

Al Shera'a: A Global Model Redefining Intelligent and Sustainable Government Infrastructure

The UAE's central bank digital currency could reshape payments, trade, banking and digital commerce as the country builds the infrastructure for a more connected financial system

Al Shera'a, the new headquarters of Dubai Electricity and Water Authority (Dewa), is a global model for government buildings that integrate environmental stewardship, digital transformation, operational efficiency and human wellbeing within a single ecosystem. It presents a new vision for future-ready infrastructure by bringing together sustainable architecture, clean energy, artificial intelligence (AI) and user-centric design.

Saeed Mohammed Al Tayer, Managing Director and CEO of Dewa said: "We are guided by the vision and directives of His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, who has established a forward-looking model based on anticipating the future and developing infrastructure that supports smarter, more sustainable and more resilient cities. Al Shera'a embodies this approach by redefining the concept of government buildings, integrating sustainability, innovation, digital intelligence and quality of life within an institutional environment that learns, adapts and responds



efficiently to the needs of its users."

Al Tayer added that Al Shera'a reflects Dubai's approach to shaping the future through innovation and sustainability. He noted that the building has strengthened its global standing by earning LEED Platinum certification in the New Construction category of the Leadership in Energy and Environmental Design (LEED) rating system, achieving 102 out of 110 points. This recognises its exceptional performance in energy efficiency, resource management, indoor environmental quality and innovation.

Al Shera'a has also been designed in accordance with the latest standards to achieve WELL Building Standard Platinum Certification and Dubai's Al Sa'fat Platinum Rating for green buildings.

Al Tayer affirmed that Al Shera'a is more than a headquarters; it is a blueprint for the future. It demonstrates how government buildings can evolve into intelligent and adaptive environments that generate more energy than they consume, transform data into actionable insights, optimise resources and enhance quality of life.

A BLUEPRINT FOR FUTURE GOVT INFRASTRUCTURE

Al Shera'a translates the aspirations of the Dubai Clean Energy Strategy 2050 and the Dubai Net Zero Carbon Emissions Strategy 2050 into a tangible and measurable reality. By combining renewable energy generation, intelligent operations, digital twin technologies, resource efficiency and human-centric design within a unified ecosystem, the building represents a new generation of government infrastructure.

The philosophy underpinning Al Shera'a is reflected in its architectural identity. Its name, which means 'sail' in Arabic, symbolises movement, progress and openness. The design draws inspiration from traditional Emirati houses, reinterpreting elements of local

architectural heritage through a contemporary lens that prioritises sustainability, connectivity and human experience.

More than an architectural landmark, Al Shera'a is designed as a workplace that promotes collaboration, innovation and wellbeing. The building comprises 19 floors in addition to the ground floor and a basement, with a built-up area of more than two million square feet. It accommodates a wide range of facilities, including a conference hall, training rooms, an innovation centre and exhibition spaces, as well as amenities that support employees' quality of life, including a nursery and sports facilities. Together, these features create a holistic work environment that fosters creativity, continuous learning and social interaction.

A NET-POSITIVE BUILDING

Renewable energy is a core component of Al Shera'a's design and operation. The building integrates photovoltaic technologies across its structure, including rooftop solar installations, façade-integrated solar systems and photovoltaic elements incorporated into key architectural features.

The building has a total electricity generation capacity of five megawatts (MW), generating approximately 7,500 megawatt-hours (MWh) of renewable energy annually. Al Shera'a features approximately 26,000 square metres of photovoltaic solar panels, in addition to 1,000 square metres of Building Integrated Photovoltaic (BIPV) systems. The BIPV system comprises 284 panels with a total capacity of 185 kilowatt-peak (kWp).

The building also features approximately 8,400 photovoltaic panels installed across the roof, podium fins, ground level, shaded structures and solar tree. Specialised robotic systems clean the solar panels to maintain optimal per-

formance and enhance energy efficiency.

Al Shera'a is capable of generating more clean energy than it consumes annually, reinforcing its position as a net-positive government building. By embedding renewable energy generation within its architecture, the building demonstrates how urban infrastructure can actively contribute to decarbonisation while reducing reliance on conventional energy sources.

A COGNITIVE BUILDING DRIVEN BY AI

At the heart of Al Shera'a is an advanced cognitive ecosystem that integrates AI, Internet of Things (IoT) technologies and big data analytics to optimise building operations. The intelligent platform connects thousands of devices and systems through a unified digital environment, enabling real-time monitoring, predictive insights and automated decision-making. Supported by more than 110,000 smart sensors, over 1,500 wireless access points and more than 3,200 network devices, These generate more than 1.9 million automated control commands daily, enhancing operational integration and improving performance efficiency.

A SMART SYSTEM WITH A UNIFIED APP

Through the AI-powered Al Shera'a smart application, users can seamlessly interact with approximately 100 interconnected systems covering parking management, workplace resources, access control, elevators, indoor environmental quality, shared mobility services, employee wellbeing, dynamic Navigation and Accessibility, and comfort control including lighting and air conditioning. This integrated approach transforms the building from a passive structure into an intelligent environment capable of learning, adapting and continuously improving its performance.

DIGITAL TWINS TRANSFORMING OPERATIONS AND RESILIENCE

A key enabler of Al Shera'a's intelligent operations is its digital twin ecosystem, which creates a dynamic virtual representation of the building's systems, spaces and assets. Connected to real-time data streams from sensors and IoT networks, the platform provides a comprehensive operational view that supports energy optimisation, predictive maintenance and performance monitoring.

Digital twin technologies also enhance operational resilience by enabling remote diagnostics, compliance monitoring, advanced risk assessment and informed decision-making. By transforming operational data into actionable insights, the system helps maximise resource efficiency, improve asset management and strengthen long-term building performance.

The Johnson Controls OpenBlue platform, in collaboration with Microsoft and MORO, further supports the transformation of operational data into actionable insights and decisions, opti-

mising building systems, occupancy and resource management while enhancing operational efficiency, readiness and resilience.

PUTTING PEOPLE AT THE CENTRE OF SUSTAINABILITY

While technology and sustainability define much of Al Shera'a's infrastructure, the building has been designed with people at its centre. Intelligent systems continuously adapt lighting, temperature and space utilisation according to ac-

tual occupancy and demand, creating a comfortable and productive environment while minimising resource consumption.

This human-centric approach extends beyond workplace comfort to encompass wellbeing, flexibility and work-life balance. As a result, sustainability at Al Shera'a is reflected not only in energy savings and environmental performance, but also in the quality of the daily experience provided to employees and visitors.



“Al Shera'a is more than a headquarters; it is a blueprint for the future. It demonstrates how government buildings can evolve into intelligent and adaptive environments that generate more energy than they consume, transform data into actionable insights, optimise resources and enhance quality of life.”

Saeed Mohammed Al Tayer,
MD and CEO of Dewa

AN INTEGRATED SUSTAINABILITY ECOSYSTEM

Al Shera'a's sustainability strategy extends beyond energy efficiency to encompass water conservation, resource management and sustainable mobility. Advanced systems support water reuse, indoor air quality management and intelligent control of cooling and lighting, while 46 electric vehicle charging stations encourage the transition to cleaner transportation.





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Foundation of the Future: The Concrete Case for Dubai’s Net Zero Skyline



How Holcim UAE poured 104,000 cubic metres of low-carbon concrete mix into Dewa’s landmark Al Shera’a headquarters without compromising on speed or strength

Dubai’s skyline has never been short of superlatives, but few projects pair ambition with arithmetic as neatly as Al Shera’a (The Sail), the new headquarters of the Dubai Electricity and Water Authority (Dewa) in Al Jaddaf’s Cultural Village. Designed as a net-positive building, it features over 110,000 smart sensors and integrated photovoltaics to ensure its operational energy consumption is offset entirely by what it generates on-site.

Yet a building that produces as much energy as it uses still has to be built, and construction carries its own carbon bill. Cement production accounts for roughly 7 to 8 per cent of global CO₂ emissions. A structure can run on sunlight for decades and still begin life with a heavy “embodied carbon” debt locked into its foundations, columns, and slabs before the first employee arrives.

Solving that equation for Al Shera’a fell largely to Holcim UAE as the principal materials supplier. The scope was immense: 104,000 cubic metres of concrete, engineered using the company’s low-carbon ECOPact range

30% LESS CARBON AT SCALE

The benchmark result was a reduction of over 30 per cent in CO₂ emissions compared to conventional CEM I concrete baselines. The mechanism is straightforward in principle, though demanding in execution: Holcim UAE’s engineers replaced a significant portion of carbon-intensive clinker — the energy-dense core ingredient of cement — with supplementary cementitious materials (SCMs) batched locally across its Dubai facilities. “Engineered locally at our dedicated



Holcim UAE attributes much of this success to early involvement. Brought in during the technical specification phase alongside Dewa, lead consultant Atkins, and main contractor United Engineering Construction, Holcim conducted extensive trial batches to tailor mixes specifically to the structural envelope required.

Dubai plants, custom ECOPact mix formulations replaced traditional high-carbon clinker with supplementary materials,” noted Holcim UAE.

“These custom mixes met demanding structural load, pumping, and durability requirements without compromising on compressive strength or site workability.”

What makes the project significant is scale. Low-carbon concrete has often been confined to pilot projects or showpiece elements. On Al Shera’a, it went directly into the core structural frame of a complex 19-storey development.

Across the 104,000 cubic metres poured, thousands of tonnes of CO₂ were prevented from entering the atmosphere before the building ever opened. While solar arrays offset operational emissions over decades, reducing upfront concrete carbon delivers immediate atmospheric savings from day one — significantly shortening the building’s total carbon payback period.

OVERCOMING DESERT HEAT WITHOUT TRADE-OFFS

There is a common market misconception that adopting low-carbon building materials requires compromising on structural performance, workability, or project timelines.

Holcim UAE proved otherwise. On-site execution remained identical to standard pours, with concrete placed, pumped, and finished across foundations, columns, beams, and walls with zero delays to the schedule.

If anything, the specialised chemistry solved Dubai’s most stubborn construction adversary: extreme heat.

Large continuous pours generate considerable hydration heat, which in desert summers can trigger thermal cracking. Because ECOPact formulations naturally exhibit a lower heat of hydration, the engineering team successfully mitigated thermal cracking risks without needing complex external cooling measures.

THE COMMERCIAL CASE FOR LOW-CARBON MATERIALS

Sustainability pitches often stumble on cost, but concrete presents a unique commercial opportunity. While representing the vast majority of a building’s physical mass, concrete accounts for only a minor fraction of total construction expenditure. That value gap makes material decarbonisation the single most cost-effective lever for driving down embodied carbon per dollar spent across the value chain.

Beyond upfront savings, the dense, low-permeability matrix of ECOPact provides enhanced resistance to sulfate and chloride attack — a critical advantage in coastal soil conditions that promises reduced maintenance costs over the asset’s lifecycle. The material selection also unlocked key credit points toward LEED Platinum, Estidama, and WELL ratings.

Holcim UAE attributes much of this success to early involvement. Brought in dur-

ing the technical specification phase alongside Dewa, lead consultant Atkins, and main contractor United Engineering Construction (UNEC), Holcim conducted extensive trial batches to tailor mixes specifically to the structural envelope required.

This project demonstrates that material suppliers should no longer be treated as commodity line-item vendors, but as technical co-designers in sustainable urban development.

FROM LANDMARK TO INDUSTRY BASELINE

As Dubai Municipality moves toward circulars incorporating low-carbon solutions into standard building codes, Al Shera’a serves as a commercial blueprint for mainstream developers across the region.

With the UAE committed to Net Zero 2050, public sector icons like Dewa demonstrate that the industry’s heaviest building material is also its most powerful lever for progress.



Laying the groundwork for better workplaces

As demand grows for wellbeing, sustainability, flexibility and design, OFIS aims to help clients create inspiring, high-performing spaces built for the future

Special Report

What was OFIS’s role in Al Shera’a, and what did Dewa and the project team require of the flooring?

OFIS, part of the Easa Saleh Al Gurg Group, supplied and installed the main carpet tile package at Al Shera’a, Dewa’s new headquarters, using Interface’s Conscient collection.

Al Shera’a is a landmark project with ambitious sustainability and performance targets, and every material used had to reflect its commitment to innovation and environmental responsibility. Through our partnership with Interface, working with the project’s design team, Conscient was specified for its sustainable material content, durability in high-traffic areas, contribution to indoor air quality and contemporary aesthetic.

Our role was to also bring that specification to site: supplying the product, supporting the technical and documentation process, and installing it to the standard the project demanded.

For us, it was an opportunity to contribute to an important project and to show the value of a strong partnership backed by reliable execution.

What made OFIS the right partner for this project?

Our strength lies in pairing established international brands with local market knowledge, technical support and a long track record of delivering commercial projects in the UAE.

We approach every project as a service rather than a product sale, providing specification support, technical consultation, project management and installation tailored to each client’s needs. As Interface’s exclusive partner in the UAE, we give clients access to its flooring solutions, backed by local expertise in product application, project coordination, installation and after-sales support.

On Al Shera’a, our focus was on understanding the project’s requirements, working closely with Interface and the wider project team, and ensuring the flooring package was delivered to the expected quality and performance standards.

Projects of this scale depend on collab-



Paris L. Eleftheriades, Business Manager at OFIS (Al Gurg Group)

“OFIS worked closely with Dewa’s engineering team, the architects, consultants, the main contractor and Interface to deliver the flooring in line with the approved specification, design intent and project programme. Our involvement covered technical support, product documentation, supply, installation coordination and quality control.”

oration, clear communication and attention to detail – principles we apply to every project we undertake.

Give us an overview of the products supplied and where they were installed.

Conscient was installed throughout the building, including workstation areas, open-plan and private offices, corridors, lift lobbies, meeting and conference rooms, phone booths and collaborative areas.

Developed by Interface, Conscient combines durability, acoustic performance and sustainability with a contemporary look. The collection contains 89 per cent recycled and bio-based content, carries a Class 33 heavy contract rating for demanding commercial environments and provides 23 dB impact sound insulation for acoustic comfort.

Its natural tones and subtle textures complement the interiors and give a con-

sistent finish from one space to the next.

How did the flooring contribute to the building’s sustainability?

Sustainability guided decisions throughout Al Shera’a, and Conscient brought a number of environmental and performance benefits aligned with the project’s goals.

The collection reduces reliance on virgin materials, and its CQuest™Bio backing is made from recycled and bio-based content. Low VOC emissions support indoor air quality, while its non-directional installation makes efficient use of material and helps reduce waste on site.

For our part, OFIS supported the project with product information, environmental documentation and technical coordination, ensuring the package met the specified requirements for efficient installation, long-term performance and occupant wellbeing.

How closely did OFIS work with DEWA, the architects, consultants and contractors?

Collaboration was essential. We worked closely with Dewa’s engineering team, the architects, consultants, the main contractor and Interface to deliver the flooring in line with the approved specification, design intent and project programme. Our involvement covered technical support, product documentation, supply, installation coordination and quality control.

Each party had a clear role. The design teams set the architectural direction, Interface contributed product innovation and technical expertise, and OFIS was responsible for delivering the flooring package on site. Clear communication between everyone involved was central to the successful outcome.

What challenges or moments stand out for you?

The main challenge was installing across a large headquarters with many different functional requirements, while maintaining consistent quality and keeping to the programme. That called for careful planning, close coordination with the main contractor and strict adherence to the approved specification. What stands out most is the level of collaboration. Al Shera’a brought together experienced teams, each contributing its expertise towards a common goal. Being part of that process, and delivering our scope successfully, is something we value.

What other projects is OFIS working on in the region?

We continue to work across the UAE on corporate, government, commercial and education projects, providing flooring and furniture solutions tailored to each client’s requirements. Alongside the workplace, education is an important sector for us, as schools and learning environments



evolve towards more flexible, engaging and functional spaces.

In the workplace, we are seeing growing demand for solutions that prioritise wellbeing, flexibility, durability and sustainability. Employers are increasingly investing in experiential design so that the office becomes a destination rather than an obligation. Through our international brand partnerships, including Interface, we are well placed to bring the right products and practical expertise to projects across these sectors.

Anything else you would like to add?

Al Shera’a is a good example of what can be achieved when sustainability, design and technical expertise come together. It was a privilege for OFIS to contribute alongside Dewa, the project architects, consultants, contractors and our partner, Interface.

Our focus remains on building strong partnerships, representing brands that lead their sectors and delivering our part of every project with professionalism and consistency. That is how we build long-term relationships and contribute to better spaces across the UAE.





AL SHERA'A – DEWA HEADQUARTERS

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Dewa HQ – Siderise Fire Protection



The company supplies CW Curtain Wall Perimeter Barrier System as well as provides technical support throughout design and construction

As the headquarters of Dubai Electricity and Water Authority (Dewa), Al Shera'a combines ambitious sustainability goals with a striking architectural form. To help protect this landmark development, global experts in passive fire protection solutions for the building envelope, Siderise, supplied its CW Curtain Wall Perimeter Barrier System.

Perimeter fire barriers protect the movement gap between the floor slab edge and external façade. Without effective firestopping, this continuous void can act as a chimney, allowing flames, smoke and hot gases to spread rapidly between floors.

Al Shera'a's distinctive curved façade, which incorporates photovoltaic panels within both glazing and spandrel areas, presented complex fire protection challenges. The project required a robust solution capable of meeting UAE Fire and Life Safety Code requirements whilst accommodating the building's unique geometry and delivering long-term performance throughout the asset's design life.

Working closely with specialist façade contractor, Al Abbar Group, Siderise's enhanced perimeter fire containment solution was selected to meet the demanding two-hour fire rating to the perimeter fire seal, alongside one-hour protection to the spandrel and mullions. Extensively tested to EN 1364-4, the dry-fit system provided the flexibility needed to adapt to the building's varying façade profile without compromising fire performance.

Siderise also provided technical support throughout design and construction. Technical Service Engineers worked alongside the façade team during design development, while Site Service Engineers trained installation teams using a mock-up. Regular site inspections and detailed reporting helped verify installation quality, supporting the successful delivery of this landmark project.





Hunter Douglas Middle East's landmark moment at Al Shera'a

Hunter Douglas Middle East's Landmark Moment at Al Shera'a

The company is proud to be part of a project that reflects Dubai's vision for a smarter, more sustainable future

Hunter Douglas Middle East has supplied more than 4,500 roller blind systems and acoustic fabric solutions to Al Shera'a, DEWA's headquarters.

Inaugurated in May 2026 by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, Al Shera'a is the world's tallest, largest and smartest net-positive government building, generating more clean energy than it consumes.

In a building held to that standard, shading is part of the energy strategy, not a finishing detail. Every system is integrated with the Building Management System that runs the building. This helps reduce solar heat gain and cooling demand while maximising natural daylight. The acoustic fabrics improve comfort for everyone working inside.

Hunter Douglas Middle East is proud to be part of a project that reflects Dubai's vision for a smarter, more sustainable future.





We Have an Access Solution for Every Opening in a Building

dormakaba supplied solutions for all 2,500+ openings at Al Shera'a, from architectural hardware to revolving doors, designed to UAE life safety codes

George Philip, DVP Marketing Middle East, dormakaba Gulf FZE, has said the company has provided solutions for all 2,500+ openings in the Al Shera'a project, the new headquarters of Dubai Electricity and Water Authority (Dewa).

Excerpts from the interview:

Could you outline dormakaba's specific contribution to the Al Shera'a building project? Which access-control, door-hardware or entrance solutions were supplied or installed, and what was the scope of your involvement?

dormakaba got involved during the design stage itself, working with Obermeyer, a German architectural firm that designed this iconic project. Our support was to render solutions for every opening in the job, from architectural hardware (like door closers, hinges, locks, exit devices), mindful of UAE life safety codes, and international ones like NFPA. We also supported detailing automated doors like revolving doors and sliding doors. We also helped to specify acoustic moveable partitions that transform rigid spaces into flexible multi-functional spaces on demand. In total, we gave solutions for all the 2,500+ openings in the project. They range from wood, hollow metal, and glass doors equipped with our product solutions.

Al Shera'a is designed as a next-generation, sustainable government building. How do dormakaba's solutions support secure, seamless movement of people through the building, and how are they integrated with its wider systems?

One of the main challenges while designing access solutions with architects and consultants is to balance security and safety.

to heart — that the lives of every person in that building depend on us! Probing questions on how traffic flows internally and externally in a building, how can the doors be configured to ensure that they are not noticeable, but at the same time, are a barrier to unauthorised people? Doors in areas like auditoriums that are held open during events but will close when there is a fire alarm, or when an event starts. The solutions need to meet requirements of safety, security, comfort, acoustics and fire.

What roles do dormakaba's products play in supporting the building's sustainability objectives? Could you share specific examples of how your solutions contribute to energy efficiency, durability, reduced maintenance or longer product life?

Almost all products that we supplied here had to have EPD certificates. These are independently verified,



dormakaba KTV revolving door. Image for illustration.

standardised documents that report the quantified environmental impact of a product across its entire life cycle, from cradle to grave. Think of EPD as a nutrition label for the environment. It shows carbon emissions, resource consumption, water usage and waste generation. Working with AtkinsRéalis, who are the main project consultant, co-designer, on-site supervisor and engineering consultant, was tough as every product being proposed had to meet their stringent requirements, so that everything fits into the bigger goal of becoming the smartest net positive building.

The building does not have any automatic sliding doors to any external environment. Instead it had 27 revolving doors in place to ensure that the air exchange between the outside and inside is reduced to a minimum, saving energy while also maintaining temperature and improving air quality. The KTV Flex has low wear, low maintenance and low noise. Its electromechanical direct drive uses contactless magnetic fields to propel the glass door wings, rather than conventional belts, gears or chains, making it almost frictionless. It is no wonder that, against the EN standard of 1 million cycles, these revolving doors passed 2 million effortlessly. In line with the overarching goals of the building, it consumes very little power as well. Anyone who enters the building passes the revolving doors first. This is the first impression when a user enters the building, and we are proud that we were the brand of choice for this prestigious honour.



Engineering Net Zero into the Design



KEO's work on Al Shera'a shows how integrated engineering, performance modelling and careful design decisions helped turn an ambitious sustainability brief into one of the world's most advanced government buildings

Mohammad Ballout

A net-zero building is not created by adding solar panels to an otherwise conventional design. Its performance is shaped much earlier, through decisions about everything from the façade and glazing to cooling, lighting and controls, and how those individual systems work together.

That challenge was particularly significant at Al Shera'a, the new headquarters of Dubai Electricity and Water Authority (Dewa) in Al Jaddaf. Conceived as a benchmark for sustainable government buildings, the project initially targeted net-zero energy performance.

The completed building has gone further with Dewa's Al Shera'a becoming a net-positive building, generating more clean energy annually than it consumes.

KEO joined the project during the Design Development phase, working alongside the wider project team to help translate Dewa's sustainability ambitions into a co-ordinated, performance-driven engineering solution.

A collaborative approach brought architectural and mechanical, electrical and plumbing systems closer together, while detailed energy analysis helped assess demand and identify opportunities to improve efficiency without compromising occupant comfort or operational requirements.

Considering the UAE's climate, cooling was inevitably central to that equation. The team examined façade performance, solar shading, glazing specifications and building-envelope efficiency to limit heat gain and reduce cooling loads before energy was consumed.

Designing out demand

The emphasis on reducing demand extended across the building with KEO using the outputs of the energy modelling and performance analysis to inform design decisions.

High-performance HVAC solutions were coordinated with energy-efficient lighting, advanced building automation and smart controls. Detailed design coordination and performance modelling helped align these systems with the project's long-term energy targets.

Renewable generation formed the other side of the equation.

Photovoltaic systems were incorporated to harness Dubai's abundant solar resource, with the design process evaluating the relationship between on-site generation, building loads and system efficiency. The completed building has around 5MW of solar generation capacity.

The sustainability strategy extended beyond energy. Water conservation measures, intelligent building operations and indoor environmental quality were incorporated into the design, recognising that a high-performance workplace must combine resource efficiency with occupant wellbeing.

The integration of architectural, mechanical and electrical systems was therefore a key factor in achieving the building's performance targets.

Al Shera'a has since achieved LEED Platinum certification for New Construction, scoring 102 points out of a possible 110.

Its achievement illustrates a broader lesson in sustainable design that there is no single technology that makes a building net zero, or net positive. Performance comes from the interaction between architecture and engineering, from reducing demand before adding generation, and from ensuring individual systems work as a whole.

For KEO, the project demonstrates how integrated engineering, performance modelling and multidisciplinary collaboration can help convert ambitious sustainability targets into measurable operational outcomes.



Mapei's Technical Expertise at Dewa's Al Shera'a Headquarters

The company brings its technical expertise from specification and system trials through to execution, working with the project team to develop a solution tailored to the project's performance and design requirements

At Dewa's Al Shera'a Headquarters, Mapei's contribution extended beyond the supply of materials. The project called for a finish that could meet demanding sustainability, safety and durability requirements while achieving the architect's intended appearance across a substantial area. Mapei brought its technical expertise from specification and system trials through to execution, working with the project team to develop a solution tailored to the project's performance and design requirements.

A TAILORED SOLUTION FOR TERRAZZO AT SCALE

One of Mapei's most significant contributions was the development of a tailored cementitious terrazzo flooring system covering approximately 17,750m². Based on Ultratop, Mapei's rapid-setting, self-levelling cementitious technology, the system was developed as an alternative to the epoxy-based solution initially considered for the project.

The terrazzo solution needed to meet demanding environmental and fire-performance requirements while achieving the intended architectural appearance.

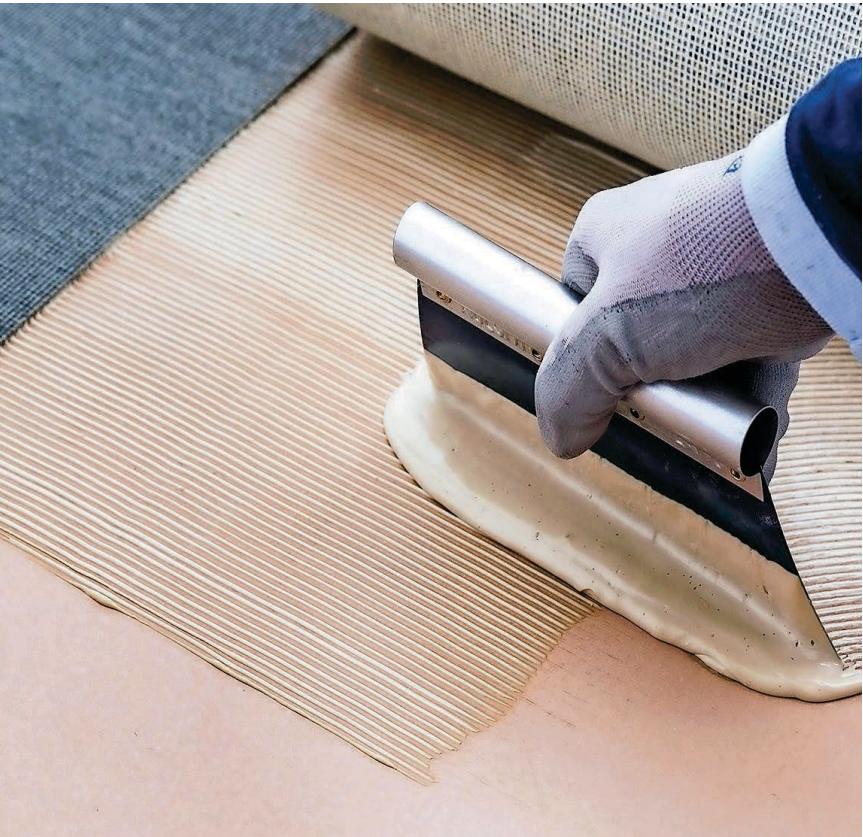
Mapei worked with the consultant, contractor and specialist applicator through mock-ups and trials to refine the colour, appearance and flooring build-up before the system received approval.

Delivering a consistent exposed finish across such a substantial area required careful attention to the complete flooring system. Substrate preparation, bonding layers, reinforcement and crack-control measures were coordinated as part of the solution, followed by protective treatments and polishing to achieve the required finish and durability.

The same precision extended to the building's metal staircases, where the terrazzo appearance had to continue across the stairs while maintaining visual continuity with the surrounding Ultratop flooring. Mapei supported the development of a bespoke moulded staircase system and installation solution designed to address adhesion, movement and durability while preserving the intended architectural finish.

ENGINEERING THE DETAILS THAT MATTER

Beyond the main terrazzo areas, Mapei delivered specialised flooring to other interior spaces and installation solutions



across ceramic, resilient and wood flooring. In wet areas and service spaces, ceramic installation systems provided reliable adhesion and moisture resistance while supporting durable finishes suited to regular use and maintenance.

Across approximately 60,000m² of offices, the library, gymnasium, auditorium and stage areas, Mapei supplied systems for carpet tiles, resilient vinyl and

wood flooring. Coordinated primers, levelling compounds and specialised adhesives helped create stable flooring build-ups suited to the requirements of each application.

This wider scope brought together more than 15 Mapei products across a range of flooring and installation applications, each selected to meet the specific requirements of its setting. Low-emission

solutions also supported the project's indoor environmental quality objectives, while pressure-sensitive adhesive technology in office areas allows individual carpet tiles to be replaced more easily during the building's operational life.

A TECHNICAL PARTNERSHIP IN PRACTICE

On a project of this scale, performance is ultimately determined by the details. Mapei's Technical Services team addressed the practical requirements behind each system, advising on floor build-ups, joint planning, screed and insulation details, substrate preparation and crack management. Mock-ups and system trials allowed the solutions to be tested and refined in practice, while close coordination with applicators helped resolve installation requirements on site.

This level of technical coordination was particularly important across the project's different flooring applications, where substrate conditions, system compatibility and installation details varied from one area to another.

Mapei's technical oversight helped maintain consistency across the flooring package while ensuring that each system addressed the specific performance requirements of its application.

Now one of Mapei's largest Ultratop applications in the UAE, the project provides an important reference for cementitious terrazzo at scale. It also reflects Mapei's approach to major projects: combining product technology with technical expertise and close collaboration to develop solutions around the specific demands of a building and support their delivery on site.



Interface® A Smaller Footprint Underfoot

At Dewa's Al Shera'a headquarters, Interface's 55,000 square metres of low-carbon carpet flooring tells a business story about material innovation, staying power and turning sustainability specifications into a finished building

When Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, inaugurated Al Shera'a in Al Jaddaf, Dubai, this year, the headlines went to the height and the artificial intelligence. Dewa's new headquarters was unveiled as the world's tallest, largest and smartest net-positive government building. Its Arabic name means 'sail', symbolising movement, progress and openness. Few visitors will think about the surface they walk across to admire it.

Interface, the carpet-tile maker, supplied a little over 55,000 square metres of flooring to the project, covering most of the building's front-of-house areas. Dom Formilleza, the company's sales and specifications manager, says it was a specification win years in the making.

The carpet used in the building is from Interface's Conscience range, built on a bitumen-free, bio-based backing that Becky Gordon, Interface's EMEA sustainability manager, describes as the product of 'years and years' of research. Traditional backings lean on virgin petrochemicals. This one uses recycled and bio-based content instead, and the backing alone is carbon negative because the bio-based material stores carbon. With the yarn included, the finished tile is about 89 per cent recycled and bio-based material.

Gordon puts numbers on it. The range carries a footprint of 6.68 kilogrammes of CO₂e per square metre, against an industry average she places at 8 to 10 kilogrammes, 'and some products much, much higher'. Across the project, that works out to about 369,210 kilogrammes for the entire installation. Using the conservative 10-kilogramme benchmark, the saving comes to roughly 183,500 kilogrammes of carbon, a figure Gordon worked out on the call.

This is Interface's stated direction. The company has pursued a mission to be carbon negative as an enterprise by 2040, after announcing in November 2019 that it had achieved its earlier Mission Zero goal ahead of schedule. Its own materials

say it introduced the first carbon negative carpet tile in 2020, on a cradle-to-gate basis. At Al Shera'a, Gordon says, the approach rests on three questions, namely, how products are made, how long they last, and what happens at the end of their life.

Durability, not just credentials

Formilleza says the brief demanded both sustainability and long-term performance in a government headquarters with heavy daily traffic. The product meets the EN 1307 wear-classification standard for commercial carpet, Interface backs it with a 15-year warranty, and its yarns are cleanable with the correct materials. The 50-by-50-centimetre tile format helps too. For instance, a badly stained tile can be replaced 'in an instant', not the whole room.

On indoor air quality, Gordon says the range carries Green Label Plus certification and traps more dust than a typical carpet tile, and far more than hard flooring. Alongside the product's environmental product declarations, these documents feed into certification schemes such as LEED and WELL. Al Shera'a was designed to achieve LEED Platinum and WELL Gold certification, and Dewa announced in August that the building earned 102 out of 110 points in the LEED New Construction category.

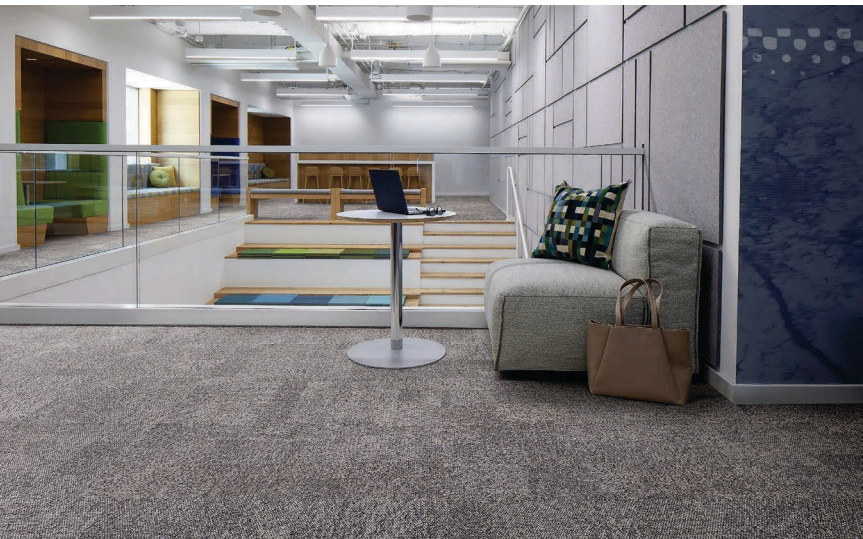
The price question

The obvious objection to sustainable materials is cost. Maliakal answers it directly. Every Interface product is built to the same sustainability standards, he says, so there is 'no real markup to be more sustainable'. Against European or American manufacturers on a like-for-like basis, he puts Interface '5 per cent here, 10 per cent there', and attributes that to design and manufacturing complexity rather than green credentials. Formilleza adds that even Interface's lower-priced ranges have low embodied carbon, and that multinational clients increasingly require it. "It's basically their responsibility," he says of the carbon they own through the spaces they occupy.

The end-of-life gap

The least settled question is what happens when the carpet comes up. Globally, Interface runs a take-back programme, ReEntry, which takes back used Interface carpet tiles for reuse and recycling. In the Gulf, Gordon says, there is no standard offering yet. Cross-border waste rules exist for good reasons, and this backing can be recycled only at Interface's European manufacturing site, which makes shipping difficult. The Al Shera'a carpet was made entirely at the company's plant in Scherpenzeel, in the Netherlands, so that is where it would have to go.

Maliakal says GCC recycling "is not re-



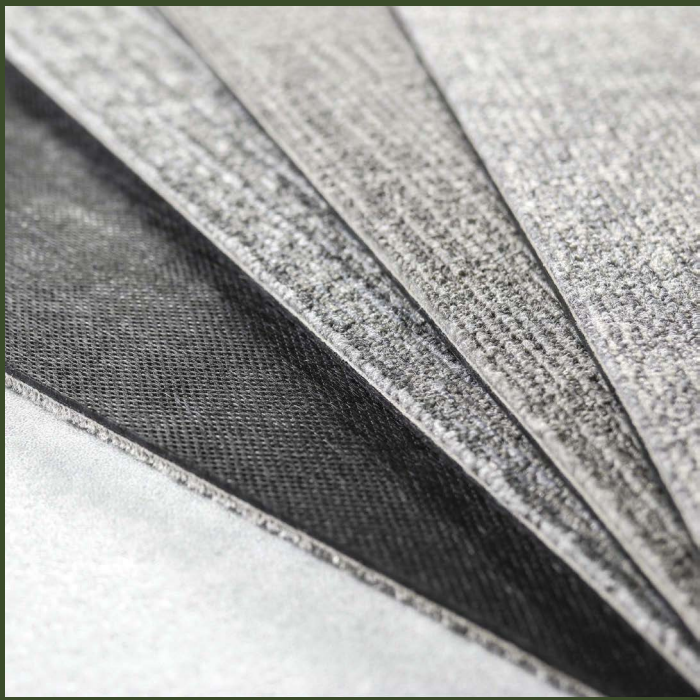
ally a viable option as of now," and that it will take industry-wide action. Interface convened a roundtable with competitors in 2024 to explore reuse, cleaning and charitable routes, though "nothing really happened since then," he admits. Storage, cleaning and logistics all cost money. "It'll be a slow burn for sure," he says. "But we do want to get there."

What comes next

Gordon argues that the low-carbon interior of the next decade will come from circular thinking, which means, transparent product declarations from the start, products that last, and modular formats that let owners replace parts of a floor, not all of it. "Every time you put a new product into a building, that's more carbon footprint," she says. Design matters equally. A product with excellent numbers that looks wrong for a space will be ripped out early.

For Maliakal and Formilleza, the proudest moment was not the final tile laid. It was holding the specification against strong competition, on the strength of sustainability credentials, in a project that stretched across nearly a decade. "That's what drove the spec," Maliakal says.

Interface has been in the region for more than three decades, and now sells mainly into commercial offices, education, healthcare, hospitality and aviation. If Al Shera'a is any guide, the floor is becoming part of the sustainability story, not just something a building stands on.

**Interface®**

FROM LANDMARK PROJECTS TO IMPACT AT SCALE



In collaboration with OFIS, we are proud to have supplied more than 55,000m² of flooring to DEWA's Al Shera'a headquarters, a project setting new standards for sustainable building design.

The product selected for the development incorporated the technology that would become today's CQuest™Bio backing. That innovation has since been rolled out across our entire EMEA carpet tile portfolio, ensuring every carpet tile we manufacture benefits from lower embodied carbon.

Building on this foundation, CQuest™BioX has enabled a significant part of our portfolio to be offered as a carbon negative option, helping customers reduce

the footprint of their interiors without compromising on performance, aesthetics or design choice.

Because the greatest environmental impact comes not from a single sustainable product, but from making better products the standard.

Discover more.

interface.com/sustainability