliver an array of technical services for the Northern Metropolis Highway (NMH). This pivotal project aims to enhance east-west connectivity in Hong Kong's large-scale new Northern Metropolis development, boosting economic growth and strengthening the region's research and development and technology sectors.

"We're proud to partner with the Highways Department to build a smarter and more connected Hong Kong and Greater Bay Area," said Mark Southwell, chief executive of AECOM's global Transportation business. "As the industry's leading transportation design firm, our innovative solutions and extensive knowledge of interfacing projects, combined with our experience in highways, viaducts and tunnels, position us to deliver this project efficiently and cost-effectively while meeting the needs of local stakeholders."

AECOM and its joint venture partner, AtkinsRéalis, will assess the engineering feasibility and constructability of the alignment, explore other possible alignment options, carry out preliminary design, and conduct assessments on traffic, environmental impact, land acquisition and other aspects. Leveraging the company's knowledge of Hong Kong's New Development Areas, AECOM will adopt innovative solutions and advanced technologies, including digital twins, BIM and design for manufacturing and assembly (DfMA), for cost-effective designs and an accelerated programme

"We recognise the priority of this project for the future of mobility in Hong Kong and are fully committed to supporting the Highways Department in delivering a world-class strategic corridor," said Ian Chung, chief executive of AECOM's Asia region. "Our teams have a multi-decade track-record of delivering critical transportation improvements across Hong Kong, and we look forward to extending our role on the Northern Metropolis as we realise essential infrastructure that benefits residents for years to come."

The NMH is one of three major road projects announced by the Hong Kong government as part of the Strategic Studies on Railways and Major Roads beyond 2030, a study in which AECOM played a key role. Spanning approximately 23 km, it will link Tin Shui Wai in the west to the New Territories North New Town near Ping Che in the east, further enhancing road connections and alleviating congestion on Yuen Long Highway, San Tin Highway and Fanling Highway.

The NMH will mainly feature dual three-lane sections, at least eight major interchanges linking existing roads and new development areas. The NMH includes four sections –Tin Shui Wai, San Tin, Kwu Tung, and the New Territories North New Town – forming a new east-west corridor to support future transport infrastructure development in the New Development Areas. ■

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Malaysia's ECRL project completes excavation of 38 tunnels ahead of schedule

Malaysia's East Coast Rail Link (ECRL) project has completed excavation works for 38 tunnels along its rail alignment, following two tunnel breakthroughs in Selangor in early April.

The significant milestone was achieved with the breakthrough of the 3.50-km Serendah 1 Tunnel on 7 April 2025 – two months ahead of schedule – making it the 38th ECRL tunnel to complete its excavation process to date.

The ECRL had registered its 37th ECRL tunnel breakthrough a day earlier, on 6 April 2025, with the completion of excavation works for the 189-m Rawang-Bestari Jaya Tunnel.

With the two tunnels broken through, the ECRL has achieved 38 tunnel breakthroughs out of the 41 tunnels featured along its rail alignment. The three remaining tunnels currently under excavation are the twin-bore 16.39-km Genting Tunnel and the 9.85-km Serendah 2 Tunnel.

The twin-bore Genting Tunnel, which is in its final stages of excavation using two state-of-the-art tunnel boring machines (TBMs), is expected to break through in mid-2025. Moreover, the Serendah 2 Tunnel, which is being excavated using the drill-and-blast method, is targeted to break through in the third quarter of 2025.

On 7 April 2025, the final blast at the Serendah 1 Tunnel punched through the last barrier some 2,046 m from the tunnel's exit portal. This achievement is a culmination of approximately 894,920 man-hours and the adoption of the drill-and-blast method of tunnelling that bored through primarily weathered granite.

The permanent lining for the Serendah 1 Tunnel has progressed to 2,500 m prior to the breakthrough. The tunnel has an average height of 12 m and width of 13 m, providing space for two standard gauge railway tracks upon completion.

Excavation works for Serendah 1 Tunnel began in November 2022 and were originally scheduled to break through on 31 May 2025. All related civil works for the tunnel are expected to be completed by January 2026.

The construction of Serendah 1 Tunnel will enable the ECRL railway track to comply with its maximum gradient of 0.9%, as well as to minimise impact to the water catchment areas like Batu Dam and reduce open forest cutting at the Sungai Tua Recreational Forest.

"We achieved a major milestone with the smooth excavation of the 3.50 km long Serendah 1 Tunnel, which is central to the ECRL alignment linking Gombak to Port Klang in Selangor. Some 512,582 cu m of soil and rock were safely removed with minimal ground movement and minor inconvenience to the road users throughout the excavation period using the drill-and-blast method," said Malaysia Rail Link Sdn Bhd (MRL) CEO, Dato' Sri Darwis Abdul Razak.

He added that the Rawang-Bestari Jaya Tunnel was excavated via 'benching' method to facilitate a bypass for the ECRL alignment instead of having to cut through a main road along Jalan Rawang-Bestari Jaya.

The construction for Phase 1 of the ECRL project spanning from Kota Bharu, Kelantan to the Gombak Integrated Terminal, Selangor is scheduled for completion by December 2026, with operations set for January 2027 onwards. Meanwhile, the construction for Phase 2 linking Gombak with Port Klang is expected to be completed by December 2027 and fully operational by January 2028. ■

Second Volvo machine to support high-rise demolition in Korea

A special handover ceremony at Volvo CE's Changwon battery pack production facility in Korea marked the delivery of a second EC750E HR heavy-duty demolition excavator to Beomhyang, which specialises in high-rise demolition in the Seoul metropolitan area. The company already operates a range of Volvo CE machines, including another EC750E HR and two EC500E large crawler excavators.

Jaebeom Kim, CEO of Beomhyang, said his company continues to choose Volvo CE for its comprehensive line-up of demolition machines, all of which comply with Korea's Serious Accidents Punishment Act (SAPA). Volvo CE is believed to be the only manufacturer in Korea offering a fully factory-built range of dedicated demolition machines — a key differentiator in an increasingly safety-driven market.

Operator satisfaction remains high thanks to Volvo CE's user-friendly designs and safety-focused attachments, which are purpose-built for demolition work. Mr Kim was also quick to highlight the importance of Volvo CE's proactive service support, especially during urgent on-site issues, which is vital for maintaining uptime and project efficiency.

The EC750E HR is a powerful and versatile demolition excavator with an operating weight of 103,000 kg and a 393-kW Volvo engine. It can handle attachments weighing up to 3,600 kg and reach working heights of up to 36 m. The tilting cab (up to 30°) enhances visibility and safety during high-reach tasks, while the hydraulically retractable undercarriage ensures stability and manoeuvrability.

The handover of the second Volvo EC750E HR machine to Beomhyang.

For added safety, the machine includes a Falling Object Guard (FOG) to protect operators and the cab from falling debris. A hydraulic modular joint enables fast switching between high-reach and backhoe configurations, providing flexibility for a variety of demolition and excavation tasks. The wide operator view further improves jobsite awareness and precision. ■

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Leighton Asia secures contract for new residential development in India

CIMIC Group company Leighton Asia has been awarded a contract to build high-rise residential towers in Mumbai, India for Godrej Properties, a major real estate developer.

Located in Kandivali East, the 7.2-ha project comprises six residential towers (44-storeys each) to be delivered across two phases, with a total built up area of approximately 494,000 sq m. The scope of work includes the construction of the reinforced concrete structures.

"Large-scale, campus-style residential and commercial projects are a hallmark of Leighton Asia's work in India and in Asia. Working with one of India's leading real estate developers, we are pleased to be delivering this project for Mumbai's growing population," said Juan Santamaría, executive chairman of CIMIC Group.

Brad Davey, managing director of Leighton Asia, added, "Securing this new award highlights Leighton Asia's expertise in delivering quality work safely and on time. With 26 years' experience in India, we are committed to meeting our client's expectations for this premium residential project."

This project has targeted an Indian Green Building Council (IGBC) Leadership in Energy and Environmental Design (LEED) Silver rating certification. Construction is expected to be completed in the fourth quarter of 2028. ■

Construction of the project is expected to be completed in the fourth quarter of 2028.

Construction starts on Philippines' New Cebu International Container Port and Taguig City Integrated Terminal Exchange

The Philippines' Department of Transportation (DOTr) and Cebu Port Authority (CPA) recently broke ground on the New Cebu International Container Port (NCICP) project in Central Visayas.

This new port terminal will ease congestion at the existing Cebu Base Port as it will open up space for vessels and cargoes, ensuring efficient and faster turnaround of commercial vessels while improving cargo handling and container stacking facilities, shared DOTr.

Targeted for completion by the second quarter of 2028, the NCICP will be built on a 25-ha reclaimed island with a 500-m berth length and a water depth of -12 m to accommodate two 2,000 twenty-foot equivalent unit (TEU) vessels. It will also be equipped with five quay cranes, as well as a 1,365-m access road to connect the new port through a 300-m offshore bridge.

DOTr further highlighted that the new port will alleviate bottlenecks in the logistics chain, promoting faster and more cost-efficient transport of goods while enhancing the competitiveness of local businesses and industries.

The Php16.93-billion NCICP project is funded through an official development assistance (ODA) scheme under the Export-Import Bank of Korea (KEXIM) and transaction adviser International Finance Corporation of the World Bank.

In addition, construction of the Taguig City Integrated Terminal Exchange (TCITX) has also started. The project broke ground on 3 February 2025.

Targeted for completion and operational launch in the first quarter of 2028, this new multi-modal terminal is expected to decongest the southern portion of Metro Manila while providing travellers with efficient and accessible transportation.

The facility is aimed at rationalising transfer points of people and goods in the country, especially for the commuting public coming from Laguna, Cavite and Batangas, said DOTr. It will establish an effective interconnection between different transport modes and services.

A public-private partnership (PPP) project, the 5.57-ha TCITX has a 160,000 passenger capacity and can accommodate up to 5,200 vehicles daily. The development will include passenger terminal buildings, arrival and departure bays, public information systems, ticketing and baggage handling facilities, and park-ride facilities.

Once operational, the TCITX will have interfaces with the Southeast Metro Manila Expressway (SEMME) or C6 Expressway through entry and exit ramps, the North-South Commuter Railway System (NSCR), and Metro Manila Subway Project (MMSP). ■

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Indonesia signs agreements to develop new floating solar projects

PT PLN (Persero), Indonesia's state-owned electricity company, has signed two agreements with UAE's renewable energy developer Masdar to advance the development of floating solar power projects in Indonesia.

The companies signed a memorandum of understanding (MOU) to build a floating solar power plant at the Jatigede Dam reservoir in West Java. This project is due to start this year, with completion scheduled for 2027.

Masdar and PLN also signed a 'Principles of Agreement' to explore the potential expansion of Masdar's 145-MWac Cirata floating photovoltaic power plant, the first phase of which began operations in November 2023.

Both agreements will contribute to Indonesia's goal of achieving net-zero emissions by 2050. Last year, Indonesian President Prabowo Subianto announced plans to add over 75 GW of renewable energy capacity in the next 15 years as part of the country's shift to a low-carbon economy. In February, the government established a new strategic investment management agency, Danantara Indonesia, designed to manage and enhance the global competitiveness of key state-owned enterprises, including PLN.

"The Jatigede project will be a strong addition to our collaboration with PLN and its development, along with the expansion of our already record-breaking Cirata project, will enable us to build on our expertise in developing floating solar projects. These agreements also demonstrate our continuing commitment to supporting Indonesia's ambitious renewable energy objectives," said Mohamed Jameel Al Ramahi, CEO of Masdar.

"PLN is fully committed to leading Indonesia's energy transition. These collaborations are a testament to the shared global effort needed to address the climate crisis. By expanding our renewable energy capacity, we're reducing fossil fuel dependence, enhancing energy sustainability, and strengthening energy sovereignty while driving economic growth," said Darmawan Prasodjo, president director of PT PLN (Persero).

One of the agreements is to build a new floating solar power plant in Jatigede, West Java. This project is expected to be completed in 2027.

Indonesia, the world's largest archipelago with more than 17,000 islands and over 600 natural lakes and reservoirs, offers ideal conditions for the growth of floating solar power. Masdar's Cirata project began operations in 2023, with the plant now generating enough renewable energy to power 50,000 homes, while displacing 214,000 t of carbon emissions per year.

Following regulatory changes increasing the proportion of water coverage allowed for renewable energy usage, Masdar and PLN signed an agreement in 2023 to work on jointly assessing the increase of Cirata's capacity. This latest agreement follows the successful completion of studies into the feasibility of the expansion. ■

Vietnam's Tan Son Nhat International Airport Terminal 3 opens

The Airports Corporation of Vietnam (ACV) has officially opened the Tan Son Nhat International Airport Terminal 3 (T3). This VND 10.99 trillion development was completed two months ahead of schedule following 20 months of construction.

T3 provides a capacity of 20 million passengers per year, handling 7,000 passengers per peak hour. This increases the total capacity of Tan Son Nhat International Airport to 50 million passengers per year.

Speaking at the inauguration ceremony on 19 April 2025, Vietnam's Prime Minister Pham Minh Chinh said the successful completion of the Tan Son Nhat International Airport T3 will have a positive impact on the Long Thanh International Airport project, which is expected to be completed by the end of 2025.

Located in Ho Chi Minh City, the Tan Son Nhat International Airport T3 project involved the construction of a passenger terminal, a multi-storey car park with various facilities, an elevated road system, and an aircraft apron.

The passenger terminal comprises one basement level and four above-ground floors, with a total construction floor area of 112,500 sq m. The multi-storey car park combined with other services is a complex consisting of two basement levels and four above-ground floors, which has a total construction floor area of 130,000 sq m. It features a car park, commercial centre, hotel, and dining facilities for passengers.

The elevated road system at the two terminal levels incorporates: Level 2 with two to three lanes, each 3.5 m wide; and Level 3 with two to five lanes, each 3.5 m wide. Meanwhile, the aircraft apron includes expanding the apron in front of the terminal by 4,600 sq m and installing a lighting system for aircraft operations, capable of handling all Code C and Code E aircraft types. ■

Sime Darby unveils Vision Business Park in Negeri Sembilan, Malaysia

Sime Darby Property Berhad has broken ground on its Vision Business Park (VBP), the latest industrial development within Malaysia Vision Valley 2.0 (MVV2.0). This project is part of the MVV2.0 Heartbeat Project and is poised to strengthen Negeri Sembilan's position as a key industrial hub in Malaysia.

Spanning 760 acres with an expected gross development value (GDV) of RM2.4 billion, VBP is anticipated to generate 15,000 job opportunities, contributing to the state's economic expansion. The project aligns with the state's economic vision of attracting RM294 billion in investments and creating 600,000 jobs. VBP is also part of a strategic step in realising the phased development of MVV2.0, which spans 379,100 acres in Negeri Sembilan.

"Vision Business Park is a key step in our commitment to industrial development, supporting Negeri Sembilan's economic transformation. As a future-ready industrial hub, VBP will attract businesses, create jobs and strengthen the state's position as an industrial growth centre," said Dato' Seri Azmir Merican, group managing director and CEO of Sime Darby Property. "Building on the success of Hamilton Nilai City, operational since 2021, VBP supports the growth of light and medium industries, driving innovation and expansion."

VBP features an 80:20 industrial-to-commercial ratio, offering 623 acres for industrial opportunities and 137 acres for commercial businesses that cater to businesses of all sizes. The development provides a comprehensive industrial ecosystem, featuring ready-built factories, industrial plots, shop offices and research & development (R&D) centres, designed to support growing businesses.

VBP is designed with sustainability in mind, setting a new benchmark for industrial zones. The incorporation of green and blue lifestyle linkages enhances the business environment with integrated green spaces, water features and eco-friendly infrastructure.

Positioned within MVV2.0, VBP benefits from direct access to the Nilai-Labu-Enstek Road (NLE), facilitating seamless transportation to key industrial and logistics hubs such as Nilai Inland Port, KLIA and KLIA 2. In addition, the NLE Road connects VBP to the North South Expressway (NSE), enhancing logistics efficiency for regional and international trade. ■

ABOVE: **The Vision Business Park development broke ground in mid-April 2025, spanning 760 acres.**

BOTTOM LEFT: **The project is designed with sustainability in mind, setting a new benchmark for industrial zones.**

IPAF China Regional Council constituted to enhance safety in powered access

The IPAF China Regional Council (ICRC) has been officially constituted in a milestone meeting hosted by 3M at its Shanghai facilities on 28 February 2025.

This marks a significant step in the development of IPAF's activities in China, creating a dedicated workgroup focused on improving safety in the powered access industry. For the first time, various stakeholders, including manufacturers, rental companies and training providers have come together with a common goal: to enhance safety standards across the industry. This collaborative effort signifies a shift from purely networking-focused engagement to proactive safety initiatives that will benefit the entire sector in China.

With over 70 IPAF members in China – most of whom are manufacturers – this newly established council provides a structured platform for rental and training companies to actively contribute to safety advancements. The newly elected leadership of the ICRC includes Huang Hailan of Xiamen Highflyer Rental as chairperson and Steve Guo of Hunan Sinoboom Intelligent Equipment as vice chairperson.

Ms Huang commented, "I am very honoured to serve as the president of the first session of the ICRC, and I thank the members of the ICRC for their trust. We are a MEWP rental company from the southeastern coastal region of China, established in 2018. Compared to mature rental companies internationally, we are still in the exploratory stage of development. The Chinese MEWP application market has enormous potential.

"After years of communicating with IPAF, we have also seen the importance of safety. Being elected as the chairman this time is not only an honour, but also a responsibility and commitment to safety. I am very much looking forward to continuing to collaborate with IPAF and industry colleagues to make our contribution to the safety of the MEWP industry."

"After nearly 10 years of rapid growth and the promotion of various stakeholders, especially OEM and rental companies, MEWP machinery has been increasingly widely used in China," explained Tim Mo, IPAF China regional manager. "However, at the same time, it also faces huge challenges in terms of safety risk prevention. From regulatory authorities to the working site supervisor and frontline operations, there is an increasing emphasis on safety.

The establishment of IPAF China Regional Council is a defining moment for powered access safety in China, bringing together key industry players to collectively work towards a safer and more regulated future.

"IPAF has been cooperating and exchanging ideas in China for over 10 years, and now the establishment of the ICRC has also emerged. Through diversified means, IPAF will be able to build more possibilities, share its professional knowledge, experience, and resources accumulated over 40 years globally with Chinese peers and stakeholders, better supporting and promoting the safe and effective use of powered access in China."

One of the first initiatives launched by the ICRC is the 'MEWP Safety Starts with Me' campaign, which will include a dedicated logo and pledge. This initiative aims to promote small but meaningful safety improvements, starting within the member companies themselves and leading by example. The establishment of the ICRC is a defining moment for powered access safety in China, bringing together key industry players to collectively work towards a safer and more regulated future. ■

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Website: www.bex-asia.com / www.ibew.sg

BCT Expo (Building Construction Technology Expo)
3 to 5 Sept 2025
Impact Exhibition and Convention Centre
Bangkok, Thailand
Website: www.bct-construction.com

Construction Indonesia
10 to 13 Sept 2025
Jakarta International Expo
Jakarta, Indonesia
Website: www.constructionindo.com

K-Consafety Expo
17 to 19 Sept 2025
Korea International Exhibition Centre
Goyang, South Korea
Website: www.k-consafetyexpo.com

BICES
23 to 26 Sept 2025
China International Exhibition Centre (Shunyi Venue)
Beijing, China
Website: www.e-bices.org

CBA Expo (ConsBuild Asia) / Concrete Expo Asia
24 to 26 Sept 2025
Bangkok International Trade and Exhibition Centre
Bangkok, Thailand
Website: www.consbuildasia.com / www.concrete-expoasia.com

Occupational Safety Taiwan
14 to 16 Oct 2025
Taichung International Exhibition Centre
Taichung, Taiwan
Website: www.taiwanindustryweek.com.tw

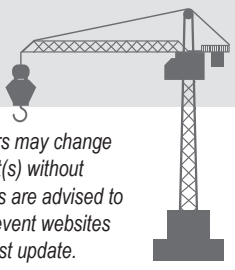
Philconstruct
6 to 9 Nov 2025
SMX Convention Centre Manila &
World Trade Centre Metro Manila
Metro Manila, The Philippines
Website: www.philconstructevents.com

AI-Ready Data Centres APAC
3 Dec 2025
Manila, The Philippines
Website: www.arcmediaglobal.com/datacenters

// Events outside Asia

World of Concrete
20 to 22 Jan 2026
Las Vegas Convention Centre
Las Vegas, USA
Website: www.worldofconcrete.com

Conexpo-Con/Agg
3 to 7 Mar 2026
Las Vegas Convention Centre
Las Vegas, USA
Website: www.conexpoconagg.com



Note: *The organisers may change or cancel their event(s) without prior notice. Readers are advised to visit the respective event websites regularly for the latest update.*

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China Council for the Promotion of International Trade - Machinery Sub-Council

Thailand's BCT Expo to return in September 2025

Building Construction Technology Expo (BCT Expo), Southeast Asia's annual exhibition and conference for the building, construction and mining sector, will return from 3 to 5 September 2025 at the Impact Exhibition and Convention Centre in Bangkok, Thailand.

Themed 'The Construction & Mining Meeting Place', this year's event will focus on 10 key industry clusters: Construction Vehicles; Mining, Lifting, Earthmoving & Demolition; Roads & Infrastructure, Component & Service Suppliers; Concrete Products; Building Materials; Construction Services; Digital & Smart Construction; Smart Facility Management; Sustainable Construction; and Green Building Materials.

The ASEAN construction industry is undergoing a digital transformative phase, driven by emerging technologies and innovations aimed at improving efficiency, sustainability and cost effectiveness. In supporting this transition, BCT Expo 2025 will introduce 'Sustainable Construction Showcase Zone' to display the latest cutting-edge green technologies and trends. The products will range from eco-friendly building materials, energy-efficient construction technologies, smart IoT and AI-driven applications to green mining solutions.

Pailin Thiansuwan, advisor to Thailand's Ministry of Industry, said, "BCT Expo's sustainability and green transition agenda is aligned with our government priorities, [and] aims to foster collaboration between public and private sectors to raise our national construction standards to be in line with Thailand's industry 4.0 agenda. We expect BCT Expo 2025 to introduce new innovations to support our SMEs in the construction sector so as to enhance their competitiveness, while stimulating investments in environmentally friendly construction technologies."

Last year, BCT Expo drew over 150 exhibiting companies and brands from 16 countries, with over 3,879 industry visitors from 35 countries. A key highlight of the event was its business-matching programme, which saw more than 520 pre-arranged business meetings between pre-qualified hosted buyers and exhibitors.

Various conferences and workshops

BCT Expo 2025 will bring together the Southeast Asian construction industry to network, learn, share and address a variety of challenges. Over 40 conference sessions, workshops and certification courses are scheduled to take place during the three days, conducted by over 30 local and international industry experts.

Topics of discussion will include digitalisation, automation and sustainability, such as AI and Robotics in Construction; The Future of Construction Equipment; Building Information Modelling; Smart Facility Management; Green Mining; ESG for Building, Construction and Mining; Green Construction Transitions; Construction Laws and Regulations Updates; to name just a few.

In addition, BCT Expo 2025 will offer hands-on and skill upgrading certification courses in AI & Robotics Automation in Construction, Drone Operation for Surveying and Safety Inspection, as well as Construction Safety Certification Training Course.

According to the organiser, BCT Expo 2025 will continue to host the 'Construction Networking River Cruise', providing a special evening for networking and building connection between local and international players. ■

Website: www.bct-construction.com

ALL IMAGES: **BCT Expo will return from 3 to 5 September 2025 at the Impact Exhibition and Convention Centre in Bangkok, Thailand.**

Korea's K-Consafety Expo 2025 to showcase advanced safety solutions for construction and industrial sectors

This year's Korea International Construction and Industrial Safety Expo (K-Consafety Expo) is set to take place from 17 to 19 September 2025 at the Korea International Exhibition Centre (KINTEX) in Goyang, South Korea. Now in its seventh edition, the event will feature 'must-have' products for the construction and industrial safety sectors, while showcasing a special 'Advanced Safety Pavilion' that offers solutions aligned with evolving policies and regulations.

According to the organiser, a record number of buyers attended the 2024 event, with approximately 77% coming from public sector procurement agencies and construction companies, reflecting the increasing demand driven by strengthened safety regulations.

The 2025 event will actively reflect government policies such as the Creating Safe Workplace Support Project launching in 2025, led by the Ministry of Employment and Labour and Korea Occupational Safety and Health Agency (KOSHA). Products supporting this initiative – including safety equipment and facilities preventing fatal accidents such as falls and entrapments at manufacturing, service and construction sites – will be prominently featured.

In addition, the event will collaborate with relevant associations and local governments to organise various programmes. Previous sessions included the CSMA buyer consultation meeting, overseas buyer export consultations, Hyundai E&C open innovation day, construction safety officer training for Gyeonggi province municipalities, smart construction exchange seminar, annual academic conference of the Korea Institute of Construction Safety, technology competition by the Korea Concrete Institute, as well as seminars for public officials and public institutions organised by the Korea Institute of Building Construction.

ALL IMAGES: **K-Consafety Expo 2025 is set to take place on 17-19 September. The event will feature 'must-have' products for the construction and industrial safety sectors, while showcasing a special 'Advanced Safety Pavilion' that offers solutions aligned with evolving policies and regulations.**

K-Consafety Expo 2025 will be held in conjunction with K-Safety Expo 2025 hosted by the Ministry of the Interior and Safety and Gyeonggi province, bringing together an even broader spectrum of the safety industry in one venue.

Exhibitor applications are currently accepted through the event website. Companies that apply by 31 May can receive a US$200 early bird discount per booth. Visitor pre-registration is available online free of charge. ■

Website: www.k-consafetyexpo.com

Volvo CE unveils world's first electric articulated haulers

Volvo Construction Equipment (Volvo CE) has introduced its new A30 Electric and A40 Electric – the world's first serial-produced battery-electric articulated haulers of their size class. The unveiling of this latest innovation took place at bauma 2025.

Boasting the same unrivalled off-road performance as conventional models, the two new haulers are suitable for a range of segments including quarrying, mining and construction. With a payload of 29 t and 39 t respectively, these machines are now among the largest in Volvo CE's electric portfolio.

Mats Sköldberg, head of technology at Volvo CE, said, "Our commitment to innovation continues. These electric haulers mark a major step forward in our ambition to decarbonise construction, combining the same unbeatable performance our customers know and love, with a more sustainable operation. As the world's first battery-powered articulated haulers of their size class, we are proud to continue to evolve our portfolio by bringing our world-class electric technology into a brand new segment."

Thanks to their lithium-ion batteries, the A30 Electric and A40 Electric articulated haulers are designed to offer a runtime of 4-4.5 hours across most applications, though high-energy jobs may require more frequent recharging. They can even enjoy a runtime of up to seven hours depending on driving conditions. Ideal applications include downhill load carrying and uphill empty runs, tunnel work and quarries and underground operations, where emission reduction is critical.

Fast charging from 20-80% in around one hour is made possible when using a DC charging solution with a maximum charging capacity of 350 kW. What's more, when powered by renewable energy, these haulers deliver a CO2 saving of 84% (for the A30 Electric) and 90% (for the A40 Electric) across their entire lifecycle, when compared to their diesel equivalents.

Both electric models not only mark a significant step forward in sustainable innovation, but also benefit from the new generation upgrade with pioneering advancements in safety, uptime and efficiency. Built on the new generation platform, they feature the same innovative, modern design and enhanced fleet management capabilities.

Advantages that come with this platform include advanced operator support systems to reduce accident risk, improved visibility for safer operation and simplified servicing for quicker and easier maintenance.

ABOVE: **Volvo CE unveiled its electric articulated haulers at bauma 2025. They are now among the largest in the company's electric portfolio.**

LEFT AND BELOW: **The A30 Electric and A40 Electric are the world's first serial-produced battery-electric articulated haulers of their size class, with a payload of 29 t and 39 t respectively.**

The integrated Volvo Co-Pilot display offers easy control over media, cameras, climate and machine status, while the dynamic instrument cluster provides key data at a glance.

A repositioned door, guided entry lighting and new handrails facilitate a safe entry and exit, while the comfortable and customisable cab will ensure operators enjoy an in-cab experience with more connectivity and convenience than ever before.

A more comfortable work environment is also assured with an electric operation, thanks to near silence and less vibrations. Furthermore, the lack of tailpipe emissions results in the removal of harmful pollutants such as nitrogen oxides (NOx) and particulate matter (PM), improving air quality for those nearby.

Operators can also stay in the know by checking charging status, machine hours and energy consumption using Volvo CE's My Equipment app, whether on site or remotely.

Add in Haul Assist, a set of tools designed to get even more productivity and efficiency from a Volvo articulated hauler, and the result is peak productivity, reduced energy consumption and less machine wear.

A limited volume of A30 Electric and A40 Electric haulers are planned to be available in Europe for select customers from 2026, with increased production in the coming years. ■

Website: www.volvoce.com

New Indeco demolition attachment and mulching heads

Ideal for primary demolition work on reinforced concrete structures, Indeco's new IDC jaw attachment has been designed in such a way that optimises the weight (7,200 kg) to power ratio for precise and efficient operation under all conditions and even at great heights.

The 3,350-mm-long, 610-mm-wide attachment has a maximum jaw opening of 1,800 mm, which is larger than that of similar products of the same class, said Indeco. The jaw depth is 1,300 mm.

The two large cylinders deliver the necessary force (350 bar) in every jobsite condition, fitted with highly durable seals that can withstand up to 700 bar. The cutter blade length is 200 mm, and the maximum cutting diameter is 70 mm.

The IDC jaw features full 360° hydraulic rotation, with a dual motor and protection valve. It is also equipped with a regeneration valve, which makes the jaw open faster (3-4 secs) and close faster (5-7 secs) under no-load conditions, shortening work cycles and increasing productivity.

What's more, the IDC jaw's innovative interchangeable teeth system, called Indecobite, speeds up maintenance operations and reduces machine downtime.

The first of a new family in the Indeco product range, the IDC primary demolition jaw will soon be working on a major job demolishing large structures in Australia for the City Circle Group, shared Indeco.

New IMH mulching heads

Indeco's IMH range of mulching heads now includes three new models, one for each segment, offering operators a wider choice.

The IMH 4 is a new model for compact excavators (from 3 to 18 t), designed to deliver high efficiency and productivity. It has a cutting width of 610 mm and is an ideal attachment for 4- to 6-t machines.

The IMH 30 is a new large model for excavators, which extends the compatibility of the range to up to 49 t machines. The attachment weighs 1,930 kg and features a 1,270 mm cutting width.

The IMH 5.2 SS extends the range of mulching heads for skid steers and tracked skid steers with a hydraulic capacity of up to 185 l/min and weighing 6 t. Featuring a cutting width of 1,830 mm, the attachment can process a larger working area with a machine of the same weight. ■

Website: www.indeco.it

The new Indeco DC jaw attachment is suitable for primary demolition work on reinforced concrete structures.

RIGHT: **The IMH 5.2 SS extends the range of mulching heads for skid steers and tracked skid steers with a hydraulic capacity of up to 185 l/min and weighing 6 t.**

LEFT: **The IMH 30 is a new large mulching head for excavators. This model weighs 1,930 kg and features a 1,270 mm cutting width.**

BELOW: **The IMH 4 is a new mulching head for compact excavators. This model has a cutting width of 610 mm.**

Jaso J480PA luffing crane for demanding jobsites

The J480PA luffing tower crane from Jaso is designed to meet the diverse needs of modern construction projects. This model offers a range of features that ensure optimal efficiency, safety and versatility to handle the most demanding jobsites.

With a compact footprint of 2.16 m, the J480PA is ideal for jobsites with limited space. The boom can be configured in 5-m increments, allowing for customisation based on project requirements. An optional secondary brake on the hoist enhances safety during operations.

The crane has multiple load chart options to accommodate different lifting needs:

- 12-t line (direct pull) – suitable for straightforward lifting tasks.
- 12-t line pull (two-part line) – provides a capacity of 24 t.
- Three-part line (3R) – offers a maximum capacity of 36 t.
- DP/2R configurations – capable of handling 9 t, 18 t, or 10 t, 20 t, and 30 t in DP, 2R, and 3R configurations respectively.

The J480PA boasts a luffing speed of 1.5 minutes, increasing productivity on site. The Lebus drums allow for a maximum hook course of 874 m, resulting in efficient and smooth operations. The crane's swing radius is 6.9 m with steel counterweights, and 7.8 m with steel-framed or concrete counterweights.

Equipped with IP55 motors, the J480PA operates at high speeds while maintaining durability and reliability. The slack rope safety device prevents accidents by ensuring the rope remains taut during operations.

There are several climbing options to suit various construction needs: external JC, floor climbing, and internal lift shaft climbing. For high flexibility on the jobsite, the cabin can be positioned on either side of the tower. An optional luxury cabin (Horizon), launched recently at bauma, is also available.

Optimised for transport, the J480PA comes with a reduced number of transport units. The maximum component weight is reduced to 7.5 t, facilitating easier handling and assembly. A 39.5-m freestanding crane can be transported in just eight HC40 containers.

In addition, the J480PA is equipped with Jaso's Optimus Line package, featuring the latest technologies for excellent safety and control:

Jaso's J480PA luffing tower crane is designed for high efficiency, safety and versatility on the jobsite, featuring a compact footprint of 2.16 m. This model is available globally, including in Singapore.

- Safety devices and load sensors – for comprehensive safety and control.
- Crane default diagnosis – for identifying and addressing crane issues.
- Pre-installed anti-collision system – to prevent accidents between tower cranes.
- Remote crane management – for remote monitoring and management of crane operations.
- In-cabin calibration and programming – for in-cabin calibration, setting, and load programming.
- Eco Mode – an energy-saving system that minimises power consumption.
- Secondary clamp brake option – to enhance safety with an optional secondary brake. ■

Website: www.jaso.com

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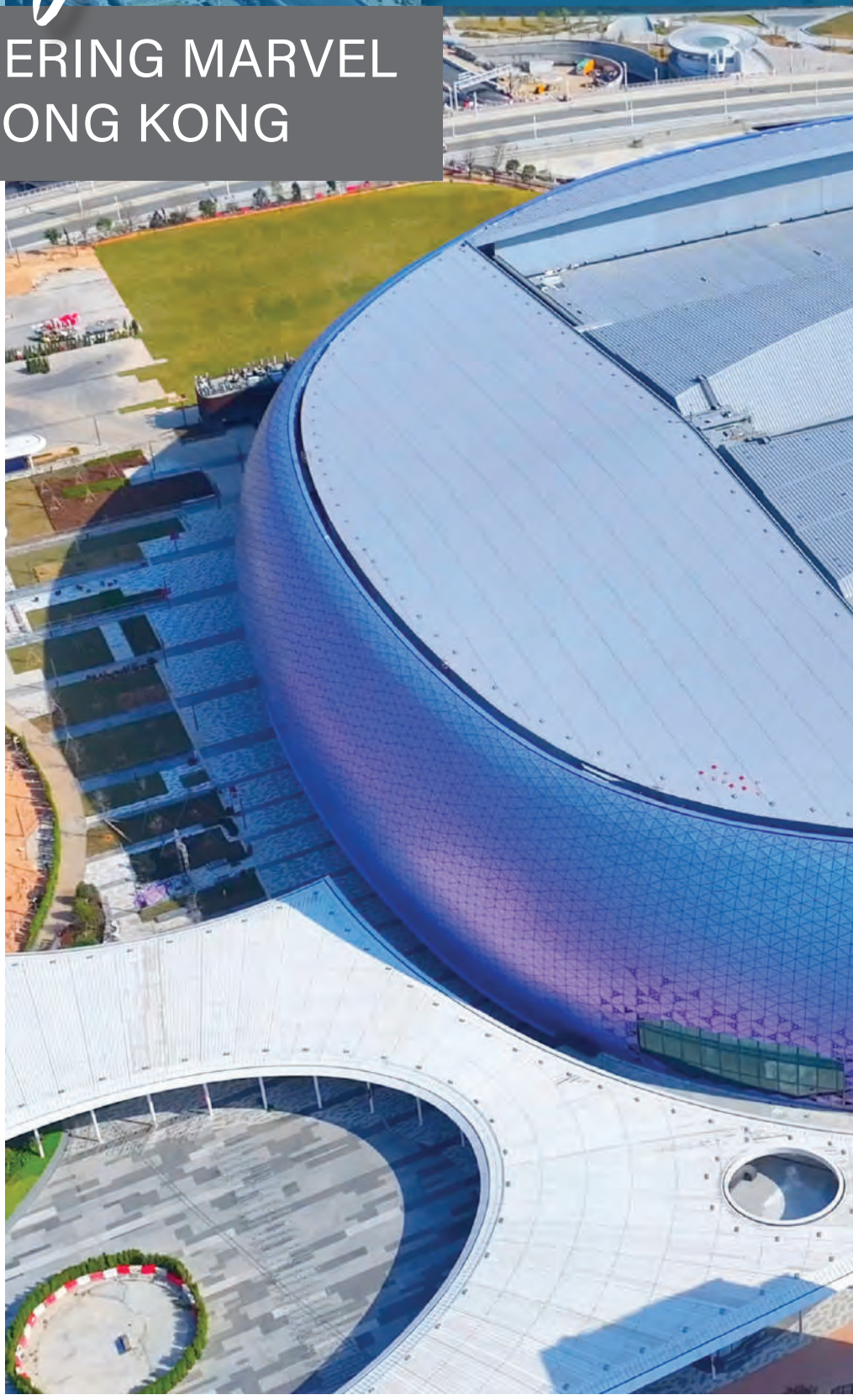


The iconic Kai Tak Sports Park (KTSP) in Hong Kong was officially opened on 1 March 2025. Spanning 28 ha, it is the city's largest integrated sports and entertainment complex, built on the site of the former Kai Tak Airport. At the heart of this new landmark is the 50,000-seat Kai Tak Stadium, dubbed the 'Pearl of the Orient'.

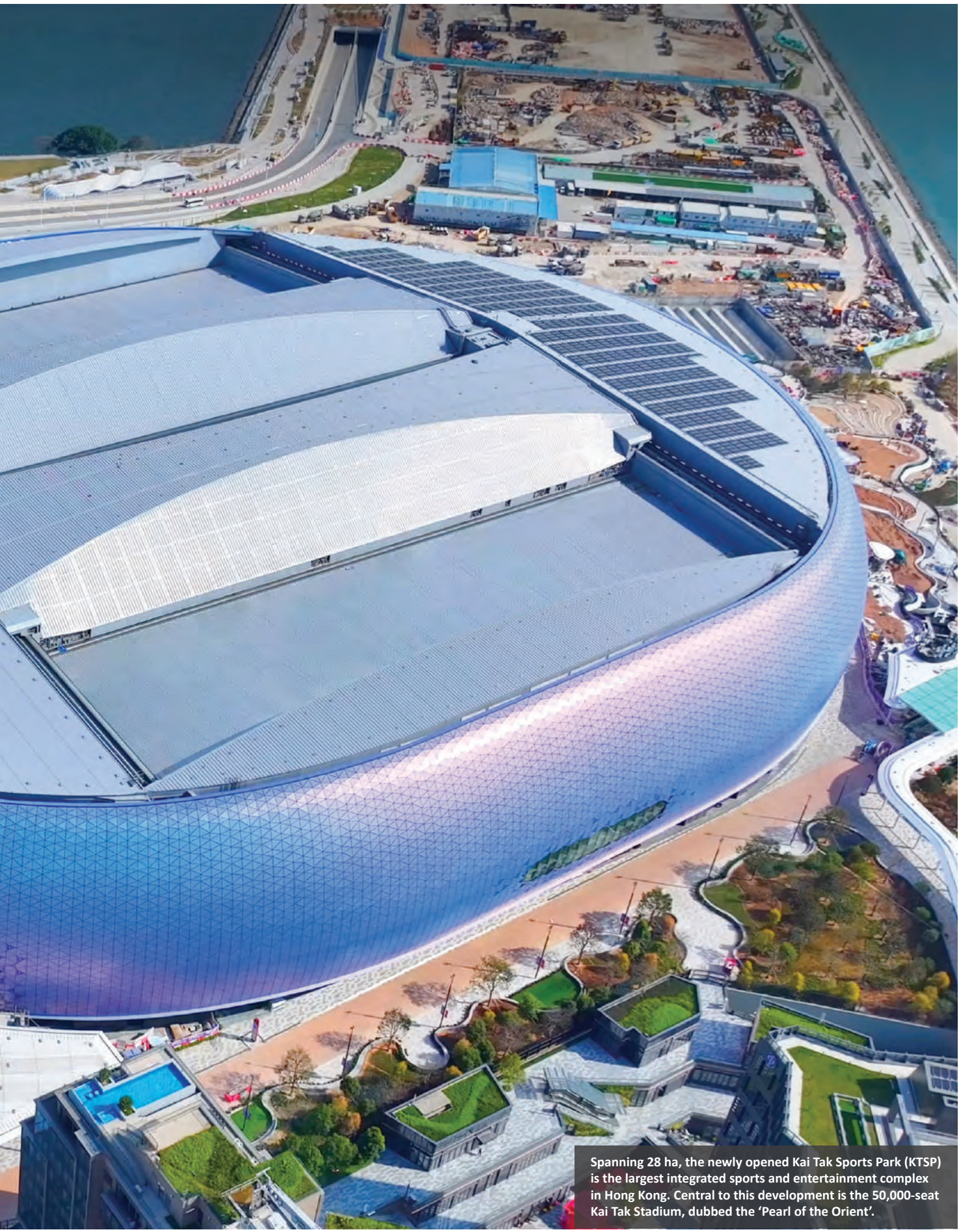
Retractable roof

Designed to accommodate Hong Kong's sub-tropical climate, Kai Tak Stadium features a retractable roof and a flexible pitch surface, allowing the venue to host a diverse range of events in any weather condition.

The retractable roof can open or close using advanced mechanisms similar to railway technology. Given the stadium's proximity to residential areas, the roof is acoustically sealed when closed, fitted with sound-proof barriers and cladding panels to dampen low-frequency sound.

Weighing nearly 4,800 t, it is one of the world's largest retractable roofs. To support this massive structure, Arup engineered two pairs of bespoke orthogonal main trusses spanning between 150 and 180 m, anchoring on four bearing-free reinforced concrete tower cores. "The trusses are form-found using classical structural theory and optimised with advanced analytical methods to achieve an elegant and compact design that marries the stadium's architecture while ensuring an optimal viewing experience for all spectators," explained Arup.

Building information modelling (BIM) was fully adopted to optimise the structural design, ensuring constructability and minimising steel use. "All the main trusses were joint up on the ground, and lifted together in a single lift of 6,200 t with four strand jacking towers into position," said Arup. "The entire construction process was



Spanning 28 ha, the newly opened Kai Tak Sports Park (KTSP) is the largest integrated sports and entertainment complex in Hong Kong. Central to this development is the 50,000-seat Kai Tak Stadium, dubbed the 'Pearl of the Orient'.

digitally visualised in advance to enhance installation accuracy and construction efficiency."

Shimmering facade

The stadium's facade is composed of around 27,000 triangular aluminium panels with a Fluropon Kameleon Lightning Mist coating that changes into various pearlescent hues depending on the daylight intensity, shared Arup. An additional layer of Fluropon Clean was applied – this coating uses a proprietary hydrophilic technology that causes rainwater to spread across the panels, allowing dirt or pollution to be naturally washed away.

At night, dynamic light shows transform the stadium into a dazzling spectacle against Hong Kong's night sky. The facade and lighting designers worked closely with the architect to realise this captivating effect. Thorough visual analyses were conducted to strategically position light fittings across the facade, tailor-made to enhance the stadium's grandeur, considering its height and scale, while reducing sky glow to minimise light pollution.

To achieve the light, 'floating' appearance of the 'pearl', the structural

TOP: **Kai Tak Stadium is equipped with a retractable roof and a flexible pitch surface, allowing the venue to host a diverse range of events in any weather condition. Weighing nearly 4,800 t, the retractable roof is one of the world's largest of its kind.**

ABOVE: **The roof can open or close using advanced mechanisms similar to railway technology. It is acoustically sealed when closed, fitted with sound-proof barriers and cladding panels to dampen low-frequency sound.**

Image: Marcel Lam Photography

All the main trusses were joint up on the ground, and lifted together in a single lift of 6,200 t with four strand jacking towers into position.

Multi-trade integrated mechanical, electrical and plumbing (MiMEP) and design for manufacture and assembly (DfMA) methods were widely adopted throughout the course of design and construction. This has reduced waste and carbon emissions, and accelerated the installation speed.

and MEP engineers collaborated with the design team on creating a compact, cantilevered steel-reinforced concrete structure. The ventilation louvers were carefully concealed inside a multi-functional trench surrounding the roof. The design supports the visual impact while ensuring structural integrity and functionality.

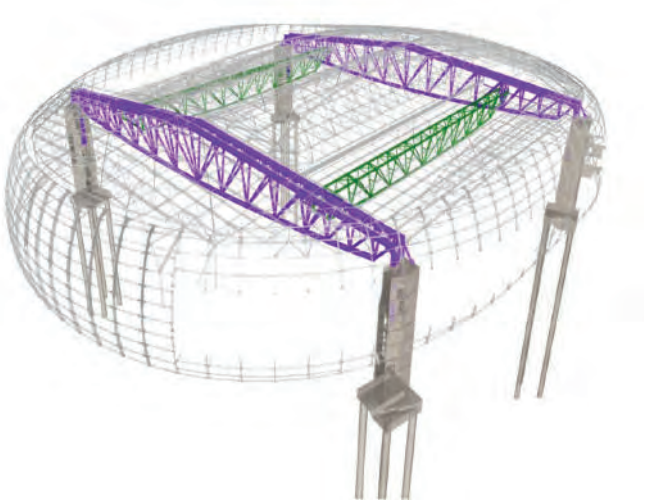
The seating bowl

The seating bowl, constructed from over 2,000 precast units, has individual cooling outlets beneath each seat, optimising both spectator comfort and energy use. Arup conducted extensive airflow modelling to ensure adequate coverage throughout the stadium. The team also performed sophisticated computer analyses to verify that the vibration comfort of spectators meets international performance-based criteria for concert and sports event scenarios.

The stadium bowl is further equipped with pitch cooling to maintain a comfortable environment for floor audiences without cold drafts, and to ensure safe temperatures for players during sporting events.

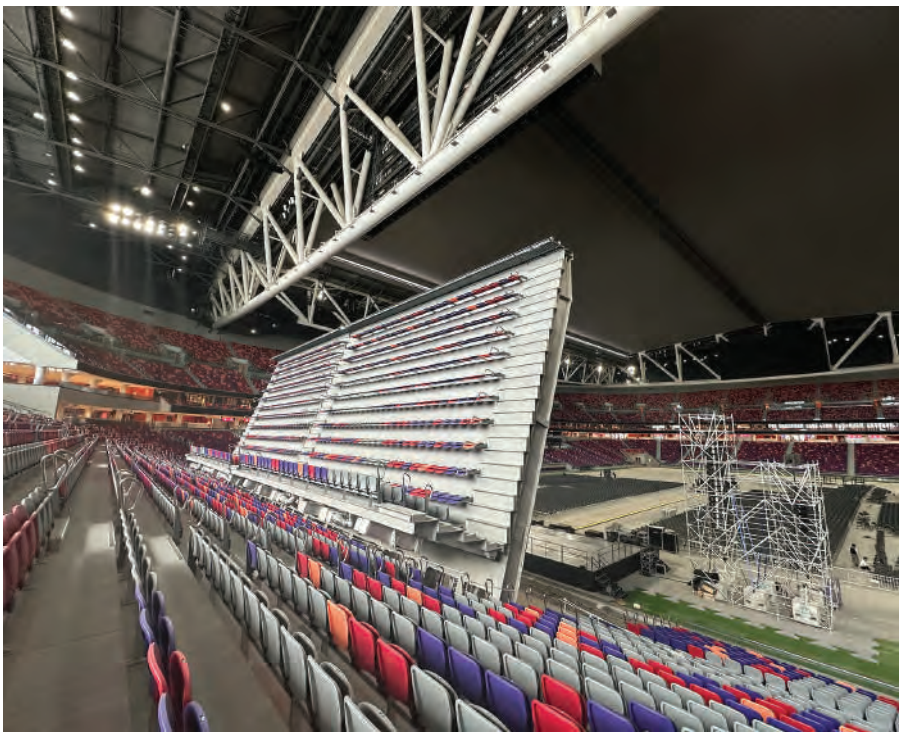
Instead of the conventional approach where the stadium roof is constructed after the stadium bowl structure is completed, the erection of seating bowl precast units was carried out concurrently with the roof structure installation. This is achieved by introducing an innovative launching gantry which greatly shortened the construction duration.

ABOVE: **The stadium's facade is composed of around 27,000 triangular aluminium panels that can change into various pearlescent hues depending on the daylight intensity.**



RIGHT**: BIM was fully adopted to optimise the structural design, ensuring constructability and minimising steel use.**

BELOW: **The 'stage pocket' system incorporates a section of seating that hinges upwards, creating space for concert stages and increasing the venue's capacity for large events.**



'Stage pocket' system

Another highlight of the stadium is its innovative 'stage pocket' system, a first in Hong Kong and one of the largest globally, revealed Arup. This system incorporates a section of seating that hinges upwards, creating space for concert stages and increasing the venue's capacity for large events.

It consists of four modular units: two central large units and two smaller side units. These can be operated independently, providing flexibility depending on the size and requirements of the event. The 'stage pocket' lifts into place using large hydraulic rams, securely locking once in position with the concert stage typically constructed directly in front.

This design not only simplifies stage setup by providing direct access from the vehicle loading dock to the stage area, facilitating efficient equipment transport, but also minimises damage to the turf. Furthermore, fewer seats need

to be removed during event setups, streamlining the process and reducing preparation time.

Sustainability and safety

The stadium has been designed with sustainability in mind right from the start. Over 10% of the roof area is covered with photovoltaic panels, harnessing solar energy to power the facility. This is complemented by a comprehensive rainwater recycling system that conserves water and manages stormwater runoff, using it for irrigation purposes.

The stadium's air conditioning system is powered by the Kai Tak district cooling system, which is significantly more efficient than traditional systems. By using chilled water, it consumes approximately 35% less electricity than conventional air-cooled systems.

Multi-trade integrated mechanical, electrical and plumbing (MiMEP) and design for manufacture and assembly (DfMA) methods were widely adopted throughout the course of design and construction, added Arup. By standardising equipment and services distribution for a modular design, the project reduces waste and carbon emissions, and accelerates the installation speed.

What's more, the venue boasts a pioneering fire engineering design equipped with an addressable fire detection system. This system precisely identifies fire locations, enabling rapid response. Integrated with remotely operated fire monitors – also a first in Hong Kong, it can target specific areas with water, quickly controlling and extinguishing fires.

Addressing the challenges of ingress and egress by a large crowd, the transport consultants performed extensive 3D MassMotion simulations to understand different behavioural patterns under various scenarios, taking into account the mobility speeds and capabilities of diverse groups. "This analysis was instrumental in designing efficient crowd dispersal routes, ensuring a smooth experience for all visitors before and after events," stressed Arup.

Apart from the Kai Tak Stadium, KTSP also includes the indoor Kai Tak Arena and Kai Tak Youth Sports Ground, plus a variety of retail and dining options, park facilities, and open spaces. ■

PROJECT TEAM:

Client: Culture, Sports and Tourism Bureau of the HKSAR Government

Contracted party – design, build and operate: Kai Tak Sports Park Limited

Design and build contractor: Hip Hing Engineering Co Ltd

Design architect: Populous Limited

Executive architect: Simon Kwan & Associates Limited

Civil, structural and geotechnical engineer: Arup

Mechanical and electrical engineer: Arup

Landscape architect: ADI Limited

Sustainability consultant: Arup

Traffic, fire engineering, facade, acoustics, audio-visual, sports lighting, advanced digital engineering, security and environmental consultant: Arup

TOP AND ABOVE: **Apart from the Kai Tak Stadium, KTSP also includes the indoor Kai Tak Arena and Kai Tak Youth Sports Ground, plus a variety of retail and dining options, park facilities, and open spaces.**

Image: Hip Hing Construction

Among sustainability features are solar panels, rainwater recycling system, and district cooling system.

All images: Arup (unless stated otherwise)

DOKA SETS SIGHTS ON FURTHER EXPANSION IN *Asia*

WITH ITS RECENT ACQUISITION OF MALAYSIA-BASED MFE FORMWORK TECHNOLOGY, DOKA HAS SOLIDIFIED ITS PRESENCE ACROSS ASIA. *SEAC* MET UP WITH ROBERT HAUSER, CEO OF DOKA AND PAT GORHAM, EXECUTIVE VICE PRESIDENT FOR DOKA ASIA PACIFIC TO FIND OUT MORE ABOUT THE COMPANY'S PLANS IN THE REGION, LATEST INNOVATIONS, AND FUTURE STRATEGY IN NAVIGATING GLOBAL CHALLENGES.

Doka has been active in Asia for many years, taking part in various projects. How important is the region for the company's long-term growth?

Robert Hauser (RH): Asia is a very important market for Doka. I would say there are four building blocks. First of all, there's the regional scale. When you compare the construction output of the different regions worldwide, Asia is the biggest region and also the fastest growing. Especially in places such as India, with its tremendous growth, we have been involved in major projects like the Mumbai-Pune Expressway's Missing Link Project and the Dwarka Bridge.

The second one is the socio-economic transition. What we see in Asia is a growing middle class, and this generates huge demand in terms of transportation, in terms of living, in terms of energy infrastructure, and also in terms of urbanisation.

Third, it's the tech integration. Asia is a rising adopter of new technologies, whether it's BIM, modular building, or applied robotics at the jobsite. We have early adopters in Asia – and this is why, also in terms of our innovation, Asia is an important hub for us.

Last but not least, product diversification. We now have a broad spectrum of products ideally suited to the Asian market. In addition to our existing Doka products, we also offer the MFE products and thereby, we have a full suite of solutions that the customers demand for in the Asian market.

Pat Gorham (PG): In line with our international growth strategy, Doka has been actively working to strengthen its presence in Asia. With the acquisition of MFE, Doka has become a major player in the region and we need to further strengthen this business and partnerships with our customers and to grow the business further in Asia.

Robert Hauser, CEO of Doka (far left) and Pat Gorham, EVP for Doka Asia Pacific (left) talked to SEAC about the company's latest developments, future plans, and the importance of Asian market.

Last year, Doka acquired Malaysia-based MFE Formwork Technology, a market leader in monolithic aluminium formwork systems. Together they are now a major player in the Asia Pacific region, capable of providing customers with various solutions from a single source.

Doka offers a one-stop shop solution for any project. Especially now that we see rapid urbanisation and industrialisation happening in Asia, our new digital solutions launched at bauma will be of huge benefit to our customers and to run their projects in a far more efficient way.

As demand for infrastructure is rising across Asia due to rapid urbanisation, is there a plan for Doka to expand further in the region?

PG: Yes, I think there is a plan to expand further in the region. At the moment, Doka's products are available throughout the entire region, even in markets where we don't have physical presence with branches; we have an expert team that looks after those markets.

We have strengthened our regional one-stop-shop solution by localising some manufacturing operations. Over the past couple of years, we've been developing the DokaFit line, which includes the DokaFit Prop and DokaFit Handset. They can be used in a wide range of projects, and cater to different types of budget requirements

Starting with the DokaFit Handset and Prop, this product line is designed to address the immediate challenges of the Asian construction market. We believe it will be used very well in India, Malaysia, Philippines and Indonesia – our main markets.

Here in Asia, we need to deliver our products in a speedy fashion, and this is where localisation of the products becomes important. We will have them fabricated in Asia, and we also look at the product fit and design products specifically for the region. Having them manufactured in the region will allow us to be more cost-effective because we reduce shipping times and shipping costs as well.

Speaking of product localisation, is Doka also looking into manufacturing MFE formwork systems in other markets outside Malaysia to be closer to your global customers?

PG: Yes, it's something that we always look at to see where else could we manufacture. And India being 60% of our business with the growth that we currently see in the whole Asian market for the monolithic requirements, we believe that expansion into another country is going to happen in the next one to two years.

Asia's construction landscape has changed so much over the last few years, especially since the pandemic. What do you see as the main challenge(s) in this region?

PG: What we see now is that, projects are finding there's a shortage of labour in the market, so we need to have more efficient systems in place. Our new digital customer platform, Doka 360, is a great example of how we are digitalising the formwork process. Our customers get the benefit from a more efficient system, better utilisation of their stocks and gain full transparency and control from planning to return delivery.

We also see the one-stop-shop solution as a big benefit to our business in Asia. Our customers know that whatever project they're doing, whatever budget they have, whatever formwork or scaffolding that is required, we have the solution for them now.

At this year's bauma, Doka unveiled its new digital platform: Doka 360. This integrated customer platform digitally connects and streamlines all key touchpoints – from planning and ordering to site operations and return logistics – along the formwork process.

Doka has worked on various major projects across Asia, including the construction of Dwarka Bridge in Gujarat, India. The company's formwork and engineering solutions were used on the 900-m-long, central cable-stayed bridge section, including highway approaches.

The Doka 360 digital platform was unveiled earlier at bauma, revolutionising the formwork process. Can you tell us a little bit about this initiative and how it will change the industry?

RH: When you look at our industry today, one of the most pressing problems is that productivity hasn't really increased over the recent decades. We're still at the level where we were 10 or 20 years ago. That's why we've been working hard to increase productivity for our customers, to ensure that their projects are economically viable. And Doka 360 plays an inherent part here.

With Doka 360, we've built a digital platform where customers can interact with us. Traditionally, our interaction wasn't necessarily the most efficient and productive way – via phone, via email, there was a lot of back and forth. Now, customers can interact with us and complete their formwork process solely by using Doka 360 digital platform. For example, during the design phase, customers can access our design tools to help with their planning. Once finished, they can generate a material list and start an order.

They can track the delivery status of their order in real-time – they will know when the truck is arriving at the jobsite, they can track the material at the jobsite, and they can check the status of their invoices.

That's what Doka 360 is all about – to make the entire formwork process much more efficient for our customers and thereby increase their work productivity.

Sustainability is also a key focus for Doka. One of the company's latest innovations in this area is the intelligent heated formwork. How does the method work, and when is it ready for commercial launch?

RH: The construction industry is responsible

for almost 40% of the global carbon footprint, with concrete being a major contributor. To help lower this carbon footprint, we have developed the intelligent heated formwork – it's a formwork panel that you can heat up.

Nowadays, there are alternative concrete mixes with lower carbon emissions available on the market. However, these low-carbon concrete options tend to have difficult physical features, including the speed at which they cure (how fast they can harden). Normally the process occurs at a much slower pace, in particular when the temperatures are around 10 to 15 °C depending on the concrete mixture. This is where our intelligent heated formwork comes in handy.

By initiating or adding a little bit of heat, we can accelerate the speed of the curing process. Plus, with our sensor solutions that measure the temperature of the concrete, we can even control the process, since we know exactly how much heat we need to inject in order to optimally steer the hardening and the curing of the concrete.

We have tested this product on various jobsites in Austria, Norway, Sweden and Czech Republic. We're planning to initiate the go-to-market in Scandinavia in 2026, and afterwards the rest of Europe will follow.

Another major project in which Doka took part was the construction of Jurong Region Line (JRL), Singapore's seventh MRT line. The company supplied its formwork systems for three stations and a viaduct.

With the economic uncertainty in North America, do you expect this situation will have a significant impact on Doka's efforts to meet its climate targets?

RH: Sustainability is a central pillar of our corporate strategy, and we have set ourselves the goal of becoming net zero by 2040. This will be achieved by introducing measures within both our company and our supply chain.

For us, sustainability and business success go hand in hand. We aim to offer solutions to our customers that are not only sustainable but also economically viable.

Given that sustainability is a long-term strategy, we don't think such short term developments will have a major impact. We will stick to the course to reduce our carbon emissions. We may face some difficulties in the North American market, but we will follow through on our long-term strategy.

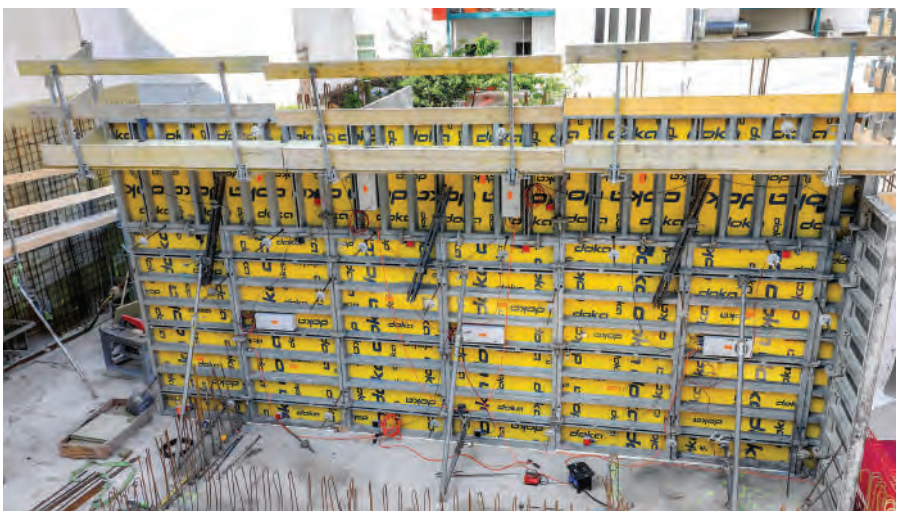
We also believe the trend towards sustainability will continue and become stronger, as authorities and governments need to introduce additional measures in order to get carbon emissions under control and encourage all the stakeholders, also in our industry, to work on systematically reducing carbon emissions.

Doka was also engaged to provide a flexible formwork solution for the cable-stayed Batang Lupar Bridge No. 2 in Sarawak, Malaysia, in particular to cater to the unusual shape of the pylons.

Moving forward, how will Doka stay ahead of the curve while facing global complexities and greater competition than ever before?

RH: There are two ways on how we're going to achieve that. First, by staying close to our customers, which is key, because we have to understand their needs. We have to know where their pain points are and what the realities on site are. Then we will incorporate this vital information into our product development, so that we can offer suitable products and solutions to our customers and provide them with value add. ■

Website: www.doka.com/ea



To boost the spread of new, more climate-friendly concrete mixes, Doka has developed an intelligent heated formwork prototype. Through targeted heating, the prototype accelerates the delayed strength development of CO2-reduced concrete, enabling safe and efficient use on site.

All images: Doka

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MAKING SINGAPORE A GREENER PLACE

JP Nelson Equipment, one of Singapore's leading equipment and machinery suppliers, recently participated in the Green Construction Technology Exchange event, showcasing its eco-friendly solutions aimed at reducing carbon emissions and enhancing energy efficiency on the jobsite.

The Green Construction Technology Exchange took place on 21 March 2025 at the BCA Academy Braddell Campus, Singapore, organised by the Building and Construction Authority (BCA). The event brought together contractors, suppliers, manufacturers, developers and other industry stakeholders to share their experiences and insights on implementing sustainable construction strategies.

At the event, participants were able to connect with and learn from one another, as well as raise awareness of various solutions available on the market. There were also live demonstrations of energy-efficient equipment and machines, including an electric crawler crane, electric wheel loaders and battery energy storage systems (BESS).

JP Nelson's electric crawler crane (above) and electric wheel loader (below) are suitable for use in urban areas, especially in projects with high environmental protection requirements.

BESS solution

JP Nelson's BESS system comprises the BESS 500 and BESS 300, which come with a rated power of 500 kW and 300 kW respectively. These models are CE/UL/IEC certified, and serve as a sustainable alternative to diesel-powered generators at work sites.

Delivering zero emissions and zero noise pollution, the BESS units provide high energy efficiency and economical operation costs. They feature a sound level of only ≤58 dB(A) and their usage can be monitored remotely, making it easier for the users.

The BESS system offers many advantages. It is environment-friendly, reducing reliance on fossil fuels and greenhouse gas emissions. It can be used in a wide range of applications, from residential to industrial projects. It also enhances the reliability and utilisation of renewable energy sources. Plus, it has economic benefits, with potential for cost savings through peak shaving and energy arbitrage.

JP Nelson pointed out that given the increase in Singapore's carbon tax over the coming years, the BESS system will bring an even greater benefit to local users. The carbon tax rate was already set to S$25/tCO2e in 2024 and by 2030, it is expected to reach S$50-80/tCO2e. This higher carbon tax means an increase in fuel price.

Moreover, the newly launched Energy Efficiency Grant (EEG) by the Singapore government will also encourage the adoption of BESS. This grant supports local construction firms in transitioning towards greener operations by co-funding investments in energy-efficient equipment, such as BESS, electric wheel loaders and electric excavators.

A highlight of JP Nelson's BESS system is the use of a semi solid-state battery pack, equipped with a liquid cool system. It can last for approximately 10 years, with 5,000 charging cycles.

Nelson Lim, executive chairman of JP Nelson, spoke to SEAC about the company's energy-efficient equipment and machines, which are targeted at Singapore's construction market.

ABOVE AND LEFT: **Delivering zero emissions and zero noise pollution, JP Nelson's battery energy storage system (BESS) is equipped with a semi solid-state battery pack. Compared to lithium-ion batteries, solid-state batteries are safer and offer a longer lifespan.**

"These semi solid-state batteries are safer than lithium-ion batteries and they don't catch fire easily," explained Nelson Lim, executive chairman of JP Nelson. "Solid-state cells are one of the latest battery technologies, where the industry is currently heading to."

"The lifespan of a solid-state battery is also longer than that of a lithium-ion battery," added Mr Lim. "Plus, it can be charged faster than a lithium-ion battery, so it allows users to save more fuel."

Mr Lim revealed that JP Nelson plans to electrify about 30% of its local equipment within the next three years. As awareness of eco-friendly products rises in Singapore, along with the government's push for sustainability, he believes energy-efficient equipment will become a more attractive choice for local contractors.

JP Nelson has aligned its future direction and goals with the Singapore Green Plan 2030. However, Mr Lim shared that the company's sustainability journey was not an easy task. "We had to go through a lot of issues and changes in the beginning. But to be successful, we need to take our first step and enter the market at the right time. Every journey starts with a small step."

On JP Nelson's expansion in Southeast Asia, Mr Lim said, "After Singapore, I think Malaysia will be the up-and-coming market for us."

ABOVE: **Mr Lim at the Green Construction Technology Exchange in Singapore, held earlier in March.**

BELOW: **JP Nelson's electric wheel loader has a battery capacity of 282/350 kWh. The machine can operate for up to 12 working hours.**

The ZCC850V-1EV electric crawler crane is powered by a 166.3-kWh battery pack, which is capable of running for about eight hours or more when fully charged, depending on the application.

The Green Construction Technology Exchange allowed various industry stakeholders to share their experiences and insights on implementing sustainable construction strategies. There were also live demonstrations of energy-efficient equipment and machines.

LEFT: **Given the increase in Singapore's carbon tax over the coming years, the BESS system will bring a greater benefit to local users. The newly launched Energy Efficiency Grant (EEG) will further encourage the adoption of BESS.**

BELOW: **The BESS system is not only environment-friendly, but it can also be used in a wide range of applications – from residential to industrial projects. Plus, it provides economic benefits, with potential for cost savings through peak shaving and energy arbitrage.**

Electric wheel loader and crane

JP Nelson also offers an electric wheel loader for Singapore market. The machine features an operating weight of 18,200 kg and a battery capacity of 282/350 kWh. It can operate for up to 12 working hours.

Fitted with a spacious cab, this electric wheel loader provides a rated load capacity of 5,800 kg, a bucket capacity of 2.5 to 4.5 cu m, and a two-speed electric drive system. The machine has a gradient angle of 30°, a digging force of ≥170 kN and a travelling motor power of 120/240 kW, with an excavation depth of 45 mm.

Meanwhile, the ZCC850V-1EV electric crawler crane is powered by a 166.3-kWh battery pack, which is capable of running for about eight hours or more when fully charged, depending on the application. The charging time is approximately 4.5 hours using a 40 kW charging point. The battery can last for more than 10 years with about 3,000 charging cycles.

Equipped with a boom length of 13-61 m and a fixed jib length of 7-19 m, the ZCC850V-1EV has a maximum lifting capacity of 85 t and a maximum lifting moment of 363 tm. The travelling speed is up to 1.4 km/hr, with a gradeability of 30%.

The crane's operator cab is fitted with an air-suspension seat, a working light and rear-view mirrors that give excellent visibility of the jobsite. The noise level inside the cab is below 65 dB, increasing operator comfort.

Both the electric wheel loader and electric crawler crane deliver zero emissions and low noise levels, suitable for use in urban areas, especially in projects with high environmental protection requirements. The machines require lower maintenance compared to their diesel counterparts, thus reducing operating costs for the customers. ■

Website: www.jpnelson.com.sg

BELOW: **As awareness of eco-friendly products rises in Singapore, along with the government's push for sustainability, JP Nelson believes energy-efficient equipment will become a more attractive choice for local contractors.**

More details on the EEG grant: www.gobusiness.gov.sg/energy-efficiency-grant

RELIABLE, RESILIENT, RESPONSIBLE: 3Rs THAT DEFINE ISLAND CONCRETE

ONE OF SINGAPORE'S LEADING READY-MIXED CONCRETE SUPPLIERS, ISLAND CONCRETE – A SUBSIDIARY OF HONG LEONG ASIA (HLA) – CELEBRATES ITS 55TH ANNIVERSARY THIS YEAR. *SEAC* TALKED TO SIMON LOH, CHIEF OPERATING OFFICER OF HLA'S BUILDING MATERIALS GROUP SINGAPORE, ABOUT THE COMPANY'S PROGRESS AND INNOVATIONS, AND HOW IT EMBRACES THE FUTURE.

1 Mr Loh, congratulations as Island Concrete marks another milestone. What is the company's strategy to maintain its competitive edge?

Simon Loh (SL): Over the past five decades, Island Concrete has been an industry-leading brand in the built environment sector known for its product quality, timely delivery, and the scale to supply even the largest of projects – such as Marina Bay Sands.

We continuously innovate through working closely with our customers – from developing a new or improved product to offering urban solutions, which adds value to the business. This includes the commitment to shift towards a lower-carbon and more circular economy, helping to deliver sustainable and responsible cities of the future.

Looking ahead, we will continue to leverage our expertise and industry partnerships to ensure supply chain resilience to meet the needs of our customers. Reliable, resilient and responsible – the 3Rs – will be one of the mainstays of Island Concrete's continued relevance and growth.

Simon Loh, COO of HLA's Building Materials Group Singapore (in orange top), is seen here briefing visitors at Island Concrete's Command Centre.

2 Island Concrete has recently implemented several initiatives to improve productivity. Among them is to upgrade the company's fleet of concrete mixer trucks from regular 9 cu m to 12 cu m. Can you share more on the benefits of having these larger-capacity trucks?

SL: We have been upgrading our concrete mixer trucks from 9 cu m to 12 cu m since 2022. Many of our sub-contractors have also done so. At the end of 2024, these 12 cu m concrete mixer trucks already made up more than 40% of Island Concrete's trucking fleet in Singapore. Based on this figure, we would have eliminated more than 138,000 trips in a year.

This not only reduces road congestion and carbon footprint, but also reduces demand for truck drivers while at the same time increases their remuneration for each trip. On top of that, site casting can be completed much faster with shorter waiting times. Overall, the waiting time for each 12 cu m truck to offload on site has been reduced by about 20% compared to that using a 9 cu m truck.

3 As you mentioned earlier, Island Concrete also adopts greener practices. One of the company's efforts is to manufacture green concrete with alternative materials such as fly ash and ground granulated blast furnace slag (GGBS). How much CO2 emissions can be saved by using this green concrete?

SL: Enviromix, one of the eco mixes offered under Island Concrete, allows approximately 20% emission reduction compared to regular concrete. The performance of green concrete is also similar to traditional concrete.

Our green concrete was used in the construction of CapitaSky – a 31-storey Grade A office building on 79 Robinson Road. Recent projects that will also use our green concrete include the new NS Square at Marina Bay (which will replace The Float @ Marina Bay) and an executive condominium in Tengah Plantation.

In addition, our latest batching plant in Pulau Punggol Timor, in northeastern Singapore, is expected to be commissioned by the second quarter of 2025. This plant is designed with sustainability in mind. It will feature larger, more efficient mixers as

Island Concrete has upgraded its fleet of concrete mixer trucks from regular 9 cu m to 12 cu m. This not only reduces road congestion and carbon footprint, but also reduces demand for truck drivers.

well as a conveyor system that helps minimise carbon footprint and labour inputs.

❹ In today's fast-paced work environment, what kind of training does Island Concrete provide to ensure that its staff and technicians are equipped with the necessary skills and knowledge?

SL: Technical training sessions, both on the job and in classrooms, are essential to upgrade and enhance the skills of our employees and production technicians. Apart from the internally conducted training courses, our employees are also encouraged to attend external training programmes on hard skills, such as how to leverage concrete technology or enhance productivity and efficiency in modern construction with advanced materials, courses administered by recognised institutes like ACI (American Concrete Institute) – Singapore Chapter.

❺ The construction landscape in Singapore has changed so much over the last few years, especially since the pandemic. What do you see as the biggest barrier(s) in this market?

SL: One of the challenges the industry faces is the slow adoption of new technologies and practices. In general, the industry possesses a somewhat conservative outlook towards new technologies and practices. The focus has always been about accumulating successful track records; gaining confidence before new technologies and practices can take off, which is understandable as mistakes can be costly. Another part of this may also be due to the imbalance in the allocation of risks vs rewards amongst the various stakeholders, especially during the early introductory stages of the new product and technology lifecycle.

Most tend to take the 'follow the leader' approach, letting others prove the success before adopting for their own use. This leads to slower adoption and changes. Regulatory push or tweaking the risk vs rewards balance might also be a good way to encourage quicker adoption.

❻ In addition to digitalisation and sustainability, do you see other trends emerging in the ready-mix concrete sector?

SL: High-performance concrete seems to hold good promise in Singapore's construction industry. As our structures get taller and selling price of space increases, high-strength concrete gives the advantage of handling the higher stresses with a smaller column cross-sectional area. Concrete with good chloride resistance could also be an important part of the product portfolio, especially when we deal with structures that are needed to tackle rising sea levels.

❼ Speaking of innovation, Island Concrete is currently collaborating with industry partners to develop an autonomous wheel loader at Jurong Port's Ready-Mixed Concrete (RMC) Ecosystem. Can you tell us more about this latest initiative?

Island Concrete's batching plants are located at several sites across Singapore. One of them can be seen here at Jurong Port's Ready-Mixed Concrete (RMC) Ecosystem, which is equipped with advanced features to enable a higher production capacity of 540 cu m/hr.

SL: The autonomous wheel loader is still in the development stage. Once ready, we will pilot at the Jurong Port RMC initially. Once the concept has been proven, we intend to deploy at least eight units across the island. They will function as an integral part of our batching plant, with each machine having a load capacity of up to 6 t.

Fitted with sensors and cameras, the wheel loader will be operated unmanned and controlled through a system software. Whenever raw materials inventory in the storage hopper is low, sensors laid in the raw materials storage section of the batching plant will kick in and the storage hopper will activate the loading process until the hopper is fully loaded.

The wheel loader will select and load the correct raw material into the correct storage hopper. After the raw material is fully replenished, the machine will return to its charging station and await further instructions. Unless there is a malfunction, there will be no need for human intervention.

This autonomous wheel loader can operate round-the-clock and is suitable for long, continuous operations. As the machine is electrically powered, its carbon footprint will be lower than that of the traditional diesel-powered model.

The use of 12 cu m concrete mixer trucks also allows site casting to be completed much faster with shorter waiting times. As a result, construction projects can be delivered earlier.

Such an initiative will enhance our operational efficiency and reduce demand for wheel loader drivers, while improving safety. It will also enable the redeployment of headcount to carry out more complex tasks.

If the pilot run at the Jurong Port RMC Ecosystem is successful, we intend to replicate the process across our other batching plants when feasible. ■

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LIEBHERR'S FIRST ELECTRIC DUTY-CYCLE CRAWLER CRANE AND AUTONOMOUS WHEEL LOADER

The first electric duty-cycle crawler crane from Liebherr, the HS 8100.2 dual power, offers various drive alternatives depending on the jobsite conditions. The centrepiece of the machine is an integrated battery with which the entire drive system runs. The battery can be charged in different ways. With a power input of 125 A, the crane is operated entirely via the jobsite electricity supply.

With 32 A or 64 A, part of the required energy comes from the mains supply, while the rest is delivered by an optional diesel generator that is completely integrated in the machine and does not require any extra space. The product name 'dual power' derives from this drive concept. If no charging infrastructure is available on the jobsite, the drive is powered entirely by the diesel generator. Thanks to the battery, the crane can also be autonomously assembled or disassembled, or travel over a distance of around 400 m.

All main components of the HS 8100.2 dual power are electric: travelling gear, swing drive, luffing winch and free-fall winches. The crane is easy to maintain and its electric drive system delivers zero emissions on the jobsite. In mains or dual power operation, the machine produces little or no exhaust fumes and is very quiet. It is suitable for projects in noise-sensitive and urban areas.

The HS 8100.2 dual power can be used for a wide range of applications – whether with a mechanical grab for deep foundation work, with a dragline for material handling or for lifting up to 100 t. The electric free-fall winches with a line pull of 300 kN each ensure the necessary power on the jobsite. If these are lowered with friction, they recover energy to charge the battery.

Thanks to the all-electric drive concept in combination with this energy recovery, the power requirement could be reduced by up to 30% compared to the conventional version. This makes operation of the new model particularly efficient. The HS 8100.2 dual power has the same control concept as the entire HS series, making it easy for the operator to switch to the new device.

The HS 8100.2 dual power is the first electric duty-cycle crawler crane from Liebherr. The machine is suitable for a wide range of applications – whether with a mechanical grab for deep foundation work, with a dragline for material handling or for lifting up to 100 t.

Autonomous wheel loader

The Liebherr Autonomous Operations system is designed to enhance efficiency and safety in the use of wheel loaders. It allows repetitive and monotonous tasks to be carried out easily and intuitively without an operator.

According to Liebherr, the system is currently at an advanced stage of development. It recently won the bauma 2025 Innovation Award in the 'Digitalisation' category, which was presented at the ICM in Munich, Germany on the eve of the opening of bauma on 6 April.

Developed by Liebherr-Werk Bischofshofen GmbH, based in Austria, this autonomous system is ideal for activities such as repeatedly loading hoppers or transporting materials from A to B without an operator. As a result, employees can devote themselves to more varied tasks, so that working time can be organised more effectively.

"At the same time, it can create space for employees to focus on more complex activities that require human expertise," said Dr Manuel Bös, head of emerging technologies at Liebherr-Werk Bischofshofen. Challenging tasks such as

The Liebherr Autonomous Operations system is designed to enhance efficiency and safety in the use of wheel loaders. It allows repetitive and monotonous tasks to be carried out easily and intuitively without an operator, as well as challenging tasks such as working in the hazardous area of a quarry. The self-driving wheel loader can operate independently around the clock, enabling continuous material handling at any time.

working in the hazardous area of a quarry can also be performed by the autonomous system, boosting jobsite safety.

Operators can plan deployments of the autonomous wheel loader using the Autonomous Job Planner web application developed by Liebherr. "You don't need any special IT skills to initiate the wheel loader deployment. The system is very intuitive and user-friendly, and requires only a few inputs for the job," said Mr Bös. The machine perceives its surroundings, piles and obstacles using 3D environmental sensors – without having to use drones or separate surveying technology – and plans the work cycle accordingly.

The autonomous system then carries out the task independently, automatically adapts to the changing environment and does not require GPS reception, which means it can be used indoors, underground, at high quarry faces or under tree cover. "In these operations, conventional GPS-based systems reach their limits, while Liebherr Autonomous Operations can be used anywhere – from a confined industrial hall to an open quarry," highlighted Mr Bös. The self-driving wheel loader can also operate independently around the clock, enabling continuous material handling at any time.

Furthermore, the autonomous system delivers machine operation with consistent performance and efficiency right from the start and throughout the entire duration of use, regardless of the time of day. "Due to the consistent performance of the autonomous wheel loader, all processes are easier to plan and can be made more efficient," added Mr Bös.

This Liebherr Autonomous Operations system recently won the bauma 2025 Innovation Award in the 'Digitalisation' category, which was presented at the ICM in Munich on 6 April.

"The software-controlled autonomous wheel loader operates in a particularly machine-friendly way, significantly reducing component and tyre wear as well as fuel consumption. This reduces ongoing operating costs," he pointed out. "Additionally, the operator can seamlessly switch between conventional manual cab operation and fully autonomous operation, thus maximising machine utilisation." ■

Website: www.liebherr.com

IMER OFFERS COMPACT, EFFICIENT VIBROFORMING MACHINES FOR PRECAST CONCRETE ELEMENTS

Imer Oru Far East offers vibroforming machines to produce moulds for precast concrete elements. Using VibroCast technology, these machines and moulds are highly customised based on the customers' needs.

The moulds can be manufactured in different sizes, with endless solutions to meet a variety of requirements. The final products are concrete elements suitable for use in construction and industrial sectors, such as concrete slabs, road kerbs, highway barriers, concrete fences, concrete pipes and paving blocks, to name just a few.

The process is quite simple: the mould is first filled with concrete and then vibrated to obtain the self-compaction of the material. Once set, the mould is turned over to release the finished product directly on the floor. With the VibroCast technology, concrete elements can achieve a high compressive strength (HCS) of up to 60-70 MPa.

The vibroforming machines are available in four models: VC100, VC200, VC300 and VC400. They are now being introduced to the Asian market and Imer Oru Far East welcomes potential distributors in the region. The company has recently sold one model to a customer in the Philippines.

The VC100 can lift concrete elements up to 2,000 kg with a maximum dimension of 1,400 x 1,400 x 1,050 mm, while the VC200 is designed for concrete elements up to 3,000 kg with a maximum dimension of 2,000 x 2,200 x 1,350 mm.

ABOVE RIGHT AND RIGHT: **Imer recently sold its first vibroforming machine in the Philippines. The first customer in the country, Maharlika Agro-Marine Ventures Corp, will be using the machine to produce concrete slate for its pig farm construction. This important signing ceremony between both companies took place during bauma 2025.**

Imer's vibroforming machines produce moulds for precast concrete elements. Using VibroCast technology, these machines and moulds are highly customised based on the customers' needs. The technology can also help improve work productivity, as only one operator is required on the vibroforming machine for the handling and one worker to provide the concrete with forklift.

ABOVE, RIGHT AND BELOW**: The moulds can be manufactured in different sizes, with endless solutions to meet a variety of requirements. The final products are concrete elements suitable for use in construction and industrial sectors.**

The VC300 is ideal for concrete elements up to 3,600 kg with a maximum dimension of 3,000 x 2,200 x 1,350 mm. Meanwhile, the VC400 can lift concrete elements up to 4,000 kg with a maximum dimension of 4,000 x 2,200 x 1,350 mm.

The vibroforming machines are equipped with various functions: tele-assistance, automatic lubricating system, double tilting mould motor, adjustable rotation mould on tilting cylinders, quick couplings for the replacement of the moulds without oil leaks, double hydraulic pump for oil separation machine/mould, fifth rotation wheel with separated and dedicated engine and gear, bronze-aluminium bushes, and feed drawer covering 2,200 mm without the need for additional arms or extra cylinders.

Optional features include: rack-work drawer system, hydraulic oil heating system, hydraulic oil cooling system, electric winch to lift platforms or steel cages, smoothing device, concrete bucket, and more.

Simple to operate with user-friendly features, these vibroforming machines are compact and do not require a large production area, making them an excellent choice for customers that have limited space.

The VibroCast technology can also help customers improve their work productivity, as only one operator is required on the vibroforming machine for the handling and one worker to provide the concrete with forklift. In addition, the machines are designed for easy maintenance and transport. ■

Website: www.vibrocast.it

TOP AND ABOVE: **Simple to operate with user-friendly features, these vibroforming machines are compact and do not require a large production area.**

Imer Oru Far East welcomes potential distributors for the Asian market. Interested parties may contact the company directly via website: www.imergroup.com/en/contacts

ABOVE AND RIGHT: **With the VibroCast technology, concrete elements can achieve a high compressive strength (HCS) of up to 60-70 MPa.**


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VERMEER HG400TX STAGE V/T4F HORIZONTAL GRINDER FOR INTERNATIONAL MARKETS

Vermeer has launched the HG400TX Stage V/T4F horizontal grinder for global customers. The unit will be available in select markets across Asia Pacific, Europe and Latin America. Combining functionality and affordability, the Vermeer HG400TX Stage V/T4F is an entry level grinder for tree care and organic recycling businesses to process green waste and pallets at small, narrow jobsites.

"The HG400TX was designed based on customer input from small organic recycling facilities around the world. The compact design allows for ease of transport between jobsites while the track under carriage allows for onsite mobility to reduce material handling and improve efficiency," explained Jeff Bradley, product manager for recycling and forestry equipment at Vermeer.

Equipped with steel tracks, the self-propelled HG400TX Stage V/T4F can be manoeuvred around different terrains with ease and stability. It has a ground clearance of 220 mm, and rubber pads option is also available. Powered by a 173-hp Caterpillar Stage V/Tier 4 Final engine, the unit can process difficult materials efficiently, thus allowing for thorough grinding of materials and green waste.

Vermeer offers various screen and grinder tip options, making the HG400TX Stage V/T4F suitable for a variety of applications including grinding wood waste and tree stumps to obtain the desired end products. Different end products of varying sizes can be produced, using the diverse range of screens and grinder tips, thus delivering consistent output and maintaining end product quality. Aside from that, the convenient dual-screen side-load design results in easier changes, allowing for product sizing adjustments to be made in less time.

Designed with wide flared walls and a lowerable infeed tailgate to accommodate bulky and lengthy materials, the HG400TX Stage V/T4F also facilitates hassle-free feeding. The steel infeed conveyor chain with dual-driven roller offers enhanced durability while providing powerful pulling force to feed challenging materials.

The HG400TX Stage V/T4F comes with a full function wireless remote control for operator visibility and feed crush management. In addition, the unit is fitted with the Vermeer Plus+1 control system, with four different speed options for more precise feed control. ■

Website: www.vermeer.com/ap/horizontal-grinders/hg400tx

ABOVE AND OPPOSITE: **The new HG400TX Stage V/T4F horizontal grinder will be available in select markets across Asia Pacific, Europe and Latin America. The unit can process difficult materials efficiently, thus allowing for thorough grinding of materials and green waste.**

Equipped with steel tracks, the HG400TX Stage V/T4F can be manoeuvred around different terrains with ease and stability.

HAMM INTRODUCES NEW TANDEM ROLLERS

LEFT AND RIGHT:
Hamm is set to launch its new HD 90–HD 110 P-Tier tandem rollers. The four new models are initially being launched in Brazil and Tier 3 regions of Southeast Asia, Africa and the Middle East.

In the first half of this year, Hamm will be introducing new tandem rollers with operating weights of between 9 and 11 t. These HD 90–HD 110 P-Tier models are available either with two vibration drums (VV) or with a combination of vibration drum and wheel set (VT). The machines are initially being launched in Brazil and Tier 3 regions of Southeast Asia, Africa and the Middle East.

With their drum diameters of 1,680 mm and high compaction forces, the new tandem rollers deliver the optimum prerequisites for compacting asphalt and are particularly well suited for applications that demand a high surface output and compaction quality.

The three-point articulation is an invaluable feature because it guarantees even weight distribution, which in turn effectively prevents impressions from forming in the asphalt. The machines are driven by a 97-kW Cummins engine. Operators also enjoy optimum visibility, a spacious cab and a range of convenient features including simple controls.

All four new models – HD 90 P VV, HD 90 P VT, HD 110 P VV and HD 110 P VT – are equipped with the electronic machine management system Hammtronic, which not only has many benefits for operators and construction companies, but also enhances compaction quality. Such benefits include significantly lower diesel consumption, gentle machine acceleration and braking during compaction, the Constant Speed function and reduced noise levels.

As Hammtronic controls various functions, such as the water sprinkling system or the edge pressing and cutting device, operator errors can also be avoided. Consequently, compaction results are higher-quality and more homogeneous. With Hammtronic, the tandem rollers are always working in the optimum power range, which is constantly being adapted to the requirement of the individual drives.

Furthermore, the new tandem rollers offer a variety of options, including a ROPS/FOPS cab with heating and air-conditioning system, a lighting package for working on public highways, the edge pressing and cutting device, and LED drum edge lighting. There are two valuable measuring tools – the Hamm Compaction Meter and the Hamm Temperature Meter – that can be configured to incorporate position-accurate compaction and temperature values into the compaction process.

For fast and simple servicing, all maintenance points are readily accessible, providing effective prevention against long downtimes. These tandem rollers can also be connected to the John Deere Operations Centre.

Hamm electric rollers

Hamm has also introduced its fully-electric roller, the HX 70e VV-S, equipped with two vibration drums. This model will be joined by the HX 70e VO-S, a sales variant with an oscillation drum. As an ongoing technology project, these tandem rollers are initially being put into operation on inner-city construction sites in Europe.

The Hamm HX 70e is powered by a 400-V Li-ion battery from Kreisel with a capacity of 63 kWh. The machine is charged via a Type 2 connector, with other charging options such as Type 1, J1772 and CCS also to be added. With the fast charge option, the battery can be charged from 20% to 80% in under an hour.

Owing to the electrical components, the battery-powered tandem rollers are not only quieter but also more efficient in operation than their diesel-driven counterparts. This is especially true for the models with the oscillation drum. Here, the already low noise of oscillation is combined with the quiet electric drive, making the machines suitable for use in vibration-sensitive and noise-sensitive environments, such as within the vicinity of hospitals or historical buildings.

ABOVE AND LEFT: **The Hamm HX 70e electric tandem rollers are powered by a 400-V battery with a capacity of 63 kWh. Using the fast charge option, the battery can be charged from 20% to 80% in under an hour.**

As an ongoing technology project, the new electric tandem rollers are initially being put into operation on inner-city construction sites in Europe.

The HX 70e tandem rollers deliver the same compaction power as the diesel-engine machines and in fact produce a higher output at their peak. The electric rollers are operated in virtually the exact same way as the conventional diesel counterparts, with the only difference being the display, which now features new symbols to give operators an intuitive user experience.

Another benefit of the battery-powered tandem rollers is their lower maintenance requirement. With the electrical components of the high-voltage system having long maintenance intervals and not being subject to the same maintenance requirements specific to diesel engines, users can benefit from low operating costs. What's more, just like the diesel-powered machines, the new electric models can also be connected to the John Deere Operations Centre. ■

Website: www.wirtgen-group.com

NEW 1,250-T CRAWLER CRANE FROM **TADANO** IDEAL FOR HEAVY LIFTING APPLICATIONS

Tadano has introduced its new 1,250-t-capacity lattice boom crawler crane, the CC 78.1250-1. Building on the success of its predecessor, the CC 68.1250-1, this latest model incorporates significant advancements in performance, safety, efficiency and transportability.

Designed to meet the evolving demands of heavy lifting applications, including the growing wind power sector, the new CC 78.1250-1 achieves a maximum hook height of 224.5 m when equipped with a 15-m fixed jib. In this configuration, the crane can lift a load of up to 140 t. To improve its stiffness, the width of the base crane has been increased to 3.5 m. Furthermore, the two

TOP AND ABOVE: **Designed to meet the evolving demands of heavy lifting applications, including the growing wind power sector, the new Tadano CC 78.1250-1 lattice boom crawler crane achieves a maximum hook height of 224.5 m when equipped with a 15-m fixed jib.**

available crawler shoe widths – 2.0 m and 2.4 m – can accommodate varying ground pressure requirements.

"The CC 78.1250-1 represents a significant step forward in Tadano's crawler crane development," said Andreas Hofmann, executive vice president of research & development at Tadano. "Customer feedback played a crucial role in its design, ensuring that this crane delivers not only superior lifting capacity but also transport-optimised components and efficient assembly sequences."

The crane's dual-engine arrangement features an optimised hydraulic system, allowing for single-engine operation at reduced speeds. Flexible user-friendly interfaces and an optional, dual Can Bus system contribute to increased reliability and operational flexibility. Additionally, the optional auxiliary power unit enables cab systems, HVAC and lighting to operate using a compact 17-kW diesel engine, reducing fuel consumption and emissions during standby operation.

Improved features

The CC 78.1250-1 offers multiple features designed to enhance operator confidence and jobsite security. The crane is equipped with the Tadano Fall Protection System and incorporates protective access to the superstructure and the undercarriage including improved handrails, catwalks and access ladders.

For jobsites with uneven terrain, an optional Pedestal Crane (PC) kit replaces the crawlers on the undercarriage with outriggers, enabling precise levelling at three different outrigger bases. In addition, the crane's engines are compatible with HVO fuel, reducing CO2 emissions without sacrificing performance.

The cab design provides an expanded field of view, while an array of cameras and mirrors help the operator see the hoist drums and other blind spots around the crane.

For jobsites with uneven terrain, an optional Pedestal Crane (PC) kit replaces the crawlers on the undercarriage with outriggers, enabling precise levelling at three different outrigger bases – 12 x 12 m, 14 x 14 m, and 16 x 16 m. This capability enhances setup efficiency while reducing both time and environmental impact.

The IC-1 control system is standard on all Tadano crawler cranes. It gives the operator real-time ground pressures on the rigging aids when erecting long boom systems. This function boosts efficiency with intuitive controls and precise configurations and delivers essential information for safe and efficient operations.

The crane's twin Mercedes-Benz engines are compatible with HVO fuel, reducing CO2 emissions without sacrificing performance. Tadano's IC-1 Remote telematics solution also enables real-time diagnostics and remote troubleshooting, minimising downtime and optimising fleet management.

Manufactured at Tadano's facility in Zweibrücken, Germany, the CC 78.1250-1 has been designed for ease of transport, which includes accessible lifting points on components to make the assembly safe and efficient. ■

Website: www.tadano.com

LEFT: **The CC 78.1250-1 is also designed for high safety and easy transport.**

BAUER UNVEILS NEW SUSTAINABLE SOLUTIONS FOR DIAPHRAGM WALL CONSTRUCTION

Diaphragm wall equipment is frequently used on large urban projects such as subway stations. Since these construction sites are located in densely populated areas and often last for several years, negative impacts such as traffic restrictions, noise, dust and exhaust emissions are a significant factor. Increasingly strict regulations demand resource-efficient work, reduced local CO2 emissions and minimised noise pollution. Additionally, tight spatial conditions pose major challenges for both people and machinery.

With that in mind, Bauer has introduced its new BCS 185 power pack, which features a modular drive concept. This system relies on a flexible drive power pack, allowing operators to choose between an electric motor and a diesel unit. Thus the cutter system can be operated electrically with no local emissions or conventionally with diesel. Depending on the site conditions, the power pack can also be positioned on the side, rear or even apart from the machine to minimise the required space.

Another highlight is that the BCS 185 power pack produces less noise pollution. The diesel HD 1400 can be equipped with a Silent Kit, while the HE 1400 electric power pack is particularly quiet thanks to its low-noise electric motor.

TOP AND ABOVE: **The new Bauer BCS 185 power pack features a modular drive concept, allowing operators to choose between an electric motor and a diesel unit.**

According to Bauer, the BCS 185 power pack is currently working on the Grand Paris Express project. Here, diaphragm walls are being constructed at depths of up to 80 m. Thanks to its compact design and rapid operational readiness, the system enables efficient operations under challenging conditions. Until 2027, it will be used on multiple stations for Line 15.

With the new BCS 185 power pack, Bauer offers a flexible and sustainable solution for diaphragm wall construction. This innovation makes it possible to adapt the equipment optimally to the specific project requirements and represents an important step towards an emissions-free construction site.

Electric cutter soil mixing system

At bauma 2025, Bauer presented the prototype of its electric cutter soil mixing (eCSM) system. This enhancement of the established CSM method replaces the traditional hydraulic components with an electric drive system. "There is no comparable electrified diaphragm wall equipment currently on the market. With the eCSM, Bauer is positioning itself as the pioneer in this technology," said Stefan Wegerer, project manager at Bauer Maschinen GmbH.

ABOVE: **The BCS 185 power pack was one of the highlights at bauma.**

LEFT: **The power pack can be placed flexibly at different positions on the equipment or even remotely.**

The successful test of the eCSM prototype marks an initial milestone in developing a fully electrified trench cutter. While hydraulic systems reach their technological limits, the electric drive technology delivers significant improvements in efficiency and performance. With this forward-thinking technology, Bauer aims to further expand its leading position in the area of soil mixing through innovative and sustainable solutions.

The eCSM system uses two electric motors that drive the mixing wheels with an optimal speed of 40 rpm to achieve uniform mixing quality even in difficult soil conditions. In the process, the soil is loosened and simultaneously mixed with cement slurry at the same time to create a homogeneous cut-off wall. Energy supply is delivered via power cable, while two frequency converters ensure precise control of the drives.

Another key advancement is the introduction of a digital mixing assistant. While equipment operators previously had to control all parameters manually, the system now automatically regulates the pulling speed. This ensures that the defined total quantity of cement is distributed uniformly over the entire trench length. Such a technique not only increases precision but also reduces error and optimises the construction process.

The next phase of development will focus on creating a robust overall system that is ready for use on sites. In the long run, Bauer aims to provide its customers with a fully electric solution that offers both ecological benefits and enhanced economic efficiency. ■

Website: www.bauer.de

All images: Bauer Group

Bauer also presented the prototype of its electric cutter soil mixing (eCSM) system at bauma. This technology uses two electric motors that drive the mixing wheels with an optimal speed of 40 rpm to achieve uniform mixing quality even in difficult soil conditions.

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