

TECHNICAL REVIEW

النشرة التقنية - الشرق الأوسط

MIDDLE EAST

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INSIDE

Power
Construction
Manufacturing
Health & Safety
Communications & IT

RAISING THE BAR AT BIG 5

THE BIG 5

All the news ahead of the construction showcase

COMPRESSED AIR

Insiders discuss the region's compressors sector

HEAVY METAL

Key developments in aluminium and steel



Amir Al-Husseini, Vice President Group Affairs of Zamil Group, discusses the group's growing international presence and social development in Saudi Arabia

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EDITOR'S NOTE

NOVEMBER SEES THE return of The Big 5, the region's leading exhibition for construction machinery and materials, and with it comes a host of technological innovations and newly-signed deals between companies at the show. To celebrate, this issue of *Technical Review* includes a host of construction-related features, including articles on formwork (p48), heavy lifting (p40) and facilities management (p44). Another highlight in this issue is our exclusive interview with Zahid Group Vice President Group Affairs Amr Khashoggi, who discusses the Saudi Arabian company's strategy and his role in supporting both the company and country he represents. We also look back at October's GITEX Technology Week and, as always, provide the latest news from the region's construction, energy and manufacturing sectors.

At Technical Review we always welcome readers comments to trme@alaincharles.com

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TECHNICAL REVIEW

المنشأة التقنية - الشرق الأوسط

MIDDLE EAST

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Briefly

Qatar's construction activities up 14.5 per cent in Q2 2014

QATAR SAW A 14.5 per cent year-on-year expansion in local construction activity in Q2 2014, which was the result of major infrastructure projects in the country, a Qatar National Bank (QNB) report revealed. The projects include the new metro project in Doha, major real estate projects such as Musheireb and Lusail, new roads and highways, and the expansion of Hamad International Airport. "The non-hydrocarbon sector in Qatar continues to drive economic growth, supporting the diversification of the economy," QNB added.

Real GDP growth accelerated to 5.7 per cent in Q2 2014, from a revised 5.4 per cent in the previous quarter, the QNB report said, citing recent figures released by the Ministry of Development Planning and Statistics (MDPS). According to QNB, the GDP numbers are in line with the country's development plan outlined in Qatar National Vision 2030 and the National Development Strategy 2011-16, which aims to diversify the country's dependence on hydrocarbons.

Oman to invest US\$26bn in turnkey projects over next few years

OMAN'S PROJECTS MARKET is set to receive a huge boost as the Sultanate ramps up its investment in turnkey projects over the next few years. In 2015 there will be an influx of up to US\$26bn in capital expenditure and pipeline opportunities, including the latest Duqm developments valued at US\$12.5bn. As much as US\$145bn worth of projects are currently under way or will be awarded in Oman, *Oman Daily Observer* reported. Among the projects at the forefront of Oman's aggressive expansion programme are the US\$26bn Khazzan and Makarem fields projects, and Oman's Suwaiq IWPP and Haima Solar Thermal Hybrid Power Plan. Furthermore, US\$13bn will be invested in Takamul downstream project and ORPIC's Liwa Plastic Project Initiative, with another US\$12bn invested in developing Duqm as Oman's new energy, industrial, residential, and tourism and leisure hub.

Construction projects in GCC to hit US\$180bn this year

GULF COUNTRIES WILL win contracts worth US\$180bn for new construction projects this year, the largest amount for six years despite falling oil prices, according to a new study.

Reuters reported that so far, however, there is no clear sign that cutbacks are looming in the six-nation Gulf Cooperation Council, which comprises Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the UAE.

"We are going to beat the 2013 figure this year with US\$180bn worth of contracts awarded," said Edward James, director of analysis at MEED Projects, an online project tracking firm which conducted the study.

"This is driven by substantial projects that were awarded this year by Qatar, the UAE and Kuwait," James added.

In 2013, US\$156bn of projects were awarded in the GCC, largely by governments and state-backed companies, as most Gulf countries recovered strongly from the global financial crisis and spent on major infrastructure projects designed to help their economies diversify beyond oil. At the peak of the boom in 2008, GCC construction contracts totalled about US\$200bn.

The report, meanwhile, added that the concern for the construction industry is that oil prices could drop for an extended period below the 'break-even' levels which governments need to balance their budgets.

Regard Aboo Yakou, Qatar country manager at construction consulting firm Hill International, said, "I would say Saudi Arabia and the UAE are most likely to delay projects or put some on hold if there's a sustained drop in oil prices."

David Clifton, regional development director for



Last year, US\$156bn of projects were awarded in the GCC, largely by governments and state-backed companies

consultancy Faithful+Gould, added that if the oil price remained low for a sustained period or would fall further, it was quite reasonable to expect there would be an evaluation of the feasibility of future government-related projects.

"This would appear to be an unknown at present. Should this occur, a slowing or suspension of some developments in the pipeline would almost certainly occur as governments look at the oil price barrel versus the breakeven point for their budgets," he added.

To researchers surprise, Saudi Arabia, the biggest market in the region, looks set to slow its contract awards substantially this year. It is expected to award projects worth about US\$40bn, down from US\$66bn in 2013, MEED report said.

The Kingdom is one of the most lucrative construction markets in the Middle East, accounting for almost 39 per cent of GCC projects.

ACTS wins geotechnical survey contract for Riyadh Metro

CONSULTATION FIRM ADVANCED Construction Technology Services' (ACTS) has begun drilling and logging works, and conducting testing and analysis, along two of the six metro lines being constructed in Riyadh, Saudi Arabia.

ACTS was awarded the contract to carry out geotechnical and geophysical works on Riyadh Metro Lines 1 and 2 for BACS (Saudi Arabian Bechtel, Almamani General Contractors and Consolidated Contractors Company WLL and Siemens Aktiengesellschaft) consortium.

Currently, ACTS is working on the north of Line 1, with the work encompassing drilling of boreholes, logging them using optical and acoustic tele-viewers as well as assessing the subsurface ground layers.

Khaled Awad, chairman of ACTS, said, "ACTS has



A scientific testing programme being carried out on the extracted cores to assess soil properties by ACT engineers

become the preferred choice in inspection, testing and geo-engineering works in critical and large-scale projects. Our involvement in the geotechnical engineering works of Riyadh Metro reinforces our commitment to excellence in all our services."



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Briefly

DEWA starts projects to extend electricity network in Dubai

DUBAI ELECTRICITY AND Water Authority (DEWA) has started six projects to extend 132kV cables to connect six 132/11kV sub-stations to ensure stable and uninterrupted supply to its customers in the city. Saeed Mohammed Al Tayer, CEO of DEWA, said, "DEWA is working to achieve its vision to become a sustainable world-class utility, by continuously expanding and enhancing its capabilities and services, and provide the required supply of electricity in line with the directives of HH Sheikh Mohammed bin Rashid Al Maktoum, Prime Minister of the UAE and Ruler of Dubai. These efforts also meet the increasing demand for electricity from all customer segments and promote the position of Dubai as a global hub for trade, finance, tourism and sustainability. DEWA has, therefore, adopted a strategy and future plan to enhance the reliability of its infrastructure through projects that contribute to the economic growth of the emirate."

"The six projects, totalling US\$24.5mn, include supplying, excavation work, and laying, testing and commissioning of new 132kV cables and connecting them to the 132/11kV sub-stations in Jebel Ali, Burj Khalifa area, Dubai Land, Al Quoz and Nad Al Sheba."

Work on the projects commenced at the end of September 2013.

Masdar purchases 35 per cent stake in offshore UK wind farm

UAE-BASED MASDAR has acquired a 35 per cent stake in a 402MW wind farm project, off the coast of eastern England, in partnership with Norway's Statoil and Statkraft. Operator Statoil retained a 35 per cent stake with the remaining 30 per cent owned by Statkraft, the company added.

Sultan Al Jaber, chairman of Masdar, said, "As the only OPEC nation supplying both traditional and renewable energy to international markets, the UAE is committed to accelerating the use of wind energy as an effective means of balancing the global energy mix as we move toward a sustainable, low-carbon future."

Himoinsa predicts big growth for its Middle East subsidiary

AFTER 10 YEARS of operations in the Middle East, Himoinsa is predicting considerable growth for its regional subsidiary, and has already inaugurated its new facilities in the UAE.

The global provider of energy generation systems announced it expects its turnover to follow the pace of growth of 2013, when it experienced a 25 per cent rise compared to the previous year. It was also a year in which the Middle East accounted for 10 per cent of Himoinsa's total sales.

Guillermo Elum, Himoinsa sales and marketing director, said, "We are continuing to grow our presence in this market. We have won the trust of major companies in the Middle East, which choose us for our quality products and service."

Himoinsa currently works with local companies such as Famco, Gulf Equipment and rental company PEAX. During its time serving the region, Himoinsa estimates that it has delivered approximately 4,000 generator sets and lighting towers to its distributors and rental companies working in the UAE, Saudi Arabia, Yemen, Oman, Iran, Afghanistan and Pakistan.

Saudi Arabia is evidently an important and valuable market for the energy provider. According to Himoinsa, quoting data from the UN Comtrade Database, Saudi Arabia imported generator sets worth a total value of €429mn (US\$547mn) in 2013.

Himoinsa announced that it is set to deliver generator sets, purchased by Railway Infrastructure Instalaciones and Servicios S L, to supply power along parts of Saudi Arabia's Mecca-Medina high-speed rail project, which involves 444km of track.

The Middle East poses a number of challenges for power-supply companies in terms of the environment and climate, but Himoinsa claims that its equipment is efficiently adapted.



Keith M Webb, Himoinsa Middle East general manager; Adnan Dawood, FAMCO regional general manager of marketing; Lydia Gracia, Himoinsa executive director; Francisco Gracia, Himoinsa president; and Guillermo Elum, Himoinsa sales and marketing director

Himoinsa Middle East general manager Keith Webb said, "Equipment for desert areas demands special attention, apart from the heat, other factors such as humidity can cause problems if not given due consideration."

"Dust is also a factor that can clog filters and accumulate in the mechanisms and affect performance."

"We are prepared to work in the extreme conditions of the Middle East, being able to withstand the daytime temperatures of 50°C is essential," he added.

Furthermore, in order to tackle the region's operational challenges, Himoinsa claims that its generators are designed with tropicalised radiators with double varnish and anti-condensation heaters and the alternator air filters are specially treated to prevent dust from entering and to ensure uninterrupted power supply.

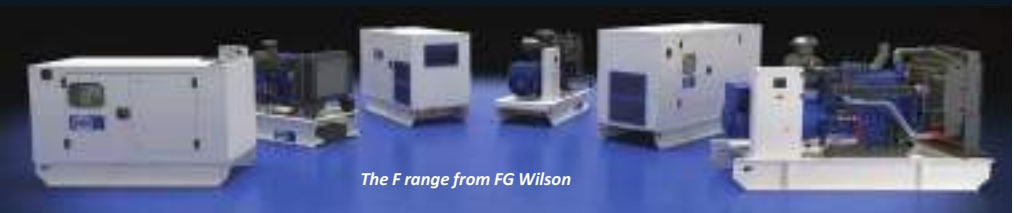
New FG Wilson genset range to target range of markets

FG WILSON HAS launched its new F model range. The 32 – 125kVA range of generator sets has been designed to provide a more diverse and competitive product offering across multiple customer segments such as domestic, retail and industrial, according to the company.

An exclusive feature of the new range is the introduction of the FG Wilson engines to the generator set core design. Coupled with robust components, the F models reportedly deliver a high quality, ready-to-run product that meets industry standards for the value-utility market.

Stephen McKinty, general manager at FG Wilson, said, "Such new product introductions are part of Caterpillar's strategic plans to position FG Wilson as the volume brand within its electrical power division for all diesel and gas generator sets from 6.8 – 750kVA."

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Briefly

Microsoft and Etisalat sign global framework agreement

SOFTWARE GIANT MICROSOFT and Etisalat have signed a global framework agreement to enable the telco's operations across 15 countries to leverage the Microsoft platform; enhancing productivity and driving operational excellence based on a 'Mobile First, Cloud First' strategy.

The agreement will enable Etisalat to leverage Office 365 to provide enterprise-grade social networking and collaboration tools such as Yammer, Lync and SharePoint to reduce communication barriers across the group, enhance information sharing, transfer knowledge and drive market agility. Samer Abu Ltaif, general manager of Microsoft Gulf, said, "We are honoured to work with Etisalat on such a global scale to leverage the power of Microsoft communication and collaboration tools, which have been designed to assist large and small business enterprises reduce the complexity and costs associated with running their businesses.

"This agreement will also enable Etisalat to build a strong, unified, flexible platform to meet its unique organisational and operational needs, whether in the cloud, hybrid, or on-premises."

Aramex eyes two acquisitions in 2015 as part of expansion plans

DUBAI-LISTED LOGISTICS firm Aramex is targeting two acquisitions in 2015 as part of the company growth strategy.

Fadi Ghandour, founder of Aramex, said, "We are going to grow through acquisitions, we are going to acquire next year and will be more aggressive."

Ghandour added that the plans are under way to acquire firms in the emerging markets of Africa, Asia and Turkey, *Reuters* reported.

Aramex had acquired South African logistics and transportation company Berco Express in 2011. It also bought Australian domestic courier company Mail Call Couriers this year.

Analysts expect Aramex to post a third-quarter net profit of US\$20.3mn, up 25 per cent year-on-year.

UAE launches plan to become 'most innovative' nation within seven years

HIS HIGHNESS SHEIKH Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE, and Ruler of Dubai, has launched a national innovation strategy that will aim to make the UAE the most innovative nation in the world within seven years.

State news agency WAM reported said the strategy would focus on bringing innovation into seven sectors, namely renewable energy, transport, education, health, technology, water and space exploration.

The plan will be carried out in phases, with the first stage consisting of 30 national initiatives to be completed within three years. The initiatives will cover new legislation, innovation incubators, investment in specialised skills, private-sector incentives, international research partnerships, and an innovation drive within the government, according to *Gulf Business*.

"The UAE is already the most innovative Arab nation. Our target is to be among the most innovative nations in the world. The competitiveness race demands a constant flow of new ideas, as well as innovative leadership using different methods and tools to direct the change," said HH Sheikh Mohammed bin Rashid Al Maktoum.

The innovation strategy is expected to work along four parallel tracks, with the first one aiming to create an environment for innovation through



His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE, and Ruler of Dubai, said that a flexible and creative economy will reinforce the UAE's competitiveness on a global level

institutions and laws. It will also have innovation incubators and other technological infrastructure to fuel innovation in all sectors while ramping up efforts in R&D. A second track will develop government innovation where each official entity is required to reduce spending by one per cent and dedicate that saving to research and innovation projects.

The third track is aimed to encourage innovation in the private sector by stimulating companies to establish innovation and scientific research centres, to adopt new technologies, and to

develop innovative products and services.

The final track will qualify individuals with highly innovative skills by concentrating on science, technology, engineering and mathematics, including the creation of educational material for schools and universities. The aim of this track is to establish a national culture that encourages innovation and entrepreneurship through partnerships between the public, private and media sectors.

Current annual investment in innovation is worth US\$3.81bn in the UAE. But innovation spending will rise significantly in the years to come, WAM added.

Global indicators include an overall measure comparing countries' innovation capabilities, as well as indicators for the protection of intellectual property, the creation of patents and the availability of scientists and engineers.

Logistics firm Agility to use Etihad Rail's network services

GLOBAL LOGISTICS PROVIDER Agility has signed an MoU with the UAE's Etihad Rail that will allow the logistics firm to use rail services for distribution in the UAE and the GCC.

Faris Saif Al Mazrouei, acting CEO of Etihad Rail, said, "The enhanced connectivity that Etihad Rail will deliver will effectively bring businesses closer together, facilitating more efficient trade and extending geographic markets. Our MoU with Agility is another important step forward for the UAE's rail project. Agility is recognised as a logistics leader and we are proud to work with such a major organisation to further develop the logistics industry."

Bassel El Dabbagh, CEO of Agility Abu Dhabi, added that the MoU has established a solid foundation to build a more efficient and extensive supply chain in the UAE and across the GCC.

The US\$10.9bn, 1,200 km Etihad Rail network will connect industrial areas as well as urban and peripheral communities throughout the country, facilitating trade and economic growth.



Etihad Rail will allow Agility to use rail services for distribution in the UAE

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FRP rebars segment to grow fastest in the Middle East, reveals report

THE MIDDLE EAST'S fibre reinforced polymer (FRP) rebars market is set to be the fastest growing regional market in the sector between 2014 and 2019, according to Reportlinker.

FRP rebars, a mix of reinforcement fibre and polymer resin matrix, are used extensively within the global construction industry to build roads, bridges, tunnels, marine structures and waterfront applications.

According to Reportlinker, the global FRP rebars market is set to grow at a compound annual growth rate of 8.96 per cent between 2014 and 2019, to reach a value of US\$222.4mn. The Middle East, in particular, is expected to register the fastest growth in this period, spurred by an increase in construction projects in Saudi Arabia, the UAE and Qatar.

www.technicalreviewmiddleeast.com/construction



FRP rebars are used extensively in construction, especially to build bridges, roads and tunnels (Photo: Richard McMillan)

RTA launches drone to monitor latest projects

DUBAI'S ROADS AND Transport Authority (RTA) has launched a drone service to monitor the progress of infrastructure projects. The move is part of RTA's efforts to have accurate information about all infrastructure projects by using the latest technology, RTA said in a statement.

Abdullah Al Madani, CEO of RTA's corporate technical support services sector, said, "We have recently conducted a practical test run by flying a drone to monitor the implementation phases of Jumeirah Beach Walk project, street lighting units and completed phases of the Dubai Water Canal project."

www.technicalreviewmiddleeast.com/manufacturing

CII opens first Middle East office

THE CONFEDERATION OF Indian Industry (CII) has opened its first Middle East office in Bahrain — a move that is expected to boost trade between the GCC states and India.

With the GCC market currently valued at US\$1.6 trillion, officials in both governments feel the formation of a new office would increase potential for business, stated local reports.

To support the growth of business interests, Bahrain's Economic Development Board (EDB) has also signed an agreement with the Overseas Indian

Facilitation Centre (OIFC) to provide cooperation in areas like financial services and research.

www.technicalreviewmiddleeast.com/business-a-management



The CII's new Bahrain office will be located in Manama (Photo: Mubarak Fahad)

World Bank to provide US\$474mn for Lebanon water project

THE WORLD BANK has approved funds worth US\$474mn for a water supply development scheme in Lebanon. Lebanon's Council for Development and Reconstruction is likely to construct a 73 metre-high dam with a 125mn cu/m storage capacity in the Chouf village. The water supply augmentation project will be developed over nine years and will benefit more than 1.6mn people living across the Greater Beirut and Mount Lebanon area, according to officials from the World Bank.

www.technicalreviewmiddleeast.com/power-a-water

Emirates Transport wins ENOC contract

EMIRATES NATIONAL OIL Company (ENOC) has signed a contract worth US\$13mn with Emirates Transport for staff transportation across ENOC's businesses in the UAE.

ENOC's contract will run for a period of five years, stated company officials. Emirates Transport uses the ENOC Retail network for fuelling vehicles, while ENOC has renewed the contract for staff transportation.

www.technicalreviewmiddleeast.com/logistics



Saeed Khoory, CEO of ENOC and Mohamed Abdullah Al Jarmen, general manager of Emirates Transport, signing the five-year contract (Photo: ENOC)

Morocco's first solar plant to begin operations in 2015

THE MOROCCAN GOVERNMENT have confirmed that Morocco's first solar energy plant, Nour 1 in Ouarzazate, will commence operations from 2015. According to project officials, the power plant will be largest of its kind in the world. The US\$770mn facility will have the capacity to generate 160MW of power, and will aim to meet growing energy needs in North Africa.

A KPMG report revealed that the 160MW solar plant was being built by Saudi Arabia's ACWA Power. The World Bank, the African Development Bank (AfDB) and the European Investment Bank have provided finances for the overall project.

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SERIES 2014



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EXECUTIVES' CALENDAR 2014/2015

NOVEMBER 2014

17-20	The Big 5	DUBAI	www.thebig5.ae
17-20	Middle East Concrete/PMV Live	DUBAI	www.middleeastconcrete.com

DECEMBER 2014

8-10	Saudi Transtec	DAMMAM	www.sauditranstec.com
8-10	Gulf Traffic	DUBAI	www.gulftraffic.com

JANUARY 2015

10-13	Arabplast	DUBAI	www.arabplast.info
10-13	Wire & Cable Arabia 2015	DUBAI	www.exim.lv/wire-cable-arabia-2015
19-22	World Future Energy Summit	ABU DHABI	www.worldfutureenergysummit.com
19-22	International Water Summit	ABU DHABI	www.iwsabudhabi.com
27-29	Saudi Mining and Minerals	RIYADH	www.saudi-mining.com

FEBRUARY 2015

2-4	Interiors Qatar	DOHA	www.iqexhibition.com
16-20	BuilDEX	DAMMAM	www.tradeshow.tradekey.com

MARCH 2015

1-3	Saudi Plastics & Petrochem/Saudi Print & Pack	JEDDAH	www.saudi-pppp.com
2-4	Middle East Electricity	DUBAI	www.middleeastelectricity.com

Readers should verify dates and location with sponsoring organisations, as this information is sometimes subject to change.

WFES to provide insight into future energy solutions

THE WORLD'S FOREMOST event dedicated to renewable energy, energy efficiency and clean technologies, World Future Energy Summit (WFES) will be held under the patronage of HH Sheikh Mohammed Bin Zayed Al Nahyan, Crown Prince of Abu Dhabi, from 19-22 January 2015.

WFES includes a world-class conference, an international exhibition, Project & Finance Village, Young Future Energy Leaders programme, as well as a number of corporate meetings and concurrent social events.

Hosted by Masdar and taking

place at the Abu Dhabi National Exhibition Centre (ADNEC), the summit is the centrepiece of Abu Dhabi Sustainability Week. WFES will feature leaders, international policy makers, industry experts, investors from the public and private sector gather to discuss sustainable solutions to future energy challenges. The event will also present energy sector stakeholders with a unique opportunity to exchange technology, share best practice and form business partnerships that will further promote the global effort for a better future.

IWS to address water scarcity in GCC

THE INTERNATIONAL WATER Summit (IWS), a global platform for promoting water sustainability in arid regions such as the Middle East, will take place once again in Abu Dhabi in January 2015.

Returning for the third year in a row, IWS will look to offer best practice and collaboration to exhibitors and visitors with a host of services and solutions that attempt to tackle the pressing issue of water scarcity.

Held alongside WFES as part of Abu Dhabi Sustainability Week, the event will bring together world leaders, field experts, academia and business innovators to discuss the development of new sustainable strategies and technologies related to water. According to reports, more than US\$300bn will be invested in GCC water sustainability projects between the period of 2012 and 2022, presenting vast business opportunities to leading regional and global providers of cutting-edge water technologies.

The supporting conference at IWS will cover topics including water governance and policy, water conservation and future water sustainability, energy efficient and clean technology desalination, and the nexus of water and energy in food.

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Saudi Arabia's manufacturing sector reaches new heights



Steel manufacturing in Saudi Arabia is being heavily invested in to develop infrastructure projects

Saudi Arabia's manufacturing industry is booming as investors look to invest in the power, steel and vehicle manufacturing sectors across the region.

**Based in Jubail,
Hadeed metal
plant is said to be
one of the most
advanced metal
plants in the world**

SAUDI ARABIA'S STEEL industry is experiencing rapid growth due to the rising steel consumption in various sectors including construction & infrastructure and manufacturing. Steel manufacturing in the country is being heavily invested in to develop infrastructure projects, as well as real estate, metros, railways, airports.

One company who has contributed to Saudi Arabia's economic growth through its manufacturing division is Middle East structural steel fabricator, Zamil Structural Steel Company Ltd. The firm has been awarded a contract worth an estimated US\$10.5mn by Dragados Gulf Construction Company Ltd. to manufacture pipe racks and equipment support structures for Ibn Sina National Methanol Company, a manufacturing partner of the Saudi Basic Industries Corporation (SABIC) in Jubail Industrial City. The steel products to be manufactured is for the polyoxymethylene (POM) plant project owned by the National Methanol Company in Jubail Industrial City in the eastern region of Saudi Arabia.

Under the terms of the contract, Zamil

Structural Steel company will manufacture more than 4,500 metric tonnes of pipe racks, equipment support structures and other steel products. With a production capacity of 84,000 mt per year, and a plant facility area of 182, 836 M2, ZSS, the firm has been supplying fabricated structural steel and plate works for major power & desalination plants, petrochemical plants, oil & gas sector, cement plants, steel mills, high-rise building projects as well as other industrial and commercial complexes within KSA, Gulf and export markets. This includes Algeria, Syria, Jordan, Portugal, Sudan, Cyprus, Vietnam, Bangladesh, Pakistan.

The project is an expansion of Ibn Sina's current operations, where SABIC has partnered with CTE Petrochemicals Company. The POM plant is expected to have an annual capacity of 50,000 metric tonnes. POM is mainly used in automobiles, electronics, food processing and other sectors that hold great value to Saudi Arabia's downstream sector development.

Based in Jubail, Hadeed metal plant is said to be one of the most advanced metal plants in the world. The plant manufactures



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long products, including rebar, wire rod, light sections, and flat products; and flat steel products, such as hot rolled, cold rolled, and galvanized products, as well as coils, plates, and slit rings. Ibn Sina's products are used in air-conditioning, refrigeration, pre-painted coating, panels, appliance, furniture, pipe, car and ship, and construction industries.

In the same way metal manufacturing in the Middle East has caught the attention of global investors, so has the opportunity to set up manufacturing facilities for the Middle East's power sector. General Electric (GE) is expanding its manufacturing units across the Middle East, having already invested US\$1bn (Dh3.67 bn) in research and development and the construction of manufacturing facilities. Zaher Ebrahim, general manager of Thermal PG Services Sales in the Middle East for GE Energy, said the company invested US\$5.6bn globally and part of that was invested in the region.

"We want to help the region in power demand. It is important to us," said Ebrahim at the Power-Gen Middle East annual trade conference held in Abu Dhabi.

"The investment includes having people, engineers and local manufacturing facilities. We have a great repair shop in Abu Dhabi. We also have a manufacturing facility in Saudi Arabia. In Masdar, we are working with doctors to highlight our technology and solution efficiency," added Ebrahim.

The company launched its latest turbine technology and product upgrade at the conference, the 9HA and 7HA for 50 and 60 hertz applications. GE said that its latest technology has more than 61 per cent combined cycle efficiency, offering the industry cleaner, reliable and cost effective conversion of natural gas into electricity. The firm also revealed it has entered into partnership with K-Electric in Pakistan to



Zamil Structural Steel Company Ltd has been awarded a contract worth nearly US\$10.5mn to manufacture steel products in Saudi Arabia

Most of the commercial vehicles in the country are shipped in from Thailand, Japan, Germany, China and the US

support the company's Bin Qasim II Power Plant with its highly developed Advanced Gas Path (AGP) solution. GE currently has 1,200 gas turbines in the region and 6,000 worldwide. The same turbines played an important role in Egypt in providing power during Arab Spring demonstrations, the company said.

Another sector contributing to the development of Saudi Arabia's economy is vehicle manufacturing. According to a report titled, *Saudi Arabia Commercial Vehicles Market & Opportunities*, released by Market Reports on Saudi Arabia, the country's commercial vehicle market is expected to expand at a CAGR of around 15 per cent during till 2019. The Bus segment, however, is expected to show strongest growth among all commercial vehicle segments during this period.

Most of the commercial vehicles in Saudi Arabia are shipped in from Thailand, Japan, Germany, China and the US. Being a key commercial vehicle export destination in the MENA region, industry players in Saudi Arabia are also working on re-exporting commercial vehicles to other GCC and Arab countries. Light Commercial Vehicles (LCV) are the most widely distributed commercial vehicles in Saudi Arabia, as well as Medium Heavy Commercial Vehicles (MHCVs) and Buses. ■

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Volvo Trucks

steps up a gear

Lars Erik Forsbergh, president of Volvo Trucks Middle East, speaks to *Technical Review* about its newest technology, sustainability and the value of a comfortable driver.

SO FAR, 2014 has been a successful year for Volvo Trucks Middle East. It kick started the year by launching three new models, the FH, the FM, and FMX, and shortly after the heavy-duty truck provider announced it had forecast a 20 per cent increase on deliveries across the Middle East region in 2014.

Six months on and, according to Lars Erik Forsbergh, president of Volvo Trucks Middle East, the company is not only on track, but actually exceeding projected growth, with an increase of 22 per cent after the third quarter. Forsbergh said that business in the Gulf had been positive, namely in Oman, the UAE, Qatar, Saudi Arabia and, despite the turbulence and difficulties, Iraq.

"People are ready to invest and spend money, to buy trucks, and invest in different projects. They believe in the future of their countries otherwise they would not make those investments," he said.

Forsbergh cited Volvo's newest range as a reason behind the growing sales figures. According to the truck manufacturer, the models include a number of new intelligent features designed to improve and optimise handling, including its Dynamic Steering and I-Shift gearbox technology.

"Volvo is taking a leading position when it comes to automatised gearboxes," Forsbergh commented. "We started to introduce our I-Shift a few years ago in the Middle East and today 30-40 per cent of sold trucks include automatised gearboxes."

The new trucks also feature Volvo's Dynafleet telematic system. The web-based technology allows customers to track the position of its vehicles 24-hours a day, while also monitoring each driver, their driving patterns and offers training when required. According to Volvo, customers benefit from being able to highlight areas of challenging profitability while monitoring how far their drivers are operating safely and in the most efficient way.

"If you have 200 trucks you can follow each truck and see exactly where they are at any moment. You can manage your fleet in a very efficient way," he explained.

Speaking to the Middle East company president, it is evident that the focus is not only on improving the truck itself, but also ensuring the optimal performance of the driver operating the vehicle.

"A lot of the features built into the truck will help the driver have a more comfortable ride and I think the more comfortable [the ride] the better job you can do to deliver the goods in time," Forsbergh explained.

While its Dynamic Steering and I-Shift technology is designed to improve handling, Volvo's cabs are also reportedly designed for the optimal comfort of the drivers. The new FH, FM, and FMX trucks are said to include completely redesigned cabs, featuring improved seating position, increased usable window area, an innovative rear-view mirror design, and a steering wheel with neck tilt function.

"Volvo cabs are absolutely leading in the whole truck industry," stated Forsbergh. "We spend a lot of energy and money to develop the



Volvo Trucks launched its three new models, the FH, FM, and FMX, in the Middle East in February 2014

best cabs. Not only [in terms of] the driver's environment, but the driving characteristics of the trucks."

Furthermore, with all the technology and digital solutions being incorporated in the trucks, Volvo also offers its customers driver training, meaning that those individuals behind the wheel know the best and optimum ways to use the new features.

"Driver training is something our customers are asking for more and more," Forsbergh said. "The better uptime the customer has with his trucks the more profitable his operation is and of course the truck is an important factor, but the driver also plays a very important role. It's important to make sure the driver can really use the truck as it's designed to be used."

The company aims to be seen as not only a truck supplier, but a service provider and, in line with the Swedish manufacturer's global strategy, Volvo Trucks Middle East provides customers with sustainable transport solutions. This consists of providing and ensuring the latest technology, such as the Dynafleet telematic system and design solutions, even down to the aerodynamics of a truck's cab. It also includes, once again, driver training in order to teach and ensure that a driver is operating in the safest and most efficient possible manner.

According to the company, by executing the entire package a company can experience fuel savings of up to seven per cent.

Forsbergh claimed, "With the technology in the truck you can reduce fuel consumption, but even more so by training the driver on how to drive in a more fuel-efficient way."

The company is set to inaugurate a new workshop in Erbil, Iraq, as well as start production at its new manufacturing plant opening in Saudi Arabia's King Abdullah Economic City in May 2015. Taking this into consideration, along with its new range of trucks, advanced technology, and growing sales figures, it is safe to say the company is in a confident position to take advantage of the business opportunities that 2015 will bring. ■



essential.



SDMO has provided power solutions to projects in Saudi Arabia, Libya, Qatar, Yemen, the UAE and Iraq

Providing power for mineral extraction

French genset manufacturer SDMO, who has been helping mining operators meet the requirements of industrial and minerals processing plants worldwide, has opened a new office in Dubai as it attempts to increase its regional market share.

ENERGY SPECIALIST AND the world's third largest generating set manufacturer SDMO offers its customers efficient and turnkey energy solutions from one to 200MW, which can adapt to all applications, whether in light fuel, heavy fuel or gas.

Established in 1966, the company designs, develops and markets reliable, high-performance energy access solutions through its various premium multi-power ranges of generating sets and tailor-made energy stations, designed to meet the needs of numerous specific applications.

SDMO supplies generating sets to the mining exploitation sector for underground and opencast mines. For this sector, through its equipment it is able to supply energy during programmed maintenance operations, a permanent supply to houses and other installations, standby gensets during power cuts, and portable gensets equipment for the electricity supply during

the construction of a new mine and the extension of production capacity.

The lure of the Middle East and North Africa's growing mining and minerals industry has been hard for the company to ignore, with Saudi Arabia, the UAE, Morocco and Algeria leading the way with extensive mineral deposits.

The potential of untapped mineral resources throughout the region has seen a number of equipment manufacturers move into the sector. SDMO is among those companies, with its generating sets offering support to often remote mining operations, ensuring a continuous and reliable power supply.

Of the Saudi Arabia mining sector, Khalid S Al-Mudaifer, president and CEO of the Saudi Arabian Mining Company (Ma'aden), says, "There is great potential in the Arabian Shield and an enormous diversity of minerals across the Kingdom. There is strong potential for further discoveries

and these will require the application of modern techniques and a wide range of support services."

The commitment to the sector is echoed by the country's government, with Sultan bin Jamal Shawli, deputy minister for mineral resources at Saudi Arabia's Petroleum and Mineral Resources Ministry, remarking, "The aim is to establish mining and its support services as the third pillar of the Saudi Arabian economy after hydrocarbons and petrochemicals.

"We have the minerals, the market and the potential to explore them. We are now turning to the private sector in the Kingdom and the world outside to help us achieve our ambitious goals."

With that in mind, and with a host of other opportunities available throughout the region, SDMO recently moved its Dubai-based team into a larger office located in Dubai Media City. More spacious in area, the new office will help meet the



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needs of a new team, which was put together earlier in the year.

The team includes Laurent Berthouloux, Hamid Aribi Mohammad Jaradat and Jérôme Quere, who will all handle sales in the region, while two service engineers Mohamed Khaled and Gijo Thomas will continue to operate in countries throughout the region, providing distributors with an efficient and reliable after-sales service. As part of the process of setting up the office, two new people were hired, with one person brought in to strengthen the sales team and another person focusing on after sales service.

The small team, within which the nations of France, Jordan, Egypt and India are all represented, reflects the great diversity that characterises Dubai. SDMO said that while the complicated geopolitical situation in the Middle East sometimes leads to project delays, the potential of the regional market remains considerable, and development opportunities are numerous. SDMO is, therefore, continuing its pursuit for a larger market share by promoting its extensive experience in managing specific projects.

SDMO's vast experience in the region includes a project in Libya where the firm provided two generator sets to provide 'black-start' power for gas turbines on an oil exploration project, as well as the delivery of hundreds of generating sets to a telecoms company based in Saudi Arabia, which included machine canopies featuring an impinger and sand filters to ensure the generators are able to continue functioning during sandstorms.

It has also provided generating sets to a large number of power station projects in Iraq, each of which involved the shipping and installation of eight containers for generating sets, and each with a power output of 1,500kVA at 50Hz.

SDMO has also supplied generating sets for a gas project in Yemen, a telecoms project in Oman and for LNG extractor and military projects in Qatar.

The company has a strong record within the mining sector, with SDMO power solutions able to meet the needs of industrial and minerals processing plants. The equipment it builds includes:

- Industrial generating sets ranging from 250 to 3,300kVA
- Medium-speed engines ranging from 1,000 to 1,200RPM
- Lighting towers ranging from 6 to 16kVA
- Generating sets ranging from 10 to 700kVA and dedicated towards the rental market



An SDMO power plant in Youga is made up of six 1,900kVA generating sets and one 88kVA generating set

- Standard products in stock for a higher reactivity
- Tailor-made products for optimised performances

According to the company, SDMO generating sets are recognised for their high durability (MTBO = mean time between overhauls), efficiency, productivity, low emissions rates and low noise nuisances. The company offers a range of products from small portable generating sets to powers reaching 3MW/unit at low and high voltage that can be used for standby or continuous applications.

Outside of the region, but within the mining field, the company has provided services and generating sets to projects in Brazil and Burkina Faso.

Burkina Faso's Youga, located four kilometres from border with Ghana and 180 km southwest of the capital city Ouagadougou, is the location of a gold mine which the Burkina Mining Company (BMC) has been granted the rights to mine.

The power supplied to the gold factory in Youga is assured by the Ghanaian electricity network (located 11km from the site), but also by a hydraulic dam built on the Nakambe River. An SDMO power plant, made up of six 1,900kVA generating sets and one 88kVA generating set are used during power cuts, as a back-up to the existing installations. If there is a break in the power supply from the network, the entire site is secured, including the rotary crusher and ball mills.

In Salvador de Bahia in Brazil, a Brazilian oil company operates two drilling sites equipped with SDMO generating stations. The whole of the rig is mobile to enable boreholes to be drilled on various sites. Each site is equipped with a station made up of four 1,540kVA generating sets in a EUR40 container and of an X715K standby set. Three of these sets operate 24 hours a day, to power the drilling rig, which enables boreholes to be drilled to a depth of 2,800 metres. The fourth set, already configured for this installation, backs up the other three in the event of failure of one of them.

The standby set, for its part, makes it possible to power the safety installations again in the event of failure of the generating station. The control/operating part is provided thanks to Kerys panels in A633 configuration installed on each set and connected to the customer distribution container.

In France, certain automated extractor conveyors, on sites, are equipped with SDMO generating sets. These generating sets, whose role consists in supplying enough energy to enable the extractor to operate, were designed according to very specific instructions. Since these generating sets had to be mounted on machines comprising a tracked vehicle and a hopper (designed to receive the rubbles), their dimensions had to be reduced not to disturb the operation of the machines. The other main constraint consisted in the vibrations produced by the extractor. ■



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BKT
GROWING TOGETHER



Technical Review's Compressor Industry Round Table took place at the Jebel Ali Recreational Club in Dubai

Technical Review sat down with four leading professionals from within the Middle East's compressor industry to discuss their views on the issues affecting their sector and their long-term aspirations within the market.

WHAT TRENDS WITHIN the compressor industry have you been excited about recently, and what can you tell us about innovation within the sector?

Briden: We are always looking to make our products as efficient as possible with respect to energy consumption. A few years ago, in this region nobody was concerned with energy consumption as they were primarily concerned with cost. Reliability and energy consumption have, however, become more of a concern, with our customers becoming more aware of what the machines will do once they are plugged in, and what their operation means to the environment and their bottom line. There are always little bits of innovation to compressor design we can introduce, but the basic concept of a compressor is not going to change.

Fountain: In terms of compressor design and technology, there is very little we can do to make it any more modern, as the basic

principle of how it works has not changed. But I agree with what Carl [Briden] was saying about customers becoming more perceptive and demanding in terms of the total life cycle of a machine, which is why we are looking at after-market packages as a way of enticing customers. In this regard, we are trying to find innovative ways of bringing down maintenance costs and locking in customers with warranty programmes.

In our field, we consider ourselves to be the Rolls Royce of compressors and if the customer does not want a high-quality product, we do not have a second line to serve them with.

Fenwick: If we look at advanced countries like the UAE, there is still a compromise on cost and manufacturers are looking towards low-cost countries in Asia to manufacture their products. This puts a lot of pressure on companies like ours to look in that direction and consider whether to join them or continue to behave as a premium manufacturer from Europe.

More specifically, what we have seen in the last three years is the growth of the oil-free compressor sector, especially in the food and pharmaceutical industries. In this regard, there is certainly a lot more legislations driving the development of oil-free compressors, which was not there before.

Fyfe: The industry is dominated by a relatively small number of brands who have been leading the sector. There are four or five names that are truly known as quality global brands.

I think what has changed within the industry is the consolidation of certain brands under one umbrella. Competitors are now looking towards the downstream industry, so not just compressors, but also related equipment. Major brands have been bringing downstream equipment into their own stable and the consolidation of these businesses is leading the market to be less fragmented from a manufacturing standpoint.

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The participants



Colin Fountain

managing director, Bauer
Kompressoren GCC FZE

Bauer Kompressoren: A leading manufacture of specialist solutions across a range of sectors, offering medium- and high-pressure compressors for industrial air and gas, mobile and stationary breathing air compressors and processing, and storage and distribution systems.

John Fyfe

director, Rite Networks

Rite Networks: A global procurement organisation offering consultancy, specialised sourcing and supply of technology, equipment, services and skills for the manufacturing industry, engineering and processing companies and commercial enterprises.



Carl Briden

general manager, Kaeser
Kompressoren FZE

Kaeser Kompressoren: A global manufacturer and provider of compressed air systems offering innovative products and progressive system solutions. Its products and services include complete systems for the generation, treatment and delivery of energy in the form of compressed air.

David Fenwick

regional sales manager,
CompAir Middle East

CompAir Middle East: A leading supplier of compressed air and gas systems, and part of pumps and pumping equipment company Gardner Denver. CompAir provides compressors for a range of applications including general industry, offshore, oil-free and construction.



I don't think that the fundamental technology is changing and if you look through industry catalogues almost everybody has oil-free compressors and oil-lubricating compressors. From an end users perspective, the question remains on how much these companies care about the products once installation is over.

In terms of staff education and training, how strong are the facilities and resources available to compressor manufacturers in the Middle East, and where could improvements be made?

Fountain: We actually have training in our

revenue stream and we charge customers and distributors for training. Every person working on a drill rig should be certified, otherwise health and safety inspectors would not allow operators near a rig compressor, unless they can show their

papers. It is therefore very valuable to them and that is why we have developed a new training facility.

From an office point of view, we're already reaching capacity again, so I am looking two to three years ahead to increase

“Iraq went from being our number two priority to being our biggest headache in the space of two months”

Colin Fountain, Bauer Kompressoren GCC FZE

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the size of our facilities again.

Within the constraints we face at our facilities, we have already spent a lot of money and time developing where we are now. We have reached a huge capacity in short amount of time, so we need to expand again and we are looking to do that.

Fenwick: We have not moved to a new facility, but we are looking to expand. One of the issues we have is finding an office space that satisfies our particular need, so we have had to take two independent offices and split them. Eventually we will follow the same path as Bauer, but there are so many constraints we face where we are based, such as having a certain ratio of office space to workshop space in a purpose-built facility.

Briden: Our new building in Jebel Ali is now fully functional and we are very proud of this facility, which took us about a year from drawings to construction to get completed. We followed German manufacturing standards and the finished product is comparable to that of any global manufacturer. The facility makes a complete difference to the training we can provide our partners, which is key to providing the best of service to our customers, so a well-trained partner is essential. We are now in a better position to offer this training on a regular basis from a local perspective.

“The biggest challenges for us will be to try and obtain a foothold in those geographic markets that we’re not doing anything in at the minute”

John Fyfe, Rite Networks

We believe that we have arguably the most reliable and energy efficient compressors on the market, but compressors do require regular preventative maintenance, so we concentrate a lot on developing our dealers with respect to their servicing capabilities.

The single biggest asset is the quality of the people you have on the ground and their knowledge and as manufacturers we have to invest in the quality of our partners and their own people to maintain the machinery.

How important is the Saudi Arabian market to your business and what are your thoughts on the quality of the distribution network within the Kingdom?

Fountain: For us, in the region we cover, Saudi Arabia is the biggest market we are responsible for representing about 50 per cent of our business. Much of the equipment we sell in Saudi Arabia is related to drilling activity in the oil

and gas business, and every new hole drilled in the ground or at sea requires one or two compressors.

Saudi Arabia’s oil business is driven and controlled by Saudi Aramco, who plans ahead three years in advance. With that in mind, we see 2015 continuing to grow, while we expect 2016-2017 to plateau a little bit in terms of exploration and drilling opportunities. Having said that, we plan to set up a branch in Saudi Arabia next year to serve our existing customers, as it’s becoming more difficult to service and support customers from our base in Dubai.

Fenwick: It is little different for us as we do not sell compressors as much in the oil and gas sector. We’re more likely to sell portable compressors to the construction industry and compressors utilised in domestic industrial environments.

About 50 per cent of our portable compressors business is located in Saudi Arabia and if you have a strong distributor in the country it makes life a lot easier. One of the main challenge in Saudi Arabia is its transient work force, as often you will train somebody for more than two years and then they leave the country and go to work in another Gulf state such as Qatar or Oman.

Briden: Saudi Arabia offers the biggest potential for sure, so having the right partners with well-educated engineers is key to being successful. In the past we used to train our partners workforce in Germany, but now we have a facility in Dubai that makes it easier and more cost effective. Our partners had to send people away for long periods to Germany so having a regional facility makes for more convenient to train our respective Saudi partners’ engineers.

Fyfe: I’m no longer working on the manufacturing side, but for me the right distribution network is hugely important in Saudi Arabia. When I was with a manufacturer Aramco you needed your product to be approved and a distributor authorised by Aramco. Then you



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had to have a contact at Aramco who could put your name forward.

I think the Saudi market is dominated by two or three principal companies, with Aramco obviously on the oil and gas side. The market appears relatively static and has not changed that much in recent years.

Is Qatar a hotbed of opportunity for the compressor industry, considering the country is gearing up to host the 2022 FIFA World Cup?

Fenwick: We have had a few relatively small experiences working with Qatar Petroleum (QP), but in general Qatar's domestic sector is relatively limited for us. There are opportunities in construction, but our business has remained relatively unaffected by the World Cup hype, and the market seems to be pretty much the same as it was three or four years ago.

Briden: Despite everyone raising the World Cup flag, activities in Qatar are still a little slow to develop. QP is the biggest customer in this country and dominates the market from an oil and gas perspective, but from an industrial point of view the market is smaller compared to neighbouring countries.

We are looking forward to infrastructure projects that look set to come on stream in the short to medium term and believe with the support of our local partner in Doha we will take advantage of these situations.

Fyfe: Qatar is not an easy place to do business. One of the biggest hurdles is presented by the paperwork required to get products into the country through customs and the rules seem to change every six months. In Qatar, you have a country in the region that probably has business to be done, but it's not easy to get access to that business in my experience.

Fountain: For us, Qatar is a reasonably small market compared to Saudi Arabia, the UAE and Iraq. But because of the World Cup, one side of our business is compressed natural gas (CNG) for powering vehicles and Qatar is launching a programme to try and show the world that they are a clean, green and



Kaeser Kompressoren third generation of the ASK rotary screw compressor

environmentally-friendly country. It's not a big market for us, but we could potentially introduce compressed natural gas (CNG) vehicles in the country.

Is Kuwait an easier market than Qatar in which to conduct business?

Fenwick: When Iraq first started to come on stream about eight years ago we saw quite a bit of activity going on in Kuwait, but it has slowed down again now. I would categorise Kuwait on the same sort of level as Qatar, where it shows a lot of potential, but it takes a while to break into a market dominated by just a handful of companies.

In spite of recent events, does Iraq still offer future potential for the compressor market?

Fyfe: Clearly, where you have the unrest that exists in the country, it is going to have a massive effect on all business and we have already seen a number of companies that have pulled out their people. But I do not think you can take your eyes off that country because of its tremendous potential.

Fenwick: In 2013, we participated for the first time in the Basra Oil & Gas exhibition and the people we met there said it was one of the best shows they had attended in Iraq in terms of quality and enquiries. Having attended the show, we ended up appointing two or three dealers in the country for various products from within our product range and we started this year with a number of good orders.

Unfortunately, it is no longer the Iraq that we know it as. There is the Kurdistan Region of Iraq, which we thought would remain unaffected, but that too has now been embroiled in the current ongoing situation within the country.

Fountain: If you had asked me six months ago, I would have said Iraq was our number two priority after Saudi Arabia. We were really starting to make some headway there – we had appointed a new dealer, we were making a number of deals and were seeing some good enquiries, but many of the people we were working with have pulled their staff out of the country and projects we were working on have now been shelved.

Iraq went from being our number two priority to being our biggest headache in the space of two months. Potentially, it could be a massive market, but what happened a few years ago in Libya left about two million barrels of crude per day missing from the global market. Saudi Arabia picked up some of it and Iraq was picking up the rest, and every one million barrels of oil means compressors to us. We were really beginning to be encouraged by Iraq and it was on the backburner literally overnight.

It has been seven years since our last round table focusing on compressors. Since that time how has the UAE market changed?

Fountain: For us, it is the second largest market we work in today and we have a lot of HSE-related customers as the country is one of the most sophisticated market in the regions in regards to levels of HSE observance.

As an oil producer, it is one third the size of Saudi Arabia and will never be as big of a market as Saudi Arabia, but it will continue to be a significant market for us. When you are talking to government institutions here, they are much easier to deal with than those in Saudi Arabia and Qatar.

Fenwick: Regionally, if you want to set up a base in the region, the obvious choice is going to be the UAE for many different reasons such as the ease of setting up a

“The market is certainly improving in the UAE for us and is currently a stable place in which to conduct business”

Carl Briden, Kaeser Kompressoren FZE

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facility, its geographical location and logistics. I don't any reason why the market would slow down from an industrial point of view. All of the uncertainties in the region definitely strengthens the UAE's position. It's a safe haven and an attractive place to tempt employees to.

Briden: The market is certainly improving in the UAE for us and is currently a stable place in which to conduct business.

Compared to seven years ago the industrial sector is little bit slower but this is showing promising signs of improvement, however the construction market is a little more cautious than perhaps it was seven or eight years ago. But with a number of infrastructure projects now underway in the UAE, there will always be opportunities for us in the construction sector.

Fyfe: I think one of the challenges that Dubai and Abu Dhabi have is that the cost of living is going up at a rate not reflected in salary increases, which must ultimately have an effect on the number and quality of the people companies want to employ. There has been a change in demographics in recent years, with more workers within the compressors sector coming from Qatar and India, as well as being sourced locally.

Do you see a lot of opportunity in the Egyptian market, considering the upheaval of the past four years?

Fountain: Since January 2014, Bauer's Dubai office has been responsible for our Egyptian market activities and the last trip I



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went on was the most encouraging in terms of talking to customers. I can say with some optimism that the country is beginning to stabilise and future opportunities to invest in Egypt definitely exists.

Between nine to 12 months ago there was very little work and even less investment in Egypt, but for the first time recently I came back from Egypt quite optimistic.

Egypt has a population upwards of 80mn people and the largest population in the Middle East, while domestic demand for compressor products is massive and the market is potentially huge. Obviously the last four years have been very challenging for the country, but we have our own subsidiary there and I am hoping that over the next three years it should be a source of growth for us.

In terms of trade associations and organisations, what support is available to compressor manufacturers and distributors in the Middle East?

Briden: As an ISO-certified company manufacturing and selling compressors we are able to offer a high level of customer assurance and satisfaction. But at present there is no specific regional legislation or compressor association as such.

Fountain: A lot of our business is regulation driven whether in civil defence, military or safety solutions, and is often related to North America or European standards.

One of the reason we do so well in Saudi Arabia is because Saudi Aramco has adopted specifications that follow the lead of many US oil majors. Therefore, the regulations we follow and our customers follow are not home-grown, but are in nature European or North American standards.

In terms of trade associations, we do not have reporting clubs or compressor coffee clubs like they have in Europe. We have nothing that we can refer to in order to understand what we can do, and there is no collaboration between the manufacturers. I think it would be good to have an association, but it would not be driven by regulation governance – it would have to be self motivated.

Fenwick: The oil and gas industry has stringent regulations in place, but we do not necessarily sell that much to that sector. I think the industrial sector is not necessarily driven by regulations and sometimes the most important thing is not the product, but who's representing you in the market and the support that we can provide the customer.

How big of an issue is counterfeiting presenting to the compressor market?

Briden: We try to make customers understand the importance of genuine spare parts as opposed to pirated ones. In this market it is a continuous education, however the majority of our customers do understand the risks associated with counterfeit parts. Counterfeiters will always be in the background so it is our job to ensure they do not succeed.

Fenwick: The two aspects to look out for are customers looking to buy non-genuine products and distributors opting to sell non-genuine parts, but we are quite strict on



Kaeser Kompressoren's Carl Briden (left) and Bauer Kompressoren's Colin Fountain (right)

that last point in ensuring that does not happen.

Finally, what can you tell us about your long-term business plans?

Fountain: My biggest challenge over the next 12 months is in recruiting new people.

Over the next three years, however, we will look to take on more geographic areas from our Dubai office such as the Caspian region and we are cautiously optimistic that we might be able to start trading with Iran.

There is a lot of geographic expansion on the cards, but we are also keen to get closer to our current markets and one such example will be setting up a branch in Saudi Arabia. At the moment, our biggest challenge is getting in and out of Saudi Arabia to tend to our customers, but initially we would like to have between three and five people based there permanently.

Qatar is another possible market of growth if we are successful in our project of opening a branch there.

“If you want to set up a base in the region, the obvious choice is going to be the UAE for many different reasons such as the ease of setting up a facility, its geographical location and logistics”

David Fenwick, CompAir Middle East

Fenwick: Iran would be interesting for us, but obviously being a US-owned company means we will probably be the last ones to go in there, if we were to get the chance to enter that market.

We have recently taken over responsibility for looking after the Turkish market and from the start of next year we will be looking to set up an office there for both sales and service.

Briden: Iran for sure is the one area that clearly has a lot of potential, so we're keeping an eye on the political developments in this respect.

In the long term we're looking to take on more staff to help with our expansion plans, which will help ensure we maintain the steady growth pattern we have experienced over the last 15 years or so.

Fyfe: The biggest challenges for us will be to try and obtain a foothold in those geographic markets that we're not doing anything in at the minute, and continue to developing existing markets for some of the companies who we currently represent.

We are quite fortunate that one of the companies we deal with at the moment is a French company and the Iranian market has opened up for them, so that is a bit of a unique situation for that particular company, as all of its competitors are currently under embargo.

At the end of the day, Iran is a giant market and you can't ignore it, and if it wasn't for the sanctions all of the manufacturing companies around this table would be building business there right now. ■

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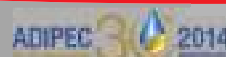
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Unearthing hydraulic health and safety concerns

Hydraulic power makes a massive contribution to site productivity. But health and safety experts know this comes at a price. Short cuts never pay off in the long term. Bob Adams reports.

BECAUSE THEY ARE so versatile and frequently found on construction sites, hydraulic excavators are associated with more accidents than any other heavy types of contractors' plant. Health and safety officials around the world say it is only falls from height that are more common and contribute to greater downtime on sites of any size.

Whether the digger is a full-swing or 180° type, travelling on tracks or – more unusually – on tyre wheels, it is a perfectly safe machine to operate as long as it is used as the designer intended. The same principles apply with backhoe loaders, which are just as versatile. The trouble with all these trusted and much-used machines is when the rules are stretched and they are operated outside safe limits, often by operatives who should not be at the controls at all.

Typical misuses include fitting of attachments that do not match the capacity or hitching system of the machine, overloading of the bucket itself, use as a handy lifting device or crane by someone who is not specifically trained to do this, and operation within a confined area to which other workers have uncontrolled access.

An assistant or 'banksman' with a loud voice should always be available to prevent this. No-one should go into the excavator's working radius without clearing this with the operator, and no bucket or other attachment should pass directly over an occupied area. This is particularly important when a truck is being loaded with minerals or spoil.

Special hazards arise when any type of excavator is moved or operated on sloping or excessively uneven ground, especially across the direction of travel or where there is a sudden change of slope – a situation which should be avoided whenever possible. If it is essential, make sure that the attachment travels as unloaded and near to the ground as possible. If stabilising devices

Special hazards arise when any type of excavator is operated on sloping or excessively uneven ground (Photo: Daniel Hoherd)



are fitted, these should be extended as a matter of course.

When the machine is propelled under its own power, speed should be kept low, creeping if loaded and keeping the bucket freely suspended, but otherwise as close to the undercarriage framework as possible by means of precise hydraulic control of the hard-to-calculate boom and dipper geometry.

The trouble with all these trusted machines arises when the rules are stretched and they operated outside safe limits

Special training and supervision is needed if an excavator is to be used as a crane or lift truck. A properly suited machine, for example, will have its own limitations regarding varying the load and boom radius combination – with a built-in safe load indicator, and the lift capacity at various radii, as well as special hitching and disconnection arrangements. The site manager needs to be aware of all these and to control the whole operation, which should be occasional rather than regular anyway.

Operators should always check the condition of their excavators at the start of each session. This is particularly important if use as a lifting device is planned that day.

For example, the safe working load should be clearly marked on the suspension arrangements, including all chains, shackles, hooks, slings and lifting eyes, which should be firmly closed.

Before using the excavator as a lifting device it is now mandatory in some countries to prepare a risk assessment; it is always better to use a special-purpose machine.

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Particular care needs to be taken when the excavator is travelling with a suspended load as this can easily swing around and cause impact damage, and cause the machine to topple when passing across uneven ground.

The same health and safety principles apply to the use of mini-excavators – more so in fact because they often look as though they are easy to operate. To the untrained they are not, and can also do a great deal of damage both to site facilities and any personnel present. Many operators have been injured by falling into the excavations they themselves are digging, or by making the sides of the trench unstable.

Before operating any small-scale machine, the ground conditions should be checked particularly carefully to ensure the



Special hazards arise when any type of excavator is operated on sloping or excessively uneven ground (Photo: Daniel Hoherd)

total weight of machine plus load is appropriate. Safe paths of travel should be

worked out in advance, avoiding severe or 'wrong-way' inclines in particular. ■

Reducing fire risks and increasing the safety of your workforce

CONSIDERING THE HIGH-risk nature of working in heavy industries and with high-voltage machinery, adopting an up-to-date health and safety policy is often a top priority for many companies.

As such, these companies continue to use advanced technology to reduce risks, such as more remote solutions, which literally remove workers from some riskier areas.

Despite these efforts, fire hazards such as arc flashes still pose a significant and very real danger to those individuals working on at-risk facilities.

An arc flash is understood as an electrical explosion caused by a dangerous release of energy created by an electrical fault. One such explosion can reach 35,000°F (19,427°C) in temperature and contain high levels of both thermal and acoustical energy, pressure waves and debris.

According to Bulwark, the US-based provider of flame resistant (FR) protective garments, a number of companies in the power and electrical industries are not doing enough to ensure the safety of their employees in the face of such hazards.

Bulwark technical training manager Derek Sang said, "We all understand that if stuff can fall from the sky and hit us on the head our employer is going to hand us a hard hat."

"But if something can explode and ignite our clothing for some reason when it comes to flame resistant clothing many say 'maybe'."

By wearing clothing made of conventional fabrics, including cotton and poly-cotton blends, a site worker is



An electrical arc flash can reach 19,400°C

arguably at a greater disadvantage than someone wearing the correct FR kit when faced with an arc flash or similar hazard. This is because these non-FR fabrics can burn and melt, which can increase the extent and severity of the injury.

"Every non FR fabric has an ignition point. If I apply enough energy to what you're wearing you're going to ignite and continue to burn and you're going to get hurt," Sang explained.

"Arc flashes and flash fires do not kill people, clothing igniting and continuing to burn is what kills people."

The key to FR clothing is that, once the ignition source has gone, it self-extinguishes. Often, such as in the case of arc flashes, the source of ignition is only active for a minimal time and the real damage and injury are a result of clothes catching fire and continuing to burn.

By issuing and ensuring employees wear correct FR clothing, a company can

increase the safety of its staff. It can also mean that it avoids the considerable hospitalisation fees that can arise from severe burn injuries.

According to Bulwark, an incident resulting in 50 per cent or greater body burn can cost towards the region of one million US dollars, due primarily to the extended time spent undergoing specialised medical treatment.

Sang stated, "There's no cost justification not to provide the correct PPE [personal protective equipment]."

He also argues that providing workers with the correct FR garments as well as efficient training, companies will benefit from a high level of on-site productivity. Obviously an arc flash will have a negative effect on the productivity of a site, in terms of the structural damage caused and the operational downtime caused by worker injuries.

If workers are correctly trained and wearing the relevant FR clothing presumably less time and capital is lost as a consequence of employee downtime.

"From a training and safety standpoint, we say take the time to train them to do it right and eventually they will be more productive than trying to force them to be productive when they don't know what they're doing," said Sang.

He concluded, "Look for proven products that have been designed for the hazard, that are certified for the hazard, tested to the hazard. Know what those certifications mean, understand what the test protocol is, and if those standards are not met don't let it on your facility."



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FAYAT MIXING PLANTS



The crane industry has blossomed in the Middle East thanks to major construction projects, a vibrant oil and gas sector and developments within the logistics sector (Photo: Michal Rybski)

The heights of heavy lifting

Rising infrastructure expenditure and ever-challenging construction projects are having positive effects on the region's crane industry. With that in mind, we take a look at some of the latest developments within the heavy lifting sector.

THE MARKET FOR cranes and heavy lifting equipment has been enjoying something of a renaissance of late, with a host of innovative applications and lifting technologies available to operators and contractors. In the Middle East, where tall is often the standard when it comes to construction projects, the machinery has to be able to meet challenging construction and climatic conditions.

The success of the industry has been reflected in the number of crane suppliers and manufacturers working within the market, such as Dubai Cranes & Technical Services. Earlier this year, the company launched a new crane storage and assembly facility in Dubai Investment Park that is able to stock more than 50 standard overhead crane kits from the Street ZX and LX product range. The facility, which can accommodate crane spans of up to 20m, was built to help reduce the delivery time of standard cranes across the GCC and MENA region. The company said that it was now able to deliver standard cranes for projects within four weeks, compared to an average turnaround period of four months.

Andrew Kay, general manager of Dubai Cranes & Technical Services, said, "We are thrilled to offer a unique facility, which will revolutionise the entire crane industry in the region. This is a major lift-up for the construction sector in the region."

Meanwhile, Swedish equipment manufacturer HIAB has launched

its next generation of lifting products for the Middle East market. Owned by Finnish cargo-handling machinery firm Cargotec, HIAB unveiled a host of models introducing the X-CLX 178, the X-Duo 178, the HiDuo 188 and X-HiPro 192 – all successors to its XS loader cranes. It also unveiled its latest version of the Moffett truck-mounted forklift, and a pair of hook loaders designed with Middle East end users in mind.

Of the X-CL models launched, HIAB Middle East managing director Mahendra Ekanayake said, "This is a simple, but effective range at a competitive price; ideal for typical operations in the Middle East.

"In this market, cranes tend to be used less than a third of the time that a truck is being used. This makes the X-CL models ideally suited for the region's operators."

HIAB, also recently established a long-term distribution partnership in the region with Swedish firm Gavelås Förvaltning AB. As part of the deal, HIAB will sell its current sales company in the region, HIAB Middle East LLC.

Carl Gustaf Göransson, senior vice president of sales and markets at HIAB, remarked, "By developing a long-term relationship with committed and experienced partners HIAB is able to grow its presence and customer service in an important market."

A 2014 presentation from Nouman Fouad Trading (NFT) also reveals a growing trend for the tower crane rentals business in the

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Middle East. The company, which specialises in tower cranes and is the sole agent for Potain tower cranes, GJJ and PEGA material and passenger hoists in the GCC and parts of the Middle East, said it expected the market to “improve its performance as it realises opportunities to support on-going and new large high-rise buildings and infrastructure projects”.

Pointing toward markets in the UAE, Saudi Arabia, Qatar and Iraq, as well as further afield to Iran and India, the company revealed that the market had slowed down in late 2008, after booming in the mid-2000s, but had gradually recovered in the years since 2011, with “some improvement and recovery expected in Q2 2014 - especially in the UAE, Saudi Arabia, Qatar and Iraq”. The company’s rental fleet currently stands at 700 units, down from a high of 1,000 in 2008-2009, but up on its fleet total of 500 units in 2013.

Heights in hydrocarbons

Alongside construction, the region’s hydrocarbons industry is another important area of business for the heavy lifting sector. In May 2014, Middle East Crane Equipment Trading (MECAT) supplied the first Hitachi Sumitomo SCX1500 series 3 to Subsea Protection Systems (SPS), a global leader in supplying products for subsea protection, in Qatar.

The crane will handle prefabricated concrete fleximats, crossing supports and protection covers at SPS’s plant in Ras Laffan, Qatar. According to MECET, the Hitachi Sumitomo SCX1500-3 will be delivered standard equipped with a winch eco mode system and a boom length of 51m.



Hitachi Construction Machinery Middle East and MECET will be promoting their services at the upcoming Abu Dhabi International Petroleum Exhibition and Conference (ADIPEC) in November 2014, where MECET, the distributor for Hitachi Sumitomo Crawler Cranes in the UAE, will be celebrating its first sale of a HSC SCX1500 A3 Crawler Crane. The Abu Dhabi-based company also recently sold a 6000SLX, which has a maximum capacity of 550mt, to a customer based in the region.

Shipping success

A number of port development projects have also helped the heavy lifting industry, with cranes playing a vital operational role at the region’s logistical hubs.

A number of port development projects have also helped the heavy lifting industry, with cranes playing a vital operational role at the region’s logistical hubs

One such example is at Oman International Container Terminal (OICT), where OICT recently shifted its quayside cranes and container handling equipment from the old terminal at Sohar Port to the new Terminal C.

The terminal, which features seven quay cranes and 14 rubber-tyred gantry cranes (RTGCs), will see a large increase in cargo volumes at the port, with OICT preparing to take delivery of a further six RTGCs over the coming months.

Rashid Jamil Syed, CEO of OICT, said, “Upon the deployment and re-commissioning of the cranes, Terminal C will become a world-class container terminal. This positions OICT as the potential logistics gateway to the Middle East.”

New and upgraded port terminals in Abu Dhabi, Dubai, Qatar and Oman will no doubt aid the growth of the cranes and heavy lifting sector, while growing investment projections in the infrastructure market and further announcements of ambitious construction projects throughout the region, will continue to see this dynamic industry develop and evolve in terms of efficiency and technological innovation. ■

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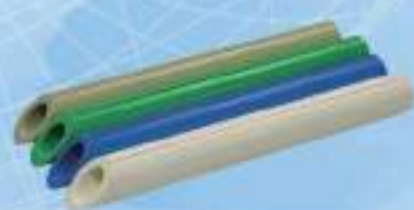
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The value of investing in facilities management

Companies are increasingly choosing to consider facilities management (FM) in their design and construction stages. With a variety of major projects underway and on the horizon, we look at the benefits FM can offer the infrastructure market.

FACILITIES MANAGEMENT (FM) is a growing trend in the Gulf region. The wide-ranging nature of FM can cause confusion, but it is understood to cover a variety of services, technologies and professions designed to maintain the running of a building or structure.

The popularity of FM in the region has been climbing, primarily thanks to heavy construction investments. While in much of the world FM took a downwards turn in 2008, due to the economic crash and subsequent decrease in infrastructure investments, the GCC remained comparatively steady and were able to continue with major construction projects and investments into FM. In fact, according to a

study by Frost & Sullivan, in 2008 the FM market in the GCC was valued at US\$3,500mn and the projected value for 2014 was US\$9bn.

Bill Heath, managing director of Mace Macro International, who is leading a workshop on FM at Big 5 2014 in Dubai told *Technical Review*, "There has been considerable progress over the past five years in terms of raising awareness of FM and the standard of services have improved."

Looking at maintaining a building's hygiene standards, which is only one branch of FM, the GCC has seen a significant increase. The Middle East cleaning and hygiene industry is set to grow by a massive 275 per cent by 2020, according to the Clean Middle East Pulire Expo, which was held in Dubai in October 2014.

While FM does refer to the maintenance of public and commercial buildings, such as office blocks, housing, hospitals and schools, it is not strictly limited to these. The Gulf is currently seeing significant investments into creating and expanding public transportation facilities, including trains, roads, and airports. Dubai, for example, reportedly plans to spend US\$32bn on expanding Al Maktoum International Airport in view of handling more than 200mn people annually next decade, and in Saudi Arabia construction has begun on its US\$22.5bn Riyadh Metro project. Any infrastructure can benefit from FM as a way to ensure long-term efficiency.

Increased sustainability is often quoted as a top benefit of investing in FM. By ensuring a structure is efficiently maintained, FM helps increase its longevity and reduce energy consumption, thereby guaranteeing better ROI for businesses involved.

Many argue that it is vital for companies to incorporate FM throughout the design and construction processes. This can vary from monitoring the materials used and considering energy-saving designs and technologies in the final product. Engineering company Siemens' Abu Dhabi headquarters, for example, boasts a reduced energy consumption of almost 50 per cent compared to conventional buildings through the use of sustainable building materials and energy-saving technologies.

Heath commented, "Many wonderful developments are continuing to be built and much forethought is now going into design to consider the FM operations and how services will actually work in completed projects."

Energy-saving tools include 3D modelling, which can be used in the early design stages to create a cleaner, more efficient building. Technologies such as automatic air-conditioning units and motion-detecting lighting can be incorporated to reduce the energy usage.

The global FM market has been projected to reach US\$395bn by 2017. It is safe to expect the FM trend to continue its growth, as companies look for a means of ensuring the longevity and cost effectiveness of their structures. ■

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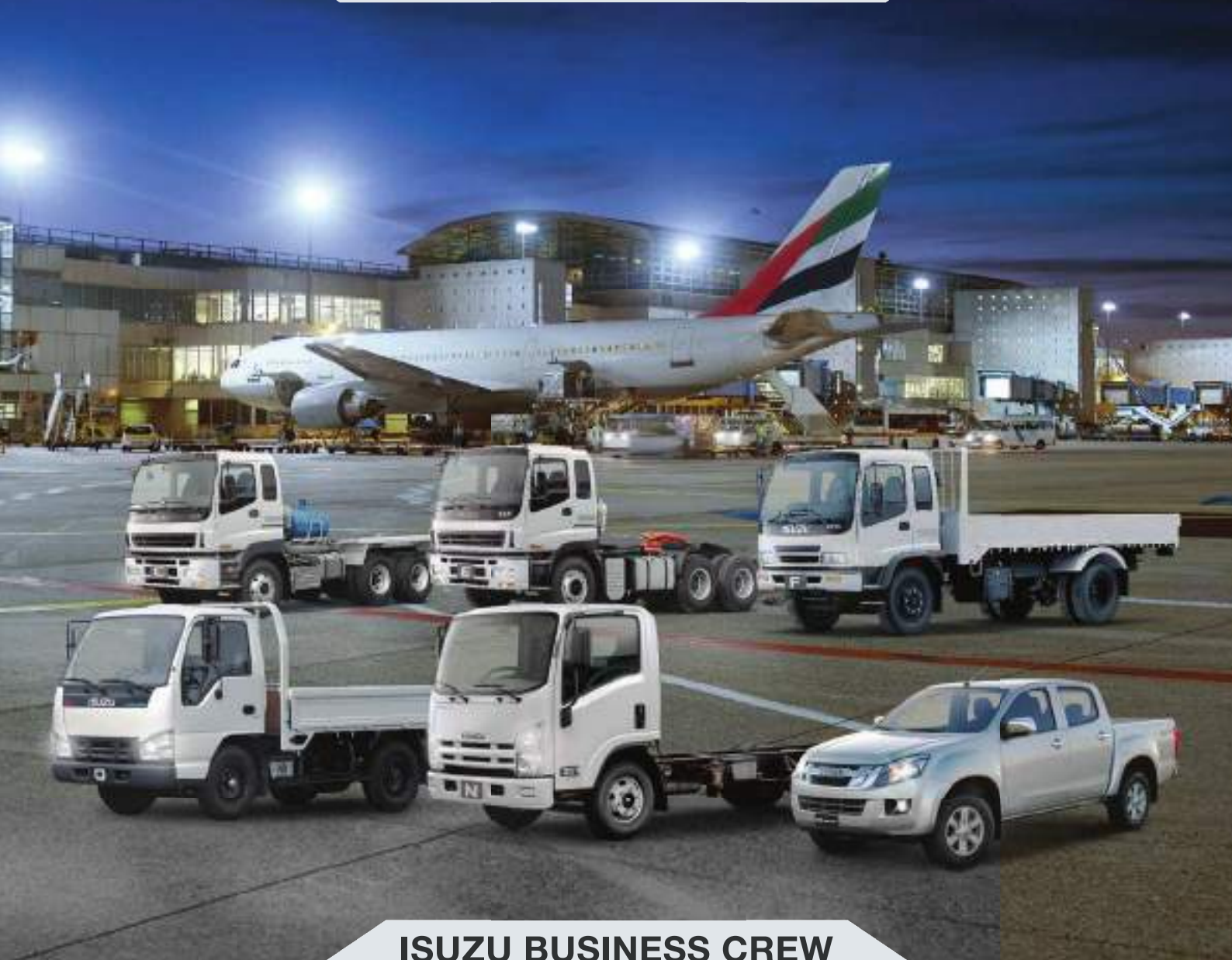
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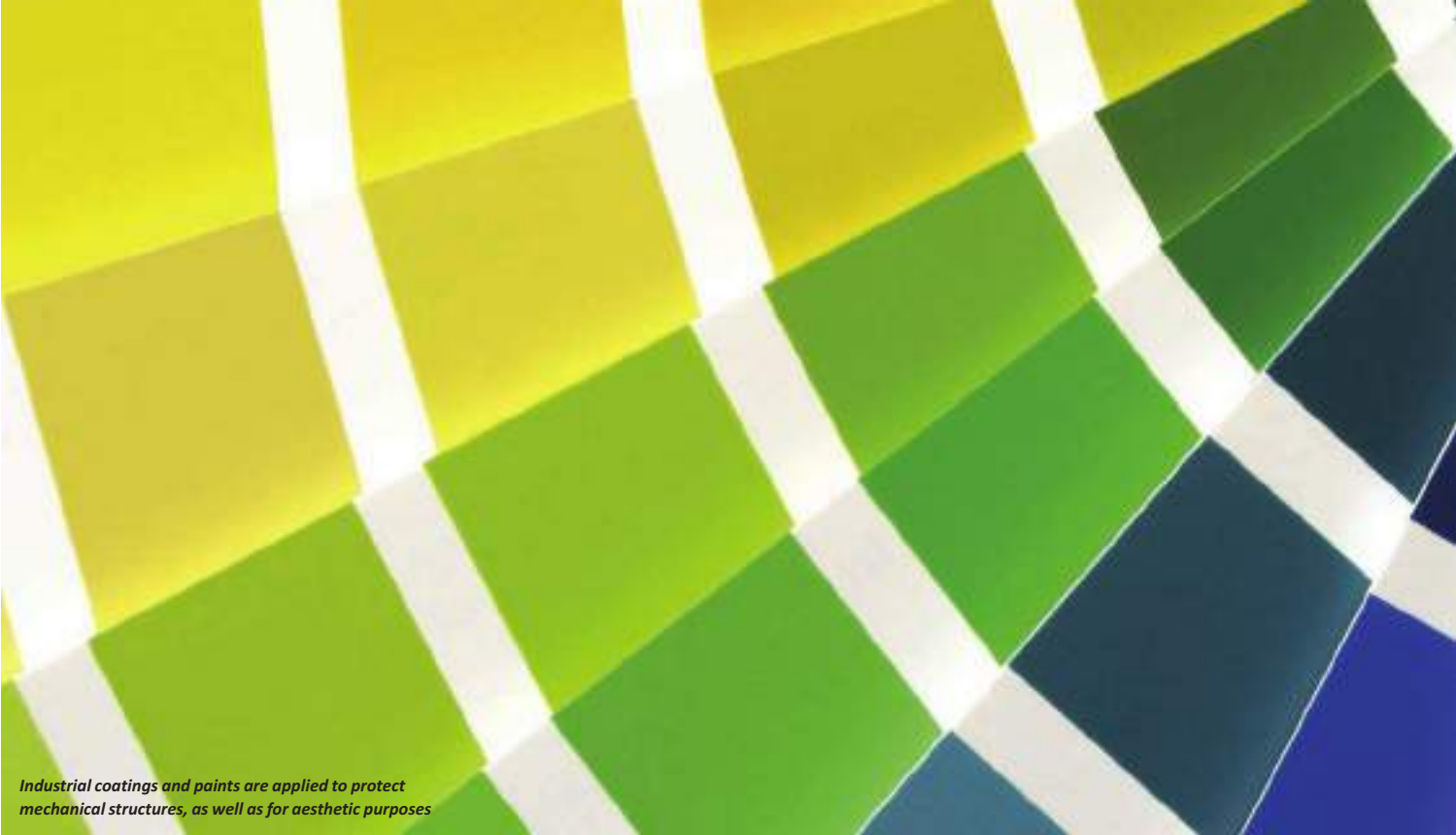
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Industrial coatings and paints are applied to protect mechanical structures, as well as for aesthetic purposes

Paints for **all** purposes

Certain economies in the region may be struggling, but the paints and coatings business is growing quickly, with technical innovations coming thick and fast.

Products sold as coatings, which can be liquids, gases or solids, are often composites of high-tech materials

A **HEAD OF THE** next Middle East Coatings Show in Cairo, Frost & Sullivan has calculated that the industrial coatings market, including paints, in Egypt alone generated sales of US\$545.4mn in 2013, growing at a compound annual rate of 4.5 per cent. The construction industry – residential properties in particular – was named as a major driver behind this growth.

This means that total MENA sales in the sector must currently be well in excess of US\$2-3bn a year, heavily concentrated here in the Gulf in the KSA, Kuwait, Qatar and the UAE. In North Africa the key industry players are Algeria, Egypt and Morocco.

Industrial coatings are applied to protect mechanical structures or change the physical surface properties of component substrates (including external masonry) such as resistance to wear, electrical conductivity and coefficient of friction.

By contrast paints, with their much longer

history, provide a combination of protective (e.g. against rust and water penetration) and aesthetic qualities. Of course there is a considerable degree of overlap between the two.

Products sold as coatings, which can be liquids, gases or solids, are often composites of high-tech materials. This includes fluoropolymers and polyamide binder resins. They are usually applied in the form of a sequence of primer, an intermediate and one or more top coats. Application can be by various processes.

The method of application itself is invariably extremely important; for example the thickness of each coat is usually strictly defined as is the timing of individual applications, and the matter of precisely where the coating is applied (e.g. in the case of printing descriptive labels and bar codes).

Meanwhile, the two-day North African Coatings Congress closed in Casablanca just as we were going to press. ■



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Big business opportunities for formwork firms

Investments in to the Gulf's infrastructure market is set to continue trending up, with huge projects already in motion for the coming years. We look at what this means for formwork companies working in the region.

WHILE MUCH OF the world continues to recover from the economic crisis of 2008, the Gulf stands out as a hive of construction activity. Where there is infrastructure being built, there is big business for formwork and concrete companies, as they provide the basis and foundation for such structures.

According to data released by construction intelligence firm Ventures Onsite, the GCC nations are set to experience a 77.8 per cent increase in infrastructure project awards over 2013. By the end of 2014, awarded projects are predicted to reach more than US\$86bn in value.

Working in conjunction with the exhibitions Middle East Concrete and PMV Live, the research revealed that infrastructure projects awards in the UAE are set to reach US\$15.18bn in 2014, approximately five times more than last year. While in Qatar awarded projects is estimated to reach a value of US\$26.26bn in awarded infrastructure projects, which is a considerable leap up from the US\$9.43bn reached last year.

Most GCC nations, in fact, are predicted to experience a significant rise in awarded infrastructure projects; Bahrain, for example, has jumped from US\$78mn in 2013 to an estimated US\$4.36bn this year.

Only Saudi Arabia is predicted to experience a decline in the value of awarded projects. Despite this, the Kingdom still has a forecasted US\$29.39bn in infrastructure projects to be awarded in 2014. Saudi Arabia is recognised as one of the biggest and most lucrative construction markets in the Middle East, reportedly accounting for almost 39 per cent of projects in the GCC. The estimated value of ongoing and planned projects in the country is estimated at US\$732bn, according to officials at Saudi Build exhibition.

It is safe to say that the Gulf provides considerable business and potential for those companies dealing with formwork, particularly considering that many of the projects in the region will be new builds without established foundations. This is much more than in so than Europe, for example, which is increasingly likely to have projects renovating already built infrastructure.

One of the biggest and most notable themes across the Gulf's construction market is the heavy investment into the region's

GCC nations are set to experience a 77.8 per cent increase in infrastructure project awards



Infrastructure project awards in GCC countries is predicted to reach US\$86bn in 2014

transport services, particularly in railways. The rail sector in the GCC is estimated to be worth US\$200bn, which is primarily a result of the intention to establish an integrated GCC-wide transport network by 2018, connecting Kuwait, Saudi Arabia, Bahrain, Qatar, the UAE and Oman.

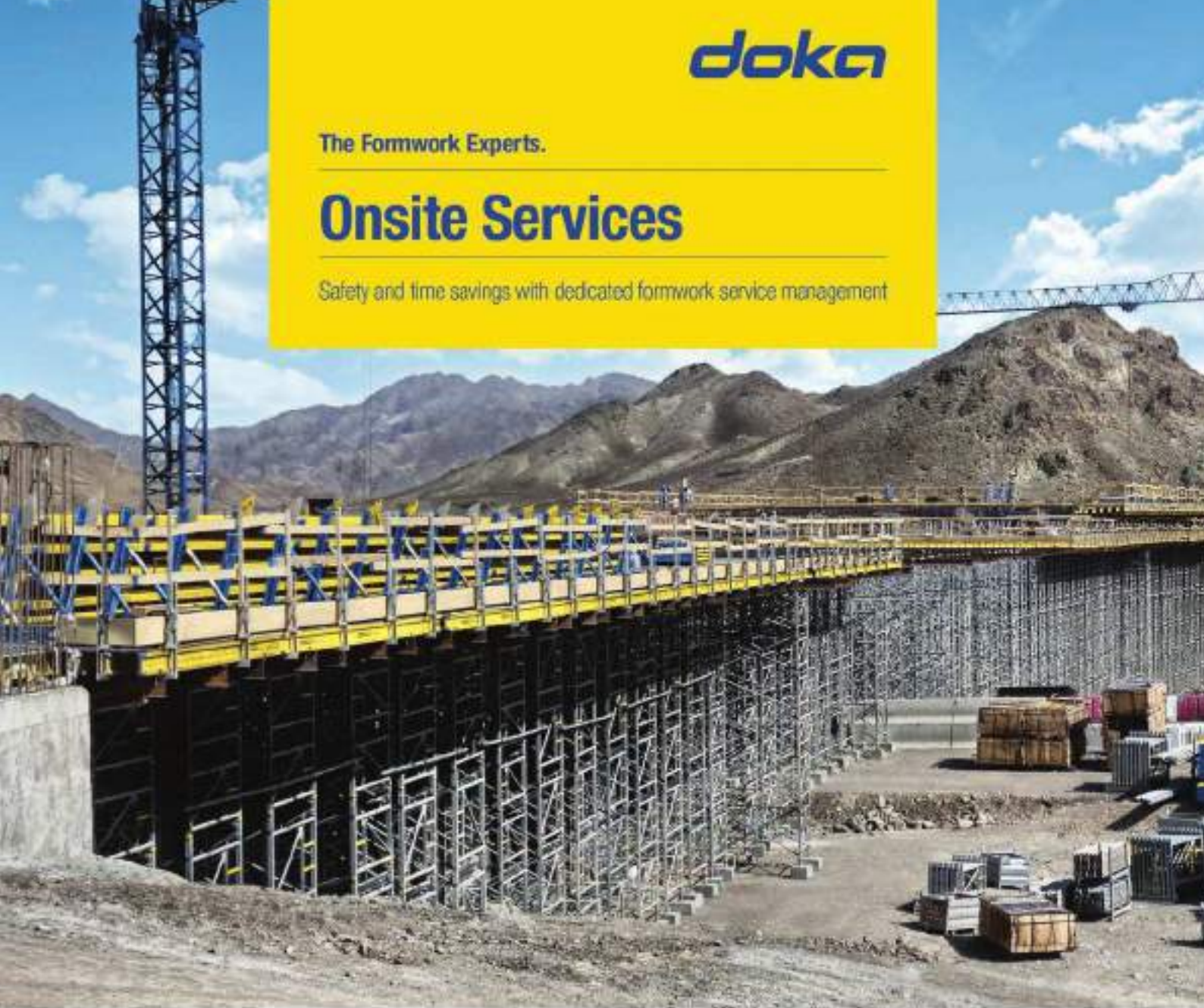
In Saudi Arabia, work began earlier this year on the US\$22.5bn Riyadh metro project that will reach 178 km in length once it is completed, which is estimated for 2018. While, in the UAE, the coming years are set to include the expansion of the Dubai Metro, as well as a US\$7.8bn airport and airspace expansion programme to boost capacity at Dubai International Airport from 60mn to 90mn passengers per year by 2018.

In July, RMD Kwikform, the formwork, safety and access provider, announced that its 80kN modular Rapidshor shoring technology was being utilised by contractor Al Ghurair in Riyadh, Saudi Arabia. Approximately 90 skywalk link bridges, connecting buildings in the King Abdullah Financial District, are being installed, allowing pedestrians to cross in a climate-controlled environment.

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RMD Kwikform is part of a fast track project to build five bridges in Muscat, Oman

As buildings and infrastructure projects become increasingly larger and elaborate, greater strain is being placed on formwork companies to produce more advanced products and technologies for these structures.

Doka, for example, recently released its new product Concremote in the Middle East. It uses sensors to allow operators to measure the early strength development of concrete onsite in real time. According to the international formwork provider, by monitoring the concrete strength development, operators can work out the times necessary for stripping, curing and pre-stressing. Using the sensors – one of which is inserted in the fresh concrete while the other is incorporated directly into the form-facing of the wall – Concremote can monitor the concrete without the need for anyone to be present.

A growing challenge across the Gulf's infrastructure market is the speed at which formwork companies are required to execute particular projects, while also maintaining a high standard of work.

RMD Kwikform announced in October 2014 that it is part of a fast-track project in Muscat, Oman, which will see five bridges constructed by a joint venture with Soares Da Costa OUES, connecting the existing expressway to the airport. As part of the fast-track delivery, the project will involve multi-bridge construction, with work on three structures simultaneously.

The rail sector in the GCC has been estimated to be worth US\$200bn

Utilising precast concrete in the construction sector is reportedly gaining popularity with developers in the Gulf as a means of speeding up completion time on major projects. According to officials at PMV Live and Middle East Concrete, precast concrete is also being favoured for infrastructure projects at large-scale international events, such as Dubai Expo 2020 and 2022 Qatar FIFA World Cup, because it can effectively be used on structures that can be disassembled afterwards and relocated.

There is undoubtedly considerable work opportunities for formwork companies in the Gulf region, particularly in Saudi Arabia, the UAE and Qatar, which are all investing heavily in infrastructure projects.

There is, however, also a lot for companies within the formwork field to take into consideration in terms of the complexity and scale of the structures, as well as the speed at which contractors will require them to act. ■

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Rising to the challenge in the forklift industry

FORKLIFTS OR FORKLIFT trucks are industrial trucks used to move materials short distances. The forklift was developed in the early 20th century by several companies, but the industrialisation boom after World War II gave impetus to this burgeoning industry sector. In more recent times, the spike in construction projects in the Middle East has helped to fuel the regional growth of the forklift industry.

With massive developments planned in road, railways, shipping, buildings and aviation, the demand for materials handling is higher than ever before. According to the *Agility 2014 Emerging Markets Index*, the contract logistics sector in the Middle East will expand by 33 per cent by 2017 at an average of 7.5 per cent a year. An integral part of this growth will include the forklift market. Below we look at developments in forklifts and what models are currently available in the region.

Global manufacturers and local dealer networks

Leading forklift manufacturers include Toyota, Bobcat, Komatsu, Doosan, Nissan Forklift, Mitsubishi, Yale, TCM Forklift Trucks, Linde, Hyundai Heavy Equipment, JCB, SMV Forklifts and Yale Industrial Trucks. These companies have a dominant presence in the Middle East through a network of dealers. During the 2009 economic crisis, the Middle East market for forklifts slowed, but has swung back since 2011.



The growth of industries like mining, construction and power in the Middle East has given impetus to forklift manufacturers

These companies have entrenched themselves in the Middle East market thanks to efficient warehouses and service facilities. For example, Al Futtaim Motors has a service and showroom in Dubai as well as an after-sales service workshop in Abu Dhabi. The Abdul Lateef Jameel Group, which exclusively markets and sells Toyota industrial equipment in Saudi Arabia, has been selling Toyota

forklifts in the country for 25 years. Recently, the owner announced that he would expand sales of forklifts and after-sales services by establishing independent centres to provide quality service. A new training centre for forklift operators would also be established.

Qatar-based Jaidah Heavy Equipment, whose product range includes heavy machines and forklifts from Komatsu, signed an exclusive dealership agreement with Bobcat. China's LiuGong's Middle East headquarters is in Jebel Ali, Dubai and the company has a tie-up with almost 20 dealers.

Forklift innovation: essential for industry growth

Like in any other heavy industry, innovation is key and that is especially true for forklift technology to evolve. Keeping in mind factors such as fuel economy, use of clean energy and cost efficiency, major manufacturers are constantly revamping their forklift designs and models.

In addition, automation of processes and workflow systems, efficient warehouse and supply chain control systems, new ICT packages and instant communication will make the logistics process more streamlined and efficient.

Doosan Industrial Vehicle has launched five new 2 tonne to 3.5 tonne capacity forklifts incorporating the company's award-winning G2 diesel engine. By utilising the Doosan G2 engines, the new D20S-7, D25S-7, D30S-7, D33S-7 and D35C-7 models will meet stringent new EU emissions standards without using a costly diesel particulate filter. They also establish new standards for proven low fuel consumption at a time of sharply increasing costs for forklift users.

Crown, a leading manufacturer of forklifts, said that forklift trucks are "the workhorses of the industry, driven hard every day". The company has launched a series of forklifts, with cutting-edge technology to aid a range of industrial processes, which are the SC 5300, FC 4500 and the RC 5500. The SC 5300 forklift is a highly manoeuvrable three-wheel design ideal for precision load placement in tight spaces. The FC 4500 lift truck is a higher capacity, attachment-friendly four-wheel series for tough environments. The RC 5500 stand-up forklift allows for easy driver entry and exit and has been

especially designed for applications where the operator is required to constantly be on and off the truck.

Leading China-based heavy machinery manufacturer LiuGong launched three forklifts – 2020A, CPCD30 and CPCD70 at the Materials Handling Middle East show. According to the company, the machines have durable and streamlined engines, which are high on productivity and low on fuel consumption.



A model from Crown's latest forklift series

Mitsubishi Forklift Trucks has introduced a new range of electric counterbalance trucks, the FB40-50(C)2 series, which have been developed to deliver high power performance efficiently. The new 4-5 tonne range, which replaces the previous three-model series, comprises seven models – including compact and extended load centre models. The new series brings together two often contradictory characteristics in forklifts – high energy efficiency and performance. This has been achieved by utilising the latest AC motor technology, in conjunction with an intelligent design of chassis and components that has shortened distances between electronic and hydraulic components. As a result, the new FB40-50(C)2 series uses up to 20 per cent less energy than previous models. VDI data indicates that the series outperforms leading competitors in two areas – energy consumption and performance. In practice, these trucks could run for up to 12.5 hours on a full battery.

According to Ahmed Pauwels, CEO of Epoc Messe Frankfurt, organiser of Materials Handling Middle East, the region has been reinventing itself with sensible investments in transport and logistics infrastructure, helping the forklift sector to continue to diversify and grow.

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Saudi Arabia has plans to develop its burgeoning mining sector as the third pillar of its economy

The importance of technology in mining

As the mining industry makes inroads in the Middle East, equipment manufacturers are looking to new technologies to boost productivity.

THE MIDDLE EAST is synonymous with oil and gas production, but the region has developed many other sectors over the years. Banking, mining and construction are slowly but surely rising as bastions of the region's economy. Among these, mining is considered to have a potentially bright future.

A report by law firm *DLA Piper* states that industry participants believe that much of the Middle East's land is still to be explored and technology still has inroads to make. The report states that a number of UAE-based firms and individuals have focused on international mining opportunities, rather than those closer to home.

While countries like Iraq, Saudi Arabia, Kuwait and Oman have abundant reserves of oil and gas, Egypt has substantial reserves of iron ore, coal, phosphates and tantalite. The US-Saudi Arabian Business Council (USSABC) has released a research paper that cites Saudi Arabia as having some of the

largest reserves of phosphate, tantalum and gold. The country is slowly becoming a hub for mineral extraction and processing as well. Forty types of minerals have been identified in the Kingdom, with 15 industrial minerals deemed as "economically feasible" for extraction. According to the paper, Saudi Arabia plans to develop mining as the "third pillar" of its economy, following oil and gas.

Focus on technology

Aside from factors such as laws and regulations, the latest technology and equipment is essential to enhancing the significance of the mining industry in the Middle East. Several banks and financial institutions, including the World Bank and the International Finance Corporation, have demonstrated an eagerness to fund projects with a keen focus on technology.

With an abundance of raw material, mining manufacturers believe they need to improve their machinery to deliver on

performance. In addition, there is rising pressure from investors as well, which is urging manufacturers to deliver the best they can. The Freedonia Group, a US-based industry research firm, said that prices of commodities such as copper and iron ore has increased, directly creating a demand for mining machinery. After the economic meltdown in 2008, the sector had gained traction by 2013 and continues to grow.

Improvising on technology and the importance of innovation

Demand for equipment such as crushers, grinding mills, loaders, excavators, hydraulic shovels, haul trucks shaft machines, winches and related spare parts has grown in particular. Meanwhile, companies are striving to add nuances and improvise on them, in the hope orders are boosted further by the latest upgrades. According to Ulrich Schoepf of Bauer Maschinen, one cannot improve on drilling, but can provide

safer, faster and more efficient machines. Automation has dramatically improved mining productivity over the past few decades, from automatic drills for deep mines to driver-less haul trucks.

For instance, Sweden's Atlas Copco unveiled a new rock drill in April 2012 that it said was 20 to 30 per cent faster than the nearest contender, thanks to a damping system that absorbs reflex shock waves. Another Swedish engineering company Sandvik said it was field-testing a new generation of underground hard-rock mining trucks, which have an on-board jacking system that allows flat tyres to be changed quickly wherever they occur.

Finland's Outotec particularly focuses on its R&D division to help it stand out from its contemporaries. Its Best Available Techniques (BAT) have been rated by the European Union (EU) due to energy efficiency and low emissions. Some of its techniques include flash smelting and flash converting of copper and nickel, direct leaching of zinc, electrolytic refining of copper and zinc, pyrite roasting and spent acid regeneration. These techniques may be expensive, but industry experts feel this is a small price to pay compared to the downtime one manages to prevent.

Industrial automation company Rockwell Automation teamed up with MetalTech Gulf to develop an energy saving technology to clean stubs on anode rods. The new technology is based on a set of heavy duty rotary chain flails for coarse cleaning of the stubs and roller wire brushes for fine cleaning. The new technology significantly reduces both capital and operational expenditures compared to conventional steel shot blasting machines.

The technology has been manufactured by Lefebvre Engineering in Sharjah, and helps aluminium smelters solve one of their operational challenges, optimise power conservation and reduce investment costs, stated Rockwell Automation. It reduces the cost of ownership, increases machine availability for production due to lower maintenance requirements and improves productivity, because cleaning cycle times are reduced. The increased quality of cleaned stubs on anode rods results in increased energy savings in the reduction cells, a safer working environment and a faster return on investment. Several aluminium smelters have already shown interest in this new stub cleaning technology.

Equipment major Caterpillar continues to exert its influence as a reliable brand for mining machinery. The company provides



Cat utilises the latest technology to help operators execute a host of mining functions

technologies for fleet management, drilling and blasting, loading, hauling, dozing, truck assignment, material tracking and operator management. In addition, management systems like CatConnect and CatMineStar aim to improve productivity and customer satisfaction.

Japanese mining equipment company Komatsu has also stayed ahead of the pack by constantly bringing out new solutions to mining. Software like Komtrax and Komtrax Plus are remote monitoring applications that help keep track of machines on-the-go. Often, miners encounter areas which are near impossible to access, so a GPS navigation system like Komatsu's Frontrunner Autonomous Haulage System allows large electric mining trucks to operate to a complex plan, rather than by an operator.

Exhibitions to further the cause of technology

Through shows and exhibitions, brands and thinkers get a chance to showcase their latest technology aside from networking with industry leaders. The MENA Mining Show is taking place between 21-22 October 2014 at the Dubai International Convention and Exhibition Centre. Now in its seventh year, the show will invite engineers, geologists and heads of companies to send best-practice case studies and provide access the latest technology to boost productivity.

The Saudi Mining and Minerals Show will be held from 27-29 January 2015 in Prince Sultan Grand Hall, Al Faisaliah Exhibition and Convention Centre, Riyadh, and will focus on supplying global technology majors and investors access to Saudi Arabia's developing mining market. The event will providing visitors with information on mineral deposits and opportunities within the Kingdom. ■

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VOLATILITY IS BACK and the weakness of energy products is symptomatic of a wider malaise in the markets for industrial products. So far, basic metals seem to be doing better than other commodities. This is the background to a series of conferences that have been taking place in the Gulf recently, and which will continue through to December 2014.

First steel, which is being addressed by two events in Dubai. This has been the most useful ferrous metal worldwide for centuries, and there are no signs of this situation changing, because it is ideally suited to so many applications. Here in the Middle East and North Africa (MENA) region these are primarily in construction and meeting the demands of the oil, gas and petrochemical industries.

Local smelting of the various grades of ore available includes important operations in the KSA, Abu Dhabi, North Africa and Syria, but fabrication of a wide range of

useful products such as rebars, pipes, angle girders and sheets has been widely chosen as an obvious non-oil diversification activity in the Gulf. This is partly because demand is so strong, partly because the coke needed to smelt most ores and melt scrap in conventional open-hearth and/or basic-oxygen blast furnaces is not either produced or traded here, and partly because the many value-adding opportunities provides skilled employment and substitutes for imports. Raw billets of every grade can be imported from a number of nearby international sources.

Many different materials are produced in the countries represented by the Arab Iron and Steel Union. Carbon steels are the most common, their properties such as tensile strength and hardness being determined by the precise amount of carbon incorporated.

The qualities of alloy steels depend on the content and number of elements incorporated. These alloys are designed to

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provide specific qualities of strength, hardness, resistance to corrosion, wear and extremes of temperature. Normally, incorporating chromium, they are usually classified by the Union as low-, medium- and high-alloy steels.

The last of these are designed to offer special properties of resisting corrosion, standing up to very high temperatures and suitability (hardness) for tooling purposes, with further sub-divisions referred to within the trade.

Key to the non-ferrous sector, aluminium is the second most important metallic material used in global terms after steel.

The qualities of alloy steels depend on the content and number of elements incorporated

This industry is represented here in the MENA region by the Gulf Aluminium Council. To separate the essential element from the oxygen, with which it is combined in bauxite as mined, the ore-based cryolite is charged in an electrolytic furnace (cell) from which the metal is tapped as an ingot. It is then rolled into a variety of very useful products including sheets in a mill, just as in the case of steel.

Various classification systems are used to designate the quality of the resulting cold metal, which is widely used in the construction and aerospace industries and for which demand is particularly high (under normal circumstances) in China. The metal is prized because of its light weight, its relative strength despite this, its very easy workability with hardened steel tools, and its suitability for both heat treatment (to increase strength) and alloying (to change other properties such as resistance to weathering).

Huge amounts of electricity are used in the smelting process, which is why the Gulf has become such a popular destination for investment in the aluminium industry, with



Aluminium is widely used in the construction and aerospace industries

some of the world's largest and most efficient plants located here.

Competition from overseas smelters who have access to cheap hydroelectric power, notably in North America and China, however, remains considerable. ■

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Values and vision

In an exclusive interview with *Technical Review*, Vice-President Group Affairs at Saudi Arabian industrial giant Zahid Group, Amr Khashoggi, talks about his role promoting the Zahid brand, the group's growing international presence and his contributions as a Saudi Arabian national to promote positive social and environmental changes in the Kingdom.

ZAHID GROUP VICE-President Group Affairs, Amr Khashoggi, was born in 1952, a year before the death of Saudi Arabia's first monarch King Abdulaziz. As a man keen to promote dialogue and relationships between different communities, Khashoggi is no stranger to dealing with the press with whom he shares a mixture of traditional Saudi values and progressive corporate ideals.

The story of Saudi Arabia's Zahid Group can be told hand in hand alongside the development of the modern Saudi state. The group grew quickly during the Kingdom's early years, supplying many of the machinery, tools and equipment required in a country experiencing fast economic and industrial development.

Six decades ago the Kingdom was still very young and Saudi businessmen and women were looking to build stronger

partnerships with companies, primarily in the USA, UK, France and other western countries. In the case of Zahid Group, that partnership was with the American construction machinery giant Caterpillar. Additionally, the group built strong relationships with large infrastructure companies working on road building and power projects, such as Saudi Binladin Group and Saudi Oger.

"With these companies, we worked successfully to complete contracts on time and in an efficient manner," says Khashoggi.

"We translated these partnerships down to man and machine, ensuring that operators knew how to look after their equipment and that they were working safely and proficiently."

Today, the group provides solutions for a broad range of industry sectors through the various companies it represents. Under the Zahid Group umbrella are companies focused on construction, mining, oil and gas, agriculture, power and water, material handling, building materials, transportation and logistics, real estate development, and tourism and hospitality.

Through its companies, subsidiaries and divisions, which include the likes of Altaaqa Global, Zahid Tractor and Heavy Machinery, Wared Logistics and Hospitality Ventures, the group has been focused on the localisation of jobs, the introduction of innovative technology and employee best practice, through its shared values of 'integrity, professionalism, competence, respect and tolerance, trust, pride, and commitment to excellence'.

"Our country is still very young, and we are improving, learning and growing"

As a large, socially-conscious conglomerate, the group has played a role in supporting entrepreneurial talent in Saudi Arabia, with Khashoggi describing small and micro-sized enterprises (SMEs) as its "contractors of the future".

In 2011, Zahid Group developed the highly successful and fast-growing Small and Micro Enterprises Partnership (SMEP) programme in association with AJIL Financial Services Company, which provides funding for assets that include power generation sets, material handling equipment, industrial products, medical equipment, commercial vehicles and commercial property.

"It makes good business sense to support SMEs, because as they grow they become important as business clients," he says. "They buy or rent our machinery, generators and trucks."

Powering Saudi development

As far as energy is concerned, Khashoggi asserts that Saudi Arabia is beginning to change its mindset from that of an oil-producing country to that of an energy-producing one.

"The domestic consumption of oil at subsidised rates is accelerating dangerously, which has caused the leadership of the country to seriously consider renewable energy as a viable alternative to the depletion of our natural resources." Khashoggi further elaborates that Zahid Group is looking at opportunities within potential new energy industries, such as solar, wind, geothermal and conversion of waste to fuel.

"We realise that we cannot grow by exclusively using conventional energy as such, so we need to use, for the time being, hybrid solutions," he continues. "We have two companies specifically focused in this area. One is Altaaqa Alternative Solutions, which generates energy of about 1.5 GW per year within the Kingdom. It supplies power solutions to shopping malls, various industries and mining companies, and to the remotest areas."



Zahid Group Vice-President
Group Affairs Amr Khashoggi

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“Owing to Altaaqa’s success, we decided to create another company, Altaaqa Global, which focuses on power solutions markets outside of Saudi Arabia. It has projects in Yemen, Oman and Iraq, and we are looking towards India and the African continent, where we have recently opened offices.”

Earlier in 2014, Altaaqa Global won ‘Power Project of the Year’ at the Middle East Electricity Awards for a 54MW temporary power plant, which was built in just 23 days in Aden, Yemen, and provides 150,000 homes with electricity. Altaaqa Alternative Solutions, on the other hand, is providing 280,000 homes with electricity from a 95MW temporary power plant in Alkharj, near the capital Riyadh, which took just 22 days to complete in what has turned out to be Saudi Arabia’s biggest independent power producer (IPP) project at a single site to date. Both companies serve as total utility providers, with services covering rental cooling and mobile water desalination plants.

Elsewhere, Zahid Group has extended its relationship with French oil major Total, from having a lubricant factory in King Abdullah Economic City, north of Jeddah, to purchasing a 30 per cent stake in Total’s marketing and services affiliate, Total Maroc, this past May.

Public service

In September 2011, Khashoggi was appointed chief coordinator of the Saudi Outreach Programme, and over a seven-month period organised delegations consisting of people from different fabrics of society in Saudi Arabia, including academia, media, and business and government professionals, to travel to the USA and the UK.

“We created a committee of international trade, which became part of the Council of the Saudi Chambers of Commerce and Industry,” he says. “Through such dialogue we developed an open channel of communication that has helped remove misconceptions about Saudi society. There is a larger number of Saudi students studying on scholarships in the UK, the USA and in other parts of the world, including China, Japan and India.

“These young people will become ambassadors for our people. They are the unofficial Saudi ambassadors for their communities and their circles of influence.”

In addition to being a member of the Executive Committee of the Saudi Outreach Programme, Khashoggi continues to represent the programme through speaking



Khashoggi was appointed chief coordinator of the Saudi Outreach Programme in September 2011

engagements on Islam, Saudi Arabia and Arab development at various functions throughout the world.

Social support

Away from his commercial activities, Khashoggi has also been involved in promoting awareness and the understanding of people with disability living within Saudi Arabian society.

“Our country is still very young, and we are improving, learning and growing. To accomplish this we have focused on three major ‘E’ challenges – Education, Employment and Energy,” Khashoggi notes.

As part of that philosophy, Khashoggi is engaged in a number of social projects, of which at least one is changing perceptions of job seekers with disabilities in Saudi Arabia. About 13-13.5 per cent of the population in the Kingdom live with a disability, of which about half have mobility, sight or hearing impairments.

In 1991, the Jeddah Institute for Speech and Hearing (JISH), a non-profit organisation, was established by Zahid Group to help those with communication disorders (i.e. articulation, fluency, voice, receptive and expressive language delay, pragmatics, oral rehabilitation and aphasia) to achieve their maximum communication potential.

Khashoggi points to changing attitudes in Saudi Arabia in regards to preconceptions of mental and physical handicaps.

“We started to think about what we could do next,” he remarks. “Many non-profit organisations in Saudi Arabia provide care for people with disabilities, while the government looks after economic and financial matters. On the other side of the coin, however, lie the country’s employers.

“Initiated by the Ministry of Labour, we worked with other Saudi Arabian

conglomerates to create the Qaderoon Business Disability Network. This national non-profit initiative offers membership to companies, that are committed to including persons with disability as equal effective members of the workforce.

“Similar to the UK-based employer network Business Disability Forum, Qaderoon provides guidance, advice and best practice to its members to facilitate the recruitment and retention of job seekers with disabilities, through favourable government policy and disability confident work environment.”

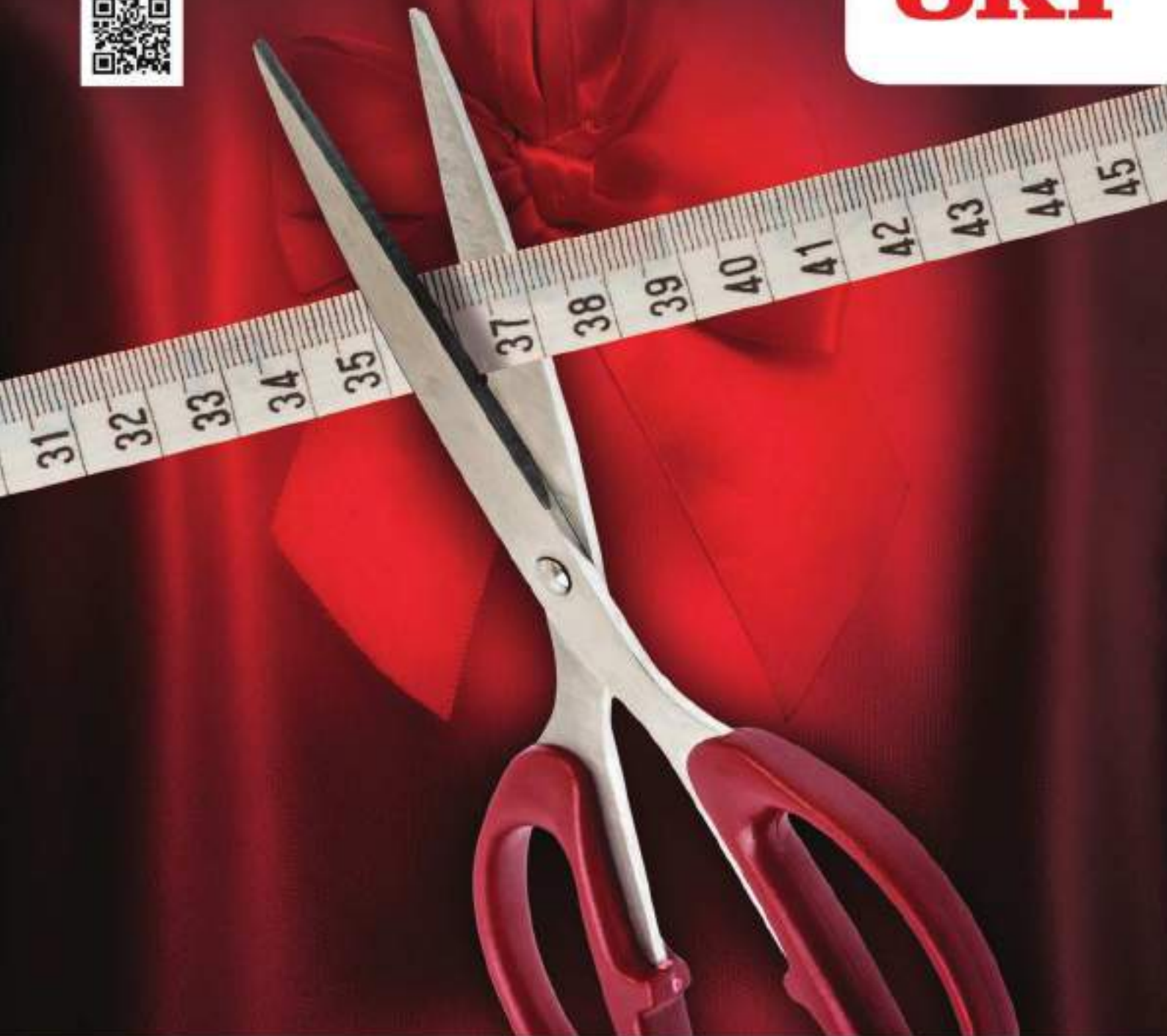
Zahid Group and five other companies – namely, Savola, Olayan, Tamer, Zamil and Almarai – launched Qaderoon in March 2014 in Riyadh under the auspices of the Minister of Labour, and in the presence of the Minister of Social Affairs and prominent executives and stakeholders. Since then, the network has grown to include 10 members, with the aim of increasing the membership to 18 companies by the end of this year.

Khashoggi, who is Chairman of Qaderoon, adds, “We are going beyond the call of duty. As citizens of this nation, we are inviting other companies to participate in corporate stewardship that will become a ‘social change movement’ towards disability. We wanted to integrate these talented people and make a strong case that we should focus on their abilities, not disabilities, in their career growth.”

Khashoggi and Zahid Group have bold ideas and a strong passion to create programmes that have a positive impact on the Saudi communities and its citizens. As Zahid Group looks to continue its international and domestic expansion, Khashoggi intends to continue to express the values and vision that have contributed to the notable growth of the group. ■



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Held at Dubai World Trade Centre from 17-20 November 2014, The Big 5 will provide visitors access to more than 2,750 international exhibitors

GCC construction surveyed ahead of Big 5 opening

As The Big 5 rolls back into town, *Technical Review* takes a look at recent research carried out by Ventures Middle East on the growing amount of investment in infrastructure projects throughout the GCC region.

“Regional transportation linkages [are] the key to maximising growth potential of the GCC”

DESPITE THE “WEAK” rhythm in energy prices, a sound future for the region’s construction industry has been forecast by Abu Dhabi-based business consultancy Ventures Middle East in a report specially commissioned by the organisers of The Big 5 exhibition ahead of this year’s opening in Dubai on 17 November.

According to the report, *GCC construction market 2014 – The boom, challenges and future outlook*, countries within the GCC are being “perceived by global investors as a safe haven for international investment”. When combined with a more recent Ventures Middle East report entitled *GCC infrastructure market 2014* the results reveal that the good times may be set to return for the region’s construction industry.

Apart from the usual reasons for such confidence, the analysts cite preparations well under way for World Expo 2020 in Dubai and the FIFA World Cup 2022 in Qatar.

They also cite the general diversification of individual national economies, the construction of facilities for the increasing number of world-scale cultural and entertainment events, the growth of tourism in all its forms including religious, and the rapid expansion of a GCC-wide overland transport network with a particular focus on moving freight.

In a snapshot taken in May 2014, the current construction workload has been summed up by Ventures Onsite Projects’ database as Saudi Arabia accounting for 45 per cent of the total value of projects across the GCC, the UAE responsible for 31 per cent of projects across the community and Qatari projects accounting for 10 per cent of the total value. Together, projects in Bahrain and Kuwait add up to nine per cent. Grouped together by value, ongoing buildings and infrastructure projects by country are listed as (infrastructure in brackets, all in US\$ millions):

- Saudi Arabia: 787,101 (163,402)
- UAE: 621,788 (95,121)
- atar: 138,187 (103,022)
- Kuwait: 70,476 (32,871)
- Oman: 52,411 (32,121)
- Bahrain: 49,798 (14,270)

Aggregated construction contracts awarded by each country last year alone were: KSA – US\$77,137mn; UAE – US\$40,338mn; Qatar – US\$18,022mn; Kuwait – US\$11,169mn; Oman – US\$10,922mn; and Bahrain – US\$3,069mn.

“Contractor awards in the buildings and infrastructure sectors alone was US\$119.05bn in 2013 and is anticipated to reach nearly US\$134.11bn by 2014,” the mid-year report states. The UAE’s share of



Last year, The Big 5 Dubai attracted almost 75,000 participants from 124 countries

buildings and infrastructure-only awards of this amount is expected to reach US\$37.8bn this year.

A list of key ‘movers and shakers’ in the period 2015 and beyond was also provided, which includes the preparations for World Expo 2020 in Dubai, the world’s tallest commercial tower in the same city, the

revival of Kuwait’s Causeway project connecting Shuwaikh Port to the city, and the finalisation of work on the landmark Kingdom Tower in Jeddah.

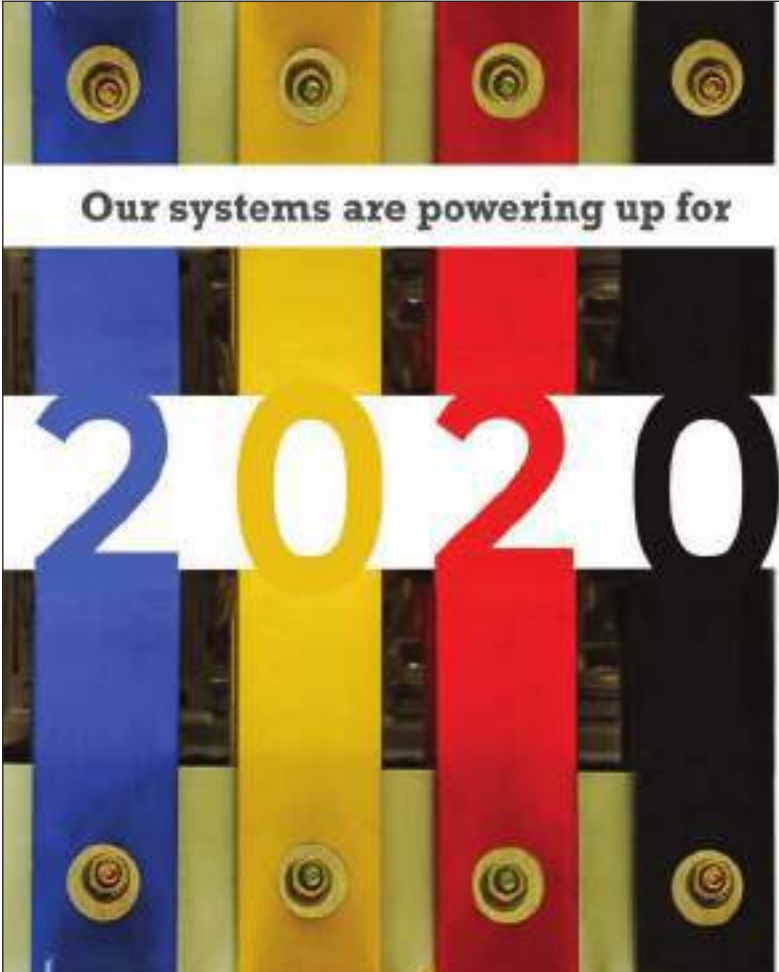
“Regional and transportation linkages [are] the key to maximising growth potential of the GCC,” the authors say. But all of this will come at a price, including heavy demand on both building materials and labour.

No such single-sector report would be complete without a “Looking ahead” conclusion, presented in this case as a handy ‘check list for GCC construction market participants’ based on simple tick-box questions designed for participants from overseas in particular.

As summarised by *Technical Review*, these include:


- Are you already licensed to do business here, with identified agents/distributors in place?
- Are your products specified with the professionals – architects and consultants – in the region?
- Is your company/its products and services registered with major government project owners?

“Contractor awards in the buildings and infrastructure sectors alone was US\$119.05bn in 2013 and is anticipated to reach nearly US\$134.11bn by 2014”




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- Are you registered with relevant government entities such as the Health Authority and those responsible for updating the Building Code?
- Have you established contacts with local contractors?
- Is your after-sales service and support mechanism in place?
- Do you have a marketing plan that demonstrates and showcases your products at events like The Big 5?

Spend on GCC airports over the next five years will approach US\$300bn, while investment in seaports will be of the order of US\$25bn

All in all, just what the visitor from overseas to the largest construction event held anywhere in the Middle East needs in the form of a concise background briefing.

The more recent of the two reports from Ventures ME, focusing specifically on rail transport, roads, airports, other ports and Free Trade Zones (FTZs), predicts that more than US\$45bn of infrastructure contracts will be awarded by the end of the current year – twice the level of business achieved back in 2012.

The study says that US\$97bn worth of rail contracts are already under way as the 2,100+ km GCC rail network aims for completion towards the end of the current decade. Spend on GCC airports over the next five years will approach US\$300bn, while investment in seaports will be of the order of US\$25bn. Doha's New Port project, for example, should be completed in 2020, well in time for deliveries associated with the 2022 FIFA World Cup.



The Big 5 will be co-located with PMV Live and Middle East Concrete

A vital part of most GCC countries' infrastructure development takes place within FTZs, the consultants point out, with the UAE being the best example.

With this in mind, companies set to attend this year's Big 5 exhibition at Dubai World Trade Centre will be looking to benefit from attending the show. ■



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Reinvigorated construction industry set for The Big 5

The Big 5 is now in its 35th year

Staged in one of the world's fastest-growing cities and held in the tower crane capital of the world, The Big 5 Dubai will return from 17-20 November 2014, attracting professionals from across a range of local and international construction firms.

THE BIG 5 Dubai exhibition and conference will look to reflect the renewed confidence in construction activity across the GCC. In 2013, close to 75,000 visitors attended the event and an even higher total is expected in the show's 35th year.

Product agents and distributors, interior designers, contractors and engineers, all with a keen interest in what's happening underneath the world's most exciting skyline, are usually in the majority at this uniquely popular and user-friendly show. Construction firms will be out in force at the event as they look to make their mark on the GCC's construction industry and build relationships with companies working within the region's reinvigorated building sector.

Once again, the exhibition will incorporate Middle East Concrete and PMV Live, along with a host of workshops, conferences and product demonstrations.

Andy White, group event director of The Big 5, said, "In 2014 you can expect to see even more investment in free-to-attend, high-quality seminars, conferences and workshops."

Among the educational events set to take place alongside the exhibition will be two interactive workshops presented by Dubai Municipality, including the free-to-attend Green Building Regulations workshop.

The exhibition will provide a platform for a range of companies, from those focused on concrete products and facilities management, to decorative products and HVAC equipment. Others will present the latest innovative insulation products, security equipment and ICT solutions, showing that the event really does provide a platform for the whole of the GCC's construction industry.

This year's show looks set to enjoy a surge in interest from construction companies and

suppliers working in the UAE's retail sector, which has had 33 per cent growth forecast for 2015, according to a September 2014 report by Ventures Middle East commissioned by the organisers of The Big 5. The report added that the retail sector's growth was attracting additional investment in other countries throughout the GCC, including Saudi Arabia, Kuwait and Oman, and, to a smaller extent, Qatar and Bahrain.

Dubai, the region's leading retail destination, is home to the second-largest number of global brands after London, with The Dubai Mall and the Dubai Shopping Festival alone attracting close to 35mn visitors per year.

New developments within Dubai's retail sector include the recently announced Mall of the World entertainment and hotel district, which will include the world's largest mall, spread across eight million sqm, at an estimated cost of US\$6.8bn.

George Kostas, CEO of Majid Al Futtaim - Properties, a developer of shopping malls, retail and leisure complexes across the Middle East and North Africa, which owns and operates 17 shopping malls across the region, commented, "We expect an even greater investment in the retail and tourism sector in the lead-up to the Expo 2020 in Dubai.

"A rise in consumer purchasing power and a growing young and brand-savvy population have made Dubai one of the world's most attractive hubs for retailers. To meet this future demand, Majid Al Futtaim has committed to more than AED3bn (US\$817mn) of new investment across our Dubai portfolio."

Andy White added, "Leading retailers from around the world are all clamouring to enter a GCC market which has huge potential, and that's only good news for developers working in the region.

"We are seeing increased activity across the entire GCC as countries continue to position themselves as destinations for major tourism events. Increasingly, visitors to The Big 5 are sourcing products for retail projects and, as a result, we are continuing to develop our event to help professionals take advantage of this exciting opportunity."

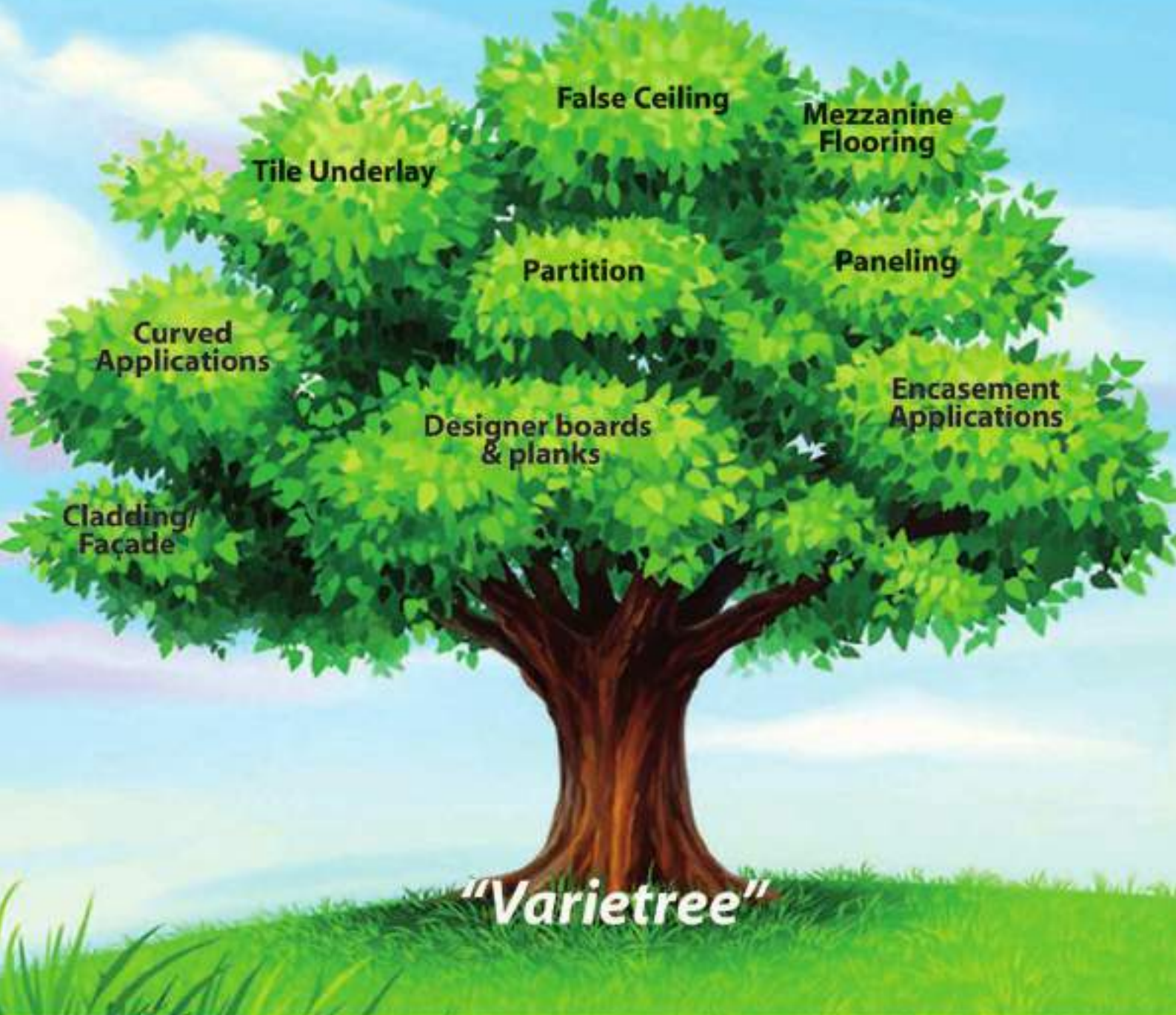
Alongside tourism and retail expenditure, GCC countries also plan to triple healthcare expenditure by 2018.

"Rising populations and changing demographics are creating a need for more specialised facilities, and, in turn, driving demand for more buildings," said White. "This is providing yet another opportunity for the region's construction sector, and firms are getting the chance to work on some of the most exciting healthcare projects."

Saudi Arabia is among the GCC countries forecasted to triple healthcare expenditure across the region, according to Frost & Sullivan. The Kingdom is spending more than US\$23bn improving its hospitals and medical facilities, while Kuwait's Ministry of Health has recently awarded local company Sayed Hamid Behbehani & Sons a contract for the expansion of Farwaniya Hospital. The US\$938mn project will involve the construction of three buildings making up a new hospital, including an ER facility.

According to the organisers of The Big 5, thousands of construction professionals involved in the development of healthcare facilities will converge on Dubai for The Big 5 and will no doubt be joined by retail and tourism developers, sustainability experts and representatives from national and regional development authorities.

The Big 5 will run from 17 – 20 November 2014 at the Dubai World Trade Centre and will be open from 11am to 7pm daily. ■



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Qatar private sector firms to be out in force at DWTC

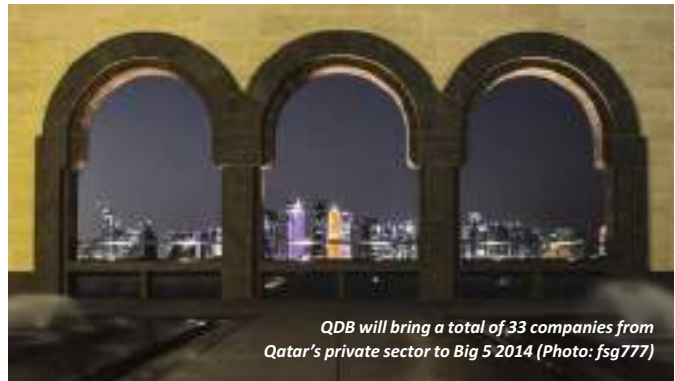
A TOTAL OF 33 companies from Qatar's private sector supported by Qatar Development Bank (QDB) will be in attendance at Big 5 2014 at Dubai World Trade Centre (DWTC).

Tasdeer, the export promotion arm of QDB, will host the Qatari pavilion, which will consist of a range of companies from a number of segments within the construction and building industries.

Abdulaziz bin Nasser Al Khalifa, CEO of QDB, said, "Supporting local companies at international exhibitions provides key exposure and access to compete and succeed in strategic markets for Qatari products. We are proud of the high-quality, competitive Qatari products on display at Big 5. Our measure of success is the amount of deals and business generated for Qatar's private sector and we are proud to see that business grow with each of these successful initiatives."

According to QDB, the bank's participation at Big 5 marks its latest initiative in supporting local industries through export and trade promotion, as it looks to open up new markets for products made in Qatar.

The Qatari bank recently hosted 10 companies from Qatar's food and agriculture industries at international food industries exhibition SIAL in Paris and supported 10 local companies by



QDB will bring a total of 33 companies from Qatar's private sector to Big 5 2014 (Photo: fsg777)

organising successful joint meetings between Qatari exporters and potential importers from Morocco and Tunisia.

"Participation at these events forms a key pillar of QDB's export promotion strategy and underscores our commitment to growing non-hydrocarbon exports and Qatar's private sector," said Al Khalifa.

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Joiner Fastener launches new plant

JOINER FASTENER ENTERPRISE, located in Kaohsiung, Taiwan, has officially launched its new plant. Anthony Chuang, general manager of Joiner Fastener, said that the new plant was built to resolve insufficient capacity as customer demand continues to grow.

The Big 5 2014 exhibitor said it now planned to expand production and integrate manufacturing, inspection and packaging operations, helping boost the monthly capacity of the new plant to 200 tons. The monthly capacity of both the existing and new plants will be expected to reach 550 tons in total. The new plant spans an area of 2,479 sqm, with further

investments in place to add new personnel and facilities such as optical sorting machines, cutting and mounting machines, and microhardness testers. Joiner Fastener will add sorting processes by introducing eight to 10 visual sorting machines in the new plant. The number of staff working for the company has also increased to 70.

Joiner Fastener has worked to improve the tensile strength and torque of its main products – construction fasteners – in order to develop more new products for customers. It has been certified ISO 9001:2008 and ISO 14001:2004 and will apply for JIS accreditation in the future.

Its products are exported globally, with the Japanese market accounting for 40 per cent of its total sales, followed by 25 per cent for the European market and 35 per cent for markets in the Middle East, Australia and Latin America.

The company said, "Joiner Fastener can on one hand consolidate its presence in the high-quality-demanding Japanese market, and on the other hand continue its development and expansion in Europe and the Middle East. It looks forward to the growth of emerging markets around the world."

Stand: 1 F181



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THE POWER WITHIN

Briefly

Dui Global introduces assets management system to UAE

DUI GLOBAL WILL introduce two tracking devices ranges, MobiTime and ZoneLock, at Big 5 2014. The products, which were designed by the company's R&D department in Belgium, aim to secure and track the major aspects found on construction sites.

The company, which will be located on the Belgian pavilion during the exhibition, specialises in providing companies with solutions that enable them to enhance and optimise productivity, while offering an insight into their worksites.

The MobiTime solution aims to protect workers while optimising human resources management.

According to the company behind the product, the MobiTime portable time clock provides companies with accurate records of all workers who enter and leave worksites, reducing the risk of payroll errors and enabling managers to know exactly who is working on a site at all times. The solution can also be utilised as part of a complete solution that controls and manages supply stocks.

The other product being showcased at The Big 5, ZoneLock, consists of a range of devices that secure materials and detects movement on doors or fences, enabling companies to tackle problems associated with worksite theft and equipment loss.

Stand: 1 D24

UAE leading the way in sustainable building practices, reveals report

THE UAE IS considered a leader in green building practices and there are several opportunities in the region to develop sustainable structures, stated the *GCC Focus on Sustainability in Construction* report.

There are 1,236 LEED-rated projects in the GCC, with the UAE accounting for 67 per cent of them; Qatar has 190 projects and Saudi Arabia has 158. Bahrain, Oman and Kuwait have 51 LEED-rated projects between them. 'Green' buildings witnessed a "slow take-off" in the GCC, but governments have embraced sustainable living through education and legislation, revealed the report by Ventures Middle East, commissioned by the organisers of The Big 5.

The GCC region as a whole supports the construction of environment-friendly buildings, and the report explores how local developers and contractors can meet established construction standards. There are a host of products in demand such as lighting, kitchen, bathroom fittings and natural stone fittings.

Gradually, developers have also realised that buildings have to demonstrate sustainability in order to appear marketable. To support this growth, there is a rising demand for new and unconventional building materials in line with green building specifications.

To further support, streamline and standardise the construction of green buildings, ratings systems have been introduced in the GCC. The USA's LEED rating is among the most popular. The UK's BREEAM rating is also commonly used in the GCC. Abu Dhabi has introduced its own rating system Estidama, which is often considered more stringent than LEED. Dubai Municipality's Green Building Codes will apply to all new construction



Creek Towers & Plaza will be a maritime business centre located in Dubai Maritime City and designed by Dewan Architects & Engineers

projects in Dubai and the authority hopes a third of the buildings in the emirate will be green within the next decade. At The Big 5 2014, Kamal Azayem, a mechanical engineering expert at Dubai Municipality will provide an insight into these codes and highlight updates since its implementation last year.

At the Sustainable Design & Construction Conference during the event, Yann Pennes, projects director at Dewan Architects & Engineers, will elaborate on the application of Dubai's Green Building Regulations to mixed-use, commercial and hospitality projects, including choosing the right materials and technology to reduce water and energy consumption.

The Ventures Middle East report was prepared in the run-up to the two-day Sustainable Design & Construction Conference, which will run on 18-19 November, alongside The Big 5 2014 at Dubai World Trade Centre.

Kottmann Technology and Amphiro join forces to develop smart home sensors

GERMAN BUILDING TECHNOLOGY and water management specialist and Big 5 exhibitor, Kottmann Technology, has signed a collaboration agreement with Swiss smart water metering company Amphiro, which will see the two companies work closely together to develop smart home sensors and actuators.

The deal took place in reaction to advancing developments within the smart home industry and the accompanying demand for solutions in the water sector.

Dr. Michael Gordon, a member of the advisory board at Kottmann, said, "With our cooperation we get the opportunity to benefit from complementary strengths of both partners. From this point of view, we

can offer a complete range of sensors and actuators for drinking water applications to all platform operators. Concurrently, we also contribute to the efficiency targets of our society."

Amphiro management board member, Dr. Thomas Stiefmeier, added, "Up to now, Kottmann and Amphiro are the only two companies in the drinking water sector that actively promote the smart home issue. Amphiro's primary strength is the water and energy saving area and Kottmann's primary strength is the prevention of water damage and security technology. Together we can provide the full range of solutions for smart home sector and now we are going to build up a

matching product program. As a result, our market leadership will be further secure."

Headquartered in Iserlohn, Germany, Kottmann has decades of experience in hose manufacturing and works with its customers to develop technical solutions. In addition to its primary focus in the sanitary and home appliance industry, Kottmann also serves other industrial sectors including building technology, heating and air-conditioning.

Swiss start-up company Amphiro, which has a broad IP portfolio, focuses on the development of energy harvesting and smart metering technology.

Stand: 2 C87

Maxell looks to continue 2013 successes in the Gulf region

MAXELL, THE AIR conditioning equipment company, will be looking to build on the successful year it enjoyed throughout the Gulf region in 2013 during its attendance at the 2014 edition of The Big 5 Dubai.

According to Maxell business development manager Raman Sharma, the company's sales have risen by 25 per cent since last year and it will be looking to use its platform at The Big 5 to showcase new product lines that are currently under development.

"We have projects in Doha and in Oman, as well

as in Dubai, including Kings School and Kings College, the Dubai's tram project, Wadi Tower and Landmark ZADCO, which are all among the projects where we've furnished our products," said Sharma.

The year ahead holds much in store for the company, including a host of new product launches and a key certification to go with each segment of its equipment offering.

"These projects contain our Finpower brand of UAE-manufactured, Eurovent-certified air-handlers, in addition to SINKO fan coil units and Ebara cooling towers," Sharma noted.

"As Finpower, we have moved more extensively into DX design this year and into the utilisation of the in-house production of DX Coil and condensing units. We as Finpower have started a new line in DX units as package units apart from regular roof top units. These will include a range which will contain modular construction double skin which most manufacturers do not have," he added.



Air conditioning equipment company Maxell has provided products to Dubai's ongoing tram project (Photo: Maurits90)

Stand: 3 E147

Briefly

Jubaili Bros set for return to PMV Live

POWER SOLUTIONS SUPPLIER

Jubaili Bros will once again be exhibiting its products and services at PMV Live.

The company's sales team, which has extensive experience in the power generation industry, will be out in force at the show.

Jubaili Bros, which serves customers throughout the Middle East, Africa and Asia, also recently participated at The Big 5 Kuwait, held at Kuwait International Fair from 22-24 September 2014. In 2013 the company opened its new 1,500 sqm head office in Jebel Ali Free Zone.

The company has an extensive dealer network and 1,500 international employees spread throughout 23 branches in Lebanon, the UAE, Nigeria, Afghanistan, Kuwait, Ghana, Qatar and Uganda.

Stand: OS 31

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Briefly

Newforma acquires mobile platform developer SmartUse

US PROJECT INFORMATION

management software company Newforma recently acquired SmartUse, a Canadian developer of an innovative, touch-friendly mobile platform for construction project collaboration.

"The SmartUse app is the most advanced mobile solution for viewing, marking up, auto-linking and sharing project plans," said Newforma chief executive officer Ian Howell. "It allows contractors and owners to easily review plans on computers in their offices or on tablets on the job site. Because it also operates on a large, 55-inch touch screen, SmartUse enables an entire project team to interact with a set of documents as they collaborate in real time in a project office or job trailer. We are excited to add this new product to help contractors and owners better manage the thousands of plans they keep and reference for all of their projects."

SmartUse founder and chief executive officer Francois Tanguay has joined Newforma as vice president of business development. "SmartUse strengthens Newforma's already strong product line-up by meeting the mobility needs of contractors and owners, not only in the construction industry, but in other industries where project plans need to be reviewed, marked up and shared," Tanguay said.

"By combining forces with Newforma, we will be able to continue advancing our mobile collaboration solution, transforming how contractors and owners manage project information," he added.

The product will continue to be sold under the SmartUse name and it will be marketed and supported by Newforma internationally, including at the Big 5 2014 in Dubai. The SmartUse app operates on Apple iPad tablets and Macintosh computers, Windows 7 PCs, and Windows 8 devices, including a 55-inch (A0 size) workstation. Smart Use can be downloaded as a free viewer for unlimited users or as a fully functional 30-day free trial.

Stand: 2 C63

Colortek paints certified by UL standard

COLORTEK HAS ANNOUNCED that its water-based architectural paints and decorative ranges have been GREENGUARD Gold certified.

The Big 5 exhibitor, which is active in its efforts to promote and increase its products' compliance to international quality and safety regulations, has become the first company from Lebanon and the surrounding region to achieve the certification standard issued by UL, the world's largest certification body for building material and other consumer goods.

According to Colortek, these product ranges are now in accordance with California's Department of Public Health (CDPH) Standard Method, which is among the world's strictest certification criteria for testing chemical emissions and for building products used in schools, healthcare facilities and other environments.

GREENGUARD Gold also certifies contributions towards a number of international sustainable building programme and codes including ASHRAE, CHPS and LEED.

"The GREENGUARD Gold certifications are the latest milestone within a corporate sustainability programme initiated more than six years ago with the implementation in our manufacturing procedures of the European Paints Directive 2004/42/EC and the French regulations on VOC emissions, both of which are crucial for our exports in European markets," remarked Colortek CEO Yahya Kassaa.

"This latest achievement testifies and demonstrates our commitment to lead the industry by providing the market with the highest performing and the most eco-conscious coatings available today without translating the intensive R&D investments as an added-cost to our customers."



TAGbrands CEO Maya Karanouh handing the REBRAND award to Colortek CEO Yahya Kassaa

In September 2014, Lebanese branding and design agency TAGbrands received the Distinction Award in the 2014 REBRAND 100 Global Awards Showcase for its rebranding of Colortek.

TAGbrands aim was to rebrand Colortek while upholding its recognition as the leading paint retailing franchise within the local Lebanese market as well as its international markets.

TAGbrands CEO and co-founder Maya Karanouh said, "Our brief was to rebrand Colortek while respecting both its heritage and new business goals. It was also important for us to restructure Colortek's architecture of the group of companies to create successful brand equity."

Kassaa remarked, "Having our new brand identity recognised on a global stage is a moment of pride for us. The rebrand unified the brands and has been a catalyst for many achievements: a new vision, excellent discussions and increased recognition."

Stand: 8 F357

RAKtherm experiences heavy demand for piping solutions

UAE PIPING SOLUTIONS company, RAKtherm claims it has had to increase production capacity by 40 per cent in 2014 to meet heavy demand, supplying pipes for both industrial and commercial projects in 35 countries.

The company manufactures piping materials that it says are safe for potable water transfers, environmentally friendly and have high corrosion, chemical, thermal and UV resistance.

"We are not just a manufacturer; but also provide consultations to help consumers identify the most competent piping systems," said Mohammed Habib, RAKtherm's sales and marketing manager. "Throughout the years our in-house engineering team has come up with breakthrough products which bring a modern

twist to the piping industry."

Among its product range, RAKtherm Stabi pipes are integrated with aluminum layers and are developed for hot and cold water installations. RAKtherm Stabi composite pipes are convenient and reliable due to characteristics like low linear expansion rate, higher flow rate with the same external diameter and lower wall thickness, says the company.

The company also offers on-site technical training for engineers, planners and plumbers, as well as on-site inspections and presentations through its RAKtherm Academy.

Stand: B 177

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Briefly

XPR debuts new access control range

VISUAL PLUS, A Belgian-based manufacturer of mechanical and electronic locking products and access control systems, has launched under its brand name XPR a new access control range that provides enhanced features for businesses and residential properties.

The new range offers tailor-made products that are compatible with single gang flush back boxes, making installation simple, says the company. The standalone or networked keypads, proximity readers and exit switches are available in six different colours to match surroundings and different types of buildings.

The XPR range includes proximity readers, keypads and touch-to-exit switches in a compact design, which turns a necessary accessory into a modern, stylish feature within any home or building, added the company.

These products are designed for any building where access needs to be restricted, controlled or monitored. A defining feature is the multi-colour rectangular status LED which is designed to overcome the difficulty people may have in locating exit buttons when leaving a building.

Stand: 1 C23

Italian style comes to the Middle East

ITALIAN ARCHITECTURE AND design company Graphite will be participating again at the Big 5. The company will be represented at the exhibition, its second visit, by a team of architects and engineers, including the company's owner Raffaele Archivolti.

Graphite is a family-owned Italian company, established in 1946, that focuses on innovative designs with a touch of classical Italian style. Its services span restoration and renovation of original buildings, to design and engineering of new structures. Clients have included museums, hotels and retail.

The company is looking for business partners and clients to work on corporate orders and private property projects in the Middle East.

Stand: 6 D277

Tekla drives Middle East smart building

TEKLA, WHICH PROVIDES information modelling software for the construction, energy and infrastructure industries, will showcase its advanced construction software solutions at The Big 5. At the show, Tekla will partner with SMART Technologies, which offers interactive solutions for education, business and government, on an interactive booth that will feature a touch screen with Building Information Modeling software Tekla BIMsight.

Open BIM software, like Tekla BIMsight, provides customers with detailed feasibility studies. This is for smoother completion of the design, build and operating phases of complex construction, infrastructure and energy projects.

"The Middle East's Smart Cities are seeing incredible innovation in the architecture sphere, with increasingly complex projects requiring the most advanced software," said Paul Walleit, area business director, Tekla Middle East.

Illustrating the benefits of designing projects

Open BIM software, like Tekla BIMsight, provides customers with detailed feasibility studies



using 3D BIM software, Ahmed Salah Hany, technical consultant, Tekla Middle East, will present on "The Move from 2D to 3D: BIM and Beyond".

Tekla, which became part of Trimble Navigation in 2011, has opened a new Qatar office, demonstrating its commitment to working closely with Middle East customers.

In September, Trimble and Frank Gehry announced a strategic alliance to collaborate on transforming the construction industry by further connecting the office to on-site construction technologies. As part of the alliance, Trimble has acquired Gehry Technologies, the software and consulting services business that grew out of the pioneering efforts of Frank Gehry and his team to adapt methods derived from the aerospace and automotive industries to complex projects of architecture, engineering and construction.

Stand: PMV A130

DuctSox expands product range with SkeleCore Pull-Tight

DUCTSOX, A MANUFACTURER of fabric air dispersion products for open ceiling architecture and critical environments, has announced that it has expanded its SkeleCore product range to include the new SkeleCore Pull-Tight. This is a suspension/fabric retention system that utilises a combination of internal hoops and tensioning baskets to help maintain fabric shape, with or without air in the system.

The company believes the new SkeleCore will complement its SkeleCore FTS. It is different from FTS, being suspended from either a tension cable or track suspension system and is tensioned externally utilising a tension cable (or track) lock.

With fabric deflation being the main concern for fabric duct customers, SkeleCore Pull-Tight system will keep fabric duct round and taut at all times, eliminating fabric sagging and



preventing inflation pop noise and disruptive fabric motion at start-up, said DuctSox.

Stand: 3 D151

VIHY Hydraulic Vibration Plant Concept

Compaction of high-quality concrete products



The VIHY hydraulic vibration table system is used for the compaction of high-quality concrete products in all shapes and sizes, including both round, non-round and irregular shapes. The vibration plants, which feature automatic table leveling and pressure control as well as infinitely-adjustable vibration frequency, come in 6 standard models with a maximum load capacity up to 60,000kg.

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Briefly

Keeping cool: Coolex Air Conditioners

COOLEX AIR CONDITIONERS, which assembles air conditioning systems in Kuwait, has announced that it has been awarded the prestigious Eurovent certification for its air handling units.

Eurovent is the representative body of the European refrigeration, air conditioning, air handling, heating and ventilation industry. It independently certifies the performance ratings of air-conditioning and refrigeration products according to European and international standards. This certification has been made mandatory in Europe says Coolex. The company said it has met all of Eurovent's regulations.

Stand: 2 A87

BM TRADA presents new services at the Big 5

BM TRADA, GLOBAL provider of independent certification, testing, inspection, training and technical services, will showcase its new services at the Big 5 exhibition at the World Trade Centre, Dubai from 17-21 November.

Technical experts will be flocking in from the UK and from BM TRADA's Middle East office, to support companies across the timber, building, food, retail, fire and furniture industries. The company will be issuing advice on a number of its services including testing, inspection and certification.

Stand: 2 C71

Hörmann to showcase latest innovations

GLOBAL DOOR AND frame manufacturer, Hörmann, will unveil a new range of doors and components to meet industrial, commercial and residential requirements at the Big 5 2014.

The company will display its pioneering technologies used in its products. Hörmann produces essential door components, including profiles, side guides, support brackets, fittings and control technology. The firm's certified quality management system acts to ensure the highest level of quality from development, through production to shipping.

"We invest heavily in research and development to keep ahead of our competitors and at Big 5 visitors can see our latest products installed with the best safety options," said Darius Khanloo, managing director of Hörmann Middle East.

"The Middle East is one of our key markets and this year we have expanded our presence by entering new markets in East Africa and South Africa and also launched a new office in Qatar.

"We recently added three new products - Thermo sectional doors, Underground rolling shutter/grille TGT and the thermo safe/thermo carbon entrance doors to our wide range of



Hörmann will showcase its latest innovations in industrial, commercial and residential doors at the Big 5 2014

options catering to a variety of different demands," he added.

Hörmann has set-up a flagship showroom in Jebel Ali Free Zone and a fully operational assembly plant and warehouse in Dubai Investment Park. Hörmann's fire-rated British Standard steel doors have the seal of approval from the UAE Civil Defense and Civil Defenses in Qatar and Oman.

Stand: Zabeel J120

Steel Wood Industries set to expand operations in the UAE

DUBAI-BASED STEEL Wood Industries will be showcasing its wood-related building materials that have been especially designed for the region at this year's Big 5. The company is also set to launch its brand new production facility for the GCC and Middle East in the UAE.

Steel Wood Industries will operate the first wood panel production facility in the GCC with what the firm terms an 'environmental-friendly and green' production line.

The firm is expected to commission its new

facility in the last quarter of 2014.

Steel Wood Industries recently stated that it considers the Big 5 event in Dubai an important "meeting point for the industry throughout the Gulf region".

"We are looking to expand more in the region and more offices and Industrial facilities are planned to be opened in the region," said Steel Wood Industries' Ghassan Afiouni.

Stand: 1 H30

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ACCESS SOLUTIONS THROUGH INNOVATION

Helping the Middle East grow

Machinery and equipment expo PMV Live will showcase the latest innovations in construction machinery, plant and vehicles at Dubai World Trade Centre.

COME NOVEMBER, AND the who's who of the construction industry will congregate at Dubai World Trade Centre for machinery and equipment expo PMV Live, which will be held alongside the Big 5 and MEC 2014, from 17-20 November. PMV Live will showcase the latest innovations in the field of construction machinery, plant and vehicles. The show also acts as a useful platform for industry professionals to network and exchange ideas and innovations. Vigorous growth within the construction sector has set the precedent for shows such as PMV, which this year promises to be the largest in its history, according to organisers dmg events. With construction projects taking the lion's share of overall spending in the region, real estate developers and builders have been bullish about their prospects in the market.

Through PMV Live, exhibitors and dealers can expect a wide array of technology, knowledge and innovation to be presented

A report by *Ventures Onsite* stated that there would be a huge rise in revenues in the construction sector over the next 18 months. Despite the global financial crisis in 2009, which caused sales to fall by 34 per cent, the market for earthmoving equipment has shown a 1.67 per cent compound annual growth rate between 2008 and 2012. By 2015, the global construction equipment market is expected to rebound to an estimated market size of US\$145.5bn. Rail infrastructure in particular will be in focus as GCC states prepare to build an integrated railway network connecting all countries.

On the first day of the show, a panel session entitled *Market update and future forecast of the Middle East's infrastructure sector* will focus on the issues facing the region's PMV companies. Paul Groves, head of tunnelling and ground engineering with Atkins, will present a case study on a metro project. Atkins, among the leading rail sector consultancies in the Middle East, recently set up a centre of rail excellence and is involved in a number of major rail and metro projects in the UAE, Saudi Arabia and Qatar. Atkins first developed its team seven years ago to provide multidisciplinary design and management of the civil works on Dubai Metro.

Through PMV Live, visitors can expect to witness the latest technological developments and innovations presented to them by exhibitors and delegated. Products and services showcased at PMV

Live 2013 included accessories and wear parts, building material handling and packaging, civil and mechanical utilities, communication and navigation, component and service supplies, construction equipment, tools and special systems, construction machinery, vehicles, cranes, earthwork, exterior improvements and retro-fitting. ■



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Cast in concrete for a better future

Demand for precast concrete is rising in the UAE, Saudi Arabia and Qatar, and Middle East Concrete 2014 will look to provide a platform for builders and developers to explore the benefits of this construction material.

A LONG THE LINES of construction show Big 5, Middle East Concrete (MEC) 2014 is poised to provide a platform for builders and developers to see what is going on within the concrete industry within the Middle East. MEC will be held from 17-20 November at the Dubai World Trade Centre in conjunction with PMV Live.

The demand for precast concrete in the construction sector is growing, as builders realise that it can reduce the time taken to complete major projects.

Nathan Waugh, event director for MEC and PMV Live, said, "The precast concrete market offers enormous opportunities to local producers and developers here in the region. We are keen to address this rising demand and offer our visitors access to high-level experts, international exhibitors and top-of-the-range products in line with their needs."

According to *Ventures Onsite*, precast concrete is gaining popularity in the UAE, Saudi Arabia and Qatar. In the UAE, Expo 2020 is considered a major project for which this material will be in high demand. In Qatar, the World Cup to be held in 2022 and the development of labour cities has spiked a demand for precast concrete. Saudi Arabia is keen to use the material to build 500,000 new homes. The use and benefits of, and latest innovations pertaining to



Precast concrete is in heavy demand in the Middle East, as it can save costs and time, as well as providing environmental benefits to builders and developers

precast concrete will be discussed at MEC 2014 in two technical seminars.

Bashar Abou Mayaleh, managing director at Hard Precast Building Systems, said, "Developers are attracted to precast

concrete as it can greatly reduce the duration of a project as well as the cost. It provides cost and time savings to developers and governments, as well as offering significant environmental benefits."

Hard Precast Building Systems will be at MEC 2014. In addition, Austria's ABR Tools, Turkey's Akar Makina, Germany's All Gaier Process Technology, BASF Construction Chemicals UAE, Bauer Maschinen, Blastrac Middle East and California Scaffolding and Formwork will all be among the companies present at the show.

The exhibition will be supported by free-to-attend workshops and technical seminars that will offer visitors the chance to find out about the latest industry advancements from fellow construction professionals. ■

Projects such as Expo 2020 in Dubai, the 2022 FIFA World Cup in Qatar, the development of labour cities and the construction of housing blocks has led to a rise in popularity of precast concrete

Progress Profiles to showcase new products at Big 5 2014

PROGRESS PROFILES, AN Italian manufacturer of technical and decorative finishing profiles, will showcase its new products at this year's edition of The Big 5.

The company produces more than 12,500 different items in stainless steel, aluminum, brass, PVC and true wood, and will aim to attract new customers at the show looking for solutions to meet their manufacturing needs.

Progress Profiles plans to invest in new technology, training and design, and will put on a display of Italian manufacturing, creativity, innovation and style, it said.

The firm ships its products to more than 50 countries worldwide and in 2009 opened a new company branch in Dubai Progress Profiles Middle East LLC.

The company has already made a name for itself in the Middle East with investment coming from customers in the UAE.

Stand: 7 F291

Lorient to exhibit door sealing systems

Lorient, a manufacturer of door sealing systems for acoustic, smoke and fire containment, will welcome construction professionals from across the world to the Big 5 Dubai under the global theme "sealing doors worldwide". Lorient's stand will include members of its international team as well as its exclusive Middle East distributor, Laidlaw Gulf LLC.

The company will be showcasing its new range of aura® architectural seals, which uses a range of smoke, acoustic and energy seals. Lorient's range of products including architectural seals, smoke and fire seals, fire resistant, glazing systems, air transfer louvres and hardware protection will also be displayed. Antimicrobial technology is also being used in a range of new door seals as standard, and into a number of its other products such as fire resistant glazing systems and fire and smoke resistant air transfer louvres.

STAND: 2 B66

SLIC.. New Styles



Style # 86657



Style # 84677



Style # 71650



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Building the Kingdom block by block

A preview of Saudi Build 2014 — a platform for construction opportunities throughout the Kingdom, which will take place at Riyadh International Convention and Exhibition Centre from 10-13 November 2014.



A major construction project underway in Riyadh, Saudi Arabia's capital

THE MIDDLE EAST is defining the construction business and setting a precedent for other nations to follow. Saudi Arabia appears to be taking the lion's share, with local reports stating that the country has planned more than US\$195bn worth of construction projects over the next three years.

This burgeoning market has resulted in the need for trade shows and exhibition to help industry leaders network, exchange ideas and develop the market. One such event is the upcoming Saudi Build 2014. The 26th edition of the International Construction Technology and Building Materials Exhibition will take place from 10-13 November 2014 at the Riyadh International Convention and Exhibition Center (RICEC). Saudi Build is the only construction trade show held in the country to have been accredited by UFI, the Global Association of the Exhibition Industry.

Saudi Arabia is a preferred destination for construction professionals, due to the expanse of the oil industry, backed by a wide range of exports in downstream and related activities. In 2013, contracts awarded in the Kingdom exceeded US\$70bn — more than half the amount coming from other markets throughout the GCC. Among these contracts

were several high profile development projects such as the Economic Cities programme, Haramain High Speed Rail project and Jeddah's Kingdom Centre.

RICEC, organisers of the exhibition, said, "The event is an excellent platform for exploring new business opportunities in Saudi Arabia's construction industry, showcasing the sector's latest technologies and solutions to real-estate contracting agents, developers and high-profile professional visitors."

A series of training seminars have been commissioned from specialised suppliers, who have detailed knowledge of the Kingdom's requirements. The seminars will cover areas such as building design and fitting requirements appropriate to the region's weather, exterior landscaping, improved acoustic and insulation technologies, sustainable design and construction materials and advanced construction principles.

Last year's 25th anniversary edition hosted 23,000 visitors and 880 exhibitors from 36 separate countries. The German Near & Middle East Association has said it would return this year, since the event proved "very positive" for its businesses. CII India remarked that it received excellent

feedback from the Saudi Arabian market and was looking forward to participating with a bigger pavilion at this year's event. Other major exhibitors will include the Austrian Federal Economic Chamber, Bahrain Aluminium Extrusion Company and China Civil Engineering Construction Corporation. Adler Technologies from France, Futuretech Engineering FZCO from Germany, Al Nakheel for Trading Co., from Saudi Arabia, Emirates Steel and RAK Ceramics from UAE, are all set to make appearances on the floor of the exhibition.

Key categories on display at Saudi Build are:

- architectural products
- building materials
- concrete products and pre-cast structures
- complete construction systems
- tools and fitments
- interior decoration materials
- construction ancillaries including hardware
- scaffolding, formwork and shuttering
- street furniture
- insulation products — thermal and acoustic
- timbre in all forms, including finished products such as architectural features.

Saudi Build will be held in conjunction with Saudi Build PMV and Saudi Stone Tech. ■



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Industry leaders will gather at Gulf Traffic 2014 to understand the needs of the GCC's transport sector and culminate methods to improve existing systems

Revolutionising transport in the GCC

The growth of the economy has given rise to the need for a dependable transport infrastructure. Through Gulf Traffic 2014, industry leaders hope to discuss and address the needs of the transport sector in the GCC

THE MIDDLE EAST is experiencing rapid growth currently, especially with major infrastructure projects being planned in Dubai, Saudi Arabia, Qatar, Kuwait, Bahrain and Oman. The GCC is set to invest US\$125.4bn to improve its transportation facilities and infrastructure. Dubai's Expo 2020 and the Qatar World Cup in 2022 are two of the biggest events the region is preparing to host, in the run up to which establishing a reliable, steady transport system is crucial.

To revolutionise modern day transport infrastructure and generate awareness on the latest trends, the 2014 Gulf Traffic Exhibition & Conference will be held at the Dubai International Exhibition Centre from 8-10 December. The exhibition will showcase the latest developments in road infrastructure, traffic management systems and technologies for safe and efficient mobility.

In particular, multimodal traffic and

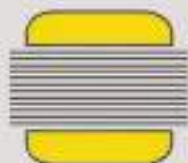
parking will be the focus of this year's programme. The conference will feature some of the world's best case studies on how multimodal systems and management have helped decrease accidents, and create a much safer, efficient and sustainable traffic environment. According to UAE's interior ministry, road accidents cost nearly US\$3.8bn during 2013. The road transport authorities stated that the total number of deaths due to accidents were 651, while over 7,700 suffered injuries.

Richard Pavitt, exhibition director of Gulf Traffic, said, "An increase in traffic is generally followed by an increase in accident rates. With more vehicles on the roads, it is becoming increasingly difficult to decrease fatality statistics and to keep the main regional cities moving freely. This is one of the biggest challenges faced by the Middle Eastern governance."

With the region experiencing a period of

enormous growth, transport as a sector, will be dissected for better understanding and figuring out way to improve connectivity across the GCC. To achieve these goals, there will be a host of speakers from the industry such as Alan Bristow, director of road space management of surface transport, Transport for London (TfL); Eng Meitha Mohammed Bin Adai, CEO of Traffic & Roads Agency, Road and Transport Authority, UAE; Pieter Venter, CEO of the Global Road Safety Partnership; Sing Mong Kee, President of ITS Singapore, Land and Transport Authority, Singapore – among others.

"With the Dubai Metro recently celebrating five years in operation, new bus and tram services, water taxi services, more metro lines planned and the pan-GCC Railway, public transportation has taken huge steps forward and this looks set to continue," concluded Pavitt. ■



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GITEX highlights leading ICT trends

His Highness Sheikh Mansour bin Mohammed bin Rashid Al Maktoum experiencing first-hand one of the innovative products and solutions on display at GITEX 2014

The market for ICT solutions and products in the Middle East is booming, as was clearly demonstrated at October's GITEX Technology Week, which returned to Dubai for its 34th edition.

“Dubai is set to transform into a ‘Smart City’ by harnessing technology to create better living conditions”

GROWTH WITHIN THE Middle East's ICT sector has been outpacing the global industry average, with the regional ICT market set to jump from a projected US\$15bn in 2014 to US\$20bn in 2020, according to market intelligence firm IDC.

IDC has named Saudi Arabia as the largest ICT market in the Middle East, accounting for more than US\$7bn in predicted spending in 2014. The Kingdom's public sector has allocated US\$1.63bn to improve and modernise government services, education, healthcare and transportation, with ICT set to play a pivotal role in the transformation.

Market research company Gartner has anticipated a growth rate of eight per cent in regional ICT spending in 2014, which represents a big difference in global growth

within the sector, which currently stands at just 2.1 per cent.

Elsewhere, the global Big Data market has been demonstrating its growth, as the sector gears up for predicted growth from US\$3.2bn in 2013 to US\$15.1bn by 2020, while the GCC cloud computing market looks set to post seven-fold growth and expand at a CAGR of 32.8 per cent to reach US\$668.5m by 2020.

Regionally, the ICT industry is being boosted by infrastructure spending from the government sector, which makes up the largest and fastest-growing vertical market, and these positive trends helped spur global demand at GITEX Technology Week 2014, held at Dubai World Trade Centre (DWTC) in October. The largest ICT event in the Middle East, Africa and South Asia (MEASA) region attracted 100,000

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Building Smart Cities

Dubai's Department of Tourism and Commerce Marketing (DTCM) director general and DWTC CEO Helal Almarri remarked, "Under the visionary guidance of His Highness Sheikh Mohammed bin Rashid Al Maktoum, UAE Vice President, Prime Minister and Ruler of Dubai, Dubai is set to transform into a 'Smart City' by harnessing technology to create better living conditions and new forms of developments for all people in Dubai and the UAE.

"GITEX Technology Week was privileged to contribute to this vision by facilitating the public-private partnership in knowledge exchange and sharing of achievements between the world's leaders in smart innovations and local organisations leading the smart transformation of Dubai."

Dubai's Smart City roll-out was highlighted at GITEX 2015, with government-led updates on the progress of the Dubai Smart City initiative and a pioneering app-based Smart Journey Tour among the highlights on show.

Marwan Bin Haider, executive director of planning and development at Dubai Smart Government, said, "The region's Smart City developments demonstrate how GCC governments are increasingly innovating delivery of services to people and businesses."

Meanwhile, Nawar Atassi, head of new account management for the GCC and Pakistan at Ericsson, remarked, "A new

"The region's Smart City developments demonstrate how GCC governments are increasingly innovating delivery of services to people and businesses"

level of mobility will enable the region's Smart Cities, which is at the heart of our Networked Society vision, to positively impact daily lives at home, at work and in cities. People will be able to live more freely while enjoying smarter features everywhere in more sustainable cities – and Dubai is serving as a global benchmark in Smart City leadership."

Internet trends

Telecom operator Etisalat and broadband network solution provider Sandvine used a joint platform at GITEX to highlight the latest Internet usage trends across the Middle East. The two companies demonstrated the unique nature of Middle Eastern Internet usage patterns, sharing knowledge and experience with operators in the region on how they could use business intelligence tools to increase revenue and reduce network costs.

Among the unique traits found on select Middle Eastern networks was Instagram being named the leading generator of social networking traffic, consuming almost twice the bandwidth of Facebook on some mobile networks, while Snapchat and WhatsApp were named as the two leading third-party messaging applications. Combined, both messaging platforms

account for as much as 10 per cent of total mobile traffic, leading Chris Colman, senior vice-president for EMEA Operations at Sandvine, to describe subscribers in the Middle East as "among the most enthusiastic consumers of social networking and messaging applications in the world".

In the enterprise software arena, Sage Middle East, a provider of business management software to small- and medium-sized organisations, announced a partnership with Saudi Arabian information technology provider GT Tech. The alliance will enable GT Tech to utilise Sage's Sage ERP X3 enterprise resource planning solution. Sage also launched its new version 7 of Sage ERP X3 at GITEX 2014. Among the roll call of names that other regional private and public sector entities signed major multimillion dollar deals with at the show were Ericsson, Huawei, Cisco, Microsoft, Etisalat and du.

Sam Al Kharrat, president of SAP MENA, told *Gulf News*, "At the event, we demonstrated to businesses how our industry-leading cloud-based SAP Hana platform can help businesses run simple and enhance ROI with Big Data, and how organisations' HR departments can best train the next generation workforce on cloud solutions.

"SAP saw strong success at GITEX 2014, as we are committed to driving the region's growth, and especially Dubai Smart City's technology-based transformation," he added.

GITEX also drew attention to a number of new trends within the market, with the event providing further evidence that the development of the Middle East is strongly connected to ICT optimisation.

Infrastructure developments in the region have caused spending on audiovisual solutions and major vendors and products to increase, while services and products on show at GITEX ranged from the latest in intelligent interactive LED displays and high-definition slim bezel signage monitors, to up-to-the-minute data centre innovations and enterprise solution models. ■



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Briefly

ICT investment spending in the Middle East

A STUDY FROM Kable examined 124 Middle Eastern enterprises regarding their Information and Communications Technology (ICT) investment trends.

The survey investigates how Middle Eastern enterprises currently distribute their ICT budgets across the core areas of enterprise ICT expenditure: hardware, software, IT services, communications and consulting. The report identifies the core technologies enterprises are spending on, including communications and collaboration and cloud computing. The survey also reports how companies in the Middle East operate when buying technology. The report aims to provide better insight to ICT vendors and services providers when presenting their solutions to enterprises in the Middle East; such as how ICT budgets are set to change in 2014 in terms of their overall size and how IT money is being spent in areas such as the data centre, applications, IT management and the network.

Middle East sees rising need for enterprise software solutions in energy sector

MORE THAN US\$50BN worth of contracts for various oil, gas and petrochemical projects were issued last year. The value of investments is nearly double the US\$27bn in contracts awarded in the previous year, reflecting a sharp rise in oil and gas projects across the region. There is a rising number of specialist enterprises involved in the value chain. Companies involved in various energy projects are unique because they deal with complex and diverse requirements when compared to other industries. Following the growing pressure oil and gas projects face, companies in the Middle East are investing in enterprise resource planning (ERP) solutions to infiltrate into all areas of the business and value chain. ERP brings together various processes of a large organisation, allowing each department to communicate, share information and collaborate with other divisions within the corporation.

EIAST completes first Emirati-designed satellite

THE EMIRATES INSTITUTION for Advanced Science and Technology (EIAST) has completed the design of KhalifaSat, the first satellite that to have been designed and constructed by Emirati engineers in the UAE.

EIAST has planned to develop several new technologies to achieve the expectations of the satellite, further revealing that the full engineering model of the satellite and a mock-up mechanical model will be expected to be manufactured in the next phase of designs. The manufacturing of the actual flight model of the satellite will follow, which is expected to be launched into space in 2017.

Yousuf Al Shaibani, director general of EIAST, said, "KhalifaSat is a milestone for EIAST as well as for the UAE. It will be an assessment of our capabilities in satellite manufacturing, helping us position ourselves as leaders in satellite development and technology regionally and internationally. A recent design review meeting provided an occasion to evaluate the progress made so far in projects related to the Emirati-designed and built satellite. We are delighted that this progress is as per our timeline and results have exceeded expectations."

EIAST was set up by the Dubai Government in 2006 to promote scientific innovation and technological progress in the Middle East



KhalifaSat project manager Eng. Amer Al Sayegh

Eng. Amer Al Sayegh, director of the Space Systems Development Department at EIAST and KhalifaSat project manager, said, "The team has developed new satellite software that can be used in future satellite projects. We are in the process of finalising the mock-up model of KhalifaSat, which will have a bus similar to that of DubiSat-2, but with an improved mechanical structure that will house a more developed camera.

"The technologies for KhalifaSat were improved by 30 per cent compared to DubaiSat-2, including a highly sophisticated camera system, which will image at a resolution of 70 cm, more storage capacity, faster download speed, and better computing capabilities," he added.

EIAST was set up by the Dubai government in 2006 to promote scientific innovation. Its aim is to improve technological progress in the Middle East and build on the scientific skills and knowledge of Emiratis. EIAST's focus includes outer space research and development, satellite manufacturing and systems development, and ground station support for satellites. ■

Smartworld uses GITEX platform to launch local cloud computing services for customers in the Middle East

SMARTWORLD HAS LAUNCHED local cloud computing, remotely-managed ICT infrastructure and security services and BizPark solutions services for existing small and medium companies and new start-ups at all UAE free zones. Commenting on the launch of the new services, Mohamed Fouz, CEO of Smartworld, said: "The three new revolutionary services will change the business model of companies and establishments and provide them with all the

necessary tools they need to not only be digitally competitive, but also to



Mohamed Fouz, CEO of Smartworld

protect their ICT infrastructure against increased and constantly changing threats, ease access to markets and reduce overall ICT budgets by more than 40 per cent."

"The new services, which will be offered for the first time as a package, will increase companies' digital competitiveness and productivity, and provide huge saving in energy and maintenance bills, efficient floor space usage and enhanced focus on their core business," Fouz added.

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A quick fix: Specialinsert's fastening solutions

SINCE 1974, SPECIALINSERT has been producing fastening systems for different materials and applications. Originally specialising in mechanical fasteners, the company has also introduced the manufacturing of custom solutions, more and more innovative products.

Specialinsert has now developed specific product lines for the construction and building industry.

DEFORM-NUT TC/SC/1 (insert for sandwich panels)

The deformed fastener is threaded by blind rivet nut with double anchoring system, mechanical and chemical. The first one is anchored by the tubular rivet nut on the skin of the material. The second is pasted by adhesive dropped in the hole before the installation of the internal screw insert.

This kind of fastener guarantees flatness during the insertion, avoids choking of the weakened part, works on the total thicknesses of the sandwich panel and can be used and moved immediately.

Some tests were carried out on Deform-Nut TC/SC/1 with the following results:

Sandwich panel with fibreglass skins and foam internal material – Thicknesses 20 mm

Specialinsert	Pull-out strength
TC/SC/M6/20/XZ without resin	686 N
TC/SC/M6/20/XZ with resin	2.550 N

Sandwich panel with aluminium skins and expanded internal material – Thicknesses 20 mm

Specialinsert	Torque strength	Pull-out strength
TC/AM8XZI-M6/15	25/30Nm	3600N
	Screw break 12.9	1° - 3320N / 2° - 4158N

The reported values are indicative and not binding since results from laboratory test that might not be replicable for different applications.

KEEP-NUT (self-anchoring insert for natural stone and compact composites)

This is a revolutionary press-in insert with mechanical anchoring to create threaded

The R&D department focusses on composites to find new fastening solutions for these innovative and versatile materials

seats on panels, even thin, made of marble, granite or other stones, and moreover on composites, carbon, Corian, HPL, glass and others compact materials.

It comes in different lengths, with or without flange, to fit to several different panel thicknesses. Additionally, it can be customised with different versions and sizes, in order to fit the customer requirements.

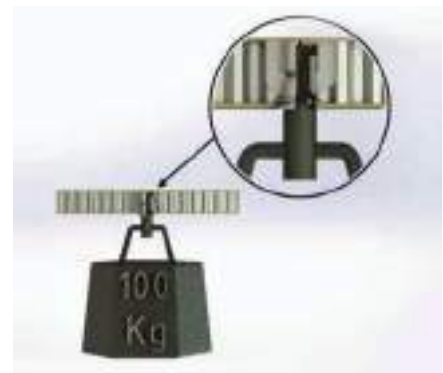
The Keep-Nut insert is specifically developed for ventilated facades, wall-coverings, décor and interiors, furniture, kitchen and sanitary elements fastening and funerary art, to name a few.

MASTER-PLATE (fasteners for bonding)

Master-plate is used when a threaded fastener needs to be installed but it is not possible to drill the surface. It comes with a base plate with different shapes and dimensions and a fastener element — a threaded bush, stud or a nut in different length and thread size — which can be manufactured in zinc plated steel or stainless steel AISI 316.

The 'just in time' production process of the Master-plate guarantees the fastest delivery time and a very competitive price and is used in several industries such as building and construction, automotive, yachting, train and furniture.

Specialinsert will be present at Stand 5E230 in Hall 5 in The Big 5 2014 event to be held in Dubai 17-20 November. ■



DEFORM-NUT TC/SC/1



KEEP-NUT



MASTER-PLATE



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'The Power of One' — an integrated approach

Total solutions provider Cummins Middle East is designing and building complete power systems and services for a wide range of applications.

CUMMINS POWER GENERATION is a world leader in the design and manufacture of pre-integrated generator sets, ranging from 8 kVA to 3,300 kVA. All major components - engine, alternator, transfer switches and control systems - are designed and manufactured in-house, says the company. The company calls this integrated approach 'The Power of One™', whereby each element works in harmony from the start. Cummins also claims to offer a broad range of services before, during and after installation, including 24-hour, seven days-a-week global support.

The company is a total solutions provider, designing and building complete power systems and services for hospitals, airports, data centers, banks, water supplies and other critical facilities around the world. It has been providing efficient power generation products and systems for over 70 years.

Cummins claims the following reasons for why it is the best choice:

- Quality engineering
- Reliability and durability
- Unique product features for convenience and easy use
- Industry-leading sound attenuation



Cummins provides, designs and builds complete power systems and services for critical facilities around the world

- Emissions leadership with superior fuel efficiency
- Integrated solutions from one provider
- Largest network of factory-trained service technicians in the industry
- Broad range of features and accessories

"Leading the industry in advanced emissions solutions, we ensure that our generator sets meet US, EPA and EU

emissions standards wherever possible. Our strong history of emission leadership has enabled us to develop our own emission solutions package in accordance with EPA and EU regulations and requirements," says the company.

Together with its channel partners, Cummins now stocks gensets that comprise the most common regional specifications in the 8-200kVA range, including automatic transfer switches.

Suitable for domestic and commercial use

Additionally, the company offers a complete line of prime and standby power solutions for domestic and commercial use, providing protection from power outages. For example, most heating systems, including those that use oil and natural gas, now depend on electricity to work. In addition, many homes now have medical equipment that requires electricity. While, almost no business can operate without power, and downtime is expensive.

"Reliable standby and prime power systems can benefit both homes and businesses in many ways", says Cummins. ■



Cummins gensets comprise the most common regional specifications in the 8-200kVA range



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New Bobcat one- to two-tonne compact excavators

BOB CAT HAS LAUNCHED the new E17, E19 and E20 – its next generation of one- to two-tonne compact excavators. The compact size and superior stability of the new excavators make them ideal for the most heavy duty applications in confined areas, the company says.

The new models are towable on trailers for up to 2000 kg, with transportability further enhanced by new tie-down points.

Optimum operator comfort and safety

The new cab design features large windows and narrow pillars to maximise all-around visibility. The E20 two-tonne model is a zero housing swing (ZHS) excavator, which, despite featuring a full-sized cab, still enhances zero tail swing functionality by further protecting the front upper structure corners turning within the swing circle. The ZHS configuration in the E20 excavator therefore provides 320° of free rotation when working close to structures without sacrificing on operator comfort or performance.

Access to the operator's seat in all models is simple due to the large door opening and as the control console rises out of the way when he sits. Floor panels can be easily removed for service purposes. When not in use, foot pedals can be folded back to increase space for the operator's feet.

New control panel

The excavators have a new control panel that ensures all parameters can be checked quickly and easily in a single viewing, including standard readouts such as the fuel gauge and RPM meter.

Other features include an easy-to-operate gas spring-assisted light and rigid frame front window, keyless ignition for optimal safety, a battery kill switch for storage and to prevent theft and an automatic slew brake for safe parking and transportation.

The unique hydraulic system makes the



Bobcat's new generation E17 compact excavator



With enhanced stability and lifting capacity, the excavators can operate a wide range of attachments

best possible use of the engine power, says Bobcat. Fast cycle times, combined with smooth control of the class-leading breakout forces provide maximum productivity. Boom and arm cylinder cushioning, another unique feature in this class of excavator, also acts to increase overall smoothness.

With enhanced stability and lifting capacity, combined with best-in-class proportional auxiliary flow, the excavators can operate a wide range of attachments. Stability is essential for making maximum use of the digging forces and lifting capacities. Optimum stability is achieved by fully expanding the retractable undercarriage and using the optional long dozer blade. In addition, though it is a true ZHS machine, the stability of the E20 model is comparable to that of best-in-class conventional machines on the market, claims the company.

Expandable undercarriage

When fully retracted, the undercarriage allows the excavator to go through narrow spaces; and, when fully expanded, it provides optimum stability for the excavator, especially when working over the side. Expansion and retraction are simple and easy via a switch on the control panel.

The use of highly durable materials ensures that these models are hard wearing and robust. All components and design features are tested under extreme conditions and the heavy steel gauge tailgate ensures extra durability.

The tailgate and side cover can be quickly opened to provide immediate access to conveniently located components and other daily maintenance and service points, reducing downtime. Maintenance and service work is further simplified by the diagnostics, including the error codes displayed on the control panel and service tool connection. ■

For more information about Bobcat and Bobcat products, visit www.bobcat.eu



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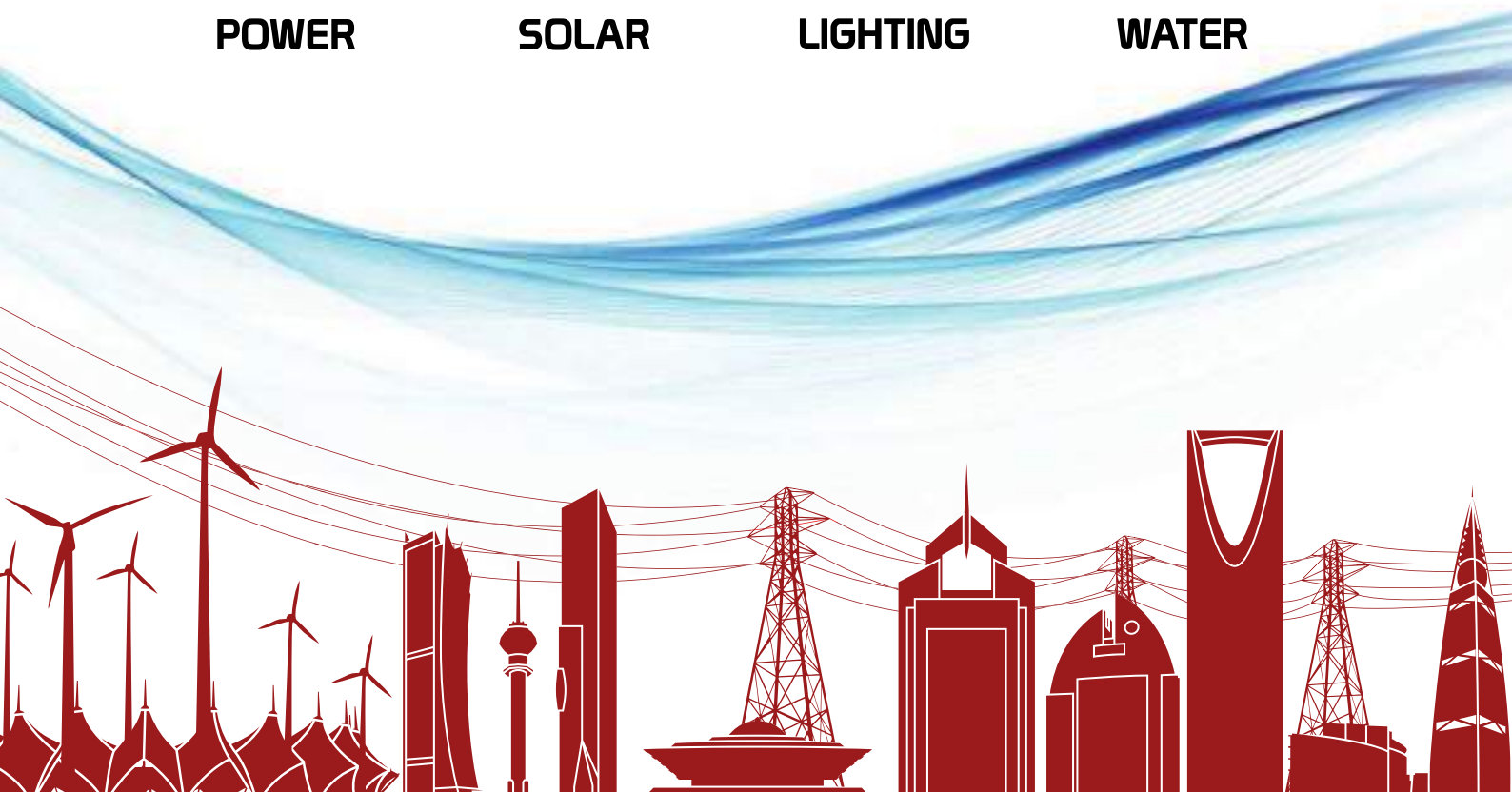
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Terex Finlay launches new crushing and screening models

TEREX FINLAY HAS introduced three new products at its dealer conference in London, UK. The onsite demonstrations also featured 20 product launches and prototypes of Terex Finlay models due to be released in 2015.

The three new products are the J-1175 dual power jaw crusher, C-1540 dual power cone crusher and 693+ inclined screen incorporating the innovative Spaleck screen box.

The dual-powered crushers are electricity-driven. These machines are also fitted with an onboard genset allowing the operator to move and use the machine where there is no electric supply giving them the flexibility and versatility of current standard models. These machines join the 694+ dual-powered inclined screener, which was launched in 2013.

With this, Terex Finlay can now offer operators a full mobile crushing and screening train that can be powered from the mains electric, as well as having the flexibility to run self-powered if required. In applications where a full train is powered by the on-board genset configuration, the crushers generate sufficient energy to enable the operator to run the 694+ dual power inclined screen for free when used in conjunction with the J-1175 dual power jaw crusher.

The third was the new 693+ inclined screen incorporating Spaleck

screening technology. This screen features a unique flip-flow top and bottom deck guaranteeing first class screening of materials including wet, moist, dry and mixed materials including recycling and skip waste, compost, waste wood, timber, aggregates and ores.

A large number of prototype machines were also previewed that include the J-1170AS Jaw Crusher, which will be launched in Q1 2015; V-2050 Vertical Shaft Impactor; C-1554 Cone Crusher; C-1545 Cone Crusher; 873 Heavy Duty Screen and 873 heavy duty screen.

Nigel Irvine, sales and marketing director, said, "It was our pleasure to welcome a huge contingent of our international distribution network to London for the 2014 Terex Finlay Business Conference. This event provided an ideal platform to showcase the significant level

of investment in new product development across our entire range. A display of 20 machines in one location demonstrated the breadth of our product portfolio. During the conference, we outlined our aggressive new product road map, shared a clear vision of where we and our business partners should be positioned in the coming years and reinforced our commitment to provide world-class products, supported by exceptional levels of customer service. This was an exciting event."



Terex Finlay's J-1175 dual power jaw crusher



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Integrated Cat technology for 323E L excavators

CAT GRADE CONTROL depth and slope technology is now standard on Cat 323E L (N) hydraulic excavators sold in Europe with the 2.9-metre stick and standard reach boom.

This 2D system is integrated into the machine's standard monitor and indicates real-time positioning and cut-and-fill information to assist operators with efficiency and accurately achieving consistent depth and slope grades. This results in faster times to complete work with fewer passes, increased fuel savings, minimal expense for grade staking and checkers. Significant productivity increases of up to 35 per cent and documented fuel savings of up to six per cent have been achieved with the system. Sensors and components are built into the machine, which reduces the risk of theft or damage during operation and increases machine resale value. Integrated joystick buttons allow operators to adjust grade settings without removing hands from the controls, while the display provides a simple environment for the operator to interact with the system. Audible warning indicators can be activated to alert the operator if the bucket cutting edge or tip is above, on, or below grade.

If advanced capability is required, customers can easily upgrade to the Cat AccuGrade system with 3D grade control to help them achieve precise results on complex designs. The machine comes pre-wired from the factory and with rear-mast mounts for easy upgradeability.

Elettrondata unveils solution for concrete specimens' control

ITALY-BASED ELETTRONDATA has unveiled its ED.Cube automation system for controlling concrete specimens to simplify logistics management. The company said that the ED.Cube automation system, which makes use of RFID technology, has four main advantages. Firstly, it can help a concrete manufacturer which wants to manage the specimens quickly and properly. Secondly, the automation system can aid a technical project manager who needs to quickly identify the authenticity of the specimens during the acceptance tests. Thirdly, the automation system can be used in a laboratory where it can test the specimens quickly. It can also be



The ED.Cube automation system has smart traceability, which guarantees transparency in the production process

used for laboratory management. Finally, it can be used in the technological laboratory in order to feed the information data base of software applications for the generation and optimisation of mix designs. The system is currently pending Italian patent approval.

VIN-SiteSafe's tag-based PWAS system fulfils Saudi Aramco's safety needs

TO PREVENT ACCIDENTS on mining and construction sites, Vin-SiteSafe has developed proximity warning and alert systems (PWAS), which are 100 per cent compliant with Saudi Aramco's requirements. According to the company, Saudi Aramco places paramount importance on safety on its construction sites, especially in view of its forthcoming mega-infrastructure and oil and gas construction projects lined up for the next five to 10 years.

Vin-SiteSafe revealed that in Bint Al-Wadi Company it also has in place a dedicated local system integrator in the Kingdom to stock the devices.

Rowena Villamin, operations manager of Vin-SiteSafe, said, "Our approach with the tag-based PWAS has always been to fit on any equipment big or small utilising the plug and play concept."

Vin-SiteSafe is a tag-based PWAS with rear/multiple view camera control system to detect personnel and objects within a pre-determined safety zone around vehicles, machines and hazardous areas. It can provide an all-round view using a rugged camera and display system. It provides an audible and visual warning to vehicle operators wearing a transponder tag. It is also effective in significantly reducing the risk of collision between industrial vehicles and personnel.

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Japan's Kyocera Corporation joins Imec's advanced silicon solar cell technology programme

JAPANESE ELECTRONICS MANUFACTURER Kyocera Corporation has joined Belgian nanoelectronics research centre IMEC's industrial affiliation programme (IIAP) to advance next-generation crystalline silicon solar cells.

The multi-partner R&D programme aims to increase the efficiency of solar cells and modules, while at the same time lowering the cost of solar power generation. The programme looks to develop innovative industry-relevant solutions on different crystalline silicon solar cell technology platforms with improved efficiencies ranging from 22.5 per cent to 25 per cent.

Researchers from energy companies, solar cell manufacturers and material and equipment suppliers have collaborated with IMEC's solar experts to develop advanced processes by testing them on IMEC's semi-industrial pre-pilot line.

Luc Van den Hove, president and CEO of IMEC, remarked, "It is my strongest conviction that only by investing in R&D and innovation can companies prepare for the future in order to stay ahead of the competition in a challenging environment such as the PV market."

Nobuo Kitamura, general manager of the Corporate Solar Energy Group at Kyocera Corp, added that as a pioneer of solar energy with more than four decades of experience, Kyocera Corp remains committed to promoting the further use of solar power generation.



The most prevalent bulk material for solar cells is crystalline silicon

AREVA begins virtual nuke training programme

AREVA HAS LAUNCHED its innovative training system SIBAG. The system has been designed to foster the development of best habits and reflexes while operating within glove boxes – sealed container used for handling sensitive materials.

SIBAG is the first 'serious game' simulator designed to enable operators to hone skills and behaviours in real-time. Operated in a realistic and interactive environment, operators control the actions of an avatar directly using a touchscreen. SIBAG training began in October 2014 at the AREVA Melox plant in Southern France. A report in *Forbes* said that Saudi Arabia is keenly exploring the use of nuclear and solar energy to replenish its energy sources. According to the Gulf Research Centre, the total electricity consumption in the Kingdom exceeds 200bn kWh per year, which is expected to double by 2030. Also, the Emirates Nuclear Energy Corporation (ENEC) had signed an MoU with Abu Dhabi Polytechnic on a joint vocational training programme to develop a local workforce to support the UAE's nuclear energy industry.

Abu Dhabi is building four nuclear reactors at Barakah to tap nuclear and renewables in order to replace oil and gas in generating power.



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Ansaldo Energia awarded US\$444mn in UAE contracts

ANSALDO ENERGIA, THE global supplier, installer and service provider for power plants and components, revealed that it has won a series of contracts worth €350mn (US\$444mn) in the UAE.

The news follows the financial closure of the combined cycle power plant project, rated 1,600MW and located in Mirfa, 200 km west of Abu Dhabi.

One example of a recent contract includes a delivery Ansaldo Energia, working as part of a consortium with Hyundai Engineering

and Construction (HDEC), will make to the project company Mirfa International Power and Water Company.

The delivery will consist of the three AE94.3A gas turbines, two MT20 steam turbines, five air-cooled turbogenerators and relevant auxiliary systems, according to the company.

Also Mirfa International Power and Water Company awarded Ansaldo Energia with a 25-year long term maintenance contract to service the gas turbines.

MAN Saudi partner wins assembly process award

MAN TRUCK & BUS has announced that its truck assembly partner Saudi Automotive Manufacturing Company (SAMCO) won a global best practice competition for securing quality and increasing efficiency of its assembly plant.

Opened in 2009, SAMCO's Jeddah assembly plant has a production capacity of 3,000 units a year and, according to MAN Truck & Bus, is key to the company's growth strategy in a promising and fast-growing region.



Executives from MAN Truck & Bus and its assembly partners worldwide gathered at the xKD Customers Days 2014 (Photo: MAN Truck & Bus)

Heinz-Jürgen Löw, sales and marketing representative for the board of MAN Truck & Bus AG, said, "SAMCO has a very passionate and committed team with a high work ethic. In its best practices, it demonstrated continuous development of the production process such as an efficient supply chain management, innovative equipment designs for the production line and a sophisticated training system for all employees for which SAMCO had been already awarded in 2013."

SAMCO was awarded the prize at xKD Customer Days 2014, which was recently held at the MAN Truck Forum in Munich.

According to the truck manufacturer, xKD refers to any level of decomposition of a truck – completely knocked down, break down level or semi knocked down – in the assembly process and describes different truck assembly kits.

"The xKD business is important for the company's growth. We want to increase the quantities in the xKD countries," explained Löw.

The company's intention in running the xKD Customer Days was to strengthen the global xKD-network, provide an overview of all xKD processes and of the portfolio, receive inputs for further development of the business, and encourage an exchange of knowledge regarding xKD-assembly plants.

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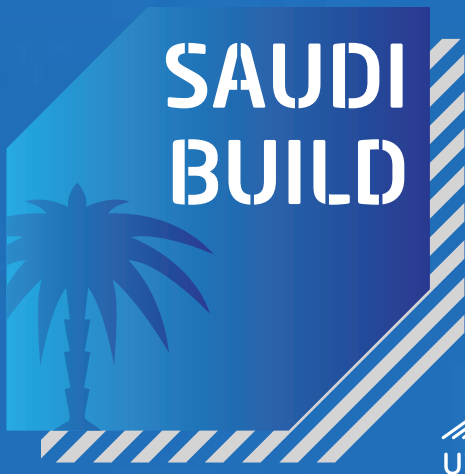
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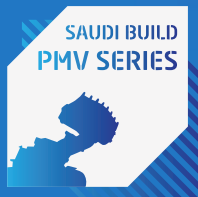
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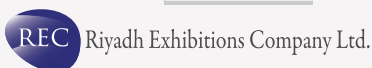


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Himoinsa launches renewable energy hybrid generator

HIMOINSA HAS INTRODUCED a hybrid generator, with a full range reported to be launched in the coming months, which uses renewable energy and can reduce diesel consumption by 40 per cent.

With a maximum DC output of 15kW and 48V, the new range has a variable speed of 1,300 rpm to 3,000 rpm and can be used in conjunction with various sources of renewable energy, such as solar panels.

Agustin Rodrigo, Himoinsa network development manager, said that the combination of renewable and traditional power sources saves fuel, because the running hours of the genset are reduced. Emissions are also lower as the generator uses renewable energy as much as possible.

A global challenge in using green energy sources is maintaining long-term efficiency. In much of the Middle East, for example, settling dust and sand can often pose a problem and affect the efficiency of solar panels.

Despite using renewable energy as the key source of power, the hybrid overcomes this



Himoinsa's new hybrid generator sets have a variable speed of 1,300 rpm to 3,000 rpm

challenge by utilising a traditional battery-powered generator to supplement the energy flow if the primary source stops working efficiently. According to Himoinsa, this means, as well as saving battery power, operators ensure optimised and steady operations through various weather conditions and throughout the night if necessary.

Guillermo Elum, director of sales and

marketing at Himoinsa, explained, "[The hybrid] can generate power through wind and the solar panels, and when solar panels become less efficient or we don't have enough wind, [you can] start the generator."

Rodrigo said that the control panel on the hybrid generator set, which consists of 100 per cent Himoinsa electronics, can monitor each battery independently and control the connected alternative power source in order to select the most convenient one.

He added, "The control panel is able to decide which is the best energy source for optimal operations, thereby increasing the efficiency of the system."

The engine, which is powered by Yanmar, not only allows the rpm to be adapted according to specific operations, but Himoinsa claims that it boasts approximately 500 hours free of maintenance.

A heat exchanger within the unit helps to cool the inside the canopy, while the easily-removed battery unit includes 700Ah as standard and 1500Ah as optional.

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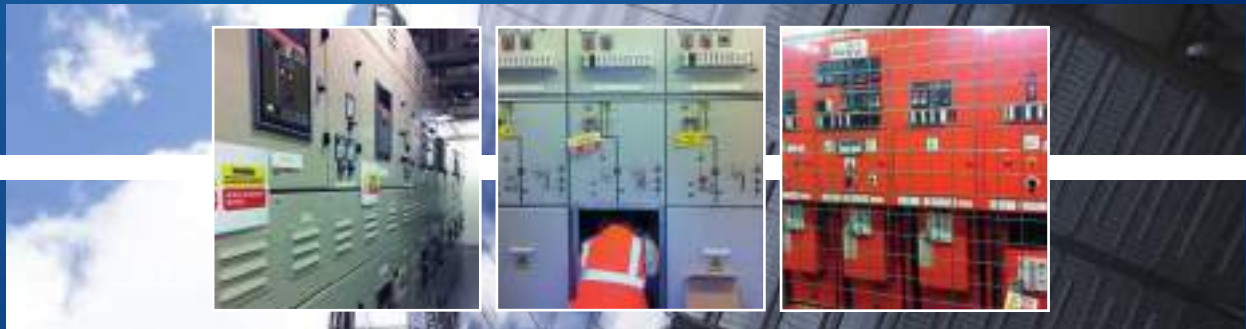
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Briefly

Eros Group to sell TCL's LED range in UAE

EROS HAS STARTED distributing TCL's LED lighting throughout the UAE. The consumer electronic powerhouse is the distributor of brands Samsung, Hitachi, TCL and Linksys in the Middle East.

LED (light emitting diode), unlike fluorescent lighting, does not work with a filament. Instead the entire LED light source consists of a semiconductor solid material, making it more durable. Another advantages include savings on long-term costs as they last for 60,000 hours and LEDs are environmentally-friendly as they do not contain dangerous materials.

Niranjan Gidwani, deputy CEO of Eros Group, said, "We are excited to introduce TCL's LED lighting in the UAE. This addition to our portfolio reinforces the Eros Group vision of providing our consumers the best possible product."

Novelis hikes aluminium sheet price

NOVELIS, AN ALUMINIUM rolling and recycling manufacturer, has increased the price on its pre-anodised aluminium sheet products.

The 10 to 15 per cent price rise will be effective 1 January 2015 on all new orders. This increase is due to the recently announced processing cost increase of their anodising partner Coil S.A., the company said. Erwin Mayr, senior VP of Novelis and president of Novelis Europe, said, "The price adjustment reflects the increase in our production costs combined with tighter rolling capacities throughout the industry."

GE to open up Industrial Internet platform to help create industry apps

GE'S SOFTWARE PLATFORM Predix, which will power the Industrial Internet, will be made available to users in the Middle East, North Africa and Turkey (MENAT) markets in 2015. According to GE, Predix will enable them to create and deploy their own customised industry apps at speed and scale to better manage the performance of their assets.

The launch of Predix closely follows the unveiling by GE of 'The Future of Work in MENAT,' a roadmap to unlock the growth potential of the region by redefining economies of scale, creating new jobs for youth, promoting small and medium enterprises and accelerating the pace of innovation, GE said.

A key pillar in 'The Future of Work' is the Industrial Internet — the merger of cloud-based analytics (big data and industrial machinery) to boost efficiency. Globally, GE is on track to deliver more than US\$1bn in incremental revenue this year from 40 Industrial Internet offerings. Jeff Immelt, CEO of GE, said, "The tools are in place to realise the potential of the Industrial Internet to increase productivity for our customers and for GE. By opening up Predix, companies of any size and in any industry can benefit from the investments GE has made by eliminating the barrier to entry."

GE also launched the Predix App Factory, an advanced methodology for rapidly prototyping, validating and developing Industrial Internet applications that shortens typical development cycles from months to weeks.

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Tank cleaning with URACA TWK

The containers are cleaned inside and outside whereby plaster, lacquer, paints and similar substances are removed before refilling. The procedure is subject to ecologically sound high-pressure technology. Using high-pressure water, various incrustations can be removed from inside of autoclaves, reactors, spray towers and vessels. The pump unit discharges high pressure water of up to 1600 bar through the URACA tank cleaning head nozzles.

Certified according to EC directive 94/9/EC for category 1, URACA tank cleaning heads series TWK can also be used in explosion proof areas zone 0 and zone 20. Optimised displacement circle diameter allows use of cleaning heads even with small access openings.

URACA's high pressure water cleaning of vessels is reportedly a pollution-free procedure without chemical additives, mechanical tools or boiling. The waste water is disposed of just by separating it from the cleaned products.

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Jotun's fire safety coating claims industry first

Jotachar JF750 paint has proven to be effective against jet fires in steel structures, providing an extra level of safety for operators in the oil and gas industry.

NORWEGIAN PAINTS AND coating company Jotun has showcased its advanced portfolio of protective coatings solutions at the recently held 2014 Middle East Steel Conference in Dubai.

Jotachar JF750, described by its manufacturer as a mesh-free passive fire protection (PFP) coating, has been designed to reduce installation time and material costs on offshore and onshore installations. Jotun has claimed it is the only mesh-free epoxy intumescent coating solution available on the market where jet fire protection is required for safety critical steel structures and vessels.

Recent testing has demonstrated that the paint has exceptional jet fire performance in ISO 22899 safety standard testing, providing steel protection against jet fires for up to two hours, without the need for any additional mesh reinforcement.

Jotachar JF750 is also fully compliant with NORSOK M-501 Revision 6, a global industry standard determining requirements for the selection of coating materials, surface preparation, application procedures and inspection for protective coatings to be applied during the construction and installation of offshore installations and associated facilities.

An increase in the number of projects across the energy and infrastructure sectors has created a growing demand for eco-friendly paints and coatings. To cater to the demand, Jotun has invested more than US\$25mn into research and development initiatives dedicated to developing key advanced eco-friendly products and solutions.

Jotun has reiterated its commitment towards driving sustainable practices with the roll out of the 'GreenSteps' initiative — a five-point programme that benchmarks products that conform to world-class green building standards. The 'GreenSteps' initiative encompasses reducing energy consumption, carbon footprint, waste and use of solvents or volatile organic content (VOC), as well as hazardous materials.

The drive to sustainable solutions has landed Jotun a number of prominent development projects in the Middle East including

Jotun has been part of prestigious projects like Burj Al Arab, Dubai Metro, Dubai International Airport and also the world's tallest tower, the Burj Khalifa



Jotun's Jotachar JF750 paints have been used at RWE DEA Disouq Gas Refinery in Egypt

Masdar, MIST 1A, Bateen Park, Bloom Gardens and Ritz Carlton.

Jotun, which has operated within the UAE since the 1970s, has established three primary factories in the UAE for the production of decorative paints, marine paints and powder coatings.

Its customers across the Middle East include Saudi Aramco, GASCO, Abu Dhabi Water & Electricity Authority, Abu Dhabi Marine Operating Company, Kuwait Oil Company, Sonatrach, Gazprom, ExxonMobil, BP, Shell, Statoil, Saipem, ENI and Total, and a host of other companies in operations throughout the region.

Jotun currently operates 11 manufacturing facilities across the Middle East, India and Africa.

Some of Jotun's offerings are:

- Jotun marine coatings for ships, buildings, dry/dock and onboard maintenance markets.
- Jotun powder coatings for appliances, furniture, building components, pipelines and general industries.
- Jotun protective coatings for offshore, energy, infrastructure, hydrocarbon processing and storage tanks. ■

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حاجز الـ ٢٣,٢ مليار دولار أمريكي في ٢٠١٤». وبحسب خبراء هذا المجال، فإن المعدل المتنامي لمشروعات تطوير أعمال الإنشاء والبنية التحتية في الكويت سيتجاوز مجرد التأثير على الأشخاص والشركات المرتبطة بها بشكل مباشر. وبما أن الحاجة لمستويات أعلى من الخدمة تنمو بالتوازي مع الاستثمارات القائمة، فإن مشروعات الإنشاء ستعزز أيضاً تطوير قطاع إدارة المرافق، وهو ما تقتصر إليه هذه الدولة العربية. فمع تشييد المزيد من المباني وإقامة المزيد من مشروعات البنية التحتية، تزداد الحاجة لضمان استمرار منظومة المباني هذه في أداء وظائفها. وقد رُصدت أدلة على الاهتمام المتزايد بهذا القطاع تجلت في انعقاد مؤتمرات إدارة المرافق في معرض الكويت الدولي خلال أول أيام معرض «بيج فايف الكويت ٢٠١٤». ويقول مايك دولتون، رئيس المعهد البريطاني لإدارة المرافق: «تعاظم، خلال السنوات الأخيرة، الوعي بقطاع إدارة المرافق، وقد تجلّى ذلك في إنشاء المباني الكبيرة التي تعتبر ضمن المعالم الأيقونية والحاجة لصيانتها والمحافظة عليها في حالة جيدة». علاوة على ذلك، أفاد بسام حمادي، المهندس المقيم في مدينة صباح السالم الجامعية، بأن «إدارة المرافق تعتبر اليوم حاجة ملحة في الكويت، وأرجع ذلك إلى أسباب عدة، منها نقص الوعي بهذا الأمر، وعدم تطبيقه أو استخدامه في العديد من المرافق، أو نتيجة الظروف المناخية القاسية». علاوة على ذلك، ومع كل مشروعات الإنشاء المخطط لها، أو التي يجري العمل بها في الوقت الحالي، إلى جانب النمو المتوقع لقطاع إدارة المرافق، سوف يتاح المزيد من فرص العمل في العديد من الوظائف والمجالات. ولاشك أن الدور الرئيسي الذي تلعبه الحكومة في هذه التنمية، والذي يتم بشكل رئيسي من خلال الشراكات بين القطاعين العام والخاص والتمويل، يتيح لأصحاب الكفاءات المحليين شغل العديد من هذه الوظائف الجديدة، بحيث يتماشى ذلك مع توجه الحكومة لتوظيف عدد أكبر من المواطنين الكويتيين الأصليين. ولفت حمادي إلى أن «القطاع العام يواصل تطبيق عملية التوطين ولا سيما في القطاعات الإدارية، مما يفتح آفاقاً رحبة أمام الكفاءات الكويتية لإدارة مشروعات إدارة المرافق». كذلك أقرت الكويت خططاً ضخمة لدفع عجلة الاقتصاد المحلي على مدى السنوات الخمس المقبلة، ولديها الكثير من التوقعات. فإذا حققت الاستثمارات الغرض منها وتم تنفيذ مشروعات البنية التحتية، سيؤدي ذلك إلى تعزيز دور الكويت وسُمعتها على مستوى دول الخليج وتنمية اقتصادها. وبالنظر إلى السنوات الأخيرة، فإن السؤال على ما يبدو هو ما إذا كان سيتم تحقيق الأهداف بنجاح كما هو مخطط له في خطة تنمية الكويت. على أية حال، تبدو الحكومة الكويتية عازمة على أحداث التغيير، وعلى وجه الخصوص تنويع اقتصادها المعتمد على النفط.



قطاع البنية التحتية الكويتي يشهد نمواً هائلاً خلال السنوات المقبلة

المتوقع أن تبدأ أعمال الإنشاء عام ٢٠١٧ وأن يبدأ النظام العمل بحلول ٢٠٢٠. هذا وقد أوضحت التقارير أن الكويت أيضاً بصدد ضخ ١٠ مليارات دولار أمريكي في مشروع السكك الحديدية الوطني في الكويت، ويهدف الأخير لإنشاء شبكة سكك حديدية متكاملة ذات مسار مزدوج يبلغ طولها ٥١١ كيلومتراً.

طموحات القطاع البحري

من السماء والأرض إلى البحر، تتضمن خطة تنمية الكويت أيضاً مشروعات إنشائية تموية موجهة للبنية التحتية البحرية في الكويت، أبرزها مشروع ميناء مبارك الكبير بجزيرة بويان، والذي يتكلف ١,٢ مليار دولار أمريكي. وبتطبيق البرنامج الاستثماري، تتحول جزيرة بويان، أكبر جزر الكويت، إلى ميناء بحري تجاري يسهم في تعزيز الاقتصاد. ومع الأخذ في الاعتبار هذه المشروعات وقطاع البنية التحتية المزدهر بوجه عام، شهد شهر سبتمبر/أيلول ٢٠١٤ عودة معرض بيج فايف الكويت، وهو أكبر معرض للبناء وأعمال الإنشاء في الدولة. وقد أقيمت آخر فعالياته عقب انطلاقة الناجحة في ٢٠١٣، والتي شهدت حضور أكثر من ٥٠٠٠ محترف على مستوى الصناعة. ووفقاً لدراسة حديثة منقولة عن منظمي المعرض، من المتوقع أن تبلغ قيمة عقود المشروعات الإنشائية في الكويت ١٧,٥ مليار دولار أمريكي بنهاية عام ٢٠١٤. ويقول آندي وايت، مدير معرض بيج فايف الكويت: «إن الحاجة للتقنيات الحديثة ومواد البناء الجديدة، تتزايد بشكل مستمر في الكويت بفعل الأداء القوي لقطاع الإنشاء والبنية التحتية». وأضاف: «ستلأس التكلفة الإجمالية لمشروعات البنية التحتية والإنشاء

وتوسعة الموانئ. وتعكس خطة تنمية الكويت إدراك الحكومة الكويتية للمخاطر التي تواجه اقتصادها بالاعتماد، قلباً وقالباً، على قطاع النفط. وهي توضح مدى تقدير مسؤولي الدولة لاحتية تطوير بنيتها التحتية من أجل بناء اقتصاد قوي، والتحول بشكل فعلي إلى مركز نفوذ إقليمي حقيقي خلال العقود القليلة المقبلة. وعلى الرغم من ذلك انتهت مدة خطة تنمية الكويت في وقت سابق هذا العام، ولم يتم اعتبارها ناجحة بوجه عام. فقد ذكرت التقارير أن الحكومة أنفقت ٥٧ في المائة فقط من الميزانية المخصصة حتى يناير/كانون الثاني ٢٠١٤، كما لم يتم إنجاز العديد من المشروعات الكبرى، وذلك في الأساس بسبب تأجيل البت فيها حتى دراسة خطط وزارة المواصلات لمراجعة خطط الخصخصة الكبرى. ومع ذلك، فقد أعلن في شهر أغسطس/آب ٢٠١٤ أن هناك خطة تنمية خماسية جديدة تهدف لإمداد أعمال تطوير البنية التحتية للدولة بالطاقة المتجددة، والتي من المزمع أن تمتد بين عامي ٢٠١٥ و ٢٠٢٠. ووفقاً لتقرير حديث صادر عن شركة «فينشرز ميدل إيست»، رصدت الحكومة الكويتية مبالغ طائلة لحساب خطة تنمية الكويت الجديدة، بميزانية سنوية تبلغ ٣,٥ مليار دولار أمريكي لعام ٢٠١٤. كما أوردت التقارير أن الشراكة بين القطاعين العام والخاص يُنظر إليها باعتبارها عاملاً أساسياً لنجاح خطة تنمية الكويت الجديدة.

تطوير قطاع النقل

من بين أحد أكبر مشروعات البنية التحتية، المزمع تنفيذها ضمن خطة تنمية الكويت، توسعة مطار الكويت الدولي بتكلفة ٦ مليارات دولار أمريكي. ويشمل البرنامج إعادة تطوير المطار على نطاق واسع لإمكانية زيادة طاقته الاستيعابية بشكل كبير. وسوف تركز عملية إعادة التطوير في الأساس على تحسين المباني ومحطات إطفاء ومركز الإنقاذ وطرق الخدمات، هذا إلى جانب إنشاء قاعة وصول ثانية. ومن المقرر أن توجد القاعة الجديدة جنوب القاعة الحالية، وأن ينتهي العمل بها بحلول شهر سبتمبر/أيلول ٢٠١٦. وقد أوردت التقارير أن إنشاء هذه القاعة سيتكلف ٣,٣ مليار دولار أمريكي، وستوفر الخدمة لعدد ١٢ مليون راكب سنوياً بشكل مبدئي، علاوة على تنفيذ خطط رامية لزيادة هذا العدد إلى ٢٥ مليوناً في المستقبل. ويأتي ضمن المشروعات الأخرى، المزمع تنفيذها بقطاع النقل في الكويت، أحد مشروعات البنية التحتية واسعة النطاق، وهو مترو الكويت، والذي قدرت شركة فينشرز ميدل إيست تكلفته بـ ٧ مليارات دولار أمريكي، وقد تم تنفيذه وفق الخطة التنموية الأولى. وقد انتهت وزارة المواصلات. مؤخرًا من إعداد مخطط لمشروع مترو الكويت، وسوف يضم ٦١ محطة موزعة على ثلاث سكك حديدية تشمل جميع محافظات الكويت. ومن

الكويت تعاود التركيز على الاستثمار في البنية التحتية

ذكر مستشارو الإدارة ومقدمو بحوث السوق في شركة «فينشرز ميدل ايس» أنه من المتوقع، لسوق البنية التحتية الكويتية، والتي تشمل مشروعات في قطاعات النقل والطاقة والمياه والقطاع البحري، أن تشهد نمواً هائلاً خلال السنوات المقبلة. وبحسب التقديرات، يُتوقع أن تبلغ قيمة العقود الممنوحة ٧,٣ مليار دولار أمريكي بحلول عام ٢٠١٥، وهي زيادة تتجاوز ٥٠ في المائة عن العقود المبرمة في عام ٢٠١٢ والتي بلغت قيمتها ٤,٧ مليار دولار أمريكي.

غير أن التقدم في هذا القطاع كان أقل مما هو مطلوب فيما مضى. ففي عام ٢٠١٠، أطلقت الكويت خططها المبدئية للاستثمار، والتي أقرت أن الخصخصة والبنية التحتية عاملان رئيسيان للنجاح في تنمية اقتصاد الدولة. وبحسب خطة تنمية الكويت، أعلن المسؤولون أن تطوير البنية التحتية للدولة يتطلب ضخ ١٠٤ مليارات دولار أمريكي، يتم استثمارها في مشروعات تهدف لإنشاء المزيد من مرافق النقل وتحسين خدمات السكك الحديدية



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سيمنز تقدم المكونات الكهربائية لمحطة توليد كهرباء مصرية



وافقت سيمنز، التي لها مكتب في مدينة مصدر بأبوظبي، على تزويد محطة السويس للطاقة بالعدات

الثقة التي يحظى بها سجلنا العريق والحافل فإن توفير التقنيات، التي تتسم بالكفاءة والمرونة، قد أصبح ضرورة ملحة لمواجهة تزايد معدلات الطلب بالإنجازات في قطاع توليد الكهرباء». وأضاف: «إن سوق الطاقة في مصر يتطور بشكل متسارع، مما يتطلب استثمارات كبيرة في البنية التحتية.

وافقت شركة سيمنز، الرائدة في مجال الأنظمة الإلكترونية، على تزويد محطة السويس الحرارية لتوليد الكهرباء والتي تعمل بالبترول، بالمكونات الكهربائية الرئيسية. وسوف تزود الشركة، التي يوجد مقرها الرئيسي في ألمانيا، المحطة بحزمة كهربائية كاملة تشمل منظومة الكهرباء غير المنقطعة، ومختلف أنواع الكابلات. علاوة على ذلك، ستتولى سيمنز أيضاً تركيب واختبار وتشغيل المعدات التي توفرها شركة شرق الدلتا لإنتاج الكهرباء، حسبما ذكرت الشركة في بيان لها.

ومن المتوقع أن تعمل سيمنز، من خلال هذه الحزمة، على تحسين أداء محطة الكهرباء بشكل فعال. وتعتبر محطة السويس الحرارية لتوليد الطاقة جزءاً من الخطة القومية الرامية لتحسين إمداد الكهرباء بين دول شمال أفريقيا.

وقال عماد غالي، رئيس قسم توليد الطاقة بشركة سيمنز مصر: «حصول شركة شرق الدلتا لإنتاج الكهرباء على هذا العقد لإنشاء مصنعها الجديد، وهو واحد من أكبر المصانع في مصر، يعد دليلاً على

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«دريك آند سكل» تفوز بعقد في السعودية

السعودية، وتطلع لتقديم مشروع بارز يكون أحد المعالم البارزة في مدينة الرياض. ومن المتوقع أن يدر مجمع «أنتارا» السكني دخلاً جيداً من الإيجارات، إلى جانب دخل مالي كبير على المدى الطويل لشركة «جلف ريليتد». وقد صُمم مجمع «أنتارا» على غرار القرى السياحية والمنتجعات المطلة على البحر المتوسط. وهو يتكون من مساحة بناء تبلغ ٩٨١١٥ متراً مربعاً، وتضم ٥٢٠ منزلاً. وقال مسؤولون في شركة «دريك آند سكل» إنه سوف تقام، في مساحة تبلغ ١٥٧٣٠٠ متر مربع، دار حضانة وسوق للمقربة ونادٍ رئيسي ومبنى إداري، إلى جانب مركز للرياضة واللياقة البدنية، وملاعب تنس وكرة سلة وكرة طائرة،

علاوة على صالات للبولينج والبياردو، ومحال حلاقة ومكتبات ومطاعم ومقاهٍ وصالونات مشتركة.



منظر تصوري لمشروع أنتارا في السعودية

منحت شركة التطوير العقاري «جلف ريليتد» شركة «دريك آند سكل لإنشاءات»، التابعة لشركة دريك آند سكل الدولية، عقد إنشاء مشروع سكني بقيمة ١٢٣ مليون دولار أمريكي. ويسمى المشروع السكني «أنتارا»، وسيقام في المملكة العربية السعودية. وهو مجمع سكني مستقل مخصص للوافدين في المملكة، ويقع على مقربة من مركز الملك عبد الله المالي ومطار الملك خالد الدولي.

ومن المُقدَّر أن تنتهي شركة «دريك آند سكل لإنشاءات» من أعمال البناء خلال عامين، حسبما ذكر مسؤولو المشروع. وسوف تنتهي الشركة من جميع الأعمال المدنية والمعمارية والأعمال الميكانيكية والكهربائية والصحية، بما في ذلك الأعمال البنوية والخارجية للمباني السكنية والملحقة في موقع المشروع. وقد صرَّح كريم الصلح، الشريك التنفيذي في شركة «جلف ريليتد» أن «أنتارا» سيكون مشروعاً تطويرياً آخر من الطراز العالمي تقدمه شركة «جلف ريليتد»، حيث يجمع بين رفاهية العيش والراحة العائلية التي تقدمها المنتجعات للوافدين في قلب الرياض. وقد نجحت «دريك آند سكل» في تأسيس سمعة طيبة في سوق المملكة العربية

خرسانة السلامة للمفاعل النووي الإماراتي



العمال يحتفلون بصب خرسانة السلامة على مبنى المفاعل النووي الإماراتي في بركة

أولاً قد اكتملت بنسبة ٥٧ في المائة، ومن المتوقع بدء العمل في المحطة الثانية في ٢٠١٨. وقال محمد الحمادي، الرئيس التنفيذي لمؤسسة الإمارات للطاقة النووية: «إن المفاعلات النووية الأربعة سوف تلبي، حال الانتهاء من أنشائها، ٢٥ في المائة من احتياجات الكهرباء في الإمارات العربية المتحدة، وتوفر ما يصل إلى ١٢ مليون طن من الانبعاثات المسببة للاحتباس الحراري سنوياً».

من الخرسانة حتى يتم تثبيت جدار مبنى احتواء المفاعل للمحطة الثالثة. وسوف سيتم استكمال إنشاء مبنى احتواء المفاعل للمحطة الثالثة على مدى السنوات الثلاث التالية، وسيبدأ عملياته التجارية بداية من عام ٢٠١٩.

وقد حصلت المؤسسة على رخصة لإنشاء المحطتين الثالثة والرابعة من المفاعل النووي، من الهيئة الاتحادية للرقابة النووية. وأفادت الشركة أن المحطة

قامت مؤسسة الإمارات للطاقة النووية بصب خرسانة السلامة على مبنى احتواء المفاعل النووي للمحطة الثالثة في موقع «بركة» في الإمارات العربية المتحدة.

وذكرت المؤسسة، في بيان لها، أنه قد تم صب كمية من الخرسانة تزيد على ١٤٩٤ متراً مكعباً. وأضافت أن هذه المرحلة هي الأولى في بناء المحطة الثالثة من المفاعل النووي. وقالت المؤسسة: «سيتم صب المزيد



من المنتظر أن تبلغ القيمة السوقية العالمية للزجاج المسطح المصنع ٩٠ مليار دولار في ٢٠١٦

صناعة الزجاج تواصل الازدهار في دول الخليج



مشروعات البنية التحتية تمثل ١٦ في المائة من إجمالي قيمة المشروعات لإنشائية في منطقة مجلس التعاون الخليجي

على مدى ثلاثة أيام. وقد كان من بين أكثر أوجه التطوير المثيرة للاهتمام في صناعة الزجاج، على المستوى الإقليمي، إعلان شركة دبي للاستثمار، وهي أكبر شركة استثمارات مدرجة في سوق دبي المالية، في أواخر عام ٢٠١٣ عن إطلاق الزجاج الملون بتقنية طلاء التحكم الشمسي الأول من نوعه، والذي ينتج الطاقة من تلقاء نفسه.

هذا وسوف تنتج شركة «انسولير الإمارات» التي تعتبر جزءاً من شركة «زجاج» الفرعية المملوكة بالكامل لشركة دبي للاستثمار، الزجاج الشمسي في مصنع «زجاج الإمارات» بإمارات العربية المتحدة، وقد تم تعديله لاستيعاب التقنية الجديدة. ويبدو أن التنمية التي يشهدها قطاع صناعة الزجاج ستستمر في المستقبل المنظور. ويعزز ذلك وضع المنطقة في طليعة صناعة الزجاج الإبداعية، إلى جانب مجموعة الصفقات الجديدة التي تتواتر حولها الأخبار.

إن الحاجة لمنتجات الزجاج المسطحة تواصل التزايد، إذ يتبنى مطورو المشروعات أحدث التقنيات في صناعة الزجاج لحماية شاغلي المباني من الأجواء الساخنة والرطوبة بالخارج، وتوفير استهلاك أنظمة تكييف الهواء للكهرباء بداخل المباني. وقد توقع تقرير صادر عن مؤسسة «بومديا» منذ عام ٢٠١٣، ارتفاعاً نسبته ٧,١ في المائة سنوياً في الطلب على الزجاج المسطح على الصعيد الدولي، بحيث يصل إلى ٩,٢ مليار متر مربع بحلول عام ٢٠١٦، وأن تبلغ القيمة السوقية العالمية للزجاج المسطح المصنع ٩٠ مليار دولار أمريكي في ٢٠١٦. ويعزى ارتفاع أسعار الزجاج في منطقة الشرق الأوسط أيضاً إلى الإقبال المتزايد عليه.

وقال عبد العزيز يعقوب السركال، المدير العام لشركة دبي للاستثمار: «نتوقع ارتفاع الأسعار بمعدل سبعة إلى ١٠ في المائة في ٢٠١٤، وذلك نظراً لزيادة أسعار المواد الخام والطلب المتزايد في دول مجلس التعاون الخليجي والأسواق العالمية». وقد شهد قطاع الزجاج عقد عدد من الصفقات خلال الشهور الأخيرة، واستحوذت المملكة العربية السعودية على النصيب الأكبر منها عقب إعلان شركة القلعة وشركة مواد الإعمار القابضة مؤخراً عن شراء شركة «سفنكس للزجاج» المصرية لصناعة الزجاج الطافي.

وفي يوليو/تموز وقعت الشركة اليابانية «أساهي للزجاج» وفرعها في أوروبا AGC Glass Europe خطاب نوايا مع شركة العبيكان السعودية لتصنيع الزجاج لتأسيس مشروع مشترك لإنشاء خط زجاج معزول بتقنية طلاء التحكم الشمسي. وسيتم إنشاء خط إنتاج هذا النوع من الزجاج في مدينة ينبع في المملكة العربية السعودية، حيث يعمل أكبر مصنع للزجاج العائم تابع لشركة العبيكان في منطقة الخليج، ومن المقرر بدء العمليات في المصنع في مطلع عام ٢٠١٦.

وينعكس النمو الذي تشهده هذه الصناعة في نجاح فعاليات؛ مثل معرض زجاج الخليج الذي يقام مرتين سنوياً، والذي من المزمع أن تقام دورته التالية في دبي في شهر سبتمبر/أيلول ٢٠١٥، بعد أن جذب معرض ٢٠١٣ ما يربو على ٢٣٠٠ زائر

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- ٨ الكويت تعاود التركيز على الاستثمار في البنية التحتية



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