

PM Network[®]

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PHOTO BY CHRISTOPHER PIKE/BLOOMBERG VIA GETTY IMAGES

A wide-angle photograph of the Dubai skyline at sunset. The sky is a warm, golden-orange color, and the water in the foreground is calm with gentle ripples. The city's skyscrapers are silhouetted against the bright sky. In the bottom left corner, a portion of a person wearing a white headscarf and a dark garment is visible.

DACT

Dubai is back in the spotlight.
But a new generation of signature
projects must deliver benefits.

BY AMBREEN ALI

DOES DUBAI HAVE ANYTHING LEFT FOR AN ENCORE?

After decades of rapid growth and dynamic construction projects that crowned it a global business hub and architectural spectacle, the largest city in the United Arab Emirates is at a crossroads. Last year, the marvel of the Persian Gulf saw its GDP growth rate drop to 1.9 percent, the slowest increase since 2010. Property prices are down 25 percent since 2014, forcing real estate developers to cut jobs and delay payments to suppliers. Yet despite this sluggish environment, Dubai is ramping up for another moment in the spotlight.

As host to next year's Expo 2020 international exhibition, Dubai is buzzing with project activity that's designed to expand the city's footprint and influence as well as elevate its stature—literally. The US\$1 billion Dubai Creek Tower is expected to surpass the 828-meter (2,717-foot) Burj Khalifa as the world's tallest building when it's completed in 2020. In all, US\$42.5 billion in construction and development projects are underway. Those initiatives don't even include an AED500 million project by the United Arab Emirates' government to build a center to simulate life on Mars—the first step toward the Emirates' goal of colonizing the red planet by 2117.

With palpable anticipation for Expo 2020—and everything beyond—public stakeholders have a clear objective: Investments in initiatives ranging from driverless vehicles and clean energy to museums to burnish Dubai's reputation as a world-class tourist destination must translate to tangible long-term economic benefits, says Mazen Hallak, project manager, Dubai Contracting Co. PSC, Dubai,

United Arab Emirates.

"The whole city is on standby for the second wave of private-sector megaprojects," Mr. Hallak says.

MEASURED APPROACH

Despite intense public ambition, private investors have a wait-and-see mindset, Mr. Hallak says. Until there's more confidence in the economy, active private developers are setting limits. For instance, SRG Holding, a major developer in Dubai, launched two large-scale projects in 2016 with Mr. Hallak's organization. The 29-floor, US\$95 million Marquise Square tower went off without a hitch and was completed in February 2018. But design issues delayed the SRG Tower, a 111-story skyscraper estimated to cost between US\$180 million and US\$200 million. When the economy slowed last year, the sponsor suspended project work until 2020 to spend more time developing and designing the project.


"Private developers are slowly releasing the brakes on projects that are above US\$150 million to US\$200 million. It's a big investment for them," Mr. Hallak says. "At the same time, there are still large-scale megaprojects opening every two or three months by the ambitious Dubai government. This is Dubai."

In a city known for extravagance, teams now are tasked with finding efficiencies so projects will deliver benefits from the start. Before it completed the Marquise Square project in February, Mr. Hallak's team used value engineering to identify ways to reduce costs. By analyzing alternatives, his team determined which combination of materials, structure and construction delivered the highest-quality



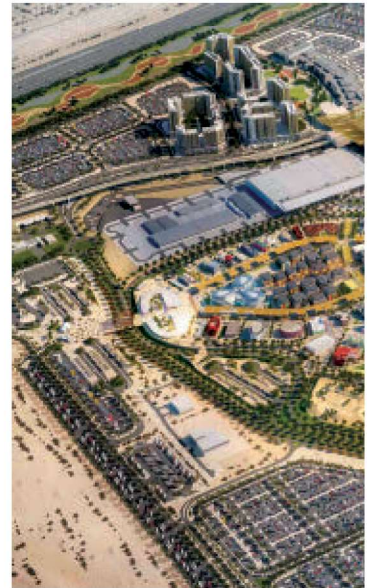
"The whole city is on standby for the second wave of private-sector megaprojects."

—Mazen Hallak, Dubai Contracting Co. PSC

A man with a shaved head and a goatee, wearing a dark blue blazer over a white button-down shirt and blue jeans, stands in a modern, curved architectural space. He is looking directly at the camera with a slight smile. The background features white, curved architectural elements and a blue wall. The lighting is bright and even.

“The priorities for the customer when you start a project may not necessarily remain the same in the middle of the project, and the business case may not be valid once the final deliverable or product is out.”

—Ayman Abdoon, PMI-ACP, PMP, PgMP, Cisco Systems



product for the lowest cost. Several finishes were swapped, including porcelain tile instead of marble, all of which maintained quality while reducing costs.

“We will normally propose that clients have value engineering in place, and we noticed most of the developers or clients asking for it in 2018,” he says.

The private sector’s preference for a deliberate pace has a ripple effect on other industries. The government-owned Dubai Electricity and Water Authority (DEWA), which is in the midst of a five-year, US\$22 billion energy expansion initiative, built five substations for the Bluewaters Island development. But delays in the AED6 billion development required DEWA to adjust its time frames and alter substation activities, says Syed Abdul Raafay Ahmed Hasan, PMP, PgMP, transmissions project manager, DEWA, Dubai. The island, featuring development for entertainment, residences, hospitality and retail, opened in November after six years of construction. But it remains largely empty as several major attractions face delays. For example, the US\$1.6 billion Ain Dubai observation wheel—touted as the world’s largest Ferris wheel project at 210 meters (689 feet) tall—is now five years behind schedule, scheduled to be completed before Expo 2020.

“Whenever there is a plan for Dubai, this affects our station as well, ultimately, because you have to

“You need skilled people, but some of the constraints means you don’t have the budget to hire them.”

—Hayat Mansour, PMP, MVL Group



meet the demand for power,” Mr. Hasan says.

With so many interdependencies, Mr. Hasan implements multiple communication channels with the sponsors of private developments to make sure DEWA gets a constant flow of progress reports and requirement updates on development projects. “We monitor various phases of development projects such as design completion, budget allocations, subcontractor assignments and key deliverables via stakeholder conferences and engagements through monthly or quarterly meetings, and this allows us to adjust our flow of works and synchronize with developments projects,” he says.

TALENT RESHUFFLE

Even with some projects stalled, the demand for qualified and experienced talent is booming. But a mature project workforce is becoming a luxury for many teams. Some small organizations that lack the budget to load up with skilled resources are at a disadvantage, says Hayat Mansour, PMP, planning and control manager for construction management company MVL Group, Dubai.

“Dubai has some of the most experienced people and highest salaries in the Middle East, yet some of the small construction companies try to hire lower-skilled workers, and this affects project performance,” she says. “This is their challenge: You need skilled people, but some of



the constraints means you don't have the budget to hire them."

The consequences can be harsh. Organizations have been forced to abandon a slew of recent projects because the contractors hired were not able to deliver, Mr. Hallak says. His company took over one such project last year, a US\$100 million hotel construction. "The previous contractor had no experience building towers," he says. "We try to communicate with clients: Don't always compare money. Compare experience and follow a well-defined procurement statement of work."

Mr. Hallak says executives at Dubai Contracting Co. have learned to become more selective of clients after facing payment and cash flow issues on earlier projects. Similarly, as expatriates cycle in and out of Dubai, project managers need to reevaluate subcontractors to ensure they can deliver on promises made in earlier contacts while keeping a close eye on the risk register.

"It's like a wave in Dubai. You always see people coming and going. It is challenging in big ways, creating threats and opportunities," Mr. Hallak says. For instance, after Mr. Hallak's contact at a joinery company left, the replacement contact could not offer the same level of services. When Mr. Hallak decided to switch subcontractors as part of a risk-response strategy, he earned support from all stakeholders.

One way organizations are trying to slow Dubai's revolving resource door is by establishing in-house learning centers that retrain employees with new skills. As part of DEWA's project to build the world's largest independent solar power plant—the AED14.2 billion Mohammed bin Rashid Al Maktoum Solar Park—the organization plans to form an innovation center designed to develop talent for clean energy initiatives. Such measures align with Dubai's goal to have the lowest carbon footprint of any city in the world by 2050.

"These learning centers we are establishing are to promote in-house technical expertise and to gain all that we are doing to facilitate future learning, innovation, green building and reduction of carbon," Mr. Hasan says. "There is a continuous pressure to find and build talent."

Tech companies in Dubai are taking similar approaches to skills development. In addition to actively pursuing new hires, Cisco Systems has instituted cross-functional training and job rotations to build more knowledge and depth, says Ayman Abdoon, PMI-ACP, PMP, PgMP, program manager, PMI Global Executive Council member Cisco Systems, Dubai.

"Customers are now focusing more on cloud and software development and automation. We are witnessing a great shift from hardware to software that is leading to a gap in skill set," he says.

READY FOR NEXT

With so many demands and so much uncertainty, teams in Dubai need to embrace agility to keep pace with change. Technology creates moving targets for teams—both in the tools they use to deliver projects and the products that their projects are designed to create. For example, teams are racing to transform transportation around the city with driverless vehicles, after Dubai introduced new regulations designed to accelerate the transition. The Dubai Autonomous Transportation Strategy hopes to convert 25 percent of all transportation in Dubai to autonomous mode by 2030. The strategy is designed to cut transportation costs by 44 percent, reduce pollution by 12 percent and generate AED18 million each year in economic benefits by 2030.



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—Syed Abdul Raafay Ahmed Hasan, PMP, PgMP, Dubai Electricity and Water Authority

PROCEED WITH CAUTION

Some of the most significant megaprojects in Dubai, United Arab Emirates face an uncertain future:



Al Maktoum International Airport expansion

Sponsor: Dubai Airports

Budget: US\$36 billion

Scheduled completion: 2025

Status: The government project to increase capacity to 120 million

passengers annually is on hold because of funding and design obstacles. The sponsor has secured only US\$3 billion so far. If completed, it would replace Dubai International Airport as the base for Emirates Airlines.



Dubai Investment Park

Sponsor: Schön Properties

Budget: AED3 billion

Scheduled completion: Unknown

Status: It's not certain whether the 2,300-hectare (5,680-acre) living

community will ever be completed. Repeated delays caused by the economic downturn and slowed utility clearances have thrown the project's future in doubt. Last year, the Dubai Real Estate Regulatory Agency seized the land, and investors are demanding their funding be returned.



Route 2020

Sponsor: The Roads and Transport Authority of Dubai

Budget: US\$2.9 billion

Scheduled completion: May 2020

Status: This is the first major extension of Dubai's Metro Red Line, and the 15-kilometer (9.3-mile) line is expected to serve 270,000 daily commuters ahead of the Expo 2020. But the team must orchestrate several key engineering phases in a crowded utility corridor, including the demolition and reconstruction of a viaduct, which was recently completed, while ensuring uninterrupted service via replacement buses.



Sheikh Zayed Road skyscraper

Sponsor: Azizi Developments

Budget: AED3 billion

Scheduled completion: As early as 2021

Status: A 570-meter (1,870-foot) residential and commercial skyscraper with a luxury hotel is expected to be the fifth tallest building in the world (and Dubai's second tallest)—unless competing projects beat it to completion. As a result, project managers are under pressure

to ensure the project is delivered as quickly as possible, with developers planning to fast-track the skyscraper so it can be completed within 39 to 44 months.



Meydan One Mall

Sponsor: Meydan Group LLC

Budget: US\$2.7 billion

Scheduled completion: Early 2020

Status: With space for 580 retail outlets and 190 dining options, the shopping center is expected to be the city's largest and will feature the world's largest dancing fountains, a 1-kilometer (0.8-mile) ski slope, a heritage village and a beach. But with a strict timeline to open in time for Expo 2020, project managers have moved some members of the design team to the construction site to stay on schedule.



“We are witnessing a great shift from hardware to software that is leading to a gap in skill set.”

—Ayman Abdoon, PMI-ACP, PMP, PgMP

“Technology is changing very rapidly,” Mr. Abdoon says. “The priorities for the customer when you start a project may not necessarily remain the same in the middle of the project, and the business case may not be valid once the final deliverable or product is out.”

A major way teams are adapting is to use agile delivery approaches. For instance, last year Mr. Abdoon’s organization began a project to deliver a network automation solution to a telecom service provider. The project started out using a waterfall (or predictive) methodology, but that led to delays when the customer began making adjustments and the scope evolved. Waterfall made it difficult to log requirements and design from the initial design and planning phases, Mr. Abdoon says. “The original project plan wasn’t realistic—it was just based on estimations.”

Switching to an agile approach allowed his team to get it back on schedule, with completion expected by the end of this year. “Once we broke down the deliverables with produce slicing, it was easy to log the requirements for each phase and get early feedback from the customer,” he says.

Change is also a constant on big construction projects, says Ansar Haq, head of projects, Al Ghurair Group. Mr. Haq has been in Dubai for 19 years, working on prominent structures in the Dubai landscape including The Dubai Mall, a theme park and the Palm Jumeirah megadevelopment.

“People here change design like Lego pieces,” Mr. Haq says. “Clients really insert themselves in our projects.”

Mr. Haq takes a proactive approach to managing change requests—in part by cultivating strong engagement with sponsors that helps him anticipate changes in advance. For instance, during an AED250 million building project in December in Dubai’s Al Mankhool neighborhood, he revised the building’s facade, including changing out the windows from three pieces to a large single piece.

“Once I saw them, I knew from previous experience the owners wouldn’t like the windows. I made a few mock-ups quickly and said, ‘Choose one now,’” he says. “I’ve been given the power to make design changes on the go.”

Such quick thinking allowed the team to complete the 20-month project on time. Mr. Haq also takes steps to dissuade sponsors from requesting changes that will increase the budget. For example, he frequently will ask contractors to quickly write up a cost estimate to show sponsors the extreme cost consequences, in hopes of limiting scope creep. “A lot of clients don’t understand that when you make a change or variation, there usually is an impact on time and cost,” he says.

No matter what happens with the economy and project environment, project professionals are keenly aware that the spotlight on Dubai won’t fade anytime soon. Between preparations for Expo 2020 and the city’s desire to retain its status as a global tourism destination, there’s plenty of motivation to keep building—and growing. **PM**



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