

ARCHITECTURE • INTERIOR DESIGN • LANDSCAPING • M.E.P. SYSTEMS

March / April 2026

# SEAB

SOUTHEAST ASIA BUILDING



*In This Issue*

## Technology-Driven Architecture

Lead Feature – AI, BIM, and Digital Twins • Smart Building Projects

• Office & Commercial Interior Design • Interview with Industry

Experts • Smart Playground Systems • Design for Maintainability:

Transformation of the Facilities Management Sector

ON THE COVER: JTC CleanTech Three / Singapore



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Chung Design  
(HK)  
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- **Digital Underground Connect 2026** looks into advancements in subsurface utility mapping, digital twin technology for facilities and asset management.



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**Welcome to the March/April issue!**

This time in Southeast Asia Building, we have an overarching theme of technology-driven design. I hope you enjoy delving into these topics as you read the issue!

Our lead feature invites experts to discuss smart tools in design and building management and how they will be important in architecture today and beyond. Along this same vein, we look at smart building projects in Asia, whether they implemented it during the design phase or in their current life cycle. We also discover how smart technology can enhance fun in our playground section.

Under our interior design section, we cover office and commercial projects, showcasing a wide range of styles and interpretations. Our MEP section goes over BCA's Design for Maintainability (DfM), summarizing the pros of DfM and how it can be implemented in various projects. Lastly, we have our news section. Please take a look at the latest trends and products in design and architecture!

I wish everyone had a good break throughout the various public holidays in February and March. See you in the next issue!

*An Jee-Hyun*

**May/June 2026 Issue**

- **Architecture:** Designing for Climate Change
  - **Lead Feature:** How Southeast Asian projects are adapting to rising seas, heat stress, and extreme rainfall.
  - **Case Study:** Coastal resorts and island communities in Thailand, the Philippines, and Indonesia adopting resilient design.
  - **Materials focus:** Coatings and Waterproofing
- **Interior:** Institutional Projects
- **MEP:** Fire safety: Smart Detection, and Response
- **Landscaping:** Stormwater Drainage Design

**Industry Partners of SEAB**

The grid contains the following logos and their corresponding organization names:

- Association of Myanmar Architects
- Bangladesh Green Building Council
- Design Council - Sri Lanka
- Emirates Green Building Council
- Foundation for Futuristic Cities
- Myanmar Green Building Society
- Green Building Council Indonesia
- Green Building Council Italia
- Green Building Council Mauritius
- Green Building Council Namibia
- Green Building Council Sri Lanka
- Hong Kong Green Building Council
- Interior Design Confederation of Singapore
- Jordan Green Building Council
- Earthna (Member of Qatar Foundation)
- Philippine Green Building Council
- Singapore Green Building Council
- Society of Interior Designers (Singapore)
- The Hong Kong Institute of Architects
- Vietnam Green Building Council
- Green Institute Nepal
- Interior Designers Association of Nepal
- Singapore Institute of Building Limited
- Society of British and International Interior Design
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## ARCHIDEX 2026 Reinforces Malaysia's Commitment to Future-Ready Cities and Sustainable Growth



ARCHIDEX: (From seventh from left) Ar. Lim Gim Huang (Director of KLAF 2026); Jason Lim (Project Director of C.I.S); Ar. Adrianta Aziz (President of PAM); Ar. Dexter Koh (Deputy President of PAM); Janice Gan (Senior Director of C.I.S); together with PAM Office Bearers and Council Members, at the Soft Launch of ARCHIDEX 2026.

Malaysia's commitment to shaping smarter, more sustainable, and future-ready cities was reaffirmed on 13 January 2026 with the soft launch of ARCHIDEX 2026 at the Malaysia International Trade and Exhibition Centre (MITEC).

Returning for its 25th edition under the theme 'The Bold Future', ARCHIDEX 2026 will take place from 29 July to 1 August 2026 at MITEC, marking a significant milestone in the event's evolution as Asia's Leading Architecture Business Event. The upcoming edition will see ARCHIDEX fully consolidated at MITEC, enabling a larger, more integrated exhibition experience that supports innovation, collaboration, and economic activity across the built environment sector.

Jointly organised by Pertubuhan Akitek Malaysia (PAM) and C.I.S, ARCHIDEX continues to serve as a central platform connecting architects, designers, developers, engineers, manufacturers, and policymakers from across the region.

C.I.S President Dato' Vincent Lim's speech at the soft launch highlighted the role of ARCHIDEX as a strategic industry platform aligned with national priorities. "Under the theme, 'The Bold Future', ARCHIDEX continues to bring the business of architecture and its allied professionals together, connecting industry leaders, enabling trade, and inspiring ideas that will shape our built environment."

### A Strategic Move Reflecting Industry Growth

ARCHIDEX was previously held at the Kuala Lumpur Convention Centre (KLCC), growing steadily alongside Malaysia's built environment sector. In 2025, the exhibition reached a turning point when it expanded across two venues—KLCC and MITEC—for the first time, responding to growing demand from exhibitors and visitors.

This year, ARCHIDEX takes its next step forward by moving entirely to MITEC, allowing the exhibition to scale up meaningfully in both size

and scope.

The 2025 edition attracted 36,800 visitors from over 120 countries and regions to KLCC alone, reinforcing ARCHIDEX's position as one of the region's most influential built environment platforms.

With the move to MITEC, ARCHIDEX 2026 is poised for further growth, with plans to:

- expand to 37,000 square metres of exhibition space, close to a 20 per cent increase,
- expecting approximately 900 exhibitors from 20 countries and regions, and
- targeting 40,000 visitors from Malaysia and beyond.

The expanded venue will also enable the introduction of three new thematic exhibition floors, curated to showcase innovation, lifestyle solutions, and design excellence across the built environment ecosystem.



(From Left) Ar. Adrianta Aziz (President of PAM) and Jason Lim (Project Director of C.I.S). The upcoming edition will see ARCHIDEX fully consolidated at MITEC, enabling a larger, more integrated exhibition experience that supports innovation, collaboration, and economic activity across the built environment sector.

Dato' Vincent added that the transition reflects ARCHIDEX's maturity and market demand. "The move to a larger venue caters to the industry's growing demand and bigger ambitions. More importantly, it allows for deeper engagement, clearer zoning, and stronger commercial outcomes for exhibitors and buyers alike."

### **Anchored by Professional Discourse and Design Leadership**

Pertubuhan Akitek Malaysia (PAM) President Adjunct Professor Ar. Adrianta Aziz reaffirmed the professional and cultural role of ARCHIDEX within the broader architectural ecosystem. "PAM's role in KLAFF ensures that ARCHIDEX is not just an exhibition but a thought leadership hub. Central to this mission is our flagship DATUM Conferences, organised by PAM, which has become one of the region's most prestigious

architectural gatherings."

ARCHIDEX is a key anchor of the Kuala Lumpur Architecture Festival (KLAFF), PAM's year-long platform for architecture, design, and public engagement. Within this context, ARCHIDEX serves as the festival's principal business and industry touchpoint, complementing professional discourse and wider city-based initiatives.

### **Extending ARCHIDEX Beyond the Exhibition: KL Architecture Week Returns**

Beyond the exhibition halls, ARCHIDEX 2026 will extend its impact into the city with the return of Kuala Lumpur Architecture Week (KLAFF), an initiative by ARCHIDEX that activates KL through architecture, arts, and heritage. Now in its second year, KLAFF connects industry delegates and the public with the city's urban and cultural fabric through curated installations, heritage

walks, cultural exchanges, and social programmes.

KLAFF 2026 expands across KL Downtown to Petaling Street, activating heritage landmarks from Bangunan Sultan Abdul Samad, Medan Pasar, and the River of Life to modern urban spaces with views of Menara 118. Visitors are invited to explore, gather, and engage with Kuala Lumpur's vibrant culture.

By linking the exhibition to the city, KLAFF strengthens public engagement while supporting tourism, the creative economy, and the wider visitor economy, reflecting key objectives aligned with Visit Malaysia 2026 (VM2026).

### **Deepening Industry Focus Through Co-located Platforms**

ARCHIDEX 2026 will continue to deepen industry engagement through a series of specialised zonings, including:

- Digital @ ARCHIDEX: The "Digital Frontier", showcasing BIM, AI-driven design, smart buildings, and Proptech solutions shaping the next era of architectural practice.
- A Hospitality Anthology (AHA): in collaboration with BluWater Studio, will explore the design narratives and operational innovations driving APAC's luxury and lifestyle hospitality sector.
- World of Works (WoW): The first ASEAN real-life office simulation returns by popular demand, in collaboration with Thinkscope Design Works, spotlighting how evolving work cultures and reshaping productivity, wellbeing, and urban life.
- The ASEAN Fenestration & Technology Exhibition (FENESTEX): returns in its second edition, reinforcing ARCHIDEX's commitment to sustainable, energy-efficient building

solutions through windows, doors, glass, and façade technologies.

Digital @ ARCHIDEX aligns closely with national initiatives, including Ekonomi MADANI, the National 4IR Policy, MyDIGITAL, and the National Construction Policy, supporting Malaysia's transition towards smarter buildings and future-ready cities.

**A Comprehensive Programme for Business, Ideas and Talent**

Beyond the exhibition floor, ARCHIDEX 2026 will deliver a comprehensive programme designed to drive business outcomes, thought leadership, and talent development.

This includes:

- DATUM Conferences,
- Biz Talks and Focus Forums,
- Buyer Programmes and curated business matching,
- ARCHIDEX Star Awards, recognising product excellence

and innovation,

- ARCHITALENT, supporting emerging design talent
- Together, these initiatives reinforce ARCHIDEX's role as both a commercial marketplace and a platform for ideas, collaboration, and professional growth.

**Looking Ahead**

ARCHIDEX 2026 will take place from 29 July to 1 August 2026 at the Malaysia International Trade and Exhibition Centre (MITEC). As Malaysia navigates evolving urban, environmental, and economic challenges, ARCHIDEX remains a pivotal platform connecting industry, innovation, and opportunity, while extending its impact into the city through initiatives such as KL Architecture Week.

For updates and participation details, visit <https://archidex.com.my/>.



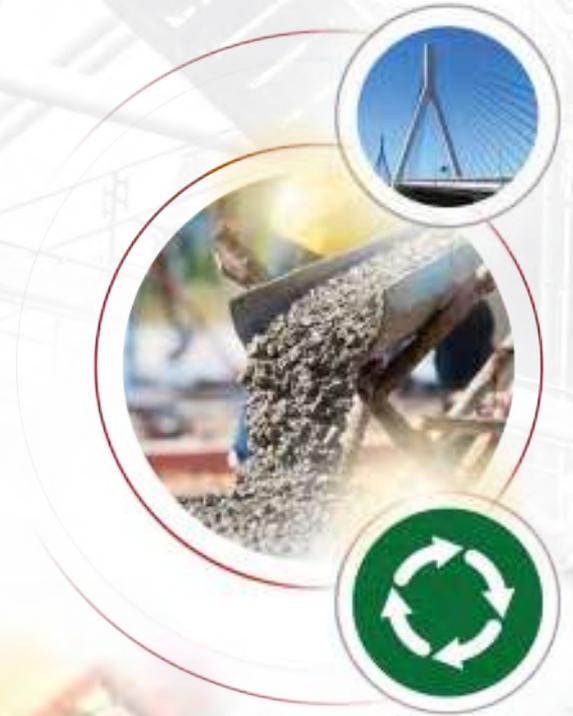
(From Left) Ar. Lim Gim Huang (Director of KLAF); Jason Lim (Project Director of C.I.S); Adjunct Prof. Adrianta Aziz (President of PAM); Ar. Dexter Goh (Deputy President of PAM); Janice Gan (Senior Director of C.I.S) at the Soft Launch of ARCHIDEX 2026. Asia's Leading Architecture Business Event returns in July 2026, now held entirely at MITEC with expanded scale and city activations.

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# Arlo Unveils All-New Lineup of Smart Home Security Home Solutions with Advanced AI-Powered Arlo Intelligence

Arlo Technologies, Inc. (NYSE: ARLO), a leading smart home security brand, is introducing a full suite of new smart home security cameras that deliver industry-leading capabilities powered by Arlo Intelligence.

With all-new models across the entire Arlo range from Essential to Pro and Ultra Series, Arlo's new lineup gives users even more ways to protect their homes and loved ones with informative, actionable alerts and easy-to-install DIY indoor and outdoor security cameras, including two all-new pan-tilt models that deliver 360-degree coverage for ultimate peace of mind.

"Building on the successful launch of Arlo Secure 6 and its advanced AI capabilities earlier this year, we're excited to introduce our all-new lineup that leverages all of the advanced capabilities of Arlo Intelligence to deliver smarter, safer, and more comprehensive smart home security," said Matthew McRae, CEO of Arlo Technologies. "With over 5 million subscribers globally, Arlo is the trusted provider of security services that continues to lead the market, offering the most advanced, easy-to-use smart security platform that delivers more intelligence, more control, and more peace of mind."

## Know More, Control More with Arlo Secure

Leveraging advanced AI-powered Arlo Intelligence, Arlo Secure maximises home protection and puts control in consumers' hands. Arlo Secure helps users better understand what's happening in and around their homes through personalised, actionable alerts that allow for quick and appropriate responses to potential emergency events.

With the ability to customise alerts to focus on key areas like the front gate, driveway, or even the dog's favourite spot, and get more details with animated previews, Arlo Secure lets users keep an eye on what's most important, and act fast with one tap from your phone's lock screen if something is wrong. Arlo Secure unlocks ultimate peace of mind at an incredible value, with subscription plans starting at S\$6.67 a month.\*



The new Arlo Secure Plus subscription provides a significant upgrade to your security with an advanced suite of Arlo Intelligence features. This comprehensive suite includes Person and Vehicle Recognition, Fire Detection, Advanced Audio Detection, and Event Captions, delivering smarter, more precise alerts to help you better understand what's happening around your property and respond more effectively.

## All-New Arlo Pan Tilt Cameras

For those who need coverage of wide spaces, the new Arlo Essential Pan Tilt cameras make it easy for customers to track and capture motion with 360° pan and 180° tilt, both indoors and outdoors, with AI-powered notifications and crystal-clear video. With Arlo Secure and Arlo's Essential Pan Tilt cameras, users can cover every angle, see every





detail, and take action quickly. These affordable cameras are easy to set up and provide peace of mind, whether tracking a potential intruder on one's property or checking in on a pet or family member from afar.

The Arlo Essential Pan Tilt Indoor Camera and Essential Pan Tilt Security Camera provide an array of benefits, including:

- **Increased Coverage:** Monitor every corner inside or outside with the precision and confidence of 360° pan and 180° tilt viewing. Easily set custom viewing position shortcuts within the Arlo Secure app for one-tap movement.
- **Never Miss a Thing:** Once motion is detected, the camera can track and follow people and animals to capture all activity within its field of view using Automatic Motion Tracking.
- **Dual-Band Wi-Fi Support:** Automatically recognises and switches to the strongest Wi-Fi band for better connectivity.
- **On-Demand Privacy:** Keep moments private by disarming the camera in the Arlo Secure App to disable audio and video with Privacy Control.
- **Always-on Security with Zero Charging:** Included cable and power adaptor keeps camera charged for around-the-clock protection.
- **See at Night:** Capture video at night or low light conditions with



Night Vision.

- **Clear Communication:** Hear and speak to visitors with noise-cancelling 2-Way Audio.
- **Threat Prevention:** Quickly deter threats automatically or manually by triggering the Integrated Siren from the Arlo Secure App.

In addition, the weather-resistant Arlo Essential Pan Tilt Security Camera withstands heat, cold, rain, or sun, and includes an Integrated Spotlight to help distinguish critical details in low light conditions like clothing colours, licence plates, or facial features.

The all-new Arlo Essential Pan Tilt cameras are available February 1st at partner retailers.

- **Essential Pan Tilt Indoor Camera:** \$69.00 RRP SGD
- **Essential Pan Tilt Security Camera:** \$89.00 RRP SGD

### New Generation of Arlo Security Cameras

In addition to the all-new Pan Tilt cameras, Arlo has released new generations of its best-selling Essential, Pro, and Ultra Series cameras, offering comprehensive home and family protection. The following devices are available on February 1st at partner retailers.

#### Arlo Essential Series

Arlo Essential cameras provide powerful smart home security at affordable price points. Capturing everyday moments and activity with

2K clarity, Essential cameras provide the confidence to stay connected to what matters most.

- **Essential Security Camera 2K (3rd Gen):** \$99.00 SGD
- **Essential Security Camera 2K (3rd Gen): 2 Camera Kit** – \$189.00 SGD

#### Arlo Pro Series

The all-weather-ready Arlo Pro security cameras provide powerful protection for homes and loved ones with state-of-the-art features like 2K HDR video, a wide 160° field of view, brilliant colour night vision, a loud integrated siren, a swappable, rechargeable battery, and dual-band WiFi. With a Secure Plus plan, get personalised alerts when packages arrive, store the footage that matters most, and immediately get help if needed, all from one app that connects it all.

- **Pro Security Camera 2K (6th Gen):** \$169.00 SGD
- **Pro Security Camera 2K (6th Gen): 2 Camera Kit** – \$299.00 SGD

#### Arlo Ultra Series

Designed for users looking for the ultimate in protection, the Arlo Ultra security camera withstands heat, cold, rain, snow, or sun and delivers elite-level home security. Arlo's most advanced camera eliminates wiring hassles with a swappable, rechargeable battery, captures stunningly clear 4K HDR video with an ultra-wide 180° field of view, and includes premium 2-Way Audio with wind and noise cancellation for clear, back-and-forth communication. From faces to packages to licence plates, Arlo Ultra offers added levels of detail and clarity for greater peace of mind.

- **Ultra Security Camera 4K (3rd Gen):** \$249.00 SGD
- **Ultra Security Camera 4K (3rd Gen): 2 Camera Kit** – \$499.00 SGD

For more information on the full range of Arlo smart home security products and services, visit [asia.arlo.com](https://asia.arlo.com).

\* *Arlo Secure Plus subscription available for S\$6.67 a month for a single camera, billed annually.*

# Bridge Data Centres Unveils New Brand Identity as It Strengthens Position as APAC's Leading Hyperscale Data Centre Platform

Bridge Data Centres (BDC), the largest data centre platform in Southeast Asia by live capacity, has announced a new brand identity that reflects the company's position of being a leading hyperscale and AI-infrastructure builder with a growing network of mega-campus developments in Asia.

The updated identity aligns with BDC's operating model as a glocal platform combining regional scale with deep local execution and reinforces its role as a first-mover and trusted partner to hyperscalers across Asia.

"Our new identity reflects who BDC is today: a platform built on disciplined execution, certainty of delivery, and the ability to scale with our customers," said Eric Fan, Chief Executive Officer, Bridge Data Centres. "As AI and high-density workloads accelerate across Asia, customers are looking for partners who can offer world-class capabilities and local agility, provide bespoke solutions at scale, and deliver and operate with a proven track record.

"This is what we do—build hyperscale campuses leveraging full-stack capabilities, bridging the future, and connecting the world with infrastructure built for the long term."

## Investor confidence and disciplined growth

Bain Capital, a long-term investor in and controlling shareholder of BDC, reaffirmed its support for the company's strategic positioning and growth ambitions.

"Bridge Data Centres has established itself as one of the most capable hyperscale builders in Asia by combining world-class capabilities with strong local execution. It sets global standards for delivery speed and both development and operating efficiency," said Drew Chen, Partner, Bain Capital. "BDC's ability to enter and scale across distinct regional markets while maintaining the



Bridge Data Centres Brand Launch Party in Hawaii

highest levels of governance and sustainability standards reflects the company's commitment to long-term value creation. BDC is not only building capacity; it is building a resilient platform for the digital economy of tomorrow. We, together with our partners, are committed to supporting and financing BDC's growth ambitions."

## Positioned for scale with a clear 2026 growth agenda

Looking ahead, BDC will continue to scale, growing with its breadth of International and Asian hyperscale customers and entering new geographic markets. In 2026, the company will approach 700 megawatts of operating capacity on its existing hyperscale campuses in Malaysia and Thailand, where additional phases and utility-aligned infrastructure are being built to meet rising AI-driven and high-density edge computing demand.

BDC will also extend its presence across Asia through selective market entry into regions in Southeast Asia

and beyond. These expansion plans are underpinned by BDC's platform capabilities and accelerated through strong local partnerships in the new markets.

BDC has a market-leading capital position: strong cash flows from its existing operating facilities, balance sheet assets, and previously secured US\$2.8 billion multi-bank facility. It also continues to evaluate future fundraising opportunities to support gigawatt-scale growth.

BDC's strategy remains anchored on connecting key economic corridors, developing high-density, utility-integrated campuses, and partnering closely with policymakers and grid operators to align new capacity with energy transition pathways and national digital agendas.

## Track record built on delivery certainty and sustainability

In 2025, BDC achieved several milestones that reinforced both its execution capability and its leadership in sustainable infrastructure, including:

- The launch of Johor's first data-centre led on-campus water treatment plant supporting large-scale operations;
- Groundbreaking of its second Thailand campus, alongside strategic water and utility partnerships;
- The publication of its inaugural ESG report, outlining measurable commitments including alignment with SBTi, a commitment to RE100, and certification under the GDMC 2024 green data centre framework;
- The signing of an MoU with BCA International to align development approaches with recognised green building standards;
- Multiple industry recognitions for operational reliability and sustainability performance.

Alongside these achievements, BDC:

- Continued build-out of its

flagship mega-campus portfolio in Malaysia • strengthened and diversified its hyperscale customer base;

- Advanced its large-scale development programme in Thailand;
- Expanded its resource and power reservation pipeline to 2GW+.

Together, these milestones set the foundation for BDC's plans in 2026 and beyond.

### A brand identity that signals strategic progress

The new brand identity is designed to signal BDC's next phase of strategic progress as the company scales into larger, higher-density, and AI-ready development models. Visually expressed through a rising arc emblem and a bold, forward-looking design system, the identity reflects BDC's ambition to build infrastructure that is both economically enabling and environmentally responsible,

while reinforcing its role as a long-term steward of digital growth.

Anchored by its new positioning, "Bridging the future. Connecting the world.", the brand captures BDC's commitment to:

- Connecting digital economies and growth corridors across Asia;
- Linking markets through scalable, resilient, and utility-aligned campus platforms;
- Enabling national and regional progress through reliable, high-performance infrastructure;
- Delivering capacity with discipline, responsibility, and long-term investment value.

As BDC expands in existing and new markets, the identity reflects a platform that is growing in scale, capability, and strategic relevance, while remaining focused on creating durable value for customers, communities, investors, and national digital ecosystems.

## Cundall Celebrates 50 Years of Legacy with Innovative Engineering Ambitions for Asia

Global multi-disciplinary engineering consultancy Cundall is celebrating its 50th anniversary, marking half a century of pioneering projects, people-powered progress, and a relentless commitment to sustainability. What began in 1976 as a small British consultancy with a bold vision has grown into a global enterprise with 29 offices and more than 1,300 professionals united by a shared purpose—to engineer a better, more sustainable world.

In Asia, Cundall has been established for nearly 20 years, growing from a single office to a 150-strong regional hub, with offices in Hong Kong, Singapore, Manila, Chennai, and Kuala Lumpur.

### Honouring the legacy

From its earliest days, Cundall's founding partners were driven by the belief that engineering can be a force for good. Five decades later, the practice they created has delivered industry firsts and built a reputation for innovation and technical excellence. From local consultancy projects that positively impact communities to groundbreaking mega projects that reimagine the way we build cities, the practice's work has shaped skylines and communities across the globe.

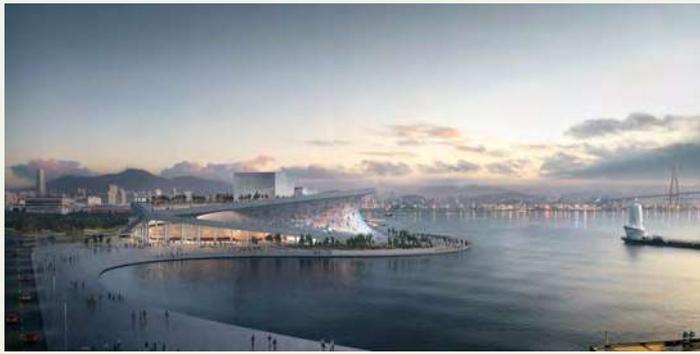
These landmark projects include 18 Cross in Singapore,



18 Cross

Hong Kong Immigration Tower, HKGBC ANZ Competition winner: Treehouse, Alicja Kwade: Waiting Pavilions in Hong Kong, Busan Opera House in South Korea, Zhuhai Banzhang Mountain Footbridge in China, London 2012 Olympics, The Peninsula London, and The Storm Rollercoaster in Dubai.

"We are immensely proud of the business we have built over the last 50 years," said Carole O'Neil, Managing Partner



**Busan Opera House**



**Hong Kong Immigration Tower**



**Alicja Kwade Waiting Pavilions**

at Cundall. "Not just of the projects we have delivered but above all the brilliant people, past and present, whose creativity and ideas have built the reputation for excellence that we stand on today."

### Inspiring the future

Cundall is not only celebrating its legacy in 2026, but building on it. The next generation of leaders is already playing a part in shaping Cundall's future, driving clever ideas, championing sustainability, and delivering innovation on projects worldwide.

As it looks to the future, the practice has vowed to protect its culture and values while delivering on ambitious sustainability goals, including its commitment to the decarbonisation of projects through Zero Carbon Design 2030, and its 2050 Science Based Targets reduction on all corporate emissions. Plans are already underway to harness AI and emerging technologies to enhance the capabilities of its global team and continue to push boundaries in engineering design.

"Asia is at the forefront of global advancements, and Cundall recognises the unique blend of tradition and modernity that characterises this vibrant region. Our commitment to creating a sustainable and impactful future is reinforced by our dedication to collaboration, innovation, and excellence. With our rich history of British engineering, enhanced by the digital savviness of our leaders in Asia, I am excited to unfold the next chapter of Cundall's story," commented Alex Saez, Managing Director APAC at Cundall.

### People at the heart of progress

Cundall's reputation rests on the shoulders of its people, the projects they design, and their commitment to excellence and integrity. They deliver world-class sustainable projects that showcase good design, technical expertise, and innovation, and the practice is committed to ensuring that culture of excellence continues.

"Our people are our greatest strength," said Tomás Neeson, Chairman at Cundall. "We champion a culture of collaboration that fosters creativity and innovation, and we are dedicated to investing in our people, empowering them to grow, and to create the opportunities for as many more as possible to join, lead, and shape the future of our practice."

### From Newcastle to the world

What began as a bold vision for the future with the opening of Cundall's Newcastle-upon-Tyne headquarters in 1976 has expanded to become a global consultancy with offices in Australia, Asia, the Middle East, the United Kingdom, and Europe.

Looking forward, Cundall in Asia is set for a busy and exciting year in 2026, with significant milestones that reflect continued growth, client confidence, and long-term investment across the region.

The Manila office will relocate to a larger and more prominent location, supporting its expanding team and growing project portfolio. This move will be complemented by the opening of a new office in Kuala Lumpur, strengthening Cundall's presence in Malaysia and reinforcing the trust clients place in the business across Southeast Asia.

In Singapore, Cundall will celebrate the 15th anniversary of its local office, an important milestone that recognises a decade and a half of collaboration, innovation, and delivery.

Meanwhile, the Hong Kong office will undergo a refresh of its existing workspace, creating a sleek, modern environment designed to support staff wellbeing, collaboration, and an enhanced client experience.

In Chennai, Cundall will continue to invest in its people and capabilities, expanding its service offering to meet growing client demand and support projects across Asia and beyond.

Together, these developments underscore Cundall Asia's commitment to investing in the right locations, with the right people, to support clients and shape a sustainable future for the built environment.

*Photo credit: Cundall*



**Zhuhai Banzhang Mountain Footbridge**



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# DOMOTEX asia/CHINAFLOOR 2026 Opens Applications for the "Buyer Club" Hospitality Programme

DOMOTEX asia/CHINAFLOOR, the largest dedicated international carpet and flooring exhibition in Asia, will return to Shanghai from 27–29 May 2026, celebrating its 28th edition. Recognised as the ultimate global meeting point for the carpet and flooring industry in Asia, the event provides unparalleled access to some of the world's most dynamic and fast-growing flooring markets.

A cornerstone of the show's international outreach strategy is its exclusive Buyer Club programme, designed specifically for qualified importers, distributors, agents, and retailers with decision-making authority and confirmed purchasing budgets. The programme aims to facilitate efficient sourcing and high-level networking through curated business-making and tailored engagement activities, which ensure meaningful connections between supply and demand, and create measurable value for participants. Approved Buyer Club members enjoy a range of exclusive hospitality benefits.

Flooring professionals interested in joining the Buyer Club can submit their application at: <https://www.domotexasiachinafloor.com/Buyer-Club.html>

In 2025, the programme hosted over 180 selected buyers from 25



countries, along with 10 delegations organised in collaboration with Chinese and international associations, media partners, and key industry stakeholders. The buyers participated in nearly 400 targeted business matching meetings, generating substantial new business opportunities across worldwide markets.

## The world stage for flooring innovations

The upcoming edition of DOMOTEX asia/CHINAFLOOR is set to further strengthen its position as the leading

global platform for the carpet and flooring industry, not only in terms of scale and trading opportunities, but also as a key showcase for innovation, product launches, and high-level industry networking.

The exhibition will welcome around 1,500 exhibitors and attract over 80,000 professionals from more than 120 countries. Spanning over 200,000 square metres across seven dedicated halls, the show will present the full spectrum of the flooring industry, offering comprehensive sourcing opportunities under one roof.





Hard flooring—including wood, laminate, bamboo, resilient flooring, and outdoor decking—will occupy four halls, while FLOORTECH Asia will spotlight cutting-edge technologies in raw materials, production machinery, and installation solutions.

Confirmed international brands exhibiting in these sectors include Coretec, Craft Floor, Daejin, Kronospan, KTE, Swiss Krono, ter Hürne, Välinge, UNY Group, Unilin Technologies, i4F, Adesiv, AICA, Azumi, Bona, Debal Coating, and Stauf, among many others. China's leading manufacturers and technology innovators will also take centre stage, including BBL, Power Dekor, Novalis, Dajulong, Elegant, Halead, Jinka, Kingdom, Zhengyoung, Dilong, Intco, Sanyi, and many more.

Mr. Jiang Bao, General Manager of New Material Department at Power Dekor, one of China's leading flooring manufacturers, said, "Power Dekor will make a grand appearance at DOMOTEX asia 2026, bringing along our overseas exclusive brand under the group, POWER SPACE. We will showcase a comprehensive range of eight major product categories, including Homogeneous PVC Flooring, Composite PVC Flooring, SPC flooring, LVT flooring, wall panels, wood flooring, sports vinyl flooring, and sports wooden flooring. DOMOTEX Asia/CHINA FLOOR provides us with an excellent opportunity for in-depth communication with numerous overseas buyers."

Carpet & Carpet Tech, spanning two dedicated halls, will cover the entire

carpet supply chain and present a comprehensive range of all types of carpets, both machine- and hand-made. The exhibition will feature a strong lineup of confirmed carpet brands, including Abrishami Carpet, Almas, Elite, Dongsheng, Haima, Hong Casa, Jey Key Rugs, Mahesh Exports, Mortazavi, Nirmal, Paulig, Ragolle, Ruixin, Standard Carpets, Solomon Carpets, and Xingyue Carpet. On the technology side, leading machinery and component specialists such as Card-Monroe Corp, Freudenberg, Groz-Beckert, Lingda, Michishita, Vandewiele, Wuding, among many others, will showcase the latest advancements in carpet production technology.

Mr. Song Zhang, General Manager at Overseas Business Division of China's leading carpet manufacturer Haima, stated, "Haima Carpet will bring to DOMOTEX asia its new nylon raw filament Axminster carpet. This is a specially designed product we've introduced for floor decorations in commercial spaces. We warmly invite buyers from all over the world to attend DOMOTEX asia/CHINA FLOOR 2026."

With global supply chains evolving and Asia maintaining its position as a key production and consumption hub, the 2026 edition of DOMOTEX asia/CHINA FLOOR is expected to continue strengthening its role as a strategic meeting point for international trade in the carpet and flooring sectors.

*Photo credit: DOMOTEX asia/ CHINA FLOOR*



# Frasers Property Singapore Unveils New Retail Brand and Service Identity to Elevate Customer Experience

Building on over four decades of shaping the nation's retail landscape, Frasers Property Singapore announced new initiatives to elevate the Frasers Experience through a unified retail brand and service identity, alongside digital and physical customer touchpoints.

Guided by its Purpose, "Inspiring experiences, creating places for good", these initiatives reinforce the company's commitment to creating community-first, inclusive, and vibrant retail environments that go beyond transactions.

The refreshed experience will be progressively introduced across 9 of its 12 managed malls. Key enhancements include a unified retail identity, revitalised concierge counters, roving Service Ambassadors, and Singapore's first in-store wayfinding and mapping solution. These efforts span Frasers Property's retail malls in Singapore, including those owned by Frasers Centrepoint Trust (FCT), which marks its 20th anniversary this year. As Singapore's largest suburban mall owner, FCT's portfolio serves around three million residents within three kilometres of its properties and welcomes nearly 230 million shopper visits annually.

"Malls have long been regarded as a 'third place', where people go to besides their home, school, or workplace. In Singapore, however, they've evolved into natural extensions of our daily life. As we start thinking of our malls as a 'second place', we set out to create places where people feel they belong, and where everyday moments and community connections happen. By bringing service, design, and innovation under a unified identity, we hope to deliver a more thoughtful experience at every touchpoint," said Mr Adrian Tan, Managing Director, Retail, Frasers Property Singapore.

## Elevating the Frasers Experience

Central to this transformation is the ambition to evolve Frasers Property's malls from places of commerce into destinations where community and connection thrive. Three pillars guide the approach to shape how Frasers Property Singapore designs, programmes, and operates its malls:

- **Connectivity:** Designing vibrant social hubs, spaces, and services that bring diverse communities together.
- **Inclusivity:** Ensuring welcoming, barrier-free, and seamless experiences for all, including seniors and people with disabilities.
- **Vibrancy:** Creating lively environments through design, programming, placemaking, and enhanced engagement.

## A unified retail identity grounded in community

Frasers Property Singapore has introduced a refreshed visual system across its participating malls to strengthen recognition and consistency, while allowing each mall to maintain its local character. The updated system brings



Directly connected to Yishun MRT station, Northpoint City is among Frasers Property Singapore's participating malls that will adopt the unified retail brand system and enhanced customer touchpoints, including its mall façade. Owned by Frasers Property's retail-focused REIT, Frasers Centrepoint Trust, Northpoint City is the biggest mall in the northern region of Singapore.

together key visual elements, including a customised mall brandmark, a signature service ribbon, and a portfolio-wide endorsement line, to create a cohesive Frasers Experience across digital and physical touchpoints.

Each mall now carries the endorsement line "A Frasers Experience", signalling trust, quality, and a familiar presence across mall façades, signage, websites, the Frasers Experience (FRx) mobile app, and wayfinding systems.

This unified identity enhances clarity and recognition across the portfolio, while still giving each mall space to reflect the stories and spirit of its surrounding community.

Inspired by the Group's signature brand device, the new service ribbon serves as a connector across the malls, reinforcing the brand's retail service promise while expressing the distinctiveness of each neighbourhood.



An artist's impression of the application of the 'Swimming in Abundance' motif at Hougang Mall. As part of the unified retail brand system, community-inspired motifs are applied to wayfinding totems, guiding shoppers through the mall experience while reinforcing each mall's unique identity.



**The revitalised concierge counters and new service ambassador uniforms are designed to deliver a welcoming and professional service, bringing the Frasers Experience to life for every visitor.**

Together, these elements establish a clearer, more connected, and community-anchored identity for Frasers Property Singapore's retail portfolio, enhancing familiarity for shoppers no matter which mall they visit.

### **Celebrating local heritage and story**

The new retail brand and service identity balances portfolio-wide consistency with neighbourhood character through community motifs that celebrate each mall's culture, history, and spirit.

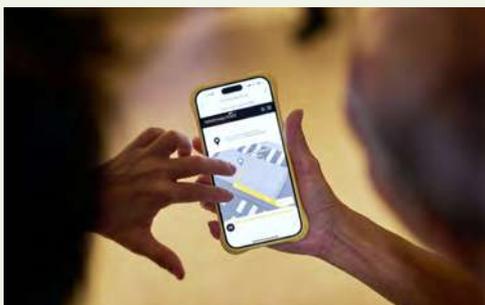
Co-created with employees and shoppers, these motifs reflect the unique stories of the surrounding communities and reinforce the company's vision of transforming everyday spaces into places of connection and pride.

At Northpoint City, the 'Pioneering Prosperity' motif draws from the area's pineapple plantation origins, while at Hougang Mall, the 'Swimming in Abundance' motif is inspired by the historic Kangkar wholesale fish market.

Applied thoughtfully across touchpoints such as wayfinding totems, these motifs strengthen each mall's sense of place and deepen the Frasers Experience within the communities they serve.

### **Redefining service touchpoints with warmth and purpose**

Frasers Property Singapore has also revitalised customer-facing service touchpoints, drawing inspiration from the hospitality sector to create warmer and more responsive interactions.



**The innovative in-mall wayfinding solution enables easy and confident navigation across Frasers Property malls, enhancing accessibility and convenience for all.**

Concierge counters have been redesigned to bring Service Ambassadors closer to shoppers, while roving Service Ambassadors provide real-time assistance on weekends using their digital tablets for guidance and recommendations. To support this elevated service experience, ambassadors have undergone a year-long capability development programme focused on hospitality, service excellence, and community engagement. Their refreshed uniforms, featuring first-name tags and designed for comfort and mobility, further reinforce approachability and professionalism.

Participating malls will also introduce special promotions via the FRx app and on-ground giveaways, led by the roving Service Ambassadors.

These enhancements build on the Inclusion Champions Programme launched in 2023, which equips Service Ambassadors and tenants' staff to better support individuals with autism, dementia, and sensory sensitivities. Through strong tenant partnerships, programmes like Dementia Go-To Points and weekly Calm Hours help make the malls safe and welcoming for everyone.

To date, 110 Dementia Go-To Points have been set up with 37 tenants, and 81 outlets offer Calm Hours, reflecting the company's commitment to creating safe, inclusive, and welcoming spaces for all.

### **Enhancing navigation and accessibility**

To further improve convenience and accessibility, Frasers Property Singapore has introduced the nation's first in-store wayfinding and mapping solution across its malls, developed in partnership with accessibility advocates, tenants, and indoor mapping leader Mappedin.

Available on the Frasers Experience (FRx) mobile app, malls' websites, and in-mall wayfinding totems, the solution provides turn-by-turn indoor navigation, barrier-free route guidance, and real-time location identification. These features make it easier for visitors, including seniors and persons with disabilities, to navigate the malls with ease and confidence. Additional enhancements will be introduced progressively in the next phase.

### **Anchored on a legacy of community placemaking**

Frasers Property Singapore's malls continue to evolve as vibrant, inclusive retail environments where communities can connect, engage, and thrive. Its malls host a spectrum of programmes in partnership with social service agencies, non-profit organisations, and government bodies, including Community Chest, Food Bank Singapore, Lions Befrienders, SG Enable, Singapore Red Cross, the Health Promotion Board, and the National Heritage Board.

The company is also expanding Silver Social Spaces, its portfolio-wide initiative that supports active ageing by engaging seniors in meaningful activities across its malls.

Together, these initiatives define the next chapter of the Frasers Experience, creating people-centred retail destinations rooted in community, inclusivity, and purposeful placemaking.

# Hilton Debuts First Onsen Resort in Southeast Asia with the Opening of Hilton Quang Hanh Onsen Resort in Northern Vietnam

On 23 February 2026, Hilton (NYSE: HLT) announced the opening of Hilton Quang Hanh Onsen Resort, a retreat in the Quang Hanh valley in Cam Pha, Quang Ninh.

Rooted in the destination's natural hot mineral springs, the resort invites guests to experience its onsen-inspired immersions, paired with the warm, exceptional hospitality Hilton is known for. The opening marks Hilton Hotels & Resorts' third property in Vietnam, reinforcing the flagship brand's growing presence in the country.

"Hilton Quang Hanh Onsen Resort represents an exciting step forward for our growth in Vietnam and across South East Asia," said Alexandra Murray, area vice president and regional head of South East Asia, Hilton. "Vietnam's tourism landscape is evolving rapidly, and we're seeing more guests broaden their travel beyond major gateways to seek out destinations that offer a different pace and a more restorative stay. With Quang Hanh's natural hot mineral springs at the heart of the experience, the resort offers travellers a new way to recharge in northern Vietnam."

Located in Quang Hanh, known for its rare natural hot mineral springs and mountain landscapes, the resort is a 30-minute drive from Ha Long



and two-and-a-half hours' drive from Hanoi. It is also close to notable tourist attractions, including Long Tien Pagoda, Bao Hai Linh Thong Pagoda—one of Ha Long City's largest pagodas—and Sung Sot Cave.

Hilton Quang Hanh Onsen Resort offers 178 villas and 38 rooms, each featuring a private onsen and access to hot and cold saunas. Guests can choose from rooms and suites for couples and families, as well as two- to four-bedroom villas ranging from 110 to 550 square metres, with

generous living and dining areas. The resort's premium offerings include two 1,250 square metre Presidential Villas featuring five bedrooms, a karaoke room, private teppanyaki facilities, and a wine cellar. Currently, 50 villas and all rooms are available for booking, while the remaining villas are set to open towards the end of the year.

"From hosting intimate gatherings to grand celebrations, Hilton Hotels & Resorts create meaningful human connections, with our teams proudly serving as ambassadors. As a new





discovery for many travellers, Hilton Quang Hanh Onsen Resort will help introduce Quang Hanh to the world, placing guests at the centre of its most compelling experiences," said Vincent Ong, vice president, Full Service Brands, Asia Pacific, Hilton. "Beyond Hilton's renowned hospitality and refined art of hosting, guests at this resort will enjoy one-of-a-kind private onsens in every room, along with access to mineral-rich baths."

The resort's wellness offerings include seamless access to Yoko Onsen Quang Hanh, where guests can enjoy a public onsen featuring 27 onsen baths and 18 baths across male, female, and mixed bathing areas, alongside sauna and spa facilities. Beyond onsen facilities, guests can also rejuvenate at the resort's Eforea Spa, swim in the indoor pool that overlooks lush mountains and verdant landscapes, or enjoy the 24-hour fitness centre and Kids' Club.

For gatherings, the resort offers flexible social and meeting spaces, including six private dining rooms and two meeting rooms ranging from 27 to 81 square metres, suited for hosting energising corporate functions and iconic celebrations.

Dining at the resort is a vibrant celebration of both global and local flavours, offering guests an elevated culinary journey through three thoughtfully crafted experiences. Genji, the resort's modern Japanese restaurant, features a sushi counter, teppanyaki counter, and a thoughtfully curated kaiseki menu, with a total capacity of 210 seats. Genji Bar offers panoramic views alongside afternoon tea, handcrafted cocktails, and light bites. The hotel's all-day dining venue, Kitchen Craft, home to Western, Asian, and Dessert kitchens, is undergoing renovations and is slated to reopen at the end of the year.

Vietnam currently holds Hilton's third-largest portfolio in Southeast Asia with 21 trading hotels. The hospitality company is set to double its portfolio in Vietnam, reinforcing its position as a key market in Hilton's growth trajectory. The resort's opening also grows Hilton's footprint in northern Vietnam, complementing the recently opened Tru by Hilton Ha Long Hon Gai Centre in Quang Ninh Province.

"With a shared vision between Sun Group and Hilton to develop sustainable destinations where international standards go hand in hand with local values, we believe Hilton Quang Hanh Onsen Resort will become a globally recognised onsen retreat that every traveller exploring Vietnam's heritage region will want to experience," said Nguyen Vu Quynh Anh, Deputy CEO of Sun Group and CEO of Sun Group's Entertainment & Hospitality Division.



# Groundup.ai Launches "Groundup Academy" to Scale Human-Centric AI for Industry 5.0

Groundup.ai, the team behind the world's first Agentic AI for industrial maintenance, announced on 30 Jan 2026 the global launch of Groundup Academy.

This specialised, no-cost educational ecosystem is designed to transform the global industrial workforce from reactive "firefighters" into Human-Centric AI Maestros, bridging the critical cognitive gap in the transition to Industry 5.0 and beyond.

As industrial sectors accelerate toward autonomous operations, a paradoxical challenge has emerged: hardware is getting smarter, but the workforce lacks the frameworks to translate raw machine data into measurable ROI. Groundup Academy solves this by providing actionable playbooks, ensuring that while machines take over the hard labour, human experts retain strategic control.

## Ending the "Hidden Tax" on industry

For decades, the global mission-critical manufacturing, maritime, and infrastructure sectors have paid a "Hidden Tax", the massive financial and productivity drain caused by unplanned downtime.

Groundup Academy aims to eliminate this by upskilling engineers and decision-makers through two specialised tracks:

- **The Whisperer Track:** Built for the engineers on the tools. It's about mastering Physical AI to "hear" failures weeks before they happen, moving from guesswork to data-backed certainty.
- **The Strategist Track:** Built for leadership. It provides the framework to turn raw machine signals into boardroom-level ROI and OEE (Overall Equipment Effectiveness).

## A lifeline, not a threat

The Academy's launch addresses the elephant in the room: the fear of displacement. Groundup.ai's stance is clear: AI isn't going to take your job, but a person using AI will.

"We've spent too long keeping our best engineers in a reactive cycle," said Leon Lim, CEO and Founder of



Groundup.ai. "Industry 5.0 belongs to those who can master the data without losing the human touch. We aren't replacing the 'Machine Whisperer'. We're upskilling them and turning the threat of automation into the power of the AI Maestro."

## Global impact, local expertise

Debuting early access at the Manufacturing Day Summit 2026 (presented by Singapore Manufacturing Federation), the Academy offers sector-specific mastery for the world's most critical sectors:

- **Maritime:** Reducing off-hire claims through remote asset intelligence.
- **Manufacturing:** Securing high-speed production safety and eliminating batch loss.
- **Critical Infrastructure:** AI-driven energy optimisation and SLA protection for smart facilities.

## Universal AI readiness

In line with the #ZeroDowntime mission, Groundup Academy is free of charge for the global industrial community. Graduates earn professional Certificates and digital Skill Badges to prove they speak the language of Industry 5.0.

"It's time to stop letting our machines run our lives. We're building the industrial resilience the world needs, from the ground up," Leon concluded.

Registration for the Pioneer Batch is now open at [www.groundup.ai/academy](http://www.groundup.ai/academy).

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## Johnson Controls Expands Singapore Innovation Centre to Meet Rising Demand in Asia Pacific for Sustainable Data Centre Solutions

Johnson Controls (NYSE: JCI), a global leader in smart, healthy, and sustainable buildings, announced the expansion of its Innovation Centre in Singapore, marking a key milestone in its commitment to accelerating sustainable data centre solutions across the Asia Pacific.

The move responds to the surging demand for high-efficiency thermal management technologies as AI adoption drives unprecedented growth in hyperscale deployments and energy requirements in the region.

Across the Asia Pacific, data centre capacity is set for significant expansion as organisations step up investments to support rapid AI and cloud-led digitalisation. The region captures around 30 percent of global data centre capacity. In Singapore, data centres account for an estimated 7% of national energy consumption, a share that is expected to rise to 12% by 2030. These trends are sharpening the focus on next-generation cooling and energy-efficient infrastructure.

To support this growth, Johnson Controls will invest up to \$60 million in the Innovation Centre over the next five years and expand its engineering teams to 90–100 roles in the same timeframe. The investment will deepen the company's expertise in thermal management and advanced cooling strategies, accelerate the development of next-generation cooling prototypes through ecosystem partnerships, and strengthen smart connectivity and digitalisation. Together, these capabilities will enable more intelligent, secure, and resilient operations for future-ready data centres, improving efficiency, sustainability, and uptime across the asset lifecycle.

"Johnson Controls' latest expansion



of its innovation centre adds new capabilities and jobs in sustainable building solutions in Singapore, for which data centre is a key growth area. It reflects the company's continued confidence in Singapore as a leading innovation hub, where industry players can leverage Singapore's strong talent base to develop and scale innovative solutions to support the region's growing demand," said Cindy Koh, Executive Vice President, Singapore Economic Development Board.

"As AI workloads surge and data centres demand more energy, sustainability has become an imperative," said Anu Rathninde, President, Asia Pacific, Johnson Controls. "The expansion of our Innovation Centre in Singapore is key in helping hyperscalers and colocation providers achieve their carbon reduction goals while ensuring performance and consistency at scale. It also underscores our long-term investment in Singapore as a cornerstone of our APAC strategy,

leveraging the nation's innovation ecosystem as the ideal hub for leading these advancements across ASEAN."

With a global legacy of over 140 years and more than four decades of successful partnerships in Singapore, Johnson Controls is shaping the next wave of sustainable and digital infrastructure through its expanded Innovation Centre. It continues to advance sustainability more broadly through its OpenBlue digital platform for intelligent building management and predictive analytics, alongside its Cooling-as-a-Service model that guarantees energy performance and financial flexibility.

Over the past year, Johnson Controls has collaborated with Singapore's leading higher learning institutions and commercial partners to deliver proof-of-concept projects, driving digitalisation and cooling optimisation. These initiatives have validated prototype benchmarks and reinforced Singapore's Green Building Masterplan and Smart Facility Management goals.

## Seasoned Leader to Strengthen Execution and Accelerate Growth Opportunities in the Asia Pacific Region

Johnson Controls (NYSE: JCI), a global leader for smart, healthy, and sustainable buildings, announced the appointment of Susan Hughes as Vice President and President, Asia Pacific. Hughes will report to CEO Joakim Weidemanis and join the company's executive committee. She succeeds Anu Rathninde, who will depart Johnson Controls at the end of February.

"As we continue to operationalise our enterprise strategy, the Asia Pacific region represents a significant growth opportunity," said Joakim Weidemanis, CEO, Johnson Controls. "With her deep expertise in the region and strong record of leading teams, operations, and customer engagement across the region, Susan is well positioned to strengthen our execution, deliver even greater value for our customers, enable our people to do so, and ultimately accelerate growth.

"I want to thank Anu for his dedication and contributions to Johnson Controls over the last few years and wish him well."

Hughes brings decades of operating experience across sales, marketing, service, engineering, and manufacturing. During her 20-year career at Emerson, she held leadership roles across multiple businesses in the Asia Pacific region. She recently served as President of Asia Pacific for Emerson Automation Solutions, where she delivered sustained growth across diverse markets in the region through commercial execution and lifecycle services.

Hughes holds an MBA from Washington University's Olin School of Business and dual bachelor's degrees in mathematics and Mandarin Chinese from Grinnell College. She is conversant in both English and Mandarin Chinese.



**Susan Hughes, Vice President and President, Asia Pacific, Johnson Controls**

This move reiterates Johnson Controls' commitment to the APAC region, a key growth market in its enterprise strategy.

## KulörGroup Unveils .Here Maldives: An Architectural Experience Between Land and Horizon

**Singapore**-based design powerhouse KulörGroup is proud to introduce a new architectural vision in the Maldives: .Here Maldives, a luxury resort that challenges the traditional horizontal layout of island hospitality. Eschewing the standard division between beach and overwater villas, the resort is a lived promenade that connects the lagoon to the sky.

Under the visionary leadership of KulörGroup's Founder and Creative Director, Christopher Chua, and his forward-thinking design team, KulörGroup has reimagined luxury hospitality with .Here Maldives. Rather than a mere collection of destinations, they have crafted a seamless spatial experience immersed in elevation and stillness with movement.





Featuring seven signature villas, known collectively as Somewhere, the resort is intentionally designed as one of the smallest resorts in the Maldives. This architecturally concentrated destination—conceived as a continuous spatial journey—allows guests to inhabit multiple conditions within a single, cohesive sequence.

The island's public spine is defined by a gently curving pedestrian and buggy pathway, guiding movement and orientation across the site. More than infrastructure, this shared route functions as an anchor that frames the intersection of the resort's architecture, landscape, and daily life.

### Arrival redefined: from water to elevation

At .Here Maldives, arrival begins over water. Villas are entered directly from the lagoon, with living spaces positioned low and close to the water. Lagoon-facing decks, private pools, and concealed grottoes create an immediate sense of immersion, grounded in shade, sound, and reflection.

Above where the architecture rises, master bedrooms occupy a second-floor position over the lagoon, where the horizon expands and the spatial experience shifts. From this elevated vantage point, each villa makes an unexpected turn back across the island.

### The pool as a spatial experience

A private elevated walkway extends from the master suite, crossing above the island's public spine while remaining fully secluded.

Comprising three unique pools calibrated to different conditions, the experience begins with a lagoon-facing pool that sits close to the water at the lower level, while a sunrise-facing beach or jungle pool is embedded within stepped terraces at the rear. Alongside it runs the villa's defining spatial feature—a 47-metre-long elevated private pool, suspended above the island as a continuous inhabitable edge.

From different points along its length, including sections with glass-bottom panels, guests can experience multiple perspectives: looking outward to the lagoon, inward toward

the jungle and beach, downward to the public spine, or upward to the open sky.

"We wanted the pool to behave like space, not an object," said Christopher Chua, Founder and Creative Director of KulörGroup. "At different moments, you're looking outward, inward, downward, or upward. You're constantly aware of where you are—between land and horizon."

### A skyline defined by lightness

Arrival options are equally deliberate, where each villa features a private boat dock, allowing guests to arrive directly at their lagoon-side deck. Alternatively, arrival may unfold through the island's public sequence beneath the resort's most recognisable architectural forms.

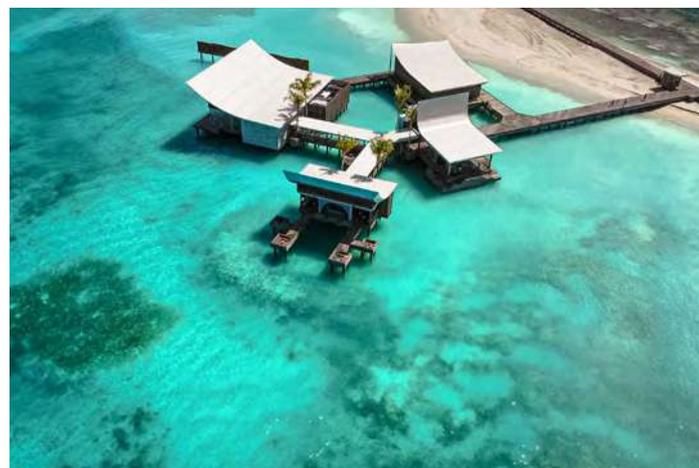
A series of split-roof pavilions rises above the public realm, forming a gathered skyline rather than a singular monument. Evoking the rhythm of traditional dhonis across water, the roofs are sculptural yet intentionally open, allowing light and sky to enter. Between and beneath the soaring roof forms, the public areas unfold as a series of open, layered spaces designed for movement, pause, and gathering. Linear walkways extend over the lagoon, passing through a rhythmic procession of rope-wrapped columns that filter light, frame views, and soften the transition between indoors and out.

Within the restaurant and bar pavilions, the architecture opens upward into generous, expansive volumes, while interior interventions deliberately recalibrate the scale. Feature ceilings draped with textured elements, finely detailed column cladding, and layered lighting introduce tactility and intimacy beneath the large roof forms. In the bar, a coral-like three-dimensional surface wraps the space, filtering daylight and transforming after dusk into a softly glowing field of shadow and pattern. Together, these layered gestures allow the public realm to feel both expansive and grounded—where spatial drama is balanced by craft, texture, and atmosphere, and remains continuously connected to sea, breeze, and horizon.

"The roofs are about lightness," Chua added. "They allow space to open upward and let the sky in."

### Material restraint and integrated design

.Here Maldives distinguishes itself through a rare



concentration of experience. By prioritising precision over scale, every architectural gesture is calibrated to support stillness rather than excess. This results in a strong architectural voice within the resort; one that is not loud in volume, but profound in its impact in delivering unforgettable moments.

With an emphasis on proximity and precision in every aspect of its design, the resort is built to deliver one single, continuous experience rather than a collection of separate parts. This was realised through a deep collaboration with MuzaLab for the interiors and Topo Design for landscape architecture. With this, the resort exists as one seamless trajectory, bound by the common values of shared intent, spatial clarity, and restraint.



### An expanding vision: nowhere and beyond

The .Here Maldives experience is set to grow with the upcoming launch of Nowhere, an ultra-exclusive eight-bedroom private island retreat. Nowhere will offer a self-contained world of luxury, including its own spa, ice rooms, and gym, maintaining the same architectural philosophy of immersion and restraint.

In addition to this, guests at .Here Maldives can enjoy access to the creative facilities at neighbouring Finolhu, A Seaside Collection Resort, and KulörGroup's extension into the broader island ecosystem. It includes an Art Studio and Teens Hut, newly designed in 2025, defined by its expressive bamboo architecture inspired by barnacles and ocean forms.

Teen Hut is a first-of-its-kind facility in the Maldives designed specifically for young adults aged 12–18. This vibrant space features high-tech amenities, including gaming consoles, music stations, and creative technology, alongside a pool table. It is complemented by a robust schedule of curated activities, ranging from traditional Maldivian cooking classes to outdoor adventures.

Simultaneously, the new Art Lab offers a creative hub welcoming guests of all ages. Guests can explore various mediums, including painting, pottery, candle-making, and crafting coral ceramics or miniature dhonis (traditional Maldivian boats). Further extending this creative experience, KulörGroup has placed a blank canvas in every villa as an open invitation for guests to express themselves.

Finolhu Seaside represents the resort's deliberate extension of its relationship to the horizon beyond a single island, into an intricate tapestry of architecture, creativity, and exploration.

### How .Here Maldives paves the future of KulörGroup

More than a singular destination, the launch of .Here Maldives embodies the first milestone in a permanent commitment to the region's experience-led design landscape that will unfold across various upcoming projects. The studio also currently helps an architectural uplift for another iconic all-inclusive resort, in hopes of redefining design statements and guest experience for a contemporary facade of what it means to have comfort, identity, and longevity.

*Photo credit: KulörGroup*



# Mapletree Investments and Mapletree Pan Asia Commercial Trust Appoint SP Group to Build Distributed District Cooling System in HarbourFront Precinct

Mapletree Investments ("Mapletree" or "The Group") and Mapletree Pan Asia Commercial Trust ("MPACT") have appointed SP Group ("SP") to design, build, and operate a new Distributed District Cooling ("DDC") system as part of Mapletree's commitment to achieve Net Zero by 2050.

The project will see one of Singapore's largest brownfield district cooling deployments, supporting Mapletree's plans to rejuvenate the HarbourFront Precinct and enhance building energy efficiency across the precinct.

The DDC system will interconnect five buildings—Bank of America HarbourFront, the new HarbourFront Centre, the existing HarbourFront Towers 1 & 2, and VivoCity—supplying chilled water through three injection nodes.

Instead of each building running its own chiller, buildings tap into a shared system that aggregates cooling demand, achieving economies of scale and improving cooling efficiency. This reduces operating costs and carbon emissions, while freeing up valuable space previously used for individual cooling plants for operational or commercial use.

With an installed cooling capacity of 17,150 refrigeration tonnes, the DDC system is projected to achieve more than 5 per cent savings in cooling-related expenses annually through improved operational efficiency and economies of scale. Upon full implementation, the system is expected to be 8 per cent more energy-efficient than the National Environment Agency's Minimum Energy Efficiency Standards for water-cooled chilled water systems in industrial facilities. It will also reduce carbon emissions by about 13,700 tonnes over the 20-year operating period. This is comparable to the emissions from powering 550 three-room HDB households a year.

Ms Amy Ng, Regional Chief Executive



**Artist impression of the rejuvenated HarbourFront Precinct. The DDC network will be implemented over two phases, commencing in 2027, and is targeted to be fully operational by 2031. Photo courtesy of Mapletree Investments.**

Officer, South East Asia and Group Retail of Mapletree, said, "The initiative to redevelop HarbourFront Centre presented the opportunity for a DDC system to be created at the HarbourFront Precinct. This allows assets in the precinct to achieve better space utilisation and shared savings while Mapletree embeds green solutions across our portfolio to reduce overall carbon footprint. We are very pleased to partner SP with MPACT on this project."

Ms Sharon Lim, Chief Executive Officer, MPACT Management Ltd., added, "The integration of a DDC system is a meaningful project that benefits all stakeholders. It delivers cost savings while supporting our collective sustainability objectives."

"We are pleased to partner Mapletree in rejuvenating the HarbourFront Precinct with our sustainable solutions. The continued adoption of DDC in existing developments demonstrates the viability of cooling solutions in built-up environments. This project is a great example of how brownfield districts can be enhanced with centralised, energy-efficient cooling infrastructure to help buildings and developers meet their green targets," said S Harsha, Managing Director,

Sustainable Energy Solutions, SP Group.

This marks Singapore's second brownfield DDC deployment, following SP's successful implementation at Tampines Central in March 2025. With more than 80 per cent of Singapore's landscape being brownfield, expanding DDC in mature districts can significantly cut energy use and carbon emissions, supporting Singapore's climate goals.

The DDC network will be implemented over two phases, commencing in 2027, and is targeted to be fully operational by 2031. Aligned with Singapore's goal to achieve net zero emissions by 2050, the Building and Construction Authority's Green Mark certification also encourages the adoption of DDC to promote energy efficiency and sustainability in buildings.

Beyond this project, Mapletree and SP have also collaborated on multiple sustainability initiatives. This includes SP's Utilities Management System deployed across the Mapletree Group with over 2,000 smart metres, enabling real-time tracking of utilities consumption for carbon reporting and energy efficiency improvements, as well as electric vehicle charging solutions to support Mapletree's commitment to green mobility.



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## NUS Researchers Advance Sustainable 3D Concrete Printing for the Construction Industry

As cities grow denser and construction labour becomes harder to secure, the sector is under pressure to deliver projects faster, more efficiently, and with fewer workers on site. In the past decade, 3D concrete printing (3DCP) has emerged as a promising solution to those challenges thanks to its high automation and formwork-free feature. However, 3DCP is still limited to non-structural applications for the built environment in Singapore.

Researchers from the College of Design and Engineering (CDE) at the National University of Singapore (NUS) have now demonstrated that 3D concrete printing (3DCP) can help overcome these limitations. Led by Senior Lecturer Dr Du Hongjian and Associate Professor Pang Sze Dai from the Department of Civil and Environmental Engineering in NUS CDE, the team has successfully shown that 3DCP can be used to fabricate structural building components that are greener, use less material, and require fewer workers, all while still meeting structural performance requirements. For the construction sector, this means faster project delivery, lower labour dependence, and greater flexibility in how modular buildings are designed and built.

With a focus on making 3DCP viable for real-world construction environments, the work was carried out in collaboration with construction firm Woh Hup and supported by the Building and Construction Authority (BCA) and the National Additive Manufacturing Innovation Cluster (NAMIC), a national platform hosted by the Agency for Science, Technology and Research (A\*STAR).

### Enabling 3D concrete printing for structural components

3DCP enables the fabrication of complex shapes without formwork and with minimal manual labour. However, due to its limitations, currently most real-world applications remain confined to non-structural elements or low-rise buildings—formats that are not well-suited to land-scarce, high-density cities like Singapore.

The NUS team focused on a more practical challenge: how to harness 3DCP for structural components. Its approach integrates formwork-free 3D printing with conventional construction, allowing structural elements to be fabricated with greater design freedom and material efficiency.

The team addressed two foundational facets of deployment: material formulation and construction workflow. They developed printable concrete mixes optimised for extrusion and buildability, structural reinforcement, and compatibility with current structural components production. In parallel, the researchers defined a fabrication workflow aligned with existing prefabrication and on-site construction processes, ensuring that the printed components were not just structurally viable but also practical to produce and deploy at scale.

Through a series of laboratory and large-scale tests, the researchers assessed the structural behaviour of reinforced 3DCP elements designed for structural components. The results showed that these elements



A team led by Senior Lecturer Dr Du Hongjian (left) and Associate Professor Pang Sze Dai (right) from the National University of Singapore's College of Design and Engineering has successfully shown that 3D concrete printing can be used to fabricate structural building components that are greener, use less material, and require fewer workers, while still meeting structural performance requirements. Photo credit: National University of Singapore



In collaboration with partners from the Built Environment industry, researchers from the National University of Singapore brought novel 3D concrete printing technologies to real-world construction. This results in faster project delivery, less reliance on labour, lower carbon footprint, and greater flexibility in modular building design. Photo credit: College of Design and Engineering at NUS

could achieve the required load-bearing performance while using significantly less material compared with conventional designs. Importantly, automation reduced reliance on manual labour, delivering more than 40 per cent manpower savings and efficiency gains of over 60 per cent for complex components, based on industry evaluations. This translates into faster construction, lower labour demand, and more predictable project delivery.

By removing the need for traditional moulds, the approach also tackles one of concrete structure's major cost drivers. Each conventional concrete structural component typically requires its own mould, which is expensive to fabricate and can only be used for a limited number of times. Formwork-free printing sidesteps this issue entirely, opening the door to more flexible designs and faster production cycles. It is also estimated that 3DCP uses 30 per cent less material compared to conventional construction technologies.

#### From research to construction sites

Woh Hup worked closely with the NUS researchers to assess how 3D-printed structural components could be fabricated and deployed under real construction conditions. This included evaluating buildability and on-site implementation, as well as how 3DCP could be integrated into existing prefabrication and site workflows.

"Testing the novel technology beyond the lab enables all parties to pinpoint practical constraints and opportunities for improving productivity and reducing manual labour in construction," added Mr Yong Derong, Executive Director, Woh Hup.

In August 2025, the collaboration led to Singapore's first on-site 3DCP of structural elements, which was

verified by BCA. The project achieved a 50 per cent reduction in manhours, providing a real-world testbed for the technology. A second on-site printing exercise started on 29 January 2026, further validating the approach under operational conditions.

"Construction innovation only matters if it can be applied on site," said Associate Professor Pang. "Working directly with industry partners enables us to test these technologies against real constraints and build confidence for wider adoption. We hope to continue in this partnership with BCA and the Built Environment (BE) industry to further improve these technologies, to bring about even greater gains in productivity."

"This project was ground-breaking as it was the first in Singapore to be carried out on site for structural elements. As the BE sector's champion for innovation and collaboration, BCA supported the project team and facilitated the implementation of the technology. The experience demonstrates how strategic collaboration allows academia, firms, and government agencies to complement one another, uplift our capabilities, and bring about tangible productivity improvement. The success of this project also positions Singapore as a regional leader in construction innovation and opens numerous possibilities for future development," said Er Lim Kheng Guan, Deputy Director from BCA's Building Engineering Group.

In addition, support from NAMIC has helped bridge the gap between research and application, enabling large-scale testing, performance evaluation, and engagement with industry and regulatory stakeholders.

"Together, these efforts position 3DCP as a practical tool for improving productivity, reducing manpower



NUS Associate Professor Pang Sze Dai (4th from left) with Er Cong Zhengxia (5th from left) and collaborators from Woh Hup at an on-site 3D concrete printing exercise, validating the newly developed approach under real-world conditions. Photo credit: College of Design and Engineering at NUS

requirements, and supporting safer construction practices in Singapore," noted Dr Du.

"We are working with the NUS team to identify and develop further applications of 3DCP for other projects and potential use cases. By testing the technology in real project settings, we can better understand its practical requirements, cost implications, and scalability, which are critical for responsible adoption in the industry," said Er Cong Zhengxia, Senior Technical Director, Woh Hup.

The BCA has offered early and outcome-based regulatory support, giving industry stakeholders the confidence to trial this novel construction technology within a compliant and safe framework. Their strong endorsement and facilitation increased the confidence of key stakeholders, including the Qualified Person, to proceed with structural 3DCP.

The team's work aligns closely with Singapore's national push to transform the built environment sector through advanced construction technologies. By reducing manpower needs, improving productivity, and enabling more efficient use of materials, 3DCP supports the RIE2025 Urban Solutions and Sustainability domain and the Resilient Future pillar of the Singapore Green Plan 2030, particularly in construction automation and resource efficiency.

In parallel, the team is also developing lower-carbon 3D printing materials using locally available waste resources, further strengthening the sustainability case for scaling up 3DCP in Singapore's construction industry.

### Reducing the carbon footprint of 3D concrete printing

Alongside advances in 3DCP for prefabricated construction, the NUS team is also addressing one of the technology's key environmental challenges: the high cement content typically required in printable concrete.

In a study published in the scientific journal *Construction and Building Materials* on 30 January 2026, the researchers developed a 3D-printable concrete mix that replaces 60 per cent of ordinary Portland cement with recycled waste glass powder, while retaining the printability and structural performance needed for construction applications. Laboratory tests showed that the material could be successfully 3D-printed into full-scale elements without collapse or deformation, and still achieved compressive strengths exceeding 50 megapascals, suitable for structural components.

Compared with conventional printable concrete, the high-volume glass powder mix reduced embodied energy by 44 per cent and carbon dioxide emissions by 52 per cent. It also demonstrated significantly improved resistance to chloride penetration, indicating a longer service life and lower maintenance demands over time. The team's study demonstrates how 3DCP can be paired with low-carbon material design, supporting Singapore's broader sustainability goals while making digital construction more viable for real-world deployment.



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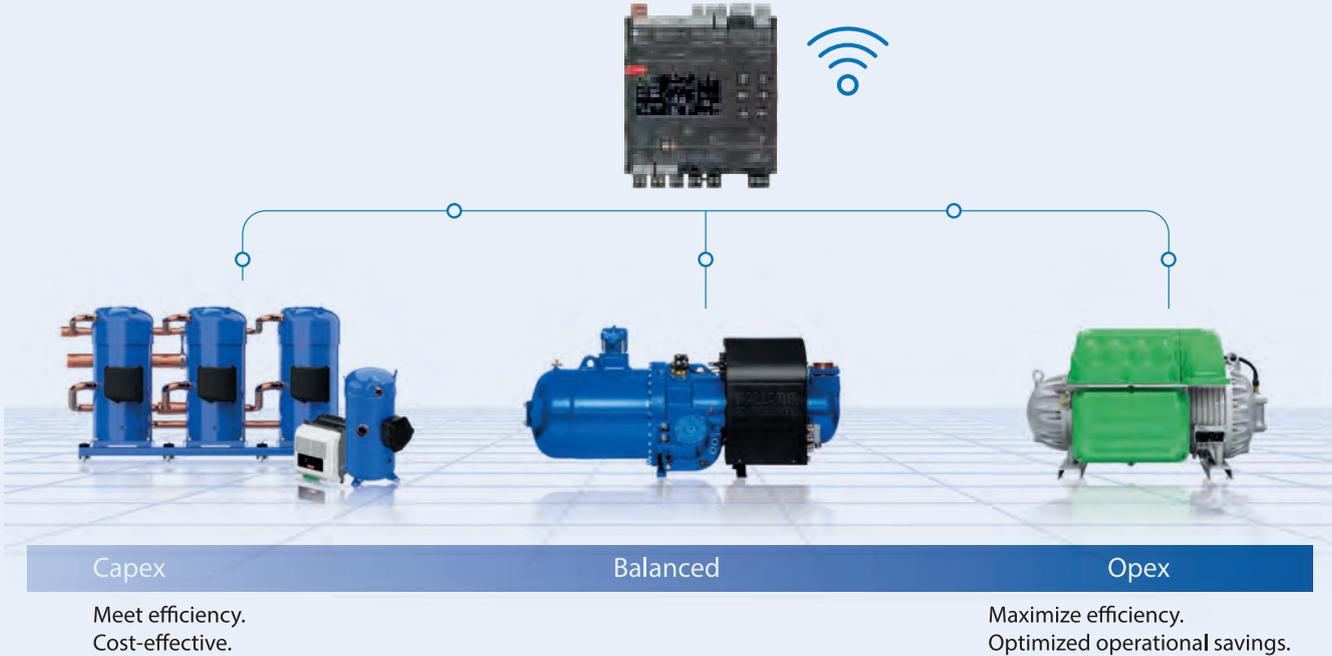
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## R+T Alliance Growing—New Subsidiary in Southeast Asia

The R+T Alliance is further expanding its international presence. With the addition of R+T South-East Asia in 2026, a seventh event has been added to the trade fair association's portfolio for the sun shading and doors/gates industry. The new trade fair will take place for the first time from 11 to 13 November 2026, co-located with FutureBuild Asia and DOMOTEX South East Asia at BITEC in Bangkok, Thailand.

### Strategic step into the ASEAN region

With R+T South-East Asia, the R+T Alliance has tapped into one of the most dynamic growth markets in the industry. Thailand is the second-largest construction market in the ASEAN region, with an average annual growth rate of approximately five to six percent.

Key growth factors include the Eastern Economic Corridor (EEC), smart city initiatives, and the Bio-Circular-Green (BCG) economic model of the Thai government. Projections indicate the ASEAN region will need annual infrastructure investments in excess of 500 billion US dollars by 2030. The region also boasts a megaproject pipeline valued at around 2.9 trillion US dollars. This has led to strong demand for sustainable building materials, renewable energy systems, and intelligent infrastructure

solutions. The central geographical location and superb transport connections of Thailand have made it a hub for market access across the entire region.

"With R+T South-East Asia, we are continuing to pursue our policy of strategic expansion," explained Sebastian Esswein, Vice President of Messe Stuttgart. "The R+T Alliance is providing companies in this industry with access to all the relevant international markets. As a gateway to the ASEAN region, Thailand provides the perfect opportunity to meet the requirements of these key growth markets."

### Platform for the construction industry: Three events under the one roof

Intended as a specialised platform for sun shading systems, doors and gates, R+T South-East Asia will be taking place co-located with FutureBuild Asia and DOMOTEX South East Asia (Home of Flooring and Interior Finishing). FutureBuild Asia, in collaboration with leading regional trade associations, represents an international, conference-based exhibition for the entire construction and building ecosystem in Asia. As an important national partner, the event is supported by the Thai Contractors Association (TCA), the Council of Engineers Thailand (CEAT), and the



R+T South-East Asia Logo

Nation Group, among others.

Together, the three events represent a comprehensive industry platform that attracts industry professionals, political decision-makers, and investors from the entire ASEAN region, while creating ideal conditions for the market entry of international companies in Southeast Asia. Worldex G.E.C. Co. Ltd., Hannover Messe, and GLOBUS Events are organising the event together with Messe Stuttgart.

There are three main exhibition areas covered by R+T South-East Asia: Sun shading systems (interior and exterior, awnings, roller shutters, Venetian blinds, as well as technical textiles and accessories), doors and gates (including drives, controllers and smart home solutions), and interior and exterior design (soft decoration, outdoor furniture and home accessories). The trade fair is



BITEC (Bangkok International Trade & Exhibition Centre)



aimed at the entire industry value chain, from property development and building ownership in the public sector to architecture, home building, and specialist retailers.

### R+T Alliance: Positive international development

The other events in the R+T Alliance are also reporting a strong demand. For R+T Asia 2026 (27 to 29 May, NECC, Shanghai/China), 544 companies have registered with almost 33,000 square metres of exhibition space now reserved. The Sun Shading Expo North America 2026 (3 to 5 November, OCCO, Orlando/USA) is also signalling positive feedback, with around half of the exhibition space for this year reserved during the previous event.

The world's leading trade fair, R+T in Stuttgart (15 to 19 February 2027), is reflecting the positive international response. More than 770 companies have already registered, and over 90 percent of the available space has been reserved. The figures underline the importance of R+T as the most important innovation platform for the roller shutter, doors/gates, and sun shading industry.

### About R+T Alliance

With a history of success stretching back more than 60 years, R+T has managed to bring its trade fair topics to various international markets.

R+T Alliance, the trade fair association for the sun shading and doors/gates industry, currently comprises seven trade fair events at six locations on three continents: R+T in Stuttgart, R+T Asia, R+T Turkey, APAExpo by R+T, Sun Shading Expo North America, OUTDOOR. AMBIENTE. LIVING, and now R+T South-East Asia.



Sebastian Esswein, Vice President of Messe Stuttgart

The dates at a glance:

- OUTDOOR. AMBIENTE. LIVING., Stuttgart: 7 – 11 February 2026
- R+T Asia, Shanghai: 27 – 29 May 2026
- Sun Shading Expo North America, Orlando: 3 – 5 November 2026
- R+T South-East Asia, Bangkok: 11 – 13 November 2026
- R+T, Stuttgart: 15 – 19 February 2027
- APAExpo by R+T, Valencia: 9 – 11 November 2027
- R+T Turkey, Istanbul: November 2027

Further information about R+T Alliance:

[www.rt-alliance.com](http://www.rt-alliance.com)

*Photo copyright: Messe Stuttgart*

## ST Telemedia Global Data Centres Launches Southeast Asia's First HVDC-Powered AI Infrastructure Testbed

ST Telemedia Global Data Centres (STT GDC), one of the world's fastest growing data centre colocation providers headquartered in Singapore, announced two significant initiatives that strengthen Singapore's position in the global digital and energy transition: the launch of the FutureGrid Accelerator, Southeast Asia's first live High Voltage Direct Current (HVDC)-powered AI infrastructure testbed; and a suite of strategic Memoranda of Understanding (MOUs) with four Institutes of Higher Learning (IHLs) to advance skills development and expand internship and early career pathways for Singaporeans entering the workforce.

These initiatives align with national

efforts to support talent graduating into a challenging job market, while building the specialised capabilities required for next-generation power and digital infrastructure.

Officiated by Ms Gan Siow Huang, Minister of State for Foreign Affairs and Trade & Industry, the announcement underscores a national push to build capabilities not only for AI-ready data centres, but also for the wider energy ecosystem, as Singapore and the region pursue net-zero ambitions.

### FutureGrid Accelerator: HVDC innovation for AI and the wider energy transition

Located at the Nanyang Technological

University, Singapore (NTU Singapore) Electrification and Power Grids Centre (EPGC) on Jurong Island, the FutureGrid Accelerator is a pioneering initiative jointly developed by STT GDC and LITEON, supported by the Energy Research Institute @ NTU (ERI@N) and NTU deep-tech spinoff Amperesand.

It is the region's first live testbed demonstrating HVDC integration with real AI workloads, addressing the high-density and high-resiliency requirements of next-generation AI computing.

While central to the future of AI data centre architecture, HVDC represents a broader opportunity: it is a foundational technology that supports more efficient, resilient,

and integrated power systems. This is critical for Singapore's long-term energy strategy, its transition to low-carbon energy grids, and the region's increasing need for sustainable power delivery.

**Why HVDC Matters: A scalable platform beyond the data centre**

As AI and high-performance computing workloads scale, traditional alternating current (AC) power systems face inherent limitations. HVDC overcomes these constraints and delivers several transformative benefits:

- Up to 30% overall energy savings compared to conventional AC systems
- A reduction of up to 400 tonnes of CO2 equivalent (CO2e) per megawatt per year
- 45% lower copper consumption and a 30–40% smaller power-infrastructure footprint

- The ability to support ultra-high-density racks exceeding 1,000kW, with higher reliability and lower cost
- Native compatibility with renewable power sources, able to feed directly to the direct-current system, avoiding inefficient power conversions

"The FutureGrid Accelerator is a strategic investment in Singapore's long-term digital leadership," said Bruno Lopez, President and Group Chief Executive Officer, ST Telemedia Global Data Centres. "By bringing together global industry leaders like LITEON with local deep-tech talent such as Amperesand, we are building infrastructure that is ready for future AI workloads while pioneering sustainable practices and setting new benchmarks for energy efficiency and carbon-conscious innovation. This initiative reflects our commitment

to future-ready technologies and reinforces Singapore's position as a global Centre of Excellence for advanced sustainable digital infrastructure. It is a bold step forward in shaping the future of data centres and accelerating energy transition across the region."

Ms Gan Siow Huang, Minister of State for Foreign Affairs & Trade and Industry, said, "The FutureGrid Accelerator demonstrates how industry and academia can work together to drive innovation and strengthen Singapore's global leadership in cutting-edge technologies. I also welcome STT GDC's partnerships with ITE and SP, which will add to the suite of training options for the rapidly growing areas of AI and energy-efficient systems."

The FutureGrid Accelerator will validate HVDC system performance at power loads of at least 325kW, incorporating the latest AI servers. The



[Left to right] Lim Kian Tiong, Chief Financial Officer, LITEON; Bruno Lopez, President & Group Chief Executive Officer, ST Telemedia Global Data Centres; Minister Gan Siow Huang, Minister of State, Ministry of Foreign Affairs & Ministry of Trade and Industry; Professor Lam Khin Yong, Vice President (Industry), Nanyang Technology University Singapore; Brian Dow, Chief Executive Officer, Amperesand.

environment incorporates LITEON's data centre reference architecture with Amperesand's Solid State Transformer (SST) technology—an enabling innovation for next-generation HVDC deployment. STT GDC plans to deploy this technology in future data centres in Singapore and progressively scale adoption across its global operations.

"LITEON is committed to advancing the frontier of power management efficiency, and our collaboration with STT GDC and Amperesand is key to establishing the next standard for sustainable AI infrastructure in Asia," said Jason Tsao, Head of Direct Current Microgrid at LITEON. "By deploying an end-to-end data centre reference architecture and integrated power management system in a live environment with STT GDC and partners, we are validating a high-density, energy-saving solution ready to meet the extreme demands of global technology leaders."

"The FutureGrid Accelerator underscores NTU's role as a strategic partner in shaping the future of sustainable AI infrastructure", said Prof Lam Khin Yong, NTU's Vice President (Industry). "By integrating cutting-edge HVDC technologies with our research capabilities and the entrepreneurial drive of NTU spin-offs like Amperesand, we are advancing impactful solutions that can significantly enhance energy efficiency and grid resilience. This collaboration showcases how universities can drive transformative innovations at the intersection of energy, digitalisation, and sustainability."

"Amperesand is obsessed with revolutionising Medium Voltage to critical load power delivery for next-generation AI data centres, defence, and other essential electrified assets. We focus on first principles to achieve market-leading power density, efficiency, and reliability," said Brian Dow, CEO and Co-Founder of Amperesand. "In this era of AI data centre and other critical power systems becoming economic and national security interests for many countries, Amperesand's MV SST Platform enables in-country cyber-

secure controls and data, regionally available supply chains, and low CAPEX intensity local manufacturing. Our solution is an intelligent, universal Medium Voltage power source that works on-and-off grid to improve critical infrastructure resilience as new large electrical loads come online."

### **Developing Energy-Ready Skills: Partnerships with ITE, SP, NTU, and NUS**

STT GDC signed MOUs with the Institute of Technical Education (ITE), Singapore Polytechnic (SP), NTU Singapore, and the National University of Singapore (NUS). These partnerships will benefit more than 8,000 Singaporeans over five years through industry-aligned training in AI infrastructure and sustainable energy systems. This ensures the scaling of HVDC—and the broader energy transition—is matched by the transformation and availability of skills, jobs, and talent development pathways.

Mr Lopez added, "Talent is the decisive enabler as we advance AI and sustainability infrastructure. These partnerships build a skilled workforce needed to strengthen Singapore as a global hub for advanced digital and energy systems."

#### *Key initiatives and impact:*

- Building a talent pipeline: STT GDC will provide internship placements across ITE, SP, NTU, and NUS over the next five years, with support from Enterprise Singapore. The programme offers immersive, hands-on experience in data centre operations and corporate functions such as IT, sustainability, finance, and marketing, supported by mentoring from industry professionals. In addition, STT GDC will offer 100 sponsorships for Data Centre Foundation Certificate (DCFC®) offered by EPI, a global certification body for data centre facilities, data centre operations, and industry professionals, accelerating entry into the sector.

- Developing industry-ready talent with ITE: The collaboration with ITE will benefit approximately 800 students annually (totalling 2,400 students over three years) from ITE's engineering and information and communications technology (ICT)-related Higher Nitec and Work-Study Diploma courses. Key initiatives include co-developing industry-relevant curricula for full-time and Continuing Education & Training (CET) courses in data centre operations and sustainability; deploying a data centre virtual reality system at the ITE Extended Reality Centre for immersive training; supporting lecturer attachments and student internships; and enabling students to pursue the sponsored DCFC® course.
- Sustainability leadership with SP: The partnership with SP develops expertise in environmental sustainability and green data centre solutions. Initiatives include joint exploration of green technologies and practices; industry seminars and events to promote sustainable solutions; and targeted programmes for training, mentorship, applied projects, and internships.
- Innovation and research leadership with NTU: The partnership with NTU combines cutting-edge joint R&D of solutions for AI data centres powered by direct current sources; training, curriculum, and talent development for the AI data centre sector; industry and career talks; and internship opportunities across STT GDC's group of companies.
- Graduate pathways with NUS: STT GDC's collaboration with NUS supports accessible entry points for graduates through internships, training opportunities, and ongoing career and industry engagement to raise awareness of digital infrastructure pathways.

## Therme Group appoints Tan Boon Khai as Chief Executive Officer of Therme Group Singapore

Therme Group has announced the appointment of Mr Tan Boon Khai as the Chief Executive Officer for Therme Group Singapore. With more than 30 years of experience in both the public and private sectors in Singapore, Boon Khai will lead the development of Therme Singapore, Asia's first next-generation urban wellbeing destination at Marina South, as part of Therme Group's global expansion in the fast-growing wellness space.

Before joining Therme Group, Boon Khai was the Chief Executive Officer of JTC Corporation, where he spearheaded numerous transformations across Singapore's industrial landscape. Previously, he served as Chief Executive of the Singapore Land Authority, as Senior Vice President at CapitaLand, and as Regional General Manager for Singapore and Malaysia at Ascott Limited, the world's largest serviced residence operator. A lawyer by training, Boon Khai began his career as a Justice's Law Clerk and has held various portfolios as a lawyer in the private sector and with the government.

Dr Robert Hanea, Founder and Chief Executive Officer of Therme Group, said, "We warmly welcome Boon Khai as a key member of Therme Group, as we embark on our global expansion, building on the success of Therme's social wellness infrastructure over the last 15 years. Boon Khai brings with him a proven track record in development, management, and hospitality, and we are delighted that he has joined us in developing the next evolution of Therme's wellness experience in Singapore, and bringing wellness to all locals and visitors in Singapore and the surrounding region."

Therme Group's first destination in the region—a S\$1 billion, state-of-the-art wellbeing resort set to open in Singapore in 2030—will be Asia's first large-scale social wellbeing development. Situated on a 4-hectare waterfront site next to Marina Barrage and Gardens by the Bay, Therme



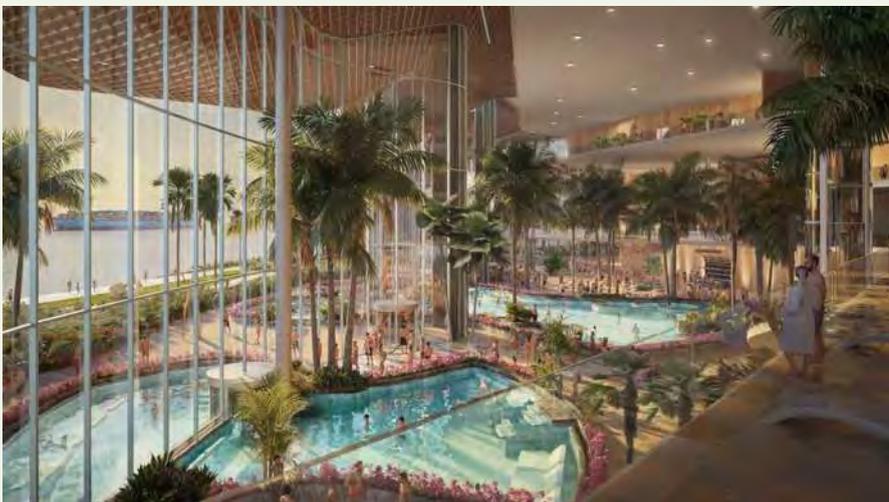
**Tan Boon Khai, Chief Executive Officer, Therme Group Singapore. Image courtesy of Therme Group.**

Singapore is designed as an inclusive destination for all.

The wellness destination aims to make holistic wellness accessible to everyone while promoting healthy living, social connection, and community vitality. It is expected to attract around 2 million visitors a year when at full operational capacity, with roughly half coming from overseas.

Mr Mah Bow Tan, Chairman of Therme Group Asia, said, "Therme Group's entry into Singapore marks a significant milestone in realising the vision of Therme Group to make wellness accessible to all. Asia, particularly Singapore, presents great opportunities for Therme Singapore to showcase its wellness concepts and technology. Boon Khai's leadership track record, deep expertise, and strong stakeholder relationships will be invaluable in ensuring that Therme Singapore becomes an iconic wellness destination in Singapore, enhancing the vibrancy of the new Marina South Coastal area, and delivering on Therme's vision of Wellness for All."

"I am honoured to join Therme Group at such an exciting and pivotal moment in its global journey. Singapore is uniquely positioned to become a leading hub for urban wellbeing in Asia, and I look forward to working closely with our partners and stakeholders to bring Therme Singapore's vision to life—creating a world-class destination that enhances quality of life for both locals and visitors," said Mr Tan Boon Khai, Chief Executive Officer, Therme Group Singapore.



**Render of the proposed indoor thermal pool experiences with waterfront views. Image courtesy of Therme Singapore and DP Architects.**

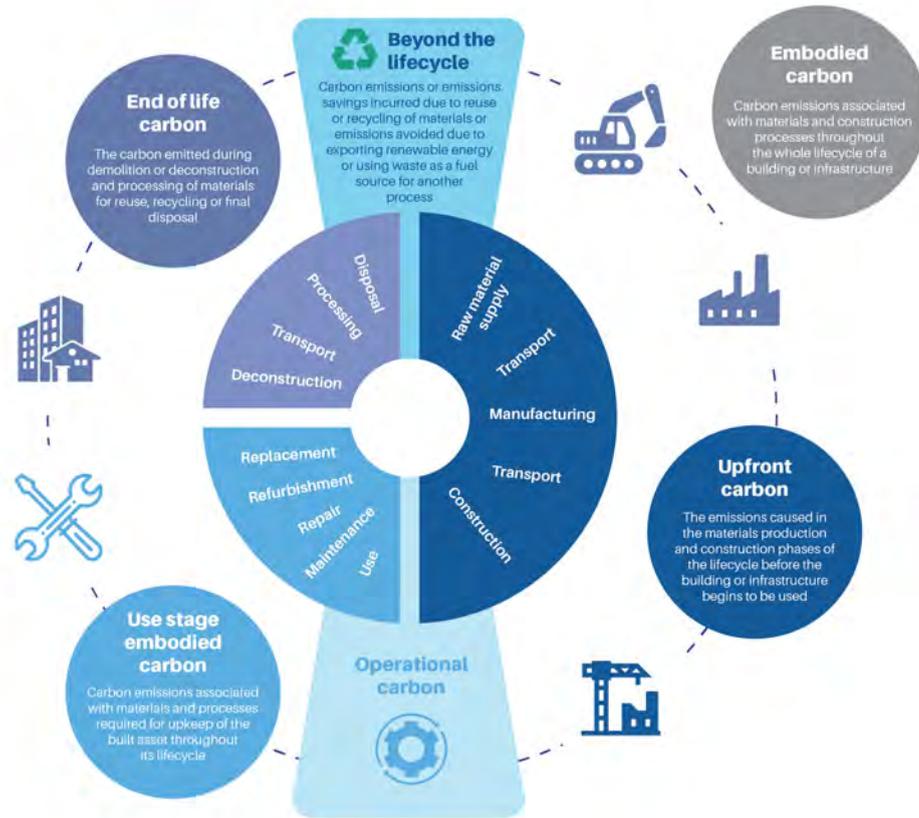
# Urban Solutions & Sustainability R&I Congress 2026: Stronger Support and Partnerships to Bring Urban Innovations to the Market

The USS R&I Congress, co-organised by MND and MSE with the support of partner agencies, took place from 5–6 Feb 2026 at the Marina Bay Sands Expo and Convention Centre, Singapore. The event served as a national platform to discuss Singapore's urban sustainability challenges and potential R&I responses.

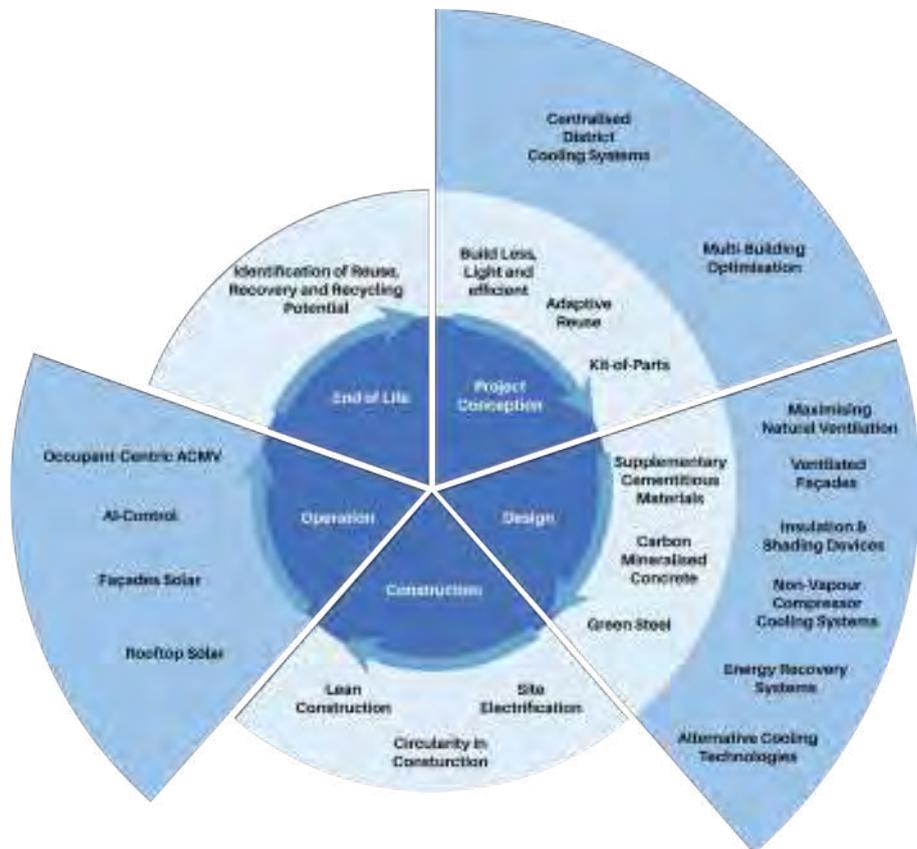
The two-day event brought together key stakeholders in the urban sustainability ecosystem to collaborate on R&I efforts in priority areas identified by the Government. Its theme, "Re-inventing Cities of Tomorrow", reflected the importance of harnessing technology and innovation to reimagine and reshape the future of Singapore's urban environment.



Photo credit: Ministry of National Development (MND)



An infographic explaining the whole life carbon approach. Source: World Green Building Council. Photo credit: Building and Construction Authority (BCA)



An infographic showing the embodied and operational carbon strategies throughout the building lifecycle. Photo credit: Building and Construction Authority (BCA)

In his opening speech, Minister for National Development, Mr Chee Hong Tat, highlighted the importance of research and innovation to maintain Singapore's competitive edge and ensure a high-quality living environment for Singaporeans. He announced the following key initiatives to accelerate the translation of research and innovation into meaningful, real-world outcomes:

### USS Translation Fund

The USS Translation Fund is a new \$40 million funding programme by the Ministry of National Development (MND) and the Ministry of Sustainability and the Environment (MSE) to support local companies develop, pilot, and commercialise promising urban and sustainability solutions.

Administered by the USS Innovation & Enterprise Office (USS IEO), a national platform hosted by A\*STAR, the fund helps companies translate high-potential USS research into cost-effective market-ready products. By supporting the commercialisation of innovative solutions, the Fund creates potential business opportunities across key USS sectors, including the built environment, water, environmental services, and agri-food industries.

### Streamlined Procurement of Research Innovations & Technology (SPRINT)

MND will launch a new green lane procurement programme, SPRINT, to streamline procurement and expedite government adoption of innovative research products.

SPRINT will be administered by HDB and BCA, and piloted by MND Family agencies. During the pilot phase, companies that meet SPRINT's requirements become qualified vendors, enabling direct procurement by MND Family agencies. This streamlined process is expected to halve procurement timelines.

SPRINT will also help companies strengthen their credentials as part of the panel of qualified government suppliers, widen their market access, and build their industry track records. Beyond this, collaboration

with the public sector enables these companies to strengthen their technical and research capabilities to develop impactful and scalable solutions for the public good.

### Built Environment AI Centre of Excellence

MND, in partnership with the Singapore University of Technology and Design (SUTD), is launching a new \$30 million Built Environment AI Centre of Excellence (BE AI CoE). This centre will foster collaboration between Government agencies, academia, and industry to develop AI-driven solutions that address key challenges in the BE sector, such as manpower shortages in the labour-intensive construction and facilities management sectors, and climate change impacts.

The CoE aims to transform work processes to enhance productivity, sustainability, and liveability whilst nurturing 'AI bilinguals'—professionals with both technical AI expertise and practical understanding of BE sector challenges.

The desired outcomes for the BE AI CoE are to:

1. Transform work processes throughout the BE lifecycle by developing AI solutions with needle-moving impact in terms of productivity, sustainability, and liveability.
2. Catalyse public-private

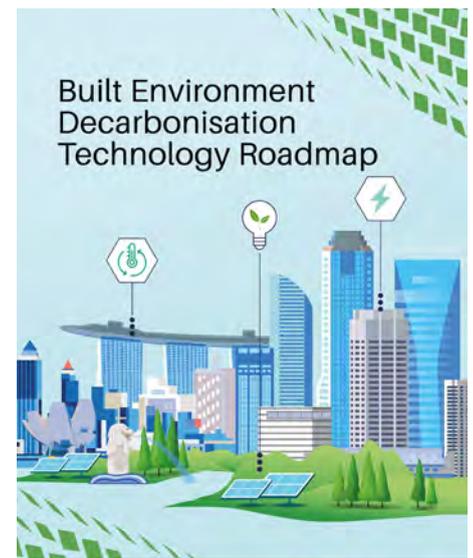
partnerships in applied AI research and accelerate research translation and time-to-market by establishing a focal point that brings together government, academia, and industry.

3. Build up AI capabilities within Singapore's BE ecosystem by developing deep local expertise and anchoring talents through the CoE.

Additionally, the Building and Construction Authority (BCA) launched a decarbonisation technology roadmap at the Heat Resilience Breakout session on 6 February 2026.

BCA and Singapore Green Building Council (SGBC), with support from A\*STAR, jointly developed a roadmap that identifies close to 70 key technologies and strategies. This roadmap will guide research and innovation efforts towards achieving the Singapore Green Building Masterplan's (SGBMP) "80-80-80" targets by 2030 and work towards the longer-term target for net-zero emissions by 2050.

Market-ready strategies and solutions, such as alternative cooling and ventilation technologies, AI-controlled energy optimisation systems, and low-carbon construction practices, will help developers and building owners decarbonise their building portfolios, while identified emerging technology priorities will support Singapore's Research,



Cover of the Built Environment Decarbonisation Technology Roadmap report. Photo credit: Building and Construction Authority (BCA)

Innovation, and Enterprise (RIE) 2030 plan.

The technology roadmap serves two primary purposes: firstly, it encourages stakeholders to leverage market-ready solutions to reduce whole-life carbon emissions in their building projects. Secondly, it provides the research community with a clear directive on emerging technology priorities.

More details about the roadmap can be found in the public report: <https://go.gov.sg/decarbroadmap>.

## Light for Contemplation—The Doshi Retreat

The Vitra Campus in Weil am Rhein unveiled the Doshi Retreat to the public on 25 October 2025. Conceived by Pritzker Laureate Balkrishna Doshi, Khushnu Panthaki Hoof, and Sönke Hoof, the project draws inspiration from Indian spirituality and the concept of a journey, symbolically expressed through Kundalini, the ascent of energy through the seven chakras.

Studio Sangath guided its beautiful realisation. At night, the lighting design by Licht Kunst Licht becomes an intrinsic layer of the narrative—a medium for introspection, guidance, and emotional resonance.

Over the decades, the Vitra Campus has transformed from an industrial site into a public park welcoming more

than 400,000 visitors annually. With the inauguration of the Doshi Retreat, the campus gained a contemplative addition: a sanctuary for peaceful solitude and repose.

The lighting concept was rooted in restraint. By day, the retreat rests quietly within the landscape; by night, it reveals itself only through a faint, almost imperceptible warm glow reflecting the essence of the architecture. This subtle illumination establishes the retreat as a quiet yet iconic presence, never competing with its surroundings, yet always inviting curiosity.

Unfolding as a winding path, the Doshi Retreat invites both physical and metaphorical exploration. Moving along the route that descends below ground level, one is led along



At night, the lighting design by Licht Kunst Licht becomes an intrinsic layer of the narrative—a medium for introspection, guidance, and emotional resonance. Three cherry trees stand as guardians of the retreat, softly uplit. These are the only vertical expressions of light in the wider landscape. Photo credit: Julien Lanoo



The pathways are defined by an interrupted rhythm of concealed illuminated edges, gently guiding visitors through the descent. At the seven nodes, symbolic of the chakras, boomerang-shaped, floor-recessed details taper and widen, pacing the movement and deepening the experiential quality of the exploration. Photo credit: Julien Lanoo



The 2200K illumination resonates with the warmth of Corten steel, casting a soft amber hue that soothes the night-adapted eye. These ribbons of light provide legibility without distraction, allowing one to turn inward through this journey. Photo credit: Julien Lanoo



The journey culminates in the gong room, where light and sound converge. A linear halo traces the circular edge of the chamber, while discreet projectors illuminate the space. Photo credit: Licht Kunst Licht AG

walls that resonate with the gentle sounds of the gong and flute.

The pathways are defined by an interrupted rhythm of concealed illuminated edges, gently guiding visitors through the descent. At the seven nodes, symbolic of the chakras, boomerang-shaped, floor-recessed details taper and widen, pacing the movement and deepening the experiential quality of the exploration. The 2200K illumination resonates with the warmth of Corten steel, casting a soft amber hue that soothes the night-adapted eye. These ribbons of light provide legibility without distraction, allowing one to turn inward through this journey.

The journey culminates in the gong room, where light and sound converge. A linear halo traces the circular edge of the chamber, while discreet projectors illuminate the space. Visitors perceive only a mysterious glow, reflected by a brass soffit that shimmers in resonance with the meditative sound of the gong. Here, light transcends its functional role to become an instrument of introspection and transcendence. The ceiling only partially encloses the chamber, allowing an aperture for light, air, and precipitation.

Finally, three cherry trees stand as guardians of the retreat, softly uplit. These are the only vertical

expressions of light in the wider landscape. Their illumination is symbolic and restrained. Experientially, the lighting cultivates silence and reflection. Iconically, it demonstrates that subtlety can be as powerful as spectacle. Functionally, it ensures clarity and safety without compromising atmosphere.

The Doshi Retreat thus exemplifies a future of architectural lighting rooted in humility, depth, and narrative—where darkness is as significant as light itself, and where space becomes an instrument of solitude and contemplation, awakening the perception of unseen presences.



The Doshi Retreat exemplifies a future of architectural lighting rooted in humility, depth, and narrative, where darkness is as significant as light itself, and where space becomes an instrument of solitude and contemplation, awakening the perception of unseen presences. Photo credit: Daisuke Hirabayashi (Vitra)

**Project Details**

**Project:** Doshi Retreat, Vitra Campus, Weil am Rhein, Germany  
**Client:** Vitra Campus, Weil am Rhein  
**Architect:** Balkrishna Vithaldas Doshi / Studio Sangath, Ahmedabad (Khushnu Panthaki Hoof and Sönke Hoof)  
**Lighting design:** Licht Kunst Licht AG, www.lichtkunstlicht.com  
**Project Lead:** Poorvi Kamath, Andreas Schulz  
**Project Team:** Thomas Möritz, Nishan Barua  
**Completion:** October 2025  
**Photography:** Julien Lanoo, Licht Kunst Licht AG, Dejan Jovanovic, Daisuke Hirabayashi (Vitra)

**Manufacturers and Luminaires**

Pathway lighting  
 LED Linear  
**Type:** Surface-mounted linear side-view flexible LED, VENUS SV

Gong room canopy  
 DGA  
**Type:** Surface-mounted projector, Micro applique

Gong room periphery  
 LED Linear  
**Type:** Surface-mounted linear 3D flexible LED, VENUS TC 3D

Cherry Trees  
 DGA  
**Type:** Spike-mounted projector, Ariel P



Over the decades, the Vitra Campus has transformed from an industrial site into a public park welcoming more than 400,000 visitors annually. With the inauguration of the Doshi Retreat, the campus gains a contemplative addition—a sanctuary for peaceful solitude and repose. Photo credit: Julien Lanoo

## Hilton to Introduce Iconic Luxury Brand Waldorf Astoria Hotels & Resorts to Goa

Hilton (NYSE: HLT) announced on 26 February 2026 the signing of Waldorf Astoria Goa, marking the debut of one of the world's most iconic luxury brands in India's storied western shoreline.

The new hotel will be Hilton's third Waldorf Astoria in India, following the signings of Waldorf Astoria Jaipur and Waldorf Astoria New Delhi, and underscores the continued expansion of Hilton's luxury footprint across the country's most compelling urban and leisure destinations. It also expands Hilton's trading and pipeline presence in Goa to four hotels, reflecting sustained confidence in the market's domestic and international appeal and enduring appetite for high-end leisure experiences.

Scheduled to open in 2030, Waldorf Astoria Goa is being developed by West Coast Hotels Pvt. Ltd., a joint venture between the V.S. Dempo Group, one of Goa's oldest and most respected business families, and Triton Hotels & Resorts Private Limited, a leading luxury hospitality developer with a proven track record across marquee destinations in India.

Alan Watts, president, Asia Pacific, Hilton, said, "The signing of Waldorf Astoria Goa brings the pinnacle of luxury to one of India's most distinguished leisure destinations and reflects growing investor interest in high-end hospitality. This partnership with West Coast Hotels Pvt. Ltd. expands the choice of experience-led stays in India and strengthens our leadership across Asia Pacific as we set our sights on 250 luxury and lifestyle hotels in the coming years."

Set along a pristine 20-acre waterfront stretch in South Goa, the hotel will offer sweeping, uninterrupted views of the Arabian Sea. Surrounded by natural beauty, open horizons, and Goa's distinctive coastal character, the setting provides a fitting backdrop for Waldorf Astoria's signature approach to luxury, one rooted in timeless elegance, a strong sense of place, and highly personalised service.

The new hotel will feature 148 elegantly designed rooms, suites, and villas, designed to offer a refined yet relaxed luxury experience that unfolds in harmony with its coastal surroundings. Reflecting Waldorf Astoria's legacy as a storied social and cultural destination, the hotel will showcase the brand's signature Peacock Alley, a thoughtfully curated array of culinary experiences, a speciality beachfront restaurant, and a rooftop bar. With approximately 10,800 square feet of event and meeting space, world-class wellness facilities, and amenities such as a luxurious spa, state-of-the-art fitness centre, and swimming pools, the hotel will become a sought-after venue for grand destination weddings, intimate celebrations, and thoughtfully curated gatherings.

Candice D'Cruz, vice president, Luxury Brands, Asia Pacific, Hilton, said, "At its heart, Waldorf Astoria is about creating places that carry meaning and endure over time. The brand is defined by effortless luxury and its hallmark of sincerely elegant service. Goa's storied cultural heritage and timeless coastal beauty provide a powerful canvas for



The signing of Waldorf Astoria Goa

this expression, allowing us to bring together thoughtful design, distinctive culinary experiences, and a strong sense of place. The result will be a refined yet relaxed destination that feels both globally iconic and unmistakably Goan."

Ratan Sharma, CMD, Triton Hotels & Resorts Pvt. Ltd., said, "My journey in hospitality began in Goa in 2000. Although I moved from my first hotel, the dream of returning never left me. I always envisioned creating something truly extraordinary—a landmark that would redefine luxury in Goa. Waldorf Astoria Goa represents that vision. South Goa's pristine coastline attracts the world's most discerning travellers, and it deserves an icon that matches its beauty and global appeal. Our partnership with Hilton allows us to bring timeless elegance, impeccable service, and world-class luxury to both Indian and international guests. This is the beginning of a new chapter in luxury and our long-cherished dream."

Shrinivas Dempo, Chairman, West Coast Hotels Pvt Ltd., Dempo Group, said, "Goa has long held a unique place in India's hospitality landscape, and this development represents a timely opportunity to introduce a truly global luxury brand to South Goa's evolving hospitality landscape. Our partnership with Hilton reflects a shared ambition to create a thoughtfully designed beachfront destination that is rooted in Goa's cultural and natural context while meeting the expectations of today's luxury traveller."

As rising affluence and a heightened preference for both leisure travel and experience-led hospitality continue to shape consumer choices for travel in India, Hilton is committed to expanding its luxury portfolio. The company currently operates two Conrad Hotels & Resorts properties in India and has announced multiple signings to introduce Waldorf Astoria hotels in Jaipur and New Delhi, alongside a new Conrad in Jaipur and Signia by Hilton in Jaipur.

Waldorf Astoria Goa will participate in Hilton Honors, the award-winning guest-loyalty programme for Hilton's 26 distinct hotel brands.

## WORLDBEX 2026 Officially Launched, Marking 29 Years of Building Opportunities and Sustaining Lives



**Manila, Philippines**—WORLDBEX 2026 was officially launched on 9 February 2026, marking the 29th year of the Philippines' premier construction and design exposition. The launch formally commenced preparations for the upcoming event and reaffirmed WORLDBEX's long-standing commitment to excellence, innovation, and industry development.

WORLDBEX 2026 was announced to take place from 12 to 15 March 2026 at the SMX Convention Center Manila and the World Trade Center Metro Manila, once again occupying two of the country's largest and most prestigious exhibition venues. The four-day exposition is designed to bring together leading brands, industry professionals, and stakeholders from across the

construction and design sectors under one dynamic platform.

The launch event gathered sponsors, partners, exhibitors, and key stakeholders, highlighting the strength of collaboration behind this year's edition. A key moment of the programme was the ceremonial signing of the Memorandum of Agreement (MOA) with sponsors and partners, reinforcing strategic alliances that continued to expand WORLDBEX's industry impact and reach. The signing underscored the organization's role as a trusted institution fostering meaningful business opportunities and long-term partnerships.

WORLDBEX 2026 proudly recognised the support of its esteemed industry association

partners, including the Institute of Integrated Electrical Engineers (IIEE), Invictus – Federation of Construction Suppliers (FSP), Landscape Contractors and Industry Specialists Association of the Philippines (LACISAP), Marble Association of the Philippines (MAP), Philippine Association of Electrical Industries, Inc. (PAEII), Philippine Association of Landscape Architects (PALA), Philippine Chamber of Industrial Estates & Ecozones (PCIE), Philippine Die and Mold Association (PDMA), Federation of Electrical & Electronics Suppliers & Manufacturers of the Philippines (PESA), Philippine Institute of Architects (PIA), Philippine Institute of Civil Engineers (PICE), Philippine Institute of Environmental Planners (PIEP), Philippine Institute of Interior Designers (PIID), Philippine Institute of Industrial Engineers (PIIE), Philippine Hardware Foundation Inc. (PHFI), Philippine Green Building Council (PHILGBC), Philippine Paint and Coatings, Inc. (PPCAI), Philippine Society of Master Plumbers and Plumbing Engineers, Inc. (PSMPE), Philippine Wood Producers Association (PWPA), Subdivision and Housing Developers Association (SHDA), and United Suppliers Philippines (USP).

WORLDBEX also acknowledged its valued sponsors and their respective representatives.





Gold Sponsors include Asian Coating Philippines, represented by Ms. Marie Catherine Parel, Technical Director; Maincot Inc. / Mondo WorldClass Building Solutions, represented by Ms. Tina Paradero, Officer, and Mr. Jojie Quintos, Vice President for Business Development; Pacific Paint Boysen Philippines, Incorporated and Dutch Boy, represented by Engr. Vergel Dyoco; SKYMART, represented by Ms. Movie Montenegro and Arch. Sharlaine Raval; and Multi Rich Home Decors, Incorporated, represented by Mr. Carl Ang.

Silver Sponsors were Davies Paint Philippines, Incorporated, represented by Ms. Tina Paradero, Officer, and Mr. Jojie Quintos, Vice President for Business Development; Mariwasa Siam Ceramics, Incorporated, represented by Mr. Edwin P. Generoso II, AM Visual Merchandising, and Ms. Ricel Camanyang; and Puyat Flooring Products Incorporated, represented by Ms. Thina Belonio, Marketing Coordinator, and Ms. Charity Roldan, Marketing Manager.

Bronze Sponsors included Akari Lighting and Technology Corp., represented by Ms. Arra Mabbon, Trade Manager, and Ms. Kristel C. Rea, Marketing Officer; Hapsuy Hardware, Incorporated, represented by Ms. Kathryn Puyat, Trade Marketing Manager, and Ms. Rica Abria, Trade Marketing Assistant; and Hocheng Philippines Corporation, represented by Mr. Eugene Lin, President.

During the programme, WORLDBEX 2026 unveiled its



major activities and feature highlights, each designed to respond to evolving industry trends and showcase professional excellence.

Mr. Ronnie Trballo, Chairman of Bomanite International Limited, Owner & Managing Director of Bomanite Southeast Asia, current President of LACISAP, and the first Asian inductee into the Decorative Concrete Hall of Fame, continues to elevate the industry through visionary leadership. Under his direction, the Philippine Garden Festival serves as a premier showcase of sustainable landscaping, environmental stewardship, and the vital role of green spaces in urban and residential developments.

LIKHA, led by Toym Imao from the College of Fine Arts of the University of the Philippines, was introduced as a curated platform celebrating Filipino artistry and creative innovation, reinforcing the integration of art and design within the built environment.

The World of Interior Design, headlined by renowned Interior Designer Chat Fores, was presented as a key segment exploring emerging movements, best practices, and the expanding role of interior design in shaping functional and experiential spaces.

PROJETO Ideas and Design Inter-School Competition, featuring Architect Jeffrey Dela Cruz, the first-ever winner of the competition in Manila, was introduced as a continuing platform for emerging architectural talent. The initiative reaffirmed its commitment to nurturing visionary concepts from the next generation of architects and supporting professional advancement within the fields of Architecture and Interior Design.

The World of Architecture, led by Architect Richard Garcia, Principal Architect of GALA Architecture, was presented as a venue for thought leadership and dialogue on contemporary architectural practice, global perspectives, and the future of the built environment.

Marking its 29th year, WORLDBEX continues to strengthen its position as a cornerstone event for the construction and design industries in the Philippines. With strengthened partnerships, expanded programming, and the scale of two major venues, WORLDBEX 2026 is set to deliver another milestone edition, bringing together innovation, enterprise, and industry leadership from 12 to 15 March 2026.

# The Building and Construction Authority Takes Major Strides in Advancing Collaborative Contracting in Singapore

The Building and Construction Authority (BCA) and NEC Contracts have taken decisive steps to widen the adoption of collaborative contracting in Singapore's built environment sector by officially commencing Singapore's first pilot project using the NEC4 Facilities Management Contract (FMC) at the BCA Braddell Campus.

Asia's First NEC4 Facilities Management Contract Pilot This groundbreaking initiative marks the first official NEC facilities management (FM) project in Asia and demonstrates the practical application of collaborative contracting principles within the FM sector. It enables project parties to move beyond transactional relationships to build trust, foster open communication, align incentives, and work towards a common goal.

The contract was awarded to Cushman & Wakefield | C&W Services Singapore in November 2025 and commenced in January 2026. The pilot follows the launch of specialised Singapore-focused Y clauses for the NEC4 FMC in 2025, which align the contract with Singapore's legal and regulatory framework.

The NEC4 FMC, launched globally in January 2021, was developed by NEC Contracts in collaboration with the Institute of Workplace and Facilities Management (IWFM) specifically for the FM sector. The NEC4 FMC clearly spells out structured service processes and the roles of the various stakeholders to guide how work is planned, executed, and monitored.

These make it easier to track progress, control costs, manage risks, and link performance to payment, encouraging collaboration and shared responsibility, leading to higher service standards for service buyers.

"The shift towards collaborative contracting represents not just a change in contract forms, but fosters stronger client-contractor relationships, underscoring a shared vision for a more resilient and effective sector. The successful implementation of this pilot project is expected to provide valuable insights that will inform wider adoption of collaborative FM contracting across Singapore's built environment sector," said Kok Su Ming, Managing Director of BCA Academy.

Renee Paik, Head of Asia Pacific, NEC Contracts, said, "NEC4 emphasises mutual trust and cooperation between contracting parties, representing a fundamental shift in how we approach public sector projects in Singapore. We are thrilled to see BCA pioneering the first NEC4 Facilities Management Contract in Asia, and this is just the beginning of what we expect to be significant growth in collaborative contracting across Asia Pacific."

"We are proud to support initiatives that advance collaborative practices in Singapore's built environment," said Natalie Craig, CEO of Cushman & Wakefield Singapore. "The introduction of the NEC4 Facilities Management Contract sets a new benchmark for partnership and trust in the sector. By fostering collaboration between clients



and contractors, we can drive efficiency, innovation, and resilience across projects. We look forward to seeing this approach inspire broader adoption across Singapore, shaping a stronger and more future-ready built environment."

Cushman & Wakefield | C&W Services provides integrated real estate and facilities management services across leasing, capital markets, valuation, and investment management. Through its facilities services arm, the firm delivers operations and maintenance solutions focused on improving building performance and workplace experience. With sustainability embedded across its operations, the firm supports clients' Environmental, Social, and Governance objectives while delivering end-to-end solutions for occupiers and investors.

**Comprehensive Practitioner-Level Training Programme** To support successful NEC4 implementation, BCA Academy has partnered with NEC Contracts to deliver robust training programmes. The collaboration brings together BCA Academy's expertise in collaborative contracting principles with NEC Contracts' specialist knowledge to create a comprehensive four-day practitioner-level programme.

The partnership was announced at a launch event held at Eden Hall, the official residence of the British High Commissioner in Singapore, on the 13th of August 2025. The event was attended by approximately 140 senior officials, including BCA Chief Executive Officer Kelvin Wong, representatives from trialling government agencies, industry associations, consultancies, contractors, and academic institutions.

The partnership between BCA Academy and NEC Contracts represents a long-term commitment to supporting Singapore's construction industry transformation. Beyond training, the collaboration includes knowledge transfer from international best practices, tailored guidance for Singapore's regulatory environment, and community-building initiatives connecting local practitioners with the global NEC network.

The first two courses were held at BCA Academy in late October and early November 2025, with additional courses scheduled to continue supporting the industry's transition. This educational infrastructure is critical as Singapore aims to pilot NEC4 contracts across more than 15 projects in both public and private sectors.

Kok Su Ming, Managing Director of BCA Academy, added, "The BCA Academy is also committed to driving capability development that supports Singapore's built environment transformation through better collaboration. By combining classroom learning with practical scenario-based application, we're ensuring that our industry professionals are well equipped to embrace the collaborative approach."

Renee Paik, Head of Asia Pacific, NEC Contracts, concluded, "Through our partnership with BCA Academy, we're delivering practitioner-level training that combines BCA's industry-focused expertise with our specialist knowledge of NEC4 implementation. We bring 25 years of international experience whilst remaining committed to learning from Singapore's unique regulatory and cultural context. We're connecting Singapore practitioners to



our global network of over 50,000 NEC professionals, facilitating knowledge exchange and best practice sharing."

Visit the BCA Academy website at [www.bcaa.edu.sg](http://www.bcaa.edu.sg) for more information about the collaborative contracting training programme or to register for upcoming sessions.

## Gensler Expands Sports & Entertainment Leadership with New Appointment, Strengthening Presence Across Asia Pacific & Middle East

Gensler has announced the appointment of Elliott Pears as Regional Sports Leader for Asia Pacific and the Middle East (APME). Recognised globally for its impact across architecture and design, the firm continues to expand its leadership platform through strategic appointments in key growth regions.

"Elliott brings a rare combination of global expertise and local insight," said Lisa Munao, Managing Director of Gensler Australia. "His leadership will strengthen our ability to deliver sports and entertainment venues that engage communities and create lasting value." An Australian-born architect, Pears returns home to lead the growth of the regional Sports & Entertainment Practice, reinforcing Gensler's long-term commitment to one of the world's most dynamic sports and entertainment markets.

"Returning to Australia and working with clients across APME is both exciting and meaningful," said Pears. "This region has a deep passion

for sport and entertainment, and a growing ambition to deliver venues that enhance fan engagement and contribute to long-term community value. I'm excited to combine global insight with local collaboration to shape environments that perform on every level."

Across Asia Pacific and the Middle East, sports and entertainment infrastructure is entering a new phase of investment and reinvention. In India, public and private capital are driving upgrades to legacy stadiums and the development of flexible, multi-sport, entertainment-ready venues. In China and Southeast Asia, basketball and football are fuelling demand for high-performance arenas and advanced training facilities.

Meanwhile, in the Middle East, sports precincts are increasingly designed as anchors for tourism and mixed-use development. This regional momentum aligns closely with Gensler's approach to sports and entertainment design, integrating



**Elliott Pears, Regional Sports Leader for the Asia Pacific and Middle East (APME), Gensler**

venue, city, and experience thinking to create spaces that perform year-round, reflect local culture, and support broader economic and community objectives.

"APME represents one of the most compelling growth frontiers for sport globally," said Ryan Sickman, Global Leader of Gensler's Sports Practice.

"Expanding our leadership platform into the region is a deliberate step in strengthening our global network. Elliott's ability to bridge creative vision and technical execution positions us to accelerate growth across APME and deliver the high-performance environments our clients expect."

Gensler's Sports & Entertainment Practice has established itself as a global leader, shaping high-performance venues that engage communities and drive economic and cultural impact. From internationally recognised stadiums and arenas, including Al-Ahly Stadium in Egypt, Capital One Arena and Crypto.com Arena in the U.S., to regional projects such as Melbourne Park Visioning in Australia and Spark Arena renovations

in Auckland, the firm brings world-class expertise to both global and local markets.

Complementing its sports portfolio, Gensler is also redefining live entertainment spaces. Elliott has led high-profile projects, such as Live Nation's Lima Arena in Peru and the Charlotte Music Venue in the U.S., blending design and technology to create spaces that perform year-round and resonate with local audiences.

"Sport plays an outsized role in shaping culture and economic vitality across Asia Pacific and the Middle East," said Theresa Sheils, Co-Regional Managing Principal for Gensler APME. "Elliott's appointment reinforces our long-term commitment

to expanding the Sports Practice in the region, enabling us to deliver precinct-scale projects that go beyond game day and create lasting value for athletes, fans, and communities alike."

With more than 15 years of experience delivering complex stadiums, arenas, and large-scale master plans globally, Pears has overseen projects across all five major U.S. sports leagues as well as major European football leagues, bringing that expertise home to Australia. Licensed in both the United States and Australia, he combines design leadership with strategic insight, ensuring sports and entertainment venues generate lasting cultural, social, and commercial value.

## PLP Architecture's Design for The Clifford Sets Sustainability Benchmarks in Singapore's Central Business District with the Use of Timber

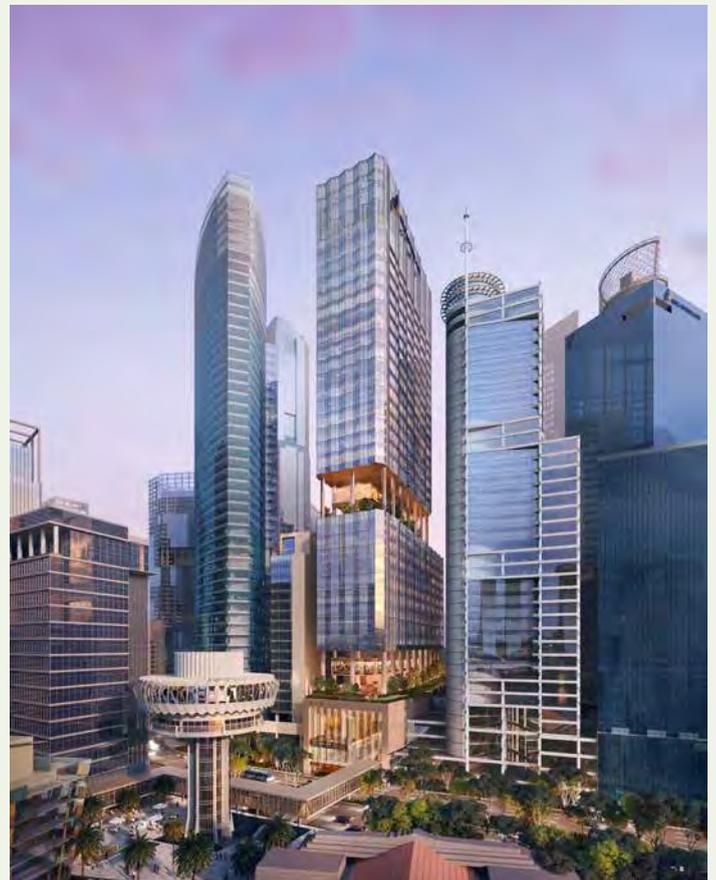
London-based global architecture and urban design studio PLP Architecture has set benchmarks for sustainability with its design for The Clifford. This 35-storey office tower features timber in three signature 'floating boxes', promising to redefine the skyline of Singapore's Central Business District.

The project will transform the former Clifford Centre, a nearly 50-year-old building, into a triple Platinum-certified, high-performing workplace with hospitality, service, wellbeing, and community at its core.

The Clifford will be the first in Raffles Place to attain certifications under the Building and Construction Authority's (BCA) Green Mark, LEED (Leadership in Energy and Environmental Design), and the International WELL Building Institute. It is targeting the higher rating of Super Low Energy under BCA Green Mark Platinum, with projected energy savings of more than 40% compared with typical office developments.

PLP is the Design Architect for the project by Singapore Land Group Limited, which earlier unveiled details of the building. PLP, with offices in Singapore and Tokyo, is also responsible for the interior design, ensuring a unified visual language across the site.

The Clifford is conceived as a building of dual identity—rooted in the civic greenery of Raffles Green while simultaneously addressing the global 'postcard view' of Marina Bay. It will be the first development to provide dual downtown connectivity to the financial districts of Raffles



Place and Marina Bay, as well as access to the Marina Bay waterfront via a second-storey link bridge.

Designed in three distinct sections, the Clifford will feature a podium at ground level, lower and upper office floors, and a distinctive crown at the top, offering sweeping views of Marina Bay. The use of cross-laminated timber in 'floating boxes' on each of its three sky terraces allows the building to reduce embodied carbon, introduce natural warmth into shared workspaces, and showcase how renewable materials can be incorporated into a premium Grade A office tower.

The three sky terraces, dedicated to Mind, Body, and Nourishment, will include amenities such as landscaped gardens, restaurants, and conference and meeting spaces. Positioned high above the city, they create shared social spaces that bring greenery into the workplace, supporting healthier and more collaborative ways of working.

Tina Qiu, Partner at PLP Architecture, said, "We are most excited with the design of The Clifford, our second major project in Singapore after the award-winning Park Nova. Singapore has high expectations for sustainability in new buildings. With The Clifford, we have been given a rare and exciting opportunity to create a building that positively reshapes the urban identity of the local area, placing health and wellbeing, sustainability, learning, and high-quality amenity at the heart of a 21st-century workplace.

"By weaving hospitality and workplace together, we can encourage a vibrant ecosystem that enhances daily working life while attracting visitors and reinforcing the building's civic presence. Our vision for The Clifford is to create a building that contributes meaningfully to both the city's skyline and street life."

Ms Qiu added that the use of timber in the sky terraces significantly reduces embodied carbon and changes how the space feels. "When people step into those spaces, they immediately sense warmth and a connection to nature."

Jonathan Eu, Chief Executive Officer of Singapore Land Group Limited, noted, "The Clifford reimagines the workplace as a hospitality-led experience, with service, care, and consistency at its core. As work continues to evolve, we believe the best workplaces are those that bring people together—enabling teams to connect, co-create, and thrive. Located in the heart of Raffles Place, The



Clifford will offer best-in-class amenities and thoughtfully curated spaces, designed to support our tenants not just as occupants, but as long-term partners on a shared journey of growth."

The Clifford will offer about 360,000 sq ft of premium Grade A office space across 21 floors, and 45,000 sq ft of retail, F&B, and wellness amenities, creating a live-work-play destination in the heart of Raffles Place. The ground-level podium will house a triple-height 'Urban Living Room' that extends the greenery of Raffles Place Park into the building, creating a welcoming civic space for tenants, workers, and visitors.

Internally, PLP Architecture has designed flexible, expansive floorplates to accommodate evolving tenant needs and agile ways of working. Multiple breakout areas, direct access to the sky terraces, and generous landscaping improve comfort, reduce environmental impact, and enhance a sense of community.

The Clifford marks PLP Architecture's second major project in Singapore, following the completion of Park Nova, a biophilic luxury residential development near Orchard Road. Globally, it is behind some of the most notable projects in Europe and Asia including Bankside Yards, the UK's first fossil-free, net zero mixed-used development, The Edge in Amsterdam, reputedly the world's most sustainable office building, Parco Romana, an urban-scale redevelopment project in Milan's Porta Romana district, and Tokyo Cross Park, one of Japan's largest post-war urban renewal projects.

The Clifford is scheduled for completion in 2028.

*Photo credit: Singapore Land Group Limited*

# R+T Asia 2026: Expanding Sourcing and Partnership Opportunities in Sun Shading, Door/Gate and Automation Industries

27–29 May 2026 | National Exhibition and Convention Center (NECC), Shanghai, China



As global supply chains continue to evolve and competition intensifies across the construction and building technology sectors, companies are increasingly seeking reliable sourcing hubs and strategic partners. R+T Asia 2026 expo, taking place from 27–29 May 2026 in Shanghai, offers industry professionals a powerful platform to explore new suppliers, discover emerging technologies, and strengthen business networks.

## A Leading Industry Platform in Asia

Recognized as one of the most influential exhibitions for the sun shading, doors, gates, and automation industries in the Asia-Pacific region, R+T Asia has established itself as a key meeting point for manufacturers, distributors, wholesalers, agents, developers, architects, and buyers from across the region and beyond. The exhibition provides a strategic opportunity to identify innovative and cost-competitive solutions for both local and international markets.

## Over 750 Exhibitors Showcasing Industry Innovation

The 21st edition of R+T Asia is expected to host more than 750 exhibitors, primarily from Asia—one of the world's most dynamic manufacturing and innovation hubs for the industry.

Visitors will discover a comprehensive showcase of products and technologies covering the entire supply chain, including window covering fabrics,

technical textiles, accessories and components, machinery, ready-made interior and exterior sun shading systems, drive and control solutions, roller shutters, garage doors, industrial and commercial doors, as well as related components and automation technologies.

Many of the products on display are developed with international markets in mind, combining scalable manufacturing capabilities with global quality standards and strong export experience.

## The Industry Is Moving Fast. Be Where It Meets

In a rapidly evolving market, staying competitive means staying connected. Beyond product discovery, R+T Asia is widely recognized for its strong business networking environment.

The show provides a unique opportunity to meet manufacturers directly, enabling companies to establish stronger partnerships and negotiate more flexible commercial arrangements. At the same time, it offers a valuable networking platform for professionals from over 115 countries.

A key highlight of the exhibition is the R+T Asia Buyer Club, a dedicated program designed for selected buyers and purchasing decision-makers. Members benefit from a range of exclusive privileges, including complimentary premium accommodation, curated booth tours, access to the Buyer Club Lounge, VIP access and priority support from the organizers, and more.

Participation in the Buyer Club is complimentary, although places are limited and applicants are selected by the organizers. As the recruitment phase for the program enters its final stage, interested participants are encouraged to apply soon. More information is available on the organizer's website: <https://en.rtasia.net/buyer-club.html>

## A Gateway to New Business Opportunities

With its scale, international reach, and strong presence of Asian manufacturers, R+T Asia continues to serve as a strategic platform for companies across Southeast Asia seeking to expand sourcing networks, strengthen partnerships, and stay ahead of industry developments.

For businesses looking to connect with suppliers, explore innovation, and unlock new growth opportunities in the regional market, R+T Asia 2026 offers a valuable gateway to Asia's dynamic building technology industry.

### Visitor Registration:

Receive Free & Printable Visitor Pass



## Urban Walls Expands into Distribution with DALRAY Limewash Partnership and Launches E-Commerce Store

Urban Walls, a Singapore-based limewash specialist known for its artisanal wall application services, has expanded its business beyond application to become the exclusive distributor of Australia's DALRAY powdered limewash in Singapore, Malaysia, and the UAE. It has also launched its new e-commerce storefront to make mineral-based wall finishes more accessible to homeowners, designers, and contractors.

Founded three years ago, Urban Walls began as a niche limewash applicator working with interior designers, contractors, and homeowners. The company built its reputation on specialised craftsmanship in mineral-based wall finishes, offering an alternative to conventional paints for clients seeking more textured, breathable, and natural-looking interiors.

With this latest expansion, Urban Walls is moving upstream in the value chain, combining distribution and skilled application under one roof as it responds to growing interest in finishes that better suit humid, tropical

environments.

"Urban Walls started from a very simple observation: many wall finishes are chosen for how they look on day one, but not necessarily for how they perform over time in climates like Singapore," said Thomas Tan, Co-Founder of Urban Walls. "We saw an opportunity to bring in a material that is not only aesthetically distinct, but also more aligned with how homes in this region should function."

Unlike many synthetic coatings, limewash is a mineral-based finish known for its breathability, allowing walls to exchange moisture rather than trap it. This makes it particularly relevant in high-humidity environments where trapped moisture can contribute to issues such as mould, peeling, and surface degradation over time.

Through its new partnership with DALRAY, an Australian-made limewash brand certified under the Australian



Made programme, Urban Walls is introducing powdered limewash to the Singapore, Malaysia, and UAE markets. Compared to pre-mixed liquid finishes, powdered limewash offers advantages in transport efficiency, reduced packaging bulk, and longer storage life, while maintaining the durability and material properties associated with traditional lime-based finishes.

"We're pleased to partner with Urban Walls as our distributor in Singapore, Malaysia, and the UAE. Their strong expertise in limewash application, combined with a clear focus on craftsmanship and climate-appropriate finishes, makes them a natural partner to represent DALRAY in these markets. We see strong potential for growing demand as homeowners and designers increasingly look for breathable, durable, and thoughtful material solutions," commented Grace Forster, Co-Owner, DALRAY.

According to Venessa Ho, Co-Founder of Urban Walls, the business expansion reflects a broader shift in consumer priorities. "We're seeing more homeowners ask not just how a finish looks, but what it's made of, how long it will last, and whether it makes sense for the climate they live in. That's an important shift. For us, this



isn't about positioning limewash as a trend; it's about helping people make more informed material decisions for their homes."

In tandem with the distributorship, Urban Walls has also launched its e-commerce store, <https://www.urbanwalls.store/>, allowing customers to browse and purchase selected finishes and products online. The

move is intended to support broader market education and accessibility, particularly as interest grows among younger homeowners and renovation-conscious consumers looking for alternatives to mass-produced wall coatings.

Urban Walls believes the future of wall finishes in tropical urban markets will be shaped not only by design

preferences, but by performance, durability, and environmental suitability. "As conversations around renovation mature, homeowners are beginning to ask better questions," added Tan. "Not just 'What colour should I choose?' but 'What is this material made of, and how will it perform in five years?' We think that's where the industry is heading."

## WORLDBEX 2026 Officially Opens, Showcasing Innovation by Building Opportunities and Sustaining Lives

Manila, Philippines—The Philippine World Building and Construction Exposition (WORLDBEX), the country's largest and most influential building and design event, officially opened on 12 March 2026 at the World Trade Center Metro Manila and SMX Convention Center Manila.

Now in its 29th year, WORLDBEX continues to serve as a premier platform for industry leaders, innovators, and professionals in architecture, engineering, interior design, and construction. This year's theme, "Building Opportunities,

Sustaining Lives", highlights the event's commitment to fostering collaboration, advancing innovation, and supporting sustainable growth within the industry.

Simultaneous opening ceremonies were held at the Main Lobby of the World Trade Center Metro Manila and the 2nd Floor Lobby Space of the SMX Convention Center Manila. The ceremonies featured the traditional ribbon-cutting, symbolising the official opening of WORLDBEX 2026.

The ceremonies were hosted by TV personality Apple



From left to right: WSI Board of Director Mr. Rene Ramos; Architect Francisco Flameño; WSI co-founder Ms. Levi Ang; Chief of Staff Peter Pardo; Hon. Ferdinand L. Hernandez, Senior Deputy Speaker of the House of Representatives; WSI Founding Chairman Mr. Joseph L. Ang; Ms. Myra Paz Valderrosa Abubakar, Undersecretary for the Office of Halal Tourism and Muslim Concerns; WSI Board of Director Ms. Tessie Roque; and Managing Directory Ms. Jill Aithnie Ang

Grace. In his welcome remarks, Mr. Joseph L. Ang, Founding Chairman of organising company Worldbex Services International (WSI), expressed his appreciation to the event's partners, exhibitors, and stakeholders for their continued support in making WORLDBEX a leading industry platform. Mr. Ang also added that WORLDBEX has, over the past 29 years, "brought together industry leaders, innovators, and professionals from across the globe, creating meaningful connections and showcasing the groundbreaking innovations that continue to shape our industry".

Distinguished guests and VIPs present during the opening ceremonies had the opportunity to deliver their welcoming speeches, including Hon. Mayor Imelda Calixto-Rubiano, City Mayor of Pasay (represented by Chief of Staff Peter Pardo), and Hon. Secretary Cristina Aldeguer-Roque, Secretary of the Department of Tourism (represented by Ms. Myra Paz Valderrosa Abubakar, Undersecretary for the Office of Halal Tourism and Muslim Concerns).

Hon. House Speaker Faustino "Bodjie" G. Dy III of the House of Representatives, District Representative of Isabela's 6th District (represented by Hon. Ferdinand L. Hernandez, Senior Deputy Speaker of the House of Representatives), served as this year's keynote speaker. In his message, House Speaker Faustino congratulated the organisers for 29 years of excellence, reaffirming that "WORLDBEX has brought together the people who shape the spaces for our nation to grow" and that "WORLDBEX, for the

past 3 decades, have become an important platform where ideas, technology, and talents are drawn together to better design, build, and create the buildings of our nation".

WORLDBEX 2026 was also honoured by the presence of H.E. Dato' Abdul Malik Melvin Castelino, Ambassador Extraordinary and Plenipotentiary for the Embassy of Malaysia; H.E. Harsh Kumar Jain, Ambassador of the Embassy of India to the Philippines; H.E. Katarzyna Wilkowiecka, Head of Mission for the Embassy of Poland in Manila; and Rangsant Srimangkorn, Deputy Chief of Mission for the Royal Thai Embassy / Thai Trade Center, DITP.

As WORLDBEX approaches its 30th anniversary in 2027, WSI remains committed to delivering a world-class exposition that brings together industry leaders, innovators, and decision-makers. The event continues to serve as a vital venue for showcasing cutting-edge products, technologies, and ideas shaping the future of the built environment.

WORLDBEX 2026 runs from 12 March until 15 March 2026 at the World Trade Center Metro Manila and SMX Convention Center Manila. Visitors may register for free at **[www.worldbex.com](http://www.worldbex.com)**.

For updates and announcements, visit the official WORLDBEX Facebook page at **[www.facebook.com/worldbex](https://www.facebook.com/worldbex)**.

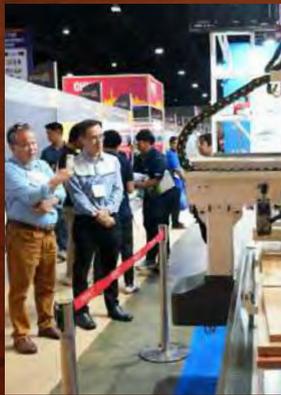
WORLDBEX 2026 is proudly organised by Worldbex Services International (WSI) and is held for the benefit of ABS-CBN Foundation Inc.



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# Yves Padrines, CEO of Nemetschek Group, Discusses the Evolving Role of Technology in Architecture and Its Impact on the Industry

Founded in 1963 in Munich, Germany, Nemetschek Group has been a frontrunner of digital transformation in the AEC/O industry, developing and distributing software for architects, engineers, and the construction industry.

Recognised globally by independent institutions for its successes in the construction industry, Nemetschek Group is an advocate for both sustainability and open data interfaces, the latter of which supports uniform industry standards and smooth collaboration across the competition. Nemetschek Group has several segments: Planning & Design, Build & Construct, Operate & Manage, the Digital Twin Business Unit, and Media & Entertainment. Its brands offer software solutions for the entire lifecycle of buildings and infrastructure projects, and its unique structure enables its subsidiaries to act entrepreneurially, drive innovation, and work closely with its millions of customers worldwide.

*Southeast Asia Building* is joined by Yves Padrines, the CEO of Nemetschek Group, to discuss the group's extensive history and its deep involvement in the architecture industry, covering the importance of digital tools in enabling professionals throughout a building's entire lifespan. Appointed as CEO in March 2022, Yves Padrines is passionate about technology's ability to transform lives, having worked as CEO of Synamedia and Cisco's Vice President of Global Service Provider for EMEA.

**Q: Please introduce yourself and Nemetschek Group to our readers. How has the company driven development in the AEC/O**



Yves Padrines, CEO of Nemetschek Group

**industry over the last half-century?**

**A:** I am Yves Padrines, CEO of the Nemetschek Group, a global leader in software for the AEC/O and media & entertainment industries. Over more than 60 years, we at the Nemetschek Group and our brands have helped move the industry from 2D drafting to CAD, from CAD to BIM, and now into a new era of intelligence where data and AI drive better decisions across the entire building lifecycle. We bring together strong, leading brands to cover design, construction, and operations end-to-end, and we also actively invest in ventures that bring fresh innovation into our ecosystem.

By supporting startups in fields such as AI, sustainability, and workflow automation, we ensure that cutting-edge ideas are closely linked to our customers' daily practice. Our focus has always been on openness and interoperability, and for years now on intelligent, AI-powered workflows

that enhance efficiency, creativity, and productivity.

**Q: What is openBIM, and why are open standards important for improving conditions in the AEC/O industry?**

**A:** openBIM is a vendor-neutral, collaborative approach to BIM based on open standards such as IFC, enabling all project stakeholders to exchange and use data regardless of the software they choose. Open standards are key to breaking down silos, avoiding vendor lock-in, and unleashing the full potential of data and AI across multi-disciplinary teams.

Many flagship projects delivered with our brands—for example, using ALLPLAN, Graphisoft, Solibri, and Vectorworks together—rely on openBIM for coordinated models, automated quality checks, and smooth handover into operations and digital twins. openBIM is the backbone that



Nemetschek Group's Headquarters. Photo credit: Nemetschek Group

ensures data stays accessible, trustworthy, and reusable over decades.

**Q: Besides BIM, Nemetschek Group also supplies smart building, digital twin, and AI solutions to its customers. How do these various digital tools assist developers and architecture firms in managing a building's life cycle, from conception to end-of-life?**

**A:** We now think in terms of an open, data-driven platform that connects planning, construction, and operations, with BIM, digital twins, and AI as core pillars. Digital twins link rich BIM models with real-time and historical data from the building, allowing owners and operators to optimise performance, maintenance, and energy use continuously. AI acts as an intelligence layer on top: it automates repetitive tasks, analyses complex data sets, and provides decision support from early design options through to predictive maintenance and renovation scenarios. For developers and architects, this means they can design with the full lifecycle in mind and manage assets as living, intelligent systems rather than static projects.

**Q: In your opinion, has BIM technology reached its maturity in the Asia Pacific? What do you believe can be considered the next breakthrough(s) in BIM?**

**A:** BIM in the Asia Pacific has come a long way, but I'd still call it mid-transformation rather than mature. The region isn't uniform; Singapore has one of the most advanced BIM ecosystems anywhere, while markets like Malaysia and Thailand are growing fast. Others, like Vietnam or Indonesia, are now moving from pilot projects to broader adoption, often pushed by international developers who expect digital delivery.

What's common everywhere is this: BIM is used heavily for design and coordination, but the data often stops there. It rarely connects to construction, cost, or operations—and that's where the next leap lies. I see three big drivers ahead:

openBIM and interoperability across diverse teams, AI that actually improves daily workflows, and digital twins linking BIM to real-time building operations. Ultimately, it's not about better models. It's about better decisions through connected, intelligent data.

**Q: Considering the high embodied carbon of a building, as well as carbon emissions during its lifespan, how do digital tools help to manage and cut carbon emissions in buildings?**

**A:** The AEC/O industry has a massive responsibility when it comes to embodied and operational carbon. Buildings and structures account for nearly 40% of global energy-related CO<sup>2</sup> emissions, so digitalisation and AI are not optional; they are essential.

With BIM-based workflows, teams can evaluate materials, structures, and systems early on, comparing design options not only in terms of cost but also embodied carbon and future energy use. During operations, digital twins combined with AI can continuously monitor real performance, identify inefficiencies, and propose optimisation measures for energy, maintenance, and user comfort. Ultimately, our goal is to give all stakeholders an intelligent, data-driven cockpit that makes low-carbon decisions the default rather than the exception.

**Q: Please tell us how legislators and the community can be informed about the benefits of digital tools so that they are better equipped to handle the sustainability changes in buildings necessary for global carbon emission goals.**

**A:** Policymakers and communities need concrete, evidence-based stories that show how digital tools and AI translate into fewer errors, faster delivery, lower costs, and lower emissions. Lighthouse projects, clear KPIs, and accessible visualisation—for example, through digital twins or digital building passports—can make the impact of

different design and policy choices visible to non-experts.

If we want to meet global climate targets, regulations should actively encourage open, digital, and AI-enabled processes, while the public experiences these technologies as enablers of better, more affordable, and more sustainable buildings. Regulation, industry, and society need to move in the same direction to fully unlock this potential.

**Q: How have you seen the AEC/O industry change over time, especially with the introduction and development of digital tools? How do you see AI fundamentally changing the role of the architect over the next 5–10 years?**

**A:** The industry has moved from 2D to 3D, to BIM, and now to cloud-based and model-centric collaboration, but productivity is still far from where it could be. AI will be a defining force in the next 5 to 10 years—not by replacing architects, but by becoming a powerful co-pilot that takes over repetitive, data-heavy tasks such as code checking, clash detection, documentation, or quantity take-off. This will allow architects to explore more design variants, integrate performance, cost, and carbon constraints earlier, and focus more on creativity, context, and user experience.

In this new intelligence-driven chapter for our industry, the architect's role becomes even more strategic—

orchestrating human insight, data, and AI. But AI will not only help architects become more productive, efficient, and creative; it will also be an essential part of the entire AEC/O lifecycle.

**Q: What advice would you give to young architects entering the tech-driven industry?**

**A:** My first advice is to fully embrace digital tools and open, data-driven collaboration as a natural part of your professional identity. Understanding BIM, open standards such as IFC, and the basics of coding, automation, or data analytics will greatly expand your ability to shape projects and to work across disciplines.

Second, stay curious about emerging technologies such as AI and digital twins, but always connect them back to their purpose: creating better, more sustainable, and more human-centric built environments. Our industry needs professionals who can bridge design, technology, and sustainability; people who question 'business as usual' and are willing to help disrupt and improve the ecosystem.

Finally, collaboration and communication skills are just as important as technical expertise. The architects who will thrive are those who can lead integrated, multidisciplinary teams using shared digital models and open, transparent workflows.



Nemetschek Group's Headquarters. Photo credit: Nemetschek Group



# A Blueprint for Powering the Next-Generation Cities in APAC: Insights from Heilbronn's Living Labs

As cities across the Asia Pacific (APAC) region accelerate through rapid urbanisation, the need to use infrastructure and resources more efficiently has become increasingly urgent, prompting regional technology leaders and urban planners to look to global pioneers for valuable lessons. From traffic management to energy optimisation to public safety, many are turning to real-world "living labs" to test, refine, and scale smart city solutions.

Heilbronn, Germany's Smart Campus initiative, offers a compelling blueprint for how event-driven technologies can power intelligent urban ecosystems, offering learnings that resonate well beyond Europe and into APAC's fast-evolving smart city landscape.

Alexander Martens, Director of Solution Engineering, Solace, and Christian Harms, Technical Lead for Smart Districts, Bildungscampus Heilbronn, discuss Heilbronn's "living lab" approach, demonstrating real-world testing and deployment of smart city technologies and how they can drive innovation and operational efficiency. In this article, they highlight the power of event-driven integration, enabling real-time data flow across IoT devices, AI systems, and infrastructure systems to support intelligent, responsive urban operations, as well as practical lessons for building resilient urban ecosystems.

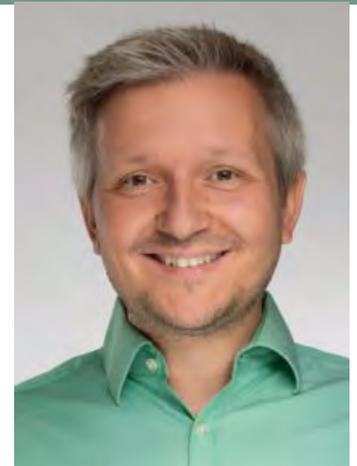
The 'smart city' technology market is expected to reach US\$301 billion by 2032 as more cities look to boost their citizens' wellbeing and safety, alongside improving resource efficiency and infrastructure quality.

Heilbronn, located in southwest Germany, has always been one step ahead. It is not only known for its renowned wines and historical landmarks, but also for its forward-thinking approach to education, research, and technology innovation. The city's Bildungscampus, opened in 2011, connects various educational and research institutions in one place, and includes Germany's largest technology experience centre for children. But Heilbronn is not just a city for students; it's the launchpad for the next generation of AI pioneers with the aim of becoming the global home of human AI.

What truly sets Heilbronn apart is its "living lab" approach that allows real-world testing of smart technologies—from site operation robots to smart trash cans—and uses its high-quality data to shape the future of sustainable urban living in smart cities.



Alexander Martens, Director of Solution Engineering, Solace



Christian Harms, Technical Lead for Smart Districts, Bildungscampus Heilbronn

## Smart cities: an intersection of innovation and urbanisation

Smart cities aim to improve all aspects of urban life, from traffic management, energy consumption, and citizen safety to healthcare delivery, resource efficiency, and infrastructure quality. Once a futuristic concept, research now suggests that the APAC region is home to more than 2.2 billion urban dwellers, making it the world's most populous urban region. By 2050, its urban population is projected to grow by 50%, with many cities expected to adopt smart setups.

Technology leaders are now on a tight timeline to keep pace with this growing demand. But given the sheer scale and complexity of urban systems, there are challenges to overcome. In particular, five key issues that, unless resolved, will damage the ability of smart cities to achieve their potential:

- **Data silos:** traditional infrastructure often results in isolated data repositories, hindering holistic decision-making and the demand for instantaneous data processing and response
- **Scalability:** as cities grow and evolve, their data infrastructure must continuously scale to accommodate increasing demands
- **Ageing infrastructure:** outdated transportation, energy, and water systems can struggle to keep up with modern demand, leading to disruption and congestion. For instance, in the Philippines, recent monsoon rains



Heilbronn Bildungscampus by Kiliansmännle; Wikimedia Commons

exposed the limits of Metro Manila's decades-old drainage network, where heavily silted and inadequate drainage systems prevented floodworks from reaching pumping stations. The resulting floods disrupted transport networks, inundated residential areas, and forced thousands of families into evacuation centres, underscoring how ageing and fragmented urban infrastructure amplify the impact of extreme weather events.

- Interoperability: diverse systems and technologies must communicate effectively to create a truly integrated urban ecosystem
- AI: a huge leap forward from simple LLM applications, the use of AI in smart cities requires careful safeguarding of data privacy to address ongoing security concerns

From this, it can be seen that the need for a robust, scalable, and real-time data infrastructure is essential to success. This is where an event-driven integration platform, with event broker and event mesh capabilities, is uniquely positioned to be the core foundation for building truly smart cities.

So, let's explore three use cases from the Smart Campus Initiative in Heilbronn, Germany, to see where an event-driven integration platform built with Solace is supporting some of the smartest and most cutting-edge developments.

### **Robot clean up on campus: Breaking new ground with a 50cm robot facility manager**

At the Bildungscampus, an AI-controlled robot named Loomi has become a key member of the facility management team. Unaffected by weather conditions, Loomi autonomously moves around the campus on a fixed route defined by GPS coordinates, checking air conditioning settings, bollard functionality, accessibility of escape routes, and lighting status.

When split-second decisions can significantly impact public safety, transportation, and service delivery, the ability to instantly distribute data between various systems as events occur and enable real-time decision-making is essential to the workings of a smart city. Loomi achieves this by using an event mesh to instantly communicate status updates and anomalies to relevant systems and personnel, enabling proactive facility management.

For instance, if Loomi detects a deviation with emergency routes, the robot can take an on-site picture and pass this information to the team. They can then assess the need for action and initiate measures if necessary to solve the situation. It's the perfect example of human-AI collaboration in action!

### **A greener approach: sparking efficient energy consumption habits**

Heilbronn's campus buildings are equipped with sensor



technology, with electricity, heating, and water consumption used for energy management and ESG reporting.

Where traditional urban infrastructures feature isolated data repositories, Heilbronn uses an event mesh to establish connectivity directly via MQTT (Message Queuing Telemetry Transport). This enables efficient data sharing across different systems and supports the building automation by Neuberger that monitors and controls the heating, cooling, and electricity across the campus.

In the future, energy consumption will be optimised and tenants' utility bills invoiced in real-time. The business impact is obvious—think cost savings, increased sustainability, and improved operations.

### **Twinning on the vine: Smart tech meets the vine to support sustainable wine production**

Another feat of the smart initiative is helping to enhance the city's winemaking reputation. In different agricultural areas surrounding Heilbronn, long-range wide area networks (LoRaWAN) are being powered by the Things Network, a LoRaWAN network server that is connected and acts as a gateway

via MQTT to the event mesh we have built. The Things Network receives data such as humidity and temperature measurements, alongside rain and soil analysis, from sensors that are spread out across the various vineyard locations. The goal is to support winemakers in this region, helping them optimise yield, increase efficiency, and produce more cost-effectively.

A digital twin of two other vineyard locations has been built so soil conditions can be accurately represented in a geo-referenced manner by determining the phosphorus and potassium content, as well as the PH value. This means predictions can be made to optimise pest control, for example, by detecting and preventing fungal infestation at an early stage.

### **Tapping into untapped potential**

Heilbronn's three use cases only touch the surface of how an event-driven integration approach can support the creation of smart cities. Its ability to enable real-time data flow and integrate diverse systems means an event-driven platform is uniquely placed to scale up and adapt as urban needs evolve. So, what other smart city challenges can it overcome?

### **Scalability to support enormous data flows**

Smart cities generate an enormous amount of data from IoT devices, sensors, and systems. The Heilbronn campus alone currently has 35.666 information points that provide the data needed for intelligent energy controls. This is where an event-driven integration platform is well equipped to handle millions of events per second, ensuring easy scalability as cities grow and more devices come online.

### **Security and resilience**

Smart cities handle sensitive data ranging from personal information to critical infrastructure controls. An event-driven integration platform can securely transmit data and is resilient to outage—two factors that are paramount for maintaining public trust and ensuring the continuous operation of city services.

### **Edge computing capabilities**

Many smart city applications, such as predictive maintenance of infrastructure or real-time traffic management, require processing at the edge. This is where an event mesh functionality enables edge computing, allowing data to be processed close to its source, and then transferred to the core for routing to other systems that process it. This reduces latency and ensures timely responses, which is critical for applications that can't afford delays from centralised processing.

### **From blueprint to reality, it's time to power up the smart city**

As illustrated by the Smart Campus Initiative in Heilbronn, the future of smart urban development lies in the intelligent integration of diverse systems and data sources. For technical leaders looking to embark on smart city projects, an event-driven integration approach is critical to unlocking the full potential of urban innovation and creating more livable, efficient, and sustainable cities for the future.



Heilbronn Bildungscampus by Rosenzweig; Wikimedia Commons



# 3H INC. Greater Bay Area Strategic Mining Center

**Project Category:**  
Corporate office/branch

**Location:** Guangzhou,  
Guangdong

**Area:** 180 sqm

**Interior Design &  
Execution:** c.dd

**Chief Designers:** Li  
Xinglin, He Xiaoping

**Project Management:**  
Liang Yihui, Yu  
Guoneng

**Supply Coordination:** He  
Liuwei

**Execution Team:** Feng  
Zichao, Liang Jiebin, Lin  
Jiaxin, Ye Jiayong

**Lighting Design:** Li Jiajie  
Promotion Planning:  
He Yanting

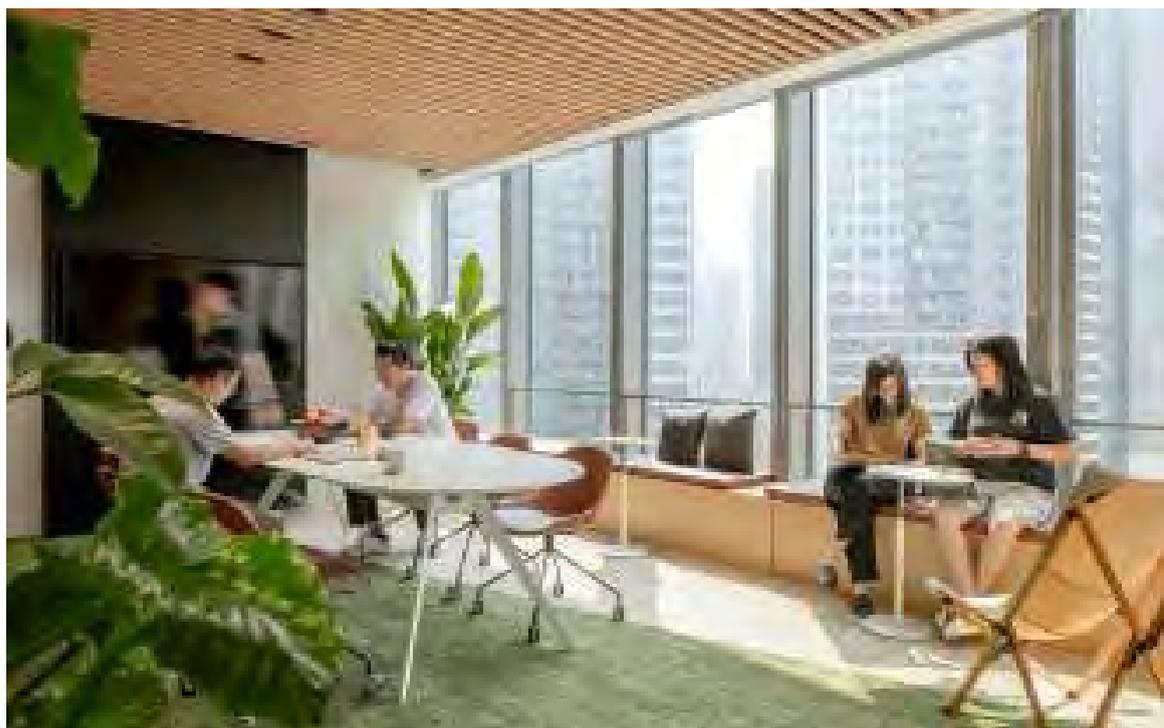
**Photography & Video:**  
Feast Vision/ Fafa Lam

**Special thanks to:** 3H  
INC.

**F**ounded in 1981, 3H INC. has consistently upheld the philosophy of “win-win cooperation and harmonious development,” with deep expertise in architectural hardware and rubber manufacturing. Its unwavering commitment to craftsmanship and quality has shaped an irreplaceable brand DNA.

The launch of the Greater Bay Area Strategic Mining Center marks a pivotal shift—from a production-oriented model to strategic, service-driven development, signalling the company's evolution from traditional production to intelligent manufacturing. In the context of the digital economy and regional development strategies, the company aspires to break free from traditional constraints and redefine its brand identity and cultural core with the spirit of innovation.

Situated in the heart of Guangzhou's CBD, the centre serves as a strategic



anchor for the company's future development. Beyond functional upgrades, it embodies the company's ambition for brand renewal. The central design challenge was to redefine spatial scenarios that seamlessly integrate strategic positioning with an innovative cultural spirit.

By deconstructing the DNA of traditional manufacturing and reinterpreting the company's cultural essence through a contemporary lens, c.dd crafted a vibrant, people-centred office ecosystem, where the brand's four decades of manufacturing heritage converge with a forward-looking, innovative spirit.

**Sunshine Park: bridging nature and humanity**

The traditional manufacturing industry often gave rise to spatial environments that were closed and hierarchical, shaped by a production-first mindset. Yet innovation in design is not a rejection of the past—it builds on it, elevating the collaborative



spirit rooted in the industrial culture. This project carries forward human-centred values, introducing natural light and greenery to create a vibrant,

nature-infused workplace. At its heart, it reinterprets the "human-centered" ethos in a contemporary, fresh way.





The design, centred on the concept of "Sunshine Park," seamlessly integrates natural elements with a culture of open collaboration to craft a workspace that is both functional and emotionally resonant. Wooden slat ceilings establish a warm atmosphere, while natural light, greenery, and soft colour palettes move beyond the rigidity of conventional office settings. Light-toned wood furniture paired with green carpeting fosters a relaxed yet productive environment. Interior plantings echo the cityscape beyond the windows, creating a dynamic dialogue between indoors and outdoors.

**Spatial layout: an open and interconnected collaborative environment**

The office ecosystem is reimagined through an open, fluid layout, dissolving the sense of stiff formality often associated with the traditional manufacturing industry. An open and egalitarian spatial language responds to the company's ethos of "collaborative synergy." The design skillfully resolved structural column constraints, eliminating physical partitions in the workspace to break down hierarchical barriers and enhance seamless connection and communication. A multifunctional

reception area, doubling as a bar counter, enhances openness and encourages everyday interaction. A circulation loop links the front area with various functional zones, fostering spontaneous communication and sparks of inspiration.

The window-side area is envisioned as an observation bar, drawing the city views into everyday work life and fostering relaxed interactions. Blurring the boundary between work and leisure, it enriches the office environment with a lively rhythm. The manager's office and





reception area are framed with transparent partitions, balancing privacy with visual openness, while artworks, leather seating, and warm lighting contribute to a relaxed yet refined business atmosphere.

**Product as art: aesthetic resonance between the hardware industry and urban memory**

The essence of traditional manufacturing is embedded in every detail of 3H INC.'s architectural hardware products: precise interlocking, durability, and meticulous craftsmanship. These inherent qualities are integrated into spatial storytelling, where functional components are translated into cultural symbols, elevating industrial parts beyond their utilitarian role into expressive vessels of brand heritage and regional identity.

At the entrance, the brand display area features a minimalist glass partition and curated lighting that accentuates the corporate identity. 3H INC.'s hardware components are creatively assembled into a collage through a reinterpretation of local context, forming a bespoke skyline art wall and tracing the silhouettes of the Canton Tower and other iconic landmarks of the Greater Bay Area. These cool industrial pieces are transformed into warm, expressive art, conveying the company's enduring commitment to craftsmanship while narrating

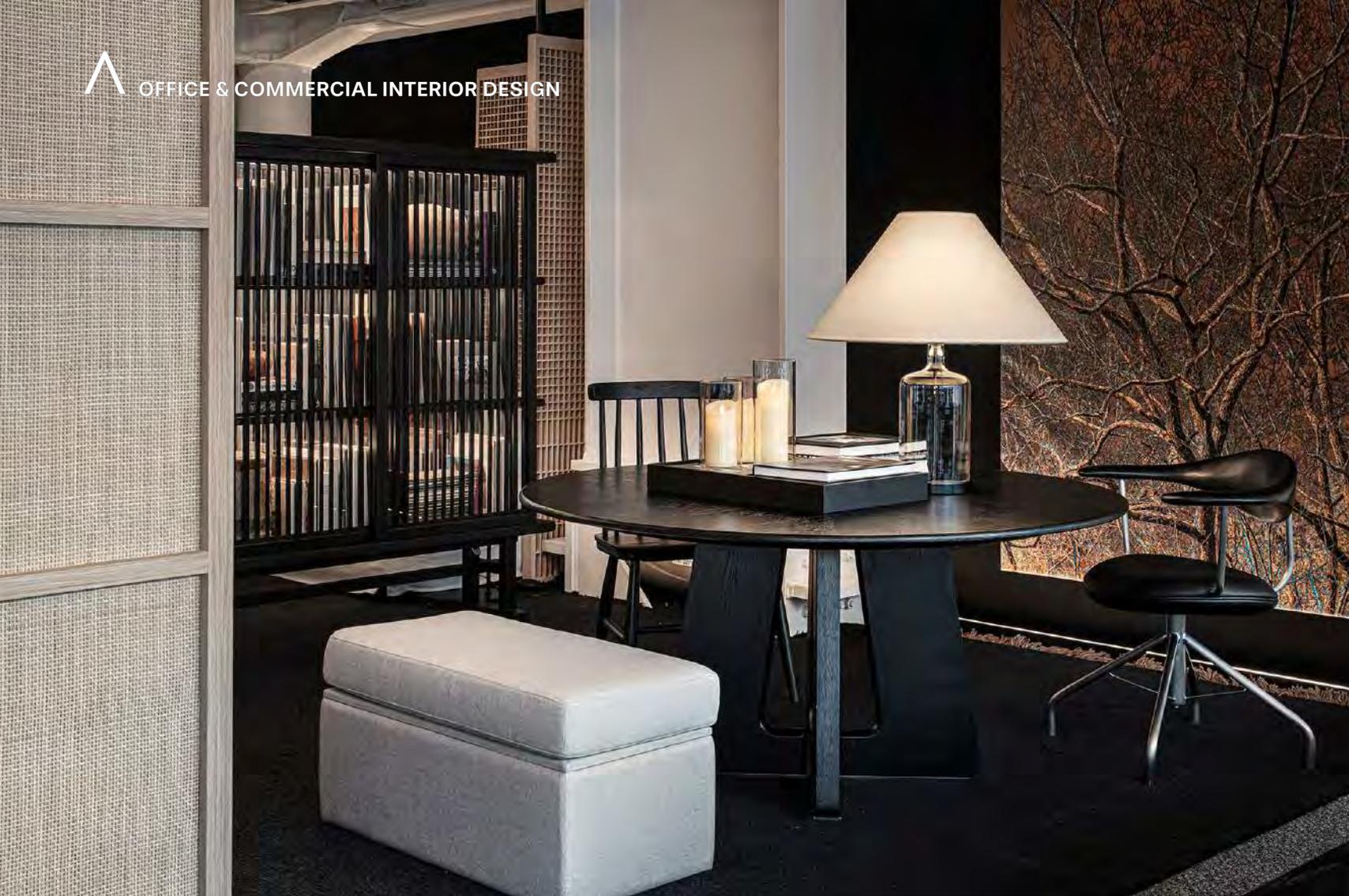
a new identity where traditional manufacturing and urban culture converge.

Through open and interactive spatial design, c.dd activates brand memory via artistic installations and reimagines the office experience with natural elements. The design facilitated a shift of spatial language—from manufacturing-centred logic to innovation-led cultural expression—setting a new paradigm for workspaces in the traditional industrial sector. It embraces the idea that heritage and

innovation are not opposing forces, but parallel and symbiotic energies.

By distilling the company's manufacturing DNA, traditional craftsmanship merges with contemporary culture, creating a narrative that is both forward-looking and historically rooted. The design underscores a key insight: the transformation of the traditional manufacturing industry is not a break from the past, but a regeneration, where legacy evolves within new contexts and gives rise to more vibrant forms.





# CCD Tokyo Creative Center

**Project Name:** CCD Tokyo Creative Center

**Location:** 1-5-2 Hirakawachō, Chiyoda-ku, Tokyo, Japan

**Interior Design:** CCD / Cheng Chung Design (HK)

**Art Consulting:** CCD · WOWU Art Consultancy

**Lighting Design:** CCD / Cheng Chung Design (HK)

**Area:** 735 sqm

**Completion:** June 18, 2025

**Photography:** Wang Ting, Boris Shiu

**T**okyo, a city where tradition meets the avant-garde, stands at the forefront of global design trends and embodies the essence of Eastern aesthetics. In

Hirakawachō, Chiyoda—Japan’s political and cultural heart, just steps from the Imperial Palace—CCD has unveiled its Tokyo Creative Center.

Telling the stories of the world through an Eastern lens, the creative centre itself is conceived as a meticulously crafted work of art, rooted in the philosophy of “Symbiosis Between Japan and the West.” Rather than a mere collage of styles, it offers a profound reinterpretation of Japan’s architectural and cultural essence, translated into a contemporary design language that resonates globally.

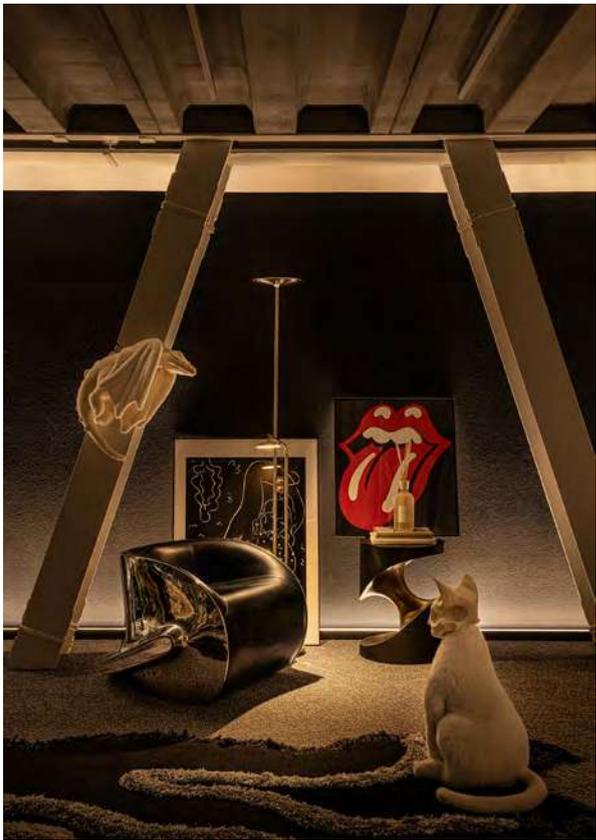
Upon entering, visitors are greeted by If I Were You, a sculpture from the private collection of CCD founder Mr. Joe Cheng, created by contemporary Chinese artist Huang Cheng. “The character and spirit of the horse have long been at the core of our design aspirations. It leaps vividly within the space,





yet soars beyond the mundane, carrying profound symbolic meaning." Drawing on CCD's expertise in hospitality design, the Tokyo Creative Center reinterprets CCD's hallmark experiential scenography into a uniquely localised office environment. The space breaks away from the monotony of conventional workplaces, transforming into a "micro urban lounge" and a "living laboratory".

Café, lounge, and showroom converge seamlessly, creating a multifaceted environment that echoes the Japanese workplace ethos of etiquette and collaboration. This distinctive hybrid of workplace







and cultural immersion also responds to today's aspiration for work-life integration.

Rendered in a palette of natural, calming tones, the space exudes understated elegance. Handcrafted artworks and artifacts, many sourced by Japan's CCD team and beyond, imbue the space with cultural depth. Asymmetrical circulation, open zones, and flexible partitions depart from the rigidity of conventional offices, creating a dialogue between old and new, tradition and innovation, and inviting moments of discovery and surprise.

Rooted in the brand ethos of design excellence and continuous innovation, CCD leads the industry forward through technology. At the Tokyo Creative Center, the Material Lab showcases IDEAFUSION— an intelligent material platform developed by CCD's technology brand RARITAG— which extends the possibilities of design and empowers the industry through digital innovation.

The sofa lounge area features Japanese artist Tetsuya Nagata's three-dimensional paper reliefs. Steeped in the concept of Wagashi Zanmai ("Memory Paper"), the art piece captures the dynamic motion of fish through precise folds and graceful curves, their scales shimmering subtly in the light, as if swimming through unseen waters.

The Art Gallery, curated by CCD's lifestyle brand COSM CROSS, brings

together a tapestry of cultural artifacts and artworks from across the globe. Through a "global collector's lens," this organic fusion fosters a visual language that is both locally rooted and globally resonant,

transcending cultural boundaries.

Artist Zhao Lin's clay sculpture Formless invites a contemplative journey into the realm of "formless form". Its seemingly unfinished cracks, spontaneous textures, and ambiguous voids transcend material form, gently ushering the viewer into tranquil meditation.

The island counter, thoughtfully crafted, becomes a versatile stage for a casual drink or a convivial gathering with light refreshments. It highlights a spirit of inclusivity, adapting fluidly to the rhythms of life.

More than a creative hub, the CCD Tokyo Creative Center unfolds as a warm urban lounge. Its restrained layout and muted palette exude quiet elegance, infused with warmth and sophistication. Here, work and leisure, professionalism and personal connections naturally converge—a place that is welcoming, inspiring, and distinctly alive.





# Conscient Infra Sales Lounge, Gurgaon

**Project Name:**  
Conscient Infra  
Sales Lounge,  
Gurgaon

**Location:** 4th  
Floor, Grand Hyatt  
Tower, Gurgaon

**Client:** Conscient  
Infra

**Design team:**  
Studio IAAD

**Completion Date:**  
February 2025

**Photography:**  
Noughts  
& Crosses  
Photography

Located on the fourth floor of the Grand Hyatt Tower along Gurgaon's Golf Course Extension Road, the Conscient Infra Sales Lounge has been designed as a dual-purpose experience centre cum workspace. Realised through a longstanding, trust-driven collaboration with Studio IAAD, the thoughtfully spread-out





space balances the elegance of a hospitality-led environment with the rigour of a functioning office—one that adapts as teams and requirements shift over time. Responding to the client brief, the core design intent centres on flexibility, adaptability, and maximisation of space. The spatial programme is articulated through layered thresholds, interconnected corridors, and softened boundaries, enabling fluid transitions between zones.

Contemporary elements command visual focus—fluid accent ceilings, sleek modular layouts, expansive glazed walls, and tactile, layered materials create a sophisticated, forward-looking language woven across the space. Layered thresholds, interconnected corridors, and softened boundaries have been designed to form a gentle, fluid continuum, inviting intuitive navigation between zones while emphasising the unique identity of each.

Rather than regarding spatial

conditions as obstacles, the design seizes opportunities for enhancement. The compact entrance lobby, for example, becomes a launchpad for a sense of expanse. Visual continuity

is achieved via strategic surfaces and curated transitions, resulting in a seamless flow that guides movement with intention and care. Fixed architectural necessities, such as



the immovable washroom, are deftly integrated into a modular planning approach—flexibility serves as both the departure point and the end goal, inspiring inventive and responsive solutions.

The spatial configuration is deliberate, elevating navigability via cleverly plotted passages and effortless cross-access. From the lift lobby, visitors are welcomed into reception and are naturally drawn along a central corridor to the main lounge and presentation area, each space infused with daylight, equipped for both private collaboration and dynamic engagement. To the left, a soft lounge and café bar form an agile, contemporary zone that champions the flexi-space ethos. Zones transition smoothly, yet maintain distinctive uses, thereby continuously supporting adaptation as needs shift across the day.

At the further edge, a branching passage leads to five meeting rooms, three director cabins, and a generous boardroom, thoughtfully placed for dual access from both management and experience centre perspectives. A secluded breakout nook beside the boardroom offers a tranquil enclave for quiet focus or informal conversation.

Every aspect of the layout foregrounds a sense of curated fluidity, ensuring operational agility and uninterrupted circulation throughout. Key to this is a multi-purpose pop-up area that establishes itself as a versatile buffer, readily transforming in scale and use, whether as an event venue, informal lounge, or an extension of the management office, while maintaining total harmony with the greater whole.

The material palette eschews excess for a neutral, contemporary sophistication, complementing the brand's identity and shaping a visual unity. Interchangeable, curvilinear furniture enables organic reconfiguration for diverse events, with seating clusters that can be easily modified for varied layouts. The experience is enriched by thoughtfully layered vignettes: a striking triptych of abstract circular





works by Nupur Kundu, curated ceramics, and terracotta touches. Meandering accent ceilings and sweeping windows guide the gaze, heightening openness and spatial drama. Custom carpets, sculptural lighting, and precision signage unify and punctuate the design language.

The Conscient Infra Sales Lounge embodies a spatial

strategy where each decision stems from adaptability, navigability, and a progressive use of volume. By blurring boundaries and celebrating flexibility through modular organisation and reconfigurability, the space cultivates a dynamic, curated identity—one that's decidedly contemporary, endlessly adaptable, and always human-centric.





# Dreamer Stone House

**Project Name:** Dreamer Stone House

**Location:** Zone B, Design Commune, Vanke Cloud City, Shenzhen

**Area:** 245 sqm

**Completion:** November 2025

**Design Firm:** PENG & PARTNERS

**Chief Designer:** Wang Peng

**Project Director:** Li Yuan

**Art Director:** Lyu Qing

**Furnishings Consulting:** P Projects

**Construction:** Maili Digital Technology (Hangzhou) Co., Ltd.

**Photos:** Jack Qin, Zuxi Huang, Si Yu

**Video:** Chen Qiuquan

**C**ollaborating with DREAMER STONE, a natural stone brand, PENG & PARTNERS set out to challenge the established perception of marble, exploring its potential for storytelling in a contemporary spatial context.

The result is Dreamer Stone House—an immersive, artistic environment where marble moves beyond static display to become a medium that orchestrates spatial mood, rhythm, and narrative.

## Where rational order meets Eastern poetry

The design concept emerges from the brand's evolving perception of marble—from a material once primarily associated with luxury, to one with a deep relevance to spatial aesthetics and experiential resonance.

Inspired by this evolution, lead designer Wang Peng articulated a



clear design proposition. "How might a stone showroom be envisioned as an immersive gallery?" The answer, in his view, lay in shifting from product-centred display to spatial narrative.

Accordingly, the Dreamer Stone House was conceived not as a conventional showroom, but as an experiential environment that invites perception and engagement. Beyond its physical form, the space operates as a perceptible framework of brand values. Through an integrated system of aesthetics, materials, craftsmanship, and service, it delivers a genuine, unequivocal experience. On a broader level, the project reflects a shift from material-centred display toward brand expression through aesthetic experience.

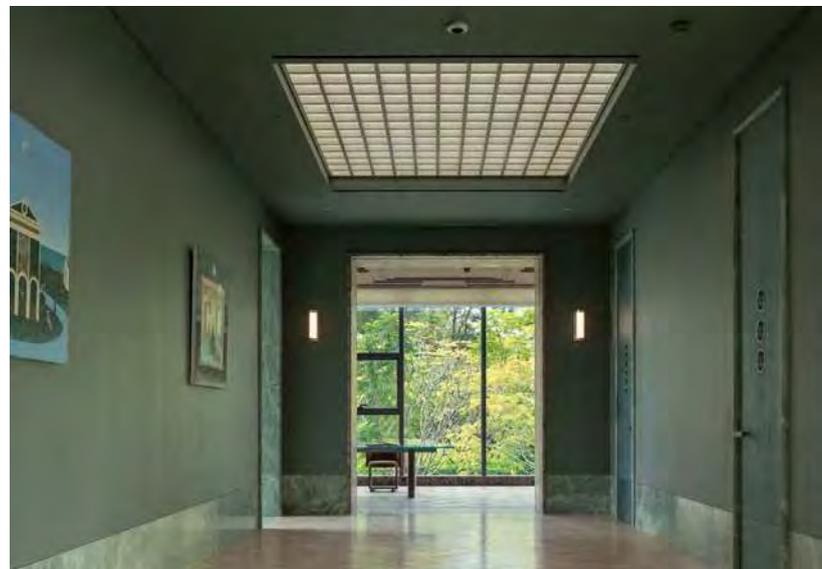
"The design centres on the spatial experience itself, where marble acts as the expressive soul. Through touch, observation, and immersion, visitors intuitively understand the material's texture and craftsmanship—where product and space seamlessly merge," explained Wang Peng.

Drawing on his cross-cultural background, Peng adopts a dual design approach: structuring the space with Milanese rationality while tempering its atmosphere with Eastern subtlety. In this interplay, marble transforms from a displayed object into a vessel for emotion and spatial storytelling.

From symbol to medium: marble as an aesthetic language  
The spatial journey begins at a ceremonial entrance. A monumental bronze door opens into a corridor of rhythmic sequences, setting the tone for the experience ahead—order, ritual, and immersion.

Symmetry and axuality are not mere formal gestures but a deliberate strategy for shaping spatial order and identity. This approach draws on Gio Ponti's modernist clarity while also subtly echoing the Eastern sense of ceremonial order.

From the elevator to the central hall, visitors traverse a series of interconnected spaces. Symmetrical door openings, geometrically patterned ceilings, and rhythmic corridors create a layered sense of progression, offering new perspectives at every step and guiding visitors from urban bustle into a calm, immersive environment.





The space is anchored by a Milanese axial logic. Deep door openings and translucent glass introduce an Eastern sensibility of "separation without disconnection", establishing visual continuity and layered spatial perception. The material scheme references Gio Ponti's sensitivity to material interplay, with wood veneers and warm lighting softening marble's coolness. Meticulous craftsmanship harmonises Milanese precision with Eastern restraint, with natural light revealing the textures, lending the space a subtle sense of breath and rhythm.

Faced with the brand's vast stone collection, the designer adopted a curatorial approach, prioritizing stones that embody rational Eastern aesthetics, align with the space's functions, and harmonise with copper, wood, and glass. Stones with restrained textures and refined surfaces were chosen, while those with overly intricate patterns or vivid colours were intentionally excluded.

Meticulous craftsmanship unlocks the expressive potential of each type of stone. In the art corridor, green marble appears as continuous wall panels and fragmented floor inlays, establishing a visual rhythm of cohesion and variation. In the meeting rooms, grey stone features both natural split-face textures and polished surfaces, revealing a rugged yet refined character.

The kitchen island, crafted from Brazilian meteor stone with natural split-face surfaces, posed a challenge. Its uneven textures and high porosity risked structural imbalance, as well as staining and efflorescence from daily use. Through precise levelling, six-sided protective treatment, and thoughtful lighting, the stone is liberated from a purely decorative role, becoming a durable, tactile centrepiece where craftsmanship, functionality, and aesthetics converge.

### Stone in the contemporary design context

As engineered sintered stone and large ceramic panels gain market momentum with cost advantages and realistic textures, natural stone faces a new challenge: not a matter of being

replaced, but of reasserting its role and distinctive value.

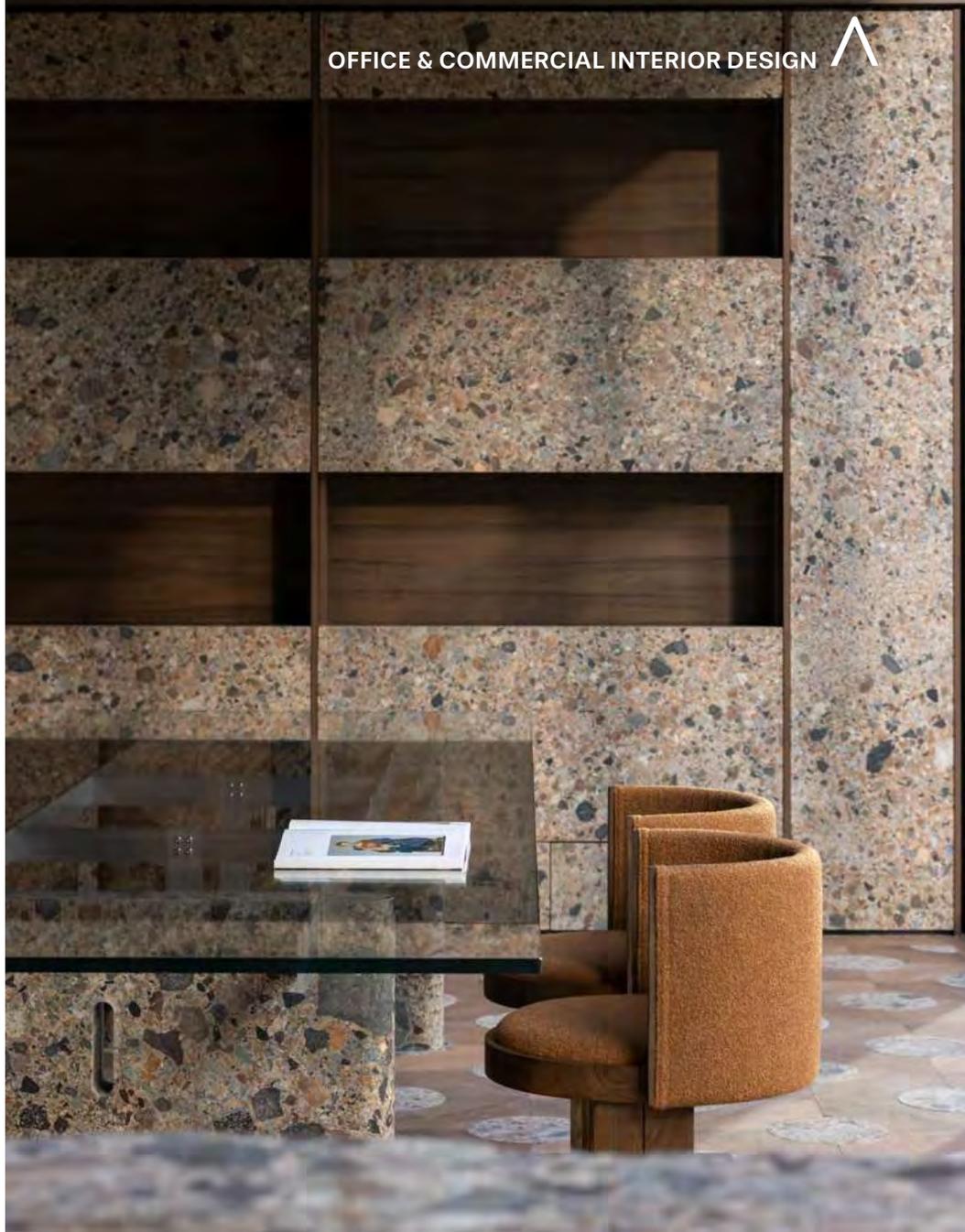
In the contemporary design context, natural and engineered stones are complementary. The value of natural marble lies in its unique textures and one-of-a-kind aesthetic, shaped over millions of years of geological formation. Far from being overshadowed, natural marble is now elevated from mere material to a medium for spatial narrative, aesthetic expression, and immersive experience.

Guided by Gio Ponti's rationalist clarity, natural stone in this space moves beyond heaviness and monumentality, revealing elegance, lightness, strength, and tranquillity. This transformation is realised

through minimalist design, the play of light, and the integration of function with aesthetics.

By reducing visual weight through minimalist design, amplifying the material's expression through light, and harmonising function with aesthetics, the inherent power of stone is revealed, embodying a spirit attuned to the contemporary era.

Dreamer Stone House is more than a showroom; it is both a statement and an experiment. It demonstrates marble's potential as a medium for spatial storytelling and explores the fusion of Eastern and Western aesthetics. Here, rationality and poetry converge, shaping a forward-looking vision for how stone will evolve in contemporary design.





# EY Gurugram

**Project name:** EY Gurugram

**Location:** Sector 44, Gurugram

**Area:** 85,000 sq. ft.

**Client:** EY India LLP

**Design Team:** Studio IV Designs; Vandana Saxena (Design Lead), Vivek Singh, Sakshi Singh, Pankaj Sharma, Ashok Kumar, Ashish Jain, Manish Maurya

**Completion Year:** 2024

**Ceiling Solutions:** Armstrong & USG Knauf

**Structural Consultants:** Beniwal & Associates.

**MEP Consultants:** M.J. Consultants

**Lighting Consultants:** Lucent Worldwide

**Interior Contractor:** Cherry Hill Interiors Pvt. Ltd.

**PMC:** Cushman & Wakefield (India) Pvt. Ltd.

**Sanitary Fittings:** Kohler

**Sensor-Based:** Euronics

**IGBC Consultant:** AEON

**Photography:** Noughts & Crosses LLP

**E**Y, one of the four largest professional services consulting firms in the world, with a presence in over 700 locations, decided to open its first independently-owned office in Gurugram, a major IT hub in India. It commissioned Studio IV Designs to design 85,000 sq. ft. of its executive and social areas, spread across the ground, first, and eighth floors, as well as a six-storey atrium, within the 13-storey building.

The brief was threefold: to serve global and regional teams and clients, embody a modern yet timeless Indian aesthetic, and create a space that reflects EY's capabilities to its clients and teams. In response, the spaces were designed to exude a museum-like quality that welcomes diverse users with elegance.

A restrained material palette enhances the sense of clarity and calm, setting it apart from the often

bright and cluttered approach seen in conventional offices. This also transforms the office into a refined backdrop for art, cultural elements, and brand-specific features, much like a museum, rooting the space in its regional and brand identity. Here, material tonality speaks the language of sophistication and stillness, creating an environment that inspires focused work and contemplative engagement, one that does not seek validation through noise or spectacle.

Two distinct entry experiences unfold at ground level: a six-storey atrium with employee and visitor reception, and a double-height client reception, each with its own cluster of meeting spaces. The ground floor also houses a cafeteria, a training room for new employees, a media room, retail kiosks, administrative offices, and a doctor's office. The first floor brings together key executive functions, such as the 28-seater boardroom, executive dining room, and lounges, alongside 15 meeting rooms of varying capacities. The eighth floor functions as the key social and learning zone, with a 220-seater cafeteria, two private dining rooms, and four combinable training rooms with a pre-function area.

### **Crafting a museum-like space for a timeless global identity and monumentality**

The design adopts a restrained visual language across materiality, colour palette, layouts, and lighting, eliminating clutter at every step through meticulous detailing to create a timeless museum-like space.

A calm palette of white, black, and warm wood tones is used consistently, with subtle variations in shade and texture to create a modern aesthetic. Beige Gwalior mint sandstone cladding anchors the ground floor with refined luxury, while zinc-clad walls and black metal frames add measured contrast. Fluted wood panels introduce hints of warmth, rhythm, and texture. Expansive white and beige marble flooring, highlighted with subtle black and grey accents, creates a bright and refined base for the design. The light-toned palette visually enlarges the relatively compact atrium, creating a sense of openness despite its smaller footprint within the overall floor plate.

The shared social and public spaces are designed with niches, art rails, and tonal textured walls, transforming the space into a museum that showcases the works of contemporary Indian artists and sculptors. These spaces allow art to take centre stage, while the subtle interior architecture casts shadows, creates texture, and remains quietly monumental. A striking red-orange Maharani sculpture by Naman Mahipal nods to the heritage of Indian royalty in one of the corridors, while Mohammed Osman's vibrant Gangireddu painting brings a bold burst of orange intrigue to one of the lobbies—the hue used as an accent throughout the project. EY's milestones can also be prominently displayed and easily refreshed in these areas, with focused gallery-style lighting accentuating each feature.

Likewise, in other areas, nuanced detailing and technology integration act as tools to enhance the museum-like quality of space. For instance, the spiral black metal staircase in the client lobby is designed as a clean, sculptural form beside a tranquil water feature.



The executive boardroom on the first floor features a customised door system with a veneer finish that blends seamlessly into the surrounding panels. Integrated digital screens and a flush floor-to-ceiling design maintain a clean visual aesthetic. Meanwhile, a large AV screen in the atrium serves as a focal point for dynamic corporate messaging without disrupting the space's openness. These features are complemented by decluttered lighting solutions, such as anti-glare ceiling-integrated movable track lights and recessed floor lights. Together, these key design interventions invite intrigue and enhance the perception of scale within a compact footprint, creating a sense of monumentality befitting EY's global stature.

## Weaving regional and brand identity into spaces through craft

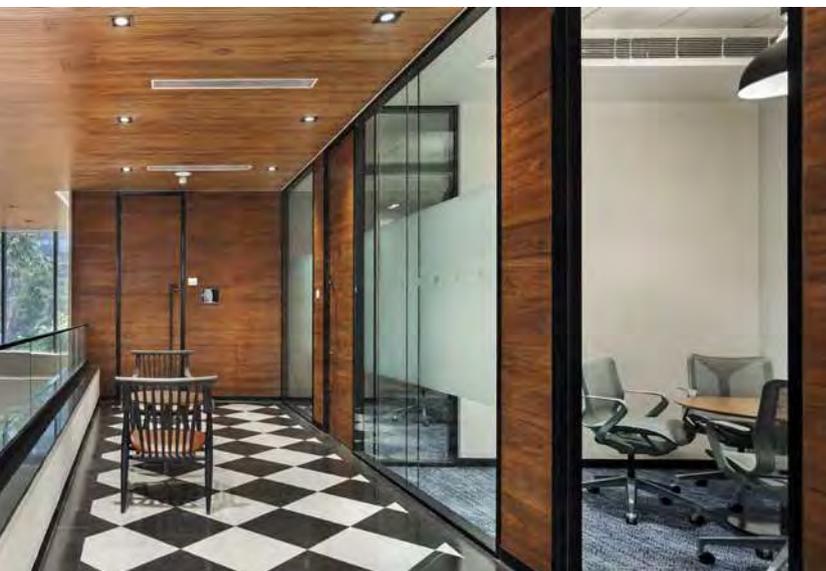
To craft a workplace that resonates authentically with both EY's global identity and its Indian context, Studio IV Designs has layered the spaces with reinterpretations of traditional craftsmanship and furnishings by homegrown designers and contemporary Indian artworks.

Entering the client reception, visitors are greeted by a striking textile origami art installation, designed in collaboration with Adigami, that evokes the rising sun, signifying a sense of arrival, while subtly nodding to EY's brand colours. A yoga-inspired sculpture near the water body symbolises balance and focus. Circular black inlay marble flooring beneath seating clusters recalls the flooring patterns of north Indian havelis (vernacular courtyard houses), mimicking carpets and inviting moments of pause within the expanse of white marble. Moving deeper into the atrium, Mughal architecture-inspired motifs are carved onto beige Gwalior mint sandstone dry-cladding across the six storeys, casting shifting patterns of light and shadow as a subtle reminder of place and history quietly woven into the interiors. This contrasts with an adjoining massive video wall showcasing how India is technologically advanced while remaining culturally rooted.

Throughout various lobbies, lounges, and executive zones, hand-tufted rugs from Jaipur Rugs' Manchaha collection



in yellow, grey, orange, and blue hues temper the marble's coolness, adding warmth, tactility, and colour. The use of yellow and grey spatially reinforces EY's brand identity. India-born furniture brands such as AFKD, Alankaram, Made by Spin, MMA, and The House of Things punctuate corridors and lounges, infusing the minimalist framework with cultural depth.



In the cafeterias on the ground and eighth floors, the atmosphere shifts to a more vibrant energy befitting communal spaces. On the ground floor, Traditional Gond and Warli murals pulse with folk rhythms along the walls, while overhead, false ceilings integrate traditional earthen taslas (cooking vessels), amplifying the sense of place. Brick-inspired jaali screens craft intimate enclaves within the larger whole. Paintings commissioned from Kalakari Haat punctuate the walls, anchoring this social hub in local artistry. Turfed hills for sitting, dhaba-style cots used as seats, truck art-inspired fascia on counters, and a real auto-rickshaw repurposed as a food counter bring a playful character to the space. These elements, combined with brick and terrazzo finishes across the walls and flooring, create a relaxed, roadside-style cafeteria on the eighth floor.

**Facilitating structured agility for productivity and social well-being**

In an era where the boundaries between formal and informal, collaborative and individual, digital and physical continue to blur, the design is shaped by a clear zoning logic that creates distinct private, semi-private, and casual zones to accommodate the full spectrum of modern work modes, balancing productivity and social wellbeing.

Enclosed executive areas are complemented by wide corridors and a verandah-like transition zone on the first floor, activated by loose furniture to enable short discussions, private phone calls, or quiet moments between meetings. Deliberately left open-ended in their use, these in-between spaces support multiple modes of work and encourage informal interactions that nurture social wellbeing, while a digital booking system ensures structure across the meeting rooms.

In addition, various meeting rooms and gathering spaces are designed with the ability to combine and expand to aid multifunctionality. Operable partitions and projection screens integrated into ceilings allow these spaces to adapt effortlessly for intimate gatherings and full-team Town Hall events. Collectively, the design empowers users to structure their interactions as needed, nurturing both productivity and a sense of community.

**Designing sustainably**

Conscious material choices and passive design features reduce the environmental impact of the design, contributing to a LEED Platinum certification under the USGBC rating system.

Green walls are strategically planned in the atrium to improve the microclimate and introduce a calming natural element, while glazing on the eighth floor maximises daylight and reduces reliance on artificial lighting. Materials such as locally sourced Gwalior sandstone, recyclable zinc cladding on walls, and carbonised bamboo panels are chosen to connect the design to its regional context while prioritising sustainability. Low-flow water fixtures were installed in all restrooms to reduce water consumption, and carpets made from recycled materials further reinforce a commitment to circularity.





# The Rock

**Project Name:** Cloud Center,  
Financial Street, Ancient  
Spring Town

**Location:** Zunhua, Hebei, China

**Time:** May 2020 – December  
2024

**Area:** 1,690 sqm

**Design Firm:** Wutopia Lab

**Chief Architect:** YU Ting

**Project Architect:** Liran SUN

**Design Team:** PAN Dali, KUANG  
Zhou, MU Zhilin, XIONG  
Jiaxing, ZENG Rui (Intern),  
ZHANG Naiyue (Intern)

**Acknowledgement:** CHEN Xi  
Architectural Construction

**Drawings:** China IPPR  
International Engineering Co.,  
Ltd.

**Construction Drawing Team:**

WANG Chunyu, LI Shijie,  
LIU Yao, WANG Yu, WANG  
Jianning, PAN Xuezhong,  
WANG Yi, ZHANG Song

**Interior Construction Drawings**

**Consultant:** Shanghai Sunyat  
Architecture Design Co., Ltd.

**Landscape Design:** Ecoland

**Client:** Financial Street  
(Zunhua) Real Estate  
Development Co., Ltd.

**Client Management Team:**

WANG Ying (Design Director),  
GUAN Xueqiang (Project  
Manager)

**General Contractor:** China  
State Construction Urban  
Development Co., Ltd.

**Structural Consultant:** AND  
Structural Team: ZHANG Zhun,  
CAI Yanming

**Geometry Optimization:**  
bespoke. Sur-Mesure  
Engineering Studio

**Lighting Consultant:** Chloe  
ZHANG, WEI Shiyu

**Design Advisor:** WEI Minfei

**Photography:** Daily  
Architectural Photography |  
LIU Guowei



**C**ommissioned by Financial Street (Zunhua) Real Estate Development Co., Ltd., Wutopia Lab designed The Rock — Cloud Center, which was completed in 2024. Perched atop a mountain in the Ancient Spring Town of Financial Street, Zunhua, Tangshan, it appears as if it descended from the sky.

The project began in 2020, with Wutopia Lab responsible for the architecture and interior design of The Rock, as well as the conceptual design of the landscape. Serving as the spiritual landmark of Ancient Spring Town, the building also functions as a hotel, featuring a swimming pool, gym, and outdoor hot spring pools, and supplying hot spring water to the surrounding villas.

The site is located at the highest point in the core area of the town, 20 metres above the main hotel entrance. The client envisioned it as a structure visible from every corner of Ancient Spring Town.

**Place is percept**

From this vantage point, Wutopia Lab explored various architectural forms, ultimately choosing to “de-architecturalize.” The northern edge of the site drops off like a cliff, offering the best view of the ancient Great Wall.

Wutopia Lab drew inspiration from the traditional Chinese landscape concept of the “flying rock”. The term

“flying” suggests both a break from the surroundings and a transcendent, otherworldly nature—memorable and distinct. Thus, the centre was shaped into a “flying rock”, extending outward from the cliff with a faint posture of flight.

Once the form of the stone was established, all interior spaces naturally followed a caving logic, creating a system that accommodates a central swimming pool among other functions. Having long been captivated by the scene of sea-filled caves in Lionel’s The Beach, a skylight was opened at the top of The Rock. Daylight pours through, striking the water into shimmering ripples—an ephemeral sanctity, and the very moment the place becomes moving.

With this skylight, visitors can

“ascend to the summit”. Drawing from the Nazca Lines, a spiralling ramp that penetrates and emerges from the rock was constructed, evoking a gentle sense of flight. Here, Zunhua and the Great Wall unfold quietly before guests’ eyes.

When snow blankets the mountaintop, all that’s visible are steaming pools and faintly spiralling curves. Nature becomes the true artist, transforming the centre into a stone born of the mountain. The zigzagging landscape path connecting villas to the clubhouse is embedded in the earth—disappearing, reappearing, leading visitors into the experience from the very first step.

**Light is liberation**

Stones and caves are both shelters







and enclosures. Thus, light is essential. Sunlight enters through a 26-square-metre skylight and the northern curtain wall, illuminating the cavern. The ceiling and walls are finished in a unified soft grey-white, blended through curved transitions like an abstracted cave. Reflected water light shimmers on the surfaces, making even the solid seem to ripple, just like one's emotions.

The gym on the second floor offers a superb view of the pool, as if peering from a small cave into a grander one, while also gazing beyond the rock into the surrounding nature. The outdoor hot spring pools are enclosed by terrain and vegetation for privacy, yet still offer a distant view of the Great Wall. At night, as lights twinkle above the pool, the cave transforms into a starry sky.

### Tech is trendsetting

The Rock rises like a boulder across three levels. The ground floor includes a hotel-facing lobby and back-of-house utilities. The second floor hosts the main pool, wading pool, children's pool, outdoor pools, and changing rooms. The third floor houses the gym.

A long time was spent adjusting the form of the rock into a regular pebble, minimising the types of curved metal panels required and thereby controlling cost. Emphasising horizontal over vertical lines, a texture with some rugged edges was chosen. The angularity produced by two-dimensional panel fitting became an advantage, reducing the need for expensive three-dimensional metal cladding.

To control the building's gross floor area, the outer metal façade was designed as an open shell encasing a waterproofed, insulated core. The cavity between the shell and core allows a rooftop ramp to traverse the structure without affecting interior spaces. The greatest challenge was waterproofing. On-site coordination between the client and the architect was necessary to resolve unexpected

construction issues.

The utility rooms of The Rock span nearly 900 square metres—over half the total area. To preserve the visual proportion between building and cliff, the service space was buried into the mountain, treated as part of the landscape, keeping the main "stone" structure visually light. However, given that the site lies in Tangshan's Grade-8 seismic zone, even a small cantilever was extremely difficult. Parts of the curtain wall framework were used as structural reinforcement to ensure the final form could be realised.

The pool hall rises 9 metres high and requires 42 square metres of smoke exhaust openings. Besides the operable vents on the north curtain wall, others were hidden within the second-floor cave openings on the south side.

Another challenge was coordinating MEP points within a radial utility belt. As the mechanical floor follows the elliptical pool, relationships between pool dehumidification, HVAC, and curtain wall structure had to be resolved in detail in BIM. Without modern computational technology, these challenges would have demanded far more time and budget to resolve.





## Elements of Nature

**Name:** Elements of Nature

**Location:** Bangalore

**Type of Project:** Office Spaces

**Size:** 5000 sqft

**Design Firm:** Source Architecture

**Principal Designers:** Sneha Ostawal and Manu Gautham

**Photography:** Shamanth Patil

**A**midst a landscape of dry earth and scattered industrial activity in the heart of Bangalore, Elements of Nature emerges as a marketing and sales office with an orchestrated experience—an architectural dialogue between structure, materiality, and the senses.

Designed by Source Architecture's founder Sneha Ostawal, the space is not a typical commercial showroom. It is a space that invites visitors to slow down, absorb, and feel before they are even introduced to the idea of ownership.

Set within a half-acre property in Hoskote, Elements of Nature occupies a key position along the main road, standing as the first point of engagement for the township's development. A stark, dusty terrain, a blank canvas waiting for transformation; here, design allows visitors to experience a cultivated stillness through light, shadow, and an honest material palette that breathes with the environment.





A large, uninterrupted beige wall marks the entrance, rising from the ground like a quiet monolith. It conceals as much as it reveals, prompting curiosity. A single wooden door punctuates its expanse, designed to be discovered rather than noticed from afar. The act of stepping through this threshold is a transition, the first step into a space that unfolds slowly, one layer at a time.

The sensory experience begins at the reception. The air feels cooler, diffused light trickles in, and the textures are intentionally raw. A rammed-earth desk, sculpted with muted tones, stands unobtrusively in the space. Instead of conventional chairs, two large wooden logs rest nearby as both seating and sculptural elements that change with the passage of sunlight. These logs, worn yet tactile, anchor the space in a way that no polished furniture could. The bamboo-clad façade filters light throughout the day, casting patterns on the microcement floors, ensuring that no two moments inside feel quite the same.

Beyond the reception, the AV room becomes a moment of enclosure. Solid walls contain sound, allowing a controlled focus on digital storytelling. Unlike traditional marketing offices that are overwhelmed with promotional material, this space is an immersive pause. The interiors remain muted; soft, tactile materials ensure that the visuals take precedence. It is an intimate experience that reinforces the



project's ethos: that spaces shape emotions before they shape decisions.

The meeting rooms extend this philosophy, designed for quiet engagement that goes beyond traditional transactions. A large, 12 ft wooden table grounds the rooms, its surface smooth yet marked with organic imperfections. Natural fabric seating complements the warmth of the wood, while micro-cement walls dissolve into the background, allowing the texture to take precedence over colour. There is no sharp artificial light, only a soft, diffused glow that makes discussions feel unhurried, personal, and grounded in tactility rather than spectacle.

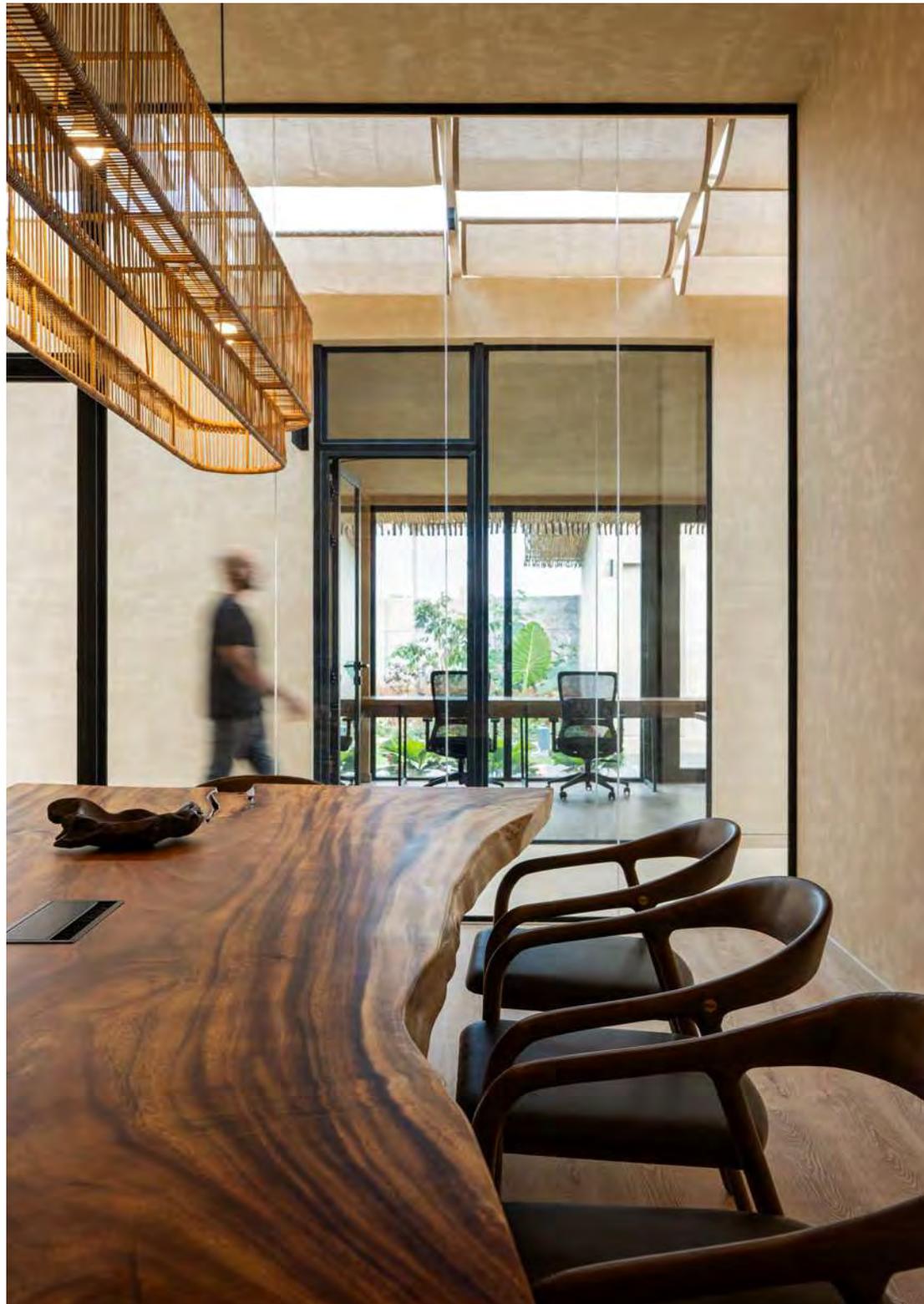
The café punctuates the sequence of spaces with an entirely different energy. It is a space for conversations that spill beyond negotiations, for moments of reflection with a cup of coffee in hand. Soft curtains replace conventional blinds, filtering light in a way that softens everything it touches. The seating is deliberate and minimal, positioned to encourage interaction. The café is about fostering a slower rhythm, an unspoken reassurance that

making a home is as much about the process as it is about the place.

Stepping outside, the transition to the outdoor spaces feels effortless. A children's play area sits adjacent to the café, acting as both a visual and functional extension. Beyond it, an open lawn serves as an adaptable

gathering space, be it for quiet contemplation or community events.

Tucked into a quiet corner stands the yurt—an invitation to rethink living. It is a prototype, a suggestion that a home need not always be a permanent, immovable structure. Built with locally sourced materials, its





reconnect with the elemental quality of spaces.

Vastu principles subtly guide the layout, ensuring an intuitive flow of movement. The senior management cabins, placed at the rear, maintain a sense of quiet authority while remaining transparent through glass partitions. The design allows movement, thought, and engagement to unfold naturally.

The success of Elements of Nature is in its aesthetics and its ability to reshape expectations. It challenges the conventional sales office model, proving that spaces of commerce can also be spaces of experience. Visitors leave with a lingering sense of having stepped into something different, something considered, something that stays with them even after they step back out onto the dusty roads of Hoskote.

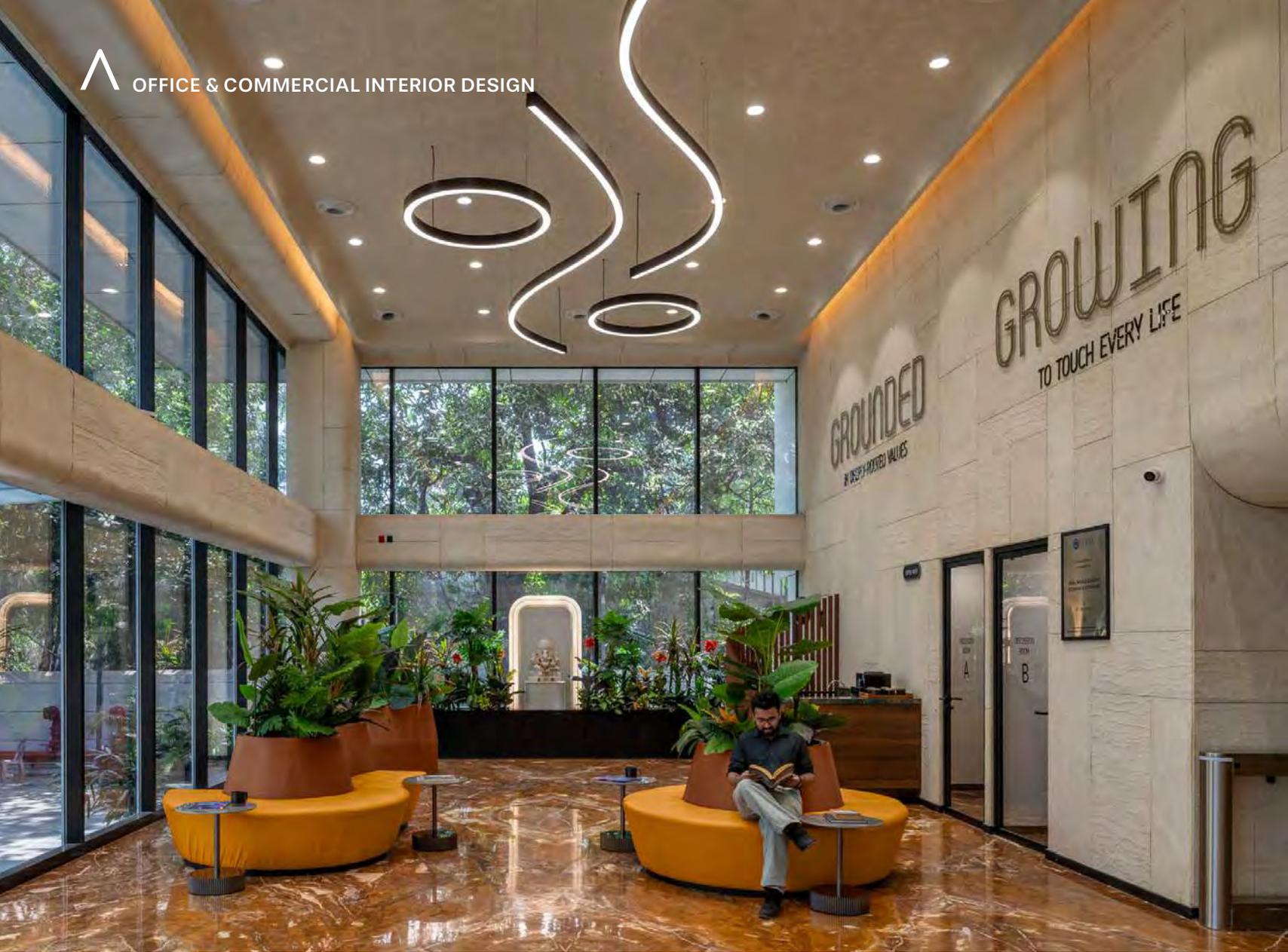
As the light shifts and shadows move across the bamboo façade, the space continues to evolve; alive in its stillness, expressive in its restraint. Elements of Nature is an office and a quiet manifesto for how architecture can evoke emotion, create connection, and turn something as routine as a sales interaction into something profoundly memorable.

simplicity is its strength, an alternative for those who wish to experience the land before fully committing to construction. The yurt stands as a conversation starter, subtly shifting perceptions about flexibility in modern living.

Sustainability is embedded into the project's very being. The structure is entirely dismantlable, framed in steel

to allow repurposing after its lifecycle of five to ten years. Bamboo cladding, chosen for its ability to biodegrade naturally, lends warmth and tactility. Interiors are grounded in the raw honesty of materials—untreated wood, textured micro-cement, and soft, natural textiles. This is not a space that attempts to dazzle with opulence, but one that urges visitors to





# GOMA Headquarters

**Project Name:**  
GOMA

**Headquarters Location:** Thane, Mumbai

**Area:** 75000 sqft

**Design Firm:** Palindrome Spaces

**Principal Designer:** Ar. Nayan Shah

**Photography:** PHX India

The new GOMA Headquarters in Thane is a workspace for the industry leader in high-pressure engineering and process technology, conceived as a place that reflects the company's values: grounded, global, growing, and grateful. Its modern architectural form is defined by a clear linear form, dressed in expansive glazing to support everyday functions.

The building occupies a corner plot, surrounded by dense greenery that visually and climatically integrates with the built form. Balconies at every corner on each floor, along with a semi-open executive terrace, create breathing spaces and extend visual connections to the landscape. The glazed exterior maximises daylight while collapsible awnings and strategic façade orientation reduce heat gain, contributing to a stable interior climate.

"The client was clear about wanting a space that feels light, transparent, and forward-looking without being





ostentatious," said Nayan Shah, principal designer. "We worked towards achieving that through restraint both in form and material."

The reception on the ground floor sets the tone with natural stone, indoor planting, and filtered lighting. Meeting rooms are positioned for easy access and discretion, while a nearby coffeehouse provides a more informal space for daily interaction.

On the first floor, an auditorium, serviced by a functional canteen, accommodates multiple event formats, encouraging conversations beyond formal roles. It benefits from a reinforced cement concrete (RCC) post-tension structural system, which





allows for wide spans, high clearance, and open plans.

On the second floor, a specialised lab forms the nucleus, surrounded by agile workstations and collaborative pockets. The interiors of this Process Innovation Centre are kept visually quiet with a muted material palette to enable focus and clarity. Stainless steel is used extensively for its hygienic and durable qualities, particularly in the lab zones. Colour coding is applied across departments to support orientation and reinforce identity.

The third and fourth floors house open, functional

workspaces. Over 250 desks are arranged to ensure ease of movement and visual connection across teams. Breakout zones appear throughout, offering places for informal exchange, short games, or reflection. These simple insertions enhance everyday rhythms of the office.

The top floor is reserved for the leadership team. Executive cabins and assistant areas are arranged around shared lounges and meeting points. A sculptural ceiling installation, drawing from the principles of fluid dynamics, translates the company's technical focus into a spatial



expression. Custom-designed executive desks with sculpted bases enhance and further this narrative.

Material choices are consistent throughout—marble, screed, and concrete-finish tiles define different zones. Floor-to-ceiling glass partitions maintain transparency without disrupting spatial clarity. Ceilings integrate lighting into fluid forms, discreetly referencing the company's background in fluid technology.

Services across the building—HVAC, electrical, water treatment, and networking—have been centrally planned. Dedicated consultants were brought in for each system to ensure reliable performance and ease of maintenance. This careful planning is evident in the clean ceiling profiles and the seamless integration of lighting, ducts, and network cabling.

Sustainability is addressed through several key strategies. A zero-discharge sewage treatment plant and greywater recycling system handle all wastewater requirements, while passive cooling is enabled by shading devices, green buffers, and deep balconies. The HVAC system is energy-efficient and has been calibrated to meet the building's needs without excess.

The GOMA Headquarters is a focused response to a specific brief. "Here, architecture is purely functional," explained Nayan. "Every design and planning decision, from the structural system to material application, supports clarity, function, and the company's long-term vision."

GOMA Headquarters creates an environment where innovation is supported by discipline, and daily operations



are elevated through thoughtful spatial choices. In doing so, it becomes a place that is rooted at its core while allowing its scope to grow one step at a time.





# The Tesseract

**Project Name:** The Tesseract

**Design Firm:** 23 Degrees Design Shift

**Location:** Jubilee Hills, Hyderabad  
Principal

**Architects:** Ar. Srikanth Reddy, Ar. Raghuram, Ar. Neelesh

**W**orkplace architecture has seen a paradigm shift over time. Today, when flexibility and identity have become must-haves, office designs need to incorporate more than just functionality—they must provide a unique experience.

In tandem with this thought, The Tesseract by 23 Degrees Design Shift (23DDS) redefines the workplace by deliberately going against the status quo. This is no ordinary workspace; it is a strategic mix of minimalist design elements, sophisticated integration of nature, and the use of structural constraints to carve a spatial experience, making it a hallmark of workspace design, where business meets artistry.

The brief given by the client presented a dual challenge: to create a space that speaks to all yet none of the sectors; and to incorporate indoor plants into the design scheme without the hassle of maintenance that typically comes





with them. Additional challenges were presented by the office's location on the rooftop of a commercial building in Hyderabad's Jubilee Hills, which meant construction was guided by structural constraints.

This office design is a study in contrasts and constraints, and their role in creating a unique spatial experience. Moving through the corridor—decorated in muted tones and characterised by a structural grid—the space unfolds in layers as one reaches the courtyard. Each element here is deliberately curated to evoke a sense of discovery.

Unlike a typical open courtyard, the visitors to Aditya's office encounter a closed courtyard illuminated by skylights. Drama is introduced to the space through an interplay of light, shadows, and darkness, orchestrated through dimmer lights in the corridor spaces and even more so at the anchor points. Potted plants present another departure from the conventions. The courtyard functions as a gentle partition, subtly guiding movement and separating spaces for introspection and interaction.

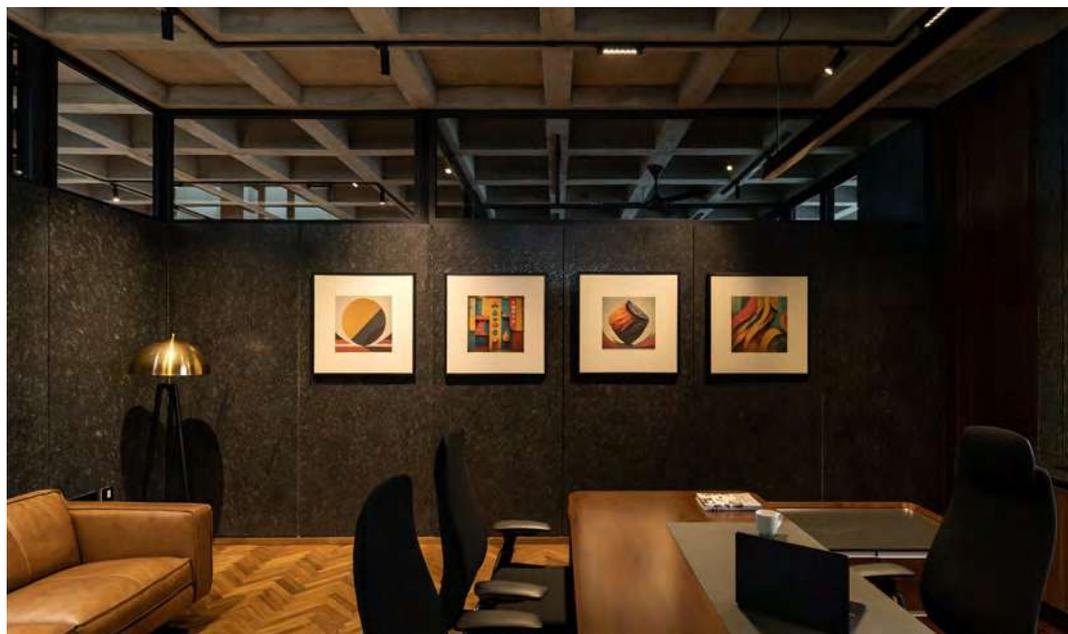
The varied nature of the client's business and operations required the office to house admin teams, lounges, and conference rooms in a way that would prevent visitors from discerning the real nature of the business. This was achieved by dressing the spaces in a natural material palette, devoid of industrial finishes. The office relies on a restrained yet rich blend of exposed concrete, light raka, and

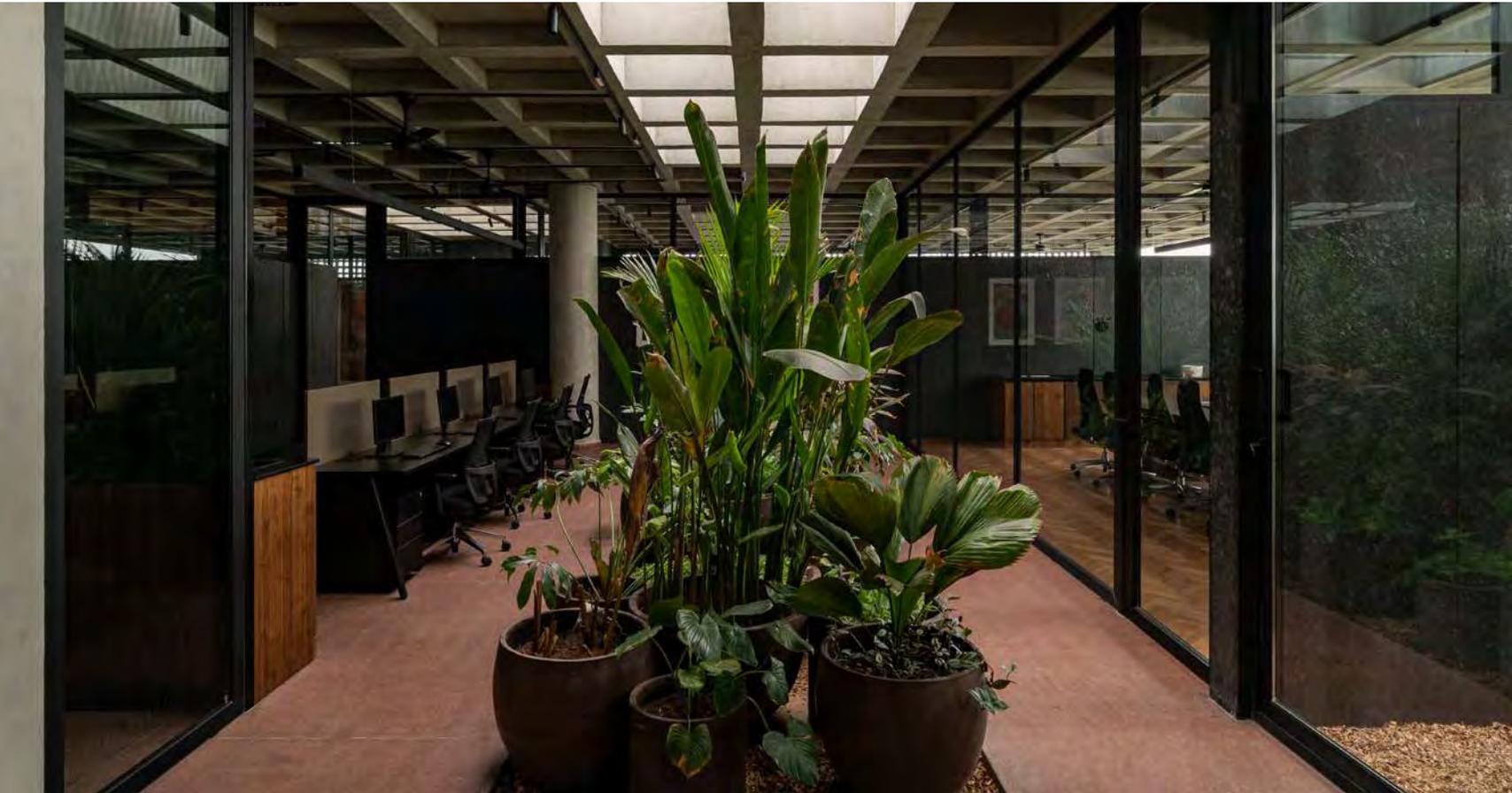
black granite, imbuing it with a sense of permanence. On the other hand, the monochromatic palette of the walls and roof, complemented by the chevron pattern wooden flooring, creates a sense of understated luxury and a unified aesthetic appeal. Visual perception of space is altered by terminating vertical surfaces, such as walls and partitions, two and a half feet below the roof level. The space is fitted with transparent glass to create seamless views of the coffered ceiling, further establishing the visual connectivity of the space.

The genius of the design lies in its nuanced understanding of the existing structure upon which it was built. The design conforms to

pre-existing column placements for structural integrity. The three-foot-and-three-inch half-square grid—also an outcome of the structural constraints—manifests itself in the coffered slab, guiding the spatial layout of the space. Every partition, wall, and opening is aligned with this geometric module, creating a disciplined, harmonious rhythm throughout the space, cleverly offset by the tropical plants housed in the courtyard.

Integrating nature, both visually and spatially, into the design scheme was a critical aspect of the client's requirement. Facing the north, the office's lounge, conference rooms, and reception area enjoy unobstructed





views of Jubilee Valley, making nature an integral part of the office. The planting scheme for indoor spaces has been carefully curated to incorporate a selection of mixed tropical species that require minimal maintenance. The inclusion of skylights above the courtyard allows natural light to filter through, ensuring the plants thrive without the need for an open-air environment, whilst avoiding challenges such as rain or insects. The varied nature of foliage provides a counterbalance to the design's rigid grid system and a sense of freshness when viewed against the austere material palette.

The intentional interplay of contrast creates a layered sensory experience for those who work within and visit the office. By deftly balancing the functional demands of an administrative office with a sensorial experience, the design enables a journey of discovery as visitors move throughout the space. The result is a workplace that is neither defined by the stereotypes



of the industries it serves nor limited by the site's structural constraints, instead carving a niche for itself. In doing so, The Tesseract presents a

design that speaks of timelessness—where understated luxury meets refined aesthetics and nature through deliberate restraint.



# Carbon in the Built Environment:

## *AECOM's Bill Hanway Stresses the Importance of Digital Tools in Achieving Net-Zero Targets*



**Bill Hanway, Executive Vice President and Global Sports and Social Infrastructure Leader at AECOM**

**A**sia-Pacific is building faster than any region in history, but 25–40% of its carbon emissions now come from the built environment. While governments across the region have committed to net-zero by 2050, most infrastructure projects are still being designed and executed using outdated, carbon-intensive methods.

The gap isn't just about green materials or energy-efficient buildings; it's about digital blindness: cities are planning for climate resilience without the real-time data, predictive modelling, or digital tools needed to measure, manage, and reduce emissions at scale. The result is billions spent on infrastructure that locks in decades of carbon, often before anyone realises the mistake.

*Southeast Asia Building* spoke to Bill Hanway, Executive Vice President and Global Sports and Social Infrastructure Leader at AECOM, on how cities can shift from carbon-intensive construction to digitally integrated, net-zero planning, and what it actually takes to decarbonise infrastructure at scale.

**Q: Please introduce yourself and your role at AECOM. How has your scope evolved with the rise of digital technologies?**

**A:** I lead Global Social Infrastructure at AECOM, which includes overseeing civic and sports-led regeneration programmes across global markets. Over the past twenty-five years, I have led our team to plan, design,

and deliver landmark strategic masterplans and facilities such as those for the Olympics, including London 2012, Rio 2016, and now Los Angeles 2028, alongside Brisbane 2032. Each has reinforced a consistent principle: major projects must be judged not only by the venues delivered for the specific events, but by the long-term economic and social value they unlock.

That mandate has evolved. Today, environmental performance sits

alongside social and economic legacy as a defining measure of success. Digital capability has fundamentally reshaped how we meet that responsibility. Building Information



**Intuit Dome. Photo credit: Tim Griffith**



Intuit Dome. Photo credit: Tim Griffith

Modelling (BIM) enables integrated, real-time collaboration across disciplines, while advanced analytics and artificial intelligence allow us to embed measurable carbon, energy, and lifecycle targets from the earliest stages of design.

My focus sits at the intersection of urban strategy, sustainability, and digital delivery. It is there that credible legacy is defined, and where the built environment can meaningfully respond to the climate imperative while strengthening communities for generations.

**Q: Why are digital tools necessary to meet 2050 net-zero emission targets? Considering your expertise in sports and social architecture, how have these tools been utilised and implemented to deliver low-carbon emissions cities?**

**A:** If net-zero were simply a matter of better intentions, the industry would already be there. Achieving emission targets, however, is a complex math and cost calculation, and increasingly, a data problem.

The modern stadium or civic

precinct is a tightly wound system of steel, concrete, energy, transport, and human movement. Every early design choice carries carbon consequences that can last half a century. Lifecycle carbon modelling exposes those consequences before the first foundation is poured, quantifying both embodied emissions and long-term operational demand. Building Information Modelling (BIM) coordinates structure and materials across disciplines, trimming inefficiencies that once hid in the margins. Finally, artificial intelligence compresses weeks of scenario testing into hours, allowing teams to stress-test façade performance, structural systems, and energy loads in real time.

At the Intuit Dome in Los Angeles, artificial intelligence-supported modelling and low-carbon material strategies, including CarbonCure concrete technology, helped deliver the Leadership in Energy and Environmental Design (LEED) Platinum certification. The result was a building designed with carbon discipline from the outset, leaving nothing to offset later.

**Q: Why is it important to integrate such digital tools from the early planning stage, rather than retrofitting them later?**

**A:** Most of a project's environmental performance is determined at the concept stage. Decisions about structure, material volumes, and energy systems are made early, and those choices are difficult to reverse once procurement begins.

Introducing lifecycle carbon modelling and Building Information Modelling (BIM) at the outset allows teams to test structural options and material efficiency while the design is still flexible. It also enables clients to understand the long-term operational implications of early decisions, rather than discovering them after construction has started. It also allows for balancing early capital costs against longer-term lifecycle costs and testing comfort levels of ROI.

When digital tools are added later, they tend to identify problems rather than shape outcomes. Using them from the beginning shifts the

process from corrective to proactive; that distinction has a measurable impact on both carbon intensity and long-term asset performance.

**Q: How are regulatory complexities and fragmented stakeholder coordination slowing down decarbonisation in the region? How can these problems be overcome to streamline and improve the Asia Pacific's infrastructure pipeline?**

**A:** One of the most significant constraints on decarbonisation in this region is not engineering capability; it is the way projects move through approval systems. When consultants prepare separate submissions for different agencies and regulators review them independently, coordination becomes sequential rather than integrated. By the time carbon targets, energy models, or material strategies are scrutinised, key design decisions are often already embedded.

Practitioners like AECOM are glad to see Singapore's introduction of CORENET X, which addresses this structural inefficiency in a decisive manner.<sup>1</sup> Starting from October 2026 onwards, it will be mandatory for project teams to submit a single, coordinated Building Information Modelling (BIM) model through a unified digital platform led by the Building and Construction Authority and the Urban Redevelopment Authority. Instead of circulating multiple versions of plans, consultants must collaborate upfront and present one harmonised model through a common interface, which is simply 'efficiency'.

Shifts of this nature are transformative because they go beyond administrative reform and reshape how projects are conceived and coordinated. By compelling alignment at the beginning of the process, when carbon performance and constructability can still be optimised, they create the conditions required for decarbonisation at scale.

**Q: How can circular design and materials innovation cut embodied carbon from the early stages of an architecture project? Do you have any examples where such planning has cut expected embodied carbon, and how was this measured?**

**A:** Embodied carbon is largely committed when structural systems and material quantities are defined. Circular design intervenes at that moment by reducing material intensity and extending asset life. Optimising structural grids, limiting over-specification, and designing for future adaptability reduce demand before substitution is even considered.

In large-scale sports programmes, this often translates into designing venues with long-term community use in mind rather than single-event performance. On Olympic projects, venues are conceived around post-Games functionality, which reduces the need for future demolition

and reconstruction. That strategic planning significantly lowers lifecycle carbon exposure.

Reductions are measured through lifecycle carbon modelling at the concept stage, comparing structural schemes and material volumes against performance benchmarks. The discipline lies in quantifying trade-offs early. When embodied carbon is treated as a design parameter alongside cost and schedule, it becomes manageable rather than residual.

**Q: What are the strategies for navigating regulatory complexity, stakeholder coordination, and environmental accountability? What are the key lessons you have learnt in this field that other developers and architecture firms can apply to their own projects?**

**A:** Large civic programmes often exceed a decade in delivery, and that duration requires governance structures that outlast individual administrations. The first priority is establishing clear environmental and socioeconomic baselines before design advances. Without a shared reference point, expectations shift, and accountability becomes ambiguous.

Stakeholder engagement must also be deliberate. Individual discussions with political leaders and regulators help surface both public commitments and underlying constraints. On Olympic programmes, defining legacy objectives at inception has proven essential in maintaining continuity through political turnover.

For other developers and firms, the lesson is straightforward: embed measurable sustainability criteria into project governance from day one, treat lifecycle performance as central to financial modelling, and ensure reporting mechanisms are transparent. You will eventually find that environmental accountability increasingly influences competitiveness and investor confidence.

**Q: Why is it important that the infrastructure pipeline be organised with digital analysis tools now? What would be the potential fallout of delays in its implementation?**

**A:** Infrastructure assets commissioned today will remain in service well beyond 2050. Major programmes often span 10 to 15 years and absorb substantial capital. As a result, early design decisions determine operating expenditure, emissions exposure, and long-term adaptability for decades.

Against that backdrop, organising the pipeline around digital performance analysis ensures those decisions are tested against consistent, comparable data across agencies and disciplines. This strengthens option evaluation and lends greater credibility to investment cases

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<sup>1</sup> CORENET X. "CORENET X – a One-Stop Integrated Digital Shopfront for Regulatory Processes – Code of Practice 3.1 Edition." Dec. 2025, [https://info.corenet.gov.sg/docs/default-source/default-document-library/corenet-x-cop---3-1-edition-2025-12.pdf?sfvrsn=2ab8b899\\_2](https://info.corenet.gov.sg/docs/default-source/default-document-library/corenet-x-cop---3-1-edition-2025-12.pdf?sfvrsn=2ab8b899_2).



Intuit Dome. Photo credit: Tim Griffith

presented to boards and regulators.

The consequences of delay are equally clear. Inefficiencies become embedded in long-lived assets, retrofit costs escalate as standards tighten, and projects lacking verified performance data face stricter financing conditions and reputational scrutiny. Taken together, these pressures make early digital integration a matter of prudent governance. It underpins resilience and safeguards asset value in an environment where transparency is increasingly expected rather than optional.

**Q: Please tell us how different countries in the region can navigate regulatory boundaries**

**to best utilise digital tools in infrastructure. How would this process differ between countries?**

**A:** Countries in the Asia Pacific are at different stages in digital adoption and regulatory alignment, so the pathways they take must reflect their institutional maturity and policy priorities.

Singapore offers a clear example of structured integration through the forthcoming mandatory rollout of CORENET X, which will render collaborative workflows the norm and provide clarity for the industry on compliance expectations. Conversely, China has taken a different route, promoting BIM adoption through national policy guidance from the

Ministry of Housing and Urban-Rural Development, particularly within large public and green building projects for the time being.<sup>2</sup> While implementation has scaled significantly, regional variations in policy highlight the importance and need for consistent standards.

Across the globe, effective utilisation of digital tools depends on aligning procurement rules, submission standards, and approval workflows. Markets with mature governance systems can integrate model-based review into existing frameworks, while emerging economies may need to prioritise data standards and institutional capacity before mandating advanced digital processes.

<sup>2</sup> "SCIO Briefing on Promoting High-Quality Development: Ministry of Housing and Urban-Rural Development." The State Council Information Office of the People's Republic of China, 2024, [english.scio.gov.cn/pressroom/node\\_9013033.html](https://english.scio.gov.cn/pressroom/node_9013033.html).

# Workplace Trends of 2026:

*Lars Wittig from International Workplace Group Highlights Office Innovation for Better Working Environments*



Lars Wittig, Senior Vice-President for Asia Pacific, International Workplace Group

**A**t the end of 2026, International Workplace Group (IWG), the world's largest provider of flexible workspace solutions, published its 2026 Workplace Trends, outlining how technology, talent, and trust will redefine the workplace in the coming year.

Work becomes more local, more personal, and more intelligent than ever before. Businesses are actively rethinking the purpose, design, and location of their office spaces, ensuring that workplaces are strategic assets that support new, flexible ways of working. Alongside these findings, IWG emphasized the following trends:

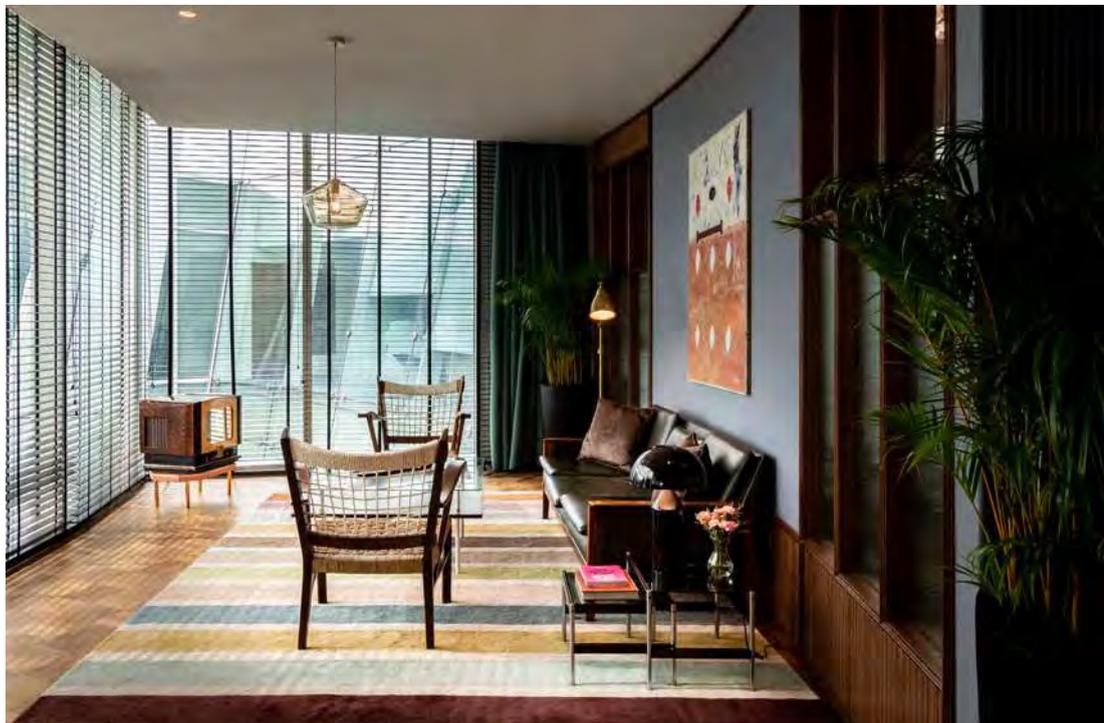
1. Return-to-Several-Offices
2. Building 15-Minute Cities from the Ground Up
3. Offices Transform into Hospitality-Led Environments
4. On-Demand Offices Become Essential

Southeast Asia Building spoke to Lars Wittig, Senior Vice-President for Asia Pacific, IWG, about the shifting work trends and the importance of hybrid working, accommodating a multitude of styles and personalities. In this interview, we delve deeper into how the right office environment can positively impact workers, improving morale and well-being.

**Q: Please introduce yourself and your work in IWG. What does IWG do, and how does it work to innovate the workplace and enable employees to succeed?**

**A:** International Workplace Group (IWG)<sup>1</sup> is a global leader in hybrid work solutions and workspace brands. Our unrivalled network

coverage includes approximately 5,000 locations across more than 120 countries, and 83% of Fortune 500 companies are amongst our growing



No18 Capitol Piazza Singapore, Business Lounge. Photo credit: International Workplace Group (IWG)

<sup>1</sup> <https://www.iwgplc.com/en-gb>



**implement in their on-site workspaces to invigorate their employees?**

**A:** Hybrid working can play a meaningful role in helping employees feel more engaged and less burnt out. Our studies have shown that 70% of hybrid workers are experiencing fewer stress-related healthcare conditions as a result of working in a more flexible way, and 75% have reported a reduction in burnout as a direct result of moving towards more flexible work arrangements. Hybrid models reduce commute fatigue and give employees greater control over their schedules, allowing more time for rest, family, and focused work. That autonomy directly supports lower stress levels, better mental health, and stronger work-life balance, all of which are essential to sustaining productivity and work performance.

Physical workspace design can also help reinforce this. Offices should provide natural light, biophilic elements, ergonomic furniture, quiet focus rooms, and restorative spaces that allow employees to reset between intense periods of focused work. As hybrid models mature, workplaces are increasingly taking inspiration from boutique hotels and infusing hospitality elements, such as concierge-style services, curated food and beverage options, and sensory-led design that elevates comfort and wellbeing.

When hybrid work is implemented thoughtfully, it allows employees to manage their time and energy effectively, which in turn drives stronger engagement, higher retention, and more sustainable long-term productivity.

**Q: With Gen Z entering the workforce, how can companies balance the differing needs of the older and younger generations simultaneously?**

**A:** With the entry of Gen Z workers, organisations now have up to five generations working side by side in the workplace. In this environment,

companies can no longer rely on a "one-size-fits-all" approach and must instead build flexible systems that balance the differing priorities and needs of a multi-generational workforce.

Unlike previous generations, Gen Z is entering the workplace with expectations that go beyond compensation. Many also expect choice, flexibility, and balance when it comes to where and how they work. Previous research by IWG found that 88% of Singapore's Gen Z employees prefer a hybrid working model over commuting to an office every day—underscoring a clear shift in workforce priorities. To meet the needs of its employees, companies should implement work arrangements that empower employees at all levels to work in a way that suits them best. When employees are free to work in ways that are most convenient for them, they are more engaged, more productive, and better equipped to deliver stronger performance. In fact, 72% of flexible businesses report improved productivity in their workforces as a result of giving employees more control over how and where they work.

In addition, companies can encourage two-way mentorship and cross-generational collaboration to bridge the gaps in a multi-generational workforce. Younger employees can use their digital fluency to introduce their colleagues to new ways of working, while senior colleagues contribute their experience, industry knowledge, and strategic insights. This mutual exchange helps transform workflows, strengthen collaboration, and improve team dynamics, contributing to improved performance and better business outcomes.

**Q: Another trend that is arising is "multi-office work". What are the key attributes needed to make the multi-office structure work? In Singapore, how can we expect this to be implemented**

**and realized?**

**A:** 2026 is the year of "work from an office", not "the office". According to our recent 2026 State of the C-Suite release, 83% of CEOs are already enabling teams to work from multiple locations. Businesses are recognising that with emerging technologies and modern management practices, teams no longer need to work under one roof to stay connected, collaborative, and productive. Many are adopting the hub-and-spoke model, with employees dividing their time between a central office, home, and professional workspaces closer to where they live.

Singapore has always been a leader in flexible work, with 87% of organisations allowing employees to split their time between home and the office.<sup>6</sup> Over the years, we've been seeing growing demand for flexible workspaces, particularly as companies reassess their property portfolios and reduce their footprint in city centres. Many are adopting the hub-and-spoke model, complementing a central office with flexible workspaces in local neighbourhoods, closer to where their people live and want to be.

**Q: In conjunction with "hospitality-led" offices, how can designs be uniformly implemented across multiple locations while ensuring well-being remains at the forefront of design?**

**A:** Organisations need to put their people at the heart of workplace design. This involves establishing principles that prioritise productivity, comfort, and flexibility, while allowing each location to reflect its local context. Essential workspace elements, such as ergonomic furniture, social spaces, and collaborative zones, should be consistently applied across locations to support the way teams work. Advanced technology must also be seamlessly integrated to ensure connectivity and a conducive work experience. By combining people-first design standards with insights

<sup>6</sup> <https://www.colliers.com/en-sg/research/2026-asia-pacific-workplace-insights>



Signature by Regus Asia Square, Asia Square Tower 1. Photo credit: International Workplace Group (IWG)

into space utilisation and employee behaviour, organisations can create hospitality-led workplaces that keep wellbeing, engagement, and productivity top of mind.

**Q: Currently, workspaces in Singapore are concentrated in certain areas. How do you see Singapore moving towards decentralized workspaces in the future? How will the distribution of office centers affect local communities?**

**A:** Singapore is increasingly moving towards the decentralisation of workplaces away from city centres, as a result two distinct yet complementary real estate trends. Firstly, amid macroeconomic headwinds, companies are reappraising their property portfolios and downsizing in city centres, replacing long, restrictive, and expensive leases with flexible operators like IWG. At the same time, many companies are taking on flexible workspaces in local neighbourhoods,

closer to where their people live and want to be, as part of the increasingly popular 'hub-and-spoke' office model, where employees divide their time between home, local offices, and city headquarters.

These trends are further reinforced by the Singapore government's long-term decentralisation strategy, outlined in the Urban Redevelopment Authority (URA)'s Draft Master Plan 2025.<sup>7</sup> The plan reaffirms Singapore's commitment to creating vibrant workspaces and opportunities across the island, bringing jobs closer to homes and reducing the need to travel to the city centre. As an example, URA plans to revitalise the Bishan Sub-Regional Centre with new workplaces and amenities—an initiative which has already attracted initial interest from several government agencies, who are exploring the possibility of relocating their offices there.

The decentralisation of workspaces can have a positive impact on local communities, revitalising neighbourhoods and fostering

stronger connections. Companies may encourage employees to integrate volunteering and community skill-sharing into their work week, which supports greater civic engagement while strengthening employer brands in the communities where employees live and work.

Not only that, but having offices closer to home can be beneficial for workers. With shorter commute times, employees can spend more time working in ways that best fit their schedules, which improves productivity and work-life balance. According to ActivTrak, up to 40% of the time saved from commuting is spent doing additional work.<sup>8</sup>

**Q: Across Southeast Asia more broadly, how can hybrid work models be implemented in different countries?**

**A:** We are seeing the trend being adopted right across Asia, with organisations increasingly integrating hybrid work into their operating models.

<sup>7</sup> <https://www.ura.gov.sg/Corporate/Media-Room/Media-Releases/pr25-32>

<sup>8</sup> <https://www.activtrak.com/blog/remote-work-vs-office-productivity/>

## ■ Curiosity Cove



**M**oment Factory, a leading global entertainment studio, collaborated with Mandai Wildlife Group to create and produce Curiosity Cove, Singapore's largest indoor nature-inspired playscape designed for children aged three to twelve.

Through a labyrinth of giant roots, climbable spider webs, immersive soundscapes, and responsive digital marshes, Curiosity Cove's multisensory experience lets children lead their own imaginative adventures through nature-themed zones, moving like wildlife and seeing the world through their eyes.

Located within the Mandai Wildlife Reserve and operated by Mandai Wildlife Group, the permanent attraction adds an indoor dimension to the nature and wildlife destination.





Complementing its outdoor wildlife parks, including the Singapore Zoo, Night Safari, and River Wonders, it allows families to continue their adventures year-round, rain or shine.

Mandai Wildlife Group appointed Moment Factory as lead experience designer and content producer for Curiosity Cove. Working closely with the Group's project team and wildlife experts, Moment Factory's end-to-end involvement helped shape the project's DNA, creating a seamless narrative experience from start to finish.

Together with architectural and engineering collaborators, Moment Factory designed the 4,600-square-metre space with storytelling woven into every detail, turning the architecture itself into an active participant in the experience.

"Curiosity Cove began with Mandai Wildlife Group's mission to spark children's curiosity and empathy for the natural world. With that vision as our guide, our experiential

education team assembled a group of creatives and specialists to design an immersive environment where play and learning naturally come together," said Moment Factory Co-Founder and Executive Creative Director, Sakchin Bessette. "Conceived as a permanent attraction, Curiosity Cove is a place where children of today and future generations can form lasting connections with the world around them, fulfilling a vision closely aligned with Moment Factory's own. We're proud to have collaborated to make it a reality."

Grounded in science and elevated by imagination, Curiosity Cove recreates natural forms for exploration at an interpretive scale: roots become architectural volumes, webs form climbable structures, and terrain transforms into sculptural landscapes. This "hypernatural" approach invites young visitors to explore ecosystems through self-directed interaction, featuring scientifically accurate models reimaged in playful colours,

complemented by an immersive layer of sound and music.

The result is a journey of discovery through more than thirty immersive elements across four ecosystems: Forestlands, Grasslands, Drylands, and Wetlands. Every environment is scaled to the size and rhythms of children, encouraging climbing, crawling, and touching.

In the Wetlands, visitors engage with water flow and migration to learn how water connects ecosystems and supports all living things. One of the key features in this zone is the Reef Retreat, where children discover species that live deep underwater and learn about their defence mechanisms. In the Grasslands, nature comes alive with responsive technology that fuses physical scenography with digital layers. From large-scale atmospheric elements that shape the sensory experience to interactive features and tactile details, each moment is designed to surprise, inviting wonder and discovery.

To ensure maximum resonance, Moment Factory conducted user-experience testing with children from the target age group throughout the entire creative process. These insights informed the design of the space, optimising circulation to foster collaborative play and guiding the selection of textures, sensory cues, and interaction points to ensure the environment feels intuitive and inviting to young audiences.

Technology—sensors, projectors, lighting, and spatialized sound—was thoughtfully embedded into architectural elements at Curiosity Cove, creating a unified “phygital” environment where movement awakens hidden life or alters light and sound. Imagined as a truly inclusive space, the layout ensures that every child, regardless of ability or sensitivity, finds space for adventure, quiet, and reflection. Meanwhile, varied levels of engagement allow the entire family to explore the rich, multisensory environment at their own pace.

From spatial strategy and material palettes to interactive media, Moment Factory delivered a cohesive, story-driven environment where architecture and technology converge to support experiential learning. As demand for immersive educational environments continues to grow, the studio builds on years of expertise and a series of recent innovative projects in the field, including The Perpetual Story Machine for the Milken Center for Advancing the American Dream (MCAAD), immersive experiences at the Natural History Museum Abu Dhabi, and its collaboration with Science World (SW) in Vancouver, creating spaces where learning unfolds through shared, meaningful experiences.



**PROJECT DETAILS**

**PROJECT NAME:** Curiosity Cove

**CLIENT:** Mandai Wildlife Group

**LOCATION:** Mandai Wildlife Reserve, Curiosity Cove, 80 Mandai Lake Rd, Singapore 729826

**AREA:** 4,600 sqm

**STRUCTURE:** Four thematic zones with 32 multi-sensory play touchpoints

**SPECIAL FEATURES:** 6-metre-tall orangutan tree-bed climbing platform; 27-metre-long giant snake belly with a net-maze tunnel; musical “singing tree” that responds to movements; and two Calm Zones (dedicated quiet spaces)



## ■ Action Motion



**A**ction Motion by HomeTeamNS is a digital active experience arena launched in January 2023. Featuring a unique gamification experience, Action Motion is designed to elevate traditional play through smart, immersive, and gamified elements.

The arena delivers a next-level digital active play environment that blends physical movement with technology-driven interaction. With the scannable RFID bracelet that keeps track of accumulated points from each obstacle course, players can access Singapore's first-ever Leaderboard tabulation of player scores and timings, encouraging friendly competition between participants.

The arena is divided into five zones.



From a thrilling Multi-Level Obstacle Course, Climbing Walls, and Net Maze enhanced with The Gamifier, to the Augmented-Reality (AR) Bouldering Wall and Trampoline Game, players' excitement ignites with the Valomotion interactive gaming platform that combines fitness and exercise with high-definition graphics and exciting video gameplay.

In the Multi-Level Obstacle Course, both static and motorised elements are merged into one. The AR zones feature hyper-realistic avatars of players, truly immersing guests in a fun experience like never before.

The Gamifier is a highlight of Action Motion's capabilities. Capturing participants' timing and activity scores, it consolidates results and displays them on a real-time leaderboard in the arena and enhances gameplay with elements of competition, quests, and achievements.

Through its smart implementation of digital features, Action Motion promises an active experience that will drive players, bringing groups closer together in the process.



## PROJECT DETAILS

**PROJECT NAME:** Action Motion

**DESIGN TEAM:** HomeTeamNS

**ADDRESS:** HomeTeamNS Bedok Reservoir, 900 Bedok North Rd, Singapore 479994

**COMPLETION:** 2022





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# Design for Maintainability: Enabling Safer, More Cost-efficient, and Sustainable Building Maintenance—By Design

**B**CA is working with the industry to transform the Facilities Management Sector, and a key enabler is Design for Maintainability (DfM). It is the first step of an effective and sustainable maintenance programme, linking maintenance goals and desired outcomes to the design process. To encourage adoption of DfM, BCA has several resources on its website—such as the DfM Guides<sup>1</sup>—and has also incorporated DfM in Green Mark (GM) 2021 through the Maintainability (Mt) section.<sup>2</sup>

## Why implement DfM?

DfM has numerous benefits, summarised below:

- **Cost Saving:** With designs optimised for cost-effective, labour-efficient, and smart, tech-enabled maintenance regimes, maintenance costs are reduced.
- **Improving reliability and comfort:** Ease of maintenance helps ensure building facilities function well, providing a better environment for occupants.
- **Safe maintenance:** Reduces risks to maintenance workers.
- **Holistic sustainability:** Reduces lifecycle costs, manpower demand, operational energy, and embodied carbon.
- **Increasing competitive advantage locally and abroad:** Enhances designers' value proposition to developers and owners.

## DfM process & recommendations

With these benefits in mind, BCA suggests five design considerations to systematically incorporate DfM in projects:

- I. Design Strategy and Collaboration
- II. Access for Maintenance
- III. Materials and Finishes
- IV. Design and Detailing
- V. Technology Integration

### Design Strategy & Collaboration

Cross-functional teams should take an interest in downstream maintenance at the project onset. This may include involving FM practitioners and other downstream stakeholders (e.g. access specialists) at the design stage.



Figure 1: Engaging stakeholders across the value chain at the design stage to ensure maintenance considerations are accounted for.

### Access for Maintenance

The ability and ease of accessing, inspecting, and maintaining facilities are critical to enable efficient and effective routine servicing and maintenance works. Access provisions must be designed to be safe, providing sufficient circulation and working space for personnel carrying tools, equipment, and component parts to carry out maintenance.

Therefore, designs should ensure provision of access and minimise the need for maintenance at height and confined spaces to reduce associated risks.



Figure 2: Provision of catwalk for safe, efficient, and effective cleaning of cooling tower fill media.

<sup>1</sup> [https://isomer-user-content.by.gov.sg/338/b15c151e-6d58-4a06-afdd-e74199960ade/design-for-maintainability-guide---residential-\(version-2-0\).pdf](https://isomer-user-content.by.gov.sg/338/b15c151e-6d58-4a06-afdd-e74199960ade/design-for-maintainability-guide---residential-(version-2-0).pdf); [https://isomer-user-content.by.gov.sg/338/407e03d3-670f-4f61-a83f-29aa128827a2/design-for-maintainability-guide---non-residential-\(version-2-0\).pdf](https://isomer-user-content.by.gov.sg/338/407e03d3-670f-4f61-a83f-29aa128827a2/design-for-maintainability-guide---non-residential-(version-2-0).pdf); [https://isomer-user-content.by.gov.sg/338/e9bdec13-7a2e-4e0e-bf0b-2a507df13a1d/design-for-maintainability-guide---municipal-infrastructure-\(version-2-0\).pdf](https://isomer-user-content.by.gov.sg/338/e9bdec13-7a2e-4e0e-bf0b-2a507df13a1d/design-for-maintainability-guide---municipal-infrastructure-(version-2-0).pdf).

<sup>2</sup> <https://www1.bca.gov.sg/sustainability/greenmark/green-mark-2021/>.

**Materials and Finishes**

Designers should consider the suitability of materials, considering their ability to minimise defects from normal wear and tear and perform the intended functions throughout the design life. The appropriate use of materials can minimise the frequency of cleaning, repair, and replacement. Implementation would involve striking a balance between aesthetics, costs, safety, and maintenance needs; selecting materials that are durable and suitable for the local climate; and choosing materials that are easily available during the building's life.

**Design and Detailing**

Proper design and construction detailing minimise the occurrence of defects and reduce the need for maintenance interventions. The main concerns include having careful detailing to prevent staining, water penetration, and premature deterioration; enabling simple maintenance methods and replacement of elements (such as easy diagnostic checks, installation, and disassembly/assembly of components); and standardising a modular layout of components and the use of prefabricated materials/components.



**Figure 3: Moisture-resistant (e.g. aluminium), modularised ceiling panels are more durable and facilitate efficient maintenance since panels can be easily removed to access concealed services.**



**Figure 4: Positioning soil/planted areas away from glazed surfaces reduces the frequency of cleaning.**

**Technology Integration**

Smart maintenance, facilitated by technologies, is an essential part of any building. The design intervention required for the adoption of technology is influenced by designers. Thus, designers must discuss the maintainability outcomes with developers and FM personnel to understand the technology layer.

**DfM Resources**

The GM2021 Mt Section and the DfM Guides, developed by BCA in collaboration with the industry, ride on the above five design considerations to present a set of design recommendations and best practices to help owners and designers integrate maintainability considerations in the planning and design process. Specifically, the GM2021 Mt Section serves as a rating tool to assess the level of DfM of a building. These resources are also useful to facilities managers (FM), service buyers, and service providers who are involved in the design decision process, whether for new or existing buildings undergoing addition and alteration.

Notwithstanding the above, the DfM resources should always be used in conjunction with prevailing regulatory guidelines and codes.



**Figure 5: Adoption of robot cleaning machines requires several upstream considerations, such as minimal floor level differences and interoperability with the building infrastructure, e.g. lifts and automated doors.**

**DfM Guides at a glance**

The DfM resources are comprehensive and cut across the various design disciplines. The coverage of the DfM guides is presented below.

Non-Residential		Residential		Municipal Infrastructure	
<b>Architecture</b>	<ul style="list-style-type: none"> <li>• Facades</li> <li>• Roofs</li> <li>• Building Spaces and Elements</li> <li>• Parking Areas</li> <li>• M&amp;E Rooms</li> <li>• Washrooms</li> </ul>	<b>Architecture</b>	<ul style="list-style-type: none"> <li>• Facades</li> <li>• Roofs</li> <li>• Building Spaces and Elements</li> <li>• Parking Areas</li> <li>• M&amp;E Rooms</li> <li>• Washrooms</li> </ul>	<b>Connectivity-Related Facilities</b>	<ul style="list-style-type: none"> <li>• Covered linkways/ bus shelters/ walkways</li> <li>• Vehicular drop-off points</li> <li>• Pedestrian underpass/ overhead bridge</li> </ul>
<b>Mechanical &amp; Electrical (M&amp;E)</b>	<ul style="list-style-type: none"> <li>• Facades and Roof Areas</li> <li>• Common Areas, Plants, and Equipment Rooms</li> <li>• Smart FM</li> <li>• Security</li> </ul>	<b>Facades and Roof Areas Mechanical &amp; Electrical (M&amp;E)</b>	<ul style="list-style-type: none"> <li>• Facades and Roof Areas</li> <li>• Common Areas, Plants, and Equipment Rooms</li> <li>• Smart FM</li> <li>• Security</li> </ul>	<b>Street Furniture, Equipment, and Community Facilities</b>	<ul style="list-style-type: none"> <li>• Open surface car parks</li> <li>• Pavilions, shelters</li> <li>• Seating facilities</li> <li>• Outdoor furniture</li> <li>• Retaining walls</li> <li>• Lightings</li> <li>• External signage</li> <li>• OG box/ control box</li> </ul>

Non-Residential		Residential		Municipal Infrastructure	
<b>Landscape</b>	<ul style="list-style-type: none"> <li>Landscape features</li> </ul>	<b>Landscape</b>	<ul style="list-style-type: none"> <li>Landscape features</li> </ul>	<b>Greenery and Landscape</b>	<ul style="list-style-type: none"> <li>Plants selection</li> <li>Turf</li> <li>Water features</li> <li>Trellis and planting frames</li> <li>Tree wells and gratings</li> </ul>
<b>Other Considerations</b>	<ul style="list-style-type: none"> <li>Design Collaboration</li> <li>Building Records</li> <li>Innovation</li> <li>Robotics &amp; Automation</li> </ul>	<b>Other Considerations</b>	<ul style="list-style-type: none"> <li>Design Collaboration</li> <li>Building Records</li> <li>Innovation</li> </ul>	<b>Drains</b>	<ul style="list-style-type: none"> <li>Railings along drains</li> <li>Drain covers</li> <li>Manhole/manhole covers</li> </ul>

The scope of the guides varies among the typologies. For Non-Residential and Residential projects, they are primarily structured by their respective building disciplines.

On the other hand, the DfM guide for Municipal Infrastructure focuses on facilities that are small-scale, localised in nature, and built for use by the public; hence is structured by the type of facilities.

### Conclusion

This article serves as an introductory look at BCA's DfM recommendations and guides. With current efforts supported by the Singapore Green Plan <sup>2030</sup>, it is more pertinent than ever to consider integrating DfM into buildings, saving energy and reducing maintenance costs.

Please refer to BCA's DfM page for more information, including the aforementioned guides and related practices.<sup>3</sup>

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Photos credit: Building and Construction Authority

<sup>3</sup> <https://www1.bca.gov.sg/growth-and-transformation/facilities-management/design-for-maintainability/>.



# Punggol Digital District



**P**unggol Digital District (PDD)<sup>1</sup> is Singapore's first smart and sustainable innovation district. The 50-hectare district is developed for key tech sectors such as cybersecurity, artificial

intelligence and robotics, fintech, and smart living. With the Open Digital Platform (ODP)<sup>2</sup> as its digital backbone, the district serves as a living lab for smart solutions.

When fully open, PDD will be a collaboration and

<sup>1</sup> <https://www.jtc.gov.sg/punggoldigitaldistrict>

<sup>2</sup> <https://www.jtc.gov.sg/punggoldigitaldistrict/odp>





innovation hub for 28,000 knowledge workers, 12,000 students from the Singapore Institute of Technology, and more than 500 faculty and professional officers. By integrating businesses, academia, and spaces for the community into one seamless ecosystem, it is a model for future innovation districts.

With the ODP, PDD shows how technology can be integrated into urban infrastructure to enhance sustainability and quality of life. PDD is also a district-wide testbed for businesses and students to perform simulations and rapid prototyping before scaling up, reducing the cost of experimentation and time-to-market.

Developed by JTC and the Government Technology Agency of Singapore, the ODP is a smart operating system built with an interoperability layer that enables smart city solutions. The ODP draws

real-time data from various systems and sensors throughout the estate, such as the district cooling system, pneumatic waste conveyance system, and integrated building management system. With the data fed into its backend, the ODP enables visualisation, monitoring, and control of real-time conditions across the entire district. It powers PDD's real-time digital twin, virtually replicating the real world and providing comprehensive information.

PDD is built with a network of smart infrastructure deployed at the district level:

- District Smart Grid<sup>3</sup>: Singapore's first district-level smart energy grid is being built in PDD, integrating extensive rooftop solar panels with a large battery energy storage system. This will allow the entire precinct to intelligently
- balance renewable energy supply and demand. Once operational by 2026, the smart grid (along with the solar PV array) is expected to generate 3,000 MWh of clean electricity annually and reduce carbon emissions by up to 1,700 tonnes a year. The grid is linked with the ODP so that it can interact with other systems like EV chargers, the cooling plant, and integrated building management systems to maximise energy efficiency. It will also function as a living lab where energy companies can test innovations like vehicle-to-grid technology and AI-driven energy optimisation in an operational business park setting.
- District Cooling System: Instead of individual buildings having separate chillers, a centralised DCS in PDD provides chilled water



<sup>3</sup> <https://www.jtc.gov.sg/punggoldigitaldistrict/story-articles/how-businesses-can-benefit-from-smart-grid>



for air-conditioning across the district. This improves cooling efficiency and can cut the precinct's cooling-related carbon footprint by roughly 30% compared to conventional buildings.

- **Smart Waste Management:** PDD employs an estate-wide pneumatic waste conveyance system, with an underground vacuum pipe network disposing of refuse.

These high-tech infrastructure elements are implemented from the start, rather than retrofitted, setting PDD apart from older estates. The result is an intelligent, sensor-rich district that not only improves operational efficiency and sustainability but also serves as a platform for innovation.

### Smarter and more sustainable with the Open Digital Platform

Real-time data becomes historical data on which predictive models can be trained. These models predict failures and provide an overview of the district's usage patterns and systems. As the district's systems adapt to ODP's recommendations, ODP will learn from this new set of behaviours. This helps to optimise resources such as energy and manpower. For example, building temperatures and lighting can be auto-optimised based on occupancy data. By understanding the spaces where people tend to spend more time, cleaning schedules and manpower can be optimised, directing energy accordingly.

In addition, these predictive models can guide future improvements by tapping into the ODP to run simulations. For instance, the digital twin allows for simulations of sun rays over the year, which is useful in identifying where solar panels could be placed to optimise solar energy capture.

The digital layer is designed to work hand-in-hand with physical infrastructure—helping manage estate services more efficiently, support seamless wayfinding, enhance user safety, and optimise resource usage. By providing open data access, the ODP also facilitates testbed opportunities by allowing tenants and partners to plug into a shared, secure environment for innovation trials, new community-centric applications, and other smart city solutions.

Firms focusing on autonomous systems find PDD attractive as the ubiquitous sensors and unified digital systems allow them to deploy and test solutions under real-world conditions. This allows simulations and rapid prototyping, reducing the cost of experimentation and time-to-market.

### Scaling securely

JTC is now building an artificial intelligence chatbot, AskODP, for better facility management and incident response.

AskODP can retrieve real-time and historical data and make sense of CCTV feeds in real-time. Facility managers can field questions to AskODP about the district in natural language, such as "What was the average number of lift trips made by Lift A per day last week?", without needing to extract data from databases. They can also query live video feeds to search for objects and investigate



incidents of concern.

Given the ODP's vast capabilities, security is a top priority. Both cybersecurity safeguards and AI guardrails have been placed to deter malicious actors from exploiting the ODP. They also guard against instances of technical failure, and critical controls must still be operated manually. The ODP serves as a common platform for all systems to communicate with each other, functioning as an operating layer above individual systems, and does not alter their base functions. Even if the ODP is unavailable, all systems will continue to function independently, though without the ODP's intelligent coordination.

The use of ODP in PDD is part of Singapore's larger Smart Nation vision, where technology is used to improve citizens' lives and create a thriving digital future for all. Trials in PDD will be scaled to guide the development of future new towns and districts such as Tengah and Jurong Lake District, as well as the redevelopment of existing towns across Singapore.

## > PROJECT DETAILS

**Lead organisation:** JTC, the Singapore Government's industrial master planner and developer

**Project timeline:** 2016 (conceptualization), 2018 (site preparation), key facilities opened from 2024 onwards

**Photo credit:** JTC

**Key stakeholders:**

- **The Singapore Government:** Multiple government agencies plan, develop, and operate different aspects of PDD's infrastructure and ecosystem, such as business park facilities, digital technology and cybersecurity, public transport infrastructure, greenery, and integration of nature.
- **Businesses:** Startups, SMEs, and MNCs in key tech sectors such as cybersecurity, artificial intelligence and robotics, fintech, and smart living. Businesses in PDD are listed here: <https://www.jtc.gov.sg/punggoldigitaldistrict/business>
- **Academia:** The Singapore Institute of Technology, which provides a talent pool and research expertise for innovation: <https://www.singaporetech.edu.sg/about/punggol-campus>



# JTC CleanTech Three @ Jurong Innovation District



One of the five precincts of Jurong Innovation District (JID), JTC's CleanTech Park is home to over 50 companies in clean technologies, advanced manufacturing, and urban solutions industries. CleanTech Park gives these companies opportunities to collaborate in a vibrant community of like-minded peers with proximity to Nanyang Technological University. Companies can test-bed innovations supported

by a full value chain of activities from production to distribution. Located within the park is also JTC's Industry Connect Office, a one-stop centre which helps companies accelerate their Industry 4.0 transformation.

JTC's newest development at CleanTech Park is CleanTech Three (CT3), an integrated development completed in 2022. Comprising eight laboratory blocks and one office block, CT3 has attracted local and international startups such





as Spectronik and VFlowTech, MNCs such as Sulzer Singapore and Entegris Asia, as well as R&D agencies such as A\*STAR National Metrology Centre and Home Team Science & Technology Agency, adding to the growing ecosystem at CleanTech Park.

**CT3's biophilic and human-centric design**

With industries becoming more knowledge-intensive and workforce expectations evolving, industrial areas are transforming to offer more vibrant, sustainable, and inclusive environments, where suitable work, live, play, and learn elements are integrated to support these evolving needs. At the same time, efforts are made to honour the heritage and identity of sites, so that transformation builds on the stories and memories



that matter to people.

Reflecting this shift, CT3 was thoughtfully planned to move beyond traditional industrial building design, creating distinctive spaces closely integrated with nature and the surrounding community.

The site's natural topography, creek, and slopes were retained, alongside a conserved wildlife corridor and a raised lookout deck that allows people to observe wildlife from a distance. Plant species were selected to support local fauna, creating a symbiotic environment that provides habitat and food sources for the wildlife. With 40% green cover and over 75% landscape replacement area, CT3 incorporates biophilic design elements, serving as a green sanctuary for workers.

CT3 also features a porous ground level for seamless connectivity, north-south oriented blocks to reduce solar heat gain, and a central open-air atrium for improved ventilation. Located adjacent to Singapore's oldest brick kiln, its façade draws inspiration from the site's heritage, using three

textures—stone, terracotta, and brick—to complement both urban and rustic contexts.

Facing The Potter's Garden, a five-hectare park in JID, CT3 is designed to be fenceless to enhance accessibility and connectivity with surrounding areas. It includes cycling paths and footpaths linking to future MRT stations, as well as bicycle parking, lockers, and showers, which advance the vision of JID as a car-lite district.

Additionally, CT3's nine blocks are connected to each other via strategically located sky bridges, providing shared spaces conducive to interaction and organic collaboration among companies.

**> PROJECT DETAILS**

**Lead organisation:** JTC, the Singapore Government's industrial master planner and developer

**Project timeline:** 2014 (planning), 2016 (design), 2017 (construction), 2022 (completion)

**Photo credit:** JTC





# Keppel Bay Tower

**S**ituated in HarbourFront and part of Singapore's Greater Southern Waterfront, Keppel Bay Tower is a Grade A commercial building that comprises an 18-storey office tower and a six-storey podium block, offering approximately 386,000 sq ft of space.

The building's full-height glass

windows provide unobstructed views of the sea, the Marina at Keppel Bay, Mount Faber, and waterfront residences. The offices themselves are equipped with a raised-floor system, enabling greater efficiency in space planning, including large floor plates of up to 37,000 square feet and a core-to-perimeter depth of up to 24 metres.

With its strategic location in prime district four, Keppel Bay Tower is well-connected to public transport and expressways, granting easy access to the rest of the island.

Keppel Bay Tower stands as a showcase of Keppel's Sustainable Urban Renewal (SUR) expertise,<sup>1</sup> demonstrating how existing

<sup>1</sup> <https://sustainableurbanrenewal.com/>

buildings can be transformed into high-performance green assets through smart design and advanced technologies.

**Driving value through Sustainable Urban Renewal**

Keppel's SUR strategy was conceived in response to the urgent need to decarbonise the built environment in a practical, scalable way. It aims to achieve strong sustainability outcomes through the deployment of innovative smart and green technologies, and simultaneously offering compelling investment opportunities to investors.

Instead of redeveloping the building, Keppel harnessed leading-edge sustainability and smart building solutions to transform Keppel Bay Tower, where it is headquartered. This approach significantly reduced environmental impact, avoiding close to 34,000 tonnes of embodied carbon emissions compared to a full redevelopment, while minimising disruption to ongoing operations.

Following the SUR retrofitting works, Keppel Bay Tower achieves around 30% higher energy efficiency compared to before the retrofit in 2017, and about 40% higher energy efficiency than the average large office building in Singapore. This translates to annual energy



savings of approximately 2.2 million kWh, and more than \$600,000 in associated cost savings collectively for the landlord and tenants. These improvements, alongside other asset enhancements, have strengthened the building's market performance, enabling it to command a rental premium of around 10% above that of the surrounding buildings.

Features include:

- Smart LED lighting that adjusts based on daylight autonomy and occupancy
- Intelligent workspace solutions featuring user detection and plug load management
- An integrated building management system

- High-efficiency chillers
- Solar photovoltaics to offset the building's energy consumption

Keppel's SUR initiatives have contributed to Keppel Bay Tower achieving a 31% uplift in net operating income within the first four years of the building's retrofitting, and an estimated \$150 million increase in asset value since the retrofit was completed.

Today, Keppel Bay Tower is fully powered by renewable energy and has obtained the BCA Green Mark Platinum Super Low Energy certification, as well as the WELL Health-Safety Rating by the International WELL Building Institute. The building's high-performance digital infrastructure has also earned the distinction of being Asia's first completed building to achieve WiredScore Platinum certification, reflecting its readiness for the demands of the modern digital workplace.



**> PROJECT DETAILS**

- Location:** 1 HarbourFront Avenue, Singapore 098632
- Tenure:** Leasehold estate of 99 years, expiring 30 September 2096
- Net Lettable Area:** 386,224 sq ft / 35,881 sqm
- Number of Floors:** 18
- Property Owner:** Keppel REIT
- Architect:** DCA Architects Pte Ltd
- Website:** <https://www.keppel.com/realstate/sg/Work/Keppel-Bay-Tower>
- Completion Date:** 2002
- Photo credit:** Keppel



Photo credit: Shin Shashin Kobo

# SUBARU Innovation Hub

**S**UBARU is a world-renowned pioneer of technologies and systems, and its unique manufacturing approach and obsessive attention to detail have cultivated a loyal fan base. However, recent increases in workloads have led to organisational and operational "silos", creating challenges in sharing tacit knowledge and fostering a more collaborative mindset. Additionally, designers had limited opportunities to

interact with actual "things" or users, making it difficult to get external information and inspiration. SUBARU Innovation Hub, a new research and development facility, set out to address these concerns.

Early in the planning phase, workshops were held to reflect on previous work practices. Employees discussed the "joy of manufacturing" and the "SUBARU-style work method" that they wished to reclaim. The goal

evolved to create a space where people could interact with physical objects and use them as media for discussion.

The result was a new R&D facility, designed for 2,800 technical employees involved in automobile planning, design, and engineering at SUBARU's main factory. Beyond the office spaces, core SUBARU manufacturing functions, including co-creation spaces for internal and

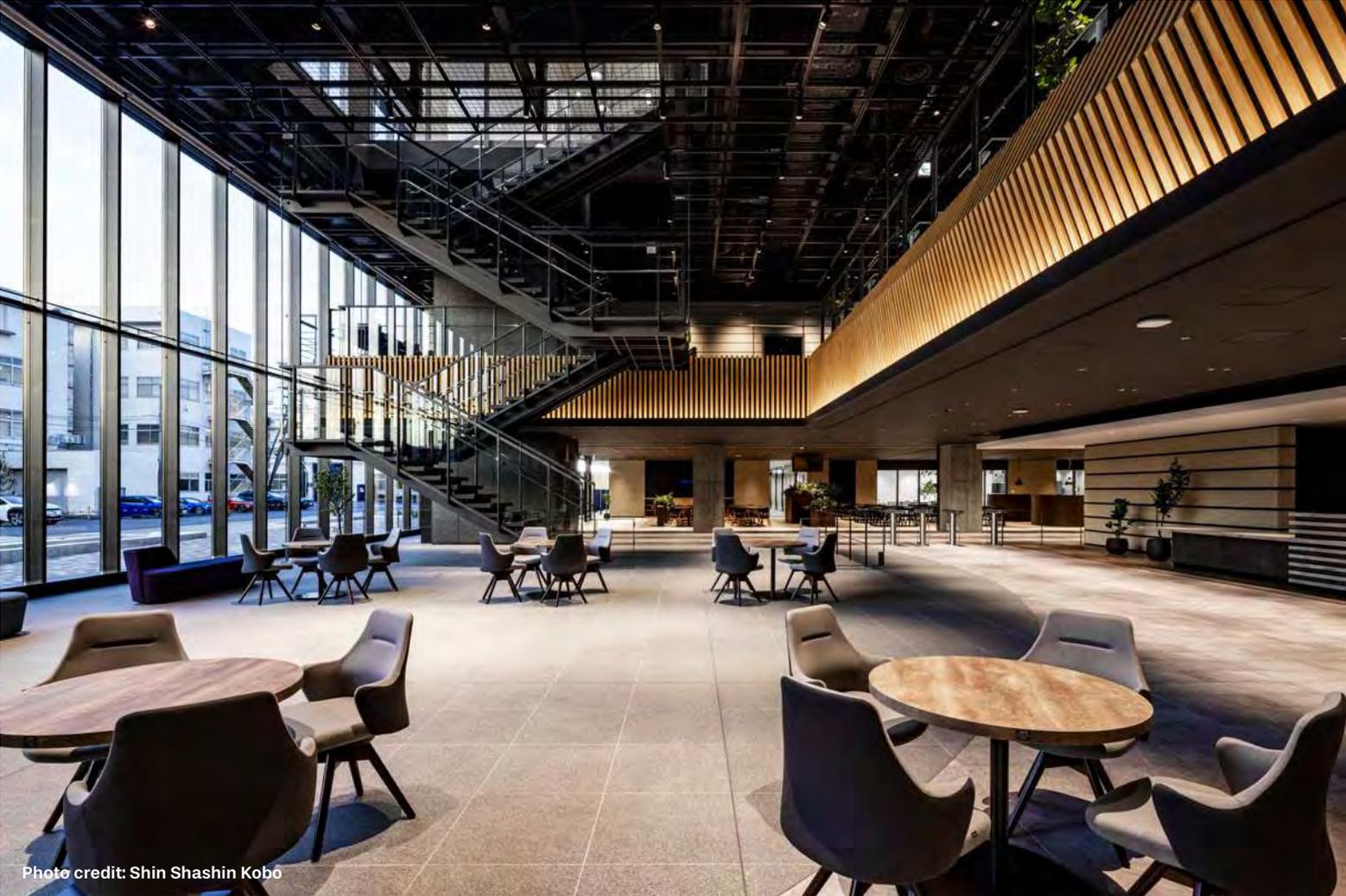


Photo credit: Shin Shashin Kobo

external partners, design studios, and vehicle verification areas, were integrated. This enables the entire process, from automotive planning and design to engineering and verification, to be completed within the building itself. Distributed atriums allow for discussions while surrounding the actual vehicles, and the "single-room" space connects four mega-floors in a three-dimensional layout, encouraging cross-departmental communication.

The lower floors house externally accessible functions, such as co-creation spaces, halls, meeting rooms, and cafeterias that welcome visitors and employees from other departments with varying security levels as co-creation partners. Most areas are designed to accommodate actual vehicles and full-scale models, enabling physical objects to serve as central points for communication

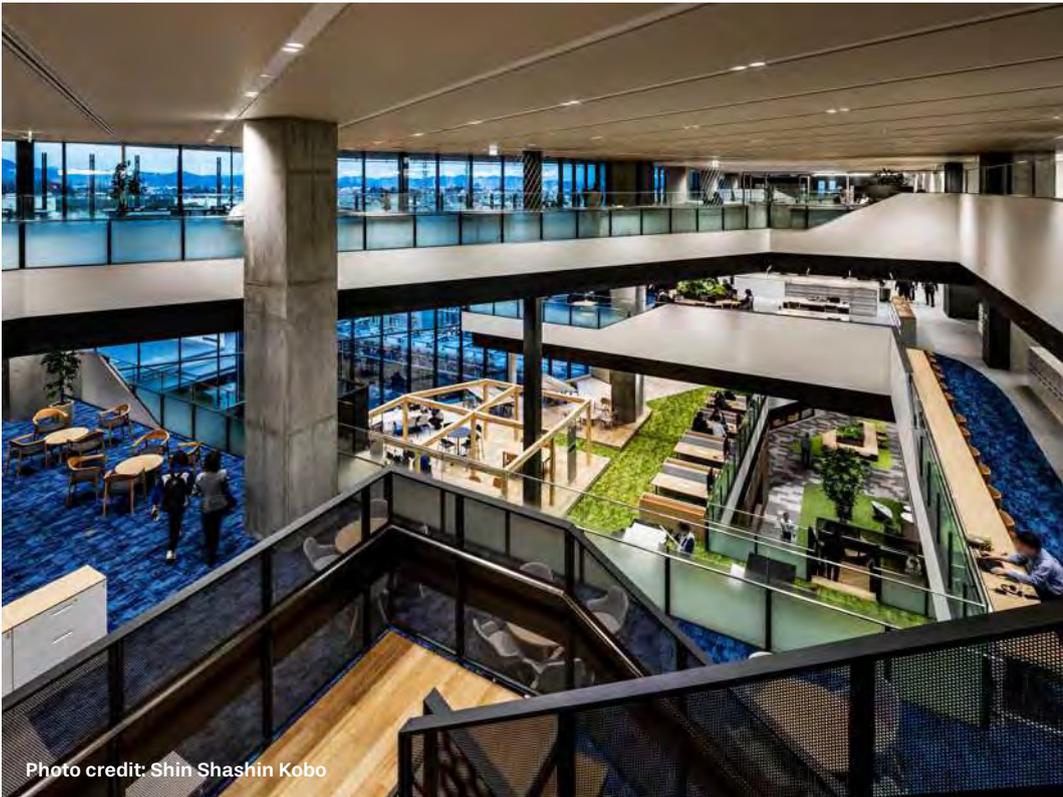


Photo credit: Shin Shashin Kobo



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between visitors, employees, and co-creation partners.

**An intuitively navigable multi-layered building structure**

To facilitate psychological and physical access within the vast, seven-storey building with diverse functions, open circulation spaces were strategically placed throughout the facility. High-traffic areas like cafeterias, gyms, vehicle-specific project rooms, and connecting corridors were concentrated on the third floor and are linked by a promenade-style space.

For designers who often spend their entire day indoors, multiple circulation paths increase opportunities to encounter people and information. This is aimed at making movement a time for mental refreshment.

The entrance features wooden louvres that express the dynamic spirit of aircraft wings and cars—SUBARU's origins—alongside displays of past vehicles and future concepts. This space allows visitors to experience SUBARU's commitment to craftsmanship across various timelines.

**A space for discussion, confirmation, and verification for internal design flow completion**

As the office for the design department to oversee automotive planning and design, it includes a

studio for creating and reviewing full-scale mockups, indoor and outdoor, naturally lit design verification areas, and project rooms dedicated to specific vehicle models.

Various rooms that require high



Photo credit: Shin Shashin Kobo



Photo credit: Shin Shashin Kobo

confidentiality and are subject to numerous dimensional and environmental constraints are efficiently arranged. This spatial configuration enables smooth repetition of each process step, from planning to checking, while maintaining security.

In the design studio, shape studies are conducted using full-scale clay models and actual vehicles. Finalising designs requires close interaction between designers and clay modellers. Designers' offices are therefore located directly above, connected by an atrium and two staircases for quick access.

**An atrium connecting mega-floors to foster unity**

The designer office floors on levels 4–6 comprise a 24x70m universal office space and three distinct atriums connecting them. To control external views and facilitate equipment maintenance, meeting rooms and utility spaces are consolidated along the exterior walls, opening the office toward the atrium. The spatial scale of the desk areas and atriums varies so that work can be approached with different mindsets.

Furthermore, the three distinct atriums—one open and accessible in all directions, one cave-like and

enclosed, and one bright and flooded with light—offer a variety of spaces. The central atrium also incorporates spaces for displaying prototypes and actual vehicles, viewing cars running on the adjacent test course, and a workshop area with tools. These spaces are strategically placed to facilitate idea generation and discussion while engaging with tangible objects. Enabling visibility and intuitive access to activities across all areas via the atrium yields a unified workplace where employees can collaborate under one roof.

**A structural plan for rapid, aesthetic creation of long-span skeleton spaces**

To realise a highly flexible office with both high seismic resistance and development hub openness, the building adopted a base isolation structure with reinforced concrete columns and steel beams.

By reducing seismic forces and increasing frame freedom, a multi-layered, diverse atrium space was achieved. Column-beam joints use the DRUM-RCS method on the 1st floor, where large column-beam joint capacity is required. On the 6th and 7th floors, where long-term axial forces on columns are small and ensuring bending capacity is difficult, a PC steel bar compression-type RCS joint was developed specifically for this building.

**An expansive exterior makes use of the building's length**

Located at the southeast corner of



Photo credit: Shin Shashin Kobo



Photo credit: Shin Shashin Kobo



Ote Camera

Subaru's Gunma Manufacturing Plant, the building is the first structure that catches the eye when approaching by train from Tokyo. Its flat design

harmonises with the existing main west building at the plant's southwest corner, while creating a sense of speed from the passenger train

perspective. The balconies also function as maintenance access points to equipment spaces in highly sensitive areas.

## > PROJECT DETAILS

**Project Name:** SUBARU Innovation Hub

**Purpose:** Research facility

**Location:** Ota City, Gunma Prefecture, Japan

**Site area:** 561,784.30 sqm

**Total floor area:** 561,784.30 sqm

**Floors:** Seven above-ground floors, one penthouse floor

**Eave Height/Max Height:** 37.230m /

Rear Elevation Height: 37.953m

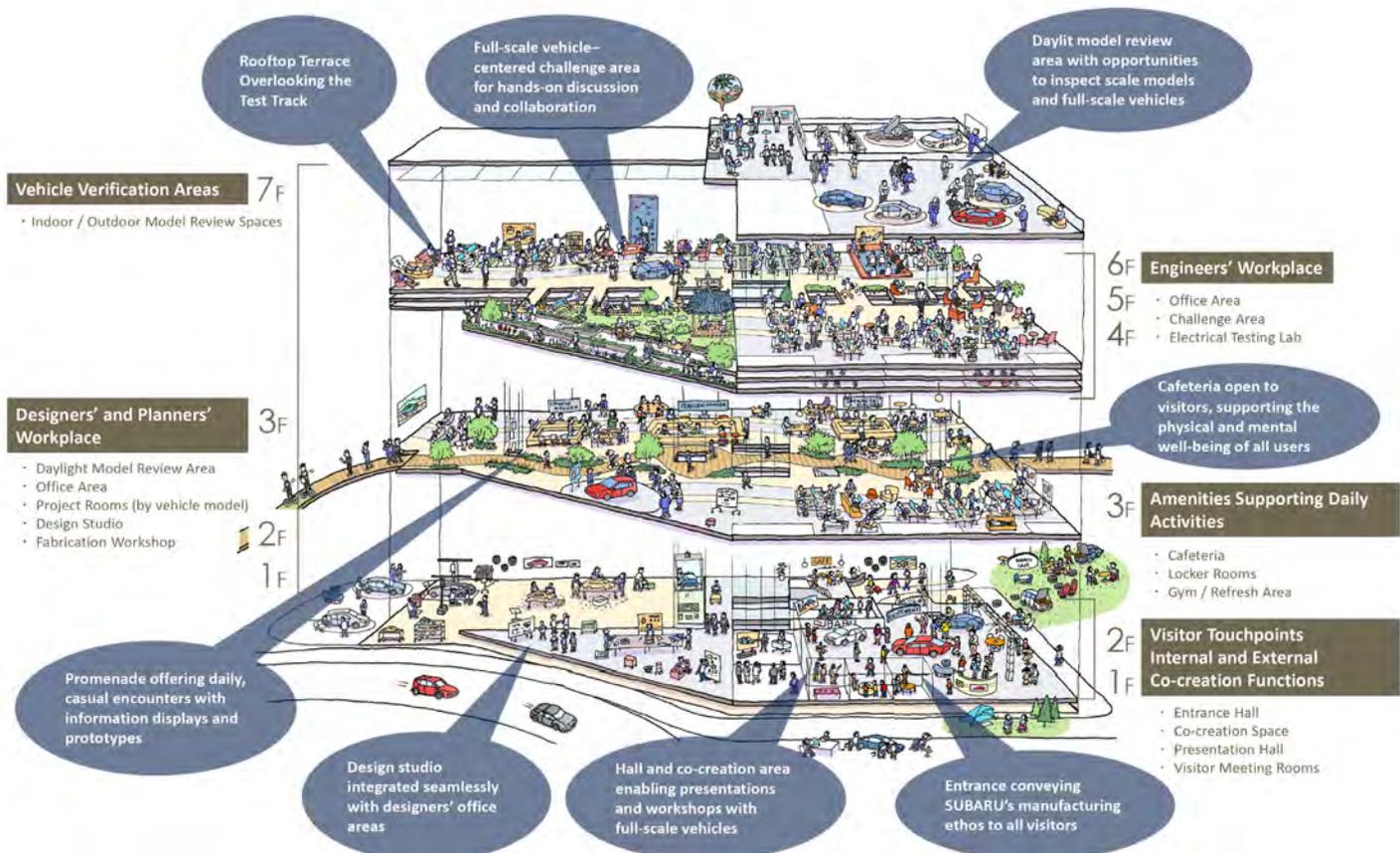
**Completion:** September 2023

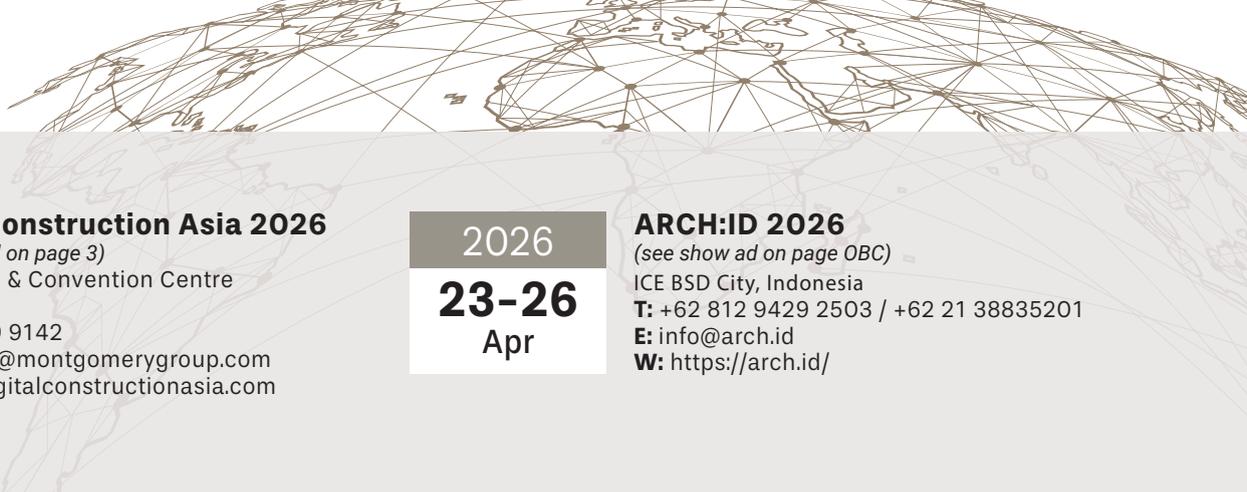
**Client:** Subaru Corporation

**Lead architect:** NIKKEN SEKKEI LTD

**Project Team:** Daisuke Minehiro, Fumi Tsuda, Reito Kubota

**Photography:** Koji Horiuchi (Shin Shashin Kobo), Ote Camera





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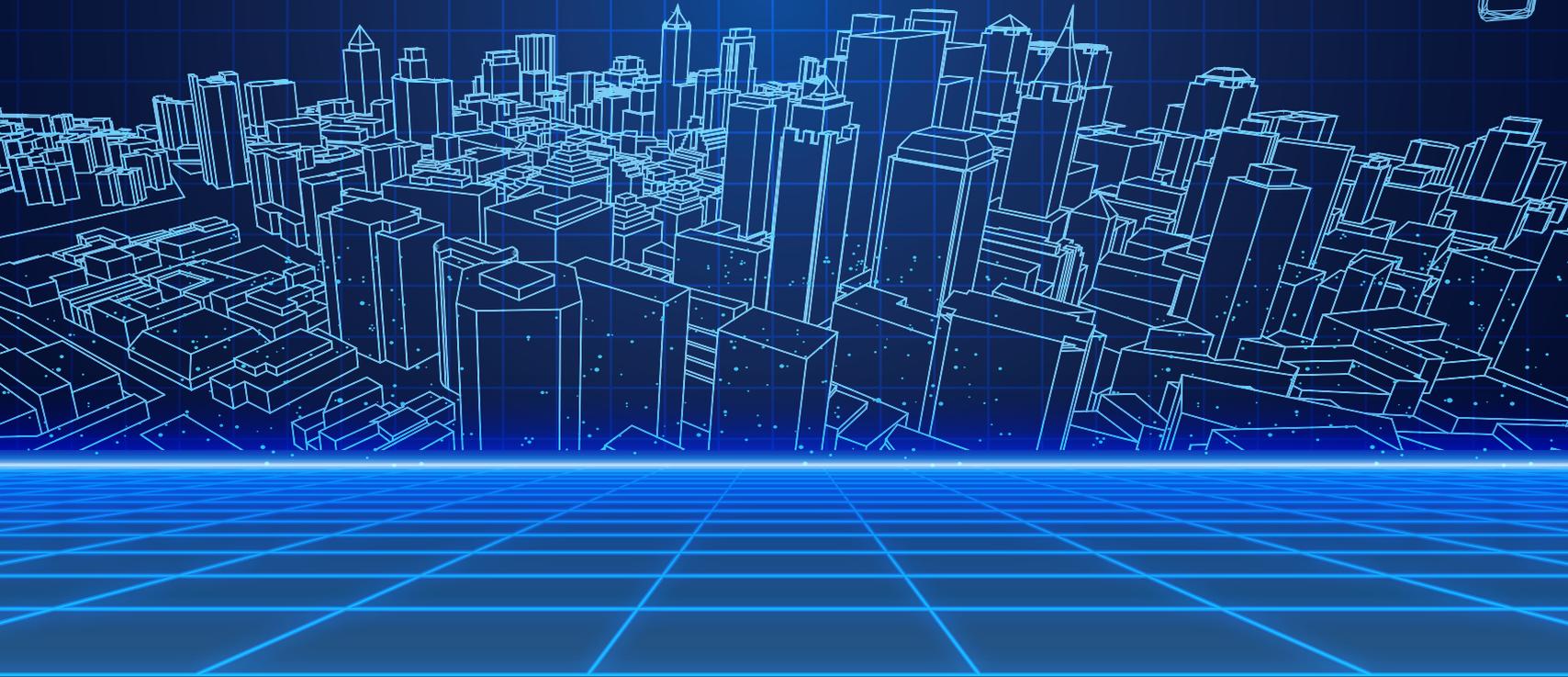
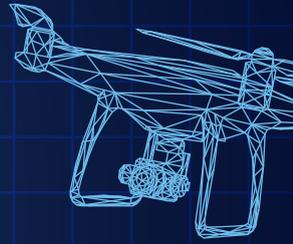
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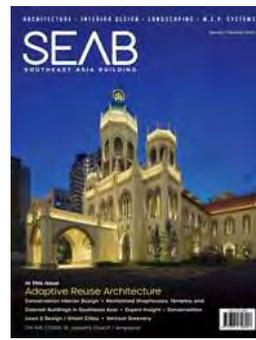
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