

60 YEARS AND BEYOND...

A vision for a thriving future



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01

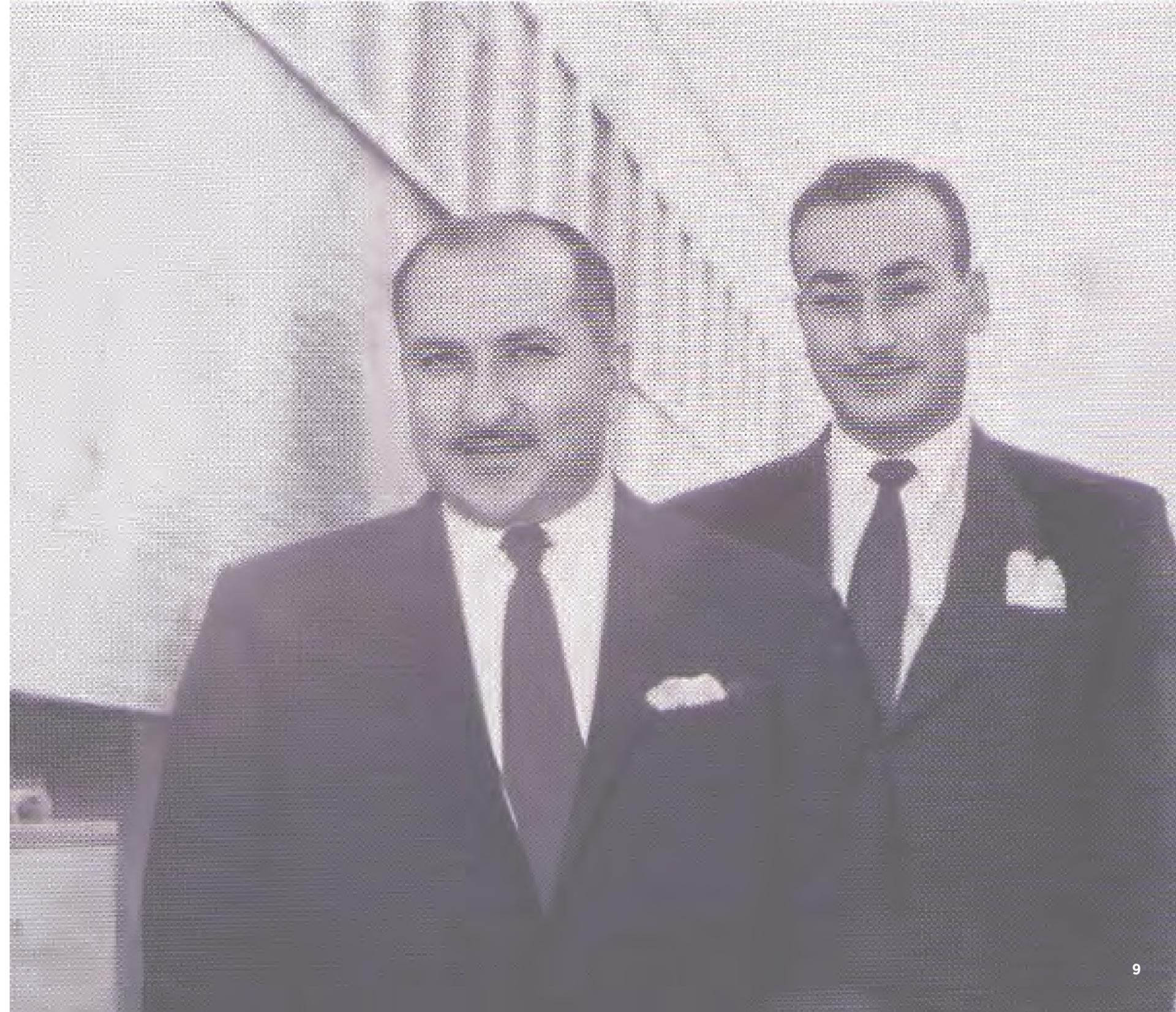
**CELEBRATING
60 YEARS OF
HISTORY**

**1964
2024**

Celebrating 60 Years of History



In the early days of 1964, a shared vision brought together two extraordinary minds, Prof. Mounir Khatib and Dr. Zuheir Alami. They envisioned a future where local talent could meet the high standards of engineering and architecture that our region so desperately needed. Fueled by their teaching salaries and an unwavering belief in their dream, they founded Khatib & Alami (K&A).





First Arab Bank building in Downtown Beirut



K&A's first office at the Gondole building in Beirut, Lebanon

Operating from a modest office, K&A's journey began in Lebanon, where our pioneering work on the Arab Bank building in Downtown Beirut set the foundation for something much greater.





The Ras El Khaimah bridge, UAE

From these humble beginnings, K&A set on an ambitious path. The late 1960s and early 1970s were marked by key projects that laid the groundwork for our expansion. K&A's reputation grew with each successful project, from overseeing building designs in the Emirates to tackling infrastructure in Oman. By 1969, significant highway project in Saudi Arabia opened new doors, and a prestigious contract with Bahrain's Ministry of Municipal Affairs in 1972 further solidified our standing. The crowning achievement came with winning the competition to design the Holiday Inn Hotel in Bahrain, which signaled our entry into the hospitality industry and inspired dreams of international growth.



Ministry of Municipal Affairs, Bahrain



Ghubrah desalination and power plant, Oman

The interconnected Holiday Inn hotel, Bahrain



K&A's first office at the Gondole building, Beirut



As workload surged in the mid-1970s, Prof. Mounir Khatib and Dr. Zuheir Alami faced a crucial decision. Leaving their teaching posts at the American University of Beirut, they dedicated themselves entirely to K&A.

The burgeoning demand led to the establishment of regional offices across the Middle East. The founders recognized the changing times and embraced technological advancements, integrating computers and AI to streamline operations. This era was not without its challenges, but K&A's resilience and commitment to excellence saw them through political instability, garnering prestigious projects, particularly in high-end educational and medical facilities.



BUILDING A STRONG GIS FOUNDATION

A photograph of a modern blue and white Dubai Metro train traveling on an elevated track. The train is moving towards the viewer. To the left of the tracks is a multi-lane highway with several cars. In the background, there are tall modern buildings and a clear sky. A semi-transparent circular graphic is overlaid on the top left of the image.

Collaborative projects
like the Dubai Rail
Project and

A photograph of a train traveling through a vast, arid desert landscape. The train is moving away from the viewer along a long, straight track that stretches into the distance. The terrain is sandy with sparse, low-lying vegetation. A semi-transparent circular graphic is overlaid on the bottom right of the image.

the world's largest
North-South Railway
in Saudi Arabia laid
the foundation for our
regional leadership in
the railway sector.

Entering the 21st century, K&A's journey of growth and innovation continued to flourish, leading to our expansion into Africa and the establishment of new offices in Sub-Saharan, Central, and East Africa. Landmark projects like the Rose Rayhaan, the world's tallest hotel, and the Eco Towers, the first Platinum Rated Building in the Middle East, showed our commitment to sustainability and excellence. As the first Platinum Partner of Esri and Schneider Electric in the Middle East and North Africa, K&A has been honored with prestigious awards that benchmark our significant achievements in GIS technology.

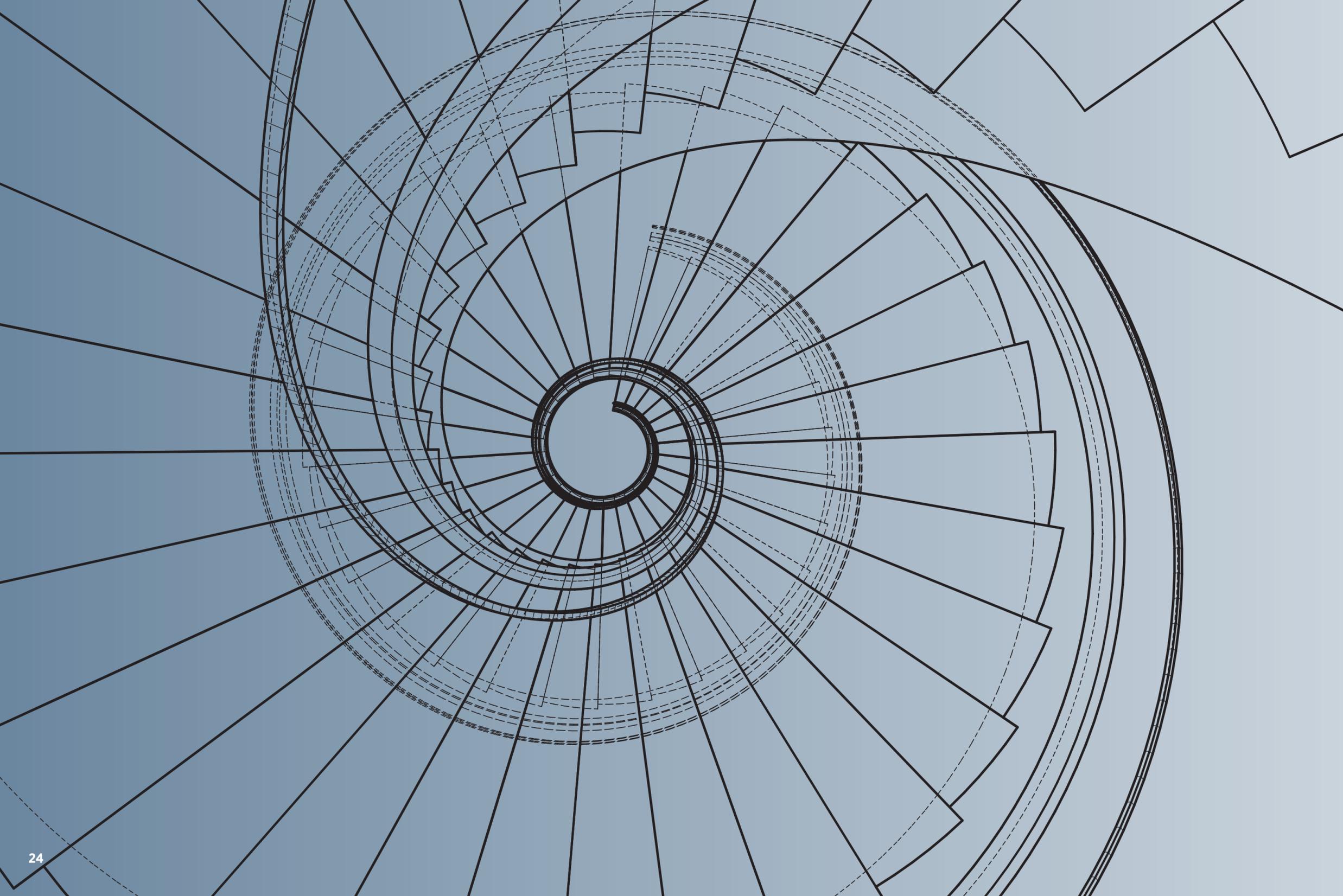


Rose Rayhaan, the world's tallest hotel

Eco Towers, the first Platinum rated building in the Middle East



By 2014, K&A has grown into a global powerhouse with over 6,000 employees, a significant increase from our modest beginnings. Despite our size, we maintained a familial atmosphere, encouraging team spirit through regular team-building events and open communication. We attribute our success factors to exceptional service, quality, and dedication to client satisfaction. With a network spanning 30 offices worldwide and a distinguished position among the Top 50 design firms globally, K&A continues to push boundaries, using cutting-edge technology, exploring new markets, and prioritizing social and environmental responsibility.



60 Years and Beyond.

Our previous publication, *5 Decades of Success Stories*, recounted the transformative journey of K&A over the first 50 years, detailing our evolution from a small consultancy firm to a global leader in the industry. It captured the essence of our vision, values, and milestones, providing a comprehensive overview of our achievements and the foundation upon which we have built our success.

As we commemorate 60 years of excellence, innovation, and growth at K&A, we reflect on a decade marked by unprecedented challenges and remarkable achievements.

The past decade, however, has brought new challenges and opportunities. From navigating the global impacts of the COVID-19 pandemic to embracing digital transformation and sustainability, we have demonstrated our ability to adapt and thrive in a rapidly changing world.

The 60 Years of Growth and Vision for a Thriving Future book aims to encapsulate the essence of these ten years, highlighting our strategic initiatives, key projects, and the innovative solutions that have defined our journey.

We invite you to join us in celebrating six decades of K&A and to explore the success stories, achievements, and lessons that have shaped our path forward.

02

2014
2024

STAYING AHEAD IN A FAST-MOVING INDUSTRY



STAYING AHEAD IN A FAST-MOVING INDUSTRY

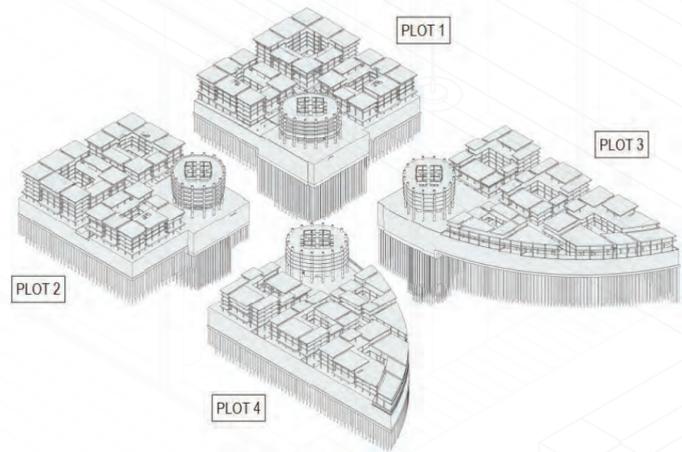
Over the past decade, the Architecture, Engineering, and Construction (AEC) industry has experienced transformative changes driven by technological advancements. K&A has witnessed these changes firsthand and our journey through this technological revolution has reshaped our approach and significantly boosted our performance, setting new benchmarks in the industry.



Augmented Reality (AR)



The integration of Virtual Reality (VR) and Augmented Reality (AR) has revolutionized our project presentations and design reviews. These technologies have allowed K&A to immerse clients and stakeholders in realistic virtual environments, enabling us to identify potential issues and refine designs with unparalleled precision before construction begins. Furthermore, drones for site inspections, IoT for real-time monitoring, and advanced robotics for automating repetitive tasks have become integral to our operations, streamlining processes and significantly reducing human error.



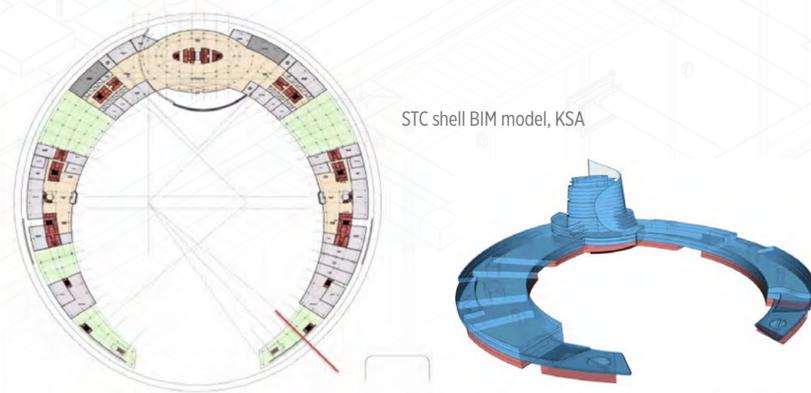
Lusail Plaza Towers, Qatar



Lusail Plaza Towers structural BIM model



Saudi Telecom Company (STC) project, KSA



STC shell BIM model, KSA



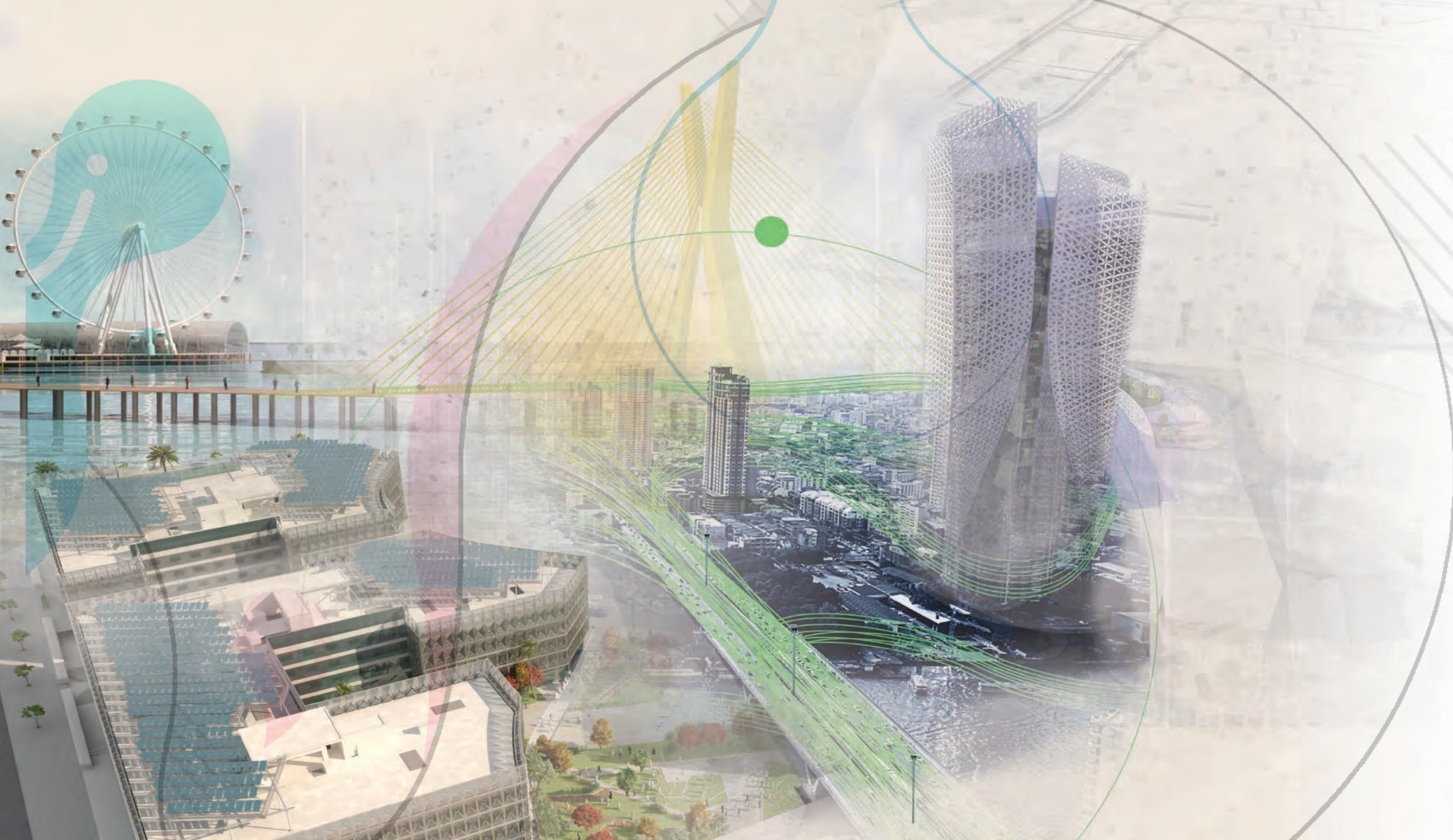
Bulgari Ocean Mansions, UAE



AUBMC Academic and Clinical Center, Lebanon

K&A's adoption of Building Information Modeling (BIM) has been pivotal. BIM has streamlined workflows, reduced redundancies, and accelerated decision-making processes by centralizing project data and enhancing real-time collaboration. This digital backbone has significantly cut down project timelines and costs while maintaining the highest standards of quality. Machine learning and AI have further optimized project schedules and risk management, contributing to more streamlined and predictive planning processes.

Sustainability has been a cornerstone of our strategy. The shift towards eco-friendly materials, energy-efficient designs, and sustainable construction practices has not only aligned with global environmental goals but has also enhanced K&A's project resilience and market presence. Our use of technologies that simulate energy consumption and optimize resource management has ensured that new buildings meet stringent environmental standards. Sustainability-focused BIM tools are now integrated into every phase of our projects, from design to construction to operation, solidifying our commitment to sustainability.



Our investment in cutting-edge technologies, including drones for site inspections, IoT for real-time monitoring, and advanced robotics for automation has set us apart. These innovations have streamlined our operations, minimized human error, and raised our safety standards, enhancing overall project efficiency. In 2019 alone, K&A's technology investment soared to \$16 million, reflecting our unwavering commitment to innovation and excellence. This investment has not only enhanced our capabilities but also reinforced our position as leaders in the industry.

As the AEC industry continues to embrace digital transformation, K&A stands at the forefront, ready to leverage emerging technologies to drive further innovation. Our ongoing Digital Transformation program, including the integration of SAP's ERP and CRM systems, has equipped us with advanced tools and processes to enhance operational efficiency and client engagement. We have also established a "Learning Organization," fostering continuous development and innovation through extensive training and mentorship programs.

The impact of these advancements is evident in our improved project outcomes, enhanced efficiency, and environmental impact. As we look to the future, K&A is poised to continue pushing the boundaries of what is possible in design and construction. Our commitment to innovation and sustainability promises to deliver even more groundbreaking solutions, ensuring that we remain at the forefront of the AEC industry, driving progress, and shaping a sustainable future.

03

**2014
2016**

A TRANSFORMATIVE DECADE

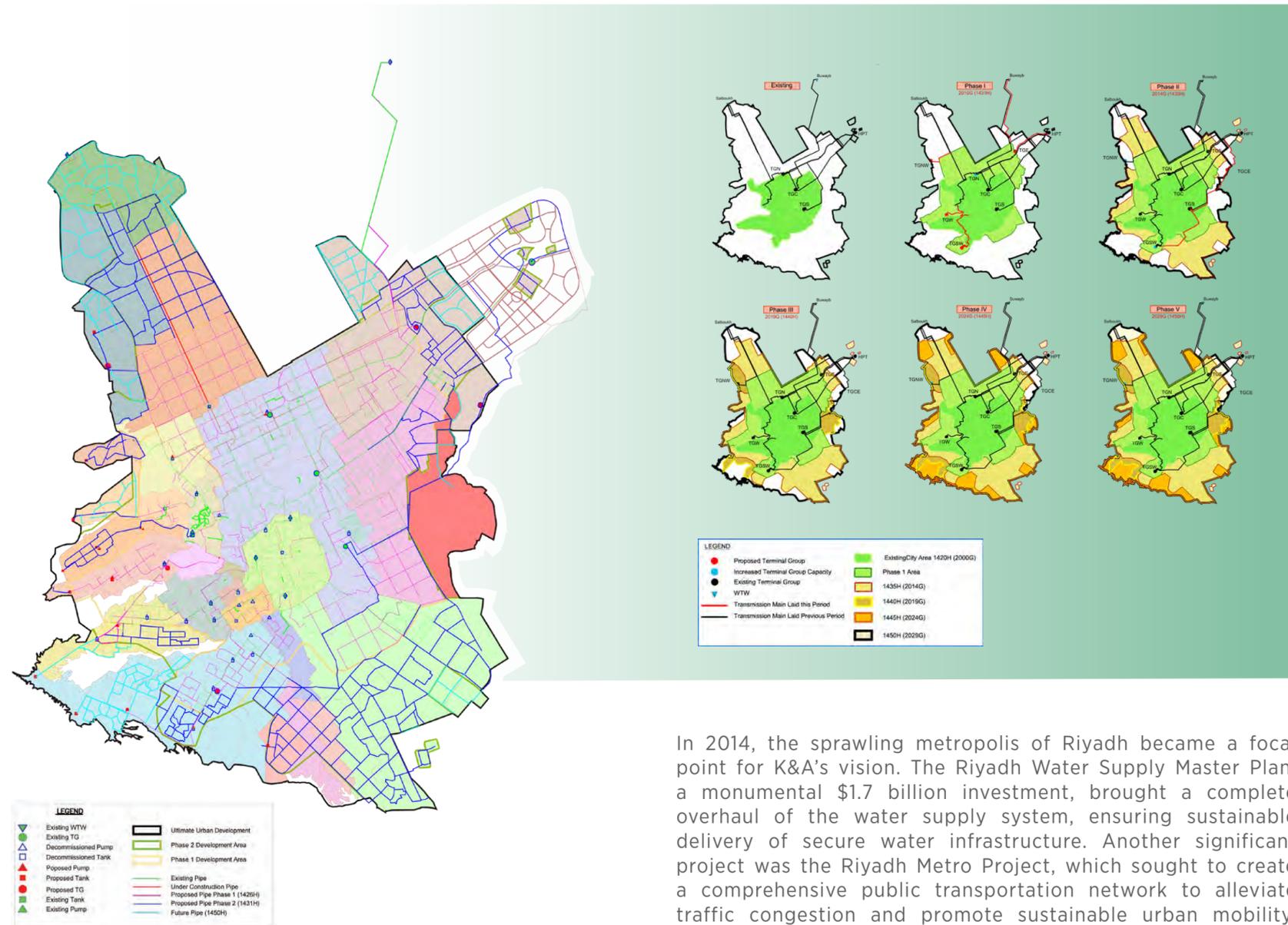




A TRANSFORMATIVE DECADE

The early years of the last decade brought an era of transformative growth and unparalleled achievement for K&A, solidifying its leadership in the AEC industry. Between 2014 and 2016, K&A undertook numerous ambitious projects, transforming urban landscapes and communities while deepening its focus on sustainability, technological integration, and global outreach.

Worldwide Vision, Local Focus



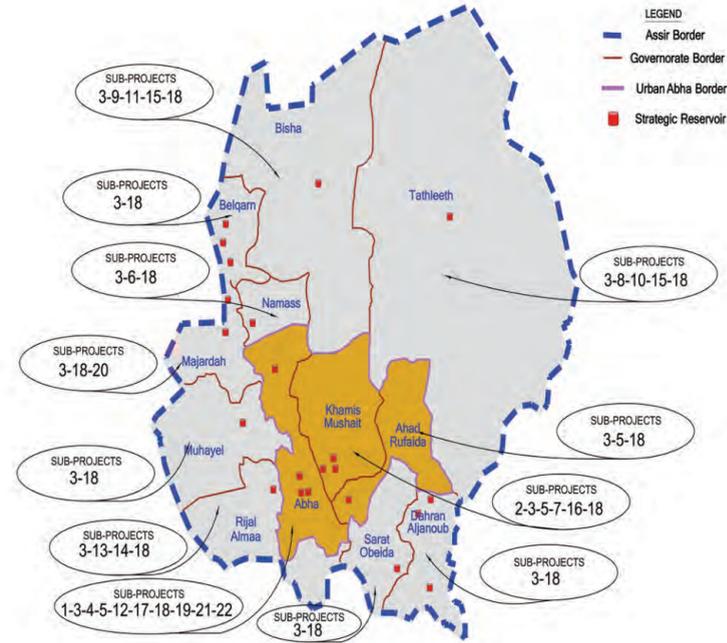
In 2014, the sprawling metropolis of Riyadh became a focal point for K&A's vision. The Riyadh Water Supply Master Plan, a monumental \$1.7 billion investment, brought a complete overhaul of the water supply system, ensuring sustainable delivery of secure water infrastructure. Another significant project was the Riyadh Metro Project, which sought to create a comprehensive public transportation network to alleviate traffic congestion and promote sustainable urban mobility. With six metro lines covering 176 kilometers and an integrated 85-kilometer bus rapid transit network, this ambitious project was set to transform the city's transportation infrastructure.

Delivered successfully, these projects showcased K&A's ability to tackle complex urban challenges, setting the stage for future ambitious endeavors. Not far behind, K&A was appointed the consultancy role for the Bawabat Makkah Infrastructure Project, a massive 102 km² mixed-use development. Planned to cater to a burgeoning population of 925,000 by 2025, Bawabat Makkah was more than just a construction project; it was a vision of a future community, meticulously designed to balance modernity with cultural heritage.





Assir Strategic Master Plan, KSA



Duqm New Port and Dry Dock Complex, Oman

Oman, too, benefited from K&A's expertise. The sprawling Duqm New Port and Dry Dock Complex in Oman was designed to accommodate a variety of vessels and facilities and become a crucial maritime hub, enhancing the region's economic landscape.

While Saudi Arabia's National Spatial Strategy focused on curbing urban sprawl and encouraging balanced, sustainable development nationwide, K&A's involvement in projects such as the Assir Strategic Master Plan further solidified its leadership in the Kingdom, showcasing its commitment to addressing sustainable development challenges. K&A was instrumental in delivering the Jeddah Economic City. This mega-project aimed to create a new urban center in the city, featuring the iconic Jeddah Tower which is set to be the tallest building in the world.



K&A was also involved in Egypt's New Administrative Capital project, a massive undertaking to relieve congestion in Cairo and create a new mixed-use hub for government and business activities. Additionally, we were tasked to deliver the Dubai Silicon Oasis (DSO) technology park in the UAE, supporting the growth of the technology sector in the region. This innovative project fosters innovation and entrepreneurship by providing state-of-the-art facilities for tech companies and startups.

Dubai Silicon Oasis (DSO) technology park, UAE



Onne Port Extension, Nigeria



Qatar Embassy, Philippines



Göztepe Training and Research Hospital,
Turkey

K&A's influence extended well beyond the Middle East with projects like the Onne Port Extension in Nigeria, the Qatar Embassy in the Philippines, and Göztepe Training and Research Hospital in Turkey.



Mushaireb project, Sudan

In Sudan, K&A was appointed by Qatari Diar to deliver the Mushaireb Project, a 206,000 m² lifestyle destination at the confluence of the White and Blue Nile. The project includes 3,000 residential units, retail and office spaces, and a luxury hotel. K&A developed the master plan, covering urban design, landscape, infrastructure, and architecture guidelines to ensure success and maximize the site's potential. This project highlights Sudan's growing optimism and aspirations, introducing an unprecedented sophistication to Khartoum.



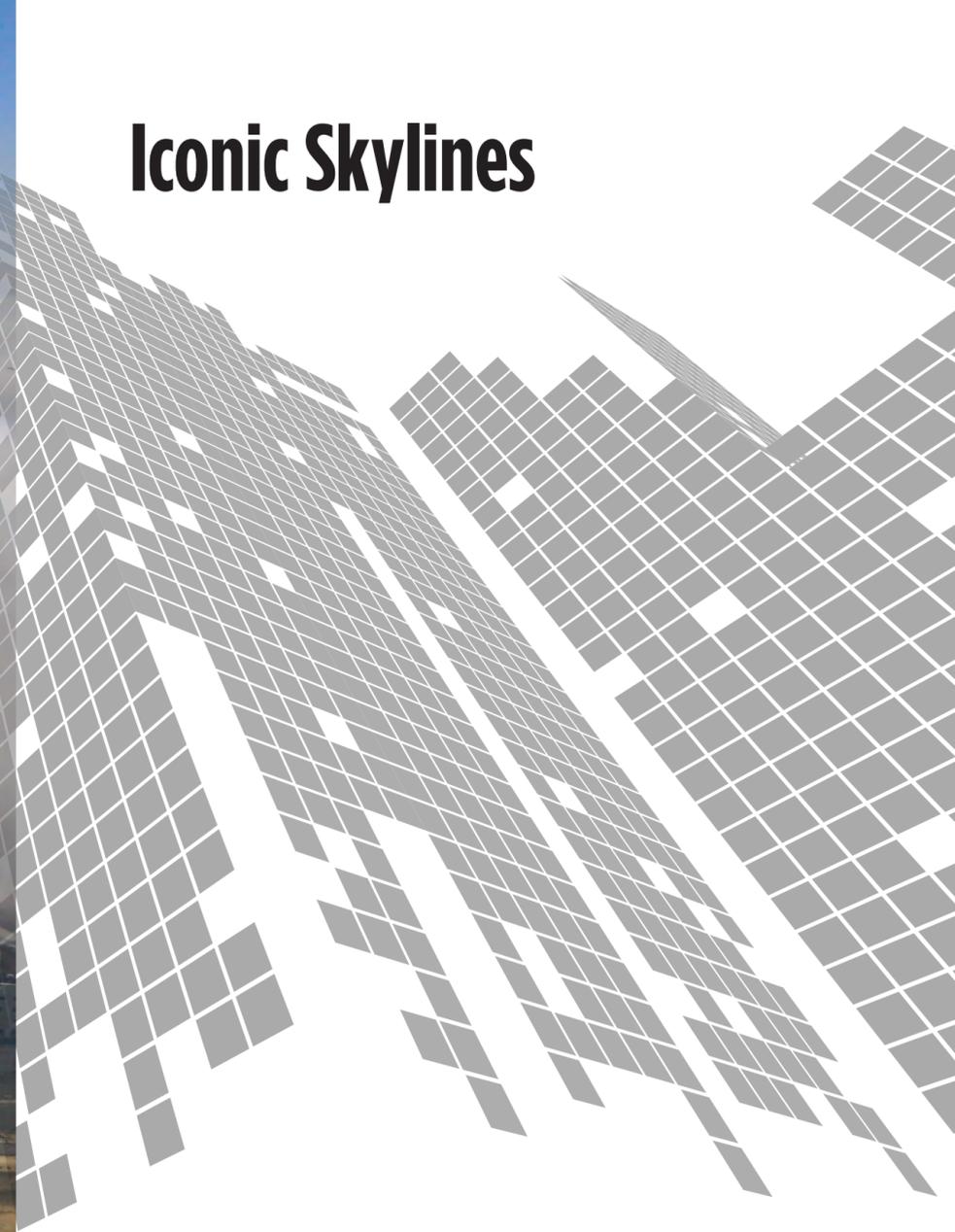


Moreover, K&A led the construction supervision of Port Gentil Stadium in Gabon, taking up the challenge to complete the stadium for the 2017 Africa Cup of Nations. Through these complex international projects, K&A has showcased its unwavering ability to excel in diverse markets, seamlessly manage intricate logistics, and lead international teams.



Gate District Towers, UAE

Iconic Skylines



Cayan Tower, UAE

K&A has made significant strides in the Middle East, showcasing its architectural expertise through several landmark projects. In the UAE, K&A's work on the Gate District Towers in Abu Dhabi and the iconic Cayan Tower in Dubai Marina, the world's tallest helix-shaped high-rise, earned multiple international awards and solidified the company's reputation in contemporary architecture.



King Abdullah Financial District (KAJD), KSA

This success extended into Saudi Arabia, where K&A delivered the King Abdullah Financial District (KAJD), a world-class financial hub, and the King Abdulaziz Center for World Culture (Ithra), a beacon of creativity and cultural enrichment, bringing visionary ideas to life, and making a lasting impact on the region's architectural and cultural landscape.

Furthering its influence, K&A led the revitalization of Manger Square in Bethlehem, seamlessly blending history with modern urban planning to accommodate global visitors. In Erbil, despite economic challenges, K&A continued to push boundaries with the Mass City Housing Project. This transformative mixed-use development sets a new benchmark for urban design in the region.



Erbil Mass City, Kurdistan Region - Iraq



Al Massara Psychiatric Hospital, Oman

K&A's reach extended to Oman, where the Al Massara Psychiatric Hospital stood as a beacon of advanced healthcare, and the Al-Bustan Complex, a mixed-use development, further enhanced Oman's rising stature as a premier destination for tourism and business.



In Lebanon, K&A reimagined the Littoral of North Metn with the Waterfront City master plan, integrating diverse building typologies and innovative land use strategies. By seamlessly incorporating social, economic, and environmental benefits into these projects, K&A continued to shape cities that are efficient, livable, and aligned with global sustainability goals.





K&A One: A Win-Win Transformation Program

Over the past decade, K&A has driven significant growth across the MENA region and beyond, fueled by a solid strategy and a deep passion for excellence. Recognizing the need to redefine our future vision and strengthen our market position, K&A launched the K&A One Transformation Program in 2015. This comprehensive initiative aims to unify K&A into a seamless, well-positioned company capable of thriving in an increasingly competitive market.

The K&A One Transformation Program has significantly enhanced our service offerings and delivery, ensuring clients receive standardized project delivery with tailored and responsive service from globally integrated design teams. As part of this initiative, we developed a new organizational structure with clearly defined roles, responsibilities, and career paths based on industry best practices. These changes aimed to support employee performance and growth, enabling K&A to identify and nurture star performers early in their careers.

Throughout this transformation process, K&A has been committed to preserving the company's unique culture and spirit established by our founders. We have focused on fostering a culture of continuous learning, capability building, and knowledge sharing, providing our employees with increased opportunities for growth and making K&A an even more exciting and promising career destination.



Internally, the benefits of this restructuring were felt with improved career development, knowledge sharing, and agility across the organization. The introduction of rotation programs and the integration of capabilities across geographies and sectors have further enhanced our offerings and services, significantly benefiting our clients.

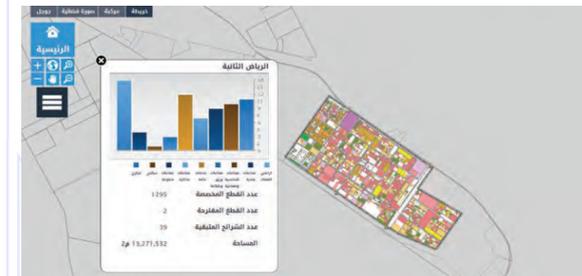
The new operating model and organizational structure have been clearly defined and communicated across all offices, ensuring a smooth transition for all team members. With over 400 new job descriptions, titles, and job grading structures in place, K&A became better equipped to deliver optimal performance and provide world-class services that align with our clients' 21st century ambitions.

K&A's focus on performance and corporate planning ensured that all efforts were aligned, internal coordination was strengthened, and our competitive edge was sharpened to deliver exceptional results, drive growth, and maintain our position as the partner of choice for clients across the region.

Smart Cities, Smarter Solutions

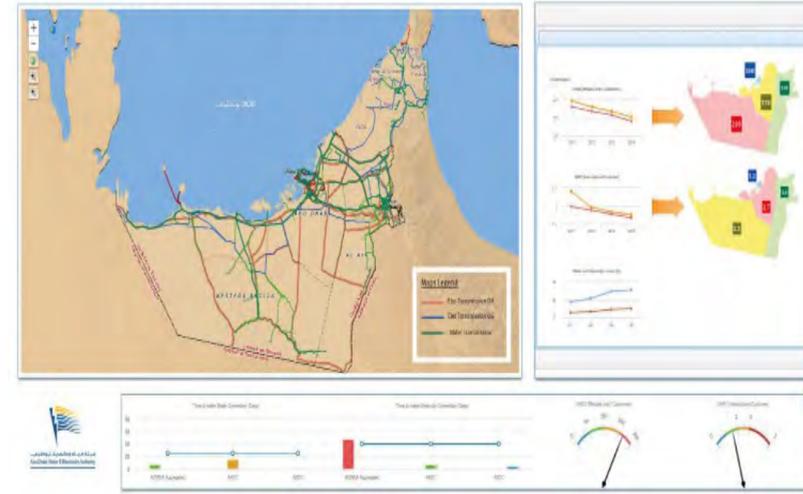
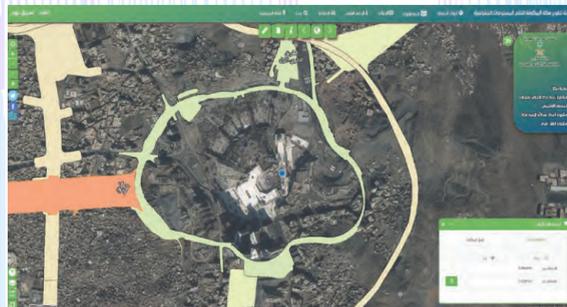
K&A has established itself as a transformative force in the Middle East through numerous groundbreaking projects and strategic initiatives merging urban development with technological integration.

In Dubai, K&A was pivotal to the ambitious Smart Dubai initiative, harnessing our deep expertise in geospatial technology and smart city innovations to transform the urban landscape. Our work helped establish Dubai as a global leader in smart urban solutions by creating an integrated, efficient, and data-driven city environment that set new benchmarks for connectivity and operational excellence. This initiative was further supported by our enterprise GIS upgrade and business integration project for the Abu Dhabi Water & Electricity Authority (ADWEA), aligning with Abu Dhabi Vision 2030 and reinforcing K&A's role as a key driver of technological advancements in the region.



Saudi Industrial Property Authority (MODON), KSA

Makkah and the Holy Sites GIS projects, KSA



Enterprise GIS upgrade and business integration project, UAE

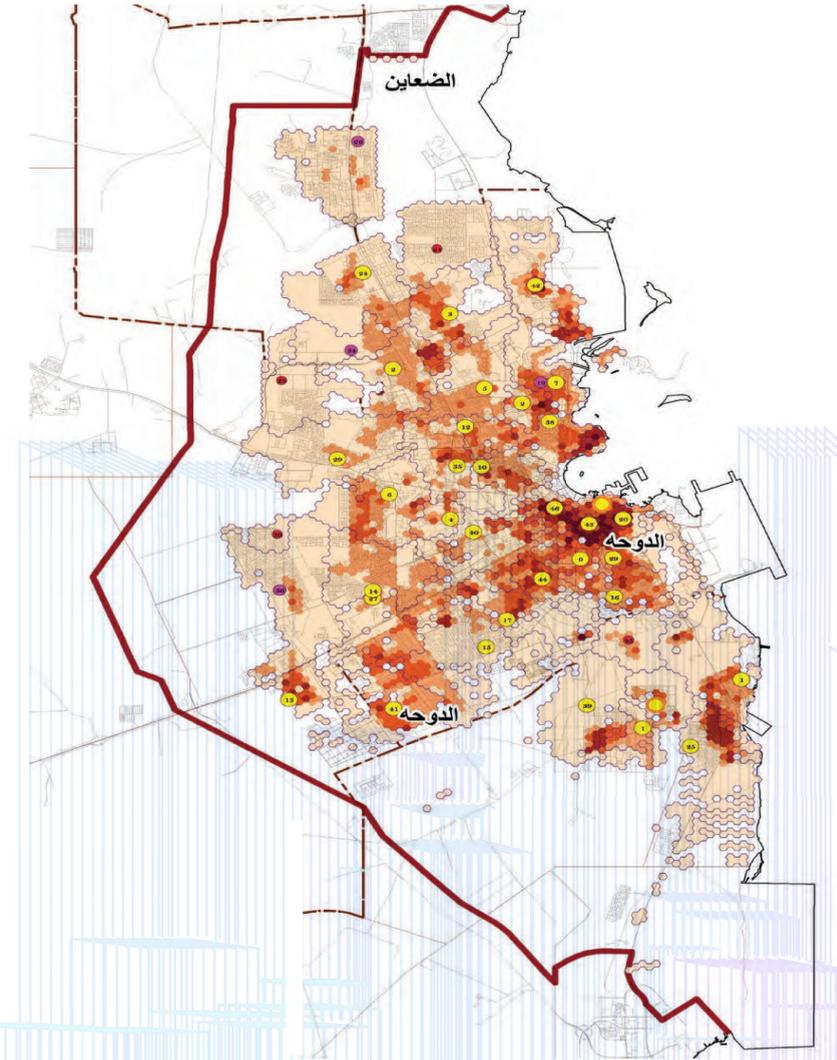
In Saudi Arabia, K&A's GIS team made notable strides by developing several applications for the Saudi Industrial Property Authority (MODON), introducing significant advancements in the management and evolution of industrial cities. Additionally, our GIS development projects for Makkah and the Holy Sites exemplified our ability to leverage cutting-edge technology for superior design, planning, and urban management, enhancing the spatial data infrastructure with an advanced enterprise geodatabase and a solid IT infrastructure that can accommodate 2,000 users.



Our influence extended to Riyadh, where K&A was commissioned by the Arriyadh Development Authority (ADA) to reassess and update the city's public services coordination plan. This extensive project aimed to accommodate the rapid urbanization and population growth by developing a comprehensive master plan. By integrating qualitative and quantitative data from various sources, we focused on optimizing the distribution of public services across the city's vast 5,400 km² area, ensuring long-term sustainability and improved quality of life for its residents.

K&A also undertook a turnkey project for the Oman Electricity Transmission Company (OETC), the country's sole franchised electricity transmission provider. This project aimed to create a robust GIS infrastructure with smart grid implementations and integration with various systems such as Supervisory Control and Data Acquisition (SCADA), Computerized Maintenance Management System (CMMS), and Energy Management System (EMS), enhancing the efficiency and scalability of OETC's operations.

Our work in Qatar on the Schools Master Plan project further demonstrated K&A's capability to integrate social and economic benefits into urban development. By applying our urban planning and GIS expertise, we supported the Supreme Education Council in enhancing education services. This strategic initiative, aligned with the Qatar National Vision 2030, focused on optimizing the allocation of educational facilities and forecasting future needs using intelligent and dynamic models and demographic data.



Schools master plan project, Qatar

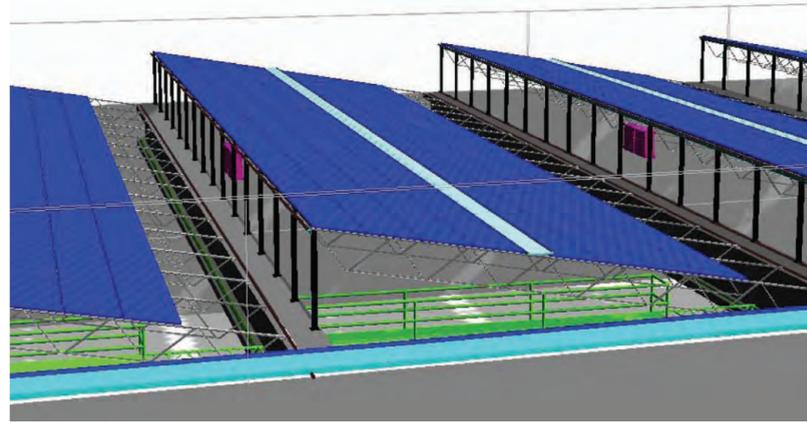
Future Ready

The first years were promising to K&A's visionary approach and dedication to innovation. Our unwavering commitment to sustainability, cutting-edge technology, and expanding global reach has solidified our role as an industry leader, delivering world-class services that have significantly impacted the AEC industry.

In 2014, K&A became Esri's first Platinum Partner in the Middle East and Africa, a testament to its innovative integration of geospatial technology into urban planning and infrastructure development. By leveraging Esri's advanced GIS tools, K&A enhanced its capability to design and manage complex urban environments, reflecting a forward-thinking strategy that set new standards in the industry. K&A's Geospatial Integration Systems Division (GSI) achieved a significant milestone by passing a rigorous CMMI level 3 appraisal, recognizing our well-defined and mature processes. This achievement, alongside our ISO 9001:2008 certification, underscored our commitment to excellence and quality in our operations.



Beirut River Solar Snake (BRSS) project, Lebanon



The same year, K&A was named the "Energy Ambassador of the Year" in the Lebanese company category at the 2014 Beirut Energy Forum Awards. This accolade followed K&A's pioneering involvement in the Beirut River Solar Snake (BRSS) project, an ambitious initiative to transform the Beirut River's channel into a sustainable energy source, supporting Lebanon's goal of achieving 12% renewable energy by 2020.

The establishment of the Bangalore Design Center in 2015 significantly bolstered K&A's global reach, providing a strategic hub for managing complex projects worldwide. This move was part of K&A's broader vision to expand globally by leveraging world-class knowledge and forming strategic alliances with prestigious global organizations, such as the American Society of Civil Engineers (ASCE). Our collaboration with ASCE and the American Academy of Water Resources Engineers (AAWRE) aimed to elevate the civil engineering profession in the Middle East and facilitate the ENVISION™ project rating system adoption for sustainable infrastructure. This partnership became a gateway to future collaborations, enhancing K&A's influence across all geographies.

In addition to these initiatives, our strategic alliance with New Century Software (NCS) marked a significant expansion into the Oil & Gas sector. Through this partnership, we delivered innovative, GIS-enabled solutions to energy transportation companies, further diversifying K&A's portfolio and solidifying our reputation as an industry leader in advanced GIS solutions.

The year 2015 saw K&A rank second among the Top 25 MEP Consultants in the Middle East, and by 2016, we had climbed to 39th among the Top 225 International Design Firms. This milestone coincided with K&A becoming Innozyze's Channel Partner for India. Through the Bangalore office, K&A began offering and supporting Innozyze's full suite of advanced analytics-driven asset management and smart water modeling products to water and wastewater utilities, municipalities, and engineering firms across India.

Ranked Top 5 in
MEP Middle East
25 Leading Consultants

Ranked Top 50 in
Engineering News-Record
225 International Design Firms

04

DIGITALLY EMPOWERING CITIES

2017



DIGITALLY EMPOWERING CITIES

Cities are increasingly excited about the transformative potential of smart technologies. These innovations are being integrated into all aspects of urban life, from transportation infrastructure and water systems to power grids and government services. As a result, smart cities are no longer just a concept; they are becoming a reality, taking shape in various forms across the globe.





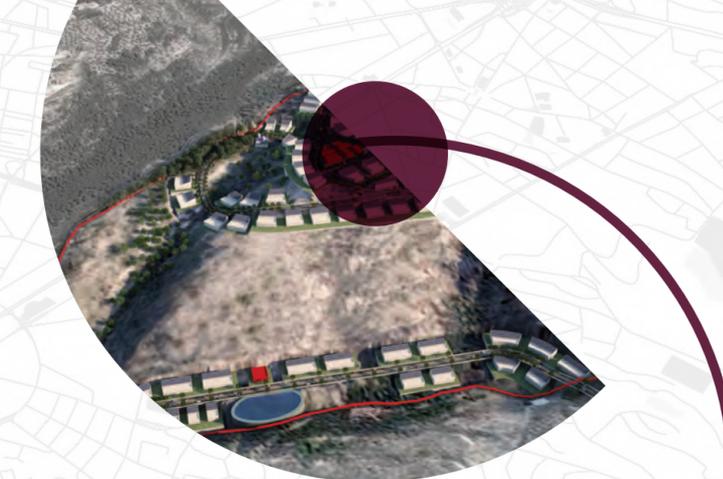
Paving the Way for Resilient, Adaptive, and Thriving Urban Centers



In Lebanon, K&A collaborated with Buro Happold and The World Bank on a comprehensive urban resilience master plan for Beirut, addressing risks ranging from earthquakes and tsunamis to climate change, mass migration, and urban challenges. Committed to improving lives and shaping the future, K&A played a key role in this ambitious project for Beirut, which spans over 100 km², collecting data, conducting surveys, providing technical advice, and developing various services.

To gain a deeper understanding of the city's shocks and stressors, K&A employed a multidisciplinary approach, combining the expertise of urban planners, designers, traffic and transport planners, and wet and dry utilities specialists. This holistic analysis covered mapping and boundaries, infrastructure, education and skills, health, communities and inclusion, quality of life, and legislation.

Building on our expertise in urban planning, we were also appointed by the United Nations Industrial Development Organization (UNIDO) to design three industrial zones in Lebanon. This included developing master plans for eco-industrial parks in Baalbek (510,000 m²), Tourbol - Kosaya (1,841,000 m²), and Deir El Moukhaless - Jleiliye (667,000 m²), featuring smart water management, energy-efficient designs, solar farms, and integrated waste management systems.



3D perspective of Deir El Moukhaless - Jleiliye site



3D perspective of Tourbol - Kosaya site



3D perspective of Baalbek site

In Oman, K&A was tasked by the Supreme Council for Planning (SCP) to prepare regional spatial strategies and conduct a national transport survey, covering an extensive area of 112,700 km². This project marks the third phase of the Oman National Spatial Strategy (ONSS), which seeks to establish Oman's future planning framework and define the strategic vision for the Sultanate's development.

The ONSS Project involved the preparation of a land use framework for development at national and regional levels, incorporating regional strategies for all governorates and policies for implementing a spatial strategy aligned with Oman Vision 2020 and Oman Vision 2040.

The core principles guiding Phase 3 included spatial and economic planning integration, equity in land use policies and processes, improved resource allocation, and enhancements in urban form, environmental quality, quality of life, public engagement, human resource development, and sustainability. These interconnected goals aimed to ensure a balanced and forward-looking approach to Oman's development.



Desert Rose existing site, UAE

Desert Rose Smart and Sustainable City in the UAE exemplified K&A's commitment to innovative urban planning and smart and sustainable living. The city, designed in the shape of a desert flower, was planned to accommodate 160,000 residents and feature user-friendly transport systems, renewable energy, recycled water for irrigation, and a 700-hectare green belt to enhance the microclimate and support agricultural production. As the lead consultant, K&A was responsible for the design, master planning, site survey and analysis, preparation of tender documents, and supervision.

A key feature of the city is its alignment with Transit-Oriented Development principles, including a City Centre with a pedestrian atrium served by an electric light rail and connected to Dubai's Green Metro Line. Additionally, the project hosts 10,000 affordable residential units and 20,000 sustainable homes, complemented by commercial, recreational, and healthcare facilities. This thoughtful integration of urban planning elements made Desert Rose a model for future sustainable cities.



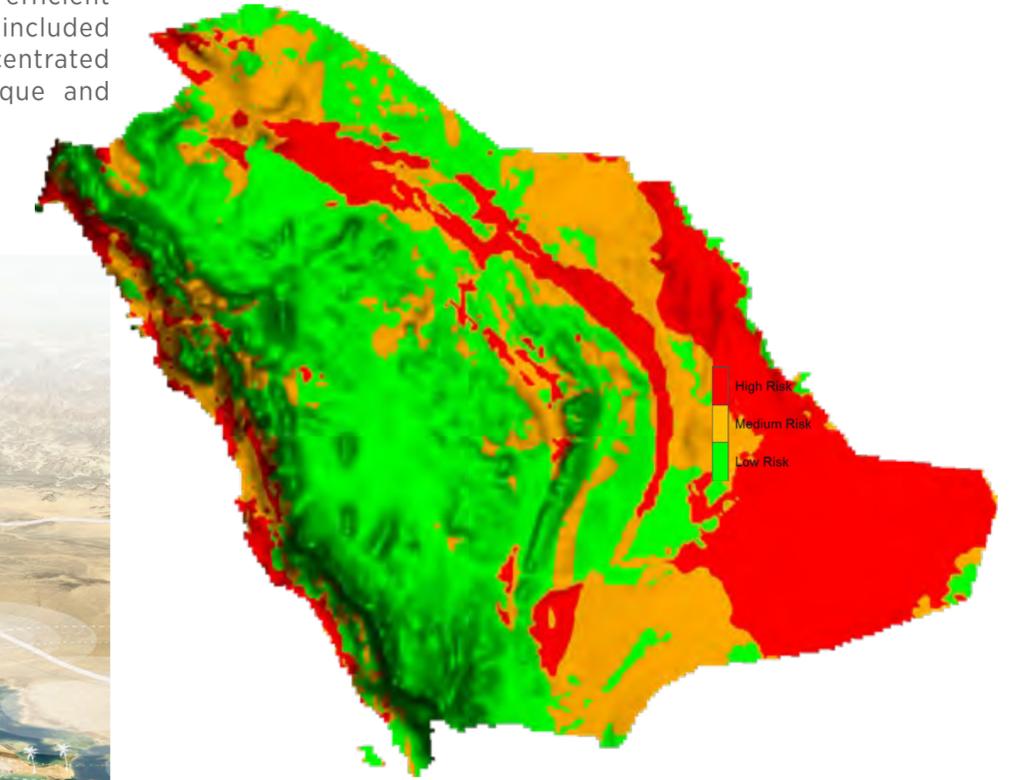
Oman National Spatial Strategy (ONSS)

Building on this success, K&A extended its expertise to Saudi Arabia, where it was commissioned to conduct a comprehensive site assessment and develop a smart infrastructure concept for spa resorts and eco-tourism projects along the Red Sea coast. Designed to host one million visitors annually, this project similarly focused on innovative technologies and environmental sustainability, incorporating smart integrated infrastructure systems, an Intelligent Transport System (ITS), energy-efficient technologies, and green buildings. The plan also included district cooling, desalination, water supply, and a concentrated solar power plant, making this development a unique and forward-thinking destination in Saudi Arabia.

Multimodal Intelligent Transport System (ITS), KSA



Sand drift risk zoning map projects, KSA



In addition to this, K&A was also commissioned to address the persistent issue of sand dune encroachment on Saudi Arabia's highways and railways. This project involved surveying over 6,000 km of roads across the Kingdom, particularly in critical sand-prone areas. K&A's work included sampling, advanced wind and weather modeling, Computational Fluid Dynamics (CFD) simulations, geotechnical stability analysis, and the development of remedial measures. Additionally, K&A created an extensive GIS database to support the project, contributing to safer and more resilient transportation infrastructure in Saudi Arabia.

**Pioneering assessment
and mitigation of sand dunes
on Saudi roads and railways**



K&A won the competitive World Bank bid to improve the performance and management of the Electricity Distribution and Supply Authority (EDSA) in Sierra Leone, West Africa.

This 3.5-year megaproject aims to modernize the newly formed national electricity distribution utility, addressing challenges such as high power losses, financial difficulties, low collection and electrification rates, and deteriorating networks.

and integration with enterprise systems like Oracle E-business suite, CRM, and SCADA. The primary objectives were to assess and upgrade SSDC's IT infrastructure to support the planned GIS integration, improve asset lifecycle management, enhance daily operations with accurate spatial data, and increase staff capabilities in a rapidly evolving technological environment.



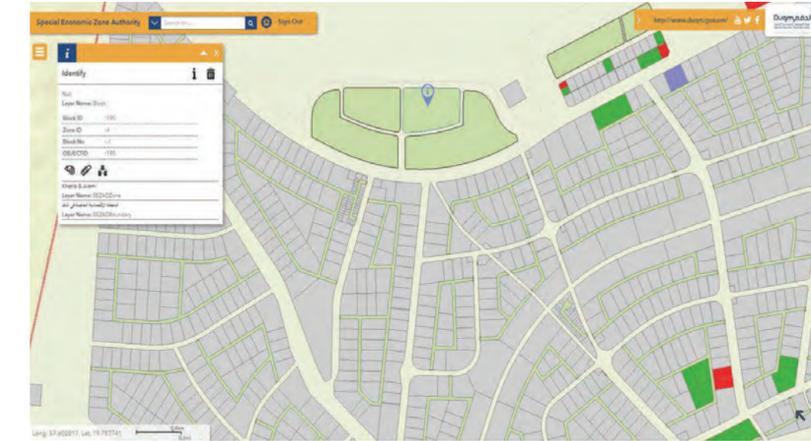
Salalah Sanitary Drainage Company (SSDC) project, Oman



Following the devastation of the civil war, the project has been life-critical for reforming Sierra Leone's electricity sector, enhancing EDSA's management and operational skills, improving customer service, and upgrading the distribution network to increase access to electricity for the country's population, where currently only 10% have access.

K&A also secured its first GIS project with Salalah Sanitary Drainage Company (SSDC) and a second major GIS implementation project for Energy & Utilities in Salalah, Oman. The project scope included project management, GIS system design, field data collection, Web GIS solution development,

Electricity Distribution and Supply Authority (EDSA), Sierra Leone



Duqm Special Economic Zone Authority (SEZAD), Oman

Building on its proven track record in Oman, K&A has been appointed by the Duqm Special Economic Zone Authority (SEZAD) to lead a Roadmap and GIS Implementation project. This strategic initiative aims to enhance SEZAD's land management, asset utilization, and customer value by developing three web applications to optimize land allocation workflows. By implementing a cutting-edge GIS solution leveraging Esri's latest technology, K&A helped streamline geospatial data distribution and operational management, thereby enhancing SEZAD's daily operations and aligning the project with SEZAD's long-term vision of positioning Duqm as a premier economic hub in the Middle East.



Duqm Special Economic Zone Authority (SEZAD), Oman

In Kuwait, K&A continued its partnership with Kuwait's Ministry of Electricity & Water (MEW) by launching a GIS Operation and Maintenance Project to elevate the existing GIS system to new levels of integration and operational excellence. This project focused on enhancing the entire GIS framework – encompassing people, data, engineering applications, and business processes – to improve the reliability of services, reduce operational costs, and support asset management. Over three years, K&A provided a skilled task force to collaborate with MEW's GIS team, reinforcing data procedures, empowering daily operations, and preparing the GIS system for future digital utility implementations. This initiative has supported MEW's transition towards a modern, seamless, and cost-effective IT infrastructure, aligning with its strategic direction to enter the digital era.

K&A received the prestigious "Trailblazer Award" at the Schneider Electric Link User Conference 2017, recognizing its innovative collaboration with Schneider Electric to drive business growth. As part of the Partners Track, K&A was also named one of the Top 10 partners for Schneider Electric GIS and ranked 8th overall in sales growth for 2016. This achievement marks another significant milestone in K&A's ongoing strategic partnership with Schneider Electric.



A Smart City Cannot Exist Without Robust Infrastructure

The foundation of smart urban development relies on a well developed infrastructure that supports the integration of advanced technologies and systems. Without reliable and scalable infrastructure, smart city initiatives would lack the necessary framework to function effectively, making it a critical prerequisite for their successful implementation and growth.

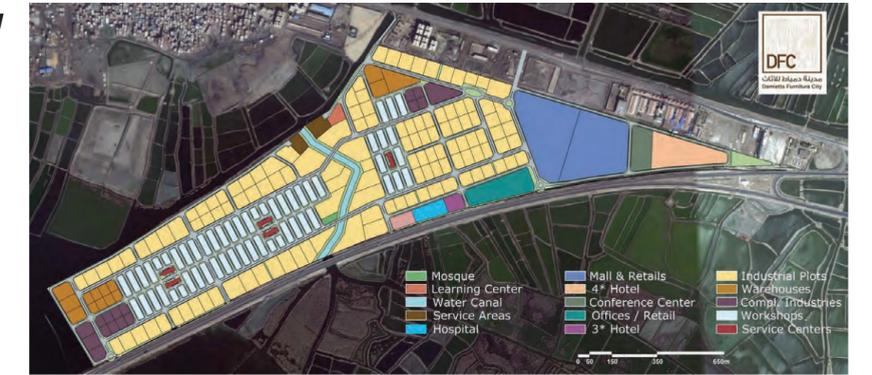


King Abdulaziz City for Science and Technology

A Microclimate that Offers a Secluded Pedestrian-friendly and Community-oriented Development

K&A has addressed the challenges of urbanization, transportation, and energy through sustainable, compact, and smart city planning. K&A pioneered Transit-Oriented Development (TOD) in 2008 with its consultancy work on the King Abdullah Economic City (KAEC) in Saudi Arabia, one of the country's first TOD projects. Building on this, K&A has designed the King Abdulaziz City for Science and Technology (KACST) mixed-use neighborhood in Riyadh, focusing on a pedestrian-friendly, community-oriented development centered around two metro stations.

Our work on KACST aligns with Riyadh's shift toward a less car-dependent city, with the new transit stations changing mobility patterns and supporting a TOD-oriented urbanization model. A key feature of KACST's design was the replacement of traditional road networks with a "spine" — a shared surface adapted to the site's demand to maximize residential development and metro stations' integration, enhance pedestrian safety, and support neighborhood liveliness. This approach reflects a broader shift from car-oriented urbanism toward integrated, multimodal transportation networks that create high-density, pedestrian-friendly nodes.



Damietta Furniture City

Pivotal Project Set to Transform Egypt's Furniture Industry with Advanced Technologies and Export Growth

Damietta city, strategically located between the Nile and the Mediterranean Sea, is renowned as one of Egypt's key furniture manufacturing hubs. The Egyptian Ministry of Trade and Industry commissioned K&A to design and oversee the construction of a specialized furniture manufacturing park within the city. This initial phase includes infrastructure works, small and medium manufacturing workshops, and service centers.

Phase 1 features a comprehensive range of infrastructure services: a 14 km sewage network, two pump stations, a 15 km water supply network, a 5,000 m³ water tank, 20 km of road networks, and an electrical network with 50 km of medium voltage and 40 km of low voltage cables. The project, covering 67.2 hectares of the total 139.44 - hectare site, includes manufacturing workshops, a city services center, warehouses, a hotel, an exhibition and conference center, and a hospital.

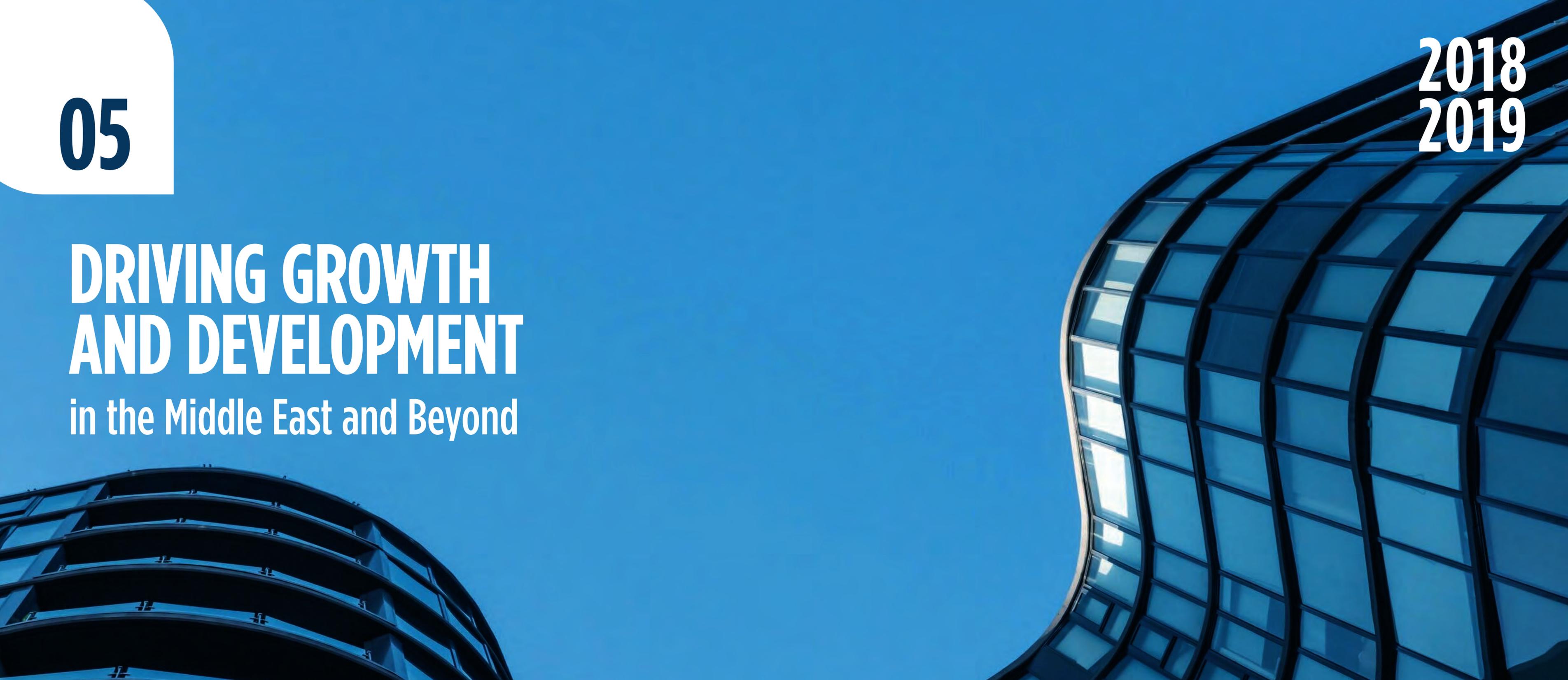
This pivotal project is set to transform Egypt's furniture industry by boosting exports and incorporating advanced technologies. With the successful completion of Phase 1, Damietta Furniture City is set to create thousands of job opportunities and mark a significant advancement for the industry.

05

DRIVING GROWTH AND DEVELOPMENT

in the Middle East and Beyond

**2018
2019**



DRIVING GROWTH AND DEVELOPMENT

in the Middle East and Beyond

Between 2018 and 2019, K&A played an increasingly pivotal role in the long-term growth and development of the Middle East region. The success of this period was measured through unprecedented achievements, all of which promise a greater future. K&A completed over 400 design and construction supervision projects, amassing a backlog exceeding \$950 million.



Saudi Arabia

A Hub of Transformation

In Saudi Arabia, K&A's contributions were particularly noteworthy. We undertook the master plan review and design, infrastructure works, and construction supervision for 50 affordable housing projects across Makkah, Madinah, Jeddah, and the Assir and Baha governorates. Additionally, K&A led the study and design of civil works for the Haramain High-Speed Rail (Phase I), covering the railway line's alignment, and design of over 200 roads and rail bridges, tunnels, road interchanges, and more than a hundred underpasses.



Haramain High-Speed Rail, KSA

K&A's work extended to expanding the Al Madinah Munawarah wastewater plant, increasing its capacity from 240,000 m³/day to 440,000 m³/day. This project included designing the world's largest solar sludge drying plant, the first of its kind in Saudi Arabia, with a capacity of 100,000 tons/year of dry solids.



Al Madinah Munawarah wastewater plant, KSA



Ministry of Finance Project Management Office

Among K&A's most transformational projects was the Ministry of Finance Project Management Office (PMO) in Saudi Arabia. This initiative, involving multiple mega-projects, played a critical role in realizing Vision 2030's goal of increasing the number of pilgrims from 7 million to 30 million and Hajj pilgrims from 1.8 million to 7 million by 2030. K&A's role in establishing Saudi Arabia's first-ever PMO facilitated the delivery of over 50 infrastructure and construction projects aligned with Vision 2030 in Makkah, Madinah, and Riyadh, including expanding and renovating the Two Holy Mosques. These projects required managing thousands of stakeholders and complex interfaces while maintaining construction on high-footfall sites with a constant influx of visitors and pilgrims.

K&A established stringent design guidelines, procedures, regular reviews, and robust controls on quality, cost, project schedules, and progress. This has improved timescales, quality,

and budget performance, including the completion of Madinah's King Salman International Convention Center in Madinah six months ahead of schedule.

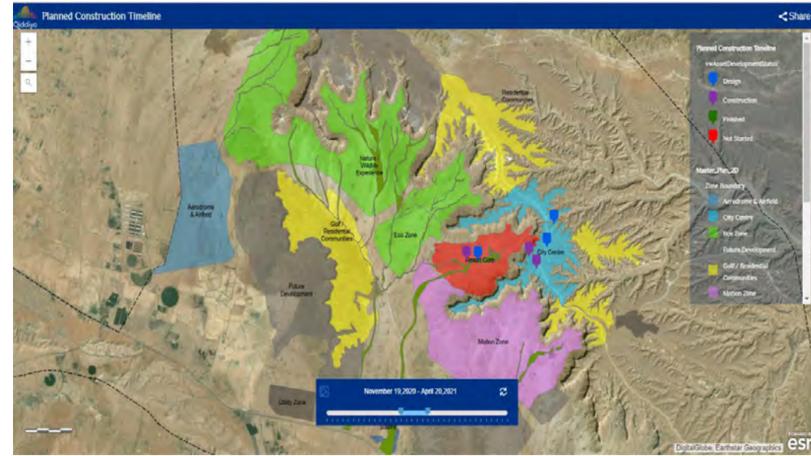


King Salman International Convention Center, KSA



Championing New Methods and Smart Technologies

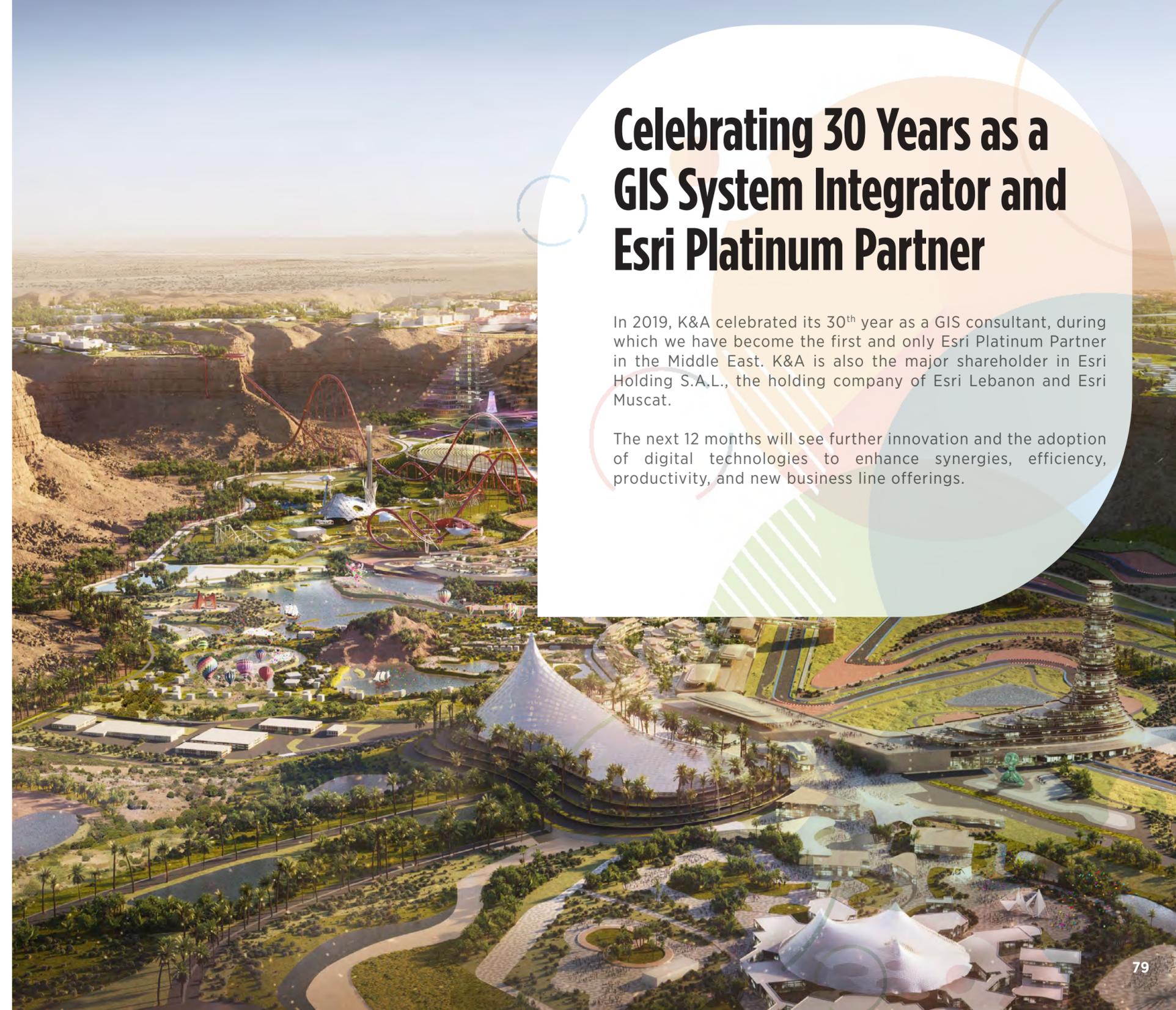
By integrating advanced solutions such as GIS with BIM, computational design tools, and digital platforms, K&A has consistently delivered efficient, cost-effective, and sustainable projects. For example, K&A assisted Qiddiya Investment Company (QIC) in enhancing the delivery of a megaproject, valued at over \$10 billion, aimed at becoming the Kingdom's "Capital of Entertainment, Sports, and the Arts." By developing an integrated BIM-GIS digital platform, we facilitated informed decision-making before, during, and after the project's construction.



Celebrating 30 Years as a GIS System Integrator and Esri Platinum Partner

In 2019, K&A celebrated its 30th year as a GIS consultant, during which we have become the first and only Esri Platinum Partner in the Middle East. K&A is also the major shareholder in Esri Holding S.A.L., the holding company of Esri Lebanon and Esri Muscat.

The next 12 months will see further innovation and the adoption of digital technologies to enhance synergies, efficiency, productivity, and new business line offerings.



BUILDING ON OUR FOUR PILLARS OF GROWTH

PEOPLE

DIVERSIFICATION

SOCIETY

SUSTAINABILITY



People

At K&A, our steadfast dedication to capacity building and the cultivation of long-term skills and knowledge has been vividly illustrated by our team of 6,500 dedicated professionals. We continuously assess and mentor our people, cultivating an environment where their professional growth can flourish.

Building Capacity and Advancing Development

Our Digital Transformation strategy has been a transformative force, driving significant advancements in training and development. Additionally, the rollout of our new Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) systems has been a game-changer. These systems not only standardized core business functions but also empowered our team to make informed, swift decisions and enhance transparency and autonomy in their career progression.

Investing in Better Health and Safety Management

K&A achieved OHSAS 18001 certification for the entire Gulf region, highlighting its dedication to excellence in health and safety. Key initiatives included restructuring HSE Supervision Services in the UAE to align with best practices and launching a comprehensive HSE program for engineers and inspectors that was implemented on projects like Al Zahia Mall and Emaar Opera District in Dubai. In Saudi Arabia, K&A has raised health and safety standards, as part of its project management office contract with the Ministry of Finance. This involved extensive training and rigorous audits to ensure continuous improvement, particularly for the 50+ megaprojects in high-traffic areas of Makkah and Madinah which experience a constant influx of visitors and pilgrims.

Leveraging BIM Technology

K&A has also maximized the use of technology in a multidisciplinary way, integrating tools like VR/AR, drones, 3D printing, digital twins, and generative/parametric design. In 2019, we invested approximately \$16 million, a 28% increase from 2018, to enhance our BIM adoption, with dedicated BIM managers and coordinators driving this initiative.

Raising Local Standards

As part of the PMO with the Ministry of Finance in Saudi Arabia, K&A played a crucial role in developing local skills and facilitating knowledge transfer. We conducted extensive training for MoF employees, including project management and information systems sessions, and organized workshops on conflict resolution, time management, risk management, business ethics, communication, and leadership skills. K&A also implemented Individual Development Plans (IDPs) to support career development and integration of the Saudi workforce within the PMO. Through these initiatives, K&A is creating a legacy of skills, sustainable jobs, and supporting long-term economic development. The PMO has expanded across seven offices, with the main office in Jeddah, ensuring continuous capability enhancement and job creation.

Diversification

K&A has continuously stayed ahead of emerging trends, integrating smart technologies, innovative materials, and cutting-edge tools into our multidisciplinary services. This commitment to innovation was a cornerstone of our business diversification strategy, enabling us to expand into new markets and service areas.

Bringing New Business Line Offerings

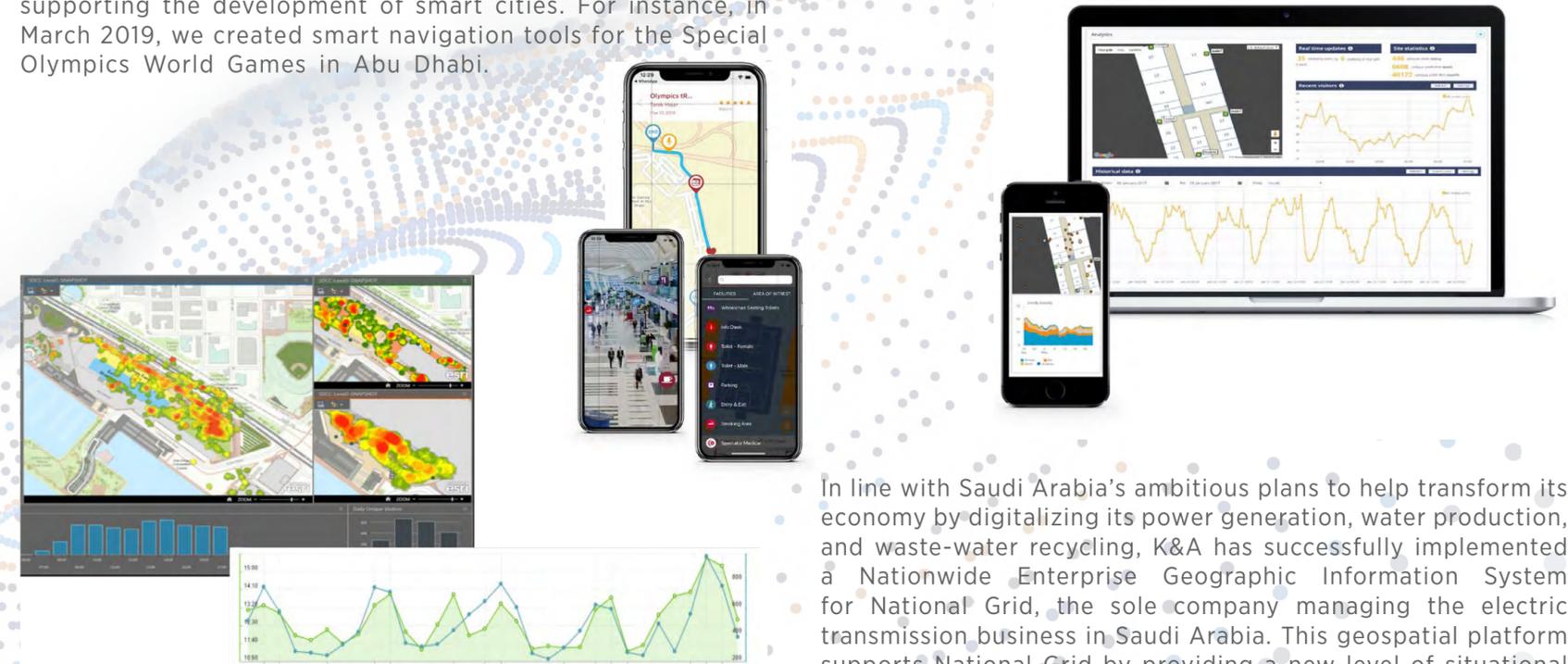
We have grown our business portfolio to become a key player in Project Management Office services (PMO), Public-Private Partnerships (PPPs), and Design & Build (D&B) projects across the Middle East. By merging engineering expertise with financial modeling, K&A ensured our clients' projects were bankable and attractive to investors. Our involvement spanned several major PPP initiatives in Saudi Arabia, focusing on critical sectors such as water, education, and transportation, such as developing early feasibility studies for the \$4.5 billion Cairo Monorail and investing in geospatial systems integration for smart city design.

Cairo Monorail, Egypt



Leveraging Innovative Technologies for Business Growth

K&A has invested significantly in advanced technical expertise, particularly in GIS and geospatial systems integration, supporting the development of smart cities. For instance, in March 2019, we created smart navigation tools for the Special Olympics World Games in Abu Dhabi.



In response to the increasing demand for digital solutions, we have partnered with Quuppa, a leader in advanced location systems, to enhance our Way+ software platform. This partnership addressed the growing needs in construction, smart buildings, logistics, and healthcare.

In line with Saudi Arabia's ambitious plans to help transform its economy by digitalizing its power generation, water production, and waste-water recycling, K&A has successfully implemented a Nationwide Enterprise Geographic Information System for National Grid, the sole company managing the electric transmission business in Saudi Arabia. This geospatial platform supports National Grid by providing a new level of situational awareness, workforce management, and communication flexibility. In the UAE, K&A was awarded a two-year project by the Abu Dhabi Water & Electricity Authority (ADWEA), now part of the Emirate's new Department of Energy (DOE). This ambitious endeavor aimed to align GIS data for DOE/ADWEA and associated utilities, digitizing utility records to enhance efficiency and safety, while significantly improving operations and streamlining asset lifecycle processes for reliable, cost-effective service delivery.

Joining Microsoft's co-sell program has further propelled our growth, providing us access to a vast network and new business opportunities. We have developed tailored applications for various sectors — governmental, municipal, retail, healthcare, telecommunications, education, and security — leveraging Microsoft Azure. This partnership allowed us to collaborate with Microsoft's marketing and sales teams and co-sell solutions to their extensive client base.

Society

Whether through health initiatives, community planning, or housing projects, K&A has been actively dedicated to building stronger, healthier, and more resilient communities for the future.

Providing Home Ownership to Low-Income Families in Saudi Arabia

K&A was also instrumental in advancing Saudi Arabia's housing sector, a key pillar of Saudi Vision 2030. Partnering with the Ministry of Housing, we developed over 50 sites across Makkah, Madinah, Jeddah, and other regions. Our master plans were meticulously designed and executed to meet future housing needs while respecting and preserving each site's natural landscape and topography.

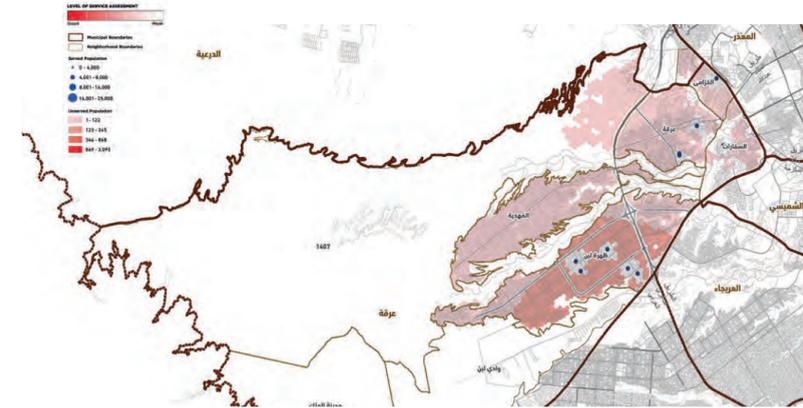


Improving the Level of Services (LOS) Provision in Riyadh

Additionally, we enhanced public services in Riyadh through our work with the Arriyadh Development Authority (ADA). For the "Second Implementation Plan for the Coordination and Provision of Public Services in Riyadh- 2017," K&A developed a joint portal for public service providers. This platform enabled continuous data updates, service monitoring, and ensured alignment with planning standards. It supports the efficient distribution of public services, creating a structured roadmap for service priorities over the next five years.

Preventing Asbestos in Riyadh

K&A took a major health initiative by addressing the risks associated with asbestos, a harmful material linked to serious diseases such as lung cancer. Collaborating with the Saudi National Water Company (NWC), our water experts have devised a comprehensive strategy to remove and replace asbestos cement pipes from Riyadh's water networks.



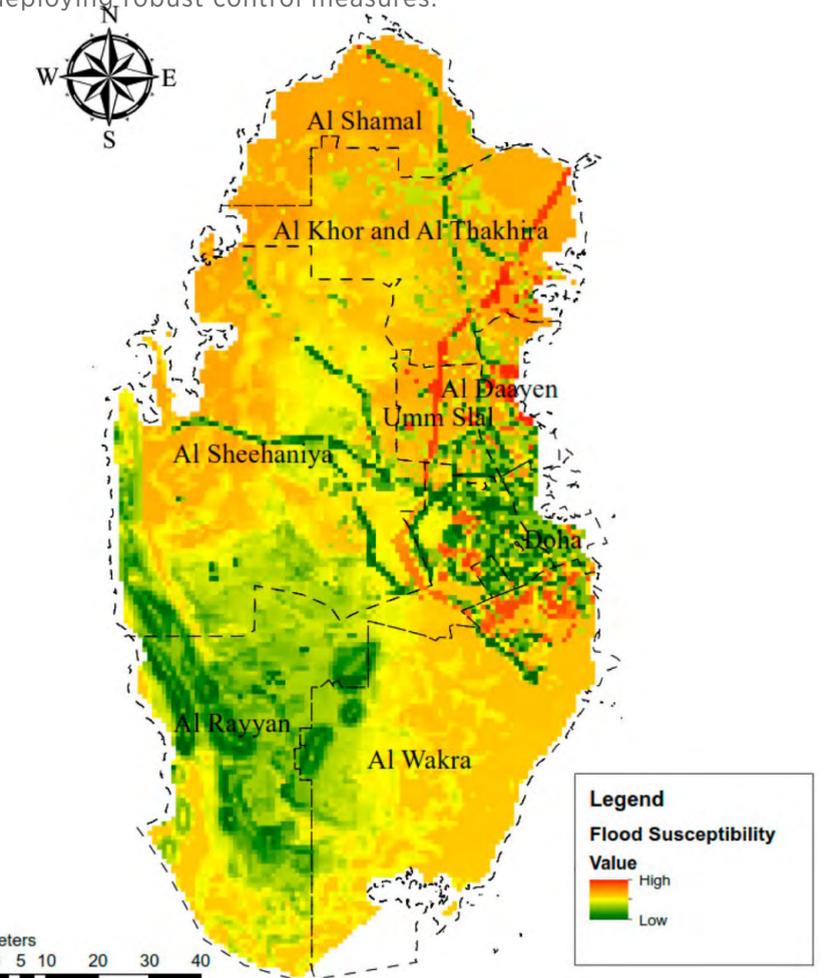
Supporting Educational Development in Lebanon

K&A has made strides in social and economic development through educational projects in North Lebanon's Akkar region. Appointed by the High Commission for Relief, K&A spearheaded the design and upgrade of ten vocational schools, supporting over 6,000 students. This initiative was part of a broader effort to revitalize the region, equipping it with a skilled local workforce and contributing to sustainable growth.



Strengthening Doha's Flood Protection

Appointed by the Public Works Authority, Ashghal, K&A has tackled flooding risks in Doha. As the main design consultant, K&A developed a comprehensive Flood Protection Scheme (FPS) for Al Dayeen Municipality and the Mubaireek area. This ambitious project aimed to enhance urban resilience against environmental shocks by identifying flood-prone areas and deploying robust control measures.



Sustainability

K&A's commitment to sustainability has been at the core of its mission to drive sustainable development and business resilience, offering expertise in energy performance, renewable energy, and water conservation.

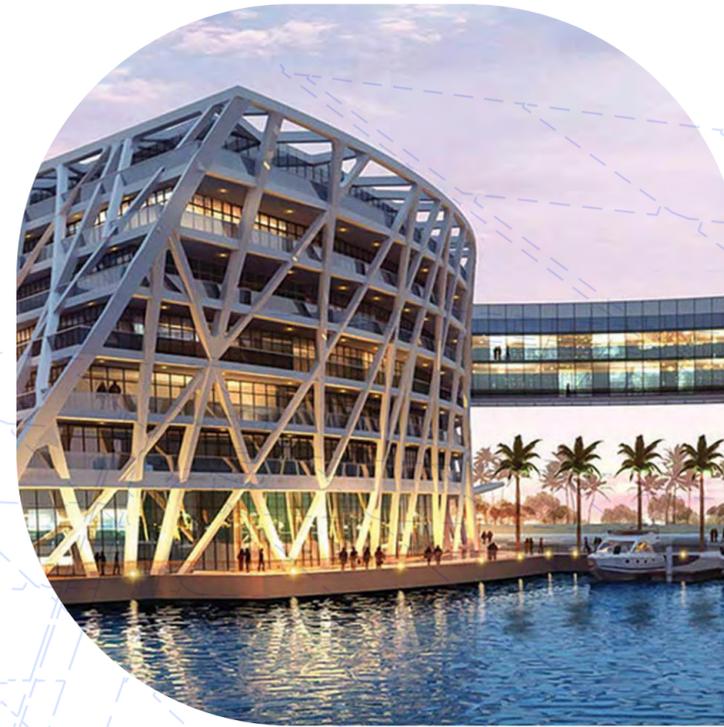
Supplying Basra with New Water Resources

In Iraq, K&A has addressed the critical water shortages in Basra caused by pollution in the Shatt al-Arab River by assessing current and future population demands, identifying alternative water resources, and proposing the most effective water treatment technologies. This life-changing project will provide Basra communities with reliable and safe water supplies, significantly enhancing their quality of life.



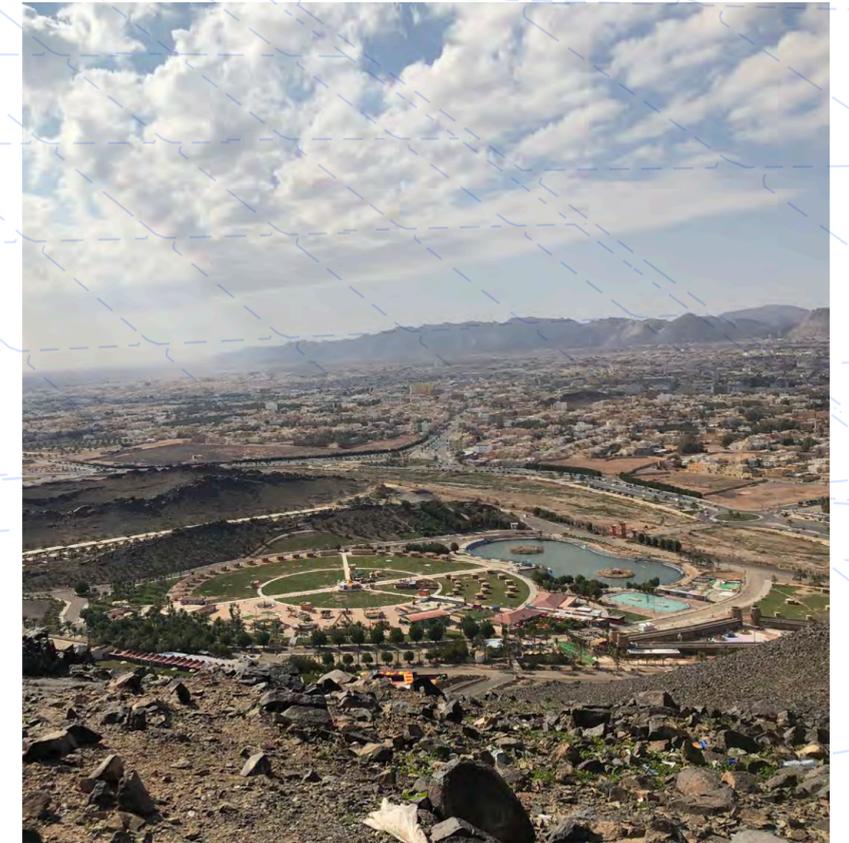
Delivering Green Building Growth in UAE

K&A has a proven track record of delivering high-performance, sustainable buildings, and urban development in the UAE. We have completed several projects that meet LEED certification, Estidama (PEARL), and Green Building Standards. These projects include the Saadiyat Rotana Resort and Villas, Marina Bloom Mixed-Use Development, Opera Grand in Downtown Dubai, Business Bay Hotel by Aabar, Marina Mall Extension, and Golf Course Residential Development (Phase 1).



Restoring Wadi Al-Udayra's Natural Ecosystem in Saudi Arabia

In Saudi Arabia's Hail region, K&A transformed Wadi Al-Udayra into an environmentally protected area. Our holistic design approach focused on preserving the wadi's natural ecosystem and water resources, enhancing landscapes, growing local biodiversity, promoting ecotourism, and integrating green infrastructure into the surrounding communities.



From a Multi-National Player to a Truly Global Organization

K&A embarked on a transformative journey, evolving from a regional player into a global force. Our strategic initiatives have laid the groundwork for substantial growth, with several key milestones achieved in 2018 and plans for continued expansion in 2019 and beyond.

Relocating our Holding Company to Singapore

By shifting our holding company jurisdiction from Lebanon to Singapore, K&A has strategically positioned itself within a dynamic hub of engineering, construction, technology, and financial services. This relocation aligns K&A with Singapore's robust legal and governance frameworks and grants direct access to international capital markets, enhancing our ability to offer comprehensive project financing solutions.



Launching a Major Transformation Project

K&A has initiated a sweeping transformation project with the guidance of top international management consultants. This endeavor encompassed nearly every aspect of our business, including a comprehensive digital transformation program. The aim is to maximize our utilization of technology in a multidisciplinary way that will bring synergies, efficiency, and productivity gains, as well as new business line offerings with digital functionalities and data-based services.



Establishing K&A US

K&A has launched a new entity, K&A US, focused on capturing major infrastructure projects funded by the US Government and US-based investors. This strategic move allows K&A to leverage its extensive expertise in the Middle East and seize substantial opportunities within the US market, broadening its reach and impact in the global infrastructure sector.



Valletta Grand Harbour Strategic Plan, Malta

Creating K&A Infrastructure Development

K&A's commitment to forging strategic partnerships and advancing development initiatives across the Middle East and Africa has culminated in a new business stream. This division is strategically positioned to engage with the burgeoning pipeline of privately funded projects, including Public-Private Partnerships (PPPs), driving growth and innovation throughout these dynamic regions.

Expanding our Geographic Reach

Between 2018 and 2019, K&A saw significant growth beyond its core Gulf markets to various regions worldwide. In the Middle East, our expansion included new projects in Iraq, where we delivered comprehensive infrastructure advisory and development services to support the region's growth and stability.

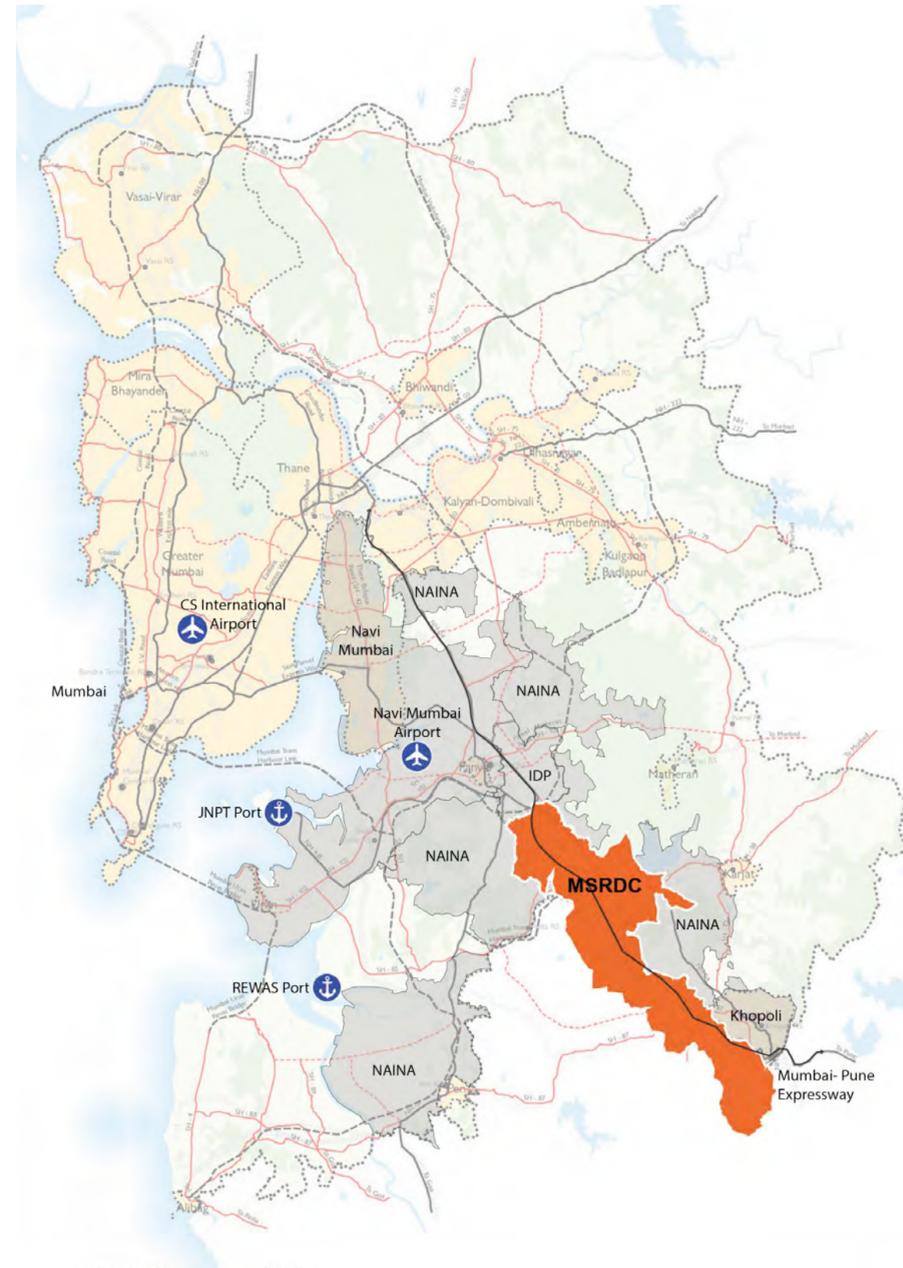
In Europe, K&A was appointed to deliver the Valletta Grand Harbour Strategic Plan, marking our first venture in the European Union.

In Turkey, we designed earthquake-resistant hospitals in Istanbul, including the Haydarpaşa Health Campus and Kartal Lütüfi Kırdar Oncology Hospital, to ensure operational continuity during and after seismic events while adhering to national and international regulations.

Our strategic relocation to Singapore has supported our ambition to leverage the growing opportunities in Asia, driving our vision for future growth in this dynamic region. Our expansion into Asia included a major master planning project in Malaysia and strategic development initiatives in India for 71 villages along the Mumbai-Pune Expressway, transforming them into smart, sustainable communities.



Haydarpaşa Health Campus and Kartal Lütüfi Kırdar Oncology Hospital, Turkey



Mumbai-Pune Expressway, India



Darulaman Government Administrative Complex in Kabul, Afghanistan

Additionally, K&A was involved in key projects in Afghanistan, including upgrading the Salang Pass infrastructure and overseeing the master planning, architectural building, landscaping, and infrastructure design of a strategic governmental hub spanning 1 million m² at the historic Darulaman Palace. We also addressed severe flooding issues in Kabul by constructing a 7 km drainage canal, ensuring effective water management and environmental quality improvement.

In Sub-Saharan Africa, K&A engaged in the Network Rehabilitation project in Freetown, Sierra Leone, improving infrastructure and connectivity, and implementing digital platforms to enhance technological integration and development in the region. K&A has also explored opportunities in Mozambique, Guinea, Cameroon, CIS countries, Indonesia, and Singapore. This expansion was driven by our commitment to meet the changing needs of clients and our strategic investment in people, capabilities, systems, and technologies.

Reaping Worldwide Industry Recognition

K&A made significant strides in 2018, achieving impressive recognition through multiple industry awards. The company was honored as the Consultant of the Year at the Construction Innovation Awards in Dubai. This was followed by three prestigious awards at the ENR Global Best Projects Awards in New York for our projects in the UAE and Lebanon, showcasing our teams' ability to handle complex design and construction challenges while addressing quality, innovation, sustainability, and safety.

Our success continued in 2019, with K&A being named Consultancy of the Year twice in MEED Awards and Construction Week Leaders in KSA awards. In addition, we received numerous accolades for our building and infrastructure projects in Saudi Arabia, the UAE, and Oman.

K&A continues to create exceptional places and spaces that support vibrant, sustainable communities worldwide, integrating advanced technologies, pioneering new methods, and prioritizing sustainability.

06

2019
2021

ERP/CRM PLATFORM

from SAP Transforms IT Landscape,
Integrating Systems, Business, and People

ERP/CRM PLATFORM

from SAP Transforms IT Landscape, Integrating Systems, Business, and People

In 2019, K&A embarked on a significant business transformation with a new Enterprise Resource (ERP) Planning/Customer Relation Management (CRM) system provided by SAP, a global leader in software technology. The goal was to integrate K&A's systems, business processes, and workforce to align with industry best practices, enhancing efficiency and innovation across the company.

The implementation process began with the Explore phase, involving workshops between K&A and SAP in Dubai. A team of 30 employees, led by seven team leaders, participated in daily workshops to understand how the new system would function and to identify any gaps or issues. The integration workshops brought everyone together to ensure the ERP/CRM system enables seamless data interaction across core

business functions. Feedback from these workshops guided SAP in developing guidelines for the system's operation and implementation.

“ *K&A is the first engineering firm in this region to have undertaken this magnitude of SAP implementation. K&A is pushing the boundaries in a truly unique and transformative way. The level of commitment of the organization to this project is enormous and is one of its success factors.* ”

Nikolay Zuykov
Project Director, SAP

ERP will bring significant benefits to K&A, our people, and clients:

- 1- Higher productivity** – Streamlined core business processes will free up everyone to focus on productive work
- 2- Deeper insights** – SAP will be a “single source of the truth”, eliminating silos and enabling fast, reliable answers to business-critical questions
- 3- Accelerated reporting** – Fast-track business and financial reporting will improve transparency, save time, and enable us to formulate rapid responses
- 4- Lower risk** – Improved visibility means better controls, ensuring compliance with regulatory requirements and avoidance of unnecessary risk
- 5- Simpler IT** – Integrated ERP applications on a shared platform will simplify IT and give everyone easier ways of working
- 6- Improved agility** – With efficient operations and ready access to real-time data, we will be able to quickly identify and react to new opportunities

Following the Explore phase, the project transitioned to the Realization phase, which focused on developing a network of ERP/CRM experts within K&A to support the rollout and staff training. IBM was appointed as the Systems Integrator to assist with this phase, leveraging their expertise to build and launch the system based on the refined business processes developed by K&A and SAP.

“ *IBM is delighted to partner with K&A, to power its transformation journey by bringing in industry-leading practices with the best talents to deliver a world-class SAP S/4 HANA implementation. IBM considers this transformation as a strategic initiative that will provide a solid foundation for future growth to realize K&A’s ambitions.* ”

Balaji Ramaswamy
Project Director, IBM

While the ERP/CRM development and implementation progressed, K&A launched an Organizational Change Management Program to engage staff, communicate updates, and develop training to ensure that the new system effectively meets K&A’s needs across all locations.

The ERP project utilized SAP’s Accelerate Methodology to develop and migrate the new system. This focused approach employed agile practices, allowing the project team to view and revalidate the system’s progress after every two-week sprint. This iterative approach allowed timely adjustments, saving costs and ensuring the system met K&A’s requirements. By mid-2020, foundational information for K&A’s business processes was established, and a group of over 100 super users and change agents was appointed to help in the transition.

By August 2020, the development phase of the ERP/CRM system was completed. The focus shifted to system integration testing, ensuring the interactions between processes and modules worked as expected. Super users and project leads conducted extensive testing and provided training to the larger user community.

The new ERP system, which went live on August 1, 2021, integrated K&A’s core business functions, including finance, HR, sales, and IT. This system aimed to improve productivity, efficiency, business insights, reporting, and risk management. The launch also included a comprehensive training program involving more than 150 colleagues to ensure smooth adoption across the organization.

SAP Set to Unlock Improvements in Business Agility and Resilience

Over the following months, the ERP system’s modules for sales, procurement, HR, project management, and payroll were fully implemented and used successfully across K&A. Ongoing user training and feedback were essential to maximize the system’s benefits and ensure its stability and effectiveness.

Since its implementation, the new system has supported K&A’s digital transformation, revolutionizing our operations by enhancing efficiency, saving time and money, and ensuring greater quality and consistency. It serves as a robust digital backbone for K&A’s core functions, fostering operational excellence through uniform processes and best practices.

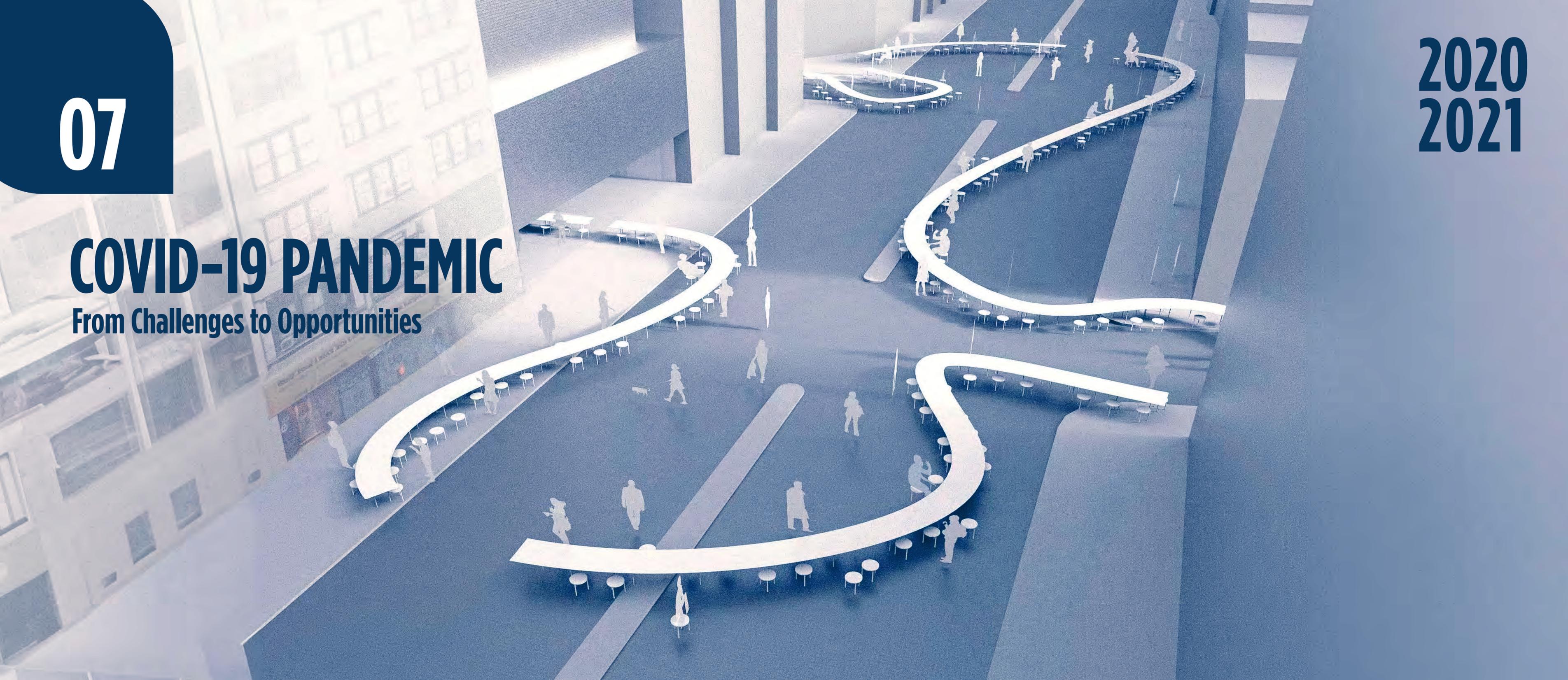
Designed to adapt to our growing needs, the ERP will evolve with the company, market changes, and technological advancements. Furthermore, by incorporating cutting-edge technologies like machine learning and artificial intelligence, the ERP will deliver unparalleled intelligence and visibility across all business facets, unifying our approach under the “One K&A” framework.

07

COVID-19 PANDEMIC

From Challenges to Opportunities

2020
2021



COVID-19 PANDEMIC

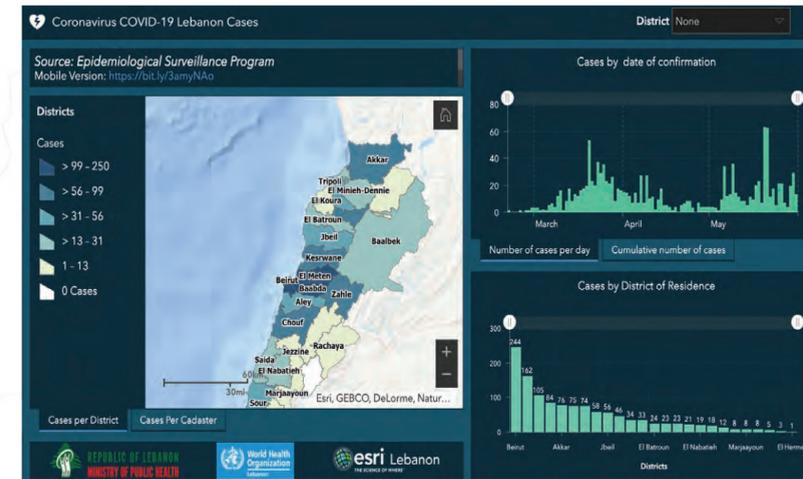
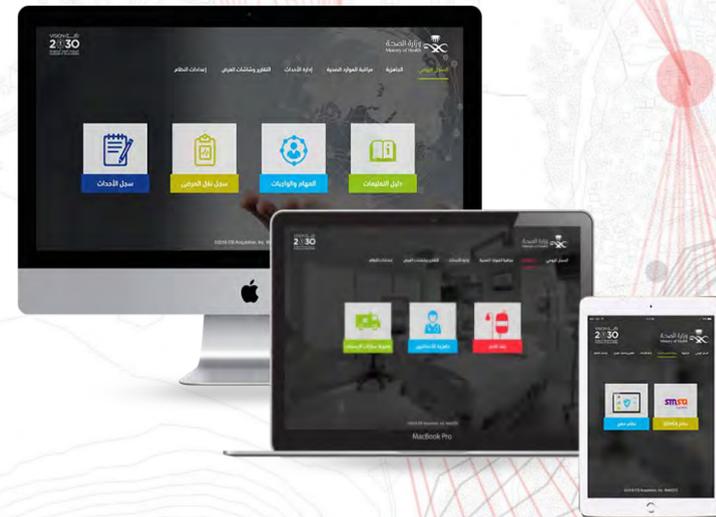
From Challenges to Opportunities

The onset of the COVID-19 pandemic in early 2020 brought the world to an unexpected standstill. For K&A, the challenges seemed daunting, yet our teams swiftly adapted to the new reality. Remote work became the norm almost overnight, transforming our once bustling offices into quiet spaces. Despite the disruptions, K&A's unwavering commitment to excellence remained steadfast. Our proactive crisis management and strategic investments in technology allowed us to sustain productivity and continue meeting the needs of our clients seamlessly.

K&A leveraged digital collaboration tools to ensure the seamless continuity of projects. A dedicated COVID-19 task force closely monitored the evolving situation. We implemented rigorous health and safety protocols to protect our employees and stakeholders, ensuring our projects progressed with minimal delays. Social distancing measures were strictly adhered to, and our teams were provided the necessary resources to work effectively from home. This proactive approach to crisis management was instrumental in successfully navigating the early days of the pandemic.



Technology played a pivotal role in K&A's resilience during the pandemic. Prior investments in digital infrastructure proved exceptionally beneficial. The digital tool suite facilitated remote collaboration, project management, and client communication. Platforms like Microsoft Teams, and in-house project management systems improved communication and coordination across various time zones and locations. K&A's technological backbone enabled uninterrupted workflow, minimizing disruptions and maintaining operational continuity.



The pandemic, though challenging, spurred growth and innovation at K&A. By embracing change and leveraging our digital capabilities, we navigated the challenges and emerged stronger and more united as a team. We adapted swiftly by restructuring workflows, embracing flexible hours, and empowering teams, ensuring we met project timelines and delivered quality outcomes.

In times such as these, K&A has leveraged its expertise in healthcare facility design, hazardous waste management, GIS, and project financing to benefit communities across the Middle East and Africa. One of the most striking examples is the ramping up of support that we provided for the Kingdom of Saudi Arabia's pioneering National Health Emergency Operations Center (NHEOC). This state-of-the-art facility, designed and engineered by K&A, integrates advanced technologies like WebEOC emergency management software and GIS, transforming the Kingdom's emergency management services and healthcare delivery. A specialist K&A team has provided round-the-clock support to help sustain the NHEOC's operations and maintain high levels of preparedness.

The NHEOC's success has positioned the Kingdom as a leader in emergency management and health disasters. This achievement was recognized in October 2021 when the NHEOC became the first facility in the Eastern Mediterranean region to receive World Health Organization (WHO) accreditation.

In Lebanon, K&A played a crucial role in combating the pandemic by collaborating with the Ministry of Public Health and the WHO to develop an online dashboard that provides real-time data on the spread of COVID-19. Leveraging GIS technology, this dashboard, hosted on the Ministry's website and powered by Esri's ArcGIS software, allowed users to view detailed maps of infection rates, monitor the spread of the virus, and assess the needs of vulnerable populations. With features that enable the mapping of cases, resources, and population vulnerability, the dashboard became one of the most trusted and reliable sources for tracking and monitoring COVID-19 spread across the country, proving essential for both public authorities and citizens.

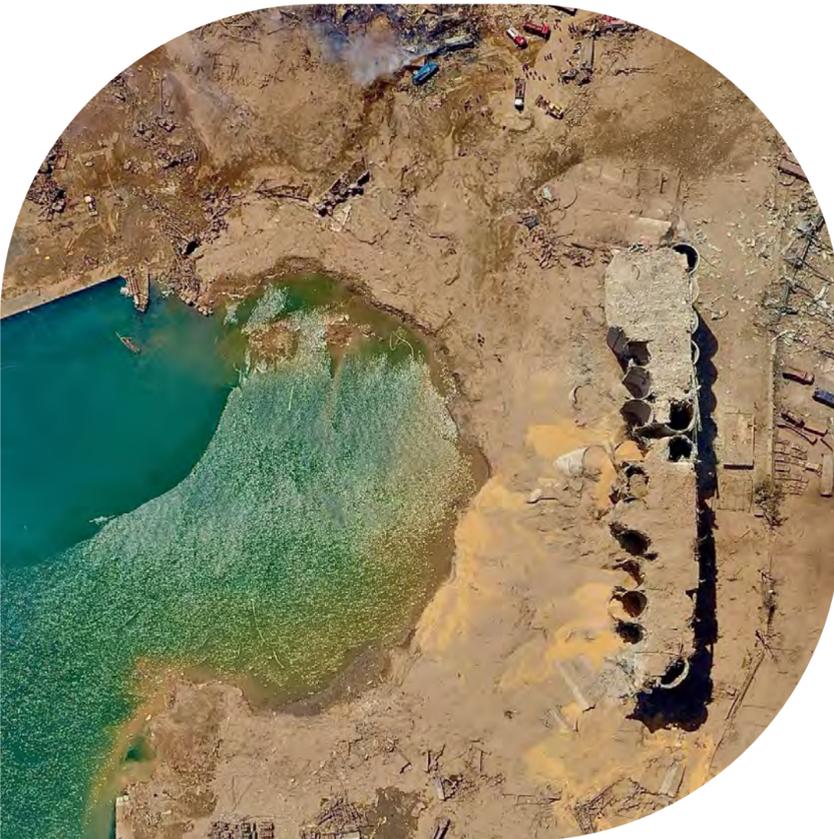
Furthermore, K&A's partnership with management4health (m4h) has enhanced its ability to deliver comprehensive healthcare solutions across the Middle East and Africa. This strategic alliance combined our extensive expertise in facility design, city planning, digital geospatial solutions, and project finance with m4h's specialization in health sector projects and programs, enabling K&A to offer a full spectrum of services, from pandemic response and healthcare strategy development to facility design and funding assistance. This partnership has strengthened K&A's position by integrating world-class health expertise and digital solutions, ensuring clients emerge from this crisis stronger and more resilient in facing future healthcare challenges.



FROM PANDEMIC TO CRISIS RECOVERY

How K&A Responded to the Beirut Port Explosion

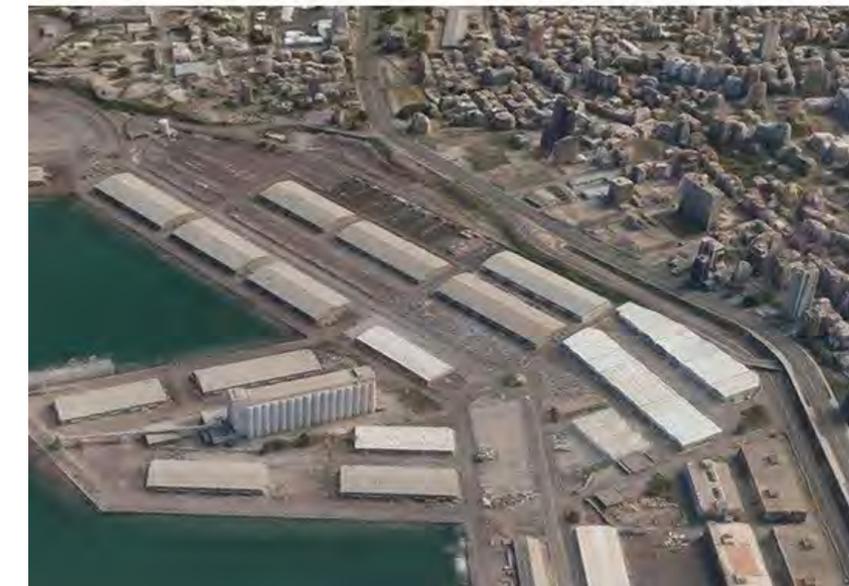
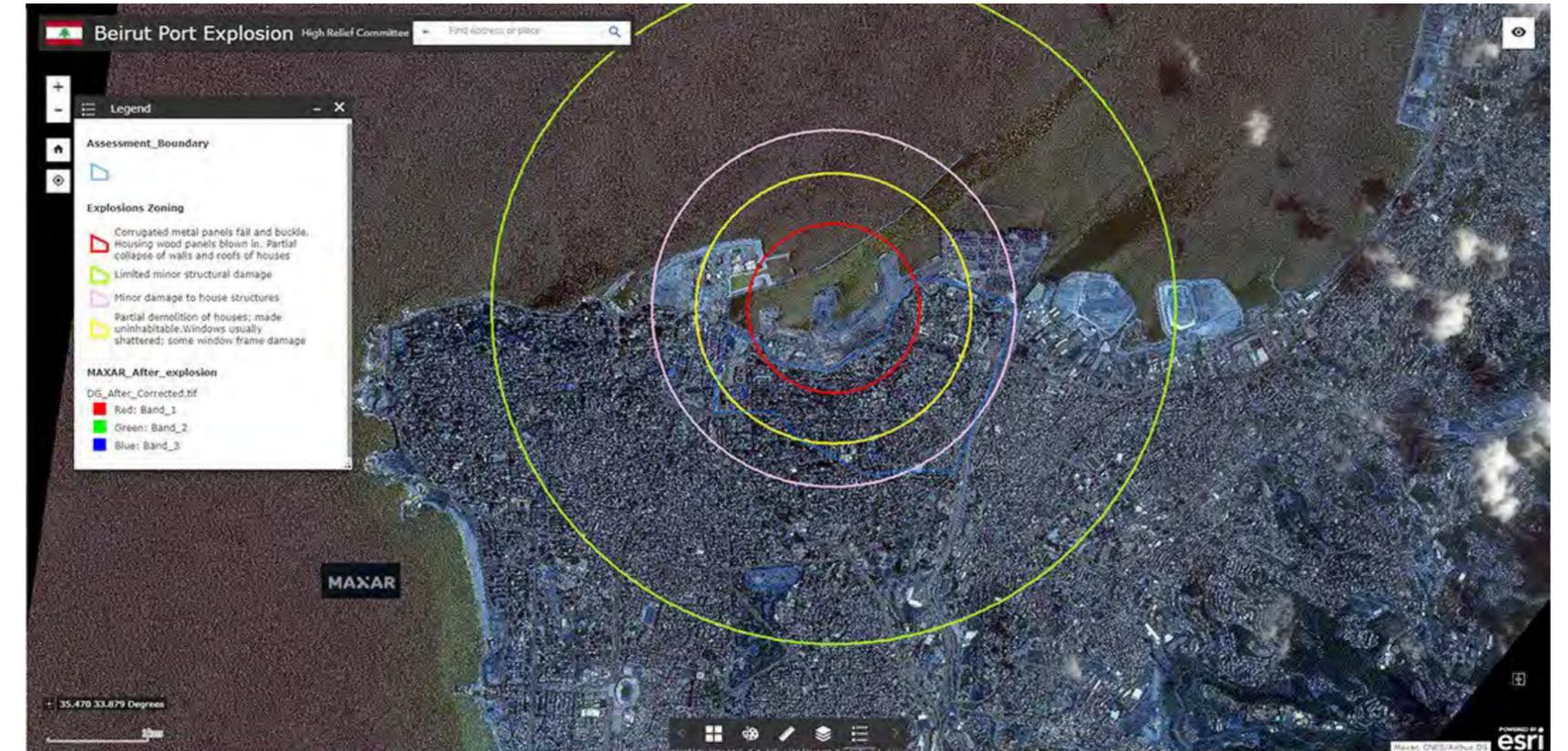
The Beirut port explosion struck as Lebanon's healthcare system was already battling the severe strains of the COVID-19 pandemic. This devastating blast further overwhelmed an already fragile medical infrastructure, exacerbating the challenges faced by the nation's health services.



In the wake of the Beirut port explosion on August 4, 2020, K&A rapidly mobilized its resources to support relief and recovery efforts. The blast devastated the port and caused severe damage to surrounding residential and commercial areas, affecting over 750,000 people. Recognizing the urgency of the situation, we worked closely with the High Relief Committee (HRC) and Lebanese government authorities to assess the immediate impacts of the disaster and secure necessary recovery and reconstruction funds. A specialized technical team from K&A was swiftly deployed to the affected areas. They conducted detailed impact assessments, surveying buildings in severely damaged neighborhoods such as Karantina, Gemayze, Medawar, and Remeil. The work involved identifying high-risk zones and determining which households required evacuation and financial support.

K&A also delivered a comprehensive study and recommendations for the Lebanon Electricity Company (EDL) headquarters and evaluated the port's infrastructure to support ongoing recovery efforts.

Harnessing the power of geospatial technology, K&A set up a geospatial portal for the HRC to streamline assessment activities. This initiative, supported by Esri's GIS mapping software, HERE Technologies' location data, and MAXAR Technologies' satellite imagery, played a crucial role in the disaster response. K&A continued to support the HRC and government authorities, working diligently to aid Lebanon's recovery and develop a sustainable rebuilding plan to revitalize Beirut.



EXEMPLARY PROJECT DELIVERY AMIDST THE PANDEMIC

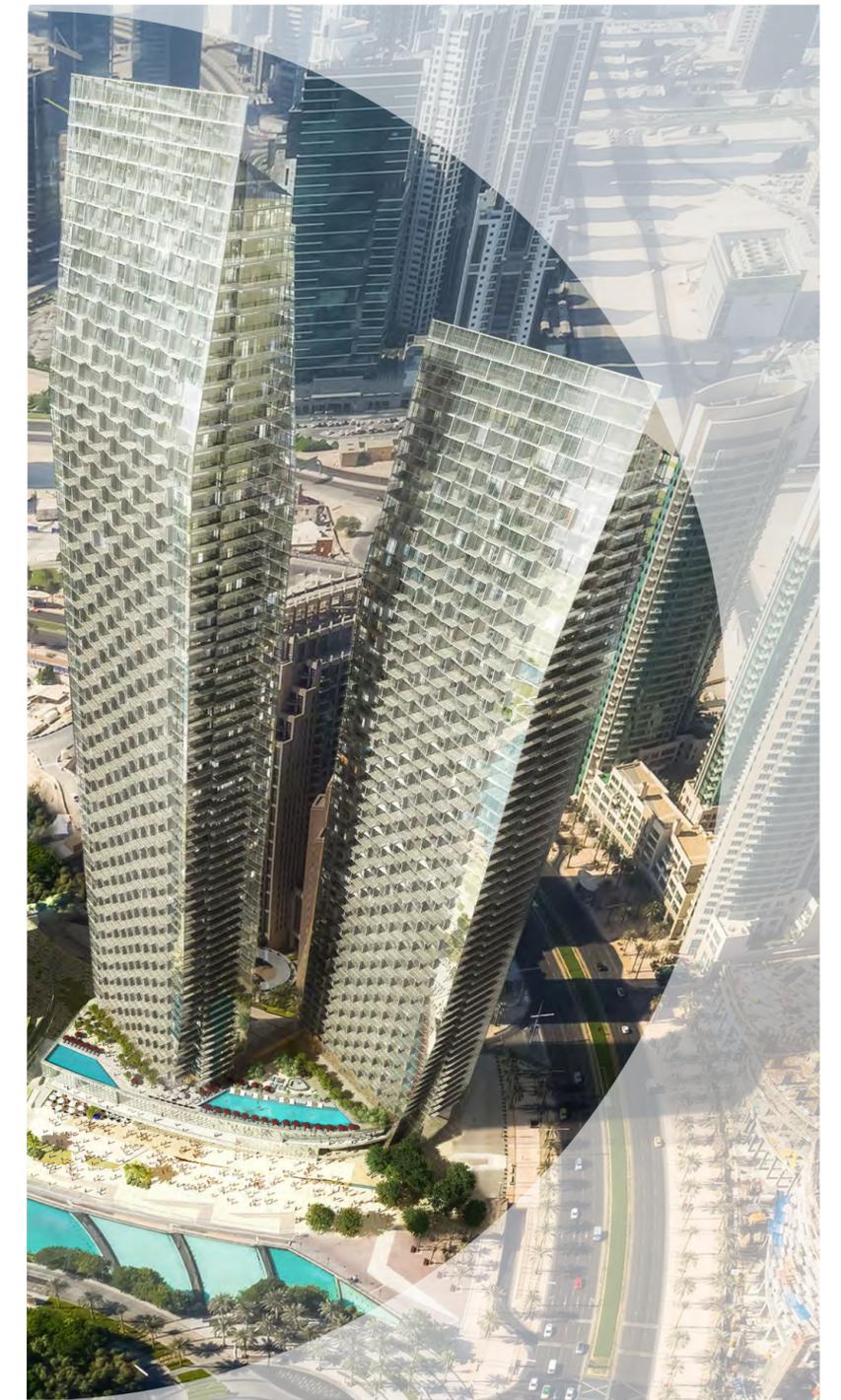
Throughout the pandemic, K&A successfully delivered projects while adhering to strict health and safety protocols. We led the completion of the City Centre Al Zahia, the largest mall in the UAE's Northern Emirates, which was the first major retail development to launch in the MENA region during this period. The project achieved 16 million manhours without Lost Time Injury (LTI), reflecting our rigorous commitment to workplace safety and effective safety systems. Similarly, at the Address Residences Dubai Opera, K&A collaborated with Emaar, TAV Construction, and other stakeholders to achieve an impressive 30 million manhours without LTI. This accomplishment at Emaar A Plots - Opera District demonstrated our exceptional teamwork and dedication to safety, which was further supported by securing COVID-19 vaccines for all project staff to maintain a safe working environment.



In Egypt, K&A completed the Bahr Al Baqar wastewater treatment plant, recognized by the Guinness World Records as the largest of its kind, with over 34 million worker hours. During the pandemic, we implemented strict safety precautions to protect our workforce. Design reviews and desk work were conducted with a balanced approach of 50% physical attendance and 50% online follow-up, effectively reducing contact and maintaining social distancing. Additionally, our team took all necessary measures to ensure that workers were well-informed of relevant national and local COVID-19 regulations and standards, minimizing the impact of the pandemic on operations.

During Qatar's three-month lockdown, construction activities were halted. However, due to our stringent preventive measures and a swift vaccination rollout, the New College of Education at Qatar University was among the first projects to resume on-site activities. In response to COVID-19, we implemented a comprehensive safety strategy that included a fast-track vaccination program and the establishment of robust safety protocols. This strategy involved clear training on coronavirus policies, reorganizing operations to maintain a 2-meter distance between workers and machinery, and installing handwashing stations throughout the site. We mandated cloth face coverings, adjusted work schedules to reduce site density, and upheld rigorous PPE standards to mitigate construction-related hazards.

Completing these impressive, large-scale projects during the pandemic highlighted the dedication and resilience of all stakeholders involved and the determination and capability of the AEC industry region to progress, no matter what obstacles stand in the way. Despite global uncertainty, we successfully expanded our portfolio and K&A won several new projects. This success was especially reassuring as COVID-19 was expected to be a part of our lives for some time.



THE POST-PANDEMIC RENAISSANCE

As we approached the end of 2021, the world began to look forward with renewed hope and optimism. While the AEC sector fortunately escaped the worst impacts of the pandemic, it was a great relief to see a return to some sense of normality. This was most evident in the UAE, where all eyes turned in early October for the launch of Expo 2020 Dubai. K&A was privileged to play a significant role in delivering five different pavilions – for the Kingdom of Saudi Arabia, Egypt, USA, Pakistan, and Palestine – underscoring our appreciation for the enormous effort behind this global event. Staging such a showpiece was a tremendous achievement, and we anticipated its success in attracting new audiences to the region.





Saudi Pavillion, UAE

K&A celebrated numerous important project milestones across our geographies, improving the lives of millions of people. In Iraq, our water and utilities experts delivered multiple large-scale projects, bringing safe, clean water to Basra Governorate for the first time in three decades. In October, K&A oversaw the completion of the Mahila Reverse Osmosis Plant, one of the most complex projects in our portfolio. This facility can operate under remarkable variations in salinity, ranging from 2,000 to 30,000 mg/l, enabling it to produce potable water despite the fluctuating conditions of the Shatt Al Arab River.



Mahila Reverse Osmosis Plant, Iraq

In Egypt, our work has been instrumental in treating polluted water, generating jobs, driving prosperity, enhancing the environment, and significantly supporting the country's push towards greater self-sufficiency. Following the successful inauguration of the Bahr Al Baqar wastewater treatment plant, where K&A served as the lead consultant, we were appointed to deliver another groundbreaking project, the New Delta Wastewater Treatment Plant. This ambitious endeavor led K&A to break another world record in water and wastewater treatment.

K&A actively supported Saudi Arabia's efforts to address water scarcity through critical desalination, sewerage, and wastewater treatment projects. The Arafat-Taif Water Tunnel, an exemplary

project led by the Saline Water Conversion Corporation (SWCC), is a testament to K&A's expertise. This 12.5 km tunnel, one of the world's largest, is integral to the Kingdom's ambitious plan to increase desalination capacity and water supply, keeping pace with its rapidly growing water consumption. K&A completed the first milestone, ensuring potable water transmission from Arafat to strategic reservoirs in Taif, Al-Baha, and nearby villages.

K&A continued to work closely with clients, supporting the realization of their ambitions.



The Arafat-Taif Water Tunnel, KSA

08

2018
2024

THE FOUNDATION

of Digital Transformation



THE FOUNDATION OF DIGITAL TRANSFORMATION

K&A's early adoption of BIM has been fundamental to our digital transformation, enhancing decision-making, streamlining timelines, and maximizing project performance across every aspect of the business. It has enabled the creation of reliable, clash-free, and sustainable projects, that benefit from low maintenance costs, minimal risks, and higher revenue streams. Additionally, K&A has proactively developed innovative BIM automation tools, achieving substantial efficiency gains for client projects and significantly reducing time spent on repetitive tasks.

Cloud collaboration was pivotal to K&A's success during the pandemic, enabling teams to swiftly transition to remote work without hindering project progress. K&A's BIM journey began in 2011 and accelerated in 2018 with the launch of our digital transformation program.

This initiative led to a dedicated BIM implementation team that has driven standardized internationally recognized BIM practices across the organization.

K&A has fostered a tech-savvy and people-friendly culture with a flexible and adaptive approach to innovation, resulting in the in-house development of new, client-focused products and services.

These advancements have positioned K&A among the world's top technology providers and systems integrators. Our expertise in BIM has earned us industry recognition, culminating in the prestigious 2022 BIM Organization of the Year award.



ACROSS THE GLOBE AND THE CLOUD

Even before remote work became essential for many companies during the pandemic, K&A was a pioneer in embracing this new way of working. Our early adoption of cloud collaboration tools and the establishment of multinational design centers in Cairo, Beirut, the UAE, and Bangalore meant that remote work was already well integrated into K&A's operations, facilitating robust collaboration among geographically dispersed teams through seamless cloud-based workflows.

As a major multinational working on a wide range of multidisciplinary projects and collaborating with numerous stakeholders, K&A recognized the growing need to centralize project data and establish a single source of truth for project documentation. This approach was essential to managing the extensive volume and variety of ongoing projects across diverse design centers and reducing the time spent by project teams searching for, uploading, and downloading project information.

K&A also wanted to reduce its dependency on local servers and move to a way of working that would foster more collaborative partnerships with supply chain partners. By leveraging cloud collaboration tools, centralized and consolidated data for each project became accessible to a full range of stakeholders, which in some cases reached as high as 200 project team members across various organizations.

Knowledge sharing and a comprehensive understanding of cloud collaboration and its features became deeply embedded in K&A's culture. This led to the creation of communities of practice, which served as platforms to train teams on the effective use of cloud collaboration tools.

Since implementing Autodesk's cloud solutions, project teams have gained the strategic advantage of accessing the same model in real-time, a capability that proved especially crucial during the pandemic. Thanks to an open, cloud-based model, troubleshooting and submission processes were enhanced by up to 90%. This shift also reduced environmental impact, cutting year-on-year printing by 50-60% from 2019 to 2020.

K&A's digital infrastructure, accelerated by the pandemic, made cloud collaboration crucial for many projects, increasing investments in licenses and ensuring company-wide adoption. All project documents were stored in a common data environment, following ISO 19650 standards, enabling digital client access and early-stage feedback. Real-time cloud collaboration improved time efficiency by 30-40% on projects, significantly boosting productivity and reducing environmental footprint.

BIM Unit:

Driving Strategic Growth and Innovation at K&A

The establishment of the BIM unit at K&A represents a strategic initiative to integrate BIM with organizational knowledge management, driving the company's digital transformation and growth. This unit operates across several streams, including BIM for buildings, BIM for infrastructure, BIM audit, and BIM development. It serves as a centralized knowledge hub, leveraging multidisciplinary expertise to fuse engineering with technology and revolutionize the sector.

Founded in 2019 and formalized in 2023, the BIM unit was initiated to create a dynamic synergy that allows diverse teams to collaborate effectively, harnessing each other's strengths and expertise to achieve superior outcomes. This collaborative approach was bolstered by comprehensive BIM risk management practices, streamlined supply chain management, and rigorous performance monitoring, all designed to ensure that K&A employees remain aligned and well-informed.

Since its early beginnings, the BIM unit has fostered a culture of continuous learning and improvement, significantly enhancing the overall knowledge-sharing culture. It has established a centralized library of lessons learned, which has become invaluable for end users. Additionally, the unit has developed tools to meet user needs, collaborated to expand the applications of BIM models, and implemented robust performance monitoring to drive ongoing enhancements.



Grand Hyatt The Red Sea at Shura Island, KSA

K&A's work on the Grand Hyatt The Red Sea (Central Hotel #1) at Shura Island has been recognized with the Design Innovation in Building award at the Autodesk Imagine Awards 2024.



The unit also ensured seamless integration of BIM with cutting-edge technologies such as GIS, AI, IoT, AR/VR, and Digital Twin, enhancing the design and construction processes and leading to more innovative and efficient outcomes.

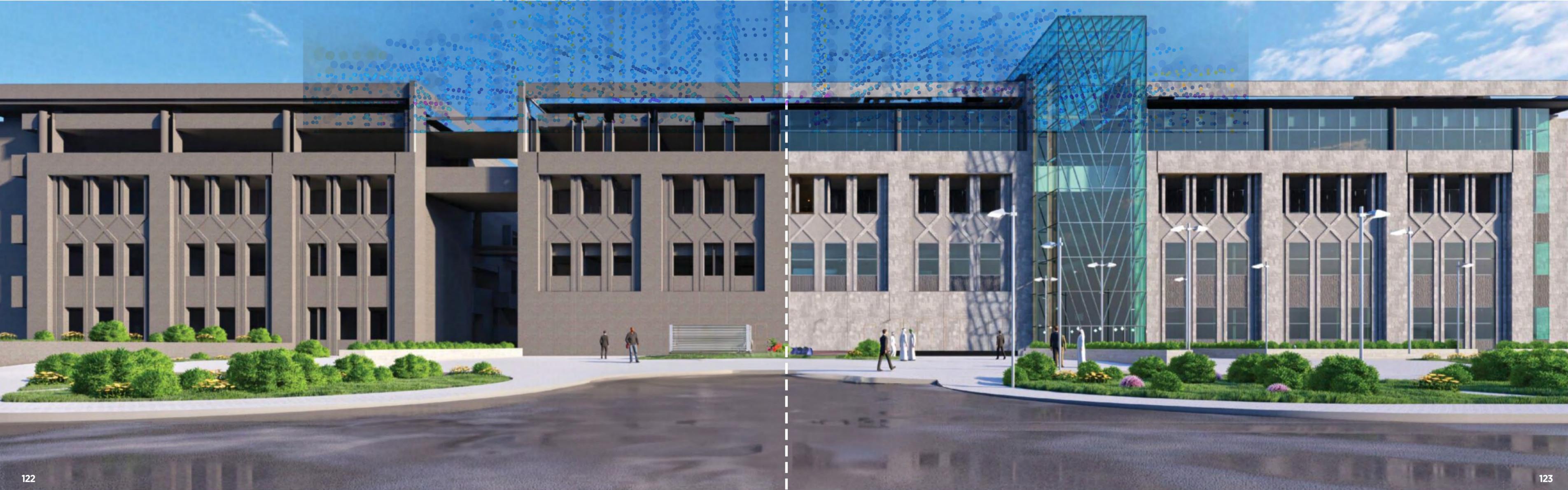
Additionally, our implementation of ISO 19650 standards further enhanced quality and client satisfaction. K&A holds the BIM Level 2 Kitemark certificate following ISO 19650-1 and 19650-2, reflecting the company's commitment to high standards of project delivery and collaborative engagement with the supply chain.

Through these initiatives, the BIM unit has driven strategic growth at K&A, securing numerous project wins and cultivating a returning client base. K&A has expanded its service offerings to include BIM standardization and audit, both as a standalone service and in combination with GIS. This strategic move has enabled K&A to provide comprehensive solutions that enhance project efficiency and quality for high-profile clients, including Monshaat, NEOM, and Red Sea.

By offering BIM standardization and audit services, K&A ensures that all project stakeholders adhere to consistent BIM practices, which streamline processes, reduce errors, and improve overall project outcomes. The integration of GIS with BIM further enhances spatial analysis and decision-making capabilities, providing clients with a more holistic view of their projects.

The Innovation Revolution

K&A's vision for BIM extended beyond traditional applications, seamlessly integrating technology into design and engineering. This forward-thinking approach has inspired the BIM team to pioneer advanced development capabilities, including Dynamo scripting, Python, C#, and API development at the sector and sub-sector levels.

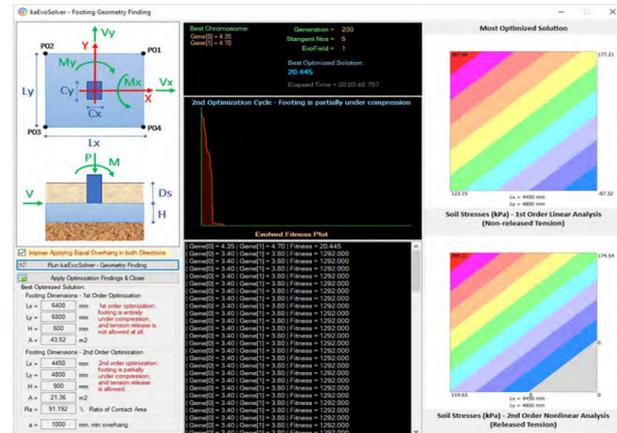


Pushing the boundaries of BIM development through computational and generative design has allowed the automation of repetitive tasks and the resolution of complex shapes by enhancing the accuracy of designs, simulations, and analyses while saving costs, improving productivity, and reducing errors.

These tools provided optioneering and optimization across architectural and engineering fields, developed specifically to meet client needs and sustainability goals. One such solution, kaEvoSolver, can handle any set of engineering input parameters and an extensive array of engineering optimization constraints. This flexibility allows for precise and efficient problem-solving across various engineering challenges. K&A also developed a cloud-based computational fluid dynamics solution that performs digital wind tunnel tests in just four to six days.

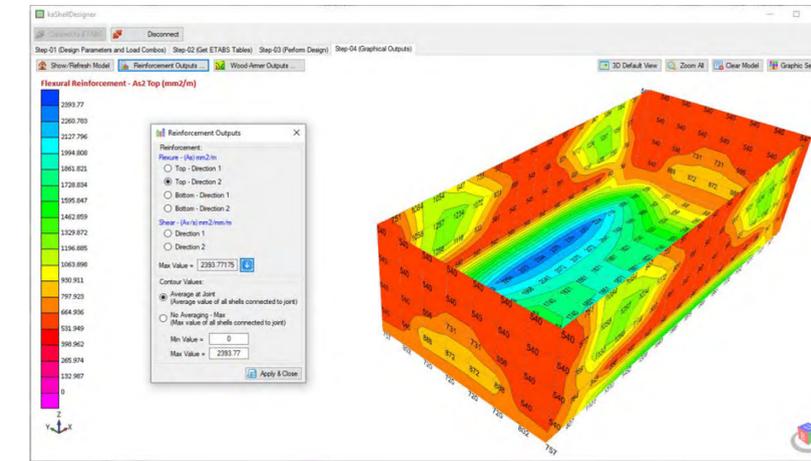
This significantly reduced the time required compared to traditional physical wind tunnel testing for sensitive aerodynamic structures, typically saving several weeks and accelerating project timelines.

Further enhancing automation, K&A utilized solutions built with C#, Revit-Dynamo, and Rhino-Grasshopper to automate the entire structural analysis and design workflow.

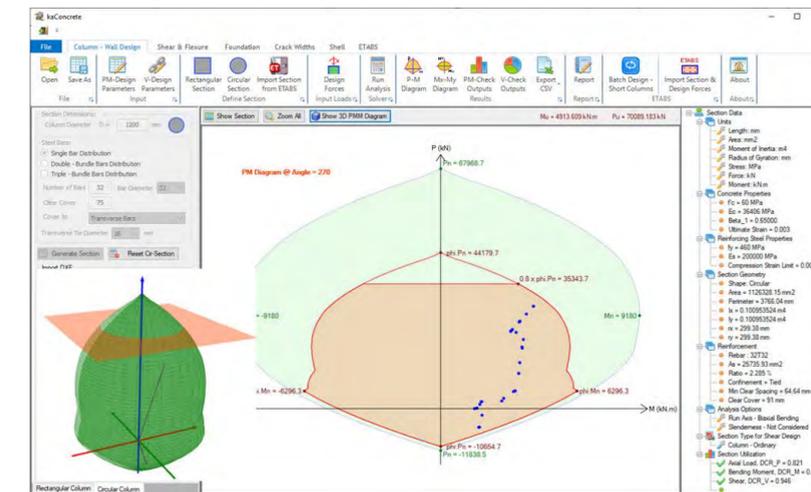


kaEvoSolver - foundation optimization

Another key solution is kaConcrete, used for analyzing and designing reinforced concrete elements. Unlike other commercial software, kaConcrete can communicate with finite element software to automate the collection of raw engineering data and perform the batch design of numerous structural elements with just a few clicks. Currently, structural engineers across K&A's design centers use kaConcrete. This tool has enhanced productivity by 40%, minimized manual processes and repetitive work, and eliminated human error.



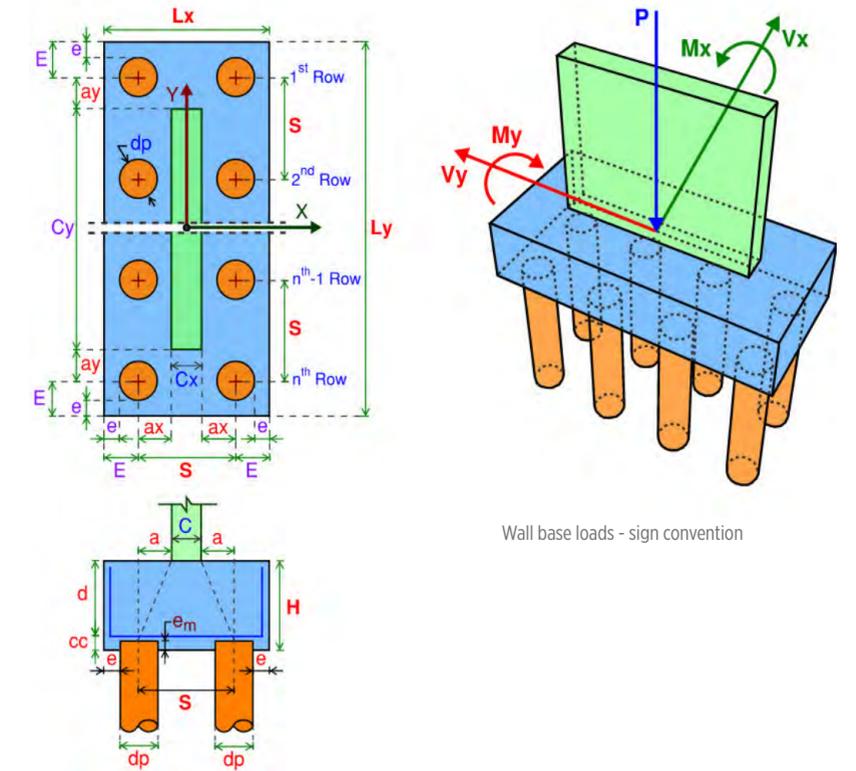
kaConcrete - shell designer



kaConcrete - columns & walls design

Additionally, K&A established sustainability-focused BIM tools that simulate energy usage, enabling the design and construction of eco-friendly, energy-efficient buildings. By seamlessly incorporating sustainable materials and practices into the design process, these tools helped in optimizing building performance by analyzing energy consumption patterns and identifying opportunities for sustainability enhancements. Through these advanced automation solutions, K&A continued to lead the industry in innovation, driving significant improvements in productivity and efficiency across its engineering projects.

kaConcrete - Pilecaps Batch Designer



Wall base loads - sign convention



BIM TRANSFORMS PROJECT DELIVERY

Leveraging BIM, K&A enhanced planning and costing capabilities by integrating specifications and quantities into the design process, thereby creating intelligent models tailored to client needs. This was evident in our work on Riyadh Township Phase 1, where K&A produced over 3,700 detailed drawings within six weeks during the COVID-19 pandemic, managing 3,500 villas across a 3.5 million m² site using remote work across four design centers.

BIM's role was crucial in supporting collaboration and maintaining consistency among remote teams for Roshn Real Estate's housing development. Despite pandemic disruptions, BIM streamlined processes in managing 77 housing combinations of independent villas, attached duplexes, and row-housing units, exceeding client expectations.



Riyadh Township-Phase 1, KSA



Desert Rock Resort, KSA



Desert Rock Resort at The Red Sea destination is another project that exemplified our exceptional use of Autodesk. This technology expedited design processes for early-stage testing and visualization, significantly enhancing decision-making and minimizing risks in navigating challenging terrains. The high-quality visualizations also enabled work to continue when site visits were constrained by the pandemic travel restrictions.

For a digital twin reality model in Oman, K&A captured 250 km² of topography within 125 days, to plan long-term strategies and solutions for environmental risks and security. Using GIS technology and BIM, K&A created a 3D digital twin, processing extensive 330,000 drone images and vectorizing 43,000 buildings, and completed the project 35 days ahead of schedule, ensuring high-quality visualizations and cost efficiency.



Oman's digital twin reality model was a project winner in Bentley's 2020 Year in Infrastructure Awards

BIM for Everyone

To stay at the forefront of innovation, continuous investment in developing talent was essential. The BIM Unit has adopted a comprehensive approach to training employees on new technologies, ensuring proficiency and readiness across all levels of the organization. A weekly “BIM for Everyone” meeting is held to ensure that BIM knowledge and updated data are consistently shared across the company. In addition, specialized training sessions for leaders and managers are conducted to clearly define their roles and responsibilities within the BIM lifecycle of projects, enhancing their understanding and integration of BIM practices.

Capitalizing on solid training and early access to the latest technologies and trends, the BIM unit ensures that globally integrated and multidisciplinary teams are fully equipped to meet client needs and embrace change in a rapidly evolving industry. To facilitate comprehensive learning and application of BIM, each stream within the BIM unit offers dedicated training programs, hosts weekly meetings, and provides on-the-job support.

Periodic BIM assessments are conducted to outline internal capabilities, identify skill gaps, and determine training needs, while also uncovering hidden talents within each department. Additionally, customized training programs are developed to address the specific needs of different departments and job roles, providing all employees with continuous opportunities to further develop their skills and stay updated on emerging technologies.

A new BIM Management Portal has been launched, centralizing all BIM documentation, libraries, and plug-ins, including technical manuals, development tools, and training resources. The portal offers a one-stop shop for BIM practice, with a search function and updated procedures to ensure continual improvement.



K&A's Commitment to BIM Revolutionizes Kuwait's Route 30 Fahaheel Expressway

Kuwait's Route 30 Fahaheel Expressway was one of the pioneering projects that harnessed BIM technology to streamline the design process and significantly enhance team collaboration. This project, pivotal to Kuwait's Vision 2035, required innovative solutions to address increasing traffic congestion and improve connectivity between the capital and its satellite towns.

Utilizing advanced BIM tools like InfraWorks, Civil 3D, 3DS Max, and BIM 360, K&A's team efficiently explored various design alternatives which included the potential upgrade of the existing highway, the construction of an elevated highway or a hybrid of the two, and three separate feasibility alternatives for the upgrade of 22 existing interchanges. Ultimately, K&A opted for the construction of an elevated road over the existing Route 30 on a multi-span, 38-kilometer viaduct, however, this also

brought several challenges. InfraWorks' capability to manage large data sets facilitated seamless departmental integration and real-time data access, while BIM 360 ensured smooth coordination across all disciplines, significantly streamlining the design process. This technological integration reduced design time by 25% and cut coordination efforts by 18%, enhancing overall project efficiency.

The implementation of BIM in this project not only optimized the design process but also established a new norm for project efficiency, significantly improving highway safety, mobility, and the overall quality of life for Kuwait's citizens.

K&A's success with BIM in the Fahaheel Expressway project has revolutionized infrastructure projects, paving the way for advanced, sustainable, and user-centric urban development.





Route 30 Fahaheel Expressway, Kuwait



A NEW DIGITAL REALITY

Over the past three decades, K&A has established one of the world's strongest GIS teams, laying the foundation for smart city development and advanced urban concepts.

Pioneering the integration of BIM and GIS for smart city management, K&A connected BIM with IoT technology to create command centers that allow clients to monitor and manage their facilities throughout and beyond the construction phase. An example of this is K&A's work on the Smart Square in Riyadh for AQALAT, a company founded by Saudi Telecom Company in 2013. As the main design consultant, K&A leveraged emerging technologies, such as Artificial Intelligence, the Internet of Things (IoT), and Big Data Analytics to develop intelligent building systems that seamlessly connect core services such as lighting, power, water meters, pumps, heating, fire alarms, cooling, elevators, and access control systems. The deployment of sensors has facilitated real-time data exchange, significantly enhancing efficiency, reliability, flexibility, and investment returns. Additionally, the integrated use of Information and Communications Technology (ICT) and the deployment of renewable energy technologies helped improve user comfort and reduce energy consumption, with energy savings of 24%, indoor water savings of 38%, and outdoor water savings of 44%.

Another standout achievement was the Water Dispatch Center project for the Saline Water Conversion Corporation (SWCC), a pioneering venture for Saudi Arabia's water desalination sector. This project marked a significant milestone with its unparalleled integration of Architecture, Engineering, and Construction (AEC) with Information & Operational Technologies (IT/OT). Aligned with Vision 2030, it has revolutionized the water management infrastructure of the world's largest producer of desalinated water. By addressing water scarcity and high consumption rates through cutting-edge, cost-efficient solutions, the center has provided affordable potable water and electricity to millions, showcasing a remarkable advancement in technological and operational efficiency.



The integration of GIS is continuously evolving, pushing the boundaries of technology in urban development. In projects like the Saudi Arabia Provision of Social Facilities 2030 and the Sharjah Spatial Plan 2040, K&A applied specialized modeling techniques using GIS to integrate diverse socio-economic data, land uses, movement patterns, and transportation networks. This approach massively improved visibility and understanding of current and future factors, enabling scientific justification for every proposed solution. Another notable project, Sharjah's Urban Observatory, part of the UN-HABITAT's Global Urban Observatory network, utilized advanced statistical and geospatial information to develop key urban performance indicators to support the monitoring of urban conditions and trends in alignment with the Global Sustainable Development Goals (SDGs).



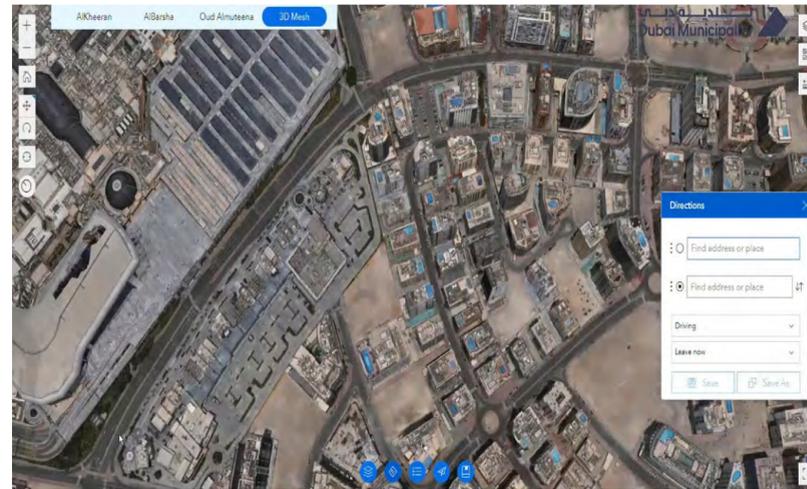
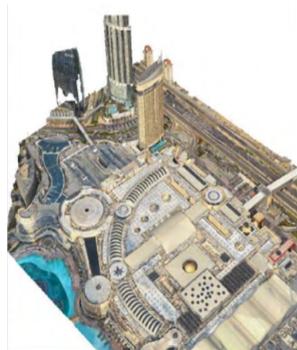
K&A Digital Services: Forging the Path of Global Digital Innovation

Building on our extensive digital expertise and pioneering innovations, K&A launched K&A Digital Services in 2023, marking a pivotal evolution in our strategic approach. This strategic restructuring unified the company's digital expertise, Geospatial Systems Integration, and Energy and Utilities teams into a single, robust entity. The creation of K&A Digital Services was designed to harness the collective expertise of K&A's professionals, aiming to deliver cutting-edge digital solutions tailored to the diverse and evolving needs of various industries, including Architecture, Engineering, and Construction (AEC), telecommunications, utilities, transportation, local government, emergency response, and commercial enterprises.

By focusing on advanced data analysis and technological integration, K&A Digital Services enhances decision-making processes and elevates customer experiences. In Egypt, the division has spearheaded significant projects to transform the electrical distribution grid. A notable example includes the Dokki Site Acceptance Test across four Distribution Control Centers, where K&A was instrumental in data model creation, consultancy, and ArcFM implementation. Additionally, the team digitized the base map and electric network for the Helmya Distribution Control Center, serving districts such as Helmya, Mataria, Marg, and El-Salam in collaboration with El Sewedy Electric T&D and Toyota Tsusho Corporation.



3D Digital Twin for Dubai Municipality Project

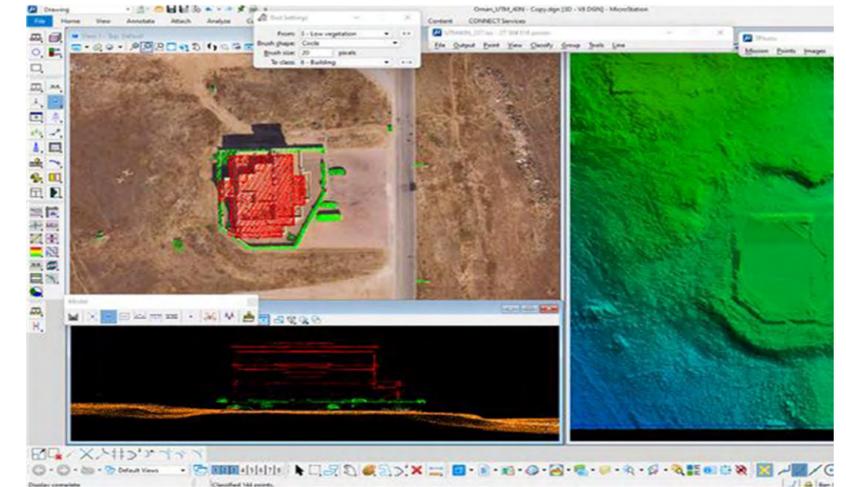
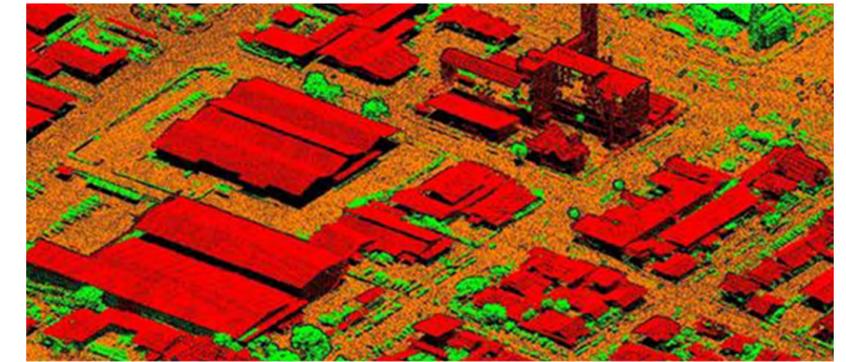


In the UAE, K&A Digital Services launched the 3D Utilities Infrastructure Project for Dubai Municipality, which involved the development of a 3D Digital Twin Platform. This innovative platform aims to enhance business processes, mitigate risks, optimize operational efficiencies, and provide crucial insights for decision-making.

The division's reach extends to Qatar, where K&A was appointed by the Center for GIS (CGIS) to carry out the National Data Capture and Mapping project for the Ministry of Municipality. This extensive project involved updating the country's 3D map, deploying a range of hardware and software, including aircraft, aerial cameras, and airborne LiDAR sensors, and conducting topographic and bathymetric LiDAR surveys.

K&A Digital Services is also at the forefront of integrating cutting-edge technologies such as Building Information Modeling (BIM), Geographic Information Systems (GIS), the Internet of Things (IoT), Artificial Intelligence (AI), Machine Learning (ML), and Virtual Reality (VR). These technologies are revolutionizing design, planning, and construction processes. An example of this is the recently completed Urban Landbank Using Aerial Survey and Artificial Intelligence project in Oman, where K&A devised an aerial survey combined with AI to identify footprints and roads with remarkable precision.

Our exceptional work in GIS has earned K&A the State and Local Government Specialty designation from Esri, the world's leading supplier of GIS software. This fourth Esri Partner Network (EPN) Specialty designation underscores our long-standing partnership and unwavering commitment to Esri technology.



The Urban Landbank Using Aerial Survey and Artificial Intelligence in Dhofar Governorate, Oman



It reflects our dedication to delivering value to state and local government clients. K&A holds four Esri Partner specialty designations, including Network Management, State and Local Government, ArcGIS System Ready, and Indoor GIS, enabling customers to benefit from in-depth analysis, real-time data, informed decision-making, and driving digital transformation. In addition, K&A has received the Utility Network Implementation Award further acknowledging our success in implementing core Esri technology for utility and telecommunications operators globally.

K&A Digital Services continues to raise industry standards, consistently exceeding client expectations and solidifying its position as a leader in the digital transformation landscape.

FROM TECH BOOM TO NATURE REVIVAL

K&A Envisions Tomorrow's Cities

K&A recognizes that technology is just one facet of planning for future cities and communities. While the tech boom has driven significant advancements, it has also sparked a counter-movement and yearning to return to basics, particularly in recreation and our natural living environment. Simultaneously, technology offers innovative solutions that reshape how we live and work. This trend has been evident during the pandemic, with the widespread shift towards home working, demonstrating technology's critical role in enabling new ways of living and interacting.

Between 2020 and 2024, K&A spearheaded new-generation projects, inspiring a profound focus on the human experience and interactions with their surroundings, placing people and the natural environment at the heart of every design.



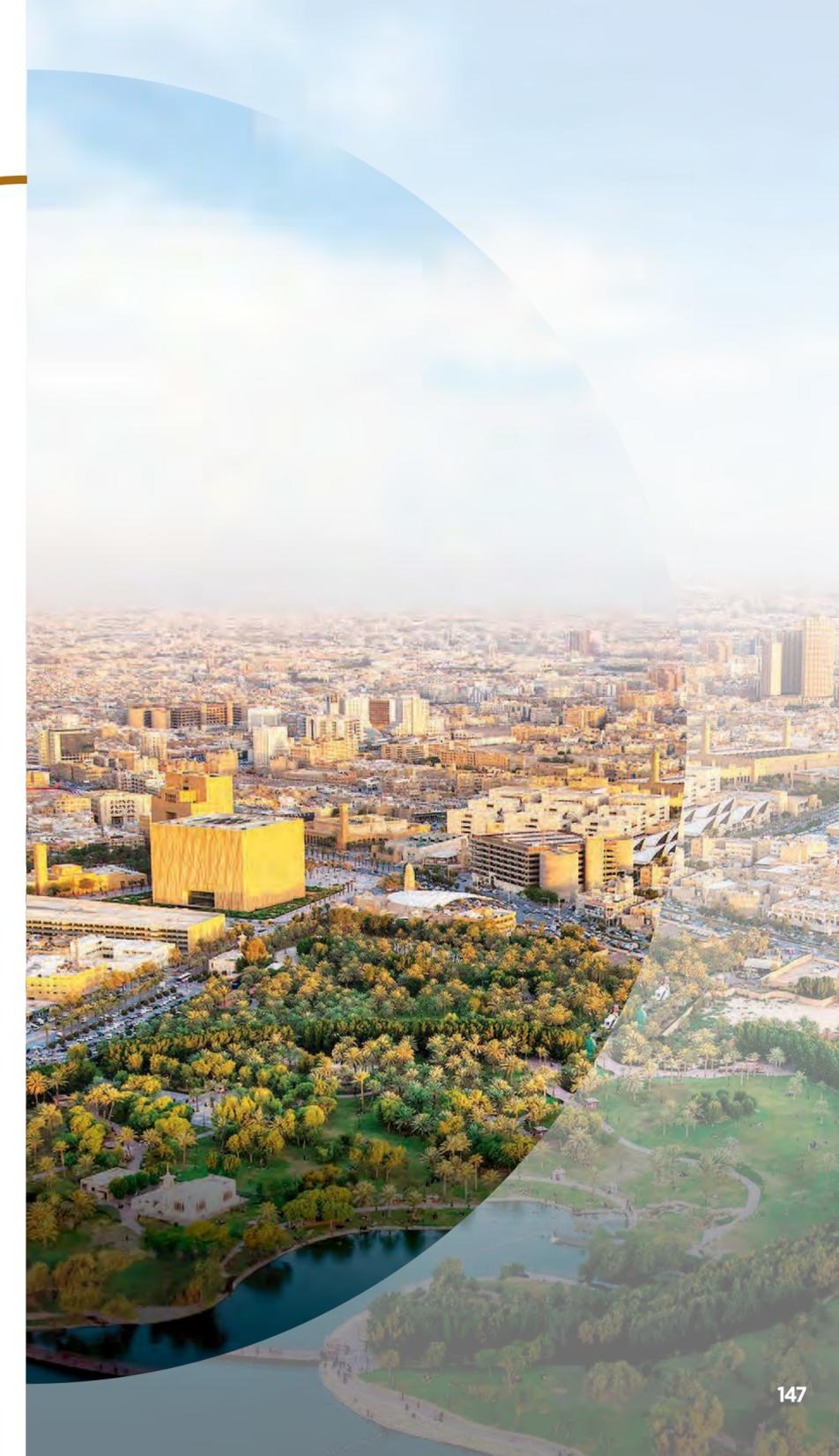
Greening Riyadh for Healthier Living



K&A completed the concept and schematic design for the 10.46 km² East An-Naseem neighborhood in Riyadh. Appointed by the Royal Commission for Riyadh City, this project is one of five pilot initiatives under the Green Riyadh program, one of the most ambitious urban afforestation efforts ever undertaken. Green Riyadh aims to significantly expand the city's green spaces by planting 7.2 million trees to enhance air quality, lower temperatures, and create a healthier, more people-friendly public realm.

The East An-Naseem neighborhood, an existing residential area, was transformed with the broader objectives of the Green Riyadh strategy. The concept design emphasized creating an attractive, safe, accessible, and diverse community, where pedestrians are prioritized over vehicles.

The project also showcased the strength of our multidisciplinary and inter-departmental team collaboration across K&A, who delivered the design in just three weeks. It involved collaboration from colleagues in Bangalore, Beirut, Sharjah, and Riyadh, with plans to include Cairo and Khobar in the next phase.



Reviving Al-Jahra Waterfront in Kuwait

K&A played a pivotal role in the holistic transformation of Al-Jahra Waterfront in Kuwait, a significant initiative aligned with the National Development Plan - Vision 2035. This 7.3 km² waterfront project envisioned a vibrant public realm that seamlessly blends recreation, culture, and nature, while preserving the site's ecological value.

Appointed by the Kuwait Municipality - Projects Development Sector, K&A, in collaboration with local partner Kuwait Technical Consulting Bureau, developed a comprehensive master plan that balances environmental preservation with socio-cultural and economic sustainability. The master plan featured a network of green-blue corridors, connecting decks, and eco-parks, including a desert botanic garden and a bird observatory. Natural assets such as the sea, intertidal zone, and mangrove reserve were integrated into recreational and touristic components, fostering a unique spatial experience that reflects Kuwaiti cultural identity.

The plan also included iconic landmarks like the Kuwait Lifestyle Museum and a Souk, alongside modern attractions such as an entertainment pier, music venue, aquarium, and sports facilities. Accessibility was enhanced through smart transportation systems, ensuring year-round appeal and functionality.





Designing a Sustainable Park for Growing Dubai Community

K&A supported community greening projects in Dubai by delivering full-fledged design and supervision services for the new district park at Dubai Science Park (DSP). The 78,000 m² park in Dubai's Al Barsha neighborhood exemplifies how green spaces can enhance community well-being. As part of Dubai's 2040 Master Plan which envisions improving quality of life by doubling the number of green and leisure areas, in addition to public parks, the new district park supports a healthier lifestyle and fosters community interaction through its diverse amenities, including a community herbal garden, multi-use lawn, and recreational areas. K&A collaborated closely with Tecom to develop a vibrant space that fosters outdoor play, fitness, and recreation.

The design emphasized family and community interaction, seamlessly weaving these elements within the DSP business district to create a dynamic and inclusive environment. The park incorporates drought-tolerant plants, greywater recycling, and renewable energy solutions, showcasing a strong commitment to sustainability. Additionally, a standout feature is the unique Peacock Garden, which provides a new habitat for peacocks and is thoughtfully designed to mimic their natural environment.

The park's design aligns with Dubai's vision for increased green spaces and is intended to serve as a lasting community asset, ensuring it remains a cherished place for many years to come.

Delivering a New Commuter Cycle Track in Dubai

K&A significantly enhanced sustainable urban mobility in Dubai by spearheading transport integration and soft mobility improvements along Hessa Street. Tasked to deliver the design and construction supervision, K&A developed a new 13.5 km commuter cycle track aligned with the Roads and Transport Authority (RTA) cycle master plan.



The new cycle track caters to cyclists, and e-scooter users with a separate footpath for pedestrians, ensuring safety and accessibility for all. Extending from Dubai Internet City Metro Station along Hessa Street, parallel to Al Khail Road, through Umm Suqeim Road, and connecting with Dubai Hills Mall, the track features strategically placed rest areas and shading for comfort. A mobility hub, designed according to RTA integration requirements, will facilitate seamless transitions between transport modes. Two iconic pedestrian-cyclist bridges will enhance connectivity: one spanning Sheikh Zayed Road, linking the new track with existing ones near Dubai Internet City Metro Station, and the other crossing Al Khail Road, integrating the track with other vital city areas, ensuring safe and uninterrupted mobility.

By connecting various parts of the urban landscape, these bridges will play a crucial role in making the cycle track an integral part of Dubai's transportation network. They are designed to prioritize user safety and convenience, encouraging more people to opt for soft mobility options over traditional motorized transport.



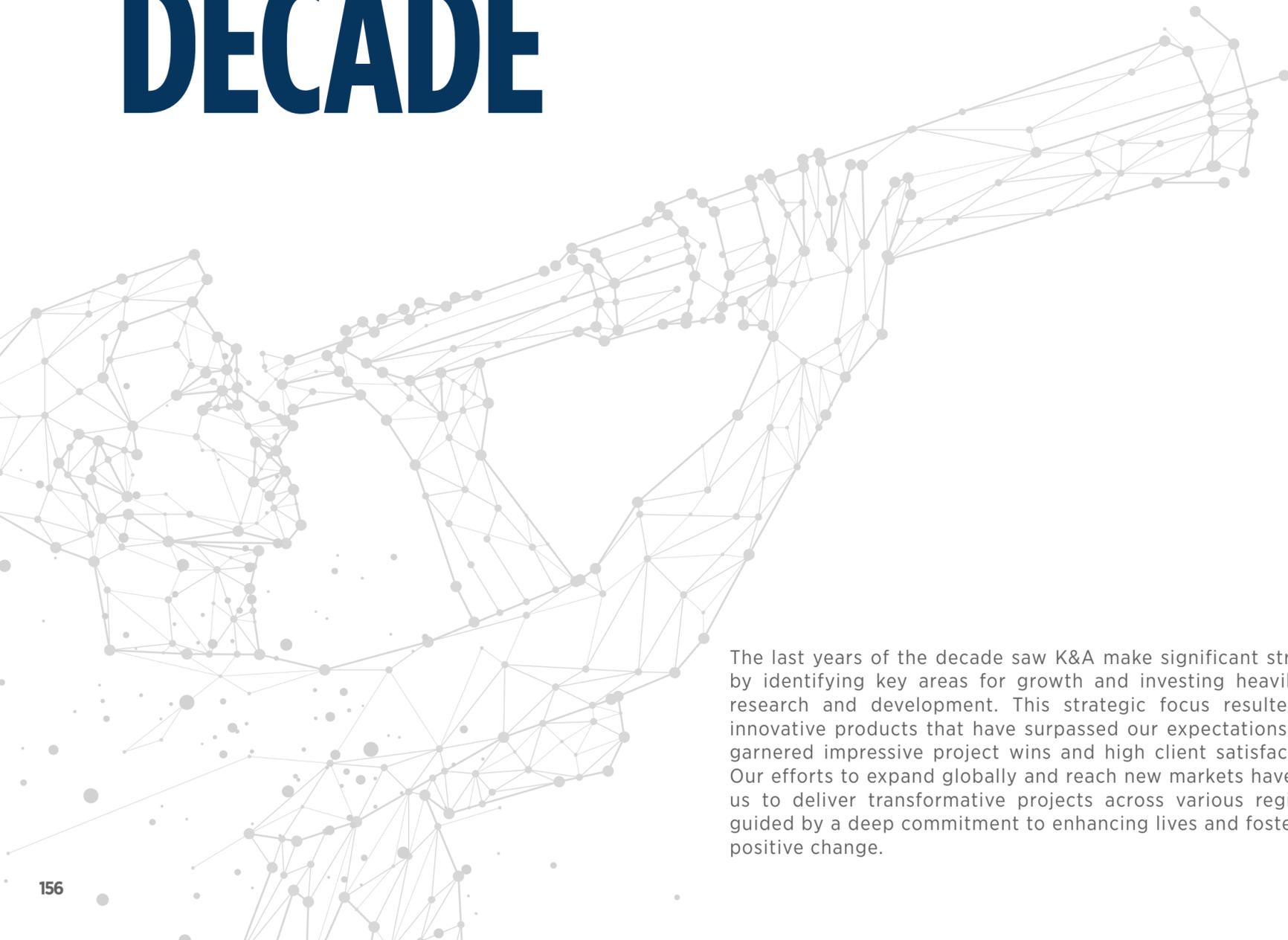
10

**MILESTONES
OF THE DECADE**

**2022
2024**



MILESTONES OF THE DECADE



The last years of the decade saw K&A make significant strides by identifying key areas for growth and investing heavily in research and development. This strategic focus resulted in innovative products that have surpassed our expectations and garnered impressive project wins and high client satisfaction. Our efforts to expand globally and reach new markets have led us to deliver transformative projects across various regions, guided by a deep commitment to enhancing lives and fostering positive change.



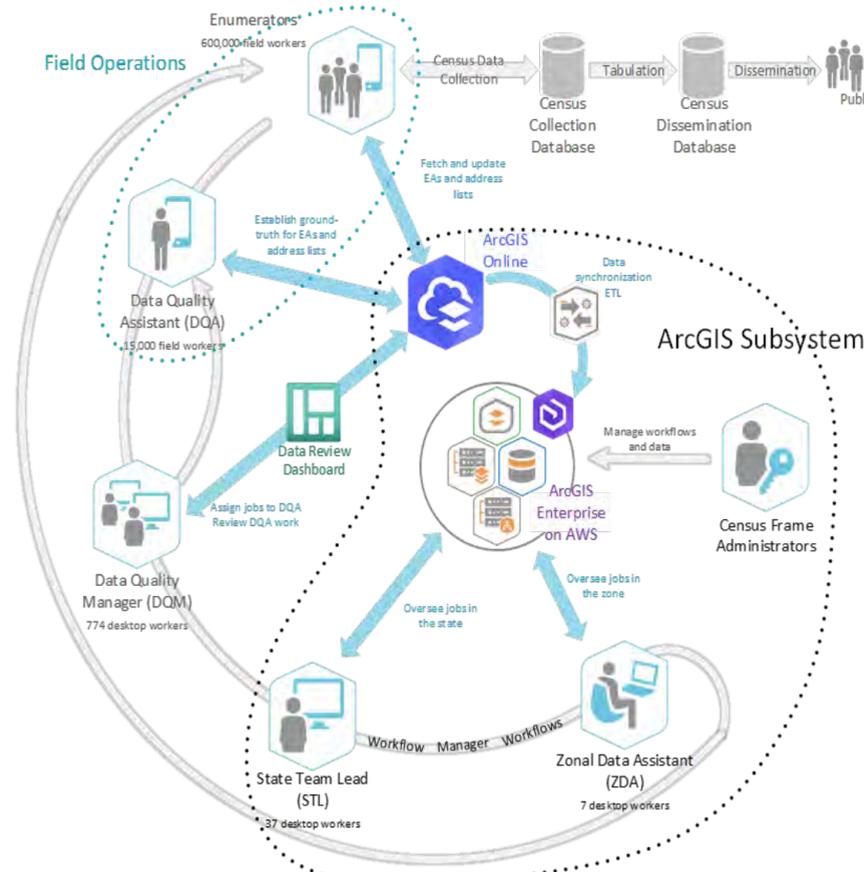
Regional Impact and Innovation

GIS Consultancy in Senegal

One of our standout achievements was the GIS consultancy project in Senegal where K&A undertook a major role in modernizing the country's electricity sector by leading a comprehensive GIS deployment and implementation plan. The project aimed to address the challenges of high energy costs and limited access to electricity, with the national access rate reaching 64%. Our digital solutions were designed to enhance electrification planning, helping to optimize expansion programs and improve living conditions. This ambitious project promised substantial socio-economic benefits and established another solid bridge toward K&A's expansion into the sub-Saharan African market.

Geospatial Infrastructure for Nigeria

Expanding our impact further, K&A contributed to the geospatial infrastructure project for Nigeria's 2023 National Housing and Population Census. This landmark project marked Nigeria's transition to its first digital census, leveraging cutting-edge Esri technology to gather and analyze demographic and socio-economic data. Given the challenges faced during the 2006 census and Nigeria's rapidly growing population, this digital transformation is paramount for sustainable growth. The new census supports government planning in education, healthcare, and job creation, ensuring data-driven decision-making for Nigeria's future and guiding national development.



Light Rail Transit (LRT) in Egypt

In Cairo, K&A was instrumental in the design review and construction supervision of the Light Rail Transit (LRT) system, a comprehensive 110 km network that connects emerging urban communities to the New Administrative Capital. The LRT features 19 stations, including two new extensions, and accommodates a remarkable daily ridership of 500,000 passengers, with peak-hour capacity reaching an impressive 30,000. By 2030, it will provide transportation for nine million people and reduce traffic on the Cairo-Ismaïlia motorway by around 30%. Aligned with the 2030 national agenda and the UN sustainable development goals, the LRT will further support the transition toward a more sustainable mobility system while reducing pollution and improving quality of life.



Infrastructure Development and Sustainability

Basra Ring Road Project in Iraq

K&A has become the leading international consultant working in Iraq's southern city of Basra. This position has been further reinforced with our appointment to prepare the design and tender documents for the high-profile Basra Ring Road project. The 89 km circular route, featuring ten road bridges crossing rivers and water channels, eight pedestrian bridges, and sixteen interchanges, was designed to alleviate congestion, reduce travel times, and cut pollution in Basra. The free-flowing route around the new Ring Road will also improve connectivity to major highways and Basra International Airport, drive economic growth, and enhance trade and transport within Iraq and internationally.



Abu Flous Desalination Plant

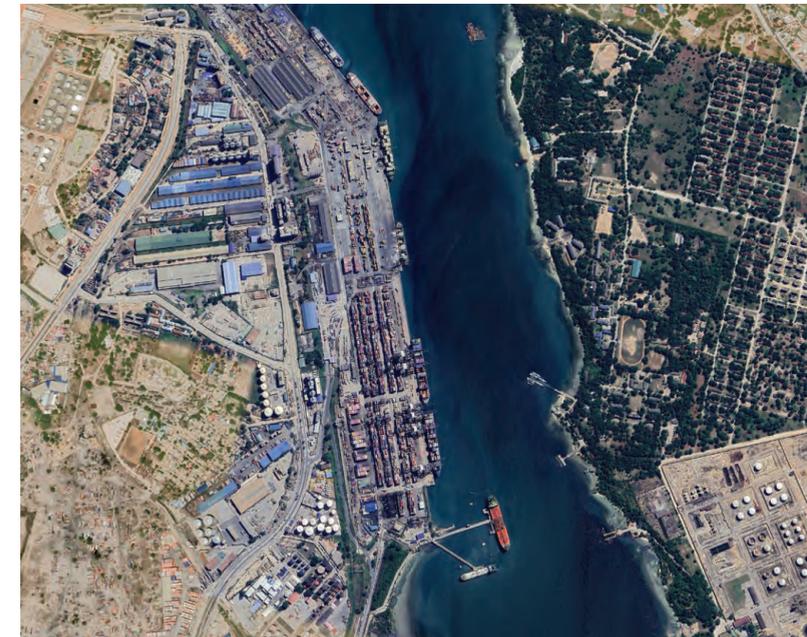
The Abu Flous Desalination Plant in Basra further demonstrated K&A's expertise in large-scale infrastructure, setting new standards in water treatment with its advanced reverse osmosis technology. Located in a region facing severe water scarcity due to population growth and limited freshwater resources, the plant efficiently treats water with salinity levels ranging from 500 ppm to 35,000 ppm. It boasts a sophisticated pre-treatment system that effectively handles challenging raw water, overcoming high total dissolved solids (TDS), turbidity, and pollutant concentrations. The system's robust design ensures a reliable supply of high-quality freshwater, addressing immediate water scarcity needs and serving as a model for future sustainable water management practices in the region.



Global Expansion and Strategic Projects

Dar Es Salaam Port Expansion in Tanzania

K&A has partnered with the Tanzania Port Authority (TPA) to improve maritime logistics and support economic growth across Eastern Central and Southern Africa. The project includes expanding the Dar Es Salaam New Container Terminal to increase its capacity from 1.5 million to 2.5 million TEUs per year, making Dar Es Salaam a key hub for multimodal transportation for neighboring landlocked countries. In collaboration with Triton Consultants Cyprus LTD, K&A has also designed new ferry, cargo, and cruise ship terminals to meet growing demands for transport and tourism, all while prioritizing sustainable and innovative practices.



Saudi National Housing Company Projects

In Saudi Arabia, K&A has been commissioned by the Saudi National Housing Company (NHC) to oversee the master planning, infrastructure design, and supervision of several major mixed-use developments in Riyadh, Jeddah, and Madina. These projects, part of the Saudi Government's initiative to attract investment and address growing housing needs, involved creating innovative and sustainable communities with distinctive public spaces and plots for social facilities. Once completed, the developments will feature 8,832 apartments, 17,580 townhouses, 56 community facilities, and 22 utility sites, with their dedicated green spaces.

Bahrain International Airport and Water Master Plan

K&A's work in Bahrain involved conducting a comprehensive feasibility study to optimize Bahrain International Airport's emergency runway. The study assessed factors, including weather conditions, runway length, and necessary infrastructure upgrades to meet the airport's demands. Additionally, we undertook a thorough aeronautical analysis to ensure a complete understanding of aviation-related factors. The goal was to enhance the airport's capacity and efficiency, supporting its role as a vital connection point between Bahrain and the global community, while ensuring it can accommodate increasing air traffic and maintain its strategic importance in the future.

Additionally, a highly skilled team from K&A with specialized knowledge in water supply, water treatment and desalination, SCADA, power, and mechanical design has started the implementation of an innovative potable water production and transmission master plan for the Electricity and Water Authority (EWA). The project aims to develop a comprehensive water supply master plan for Bahrain from 2024 to 2030, focusing on optimizing and expanding EWA's facilities to meet future water demand. The scope also includes in-depth energy-saving and groundwater studies, with K&A's digital solutions integrated to ensure maximum efficiency and effectiveness throughout the project.



Cultural and Economic Development

Hub of Arts in Kuwait

In Kuwait, K&A was commissioned by the Municipality of Kuwait to design the Hub of Arts, an ambitious project set to preserve Kuwait's heritage and contribute to its socio-economic and cultural development. The Hub's primary purpose is to have a tangible and positive impact on human development by stimulating a passion for the arts, a quest for knowledge, and community involvement. As a result, our experts designed the project to accommodate a variety of recreational and cultural activities. Inspired by Kuwait's history and marine environment, the Hub features a dynamic, wave-like structure and a central 3D sphere resembling a pearl, symbolizing the country's historical and cultural heritage. We also integrated sustainability features to achieve LEED Gold certification, ensuring that the Hub serves as a modern, eco-friendly landmark while preserving Kuwait's traditional identity.



Institute of Public Administration (IPA) in Oman

K&A's expertise has also supported Oman Vision 2040, notably through the Institute of Public Administration (IPA) headquarters. This mixed-use development by Muscat National Development and Investment Company SAOC (ASAAS), located in Al Khuwair, Muscat, aims to be a tourism and economic landmark. The project, covering 28,124 m² with a built-up area of 64,676 m², features state-of-the-art facilities that combine traditional Omani elements like arches and domes with modern functionality and sustainable design, including natural ventilation and locally sourced materials. It includes a 4-star hotel and retail spaces that can accommodate 20,000 trainees annually, boosting public and private sector development. The IPA project represents a major shift in administrative, tourism, and economic concepts in the region, and its range of services is set to attract a variety of industries and activities.



11

**TRANSFORMATIVE
PROJECTS WITH
LASTING IMPACTS**

2014
2024



TRANSFORMATIVE PROJECTS WITH LASTING IMPACTS

In a rapidly evolving world, groundbreaking projects are emerging with a promise to redefine our built and natural environment and transform our daily lives. These pioneering endeavors represent not just the cutting edge of technology and design but also a commitment to addressing some of the most pressing challenges of our time. From revolutionizing urban spaces and advancing sustainable practices to redefining community engagement and driving innovation, these projects are poised to leave an indelible mark on the future - shaping our world, inspiring progress, and setting new standards for what is possible.





HOTEL COMPLEX BECOMES A WORLD-CLASS LEISURE DESTINATION IN THE HEART OF DUBAI

Home to three 5-star hotels with unparalleled amenities, Al Habtoor City redefines luxury living in Dubai. It also hosts the region's first permanent show, La Perle, in a tailor-made, state-of-the-art aqua-theater.

Al Habtoor City is a mixed-use development with a total built-up area of 360,000 m², featuring three world-class hotels known as the Al Habtoor City Hotel Collection. The development includes the Middle East's largest Hilton, the Hilton Dubai Al Habtoor City, Habtoor Palace Dubai, and V Hotel Dubai, Curio Collection by Hilton. The complex also houses the stunning 1,300-seat aqua-theater, one of only three in the world, which features the region's first permanent show, La Perle. The show's aquatic theatrics and gravity-defying performances could only be delivered in a custom-built theater with automated staging, high-tech overhead rigging, and cutting-edge technologies.

The simultaneous construction of three hotels, including multiple F&B, leisure, and recreational facilities, required exceptional project and program management. Over 150 companies and 5,000 workers from 36 countries worked collaboratively within the confines of a single site.

The theater's design and construction involved a multidisciplinary team working remotely across different time zones, utilizing collaborative technologies to achieve a seamless virtual environment. The venue was built around a large pool with dynamic water features, enabling the stage to transform from a dry platform into a 300 mm water-filled pool.

The project embodies Dubai's reputation as a luxury destination that offers visitors, residents, and businesses exceptional experiences, while also contributing to the long-term future of the Emirate.

PROJECT LOCATION

United Arab Emirates

START DATE

2012

COMPLETION DATE

2017

ROLE OF K&A

Lead Design and Construction Supervision

AWARDS

- ENR Global Best Projects Awards 2018, Best Project in Residential/Hospitality



CUTTING-EDGE AVIATION TRAINING CENTER DRIVES INNOVATION AND RESTORES BEIRUT'S INFLUENCE IN THE REGION

The Middle East Airlines (MEA) Training and Conferences Center marks a historic milestone for Lebanon as the country's first flight simulator training center. Located near Beirut's International Airport and part of the Middle East Aviation Academy, the center was redesigned, after its closure in 1982, to create a technologically advanced learning environment, which will improve training effectiveness and ensure that pilots are trained at the highest level of proficiency.

Drawing inspiration from a visit to the Airbus Training Center in Hamburg, the design meets the highest international standards. The facility, spanning 13,755 m², boasts several support spaces and business functions seamlessly integrated to meet the needs of trainees, trainers, and staff.

The center features training divisions for pilots, cadets, cabin, ground, and administrative crews, as well as a library and administrative offices. Additionally, there is a conference center featuring a 19m high dome with a 300-person auditorium, an olive garden, a ballroom, and a multipurpose reception hall.

The MEA Training and Conferences Center has brought new technologies and innovations to Beirut, re-establishing the city's regional training role and rejuvenating Lebanon with a will to build, develop, and activate its national institutions, with MEA at the forefront.

PROJECT LOCATION

Lebanon

START DATE

2012

COMPLETION DATE

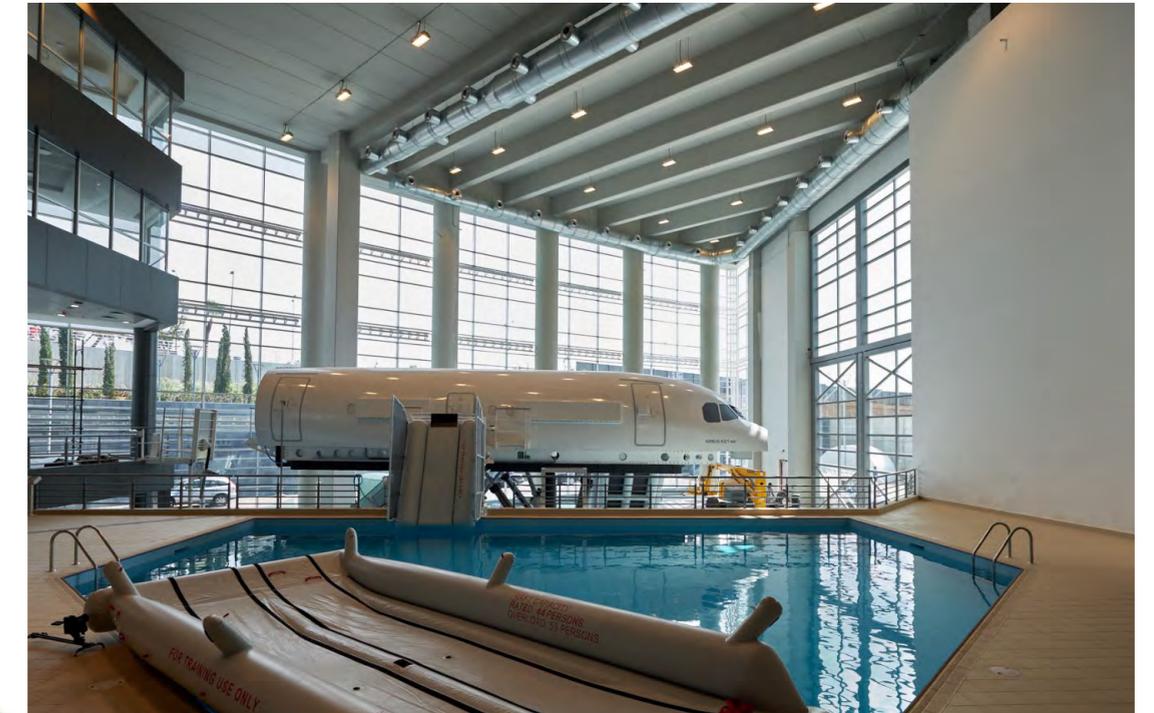
2017

ROLE OF K&A

Lead Design and Construction Supervision

AWARDS

- ENR Global Best Project Awards 2018, Award of Merit in Education/Research



SMART INFRASTRUCTURE PAVES THE WAY FOR A FLOOD-RESILIENT DOHA



PROJECT LOCATION

Qatar

START DATE

2019

COMPLETION DATE

2024

ROLE OF K&A

Design Review and Construction Supervision

AWARDS

- MEED Projects Awards 2024, National Winner for the Water Transmission Project of the Year

The FIFA Readiness Project by the Drainage Network Projects Department (DNPD) in the Public Works Authority (PWA), aims to enhance infrastructure, urban planning, and environmental protection in response to the 2018 flooding, ensuring long-term resilience while preparing for the 2022 World Cup and beyond. The drainage system is engineered to withstand Doha's varying weather patterns and anticipated climate changes, ensuring long-term effectiveness.

At its core, the project focuses on flood mitigation, safeguarding communities and utilities from water-related hazards. Strategically placed storm and gully drains efficiently manage heavy rainwater runoff, preventing flooding in designated areas.

Additionally, green infrastructure components like soakaways and geotextiles facilitate water infiltration, reducing treatment costs, minimizing pollution, and enhancing groundwater recharge.

The project also implemented smart technologies to boost efficiency and adaptability. For instance, the main inlets of the Najma Tunnel feature advanced flow control valves and penstocks for real-time data collection. This enables authorities to monitor drainage systems, detect blockages promptly, and respond swiftly to changing weather conditions, ensuring disaster readiness.

Throughout the project lifecycle, the integration of Building Information Modeling (BIM) and Geographic Information System (GIS) enhanced collaboration, ensuring all stakeholders had

access to accurate, up-to-date information. Teams could identify potential issues early, optimize planning, and implement cost-effective solutions without compromising quality. Additionally, clash detection and hazard identification minimized construction delays, enhanced safety, and accelerated progress in critical areas—allowing key infrastructure near stadiums and main roads to be completed ahead of schedule.

By mitigating flood risks, the project has enhanced connectivity within the city, reduced travel times, and improved access to essential services such as healthcare and education, thereby enhancing residents' quality of life.



WATER DISPATCH CENTER DIGITALLY TRANSFORMS WATER MANAGEMENT IN SAUDI ARABIA

The Water Dispatch Center for the Saline Water Conversion Corporation (SWCC) is a strategic, groundbreaking project that has revolutionized water management in Saudi Arabia through complete digital transformation. As the world's foremost producer of desalinated water, generating over 11.5 million cubic meters daily, SWCC aims to achieve its corporate vision of becoming a world leader in seawater desalination and power production, providing customers with high-quality, affordable, and economic returns.

From the outset, the main challenge of the project was unifying SWCC's water transmission and production data from various formats and locations across the Kingdom. This was achieved through an integrated Water Management System (WMS), using OSIsoft's PI, the Esri GIS platform, and IT/OT applications. The innovative WMS has enabled SWCC to monitor the real-time operation, plan and instruct the scheduling of production/transmission, and review the performance of past operations.

This project was a first-of-its-kind for Saudi Arabia's water desalination sector, given the level of integration between Architecture, Engineering, and Construction (AEC) and IT/OT to deliver the final WMS to SWCC. It established a robust PI infrastructure seamlessly integrated with GIS, ERP, SCADA DCS, and other enterprise applications like production scheduling and dispatch, optimizing water production costs.

Through its establishment, the water dispatch center has helped to tackle the Kingdom's water scarcity and high consumption challenges by providing cost-efficient, advanced solutions and delivering affordable potable water and electricity to millions of people.

PROJECT LOCATION

Kingdom of Saudi Arabia

START DATE

2017

COMPLETION DATE

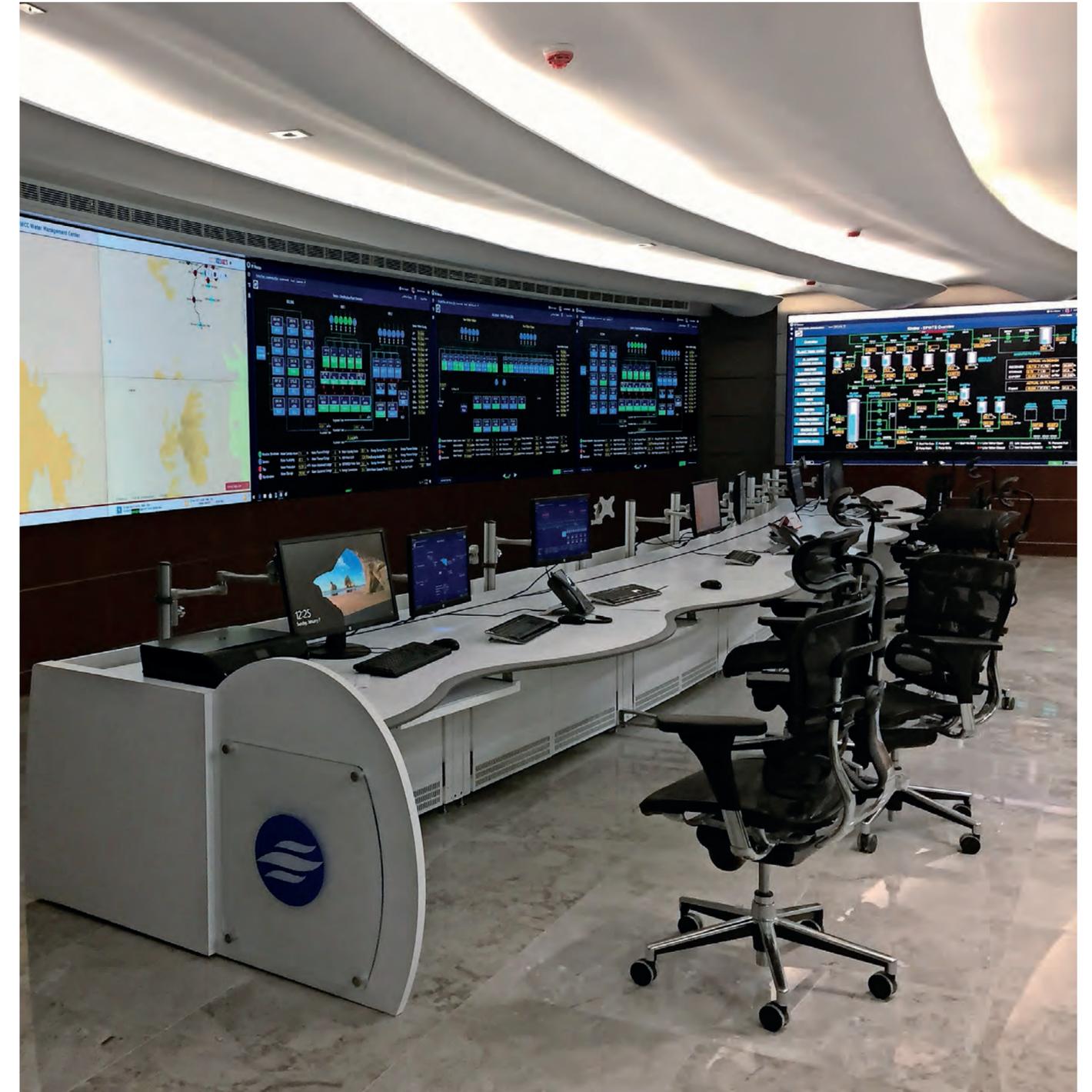
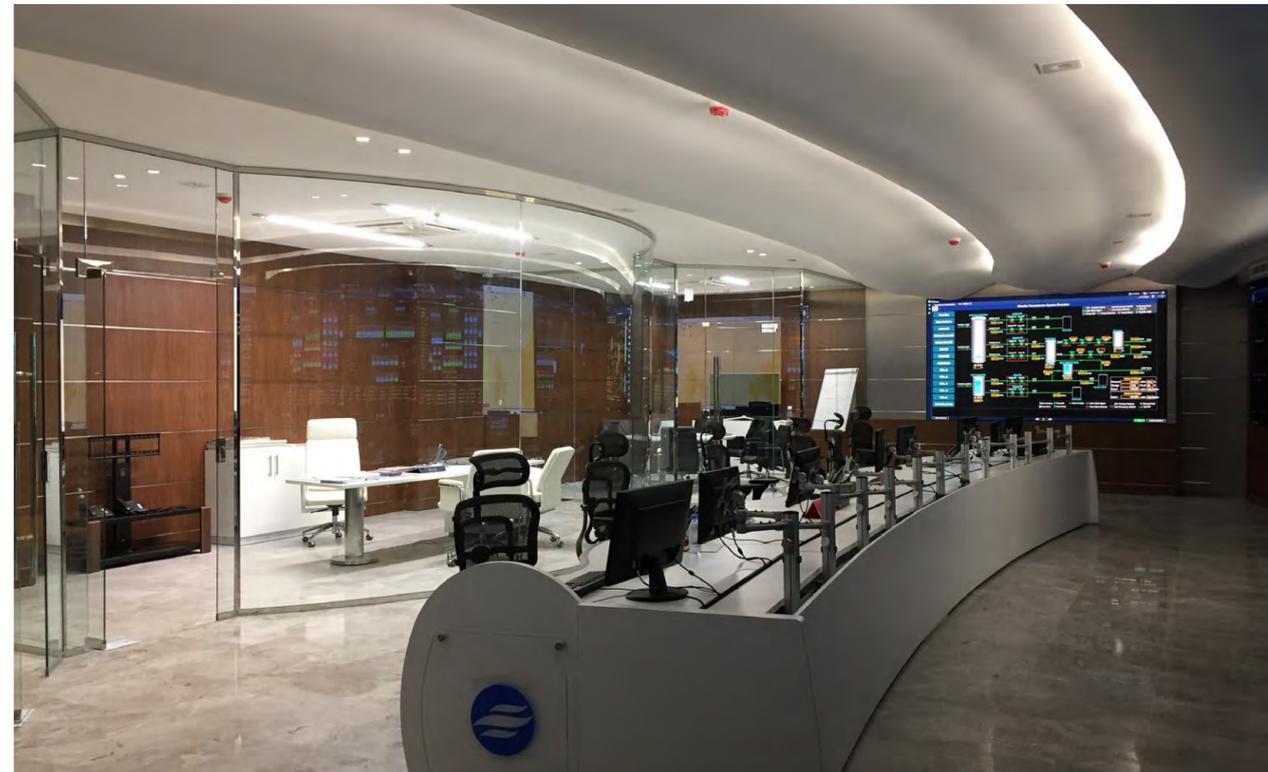
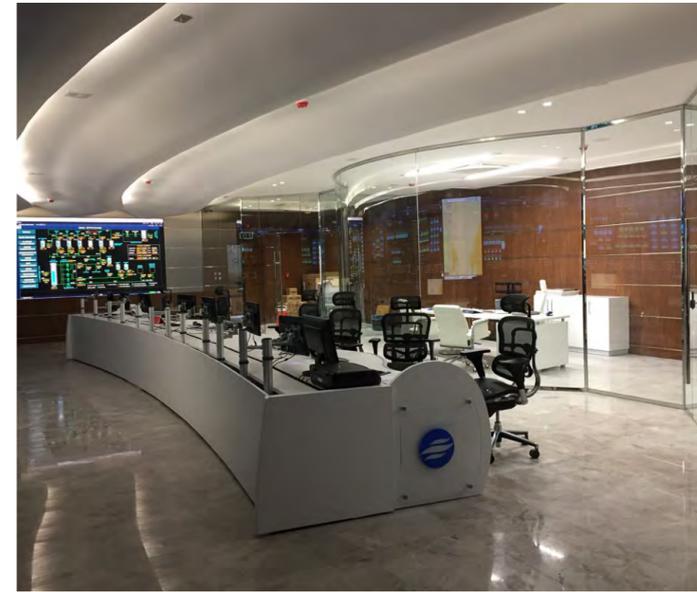
2020

ROLE OF K&A

Lead Design and Construction Supervision

AWARDS

- MEED Projects Awards 2020, National Winner of Digital Infrastructure Project of the Year and MENA's Best Project Award



AVANT-GARDE INSTITUTION LAYS THE FOUNDATIONS FOR FUTURE EDUCATION IN QATAR



The New College of Education (NCE) supports Qatar University's ambition to improve the country's education system and become a leading educational institution in the region. The college was designed as a hub for student-centered learning, teaching, and community partnerships, and can accommodate 2,500 students and 200 academic and administrative personnel. Located on the Qatar University campus, the NCE spans 59,000 m² and is a model of sustainable development, having been built to 4-star design and construction standards by Qatar's Global Sustainability Assessment System (GSAS).

The NCE is a massive 59,000 m² structure with a monolithic design featuring two symmetrically placed interior courtyards that enhance natural light. The building features hydroponic green walls that enhance air quality and aesthetics, and a façade of aluminum and ceramic panels engraved with calligraphy, blending tradition with modernity. Advanced construction techniques, combined with BIM implementation, enabled efficient design and execution through clash-free models and real-time data sharing. Moreover, the NCE is a model of sustainable development, designed with an integrated process to achieve energy and water conservation, outdoor thermal comfort, indoor environmental quality, local materials use, and accessibility to public services.

The NCE aligns with Qatar's vision for world-class education by providing advanced laboratories and interactive audio-visual technologies. The clinics, 3D labs, Black Box simulation room, and the 'Industrial Co-bots Understanding Behavior' (I-CUBE) enable research in human-robot cooperation, and attract international educational partnerships, supporting the development of highly qualified professionals and globally recognized scholarly activities.



PROJECT LOCATION

Qatar

START DATE

2017

COMPLETION DATE

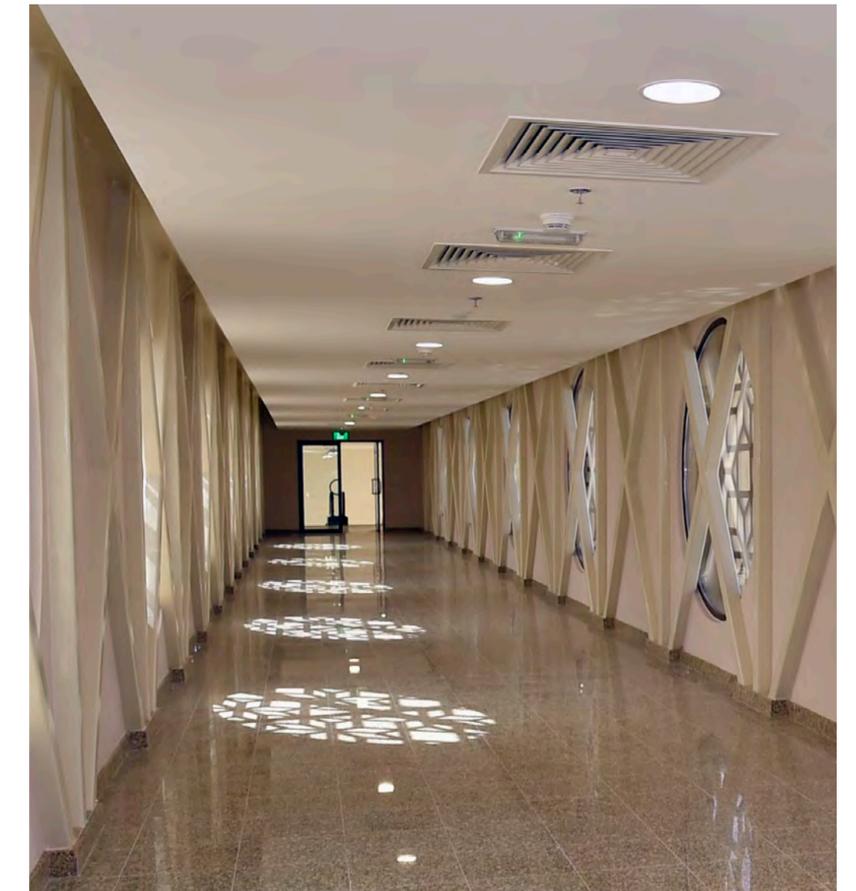
2021

ROLE OF K&A

Lead Design and Construction Supervision

AWARDS

- ENR Global Best Projects Awards 2021, Award of Merit in Education/Research





RETROFITTED HOTEL TRANSFORMS INTO A WORLD-CLASS, FULLY FUNCTIONAL PATIENT CARE FACILITY

The View Hospital in Qatar is a remarkable example of adaptive reuse, transforming a high-rise hotel apartment building into a world-class healthcare facility. Originally designed as a hotel, the project underwent a significant mid-construction conversion to integrate healthcare-specific elements into the existing structure.

The result is a facility that combines top-tier medical services with the luxury and comfort of hotel-like amenities. With 240 single private suites, 62 VIP suites, and three royal suites, the View Hospital provides an unparalleled patient experience that is both luxurious and comforting. The transformation involved extensive modifications, including redesigning room layouts, integrating specialized medical equipment, and installing advanced healthcare technologies. Additionally, flexible space planning allowed for easy reconfiguration and scalability to accommodate future advancements.

The hospital uses an advanced building management system that optimizes lighting, HVAC, and ventilation, cutting energy costs by 20% while maintaining comfort. A green roof garden and rainwater harvesting system provide natural insulation and reduce water usage by 50%.

Combining cutting-edge technology and advanced medical equipment with a patient-centered design, The View Hospital has set new standards in medical excellence, supporting Qatar's vision of becoming a regional leader in the healthcare sector.

PROJECT LOCATION

Qatar

START DATE

2019

COMPLETION DATE

2022

ROLE OF K&A

Lead Consultant for the Interior Design and Engineering Services

AWARDS

- **MEP Middle East Awards 2023**,
Highly Commended Retrofit Project
of the Year



A PREMIER DESTINATION BREAKS REMARKABLE FEATS IN THE ENTERTAINMENT INDUSTRY

With components breaking ever-increasing numbers of Guinness World Records, the Boulevard World marks a pivotal step in achieving Saudi Vision 2030, attracting tourists and boosting tourism growth. The multicultural theme park in Riyadh Season earned well-renowned recognition for its largest artificial lagoon, the tallest metal replica of a fictional character, the biggest LED light ball, and the largest music production studio. The project promotes culture and entertainment by offering visitors a journey across ten countries, allowing them to experience iconic landmarks.

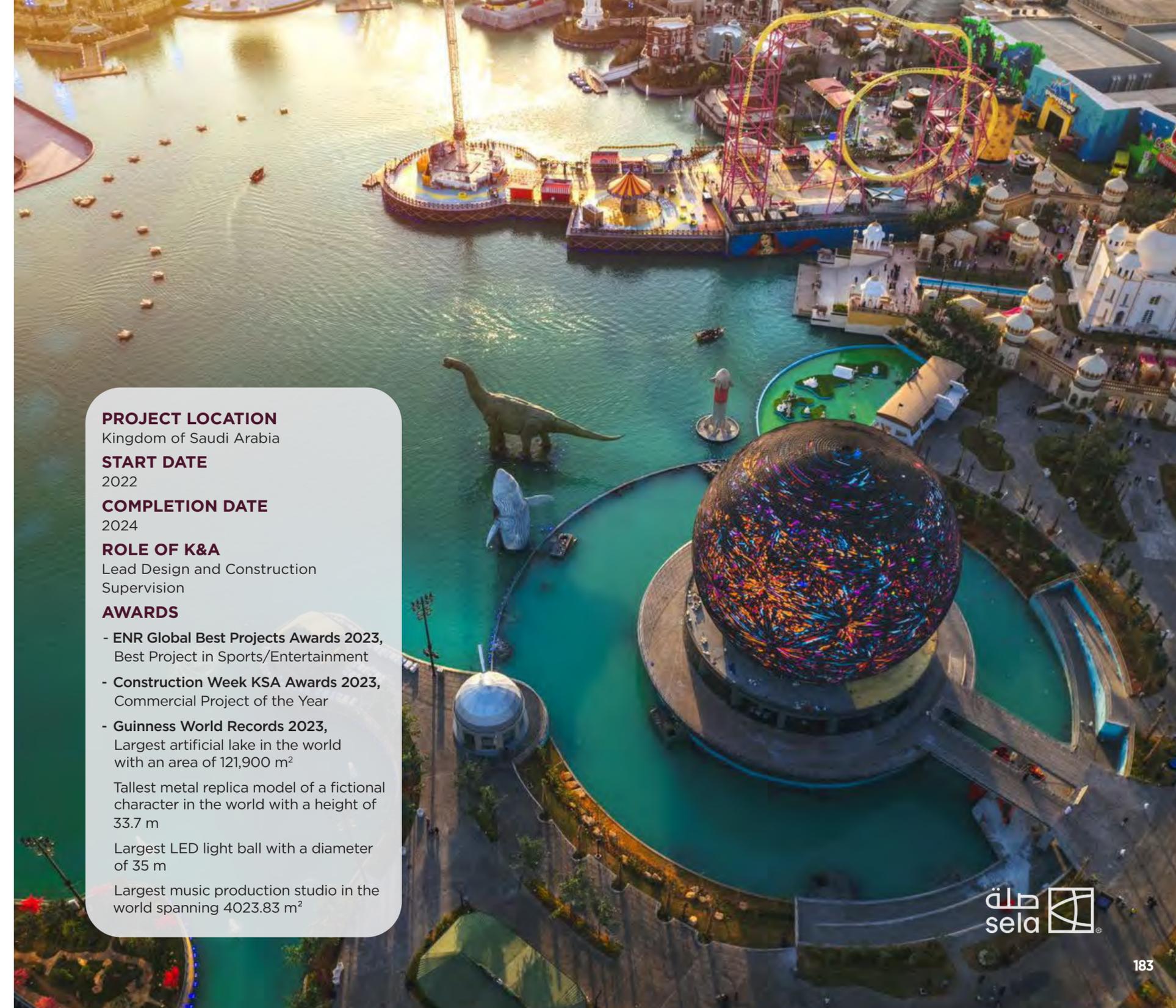
In addition to reaping global success, the Boulevard World has set a new record for completion time - only 80 days -

thanks to effective agile project management and innovative construction techniques. Pre-engineered steel structures and modular construction materials expedited the construction process, delivering high-quality results. The project involved 70 contractors and about 4,800 workers, working in shifts to meet tight deadlines.

Since its opening, Boulevard World has dramatically increased attendance at Riyadh Season, attracting millions of visitors and contributing to Saudi Arabia's tourism growth and the broader goals of Vision 2030.



سلة
sela



PROJECT LOCATION

Kingdom of Saudi Arabia

START DATE

2022

COMPLETION DATE

2024

ROLE OF K&A

Lead Design and Construction Supervision

AWARDS

- ENR Global Best Projects Awards 2023, Best Project in Sports/Entertainment
- Construction Week KSA Awards 2023, Commercial Project of the Year
- Guinness World Records 2023, Largest artificial lake in the world with an area of 121,900 m²

Tallest metal replica model of a fictional character in the world with a height of 33.7 m

Largest LED light ball with a diameter of 35 m

Largest music production studio in the world spanning 4023.83 m²

سلة
sela



EGYPT'S SUSTAINABLE SOLUTIONS GET A BOOST FROM THE WORLD'S LARGEST WASTEWATER TREATMENT PLANT

The New Delta Wastewater Treatment Plant in Egypt represents a significant advancement in agricultural wastewater treatment across Africa. Located along the Al Dabaa Axis, this cutting-edge facility sets new global benchmarks in water treatment, supporting Egypt's \$50 billion water-saving strategy to combat water scarcity through 2037.

The plant is the largest water treatment facility globally, with an extraordinary capacity of 86.8 cubic meters per second. It processes wastewater from the Old Delta agricultural drainage, channeling it to the world's longest artificial river — a 174-kilometer canal in Egypt's Western Desert. Advanced digital technologies have been integrated to improve performance, reduce wastage, and control water quality, ensuring compliance with industry standards and client specifications.

The plant features Egypt's largest disc filter with 132 filter discs and the largest inlet pumps for raw water. It is supported by seven underground networks for electricity, water, sewage, rainwater, fire safety, irrigation, and pipe operations. Additionally, a SCADA system enables remote monitoring and optimization of operations.

Designed to treat agricultural wastewater, the plant significantly improves water efficiency, enabling the irrigation of an additional 210,000 hectares. It will also safeguard marine and coastal ecosystems, create jobs, and enhance resilience to climate change by managing wastewater and floodwaters. By addressing the annual 20 billion m³ water gap, the plant will play a crucial role in helping Egypt achieve its 2030 National Agenda and the UN Sustainable Development Goals.



PROJECT LOCATION

Egypt

START DATE

2021

COMPLETION DATE

2023

ROLE OF K&A

Design Review and Construction Supervision

AWARDS

- ENR Global Best Projects Awards 2023, Best Project in Water/Wastewater
- MEED Projects Awards 2023, National Winner - Water Treatment Project of the Year
- Big 5 Global Impact Awards 2023, Partnership of the Year (Joint Venture of Khatib & Alami, Metito Limited, Orascom Construction, The Arab Contractors Company, and Hassan Allam Construction)
- Guinness World Records 2023, Largest water treatment plant with a capacity of 86.8 m³ per second
- Largest water treatment facility with a total area of 320,600 m²
- Largest sludge treatment plant with a capacity of 670.01 kg/s
- Largest epoxy coating in a building with an area of 520,339 m²

AI-DRIVEN AERIAL SURVEY PIONEERS OMAN'S INFRASTRUCTURE MAPPING AND ANALYSIS

The Urban Landbank Using Aerial Survey and Artificial Intelligence in Dhofar Governorate, Oman, exemplifies innovation with its groundbreaking approach to automating the detection of infrastructure, roads, fences, and buildings across a vast expanse of 750 km². Designed to support the Ministry of Housing with land planning and accurate site documentation, the project overcame social constraints and challenging topography using Airborne LiDAR, Aerial Photography, and Artificial Intelligence, thus bypassing traditional field surveys.

By ingeniously integrating cutting-edge technologies, the project utilized new models developed in Deep Learning using Esri technology to automatically identify over 10,000 buildings and 13,000 fences with a ground sampling distance (GSD) of 5 cm. Completed in just 16 months with minimal human intervention — around 10 staff, including 2 full-time — and nine days of flight capturing, it delivered a highly accurate GIS database of buildings and fences with 10 cm accuracy.

This pioneering project stands as a beacon of innovation, reshaping the boundaries of what is achievable in infrastructure detection and analysis. Its success has showcased groundbreaking capabilities and paved the way for further opportunities with the same entity, with a larger area of seven times the size of this project.



PROJECT LOCATION

Oman

START DATE

2022

COMPLETION DATE

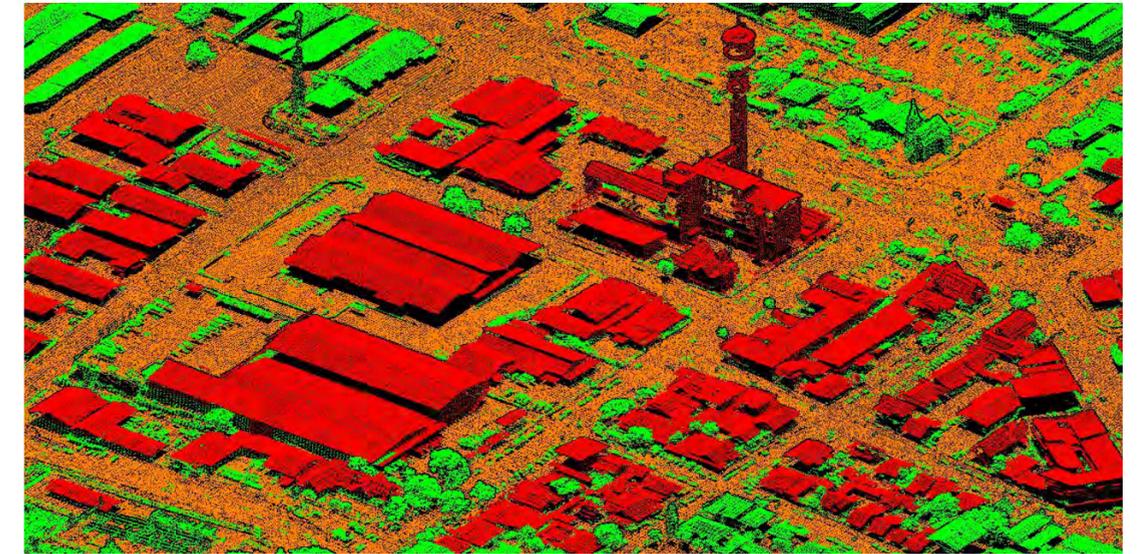
2024

ROLE OF K&A

Lead Consultant

AWARDS

- **Construction Technology Awards 2024**, Digital Project of the Year
- **Esri User Conference 2024**, Special Achievement in GIS (SAG) Award



AN ARCHITECTURAL GEM OF LUXURY IN DUBAI BLENDS SUSTAINABILITY AND ENGINEERING EXCELLENCE



PROJECT LOCATION

United Arab Emirates

START DATE

2022

COMPLETION DATE

2024

ROLE OF K&A

Lead Design and Construction Supervision

AWARDS

- MEED Projects Awards 2024, National Winner of the Development Project of the Year and MENA's Best Project Award
- ENR Global Best Projects Awards 2024, Best Project in Residential/Hospitality
- Construction Week Middle East Awards 2024, Residential Project of the Year

The Bulgari Ocean Mansions on Jumeirah Bay Island represent a fusion of luxury, sustainability, and advanced engineering. Uniquely positioned between land and sea, they are set in a lush Mediterranean garden on the island side and appear to float above the Arabian Gulf from the sea.

The project stands out for its complex construction on a revetment, requiring coordination with marine consultants, innovative piling techniques, advanced simulation modeling, and BIM technology for seamless project delivery.

Sustainability is at the heart of the mansion's design, featuring smart automation systems, and climate-responsive construction. The airtight, insulated envelope minimizes heat gain and

IoT technology monitors air quality, humidity, noise, and temperature for a comfortable living environment.

By embracing an integrative design process, the project maximized sustainability through energy efficiency, water conservation, and eco-friendly materials, meeting Dubai's Green Building Regulations. Additionally, the design features bright and open spaces, and sustainable landscaping to enhance the island's natural beauty.

The Bulgari Ocean Mansions have set a new benchmark for luxury developments in Dubai, contributing to Jumeirah Bay Island's long-term sustainability and ecological health.



12

A DECADE OF
GROWTH

2014
2024



A DECADE OF GROWTH

EXPANDING HORIZONS

New Offices Worldwide

2018

Singapore Office Established

2019

New Office in Basra, Iraq

2022

Kampala, Uganda Office Opens

2023

New Local Headquarters in Riyadh, KSA

2024

Opening a New Office in Zanzibar

PROJECT OVERVIEW

Delivering Excellence
Worldwide

2,500+

Awarded Projects

250+

Ongoing Projects

EXPANDING INTO NEW Markets Globally

Active in 30+ Countries Across

Middle East

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PEOPLE
at the Core

Growing Stronger

20% Workforce Growth in 10 Years

Empowering Women

25% Increase in Female Workforce

**GLOBAL RECOGNITION AND
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Winner of

40+ Industry Awards

Top 10 in the Middle East

Top 50 International Design Firms
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Designing the Future, One City at a Time

In the heart of transformative change, K&A stands as a visionary force, shaping cities and communities with purpose and innovation. From the soaring ambitions of Riyadh's New Murabba to the breathtaking coastal allure of Al Marjan World, K&A is more than a consultancy—it is a partner in redefining urban living and shaping new experiences.

As Saudi Arabia embarks on landmark projects that will define the future of its cities, K&A seeks to put its expertise and innovation into these trailblazing developments. The New Murabba, a beacon of Saudi Arabia's Vision 2030, is a testament to progress—an ecosystem where culture and community thrive together. At its core, the Mukaab District is an architectural marvel, an emblem of heritage and technology fused into one. Designed to be one of the largest structures in the world, it embodies the future of multi-use developments, integrating advanced holographic experiences, retail, residential, and entertainment spaces. Similarly, NEOM, a bold vision for the future, reimagines urban living on an unprecedented scale.

As part of this initiative, THE LINE will be a cognitive city designed for approximately 8.5 million residents. Stretching 170 km while preserving 95% of NEOM's natural environment, it is an ambitious blueprint for a city with no cars, no streets, and zero carbon emissions. Rooted in vertical urbanism, its distinct districts—such as the MIRROR LINE and THE LINE Upper Valley—offer unparalleled innovation and human interaction opportunities, becoming a transformative global model for future cities. Beyond the built environment, K&A pioneers the digital

transformation of cities, empowering decision-makers with knowledge that shapes the future. We are redefining how cities grow more resilient and sustainable through geospatial intelligence, urban analytics, and smart solutions. For example, the Urban Information Center for Riyadh acts as a centralized hub for data-driven governance, enhancing efficiency in planning, real-time urban monitoring, and informed decision-making for sustainable city growth.

As urban landscapes evolve, K&A rises to meet emerging challenges, transforming data into insight, vision into reality, and plans into thriving communities. By developing geospatial platforms for projects like Al-Baha's Strategic Office, K&A enhances policy development and strategic planning and fosters smart and cognitive city initiatives. Across its diverse projects, K&A leaves a lasting legacy of raising the quality of life and empowering communities. The future is being built today, and K&A is at the forefront, ensuring it is a future worth living in.



Looking Ahead

As we reflect on six decades of growth, innovation, and excellence at K&A, the journey thus far represents not just the evolution of a company but a testament to our people's collective effort and vision. The milestones that we have achieved showcase our commitment to pushing boundaries, harnessing cutting-edge technology, and forging meaningful partnerships to drive transformative progress.

Looking ahead, the horizon is rich with opportunities and challenges that will shape the next chapter of our story. The technological advancements and our dedication to sustainability and community impact position us uniquely to continue leading and innovating in an ever-evolving landscape.

Our integrated approach, combining digital expertise with multidisciplinary solutions, sets the stage for new possibilities and collaborations that will redefine the future of engineering and design.

As we embark on this new era, we envision building a future where innovation meets purpose and every project, every solution, and every partnership contributes to creating a better, more connected, and sustainable world.

Together, let us continue to explore new frontiers, embrace change, and make a lasting impact on the communities we serve. The journey ahead is as promising as it is exciting, and with shared dedication and vision, we are poised to shape the future in ways that inspire and uplift.



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