

# CONSTRUCTION WEEK

QATAR

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A SPECIAL REPORT FROM CONSTRUCTION WEEK

In association with:



**Drake & Scull**

>> P4

**DOHALAND, MSHEIREB**  
CWQ PUTS THE GRAND  
PROJECT UNDER THE  
MICROSCOPE



# MARKET MOMENTUM

*Drake & Scull Qatar Area General Manager,  
Karem Akawi, speaks to CWQ*



# BUILDING SUCCESS

**Drake & Scull Qatar** is looking to build on a successful period of business in the Gulf state

**M**ultinational Engineering and Construction giant Drake & Scull's global footprint extends from Western Europe to South East Asia. Present in the Middle East since 1966, Drake & Scull International (DSI) has successfully transitioned from MEP subcontracting to general contracting, rail, oil and gas and infrastructure development.

DSI has a strong track record of delivering projects all over the GCC, and Qatar remains one of the company's biggest markets. Drake & Scull Qatar was established in 2002 and acquired by Drake & Scull international PJSC in 2010 in a move that helped one of GCC's foremost general contractors to expand its regional influence and geographical footprint.

The Qatar business is overseen by Karem Akawi, who has been serving as the Area General Manager since 2011, having built up years of industry experience in Syria, Dubai, Yemen and Canada. Since then, the business has won a number of significant contracts and today, DSI Qatar is firmly established as a market leader.

Notably, Drake & Scull Qatar has played a key role in the Msheireb Properties \$5.5bn Downtown Doha urban redevelopment scheme, having worked on the district cooling plant at the mega-project.

Last year proved to be a fruitful one for Drake & Scull Qatar, with the company winning a number of contracts in Qatar construction market.

During the year, Drake & Scull Qatar was awarded an \$84mn contract for a mixed-use real estate development project in Doha and a second residential project worth \$49mn.

In December, the business announced it had successfully won a contract worth \$110mn for mechanical, electrical and plumbing work at the Mall of Qatar, which is under construction near Doha.

Under the terms of the agreement, Drake & Scull Qatar will install all

electromechanical works on the three-storey mall which will feature a hypermarket, a multiplex, five department stores and at least 20 restaurants. In addition to the car parking accommodating 7,000 cars, the mall will also have its own metro station.

Akawi said: "The Mall of Qatar is a very prestigious project award for Drake & Scull and will build upon the rich experience we have in mega retail projects.

"Our engineering expertise is one of the central pillars of our success and will continue to be a vital factor for driving growth in Qatar during the crucial years leading up to the World Cup.

"We anticipate positive development in the rail sector as we have cemented strategic alliances with leading international rail experts to address the challenges and needs of Qatar Rail.

"We also see untapped potential in the water and waste water sectors and we are well placed to leverage our patented European technology through our German subsidiary Passavant Roediger to lead the modernisation of Qatar's infrastructure."

These latest contract wins continue Drake & Scull's successful history in the Gulf state.

The company has been associated with several prestigious projects since the early 2006 such as the Four Seasons Hotel, the Qtel Tower and the Dohaland project and has a healthy backlog and a history of consistent profitability.



▲ D&S boasts vast expertise on hotel projects.



▲ Mall of Qatar.





# HEART OF DOHA

Drake & Scull Qatar has played a key role in one of the country's key projects

The biggest challenge for Drake & Scull on the project is building efficient district cooling using electrically driven chillers.

The central chilled water plant consists of MV electrically driven chillers with a total capacity of 29,250TR per plant for producing chilled water at 4.5 degree Celsius, which were laid out in a series-counter flow arrangement.

The chilled water system consists of primary/secondary pumping arrangement with a separate primary and secondary water pumps. The secondary pumps are driven by a variable frequency drive.

While the needs of the client made for a challenging proposition, it has engendered innovative thinking from Drake & Scull, with a number of unique solutions designed as a result.

One of the unique aspects was using super efficient chillers, in which Mitsubishi chillers with very high super efficiency that has never used before were utilised. Using

Mitsubishi high quality chillers has a significant effect on the system efficiency since the chillers consume 70% of the electricity required for total plant.

District cooling plants consumes a huge water quantity for the cooling tower make-up water, so the water usage and minimising the water quantity used has a significant impact on the sustainability.

Drake & Scull has designed a water treatment plant to treat the TSE water (reverse osmosis) and using the water produced from the R.O. as cooling tower make up water. DSWP has developed the design of the R.O. up to perfect level through:-

- Designing R.O. plant with 90% recovery.

- Returns all the cooling tower reject water (blow-down) to the R.O. plant to re-treat the water (recycle concept).

- Utilise the R.O. product to cover the irrigation, water release and toilet flushing requirements for the entire development.



Work on the vast site.



Work being undertaken at the project.



Steel works being installed.



A mock up of the finished project.

## Case study Dohaland, Msheireb

**Project:** Msheireb Heart of Doha  
**Start date:** 2010  
**Completion date:** 2015  
**Developer:** Msheireb Properties Consultant/Architect: Time Qatar/M. Engineering  
**Value:** \$50mn

The Msheireb development is being undertaken by Dohaland, which is a subsidiary of the Qatar Foundation for education, science and community development lead by Her Highness Sheikha Moza Bint Vasser. The Msheireb project will be a shining example of Qatar's progress in the region, and will bridge the gap between the historic Doha of the past, and the planned development include organic courtyard patterns, townhouses (which will be arranged as 'freej' clusters, each sharing a communal majilis and courtyard garden), retaining the historic street pattern including the famous Kahraba street and the line of the old Wadi.

### Scope of work

- Mechanical, electrical and support equipment and systems for two independent central cooling plants.
- An interconnected sidewise reticulation network located connecting 59 energy transfer stations.
- Cooling tower make-up and blow down pipelines from PR1 to PR2.
- Water treatment plant using TSE water for the cooling tower make-up and development irrigation, water feature and toilet flushing for the development energy transfer station (ETS).
- P/C control panels, instrumentations programming, testing and commissioning.
- Operation and maintenance of the district cooling system for a period of seven years, with a design life of 25 years for sea shore installation.



# PROJECT PROGRESS

Construction Week Qatar speaks to  
*Drake & Scull Qatar AGM, Karem Akawi*

## WHAT HAVE BEEN SOME OF THE HIGHLIGHTS FOR DRAKE & SCULL QATAR SINCE YOU LAST SPOKE TO CONSTRUCTION WEEK QATAR IN FEBRUARY 2013?

We've had a busy and successful year in 2013. We picked up important projects like the Dohaland Phase 1C package, a large scale private residential project, and the prestigious Mall of Qatar. We secured nearly 840 Million AED worth of new projects which is all time high for DSI Qatar. Our current project backlog stands at AED 1.03 Billion, which is 167% more than what it was at the end of 2012. We are quite satisfied with our achievements in 2013 and hope to do even better this year.

## WHAT INDUSTRY SECTORS AND CONTRACT OPPORTUNITIES IS DRAKE & SCULL CURRENTLY TARGETING IN QATAR?

We have the capabilities to undertake complete EPC for MEP, District Cooling, Water and Power projects in Qatar. We have delivered projects for Airports, Residences, Mixed Use, Hospitality, Healthcare, Commercial Retail, Power plants, Education and Tourism projects. Through our sister concerns under the greater DSI umbrella, we also have the capability to undertake General contracting portions of these projects, giving our client a one stop shop for completely integrated engineering services. Drake & Scull Rail has a lot to offer in the Rail segment as well, and is targeting the Doha Rail projects currently.

## WHAT IS YOUR OPINION ON HOW THE INFRASTRUCTURE TIMETABLE IS DEVELOPING – IS THE PROJECT PROGRAMME LIKELY TO BE COMPLETED ON TIME?

I remain fairly optimistic about Qatar's long term aims and objectives to have critical infrastructure systems in place ahead of schedule. People tend to compare our pace of progress with our neighbors in the UAE, but they should realize that the kind of activity we saw there in the mid-2000s is an anomaly not likely to be replicated again in the near future. We have our pace of working, but the good thing is that the government is driven by a vision and is serious about making Qatar the most developed country in the region. There are challenges for sure, but none that will cause all work to come to a standstill.

## DO YOU THINK THAT SOME PROJECTS COULD BE POSTPONED (AS HAS RECENTLY BEEN REPORTED IN THE MEDIA), IN A BID TO GET THE WORLD CUP PROJECTS BUILT ON TIME?

I don't see why both projects cannot progress in parallel. I would argue in fact that it might not be sensible to go ahead with the world cup stadiums without having the supporting infrastructure in place. Building a world class stadium is no good if we don't have enough roads and trains to lead to it. We must ensure there is co-ordination in the activities and everyone is in sync with the greater vision, which is to prove that our region is capable of

hosting the world's greatest sporting event. The good thing is that we have a lot of time ahead of us, and I am sure the organisers are observing how Brazil has been faring in its preparations, and will avoid their mistakes and lapses.

## WHAT DO YOU CONSIDER TO BE THE MAIN CHALLENGES FOR A CONTRACTOR WORKING IN QATAR?

Most of the challenges are pretty universal in this part of the world. There is severe competition in the market, as many foreign entities have setup shop here in anticipation of the work that will be created leading into the World Cup. The increase in work will also create an increase in demand of resources, both material and human, which in turn will increase costs across the board. Ensuring profitability and meeting our scheduled deadlines in such an environment is quite challenging. And most importantly, in such a competitive market, attracting and retaining the right talent, with the right expertise and attitude to succeed is crucial in achieving results. With the expected boom in the UAE with the Dubai Expo 2020 progress, we expect there to be severe jostling between these two markets over the next few years.

## WHAT ARE THE ADVANTAGES OF HAVING CAPABILITIES IN-HOUSE

## THAT WOULD USUALLY HAVE TO BE CONTRACTED OUT I.E. MEP?

MEP has always been our forte and we are well established as segment leaders in Qatar, through our work in landmarks like the QTEL tower and The West Bay 4 Seasons complex. Having in house capabilities for Rail, General Contracting and even the Oil & Gas field is a tremendous boon as it reduces communication gaps between various teams on site, it helps us achieve integrated progress on our projects, gives our clients the convenience of dealing with a single point of contact to pursue on various issues, helps us remove the cultural barrier as all businesses under the DSI umbrella speak the same language. From a quality standpoint, it is easier to monitor and ensure quality compliance when dealing with a sister company, which is driven by the same quality conscious work culture as we are. We see our integrated capabilities to be a significant advantage over our competitors.

## HOW DO YOU EXPECT THE MARKET IN QATAR TO DEVELOP OVER THE NEXT FIVE YEARS?

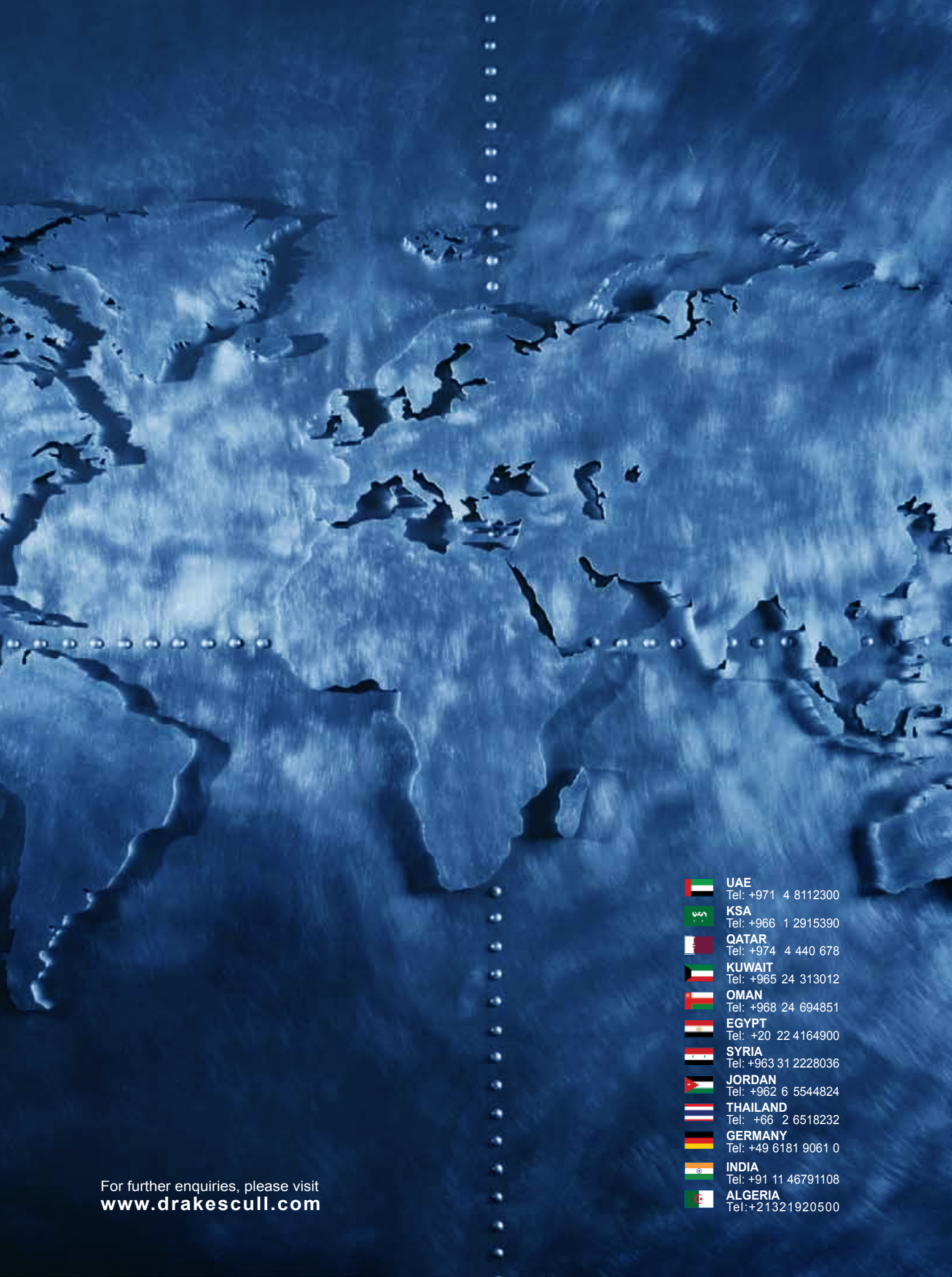
We expect to see very brisk activity as we gear up to the main phase of construction that will be required to get ready for 2022. There are announced plans for nearly \$140 Billion worth of transport projects and there is rapid progress being achieved on the new airport, roads and metro system. The Tourism Authority is planning to invest \$120 billion on tourism projects, and we anticipate nearly 90,000 hotel rooms being added to the hospitality sector by 2022, along with the 12 new stadiums. Landmark projects like Lusail city and the New Port will continue to be rolled out but we need to make sure that these projects are also environmentally sustainable and do not affect our fragile eco-systems. We expect to see a lot more awareness about LEED standards and more eco-friendly projects being announced in the run up to 2022.




## IS THERE ANYTHING ELSE YOU WOULD LIKE TO ADD?

Qatar is a very important market for DSI and we remain committed to the nation building that we are currently engaging in.







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