

TECHNICAL REVIEW

النشرة التقنية - الشرق الأوسط

MIDDLE EAST

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Vol 31/Issue One 2015

SUNRISE FOR SOLAR

Lighting

The latest in sustainable lighting technology

Desalination

Addressing the Middle East's thirst for water



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A round up of events during Abu Dhabi Sustainability Week and the World Future Energy Summit

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Innovations

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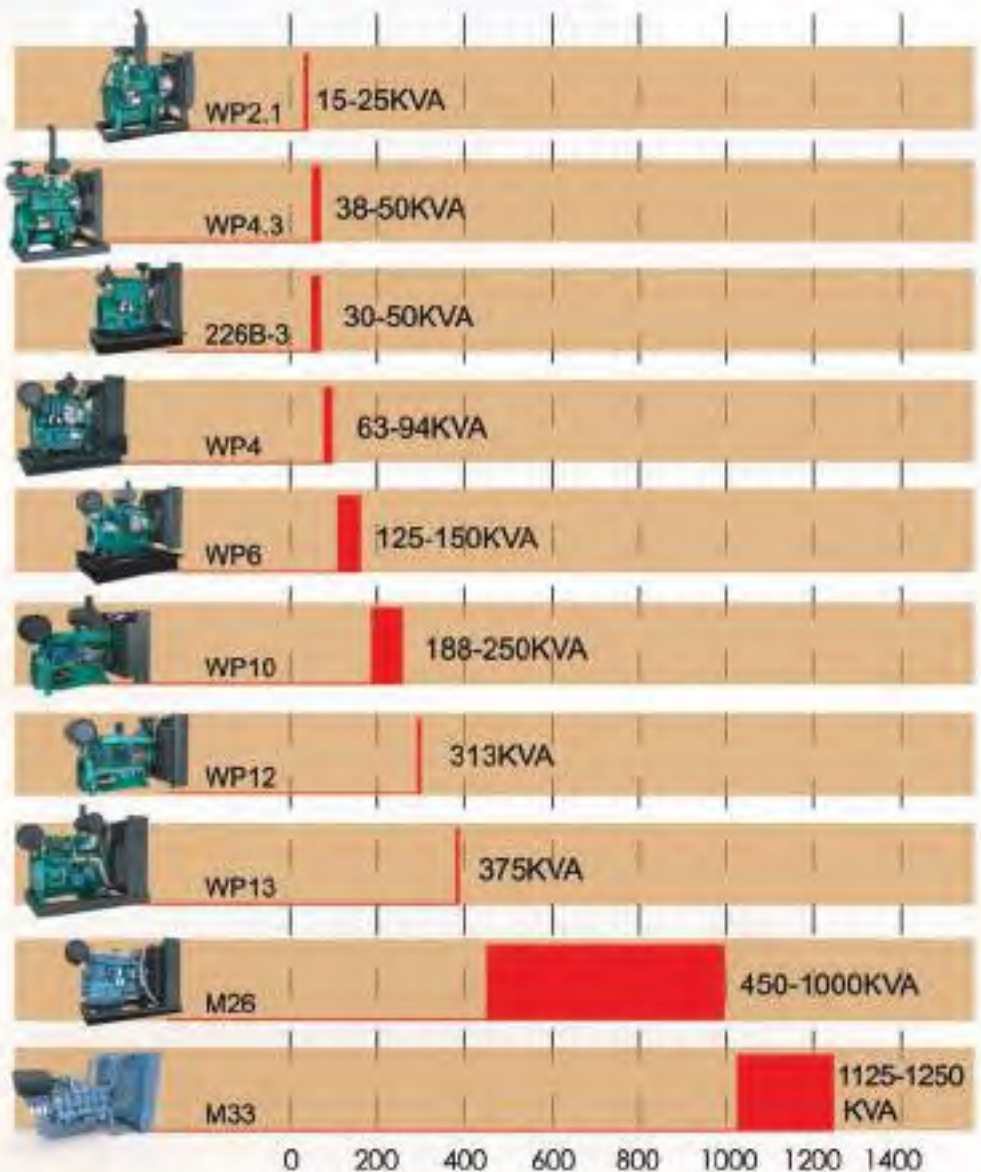
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EDITOR'S NOTE

FOLLOWING THE SUCCESS of the World Future Energy Summit (WFES) in Abu Dhabi this January, the focus on renewable energy is high on the agenda in this issue of *Technical Review*. Speaking to many of the exhibitors at the event, it would seem that this much-publicised industry is finally beginning to receive the attention it deserves from investors weary of the implications that falling oil prices may have on some of the region's largest industrial sectors. With that in mind, we look at the growing demand for solar technologies (p24) and desalination facilities (p32), as well as reviewing the recently concluded WFES (p26) and co-located IWS (p30). Also in this issue, we consider growth within the region's lighting industry (p22) and look at some of the latest developments within the construction equipment and materials sector (p36).

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

Front cover image courtesy of First Solar

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TECHNICAL REVIEW

الخدمة شركات المتخصصة منذ 1981

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MIDDLE EAST

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Briefly

JV appointed for Expo 2020 development

A JOINT VENTURE (JV) comprising of CH2M HILL and Mace has been selected by Dubai World Trade Centre (DWTC) to carry out all real estate and construction delivery-related programme management services for the Dubai Trade Centre Jebel Ali development.

US firm CH2M HILL and UK-based Mace formed the JV to bid for the tender, in order to provide full-service consultancy, real estate programme management, design, construction and operations management for the end-to-end development and delivery of Dubai Trade Centre Jebel Ali and the Expo 2020 Dubai site. The JV, known as CH2M HILL-Mace, will act as real estate programme management consultant for the Dubai Trade Centre Jebel Ali development, which will host Expo 2020 within a gated area during the six-month-long event, which has been scheduled to begin in October 2020.

Ahmed Al Khatib, director of real estate for DWTC, said, "In CH2M HILL and Mace we have a proven partner that we feel confident will enable the delivery of a state-of-the-art home for Expo 2020 Dubai.

"The success of the development is critically linked to its timely and efficient evolution to the planned legacy of the Dubai Trade Centre Jebel Ali, and we look forward to seeing this partnership with CH2M HILL-Mace support DWTC and Dubai in fulfilling this long-term commitment," he added.

Following the close of Expo 2020, the Dubai Trade Centre Jebel Ali development will continue to function as an educational, conference and business area, as it aims to become what CH2M HILL has called a "new focal point of global business tourism for the region, reinforcing the UAE's established position as an international destination fostering thought leadership across key sectors for economic development and a business networking hub through trade fairs, mega-events and conferences".

Mace COO for international markets, Marcus Burley, said, "Receiving an appointment to deliver around the highly prestigious Expo 2020 Dubai further supports our long-term commitment to Dubai and the UAE."

Kingdom rises to second on logistics index



Saudi Arabia's infrastructure, construction and logistics sectors are all set to experience growth in 2015, according to the latest industry reports (Photo: ujahabdul)

SAUDI ARABIA HAS risen from ninth to second place on the Agility EM Logistics Index, an annual data-driven ranking of 45 emerging economies.

The Kingdom was only outscored by China on the Index, with Agility stating that the country's placing was "a reflection of the pace at which it is building a world-class infrastructure, implementing reforms and attempting to diversify beyond oil, which is still half of the economy".

The 2015 Agility Emerging Markets Logistics Index published by the logistics provider said that while the BRICS nations of Brazil, Russia, India, China and South Africa had accounted for much of the previous growth, this year has seen a host of new countries making an impact in the rankings. The index ranks emerging markets based on size, business conditions, infrastructure and other factors that make them attractive for investment by logistics companies, air cargo

carriers, shipping lines, freight forwarders and distribution companies.

The country, which has downplayed the impact of falling global oil prices, has seen continued investment and growth in its infrastructure and construction sectors.

In its Saudi Arabia Infrastructure Report Q1 2015, Business Monitor International (BMI) said, "Saudi Arabia has emerged as one of our choice markets for both scale and growth opportunities over our 10-year forecast period to 2023. We see 2015 being a bumper year of real growth at 10.5 per cent year-on-year, with average growth over the forecast period at 8.7 per cent.

"We forecast strong growth across all sectors over the medium term; the residential and non-residential sectors especially will drive growth over the long-term – specifically the industrial construction sector."

Desalination plant adds to Kuwait's daily water capacity

AZ ZOUR SOUTH desalination plant, which has a daily water capacity of 136,000 cu/m, has been inaugurated in Kuwait.

The plant, located 100 km south of the Kuwait capital, has been in operation since July 2014. The plant reinforces the total daily capacity of water treatment at the Az Zour site by 25 per cent, up to 659,700 cu/m.

The inauguration was held in the presence of HE Abdulaziz Abdullatif Al-Ibrahim, minister of public works and minister of electricity and water in Kuwait, French minister of foreign affairs and international development Laurent Fabius and French ambassador to Kuwait Christian Nakhlé.

Veolia won the project in partnership with Al



HE Abdulaziz Abdullatif Al-Ibrahim, minister of public works and minister of electricity and water in Kuwait (left) and Antoine Frérot, chairman of Veolia (right), during the inauguration of Az Zour South desalination plant

Ghanim International under a Design, Build, Operate (DBO) scheme. The plant will be operated and maintained by Veolia for the duration of five years up until 2019.

"This new desalination plant reflects our global expertise in the desalination sector," said Veolia chairman Antoine Frérot, who was also in attendance at the inauguration. "It demonstrates that the innovative solutions, with high added value, that we offer in the area of water services, as in sanitation, waste management and energy, enable us to meet the most varied technological challenges – particularly that of the scarcity of water resources – and to satisfy the highest requirements of the public authorities and the constantly evolving needs of cities.

"It reinforces our commitment to foster large infrastructure projects in Kuwait and to support the country in its challenge to respond to increasing water demand and to improve the quality of life of its inhabitants."

Veolia was selected by the Kuwait Ministry of Electricity and Water to build the Az Zour South desalination plant in 2011, with the French firm utilising reverse osmosis membrane technology on the project.



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Briefly

Drake & Scull wins hotel MEP contract

DRAKE & SCULL Engineering (DSE), the engineering subsidiary of Drake & Scull International PJSC, has been awarded an AED198mn (US\$53.9mn) MEP contract on an upcoming hotel and serviced apartment complex in Dubai. DSE will deliver MEP services for five hospitality buildings ranging between 15 and 19 floors, with construction work on the complex already underway and scheduled for completion in 2017.

Ahmad Al Naser, managing director of Drake & Scull Engineering, said "DSE is delighted to start 2015 on a very positive note, after a highly successful 2014. We are committed to playing a key role in the ongoing preparations for Expo 2020 through our involvement in several iconic additions to Dubai's landmarks.

"The hotel complex is an ambitious and fresh project that will enable us to showcase DSE's exceptional engineering expertise and help augment Dubai's hospitality and MICE portfolio."

The project will also feature a marina, including four foot bridges and one vehicular bridge, and hard and soft landscaping works.

Boom for GCC smartphone market

THE GCC SMARTPHONE market has seen an increase in business as shipments of 4G LTE handsets grow to more than four times higher than last year's shipments.

According to the International Data Corporation (IDC), smartphones now make up 75 per cent of the phones shipped in the GCC, with the market intelligence firm's *Worldwide Mobile Phone Tracker* revealing that buyers are moving toward 4G handsets.

Nabila Popal, research manager for IDC's handset research in the Middle East, Africa, and Turkey, said, "All Apple handsets from the iPhone 5C and 5S now offer LTE, but there is much greater choice when it comes to 4G Android models. Samsung is now the region's largest vendor of LTE-enabled devices, and while the average price that a Gulf consumer currently pays for a 4G handset is close to US\$600 and has not fallen much over the last 12 months, cheaper models are arriving."

New crane arrives at Oman cargo terminal

GROUND HANDLING CAPACITY at Sohar Port and Freezone in Oman has increased with the arrival of a 100 metric ton lifting capacity crane.

The Gottwald HMK 6407 crane was delivered by SAL Heavy Lift to terminal operator C. Steinweg Oman, which now has three mobile harbour cranes at the multipurpose cargo terminal, increasing its maximum single crane lifting capacity at the port from 80 metric tons to 100 metric tons.

"The crane is a significant investment and one which will support growth at Sohar, as the number of ships and the volume of cargo handled at its terminal continues to grow," said Sohar executive commercial manager Edwin Lammers.

"Demand for project and break bulk is expected to increase in line with investment in major road and rail projects in Oman, and the additional capacity will be significant going forward."



The Gottwald HMK 6407 crane was delivered to C. Steinweg Oman by SAL Heavy Lift

the GCC," added Lammers. "This will boost our contribution to the domestic economy and will create jobs in the logistics industry that will transport cargo to and from Sohar."

Long-term growth in Oman's construction industry has been forecasted at 6.3 per cent, according to C. Steinweg Oman, while the Omani government's five-year spending plan of US\$78bn on infrastructure investment will likely lead to further growth opportunities from the Indian Ocean port.

The region's growing number of infrastructure projects has helped fuel growth at Sohar due to an increase in imported construction materials, while last year saw Larsen & Toubro Heavy Engineering export the world's largest gas plant boiler from the port.

"Sohar's jetties have provided the gateway for the project and construction cargo necessary to build the port and we are delighted that it has increased its ability to serve the industry within the Sultanate and across

Worldwide demand for power tools set for rapid growth

THE GLOBAL DEMAND for power tools has been forecast to grow 4.8 per cent each year, reaching US\$32.9bn in 2018, according to a new study by US-based industry market research firm The Freedonia Group.

The study, entitled *World Power Tools*, revealed that advances in the sector will be fastest in developing markets that have been experiencing increased levels of construction spending, with particular growth predicted in both China and India, which have been modernising their housing stock. In 2013, the USA was ranked as the world's largest consumer and second largest producer of power tools, accounting for 24 per cent of sales and 12 per cent of output. In the Middle East and Africa (MEA) market, annual growth in the power tools sector between 2008 and 2013 stood at 3.8 per cent, with growth of 7.4 per cent – the highest of all regions documented in the study – predicted between 2013 and 2018.

In 2013, power tool demand in the MEA region was valued at US\$800mn by Freedonia Group, which has been predicted to grow to US\$1,145mn by 2018.



The demand for power tools in the Middle East and Africa has been estimated to hit US\$1,145mn by 2018 (Photo: Robert Bosch GmbH)

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Al Batinah Expressway tenders floated

THE OMAN TENDER Board has announced the opening of tenders for packages 7, 8 and 9 of the Al Batinah Expressway project. The US\$2.6bn expressway will link Muscat to Sohar Port and the UAE border, stretching across a distance of 265 km.

A total of 12 local and international construction companies submitted technical offers for the project tenders, which were first floated by Oman's Ministry of Transport and Communication in July 2014.

The Al Batinah Expressway project has been divided into 11 packages, of which six packages have already been awarded.

Among the firms to have already submitted offers for the packages are Larsen & Toubro (Oman) LLC, Consolidated Contractors Co. (CCC) Oman, Galfar Engineering and Contracting, Gharbia Enterprises Establishment, Ozkar Construction Co., Al Wataniyah United Engineering LLC and Fedrici Striling Batco.

Can-Pack inaugurates manufacturing plant in Dubai Investment Park

ALUMINIUM BEVERAGE CAN manufacturer Can-Pack Group has officially inaugurated its new AED200mn (US\$54.4mn) manufacturing plant in Dubai Investments Park.

The 150,000 square feet facility will have a daily production capacity of 1.75mn cans, while the launch of the manufacturing site will this year coincide with Can-Pack Group's 25th anniversary celebrations.

The facility, Can-Pack's second manufacturing plant in the area, will also serve as a warehouse and distribution centre.

In attendance at the inauguration ceremony was UAE Minister of Economy HE Sultan Bin Saeed Al Mansouri, and Dubai SME CEO HE Abdul Baseet Al Janahi and Khalid Kalban, CEO of Dubai Investments. Speaking at the inauguration, Can-Pack Group CEO Philip Impink, said, "This facility has enabled us to bring our total capacity of cans to over 1.6bn per annum or five million cans per day."

Alstom wins railway line project in Egypt

ALSTOM HAS BEEN awarded a contract worth EUR100mn (US\$113.7mn) by Egyptian National Railways (ENR) to supply signalling equipment for the 240 km-long Beni Suef-Asyut regional railway line in Egypt.

Under the terms of the contract, French firm Alstom will also provide maintenance for a five-year period, with delivery set to start in 2016 and the system scheduled to be operational by January 2019.

The company will provide its new Smartlock solution – an Electronic Interlocking System (EIS) – to replace the line's existing electromechanical system, along with trackside equipment, a power supply and a telecommunication system.

The project has been financed by the World Bank and was launched by Egypt's Ministry of Transport as part of its initiative to modernise signalling systems throughout the ENR network.

"We are pleased to have been awarded this major project, which will significantly increase traffic on the line while ensuring higher system availability and greater safety," remarked Gian-Luca Erbacci, senior vice-president of Alstom Transport Middle East and Africa.

"Alstom has been supporting Egypt's railway projects for 30 years, including the Cairo metro,



Alstom will carry out major improvements to the Beni Suef-Asyut line in Egypt (Photo: fcl1971)

and aims to accompany the country for more projects to come."

Alstom Transport, the subsidiary that will carry out the project, employs close to 28,300 people worldwide and manages entire transport systems, including rolling stock, signalling, maintenance and modernisation and infrastructure. In the 2013/14 fiscal year, Alstom Transport recorded sales of EUR5.9bn (US\$6.7bn).

Kuwaiti construction firm selected to develop Iraq airport



The civilian airport will cater to commercial interests in Iraq's Diwaniya governorate (Photo: Avelino Maestas)

IRAQ'S NATIONAL INVESTMENT Commission (NIC) has awarded a contract to construct a new airport in Iraq's Diwaniya governorate to Kuwait's Al-Nasriyah Company.

Under the terms of the agreement, the Kuwaiti firm will build the US\$1.35bn airport as well as operate the facility under a 45-year contract.

Covering an area of 17,500 sqm, the airport will also feature an additional area committed for future expansions, according to Diwaniya governor Ammar Al-Madani.

The development will include a civilian airport and major commercial area, which will be used for transferring cargo. The project has been scheduled to last five years and will be carried out in three stages. It will aim to create 8,000 local jobs and encourage investment in the region.

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ON THE WEB

A round up of the leading developments and innovations recently featured on *Technical Review Middle East's* online portal. To read more or to stay up to date with the latest industry news, visit www.technicalreviewmiddleeast.com.

GCC airports 'keen' to expand facilities and technology

GCC AIRPORTS ARE planning large-scale expansions in the next few years.

Research and Markets has released the *Airport Construction Market in the GCC Countries 2015-2019* report, which has stated that the expansion of airline

alliances in the region is one of the main reasons for the market to flourish. Organisers of the Airport Show, scheduled to be held in Dubai in May 2015, added that GCC airports plan to invest more than US\$100bn towards acquiring cutting-edge technologies that would ensure seamless and safe passenger and freight movement.

www.technicalreviewmiddleeast.com/logistics



Airlines such as Etihad Airways, Emirates and Oman Air are planning to expand their fleet sizes (Photo: Clément Alloing/Flickr)

Qatar's power rental market expected to witness growth, states report

QATAR'S POWER RENTAL market is expected to grow at a compound annual growth rate (CAGR) of 23.3 per cent until 2020, making it a key power rental country in the Middle East, according to 6Wresearch's report *Qatar Power Rental Market 2014-2020*.

The report highlights the renovation of three stadia, construction of nine new stadia, Doha Metro Rail, Lusail City, new expressways and hotels as key projects that will require gensets.

The diesel genset market accounted for most of the market share due to ease of availability, stated the report. Gensets with rating 100.1KVA-350KVA and 350.1KVA-750KVA are preferred due to their extensive usage across various applications. RSS, JTC, Byrne Investments, Hertz, Aggreko, Qatar Building Company, Al Reyami and Qatari Industrial Equipment are key players in the market. www.technicalreviewmiddleeast.com/power-a-water

Fifty per cent of Fujairah-based Oryx Industries acquired for US\$136mn

BAHRAIN-BASED PRIVATE equity firm First Equity Partners (FEP) has led a consortium of strategic partners to acquire 50 per cent of Fujairah-based building materials producer Oryx Industries for US\$136mn. Other members of the consortium include Qatar's State Holding, Saudi Arabia's Rawabi Holding, Kuwait's Al Waab Real Estate and Sheikh Abdulla Al Dhaarqi, chairman of Oryx Industries.

FEP managing director Qais Al Maskati said, "Oryx Industries is expected to play a vital role in many of the large-scale GCC real estate and infrastructure projects in the coming years." www.technicalreviewmiddleeast.com/construction

GE's gas turbines reach full baseload in Saudi Arabia

FOUR OF GE'S gas turbines have reached full commercial baseload operation at Saudi Electricity Company (SEC)'s combined cycle project Power Plant 12 (PP12) in Riyadh.

PP12, with eight units, is expected to add 33GW to Saudi Arabia's power capacity. The first four of the eight 7F.05 gas turbines installed at PP12 have provided a consistent baseload to the Kingdom, stated GE officials. The remaining four units will be expected to begin operation by early 2015. Once fully functional, the eight units at PP12 will provide a combined power of 2,000MW, sufficient to cater to two million homes.

www.technicalreviewmiddleeast.com/power-a-water

China and India set to be leading export markets in the GCC, states report

CHINA IS SET to become the largest export market for the GCC by 2020, with Dubai being the key emirate to drive growth momentum. A study entitled *GCC Trade and Investment Flows* has explored the trade relations between the GCC and the rest of the world, and it has been found that China and India are leading the pack of Asian nations trading with the GCC. Between 2010 and 2013, trade between the GCC and China grew faster than any other. By 2013, China-Dubai trade volumes reached US\$36.5bn.

With more than 3,000 Chinese companies registered in Dubai, the emirate, in particular, is being viewed as a key Asian gateway to the Middle East.

www.technicalreviewmiddleeast.com/business-a-management



Dubai is being viewed as the key trade gateway to China and India (Photo: *Crazy Diamond*/Flickr)

MEA access security market to hit US\$500mn within three years

STRONG DEMAND FOR access security systems in the Middle East and Africa (MEA) paved the way for leading commercial security providers to attend the 17th edition of Intersec in Dubai from 18-20 January 2015.

Worth US\$200mn in 2014, the MEA access control market is estimated to grow 15 per cent annually up to 2018, when it will reach nearly US\$500mn, consultancy firm Frost & Sullivan has predicted. The double-digit growth has been fuelled by increased infrastructure spending across the region, with wireless locks, IP-enabled devices and iris detection systems among the latest access control technologies that were showcased at Intersec 2015.

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8-11	The Big 5 Saudi	JEDDAH	www.thebig5saudi.com
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MAY 2015

4-7	Project Qatar	DOHA	www.projectqatar.com
6-7	Trans Middle East	DOHA	www.transportevents.com
18-20	FM Expo	DUBAI	www.fm-expo.com

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

USETEC 2015 to feature brand new TradeMachines Auction Hotspot

USETEC, THE WORLD trade fair for used technology, will this year feature the new TradeMachines Auction Hotspot.

Under the guidance of TradeMachines, the world's biggest marketplace for industrial auctions, a special zone at the exhibition will be established that will offer information on industrial auctions, USETEC's organisers revealed. As well as auction houses, exhibitors will include suppliers of support services such as financing, transport, export transactions, customs clearance and valuation.

The TradeMachines Auction Hotspot is expected to be an opportunity to offer information on the benefits and mechanisms of industrial auctions as a sales channel for second-hand machinery.

"We are delighted to be able to offer this extremely attractive auction to USETEC's exhibitors and visitors," said Florian Hess, managing director of Hess GmbH, Weingarten/Baden. "The trade fair traditionally has many first-time visitors and we expect that this event will provide an exciting opportunity for new players to overcome their inhibitions, enter the world of industrial auctions and make worthwhile investments."

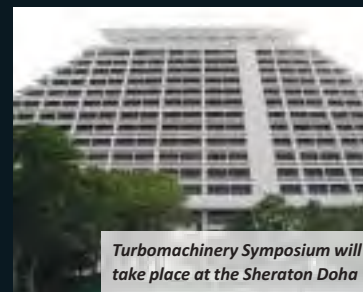
One of the highlights at Auction Hotspot will be the presentation of the 'Auctioneer of the Year' award by TradeMachines. The candidates include all the well-known industrial auction houses. The award ceremony will be held in the Auction Hotspot on the second day of the USETEC exhibition.

Turbomachinery Symposium set to return for third outing in Doha

THE THIRD MIDDLE East Turbomachinery Symposium (METS 2015), sponsored by Qatar Petroleum, will take place in Doha between 16-18 February 2015.

Under the patronage of HE Dr. Mohammed bin Saleh Al-Sada, Minister of Energy and Industry and

Chairman of Qatar Petroleum, the event is returning this year with short courses preceding the show on 15 February. The Turbomachinery Laboratory (Turbo Lab) of the Texas A&M Engineering Experiment Station (TEES) is organising the show, which will be held at the Sheraton Doha. An educational forum for turbomachinery engineers with a total of eight discussion groups, 10 tutorials, 12 lectures and 18 case studies on different topics such as liquefied natural gas (LNG) and wet gas will be included in the event programme. METS was first launched in 2011, with the event previously welcoming more than 1,000 attendees and 60 exhibiting companies representing up to 27 countries.



Turbomachinery Symposium will take place at the Sheraton Doha

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Volvo Trucks introduces I-Shift Dual Clutch

Gothenburg-based Volvo Trucks is the first manufacturer in the world that has been able to adapt a dual clutch system for heavy trucks.

THE I-SHIFT DUAL Clutch from the new Volvo FH series is an automated manual gearbox with dual clutches, enabling the truck to lose neither speed nor power during gear changes, offering efficient and smooth progress on the road. This type of transmission was initially designed for high-performance sports cars and is used in the automobile industry.

Volvo Trucks became the first company in the world to roll out a dual clutch transmission in heavy vehicles, recently receiving the European 'Quality Innovation of the Year Award' for the endeavour.

"I-Shift Dual Clutch represents a new-for-the-industry product innovation with strong improvements in parameters that influence drivers and transport companies, as well as cargo owners and society in general," said Matti Kaulio, associate professor of Industrial Economics at the KTH Royal Institute of Technology in Stockholm and a representative of the Swedish Institute for Quality.

A key feature of the Volvo FH series is that it has an electric motor attached to the steering gear. The motor works together with the hydraulic power steering and is regulated thousands of times per second through an electronic control unit.

"At low speeds the electric motor replaces the driver's muscle power. Instead, the driver

"At low speeds the electric motor replaces the driver's muscle power, so the driver can steer without any effort or strain"



The Volvo FH series offers a dual clutch system

can relax and steer without any effort or strain," noted Gustav Neander, project manager for Volvo Dynamic Steering.

At a recent press event held by Volvo Trucks at its manufacturing plant in Gothenburg, Sweden, Volvo Trucks CEO Claes Nilsson said that 2014 has proven to be a good year for Volvo Trucks globally, following on from a record year in 2013, with the company selling 116,000 Volvo trucks across the world.

Nilsson told *Technical Review* that Volvo was continually training its mechanics to stay ahead of the game, in all regions including at its operations in the Middle East.

"All automotive products today are becoming more and more complex in terms

of electronics and advanced technologies, in order for us to meet our customers' demands. This obviously requires a lot of training for our mechanics, so we're spending an enormous amount of time and effort on training our mechanics everywhere," Nilsson stated.

"We have a training centre in Dubai for our mechanics and for our drivers. That facility has to be located locally for that market, of course, and in that wider region you need to have people travelling in certain hubs – especially in the region's bigger markets such as Saudi Arabia and other Middle Eastern countries where there are large populations, and where we offer local training for both drivers and mechanics." ■



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UAE-manufactured exports increased from US\$8.3bn in 2000 to approximately US\$59.2bn in 2012

Manufacturing sector in UAE forging ahead

The manufacturing sector has seen steady growth since 2000, and the establishment of new free zones in the UAE has attracted more investment in the industry from across the globe than ever before.

The UAE government has implemented a number of policies and has taken steps to ensure that manufacturing is well supported

WITH OIL PRICES falling 60 per cent since June 2014, the UAE has renewed its focus on the diversification of its economy, with a view to reducing its reliance on revenue from non-renewable energy sources.

According to a 2013 report by the Dubai Chamber of Commerce and Industry (DCCI), manufacturing is one of the highest contributing sectors to the UAE's non-oil GDP in the last decade, providing roughly 14 per cent (2001 to 2012). Manufacturing accounted for 53 per cent of the UAE's total non-oil exports (merchandise goods) in 2012 and 22 per cent of total exports, including oil.

The country is the world's fourth largest aluminium producer, accounting for more than 50 per cent of the Gulf's aluminium production. Global industry experts have projected robust growth in aluminium exports from the UAE. Aluminium exports from the country grew by 102 per cent in

the first half of 2012 and the sector is expected to become one of the key non-oil industry sectors in the future.

Daniyal Qureshi, group exhibition director at Reed Exhibitions Middle East, organisers of the recently-held Aluminium Middle East 2015, said, "The exhibition comes at the right time where the global aluminium industry can explore new opportunities as a result of the boom in projects in the region. By bringing participants from across the world, we will also provide an ideal platform to showcase the latest know-how and products, and forge business relations while participants look into new opportunities."

UAE-manufactured exports increased from US\$8.3bn in 2000 to approximately US\$59.2bn in 2012. The main industries include chemicals, mineral products, paper products, textiles and clothing, food and beverages, and wood products. Aluminium, cabling, petrochemicals, steel and marine industry products are the largest individual

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categories of manufactured products. Approximately 77 per cent of the UAE's manufactured exports were sent to Asia in 2012, 10.4 per cent were sent to Africa, 6.4 per cent were sent to Europe and the remainder were sent to the US and other transition economies, according to the DCCI report.

Dubai Aluminium, established in 1979, churned out more than one million tonnes of hot metal in 2012.

The UAE Ministry of Economy estimates that there were 5,201 industrial establishments in 2011, employing almost 400,000 staff – a growth of five per cent compared to 2010. A total of 40 per cent of the UAE's manufacturing firms were located in Dubai in 2011, while 29 per cent were in Sharjah, 15 per cent were in Ajman and seven per cent were in Abu Dhabi. Conversely, 58.8 per cent of manufacturing investments were made in the UAE's capital, 22 per cent were in Dubai and seven per cent were in Fujairah (with the remaining in the other emirates).

Last year, the UAE government implemented a number of policies and took steps to ensure that manufacturing is well-supported. Facilitating manufacturing has been accomplished by the establishment of numerous free zones, which encourage trade within the zone and with other countries. There are now more than 50 free zones across the UAE, specialising in industry, technology, media and other sectors. Dubai's first free zone – Jebel Ali Free Zone (JAFZ) – was established in 1985 and now houses more than 7,000 companies, attracting more than 20 per cent of the UAE's FDI and accounting for more than 50 per cent of Dubai's total exports with a trade value of US\$69bn.

Free trade agreements within the GCC and internationally also facilitate the manufacturing 'boom' recently predicted. Trade liberation is a key aspect of the UAE's free trade agreements – this includes the elimination of customs tariffs and charges on the exchange of goods, which in turn leads to an increase in trade volumes and increases the amount of national products entering foreign markets.

The UAE has outlined a number of strategic economic plans and visions, which encompass and embrace the need for diversification. Sector development and economic growth have been stipulated as the two main aims in the Dubai 2015 Vision, as well as the Dubai 2020 Vision, which is currently being formulated to take into account Expo 2020 Dubai.



Dubai Aluminium, established in 1979, produced more than one million tonnes of hot metal in 2012

Abu Dhabi has also released its Economic Vision 2030, to "build an open, efficient, effective and globally integrated business environment; adopt a disciplined fiscal policy that is responsive to economic cycles; establish a resilient monetary and financial market environment with manageable levels of inflation; drive significant improvement in the efficiency of the labour market; develop a sufficient and resilient infrastructure capable of supporting anticipated economic growth; develop a highly skilled, highly productive work force; and enable financial markets to become the key financiers of economic sectors and projects".

UAE Minister of Economy Sultan Al Mansouri said industrial sector contribution to gross domestic product (GDP) is expected to reach 25 per cent by 2025.

"Currently, the industrial sector contribution to the total GDP is estimated at 10 to 11 per cent. By 2020, this figure is targeted to increase to 20 per cent and to 25 per cent by 2025," he said. This was in line with the UAE's strategic development plan to implement economic diversification away from oil over the coming years, Al Mansouri added.

The infrastructure of the UAE and the industrial zones located in Abu Dhabi, Dubai and all of the other emirates have been playing remarkable roles in attracting foreign investment and expertise, as well as enhancing the performance of the manufacturing sector overall.

Some of the recent international manufacturing investments made in the country include the following:

Can-Pack Group new plant in Dubai

A new manufacturing plant for Poland based Can-Pack Group was unveiled at Dubai Investment Park. Located on 13,935 sqm of land, the facilities will increase the company's production from 3.5mn cans to five million cans per day. The new investment, which is estimated to have cost US\$54.45mn, is increasing the company's overall investment in Dubai to US\$136.1mn while further expansion worth US\$19.6mn is also underway and expected to be completed later this year.

Patchi chocolate factory in Dubai

The Lebanese chocolatier Patchi opened a temporary facility in Dubai Industrial City (DIC) at which 150 workers will produce 3,000 kg of chocolate a day. The company has also secured a plot of land at DIC on which it will build its long-term solution: a factory that is expected to start operations next year with an expected capacity of 10,000 kg a day.

Indian marble company to set up plant in Dubai

Having just set up a platform for a range of imported marble brands in Dubai Investments Park, Marmo Classic wants to set up a marble processing plant.

"Marble is a building commodity that continues to be imported for the bulk of local construction requirements, and even from plants in Oman," said Subodh Shah, who owns Marmo Classic.

Shah said that his intention is to create a mid-sized marble plant in Jebel Ali at a cost of US\$10mn. The group's flagship – Classic Marble Company – operates a plant on the outskirts of Mumbai, with a processing capacity of 9,290 sqm a day.

Inkas Vehicles to establish another manufacturing facility in Dubai

Manufacturer of armoured transport and special purpose vehicles based in Dubai Investments Park (DIP), Inkas Vehicles will set up another manufacturing facility in the business park at an investment of US\$15mn, said a press statement.

The new facility will be the largest of its kind in the region, spreading across 14,836 sq m within DIP 2.

The business park already hosts four armoured vehicles manufacturers from across the world, which includes Inkas Vehicles, Mezcal Security Vehicles, Shell Armoured Vehicles and Saxon Armor – producing a total of 1,600 armoured vehicles every year. ■

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Bright future for sustainable lighting

With an ever-growing lighting fixtures market and energy-efficiency standards being initiated, the GCC region holds considerable business opportunities for sustainable lighting solutions developers.

LIGHTING IS BIG business in the Middle East. The commercial lighting fixtures market is predicted to increase by eight to 10 per cent annually and is set to be worth US\$3.7bn by 2018, according to the market research firm Ventures ME.

The booming lighting market comes as little surprise considering the number of major infrastructure projects that are underway and planned across the region. In fact, figures show that in 2014 alone the GCC saw US\$128.4bn worth of construction projects get underway.

Light Middle East, the only event in the region dedicated to lighting design and technology industry, continues to mirror the growing market, as it has experienced a 27 per cent year-on-year growth in both exhibitor numbers and exhibitor space, which the event organisers say is evidence of the confidence in the regional lighting fixtures market.

Ahmed Pauwels, CEO of Epoc Messe Frankfurt Middle East, the company behind the show, said, "Light Middle East continues to act as the barometer for the regional lighting industry which, thanks to growing infrastructure development and a resurgent regional construction sector, is on a steady growth path."

The ninth edition, held in Dubai in November 2014, featured the ever-growing Future Zone – a section designed to showcase innovative technology that is shaping the industry's future. Naturally, LED lighting featured heavily in this section.

There is a growing demand in the GCC for more sustainable lighting solutions, particularly in the UAE where a new lighting standard has banned the sale of bulbs that do

not reach certain energy-efficiency criteria. The standards are intended to ensure that available bulbs are energy-efficient, high quality, safe, have limited hazardous chemicals and can be safely disposed of.

According to data from the Emirates Wildlife Society (EWS) in association with the WWF, lighting standards in the UAE have encouraged the country's residents to significantly reduce their ecological footprint. Results include a reduction in carbon emissions equivalent to removing 165,000 cars from the road each year, and a medium-sized villa in Dubai can save up to AED2,315 (US\$630) every year on electricity bills.

Under the standard, suitable light bulbs include compact fluorescent lamps (CFLs), LEDs and halogens. Although LED lighting, which has been proven to be up to 70 per cent more efficient than traditional sources, appears to be leading the way forward in low-emission lighting solutions.

The advantages of LED lighting vary from greater energy-efficiency, longer running – while incandescent light sources last for 800 to 1,500 hours, LED sources can last up to 60,000 hours – more resilient, easier to dispose of and emit little heat, the latter of which is particularly valuable when working in the Gulf's high temperatures.

Steve Towler, general manager for the Middle East, North Africa and South Asia region for Dialight, a LED luminaire manufacturer, said, "You could have 100 HID sources all hitting 400°C and it becomes very uncomfortable for staff to work. Our luminaires typically get up to around 50°C, which is a massive difference in temperature."

Eaton, the global technology major in

power management solutions, boasts an array of LED products, particularly as part of its emergency lighting range, which was on show at the recent safety and security exhibition Intersec 2014.

Its products include Britesign 2, an ultra-low profile LED exit sign that contains a 50,000 hour long life LED source and is said to provide considerable savings in lamp replacement and maintenance costs in comparison to a traditional 8W lamp; as well as Zeta 3, a versatile LED emergency luminaire, which promises high performance, uniformity and low-energy performance.

GE Lighting, the division of General Electric that specialises in global lighting solutions, has taken the sustainable lighting discussion on one step further and shone a light on the benefits of interconnecting LED lighting to what it calls the 'industrial Internet', enabling Internet-based communication between machines and people.

The report, *The Power of One Light: The Industrial Internet and Lighting*, states, "[Data] can in turn be used to analyse and improve all manner of systems; for example, indoor office environments where lighting can be optimised according to building usage and occupancy."

One example it highlights is to equip outdoor LEDs with movement sensors and connect them to CCTV systems in order to help police and emergency services respond in real-time to crimes and accidents.

The report goes on to explain, "A lighting-based industrial Internet infrastructure could produce invaluable data especially if indoor and outdoor lighting systems are linked using existing LED technologies." ■

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There is a heightened interest in developing new technologies to improve solar efficiency and performance

Solar technologies in the Middle East

The growth of the solar power industry in the Middle East has propelled new technologies and solutions to the forefront.

AS YOU MAKE the descent into the UAE, glimmering solar panels in the middle of the vast expanse of the desert will definitely catch your attention. The rise of renewable energy development in the region has led to a diverse expansion of interest in the field, as industry experts, researchers and manufacturers are keen to bring the latest technology to the forefront.

According to the Middle East Solar Industry Association (MESIA), the MENA region is expected to spend around US\$50bn in its solar power sector by 2020 since regional governments are keen to adopt clean energy and utilise the high levels of solar irradiation in the area. With more than 37,000MW of wind, solar and hydroelectric projects likely to be commissioned by the end of the decade,

12,000MW and 15,000MW will be sourced from wind and solar projects alone.

Funds for wind, solar, biofuels and low-carbon energy technology have gone up by 16 per cent to US\$310bn in 2014, according to *Bloomberg New Energy Finance*, making it the first growth since 2011.

Semiconducting nanocrystals: The abundance of sunlight in the Middle East allows for the development of quantum dots or semiconducting crystals. Semiconducting nanocrystals, which were first produced in mid-1980, have the ability to absorb light at different wavelengths. Aram Amassian, materials scientist and engineer at the King Abdullah University of Science and Technology (KAUST) in Saudi Arabia, said that there is a gap between the

level of sunlight available and the amount of energy produced as solar cells are not absorbing enough sunlight. There is a lot of light and heat present in the infrared region of the spectrum, which the solar cells fail to trap. Multiple crystals could effectively cover the spectrum of visible light, including infrared rays that were previously getting wasted.

Ammar Neyfeh, associate professor of electrical engineering and computer science and head of the Nano Electronics and Photonics Lab at Masdar Institute is working with the US's Massachusetts Institute of Technology (MIT) to incorporate germanium into silicon-based solar cells to boost their efficiency. The fundamental base of the solar cell is called the p-n junction, which is based on silicon material, said Nayfeh. Silicon is equipped to make use of only part of the sun's spectrum. By combining silicon with germanium, cells could use more of the electromagnetic spectrum and become more efficient.

Efficient conversion of sunlight to electricity: Researchers at Australia's University of New South Wales (UNSW)

Funds for wind, solar, biofuels and low-carbon technology have gone up by 16 per cent to US\$310bn, marking the first growth in the industry since 2011

Masdar Institute is working with the Massachusetts Institute of Technology to incorporate germanium into silicon-based solar cells to boost efficiency of solar systems

have successfully managed to convert more than 40 per cent of sunlight hitting a solar plant into electricity, using focused sunlight.

Martin Green, professor and director of the Advanced Centre for Advanced Photovoltaics (ACAP) at UNSW Scientia, said, "This is the highest efficiency ever reported for sunlight conversion into electricity." The team used commercial solar cells in a new way, making efficiency improvements readily available to the industry.

A major portion of the design involved the use of a custom optical bandpass filter to capture sunlight that is normally wasted by commercial solar cells on towers, and eventually convert it into electricity at a higher efficiency than the solar cells.

Aluminium nanoparticles to prevent sand and dust sedimentation:

Matteo Chiesa, associate professor of materials science and engineering and head of the Laboratory for Energy and Nanoscience at Masdar Institute is investigating the use of aluminium nanoparticles in special solar panel coatings that would provide a 'self-cleaning' property. The Middle East region is prone to dust and sand through the year, challenging the efficiency of the solar panels. With the coating, water droplets accumulating on the panels gather dust. Due to the hydrophobic property of the coating, the water droplets run off the panel, thereby cleaning it.

CIGS thin-film solar modules: German multinational Manz AG has revealed that it will be presenting its integrated turnkey production line Manz CIGSfab, which will be used for the production of CIGS thin-film solar modules. Mohamed Alammawi, vice-president of sales in MENA for Manz AG, said, "The UAE is one of the frontrunners in developing, deploying and implementing the renewable energy source. We are confident that our solutions can help energise the UAE's transformation to alternative energy production."

The CIGS (copper indium gallium selenide) technology was taken over from Germany's Würth Solar GmbH & Co., stated Manz AG officials. CIGS production lines for thin film modules can deliver an efficiency percentage of 14.6, with an aperture efficiency of 15.9 per cent. Through the films, the cost of solar power is less expensive than electricity from offshore wind parks and is at a similar level as electricity obtained from fossil fuel power plants.

Thin solar cell stickers: Stanford University researchers have developed solar cell stickers – thin-film PV devices that can be stuck to the back of solar panels. However, the solar cell stickers are currently at a proof-of-concept (PoC) stage, according to the researchers. The reported efficiencies of the devices have been made on cell areas no larger than 0.28 sq cm and are processed by hand in a lab environment.

Once launched in the market, solar cell stickers could be retrofitted on roofs, walls and windows- potentially any surface exposed to sunlight makes for a good canvas for the sticker. ■

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The ADSW opening ceremony attracted a large audience in ADNEC's ICC Hall on the first day of WFES

The future of energy under the spotlight at WFES

Innovation and visionary ideas were the order of the day at the eighth edition of the Abu Dhabi future energy showpiece.

THE WORLD FUTURE Energy Summit (WFES), along with the co-located EcoWASTE and International Water Summit (IWS), returned to Abu Dhabi in January to highlight innovative technologies within the global energy arena with a strong focus on knowledge sharing prevalent throughout both the exhibition and supporting conferences.

Hosted by Abu Dhabi's renewable energy company Masdar, the eighth edition of WFES took place over four days at Abu Dhabi National Exhibitions Centre (ADNEC), forming a major part of the now annual Abu Dhabi Sustainability Week (ADSW), which incorporates a number of energy, water and waste-focussed exhibitions, conferences and activities.

Among the major announcements made during this year's WFES were Masdar's deal to deliver 12MW of solar power in Mauritania, GE joining the Sustainable Bioenergy Research Consortium, and

Abengoa and AWT signing up to develop the world's first solar-powered desalination plant in Saudi Arabia.

Egyptian President Abdel Fattah Al-Sisi was also in attendance on the first day marking his first official visit to the UAE, while the competitors racing in the inaugural Abu Dhabi Solar Challenge stopped by the event to show off their vehicles before completing their three-day-long journey.

Visionaries and adapting to change

The role of women in the sustainability field was also highlighted during the Women in Sustainability, Environment and Renewable Energy (WISER) forum, which underscored the growth in contributions to climate change solutions and green growth from women, and highlighted the range of opportunities available to female graduates and young professionals within the sector.

"The support of women leaders, who advocate sustainability, is a priority for the

UAE and Expo 2020 Dubai. The WISER forum is a platform to discuss where and how women's empowerment can work to address viable sustainability initiatives," said HE Reem Al Hashimy, UAE Minister of State, Director General, Bureau Dubai Expo 2020 and board representative of the Dubai Expo 2020 Higher Committee, during her keynote address at the forum.

The Environment Agency – Abu Dhabi (EAD) announced during ADSW that it would introduce smart monitoring for more than 228,000 hectares of forestry it manages.

Commenting on the announcement, EAD Secretary General HE Razan Khalifa Al Mubarak said, "Our objective is to ensure that only recycled water is used for irrigation, while conserving groundwater resources. We are working with other agencies and are developing distribution infrastructures to capture recycled water at treatment plants and deliver it to forests throughout the emirate."

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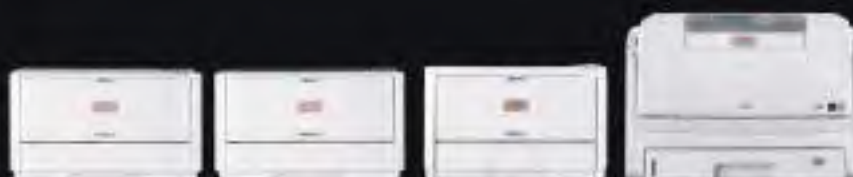


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The completion of the International Renewable Energy Agency's (IRENA) global headquarters building in Masdar City, the first 4 Pearl-rated office building by the Urban Planning Council's Estidama Programme for sustainability, was also announced during WFES, while the Abu Dhabi Quality and Conformity Council (QCC) used its platform at WFES to announce a number of certification schemes that focus on energy efficiency and water conservation of the built environment.

Working in collaboration with the Building Code of Department of Municipal Affairs (DMA) and the Estidama Program of Abu Dhabi Urban Planning Council (UPC) to develop the schemes, QCC's plans include regulations on reflective paints and coatings, low volatile organic compounds (VOC), furniture, solar water heaters, glass, insulation and unitary air conditioners.

Mohammed Helal Albalooshi, marketing and communications director at QCC, said, "We are working closely with relevant public and private stakeholders to minimise the impact of the built environment on human health and the natural environment.

"We have launched the Abu Dhabi Environmental Performance Trustmark, which certifies that products bearing the Trustmark meet all relevant statutory requirements as well as the quality, environmental performance and safety standards," he added.

Summarising the purpose of both WFES and ADSW, Masdar CEO Dr. Ahmad Belhouli told delegates at the summit's opening ceremony, "This region's appetite for renewable energy has quickly taken shape, with Abu Dhabi taking the first steps almost a decade ago.

"As our neighbours join us in the race to adopt renewable energy, Masdar's regional

and global experience will reinforce efforts to address energy security through the deployment of renewable power."

The week's big winners

Former US Vice-President Al Gore received the 2015 Lifetime Achievement Award at the Zayed Future Energy Prize, one of the key attractions of ADSW.

Gore, who received the award from His Highness General Sheikh Mohammad Bin Zayed Al Nahyan, Crown Prince of Abu Dhabi and Deputy Supreme Commander of the UAE Armed Forces, remarked, "I am grateful to receive this renowned award. Through the work of the Climate Reality Project, the organisation I founded in 2006, we have helped to change the cultural conversation about the climate crisis and, in doing so, created a new generation of determined activists who are working tirelessly for positive change.

"Though we have made great progress, there is much work yet to be done."

Liter of Light, a project carried out in partnership with PepsiCo that brings cost-effective solar lighting solutions to communities in need while recycling plastic bottles, was another big winner at the awards ceremony, winning in the Non-Profit Organization category, while other winners included Panasonic Corporation in the Large Corporation category and M-KOPA Solar in the SME category.

"This region's appetite for renewable energy has quickly taken shape, with Abu Dhabi taking the first steps almost a decade ago"

Exhibitor satisfaction

On the exhibition floor, exhibitors ranging from technology providers to service and maintenance firms from across the globe were on hand to demonstrate what they could offer the region's energy sector.

Among them was Jinko Solar, whose director of sales for emerging markets and Italy Alberto Cuter, said, "It's been quite a successful show for us. It's the second time we've been to this exhibition and the quality of our meetings have been even better than last year.

"We've been presenting a new model designed for this area, which we expect to sell in large quantities here in the Middle East. The most promising market in the short term for the solar market is Jordan, while in Egypt there are some interesting projects coming up. Also, there are projects coming up in Dubai from DEWA that we hope to be involved with."

Endress+Hauser sales director David Hewitt remarked, "From the event we have had a variety of people from different sectors visit our stand, including quite a few from the oil and gas industry.

"There's a lot of technical people trying to get updated with the latest information and there's been a lot of people who will have needs in the future. If you are focusing on renewables, this is an ideal forum."

The company was focussing on its products suitable for the water and power sector, including products focussed on water flow quality and measurement such as electronic flow meters.

"From an innovative perspective, the show is definitely up there. There are a lot of local people and young engineers who are trying to update their knowledge," he added.

"If you look at it from a long-term perspective, we will always get benefits from attending this show, because young engineers are tomorrow's leaders."

WFES, along with the co-located IWS and EcoWASTE, will return to ADNEC for its ninth edition next year from 18-21 January 2016, while entries for the 2016 edition of the Zayed Future Energy Prize have already opened and can be submitted at www.zayedfutureenergyprize.com. ■



More than 32,000 visitors were expected to attend ADSW 2015



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IWS addresses global thirst for sustainable solutions

The third edition of the International Water Summit (IWS) took place in January 2015 with the platform – a major component of Abu Dhabi Sustainability Week (ADSW) – designed to promote water sustainability in arid regions.

WORLD-CLASS WATER and wastewater technologies and sustainable solutions were on show at the third edition of the International Water Summit (IWS), which took place at the Abu Dhabi National Exhibitions Centre (ADNEC) in January 2015.

Running from 19-22 January, the summit saw more than 7,000 people from the industry, including world leaders, industry experts, and business innovators, gather to promote and discuss water sustainability in arid regions.

HE Dr. Sultan Ahmed Al Jaber, UAE Minister of State and Chairman of Masdar, who opened proceedings, said, “Without access to safe, potable water, global ambitions to create a sustainable future underpinned by social and economic stability are unattainable. Yet across the world, particularly in arid regions such as the Middle East and North Africa, significant water stress leaves our energy security and economic future in the balance.”

IWS was co-located with the World Future Energy Summit (WFES) and EcoWASTE as part of the Abu Dhabi Sustainability Week (ADSW), which took place from 17-24 January 2015 and was expected to attract more than 32,000 visitors from across 170 countries.

Leon Awerbuch, director and past president of the International Desalination Association (IDA), dean of the IDA Desalination Academy, and president of Leading Edge Technologies, said, “IWS provides an opportunity to show the reality of desalination power and business – a reality which proves that desalination is environmentally-friendly, is designed to have a minimum impact on environment and, more importantly, has significant improvements in energy costs.”

As well as the exhibition, IWS held a conference programme that boasted more than 70 global speakers. Key topics covered at the conference included water conservation and future water sustainability, integrated water resource management, smart water technology, as well as the nexus of water and energy in food security.

The market

The GCC’s market for water and wastewater treatment equipment is set to reach an estimated value of US\$4bn by the year 2020, according to a paper prepared by Frost & Sullivan exclusively for IWS.

In the report, titled *360 Degree Perspective on the GCC Water and Wastewater Treatment Market*, the business management consultancy revealed that the fast-growing market – currently valued at approximately US\$2.2bn – is predicted to undergo an annual growth rate of 10.6 per cent.

According to Frost and Sullivan, the GCC governments have allocated approximated US\$100bn towards implementing better water technologies and energy-efficient desalination.



The conference programme at the 2015 edition of IWS boasted more than 70 speakers from across the globe (Photo: Nicholas Haig)

Kshitij Nilkanth, program manager, energy and environment practice MENA, for Frost & Sullivan, said, “The focus of the water sector in the region is surely shifting towards sustainable practices, wastewater treatment and recycling.”

Speaking about the UAE’s approach to adopting sustainable solutions, Glen Trickle, vice-president and director engineering and technology at Xylem, stated, “What I see here is a lot of passion and urgency. There’s a lot more awareness here and it’s really quite impressive, the speed at which things develop.”

Innovation

IWS 2015 shone a light on the array of innovative and sustainable technologies being presented by companies across the exhibition and this focus was reflected in the show’s inaugural feature: Innovate@IWS.

Co-organised by Isle Utilities, the new initiative offered clean technology developers the opportunity to pitch their solutions to an expert judging panel as well as a platform to connect with potential investors and end users.

Christina de Poitiers, senior environmental consultant at Isle Utilities, said, “This has created a fantastic opportunity both for our utilities to understand how the municipal market works in the Middle East, but also to give our emerging technologies the opportunity to attend an event they might otherwise not be able to.”

Organised into three categories, with the judging process spread across the first three days of the show, the winning companies of the 2015 Innovate@IWS were Trevi Systems (Municipal Water), BGH (Industrial Water), and Thermowatt (Water for Real-Estate). ■



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Promoting sustainable desalination

The MENA region is playing a leading role in pioneering environmentally-friendly and renewable energy-powered desalination solutions.

HOME TO 14 of the 20 most water-stressed countries in the world, the MENA region faces a water crisis. Its burgeoning population, forecast to double by 2050, along with urbanisation and industrialisation, have all been putting pressure on scarce water resources, with the result that the water gap is forecast to quintuple by 2050, from 42 sq km per annum to 200 sq km per annum, according to the World Bank.

Desalination has played, and will continue to play, a critical role in meeting the region's pressing water needs; indeed, the region accounts for around 50 per cent of global installed desalination capacity. According to Global Water Intelligence's latest *Desalination Tracker*, 97 desalination projects are currently at various stages of development throughout the MENA region.

However, conventional desalination is highly energy intensive, as well as costly, and the waste products can be damaging to the environment. Saudi Arabia, for example, is reported to be using around 300,000 barrels of crude oil equivalent a day to power its 30+ desalination plants.

"The status quo is not sustainable. Reducing the cost of desalination, eliminating its reliance on fossil fuel, and mitigating its environmental impacts are crucial," comments the World Bank.

Growing focus on sustainability

With the growing focus on environmental sustainability in the Middle East, the emphasis is now shifting from high-energy thermal desalination to less energy intensive reverse osmosis, which uses a membrane separation process.

The region is playing a leading role in researching, exploring and piloting new energy efficient technologies from advanced membrane distillation, low temperature distillation and nanofiltration to pressure retarded osmosis and forward



The emphasis in the region is shifting to the less energy intensive reverse osmosis process (Photo: Lee Sean)

osmosis, which draws liquid through the membrane without the use of pumps.

Oman is home to the world's first commercial forward osmosis plant at Al Najda; according to its developers, the UK's

Reducing the cost of desalination, eliminating its reliance on fossil fuel, and mitigating its environmental impacts are crucial

Modern Water, this technology can lower energy consumption by up to 30 per cent as well as providing additional benefits such as reduced fouling of membranes and increased membrane life, reduced chemical consumption and lower levels of pollutants in produced water.

The region is also exploring the potential for desalination powered by renewable energy, particular solar power.

"Solar energy – in particular heat from concentrated solar power (CSP) for thermal desalination and electricity from solar photovoltaic (PV) and CSP for membrane desalination – is a key solution in arid regions," says the International Renewable Energy Agency (IRENA).

An encouraging development has been the announcement in January 2015 that Spain's



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Abengoa has been selected by Advanced Water Technology (AWT), the commercial arm of King Abdulaziz City for Science and Technology (KACST), to jointly develop the world's first large-scale desalination plant to be powered by PV solar energy, at Al Khafji in North Eastern Saudi Arabia. The plant, which will produce 60,000 sqm of water a day to supply Al Khafji city, will have a system to optimise power consumption and a pre-treatment phase to reduce the high level of salinity and the oils and fats that are present in the region's seawater, according to Abengoa.

Combining technologies

"As the demand for fresh water grows in the Middle East, the future of desalination will depend on combining established and emerging technologies," comments Faisal Wali, operations manager at the Water

As the demand for fresh water grows in the Middle East, the future of desalination will depend on combining established and emerging technologies

desalination coupled with, and without, conventional desalination processes such as thermal desalination and reverse osmosis." This combination will assist the development of energy efficient and renewable energy-driven desalination technologies, he adds.

A number of pilot projects are underway in the region. The UAE's Masdar launched a pilot programme in 2013 to test and develop new and advanced energy-efficient seawater-desalination systems that can be powered by renewable energy sources,

Systems – to develop small-scale pilot plants in Ghantoot, 90 km west of Abu Dhabi. Throughout the course of the project, scheduled to last 18 months, the test plants will provide 1,500 cu/m of drinking water a day to Abu Dhabi's water infrastructure.

Veolia for example will be using proprietary technologies such as high performance sea water pre-treatment combining air flotation and filtration and a new osmosis membranes feed configuration allowing high treatment fluxes. Pairing state-of-the-art energy efficient desalination technologies with renewable energy should allow power recovery of up to 98 per cent, the company claims.

While Abengoa is using a hybrid system combining reverse osmosis (RO) with an innovative membrane distillation system, with the objective of improving the water recovery and productivity of seawater RO plants, while reducing the volume of brine discharge.

While issues remain to be resolved in scaling up and commercialising innovative new desalination technologies, it is clear that combining such technologies with the region's abundant solar resources could offer a way forward in mitigating the region's water security issues. And as the costs of solar technology continue to fall, desalination could become a viable option for the poorer countries of the region too. ■



The use of solar energy to power desalination plants is being explored (Photo: Chandra Marsono)

Desalination and Reuse Center, King Abdullah University of Science and Technology (KAUST), Saudi Arabia, in an article for *Nature Middle East*.

"Researchers need to focus on the hybridisation of forward osmosis, membrane distillation and adsorption

laying the groundwork for developing large-scale commercially viable desalination plants by 2020 that can be powered by renewable energy. In mid-2014 it awarded contracts to four companies – Spain's Abengoa, France's Veolia and Degremont, and US-based Trevi

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Bauer Compressors expands facilities in Virginia, USA



The expanded facilities are located in the city of Norfolk in Virginia, USA

BAUER COMPRESSORS HAS announced a major expansion to its existing facilities in Virginia, USA.

The project, which entailed a 18,000 square foot addition to the fabrication facility and 13,000 square foot addition to the office facility, also featured major upgrades to the company's existing systems assembly facility.

Among the new state-of-the-art products now housed at the expanded facilities are a

Powder Coat Paint Line, a robotic panel bender, and grind and weld booths.

The expanded facilities also house a dynamic equipment testing and evaluation centre for new product development, and an extensive reliability testing facility that incorporates environmental conditions. It will also feature a brand new customer training and meeting facility.

According to Bauer, "This investment is testimony to Bauer's commitment to utilise

the latest in world-class, state-of-the-art, high-productivity manufacturing, assembly and testing facilities in support of our mission to provide our customers with the highest performing and highest quality pressure compression systems on the market at best value.

"This is a historic moment for Bauer, which will ensure our future as the number one high pressure compression systems and solutions manufacturer in the world."

Confident business climate provides positive forecast for Combisafe in 2015

A SUCCESSFUL 2014 in the Middle East has helped fuel optimism ahead of a busy 2015 for building site protective solutions provider Combisafe.

Established in Sweden more than 30 years ago, the company today has a strong presence in the Middle East, having worked on a large numbers of projects throughout the GCC and surrounding region. The company offers a range of protective solutions for building sites, ranging from edge protection components and temporary access solutions, to temporary roofing systems and an extensive portfolio of scaffold solutions.

Speaking to *Technical Review* during last November's Big 5 exhibition in Dubai, Combisafe business leader – Middle East, Ahmad Dardari, said, "The Big 5 always provides us with a chance to meet new clients, as well as meet old clients who may have new projects coming up."

Working closely with parent company Honeywell, Combisafe has its own facilities in Dubai, including its own warehouse and safety standards.

"From our base in Dubai we cover the whole GCC region and the rest of the Middle East," said Dardari. "In recent times we have completed projects in Lebanon, Egypt and Algeria, as well as in Azerbaijan and India.

"We are working through Honeywell in India where we're trying to lead the industry standard, while in Dubai, business is good," he added.

"Dubai is a good market for us as all the infrastructure is already in place here and we even went beyond our 2014 targets in this market."

The company has also been working on large projects in Saudi Arabia, where Dardari noted the potential for growth for the company.

"We have been working on projects in Jeddah and Mecca, but it does take a little longer to develop business in Saudi Arabia, especially when compared to the fast pace of Dubai," he said.

"As Combisafe, we are the only company within the Honeywell group working directly with the end user and for that reason we have our own warehouse. We work directly with contractors and construction companies and we are always getting our hands dirty by visiting construction sites where we can provide product demonstrations, ensure systems are working and offer training sessions.

Moving forward, the company will continue to offer a range of products that strengthen the safety and security of construction sites across the Middle East, as it aims to raise awareness of safety regulations and procedures throughout the market.

Reducing risk in oil and gas facilities by ensuring safe operational processes

THE IDEA OF safety is deeply anchored in the philosophy of each and every oil company, writes Hai-Thuy Ngo, TÜV functional safety professional and industry manager oil and gas for Endress+Hauser.

It is a matter of protecting people, environment, infrastructure and last, but not least, reputation.

While applying safety measures in a proper way is not an easy task to fulfil, it is even worse if you get the impression that the implemented safety systems have a bigger impact on impairing the daily operation on your plant due to spurious trips, instead of making it safer.

Explosion safety (ATEX, FM, Ex d, Ex ia) has been practiced for many years within the oil and gas industry, as operators and shareholders have been striving to improve the functional safety of their processes.

Several incidents remind us how difficult it is to ensure safe operations, such as the explosion of Piper Alpha in 1988 in the North Sea, which was the starting point for stringent regulations in order to prevent such accidents happening again. Although instrumentation

was really not involved in the explosion, which led to the deaths of 167 offshore workers, regulations on functional safety were formulated under IEC61508.

Each process on a plant poses a certain risk which is evaluated during hazard and operability HAZOP studies. Depending on the probability and severity of an incident, safety measures need to be implemented in order to bring the risk to a tolerable level. These measures can be addressed to different layers of protection and you can make the plant inherently safer by redesigning processes or implementing Safety Instrumented Systems (SIS) capable of bringing the process back to a safe state.

The level of risk reduction with SIS is rated in different levels – the so called Safety Integrity Levels (SIL). SIL2 would, for example, represent a risk reduction of at least factor 100. Nevertheless, we always have to live with a certain residual risk.

There are of course recommendations and standards on how to properly apply safety measures in the process industry.

The main two regulations are IEC 61508 and the IEC 61511. IEC 61508 is a generic standard that offers guidelines on how to properly develop electric, electronic and programmable safety related systems, and is therefore mainly applies to suppliers and manufacturers such as Endress+Hauser.

IEC 61511 is the sector specific standard for the process industry, covering the complete safety life cycle in a process plant from risk assessment to decommissioning. Those parties engineering, implementing and operating SIS are concerned with this regulation.

In addition, oil and gas industry specific safety standards are available; for example, API2350, fourth edition, which addresses overfill protection for storage tanks in petroleum facilities.

Knowing and implementing these standards and recommendations is just the beginning. Selecting the correct measuring principle for your application is crucial. Make sure that you partner with suppliers and/or safety consultants, who select the safety instrument that fits your application.

Wacker Chemie expands its gypsum-ready range

A HIGH-TECH polymeric binder for modifying quick-build drywall products is about to be launched by Wacker Chemie.

VINNAPAS 4800 G provides gypsum-based joint fillers with exceptional tensile adhesive strength on plasterboard and jointing/reinforcement tape. Excellent workability due to the presence of polyvinyl alcohol leads easily to a very smooth and uniform finish.

The new binder is based on vinyl acetate and ethylene and was specially developed to improve the performance of joint fillers designed for use on indoor panels. No plasticising additives are

incorporated so there are no harmful emissions when this brand-new product is worked with in an indoor environment.

The German company is also about to launch SILRES BS Powder S, a special dust-free additive for waterproofing dry-mix mortars that is also based on gypsum.

Two major trade exhibitions will be featuring finishing products for the construction industry like these within the next few months.

Middle East Coatings comes to Dubai from 9-11 March and the European Coatings Show takes place in Nuremberg from 21-23 April.



Wacker Chemie's VINNAPAS 4800 G

Konecranes unveils CLX chain hoist crane for Middle East customers

LIFTING SOLUTIONS PROVIDER

Konecranes has introduced the new CLX chain hoist crane for its customers in the Middle East.

The new crane has been made available in safe working loads from 500 kg up to 5,000 kg and has been designed to be suitable for a number of different industries ranging from general manufacturing to a host of maintenance applications.

It features durable components, compact headroom and a high level of operating safety results during performance, with 300 starts per hour.

The CLX product has been previously used in the production and handling of pipes and irrigation equipment for Valmont in Dubai.

“Since installing the hoist, we have not had a single problem as of today,” said Ganesh Pai, procurement manager at Valmont Middle East. “We are very satisfied with the hoist and have also ordered a second CLX hoist to further increase productivity.”

Driving progress in transport infrastructure

The latest edition of the Gulf Traffic Exhibition and Conference took place in December 2014, highlighting and discussing the major topics in the traffic and transport industry today.

THE GULF TRAFFIC Exhibition and Conference, which concluded its 11th edition in December 2014, is going from strength to strength. The latest edition brought together more than 200 of the world's leading traffic and transport infrastructure suppliers, looking to capitalise on the opportunities in the region, which has recently committed to investing approximately US\$121.3bn to improving its land transportation infrastructure.

This year's event was opened by HE Mattar Al Tayer, Chairman of the Board and Executive Director of the Dubai Roads and Transport Authority (RTA), in the presence of other dignitaries including HE Helal Saeed Almarri, Director General of Dubai's Department of Tourism and Commerce Marketing (DTCM) and CEO of Dubai World Trade Centre. Running parallel to the three-day exhibition, the conference was inaugurated by Eng. Maitha Bin Adai, CEO of Traffic and Roads Agency (RTA), who delivered a keynote address highlighting the RTA's growth plans that are in place leading up Expo 2020.

Bin Adai said, "Transport is vital to our economic activities and social life and must be planned, designed and operated as a complete system with integrated modes of transportation such as pedestrian, bicycles, rail, bus, water transport, taxis and vehicles. Currently, the daily contribution of all means of public transport exceeds 800,000 passenger trips, which represents about 14 per cent of the daily total number of passenger trips."

She added that the RTA is planning to increase the public transport percentage to 20 per cent by 2020 and to 30 per cent by 2030, and highlighted the RTA's efforts to reduce the number of road accidents through its Pedestrian Safety and Mobility Action Plan.

"The implementation of the action plan has resulted in a 40 per cent reduction in pedestrian fatalities [in Dubai] from 78 in 2009 to 50 in 2013. There was also a reduction in the overall accident fatalities from 21.9 fatalities per 100,000 in 2006 to 3.9 fatalities per 100,000," Bin Adai explained.

The conference agenda was packed with some world-class case studies on how multimodal systems and management have helped decrease accidents and create a much safer, more efficient and sustainable traffic environment, as well as discussions that focussed on all three transportation groups: private vehicles, pedestrians and public transport.

Despite improvements in regional road safety, much still needs to be done to sustain progress. The first day of the conference, chaired by Alan Bristow, director for road space management for surface transport for Transport for London, featured a line-up of transport experts and looked at road safety strategies, current road safety trends and challenges, and the impact of multimodal transport.

According to the World Bank, traffic accidents in the Middle East and North Africa (MENA) kill between 17 to 22 people per 100,000 every year, compared with an OECD average of 6.2 per 100,000.



The conference programme included a special one-day MENA Parking Conference

Day two of the conference looked at the most recent advancements made in intelligent transport systems (ITS), as well as the challenges that governments face in the development and deployment of advanced technologies across all modes of transport. It also focused on the growing importance of networks and big data as well as looking forward to electric vehicles.

The last day played host to the MENA Parking Conference, the region's first conference solely dedicated to parking. With so much construction activity happening across the region, parking is an integral part of the overall transportation infrastructure package. Nowadays project designers are more thoughtful, carefully integrating support services and modern parking solutions with the overall designs, and specialist partners have been sought for major parking structure expansions in Doha, Abu Dhabi and Riyadh.

On the potential growth of the industry, Dave Hill, international representative for the International Parking Institute and chairman of the MENA Parking Conference, commented, "Parking is developing itself as a distinct and vibrant industry. In the MENA region, 380mn people accommodate more than 38mn cars. Consider for a moment that each vehicle must have at least two parking spaces.

"Actual construction reviews estimate that most cities build ample supply – this amounts to anywhere from seven to nine parking spaces per vehicle, priced at anywhere from US\$2,500 to US\$30,000. The result is a level of parking investment between US\$950mn and US\$30bn in the Middle East alone." ■

Harnessing innovation at Intersec 2015

Attracting industry professionals from across the globe looking to find the latest in innovation from the global security and safety industry, the 17th edition of Intersec took place in Dubai last month.

SECURITY AND SAFETY industry professionals from across the globe gathered to attend the 17th edition of Intersec, which kicked off at the Dubai International Convention and Exhibition Centre last month. Opened by His Highness Sheikh Mansoor bin Mohammed bin Rashid Al Maktoum, the global trade show for security, safety and fire protection ran from 18-20 January 2015 and played host to approximately 1,237 exhibitors from 54 countries.

Ahmed Pauwels, CEO of Messe Frankfurt Middle East, the organisers behind Intersec, said, "We are glad to see a sustained increase in interest in reaching the substantial Middle East market."

He added, "It is not only an interactive networking and knowledge-sharing platform, but it also facilitates some of the game-changing partnerships that make an impact on the regional security scene."

The three-day show has continued its steady growth, having experienced a 10 per cent increase this year on the previous edition, with more than 2,000 brands on show across 48,000 sqm of space.

In addition to the numerous exhibitors from overseas, the organisers reported that Intersec is increasingly attracting more local companies, as it has experienced a 27 per cent year-on-year increase of UAE exhibitors.

The growing presence of exhibitors and brands at the safety and security show, both regional and worldwide, is little surprise considering that the global security equipment market is estimated to grow to a value of US\$116bn by 2016.

Divided into five core sections, consisting of Commercial Security, Fire and Rescue, Homeland Security and Policing, Safety and Health, and Information Security, Intersec is designed to act as a platform to launch new products and services.

A platinum sponsor of the exhibition, Honeywell showcased its portfolio of 'connected' smart security, safety and home automation solutions at this year's exhibition.

Among its solutions was Honeywell Connected Home, an all-in-one home control system that allows homeowners to control their security system, lights, locks and thermostats from a single platform, and ConneXt, which is the industry's first plant-wide, deployable wireless gas detection system to include multi-gas and radiation-detection with biometrics, GPS and Wi-Fi or Mesh wireless radio.

Norm Gilsdorf, president and CEO of Russia, the Middle East and central Asia for Honeywell, commented, "Intersec is the region's premier event for showcasing safety and security solutions and was the perfect platform for Honeywell to showcase how it is meeting the needs of the ever-changing regional smart security landscape."

Another exhibitor at Intersec was Smiths Detection, a global provider of government regulated systems to detect CBRNE (chemical, biological, radiological, nuclear and explosives) threats, which unveiled its latest security system at the show: Checkpoint.Evo. The new system promises to improve the inspection and integration capacities of airport security checkpoints while also offering passengers an efficient and fast security experience. By connecting individual sensors to a fully networked checkpoint system, Checkpoint.Evo is able to provide real-time data collection, distribution and management.

Paul Baker, managing director for the Middle East at Smiths Detection, stated, "The Middle East is one of the fastest growing regions in the world in terms of passenger traffic and key airport hubs, including Dubai, Abu Dhabi, Doha and Riyadh, which are striving to offer unmatched and hassle-free security experiences to their passengers."

Baker added, "Ever-rising passenger numbers and evolving security regulations mean airports face unprecedented challenges. Checkpoint.Evo meets both the current and future requirements of airport operators."

Another highlight of Intersec 2015 was the live rescue demonstrations that the Dubai Police carried out, using Corodex Agencies' latest range of rescue tools, during the show.

Concorde-Corodex Group managing director Mahmoud Awad said, "The purpose of the demonstration was to allow visitors at Intersec to witness how these ground-breaking products will increase the efficiency of rescue missions when extracting victims from vehicles."

As part of the demonstrations, Dubai Police officers extracted dummy survivors from a car wreckage, using the new range of Holmatro rescue tools that Corodex Agencies launched into the Middle East market during the exhibition.

A Dubai Police representative added, "It is vitally important when a driver or passenger is trapped in the wreckage of a car crash that we are able to get them out as quickly and as safely as possible, and to trust that the rescue tools we use will enable that." ■



Intersec 2015 was opened by His Highness Sheikh Mansoor bin Mohammed bin Rashid Al Maktoum



Spotlight shines on 40th edition of MEE

The annual power event will, for the first time, host a dedicated lighting zone at Dubai World Trade Centre to cater for the ever-increasing demand for lighting products in the region.

MEE will highlight the urgency and vision in creating sustainable energy solutions with a focus on combining traditional and alternative energy sources in the Middle East

THE 40TH EDITION of Middle East Electricity (MEE) is set to take place from 2-4 March 2015 in Dubai. Since 2013, the show has not only witnessed a 40 per cent increase in visitor attendance, but has also acquired an additional 21 per cent floor space to cater for the growing MENA power industry, which is forecasted to expand by US\$70.7bn per year up to 2018.

Informa Energy Group director Anita Mathews said, "When Middle East Electricity was launched in 1975, it was held in a tent on the banks of Dubai Creek. The show now boasts more than 54,000 sqm of exhibition space, and received a total attendance of 50,629 last year, the highest number of visitors we have ever received at the show.

"In the event industry 40 years is no mean feat and we are one of the longest standing exhibitions in the UAE's event calendar," Mathews added.

"I don't use the term lightly when I say 'stakeholders are key', and one of the main drivers of the event's success has been maintaining our focus regarding the expectations of our stakeholders. For many of our exhibitors we have grown right alongside them, building the trust that is required to ensure the longevity of our event."

Companies that have confirmed their participation at MEE this year include Perkins, Volvo, Doosan, SDMO, AlFonar, Cummins, MarelliMotori and Ducab.

According to Informa, a key success factor of MEE is its targeted approach on the industry's key focus areas such as power generation, transmission and distribution, lighting and renewable energy. This year the show will have a renewed emphasis on the lighting sector to ensure that this vertical segment in the show grows to its full potential, the organisers revealed.

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Middle East Electricity is high on the list of the world's largest power exhibitions

Focus on lighting

According to Informa, lighting has been one of MEE's fastest growing sectors. To meet the continuing demand, the 2015 event will feature, for the first time ever, an area solely dedicated to the lighting industry, increasing the total floor space by 13 per cent.

In addition to exhibitor demand, the need for a dedicated lighting platform at MEE has been fuelled by strong growth in the lighting industry. The recent revival in the region's construction sector has led to the increase in the Gulf's lighting fixtures market by 10 per cent per annum to reach a value of US\$3.75bn.

The UAE and Saudi Arabia are leading the way in the burgeoning GCC lighting sector and collectively accounted for around 70 per cent of the regional market last year, the organisers added.

"I am really looking forward to what this extension of the show will bring, as the lighting sector in particular depends on innovation and technological advancement," said Mathews.

MEE 2015 will also offer an extended educational programme with three informative conferences, supported by strategic government partner Dubai Municipality. The show will witness the return of the Green Energy and Solar Middle East Conferences and introduce a conference solely dedicated to lighting to coincide with the expanded show vertical. This conference will handle major issues such as transitioning to and supporting the LED market in the Middle East, as well as a session on how new sustainability guidelines are the backbone of both Abu Dhabi's and Dubai's aggressive goals to become smart, sustainable cities.

Hussain Nasser Lootah, director general of Dubai Municipality, remarked, "The 40th anniversary of MEE is a true testament to both the resilience and growth the regional

power industry has witnessed over the last four decades. We fully support the growth efforts of this exhibition even further and are excited to see what new developments and initiatives come out of the Green Energy Conference."

Highlighting sustainable solutions in the energy sector

The conference will highlight the urgency and vision in creating sustainable energy solutions with a focus on combining traditional and alternative energy sources, for example by creating hybrid systems to minimise the risks inherent with both and incorporate sustainable energy means.

Co-located with MEE is Solar Middle East, which will feature a comprehensive gathering of solar technologies from suppliers in the region and showcase the latest developments.

The Solar Middle East Conference, which takes place on Day Two of the event, will provide a holistic view of the regional solar industry with country focusses on Saudi Arabia, Kuwait and Jordan.

Solar projects worth US\$2.7bn are set to be unveiled in the Middle East and North Africa (MENA) in 2015, according to a new study by the Middle East Solar Industry Association (MESIA).

The study, entitled *MENA Solar Outlook 2015*, shows that 1,800MW worth of solar projects will be tendered or awarded during the next 12 months. The figure represents a six-fold increase from 2014 when less than 300MW of solar projects were awarded. To put this into perspective, a 100MW solar PV power plant is capable of powering roughly 200,000 homes.

A good example of the regional move toward solar can be found in Egypt. As its natural gas infrastructure continues to age, it is becoming more expensive in Egypt to generate power using the fuel. Egypt has,

therefore, turned its attention to how it can take advantage of its abundant potential for solar and wind energy.

The UAE daily *The National* reported recently that there were two factors fuelling the sharp rise in solar projects in the Middle East region.

Firstly, the price of solar systems has dropped dramatically since 2009 when the first large-scale solar project in the Middle East was unveiled by Masdar in Abu Dhabi. The installation cost of utility-scale solar photovoltaic (PV) power plants has fallen from about US\$7 per watt in 2008 to less than US\$1.50 per watt in 2014. This amounts to more than a 75 per cent cost reduction. As a result of this cost reduction, solar energy is now competitive with the wholesale price of electricity in many jurisdictions in the Middle East.

Informa said that US\$50bn will be invested in the Middle East solar industry to increase capacity from 380MW to 15,000MW by 2020. ■

Attendees at this year's show will also witness the Middle East Electricity Awards 2015, which honour outstanding achievements of individuals or organisations that contribute to the development of the energy industry. The core award categories for 2015 include:

- Power Project of The Year
- Lighting Project of the Year
- Solar Project of the Year
- Best Innovation or Technology of the Year
- Power & Water Utility of the Year
- HSE Project or Initiative of the Year
- Young Engineer of the Year
- Best Stand Design at MEE 2015 (exhibitor award)

Atlas Copco to exhibit new QIS industrial generators at MEE

ATLAS COPCO WILL have its new QIS range of industrial generators on show at the 2015 edition of Middle East Electricity.

According to the productivity solutions provider, the application-oriented generators are the first models to be introduced under the Gesan line, targeting a wide variety of industries including data centres, healthcare, utilities, manufacturing, retail and recreation, telecommunications, public works and governments and transportation.

The full QIS range will be on show at the event in March 2015. The 50Hz QIS comes in 18 models, the current smallest – the QIS 65 (60 kVA/48 kW prime power; 66 kVA/53 kW standby) – will be supplanted by the even smaller QIS 10. The largest model in the range is the QIS 830 (752 kVA/601 kW prime; 830 kVA/664 kW standby).

“At Atlas Copco we understand the requirements of different industries and thanks to our retrofit kits we can fulfil all of these specific needs, even after the QIS generator has left the factory,” said Angel Nieto, product manager for Atlas Copco Portable Energy.

“The QIS range fits perfectly within our Predictable Power core value. Each model delivers



exceptional reliability and performance in the most demanding conditions with the lowest cost of ownership.”

The QIS was designed with hassle-free maintenance in mind, featuring large removable doors and easy access to all important components. The QIS also comes with dual-position air outlets and a vertical power cable outlet through the frame.

Increasing the power supply is straightforward by configuring two or more QIS units to run in parallel. The QIS can be ordered via Atlas Copco's Gesan line dealers around the world, who also offer individual installation, project management and maintenance support.

Stand no: S1K10

Briefly

Omicron to exhibit RelaySimTest software


OMICRON WILL ONCE again be in attendance at Middle East Electricity this year as it exhibits its range of products and services.

Omicron serves the power industry with a host of innovative products and services for testing, diagnostics and monitoring of power assets worldwide, aiding the safe and reliable generation, transmission and distribution of electricity.

Among the products the company is set to show off to visitors at Dubai World Trade Centre in early March will be its RelaySimTest, a unique software for simulation-based and distributed protection testing using one or more CMC test sets, and online insulation condition monitoring system for bushings and power transformers MONTRANO.

Stand no: 2B39

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Briefly

German innovation on show at MEE 2015

POWER AND ENERGY solutions from Germany will once again be out in force during Middle East Electricity with the 2015 edition of the show set to highlight the role of German products within the Middle East's power industry. Among the power solutions companies who will be promoting their products and services on the German Pavilion will be IPS-Intelligent Process Solutions GmbH (Stand no: S2D54), Knipex-Werk (Stand no: S2B30) and SIBA GmbH (Stand no: S2C59). Germany is one of the UAE's four most important trade partners with exports of electrical and electronic products from Germany to the UAE reaching an export volume of more than EUR1.7bn (US\$1.9bn) in 2012.

The German Pavilion will feature 69 exhibitors who will be presenting the latest in developments in the fields of power engineering, energy efficiency and electrical engineering, as well as showcasing a host of new technologies and tailor-made solutions to the show's visitors. The pavilion this year will be supported by a number of German trade associations and entities including the Federal Ministry for Economic Affairs and Energy (BMWi), the Association of the German Trade Fair Industry (AUMA), the German Electrical and Electronic Manufacturers' Association (ZVEI) and the German Near and Middle East Business Association (NUMOV). The 'Made in Germany' slogan will once again be highly visible on the exhibition floor, with the trademark representing the country's strong reputation for high-quality power solutions. Among the many companies at the show from Germany will be Bender GmbH & Co.KG (Stand no: S2E58), who will be exhibiting its professional solutions for earth fault protection and insulation monitoring of low-voltage systems and Hensel (Stand no: S2B19), who will be exhibiting its new cable junction boxes made of state-of-the-art materials and manufactured using pioneering production procedures.

BASEC to showcase cable-testing services

THE BRITISH APPROVALS Service for Cables (BASEC) will have the latest advances of its world-class cable testing laboratory on show at the 40th edition of Middle East Electricity.

Since the launch of its cable testing laboratory in 2012, BASEC – an international leader in product certification services for electrical, data and signal cables and ancillary products – has continued to serve the needs of cable manufacturers and standards authorities across the world.

Over the past year, BASEC has commissioned brand new test equipment, increased its fire testing services and extended its United Kingdom Accreditation Service (UKAS) accreditation to include the ISO 17025 standard.

Ahead of the event, Glynn Stainthorpe, business development manager at BASEC, remarked, "The forthcoming implementation of the Construction Products Regulation 2011 (CPR) has implications for cable manufacturers in the Middle East who export into the European Union.

"We expect there will be an increased demand from cable manufacturers for the fire testing of cables in accordance with the CPR regulations."

BASEC representatives have worked in the Middle East for more than 10 years, serving cable manufacturers who hold BASEC certification for their products.

The 2015 MEE exhibitor has developed links with local regulators, utilities and industry groups and has been awarded pre-qualification status as an independent testing laboratory for low-voltage cables by the Abu Dhabi Water and Electricity Authority (ADWEA).

Stand no: 5A15



BASEC launched its cable testing laboratory in 2012 (Photo: BASEC)

UK manufacturer to highlight labelling solutions at MEE

SILVER FOX, A UK-based manufacturer of labelling solutions, will be exhibiting its 'UK Brand, UK Made' range on the BEAMA-organised UK Pavilion at this year's event. On its stand, visitors will be able to find out more about the company's industry-leading labelling solutions, which include Fox-Flo UV Stable, LSZH Tie-on cable labels, Legend Laser printable Tie-on cable labels, Legend Non-shrink and Heatshrink tubing for wire marking and the Endurance range including Pipeline ID tape. Silver Fox CEO Nick Michaelson said, "Silver Fox hopes to have great success at this year's exhibition. We have been supplying the power industry for more than 30 years now, and this

knowledge and experience has enabled us to develop our solutions to suit them to user needs. "We are incredibly proud of our independent testing results and we believe it raises the bar for all labelling standards." Driving all of these products is the Fox-in-A-Box thermal printer and Labacus Innovator Software, with both on show to demonstrate the speed of Silver Fox labelling solutions. There will also be the opportunity for a sneak preview of the next generation of Labacus Innovator label software and a new range of tie-on cable labels.

Stand no: 2F21



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Briefly

Aruba Networks expands EMEA programme

ARUBA NETWORKS IS seeking to expand its EMEA Aruba PartnerEdge Programme to offer better support to small to mid-sized enterprises (SMEs) and the channel partners. The company has recently launched 802.11ac products designed for the SME, a number of new programmes, promotions and SME enablement support.

The recently-announced 200 Series, a range of beginner-level dual radio APs that are suited to medium density SME Wi-Fi environments and the 210 Series AP for high-performance requirements in medium density SME deployments, have further extended the opportunities for SMEs looking to upgrade to 802.11ac cost-effectively.

"Hundreds of partners are enjoying excellent growth with the Aruba SME portfolio and the demand for covering the market is increasing. With the centralised SME competence centre Aruba provides a single, consistent and easy to reach support centre for our existing and the new to be recruited partners," said Osama AlHaj-Eisa, channel director, Middle East & Turkey at Aruba Networks.

Driving innovation through Wi-Fi usage

HOTELS ACROSS THE Middle East should use smarter, adaptive network infrastructure that offers stable and secure Wi-Fi access to many devices at a time, according to Graeme Kane, sales manager - hospitality at Aruba Networks.

Kane added that hotel networks should support mobile collaboration for staff and enable personalised and location-based mobile engagement for guests. He also asserted that a mobility revolution has led to hotels exploring ways in which they can engage guests through smartphone apps, stating that technology should be employed that lets front-desk staff roam so they can assist guests anywhere on a property. A top priority for hotels, said Kane, should be providing a memorable guest Wi-Fi experience to improve customer satisfaction. By offering stable, simple, smart and secure Wi-Fi to guests, hotels can lead the way, he noted.

Dubai's ePay system registers payment rise

DUBAI SMART GOVERNMENT

Department (DSG) has released data showing that its ePay system for online payment of Dubai government fees experienced a 25 per cent rise from the previous year reaching around US\$1.9bn in 2014. This was in line with a 16 per cent increase in the number of transactions and an increase in the number of entities using ePay to 30 entities, up from 25 entities in 2013. The ePay system allows customers to pay for government services online and in a secure environment.

An estimated US\$1.9bn was collected through DSG's ePay system in 2014 through transactions compared to US\$1.5bn, through more than 4.5mn transactions in 2013. This in turn has created benefits through the reduction of government expenses using a centralised payment system for most Dubai government entities.

Commenting on the roll out of electronic and smart services, HE Ahmad



HE Ahmad Bin Humaidan, director general of DSG

Bin Humaidan, director general of DSG, said, "These results clearly demonstrate the increasing pace of the electronic and smart transformation process in Dubai and our success in fulfilling the vision of His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai, for providing a world-class smart government in Dubai to ease the lives of all segments of the society and make them happy. This is substantiated not only by the growing interest of customers in using the ePay service to complete their government transactions but also by their growing confidence in this highly efficient and secure option."

Bin Humaidan continued, "The positive effects of electronic payment are not restricted to supporting the national economy and providing customers with open options for payment through multiple channels but extend to environmental sustainability. This is a mainstay of the green economy called for by HH Sheikh Mohammed Bin Rashid Al Maktoum, in his future vision of the UAE when he launched the UAE green development strategy under the slogan 'green economy for sustainable development', a long-term national initiative aimed at converting the UAE to a leading global centre in green development free of pollution resulting from the customer's use of transport and of the effect of exhaust on global warming."

The ePay system enables individual and business customers to electronically pay for many government services, such as electricity bills, transport services and police fines. This is part of Dubai Smart Government's strategy to provide government services in a bid to facilitate government transactions. It is designed to work with many of the smart/eServices of government entities, no matter the technologies and software used by them. It can also be used in electronic payment including the Internet, kiosks, interactive voice response (IVR) and major credit cards. Users can also pay ePay fees through their smart phones.

"We, at Dubai Smart Government, were able to successfully boost user confidence through constant improvements to the portal such as enhancing the online payment system through the 3D Secure System and offering multiple payment options for our customers. The ePay portal allows both individuals and corporate users to pay online for more than 250 eServices, either through the second generation eDirham, credit cards or debit cards from five leading banks: Commercial Bank of Dubai, Dubai Islamic Bank, Abu Dhabi Commercial Bank, Abu Dhabi Islamic Bank and Union National Bank," Bin Humaidan said.

ePay and mPay are part of the Dubai Smart Government's initiative, which aims at offering government services through innovative channels in a bid to improve the lives of people and businesses working with the Government in Dubai. The Dubai Smart Government provides online government services through electronic channels for the public and the business community to have an efficient mechanism for instant payment of government fees, in turn spending less time and effort on personal visits to banks.

Concerns in IT sector focussed on energy cost and environmental legislation

A RECENT SURVEY carried out on behalf of Uninterruptible Power Supplies Limited (UPS Ltd), a leading provider of power protection product and service solutions and part of the Kohler Corporation's Power Group, has revealed that the cost of energy and environmental legislation remain the largest threats to the IT industry.

The 2014 edition of UPS Ltd's annual opinion poll, which questioned 2,000 IT and data centre professionals throughout the UK, revealed that 77.51 per cent believe that rising power costs remain a "major concern to their business". More than 60 per cent of respondents added that increasing environmental legislation represented a "significant risk" to their long-term prosperity.

The upside of the results, when compared with the results from the 2013 survey, revealed that the situation has begun to improve, with those responding negatively to both questions falling from 12 months ago. Those that stated that the cost of energy was a major issue fell by more than seven to eight per cent since last year. Environmental legislation concerns also fell by close to five per cent over the same period.

UPS Ltd managing director David Renton said, "When we look at these results, it's clear that there is still strong pressure to control energy costs and to be more environmentally efficient, but the survey does demonstrate that – at least for some – things are looking brighter.

"With the price of oil decreasing significantly and forecasters expecting further downward pressure, there is a realistic belief that energy prices are set to stabilise and, according to the ratings agency Moody's, UK energy prices will remain close to current levels until 2020.

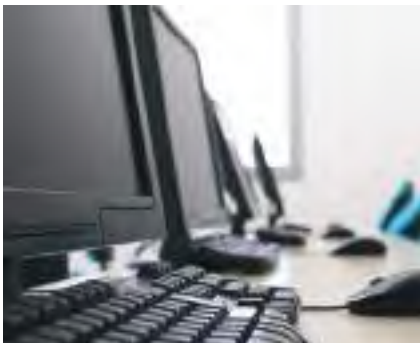
"This isn't a view shared by everyone, but is still in stark contrast to far more

negative forecasts from a couple of years ago," he added.

The survey revealed the ways IT businesses are making pragmatic decisions to offset external pressures, confirming that product efficiency is a key consideration when purchasing capital equipment for more than 85 per cent of respondents. Also, two thirds (66.51 per cent) claimed "reducing operating costs" was their primary driver for change, with 22.01 per cent citing "reducing their

carbon footprint" and 10.53 per cent opting for "a desire to be more socially responsible" as their biggest motivating factor.

In the Middle East, Kohler Power offers comprehensive solutions for a range of power needs through its complete lines of industrial generators, home standby generators, marine generators and mobile generators. Kohler also offers complete rental solutions with portable trailerised restrooms, portable HVAC systems and generators.



The cost of energy is a major concern to businesses operating in the IT sector (Photo: Ante Vekic)

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Bobcat grows tracked loader range with launch of new T450 model

BOBCAT, THE US-based manufacturer of compact construction and agricultural equipment, has expanded its range of compact tracked loaders with the launch of the new T450 model.

According to Bobcat, the T450 features more horsepower, higher auxiliary pressures, lower ground pressure and increased travel speed when equipped with an optional two-speed drive system.

Manufactured at the Bobcat plant in Dobřiš in the Czech Republic, the T450 is powered by the Bobcat D24 45.5 kW turbocharged diesel engine, providing 25 per cent more power than the existing T140, added Bobcat.

“The D24 engine in the T450 meets the current Stage IIIB emission requirements through the use of cooled exhaust gas recirculation (EGR) and diesel oxidation catalyst (DOC) after-treatment technologies with no diesel particulate filter (DPF),” noted the manufacturer.

High productivity

Bobcat revealed that high productivity results from the increased pressure of the hydraulic system, which provides increased attachment performance – the T450 can be matched with more than 80 different attachments and there are also rear hydraulic auxiliary and 7-pin ACD connector options available.

The T450 is equipped as standard with the quick-change Bob-Tach attachment mounting frame. Customers can, however, choose the optional Power Bob-Tach system to change non-hydraulic attachments by simply flipping a switch inside the cab, the manufacturer explained.

Equipped with radial lift boom arms, the rated operating capacity of the T450 is 665 kg, while the operating weight is 2789 kg. The T450 can also be easily transported on a trailer towed by a light truck or all-terrain vehicle.

“The T450 features the same new generation cab design used on the recently launched S450 skid-steer loader and all larger new generation Bobcat compact loaders. One of the many advantages offered by Bobcat compact tracked loaders is the ability to extend the working seasons and the enclosed cab offers added value in the form of comfort and protection from the elements,” noted Bobcat.

According to the company, other features in the T450 include Bobcat’s Advanced



The T450 loader features a radius lift path, providing operators with good reach and visibility

Control System (ACS) and Selectable Joystick Controls (SJC). SJC provides operator seat mounted joysticks for increased control and comfort with unique electric-over-hydraulic joystick control for a machine of this size.

A company official said, “Like all Bobcat compact equipment, the T450 is designed to work long hours on demanding jobsites with minimal time spent on routine maintenance. Improved uptime and serviceability features include the hydraulically powered SmartFAN – a patented, dual-path cooling system drawing cool, clean air from above while forcing hot air from the engine compartment and directing it out through two side vents.”

The T450 also has a transverse mounted engine for optimised weight distribution and full and direct accessibility to service components. The design of the T450 makes it easier to access systems and perform maintenance correctly at the proper intervals, the official added.

Superior flotation

The T450 and the rest of the compact tracked loader range from Bobcat have been designed to provide good performance on soft or muddy ground and sand, as well as on uneven terrain. The rubber tracks provide traction, flotation and low ground pressure for working effectively in all of these environments, noted the company.

“The compact size and ability to work in difficult ground conditions mean that the new T450 compact tracked loader will appeal to a wide variety of users including applications in landscaping, house and office building, construction, equipment rental, recycling, local authorities, agriculture, forestry and nurseries,” said the official.

The T450 is ideal for any application where soil compaction and ground disturbance should be minimised.

NAPCO acquires brand new vertical powder coating line

OMAN-BASED NATIONAL ALUMINIUM Products Company SAOG (NAPCO) has announced the acquisition of a new vertical powder coating line to meet the growing demand for high production aluminium-based powder coating systems in the GCC region.

According to NAPCO, the new vertical powder coating line will be incorporated with the existing system by September 2015. The new system, along with the existing horizontal line, will be expected to enable NAPCO to accommodate up to 27,000 metric tonnes per year.



Robert Holtkamp, general manager of NAPCO

Robert Holtkamp, general manager of NAPCO, said, “To date, NAPCO is the only aluminium extruder in Oman and one of the three companies in the entire GCC capable of addressing the requirement for powder-coated extrusions with profile lengths of up to eight metres.”

The move is said to be in line with the expansion plans of NAPCO, which already has a horizontal powder coating line, Holtkamp revealed.

“The acquisition of the new powder coating system will enable the company to better respond to higher demand for overall coating services and meet specific orders for higher length profiles. Purchased from a leading European supplier, the hi-tech vertical powder coating line provides high production capacity with the ability to economically powder-coat extrusions,” added the general manager.

With the addition of a new vertical powder coating system, NAPCO is expected to handle the increasing demand in-house and give its customers a quality finish, noted Holtkamp.

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Terex MPS expands CR Series with release of new screen plant

SCREENING PROCESS EQUIPMENT provider Terex MPS has developed a new screen plant, expanding its CR Series of portable plant range.

The new machine, the Terex Cedarapids CRS620S screen plant increases production and handles applications not possible with traditional horizontal screens because it combines high g-force oval stroke motion with adjustable slope operation.

Ed Sauser, product manager at Terex MPS, said, "The addition of this new plant to our CR series portable plant line gives our customers a product that will handle more applications than other screen plants on the market. The increased capabilities, higher production, enhanced durability and maintenance friendly features make it an industry leader in productivity."

This plant can handle larger deck loads and larger screen openings. "Hydraulic raising modules can quickly change the screen slope in 2.5 degree increments up to a maximum of 7.5 degrees to best fit the screening application," added Sauser.

The product manager noted that the plant utilises large capacity conveyors to handle the high production

capabilities of the new LJ-TSV screen.

"The low-maintenance flex shaft screen drive eliminates drive belt influence on the screen motion, belt whip, belt slippage and spring loaded belt tensioners. There are no drive adjustments necessary when the screen slope is altered. In addition the new flex shaft drive folds for travel without shaft disassembly to minimise plant transport width," said Sauser.



The screen plant has magnetic screen deck liners for cross beams and diagonal braces

Terex MPS manufactures a broad range of equipment serving its customers in various industries including the construction, infrastructure, manufacturing, shipping, transportation, refining, energy, utility, quarrying and mining industries.




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Zantrak International to be sole Bridgestone tyres distributor in Iraq

BRIDGESTONE MIDDLE EAST & Africa East (BSMEA), a subsidiary of Bridgestone Corporation, has appointed Zantrak International as its first sole tyres and tubes distributor in Iraq. Under the agreement, Zantrak International will exclusively distribute Bridgestone products in the country for trucks and buses, light trucks, passenger cars and motorcycles as well as for industrial and agricultural use.

The new distributorship is expected to further strengthen BSMEA's presence in Iraq by increasing its ability to offer high quality products and services to the country.

Bridgestone Middle East & Africa president Shoichi Sakuma said, "Iraq is a key Middle East growth market for Bridgestone and we are delighted to partner with Zantrak International to support the expansion of our marketing and sales activities.



Khalil Zantout of Zantrak International (left) with Shoichi Sakuma, president of BSMEA

"We are confident that

Zantrak International will deliver strong sales across Iraq as a result of its commitment to excellence and its extensive nationwide presence."

Zantrak International chairman Khalil Zantout added that the company was proud to partner with BSMEA as the first distributor for Bridgestone tyres and tubes in Iraq.

"We look forward to working closely with Bridgestone to achieve results and to operate as an effective distributor by developing a robust customer base for the brand in our market," Zantout noted.



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مشاركة لوييه لشاحنات وحافلات مان في المعرض

تكون شاحنة مان 8x8 TGS WW 41.480 مركبة عالية الموثوقية والفعالية من حيث التكلفة، حيث تغطي هذه الشاحنة بإطارات مفردة خاصة بالقيادة على الطرق الوعرة، ومشع حراري يقدم أداء تبريد عالي الكفاءة في البيئة الصحراوية، وهي الميزات التي تتيح التغلب على التحديات التي تواجه المسافرتين أثناء القيام بمهام النقل التي تتطلب قدرة عالية من التحمل.

لعرض المقصورة هما ٢,٢ و ٢,٥ متر، وكلاهما مصممشان للقيام بوظائف محددة. وقد تم تصنيع الشاحنة بمقصورة ٢,٣ متر لعمليات التوزيع والتسليم، بينما جرى تصنيع الشاحنة بمقصورة ٢,٥ متر لعمليات النقل الطويل وأعمال الإنشاءات الخفيفة وتوزيع الحمولات الثقيلة.

شاحنات وحافلات مان

تقوم شركة مان للشاحنات والحافلات بعرض مجموعة من الشاحنات والخدمات في جناح آلات البناء والمركبات (بي إم في لايف ٢٠١٤) المصاحب لعرض «بيع فايف»، وشملت الشركة الضوء على شاحنتها الأكثر قوة من طراز 8x8 TGS 41.480 والتي تم تصميمها خصيصاً للاستخدام في ظروف الطرق الوعرة مثل الصحاري، كما تم أيضاً عرض شاحنات أخرى مثل الشاحنة 4x8 TGS 40.360 المزودة بخلاطة خرسانة بسعة ١٠ أمتار مكعبة، ويسهم الجمع بين العديد من المزايا الخاصة في أن

بقوة رفع تتراوح ما بين ٢٤ و ٤٠ طن.

ويوفر جناح الشاحنات الثقيلة، في قسم تأجير المعدات، وحدات جرارات وإطارات وحافلات تتضمن ما يزيد عن ٢٠٠ حافلة تم تأجيرها على المستوى الداخلي إلى شركة السويدي للخدمات التصانعية التي تعد الذراع الإنشائية للمجموعة، وأخيراً تستأجر الشركة، من قسم المعدات والنقل الثقيل لديها، أسطولا من الرافعات الجنزرة بحمولة تتراوح ما بين ١٠٠ و ٦٠٠ طن، إلى جانب خدمات النقل الثقيل ذات العجلة.

شاحنات وينو

طرحت شركة زينو مجموعتين جديدتين من شاحناتها من طرازي C و K وترسي الشاحنات الجديدة معايير جديدة من ناحية القوة والإنتاجية. ومع قدرتها على قبول أنواع مختلفة من الأجسام، يمكن تكيف كل طراز بسهولة للتعامل مع باقة واسعة من التطبيقات ومتطلبات العملاء ضمن قطاعي التوزيع والإنشاءات. وسوف تدخل المجموعة C السوق عبر خيارين التين

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باستخدام الروبوت قد سمحت للشركة بضمان الحفاظ على اتساق المنتجات وجودتها العالية على الدوام. ويقول جارثيا: «إننا نعتبر مراقبة الجودة الفائقة أمراً مهماً، وميكنة عمليات الإنتاج باستخدام الروبوت هي الأسلوب الذي اتبعناه لضمان الجودة الفائقة لمنتجاتنا». ومع تدشين المنشأة الجديدة، وزيادة حركة المبيعات في عام ٢٠١٤، يصبح من الواضح أن هيمونزا تضع قدميها بخطى ثابتة على أول الطريق نحو عشر سنوات إضافية من العمل القوي الواحد عبر المنطقة بأكملها.

التي تجنيها في شكل استثمارات في الشركة وفي حلب معدات ومكينات جديدة وإقامة مصانع جديدة. وبمضيها، لا بد أن تمتلك قدرة شافية. ولكن في نهاية الأمر ينسى المشتري السعر الذي دفعه مقابل السلعة ولا يتذكر سوى الجودة التي تظل مترسخة على الدوام في أذهان الناس.

وتملك هيمونزا ثمانية مصانع إنتاجية على مستوى العالم تنتجها طاقة إنتاجية تعادل ١٠ ألف مجموعة توليد سنوياً. ووفقاً لجارثيا فإن ميكنة عمليات الإنتاج

تغطي بشبكة دولية تضم ١٠ شركات تابعة عبر مناطق الشرق الأوسط وأوروبا وأمريكا الجنوبية وآسيا وأفريقيا. وبحسب هيمونزا، يعود جزء كبير من نجاحها إلى استثمارها كشركة صناعية تتولى إدارتها عائلة واحدة بنظام رأسي، وكذلك بفضل السرعة والرونة في اتخاذ القرار، والتي تسمح بها ذلك النظام الرأسي في الإدارة.

وبحسب تفسير جارثيا: يرجع السبب في تزايد حجم الشركة واتساع نشاطها، إلى أنها تعيد ضخ جميع الأرباح



شاحنات فولفو طراز EUD6 تحملني بيواصنات فريدا من نوعها

شركات تصنيع الشاحنات توسع نطاق منتجاتها

توليد قوة تصل إلى ٧٥٠ حصاناً، كما تتمتع الشاحنة بسعات متفردة أيضاً مثل نظام نقل الحركة I-Shift المزود بعدد ١٢ سرعة. إضافة إلى نظام القراميل الخاص بشولفو المعروف باسم VEB+ إلى جانب نظام أوتوماتيكي لضمان السلامة، جنباً إلى جنب مع مراعاة المبادئ الأساسية لسيارات فولفو التي تشمل الجودة والسلامة وحماية البيئة التي قالت الشركة إنها من المتوقع أن يكون لها تأثير دائم ومتواصل على قطاع النقل اللوجستي المتنامي في المنطقة.

السويدي

تتخصص شركة السويدي في تقديم حلول المعدات والشغل الثقيل، وتقوم بتصنيع المعدات التي تضم المولدات ومكينات اللحام ومعدات نقل التربة بجميع أحجامها ومقاساتها، هذا إضافة إلى الرافعات المنقلة

قامت شركات تصنيع الشاحنات بتدشين مركبات جديدة لتعزيز وجودها في منطقة الشرق الأوسط وغيرها من الأسواق العالمية الأخرى.

شاحنات فولفو

في البنية التحتية والاستخدامات التجارية والصناعية في كامل أرجاء البلاد. ونحن نشعر بأن هذا هو الوقت المناسب تماماً للدخول في مجال الأعمال الخاصة بالشاحنات الثقيلة والمتوسطة.

شاحنات فولفو

تغطي فولفو للشاحنات لتعزيز وجودها في منطقة الشرق الأوسط من خلال صادراتها من مصنعها الكائن في مدينة جدو. ومن المتوقع أن يكون الإطلاق الأخير لشاحنة فولفو من طراز FH16 EUD6 على قدم وساق بمجرد الوفاء بمتطلبات مواسفات الاتيماث داخل منطقة الشرق الأوسط. وثأني الشاحنة بمحرك سعته ١٦ لترأ يكون قادراً على

أعلنت فولفو للشاحنات عن إطلاق رأس الجراز من طراز T1843 والشاحنة القلاب من طراز D3635 بهيكل شاميه 6x4 والشاحنة المزودة بخلاط أسمنت من طراز M4135 وذلك في معرض دبي فايف ٢٠١٤، الذي أقيم في إمارة دبي خلال شهر نوفمبر/تشرين الثاني. وقد استعرضت الشركة مجموعة منتجاتها من الشاحنات الثقيلة والمتوسطة في جناح «آلات البناء والتركيبات» (بي إم في لايف ٢٠١٤) المصاحب لمعرض دبي فايف. ويهذه المناسبة قال مارتن بيني، مدير عام مبيعات فولفو وليتكون لدى «الطائر للسيارات» مع منح تنظيم معرض إكسبو ٢٠٢٠ لدولة الإمارات العربية المتحدة تحديداً، نتوقع أن تكون هناك استثمارات ضخمة

نحو مزيد من المشروعات الكبرى في الشرق الأوسط



تزايد الطلب بشدة على منتجات هيمونيزا في منطقة الشرق الأوسط

(شركة محدودة) لتوريد الطاقة لجزء من مشروع خط السكة الحديد فائق السرعة الذي يربط بين مكة المكرمة والمدينة المنورة في المملكة العربية السعودية.

إضافة إلى ذلك، تستخدم منتجات هيمونيزا على امتداد جسر الملك فهد، الذي يربط ما بين المملكة العربية السعودية والبحرين، حيث تساهم في توزيع الطاقة على الحسز نفسه وعلى البنية التحتية المحيطة به. وتلجح متعلقة الشرق الأوسط عددا من التحديات لشركات الإمداد بالطاقة من حيث الظروف البيئية والمناخية، ولكن هيمونيزا تقول إن معداتها مجهزة ومعدلة للتلائم مع تلك الظروف.

ويقول ويب: «تتطلب المعدات المخصصة للمناطق الصحراوية اهتماما خاصا. وبصرف النظر عن الحرارة، فإن هناك عوامل أخرى، مثل الرطوبة، يمكن أن تؤدي إلى حدوث مشكلات إذا لم يتم الاهتمام بها كما ينبغي. كذلك يمثل الغبار عاملا خطيرا حيث يمكنه أن يؤدي إلى حدوث انسدادات في الفلترات (المرشحات)، وأن يتراكم في الماكينات. إننا على استعداد للعمل في أفس الظروف، حيث يكون من الضروري امتلاك القدرة على تحمل درجات الحرارة العالية أثناء النهار التي قد تصل إلى 50 درجة مئوية».

علما بأن شركة هيمونيزا أنشئت في عام 1982، وهي

الشرق الأوسط، لذا فإن التصيب الأكبر من توننا الإقليمي يرجع إلى النجاحات التي يحققونها في دفع العلامة التجارية لهيمونيزا ومساعدتها على اختراق السوق المحلية والتغلغل فيها. ومن الأمور بالغة الأهمية لنا في تحقيق هذا النجاح في المنطقة، علاقة الشراكة القوية التي نجعلنا بكامكو،

وبالنظر إلى المشروعات الإنشائية الكبرى، سواء التي يجري العمل فيها في الوقت الراهن أو التي يجري التخطيط لتبنيها فيما بعد عبر منطقة الخليج؛ مثل مشروعات السكك الحديدية والتطورات المأهولة إلى معرض إكسبو 2030 وكأس العالم لكرة القدم 2022، تحفل المنطقة بالإمكانات الكبيرة الواعدة، ومن الواضح أن هيمونيزا على أهبة الاستعداد للاستفادة من تلك الإمكانات. ووفقا للبيانات المأخوذة من قاعدة بيانات الأمم المتحدة الإحصائية لتجارة السلع الأساسية UN Comtrade Database أعلنت هيمونيزا أنه في عام 2012 استوردت بعض الدول، مثل المملكة العربية السعودية، مجموعات مولدات بقيمة 517 مليون دولار أمريكي. وقد كشفت الشركة مؤخرا عن أنها جاهزة لتسليم مجموعات المولدات التي قامت بشرائها شركة التركيبات والخدمات الخاصة بالبنية التحتية لخطوط السكك الحديدية Instalaciones and Servicios

بعد مرور عقد من الزمان على عملها في منطقة الشرق الأوسط، تتوقع شركة هيمونيزا نموا كبيرا لفرعها الإقليمي الذي قام بالفعل بافتتاح مستودع جديد في دولة الإمارات العربية المتحدة.

تحتفل هيمونيزا حاليا بمرور 20 سنوات على قيامها بتدشين فرعها في منطقة الشرق الأوسط. وبعد افتتاح منشأتها الجديدة في دولة الإمارات العربية المتحدة، تتوقع الشركة، التي تعد مزودا عالميا لنظم توليد الطاقة، تحقيق نمو كبير على المستوى الإقليمي، وقد أعلن الفرع التابع للشركة في الشرق الأوسط أنه يتوقع أن تسير حركة البيع على نفس النمط الذي تحقق في عام 2012 عندما حققت الشركة زيادة تقدر بنحو 25 في المائة، مقارنة بالعام الأسبق. كذلك شهد العام ذاته مساهمة منطقة الشرق الأوسط بنسبة 10 في المائة من إجمالي مبيعات الشركة الإسبانية. وفي حديثه إلى «النشرة التقنية»، صرح فرانسيسكو جارثيا، رئيس مجلس إدارة هيمونيزا، بقوله: «لا بد أن نشكر في ضخامة الإمكانيات الواعدة لمنطقة الشرق الأوسط».

وبعد مرور عقد من عمليات التشغيل في الشرق الأوسط، قام الفرع التابع للشركة في المنطقة، في عام 2014، بافتتاح مستودع جديد على مساحة 600 متر مربع بالمنطقة الحرة بجبل علي في إمارة دبي. ووفقا لتصريحات كيث ويب، المدير العام لشركة هيمونيزا في دولة الإمارات العربية المتحدة، فإن إطلاق هذا المستودع مؤخرا قد سمح بمضاعفة عدد موظفي الشركة. وعلق ويب بقوله: لقد انتقلنا من كوننا مجرد مكتب إلى مستودع، إن قدرتنا على تخزين المولدات تساهم في تعجيل مواعيد التسليم إلى الأسواق الرئيسية عبر منطقة الشرق الأوسط وشرق أفريقيا. وأضاف ويب: «إننا مستمرون في النمو، ومع افتتاح المنشأة الجديدة وعملها نتطلع إلى تحقيق نمو متزايد».

وتعمل هيمونيزا حاليا مع الشركات التي تتعامل مع العملاء المحليين مثل هامكو Farnco وجيلف إكويپمنت Gulf Equipment وشركة بيكس PEAX لتأجير المعدات. وتلجح الشركة في العديد من الدول؛ مثل دولة الإمارات العربية المتحدة والمملكة العربية السعودية واليمن وسلطنة عمان وإيران وأفغانستان وباكستان، وبحسب ويب: «تعتبر هامكو شريكنا الرئيسي في منطقة



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أستوم تفوز بعقد لمعدات الإشارة في مصر



المشروع سيجعل من تحديث الخطبة الإشارة عبر شبكة السكك الحديدية

فازت شركة أستوم بعقد بقيمة ١١٥ مليون دولار أمريكي من هيئة سكك حديد مصر. وذلك لتوريد معدات إشارة لخط قطارات بني سويف-أسيوط-ويعرجب الصنفقة. توفر أستوم أيضا نظام سماعات لوك، وهو نظام الإغلاق الذكي الإلكتروني الجديد، ليحل محل النظام الكهروميكانيكي المستخدم حاليا. كذلك سوف تقوم أستوم بتوريد معدات للسارات الجانبية لخطوط السكة الحديد ونظام للاتصالات، ووفقا للشركة الفرنسية، يتضمن العقد أيضا تقديم خدمات الصيانة، لمدة خمس سنوات، لخط قطارات بني سويف-أسيوط الذي يبلغ طوله ٣٤٠ كيلومترا.

وصرح جيان ليوكا إربانتشي، نائب الرئيس الأول لشؤون النقل لشركة أستوم بالشرق الأوسط وأفريقيا بقوله: «نشعر بالسعادة لفوزنا بهذا المشروع الكبير، والذي سيزيد بشكل كبير من حركة المرور على طول شبكة السكك الحديدية، مع ضمان أعلى مستويات الكفاءة والأمان والحماية. إن شركة أستوم تدعم المشروعات المتعلقة بخطوط السكك الحديدية المصرية منذ ٣٠ عاما، بما في ذلك خطوط المترو الموجودة في العاصمة القاهرة. وتهدف الشركة إلى مشاركة الدولة في إقامة مزيد من المشروعات في الفترة المقبلة».

وأضاف إربانتشي بأن البنك الدولي سوف يقوم بتمويل هذا المشروع الذي أطلقته وزارة النقل المصرية كجزء من مبادرة لتحديث نظم الإشارة على طول شبكة خطوط السكك الحديدية بمصر. ورفع كفاءة التشغيل وزيادة معدلات الأمان حتى تتماشى مع المعايير الدولية.

المزيد، وأيضا خفض التكاليف وتحسين الإنتاجية، يجدر بالذكر أن الحكومة البحرينية قامت باستصلاح قطعة الأرض المخصصة لبناء المصنع الجديد الذي سيصل إجمالي طاقته الإنتاجية إلى ما يقرب من ٩٠ ألف طن سنويا، وتصل مساحة قطعة الأرض هذه إلى ٣٥٠ ألف متر مربع، ومن المتوقع أن تحقق خطة الشركة، لتجديد سلسلة التوريد، وفرا إجماليًا في عملية الإنتاج بقيمة ثلاثة مليارات دولار أمريكي، إلى جانب ١,٥ مليار دولار أمريكي زيادة في صافي المدخرات، ومليار دولار أمريكي أخرى سيولة إضافية حتى عام ٢٠١٦، ومن المنتظر أن يحقق المصنع البحريني الجديد حوالي ٣٠٠ وظيفة مباشرة بنهاية مرحلته الأولى، بالإضافة إلى المساهمة في دعم ١٠٠٠ وظيفة إضافية غير مباشرة تخدم الاقتصاد الوطني.



الطلب على منتجات مونديليز في تزايد مستمر

مفكرة رجال الأعمال

فبراير/شباط	
١٦ - ٢	المعرض العمومي للتقنية والمياه بمدينة القاهرة
مارس/آذار	
١ - ٣	المعرض العمومي للمعدات والمنظفات والمطبخ والمخابز والمخابز، SIAL PFFF
٤ - ٦	معرض كفاءة الشرق الأوسط
٧ - ٩	معرض الشرق الأوسط لطاقة المستقبل
١٠ - ١٢	معرض بغداد الدولي
أبريل/نيسان	
١٣ - ١٥	المعرض الدولي للمنتجات الغذائية (USEFED)
١٦ - ١٧	معرض الخليج للتجارة والتجارة
٢٠ - ٢١	المعرض الدولي للأوراق
٢٢ - ٢٤	معرض العراق والتجارة والمياه بمدينة بغداد

المملكة العربية السعودية، وبحسب مسؤولي شركة أينجوا: من المتوقع أن تنتج محطة تحلية المياه التي تعمل بتكنولوجيا الطاقة الشمسية الفوتوفولتوية (PV)، ٦٠ ألف متر مكعب من المياه يوميا لإمداء مدينة الخفجي، شمال شرق السعودية، باحتياجاتها من المياه المحلاة.

وإضافة إلى تشغيلها بالطاقة الشمسية، سوف تساهم المحطة في تحقيق الاستخدام الأمثل لاستهلاك الطاقة. كما تشمل المحطة أيضا مرحلة ما قبل المعالجة لخفض المستوى العالي من الملوحة والزيوت والشحوم الموجودة في مياه البحر بالمنطقة.

ويصل إجمالي القدرة الكلية لشركة أينجوا، في مجال تحلية المياه، إلى ما يقرب من مليون وخمسمائة ألف متر مكعب يوميا. وأعلن مسؤولو الشركة أن محطة الخفجي لتحلية المياه سوف تعزز من مكانة الشركة في المنطقة.

ومن بين المشروعات الرئيسية للشركة في منطقة الشرق الأوسط، محطة بركاء Barka لتحلية المياه في سلطنة عمان، ومحطة الطاقة الشمسية المعروفة باسم شمس ١ في إمارة أبوظبي.



تتمل مشروعات أينجوا في المنطقة، مشروع أبوظبي، شمس ١، الطاقة الشمسية

تطوير أول محطة كبرى لتحلية المياه تعمل بالطاقة الشمسية في السعودية

من المقرر أن تقوم شركة أينجوا الإسبانية الدولية بحلول المياه، بتطوير أول محطة من الحجم الكبير وشركة إيه دبليو تي AWT، المتخصصة في توفير لتحلية المياه في العالم تعمل بالطاقة الشمسية في

مصنم للبسكويت بتكلفة ٩٠ مليون دولار تحت الإنشاء في البحرين

وضعت شركة مونديليز إنترناشونال، المتخصصة في صناعة الأغذية في الولايات المتحدة، حجر الأساس لمصنعها لإنتاج البسكويت، في مملكة البحرين بقيمة استثمارية تبلغ ٩٠ مليون دولار أمريكي. ووفقا لمسؤولي الشركة المصنعة، فإنها تسعى إلى تطوير منشأة حديثة في العالم العربي، حيث يرفع الطلب على منتجات شركة مونديليز، ومن المتوقع أن يبدأ المصنع في الإنتاج بكميات تجارية أوائل العام المقبل. ووفقا لتصريحات مسؤولي الشركة فإن بسكويت أوريو، ومسحوق عصير شاي يمثلان المنتجين الأكثر مبيعا للشركة.

وقال دانيال مايرز، نائب الرئيس التنفيذي لسلسلة التوريد المتكاملة لمونديليز إنترناشونال، تعليقا على هذا الإعلان: «إن الطلب على منتجاتنا من البسكويت يزداد في منطقة الشرق الأوسط وأفريقيا على نحو مطّاع، وسيوفر لنا الاستثمار في منشأة تصنيع حديثة ومتطورة في البحرين، العديد من الفوائد المربحة. ويعتبر هذا الاستثمار الجديد جزءا من رحلتنا التي تهدف إلى تجديد سلسلة التوريد في جميع أنحاء العالم ثلثة للطلب



الخدمات الجديدة سوف تملأ في المناطق النائية من الصحراء إمكانية استخدام البيانات ومساعدة قوات التفتيش على السير بسرعة عالية

اتصالات تطلق خدمات الجيل الرابع من تقنية LTE والتلفزيون eLife

قامت شركة الاتصالات، مشغل خدمة الاتصالات، بإطلاق خدمات الجيل الرابع من تقنية LTE والتلفزيون eLife بمساعدة تقنية الاتصال عبر الأقمار الصناعية في دبي بدولة الإمارات العربية المتحدة. ووفقا لشركة اتصالات، فإنها تعتبر أول مشغل يقوم بإطلاق خدمات الجيل الرابع من شبكة الجيل الرابع LTE والتلفزيون eLife. وذلك عن طريق تقنية الاتصال عبر الأقمار الصناعية في منطقة الشرق الأوسط، يتيح للعملاء، في المناطق النائية إمكانية استخدام البيانات، ومشاهدة قنوات التلفزيون eLife بسرعات عالية. وتعتبر تقنية الجيل الرابع LTE معيارا للاتصالات اللاسلكية للبيانات عالية السرعة للهواتف المحمولة ومترقيات البيانات. وتعليقا على هذا الإنجاز، قال طارق عبد الله الخرجي، النائب الأول لرئيس مراكز البيانات وحلول الحوسبة السحابية في اتصالات: «تعتبر تقنية الاتصال عبر الأقمار الصناعية وسيلة اتصال موثوقة وأمنة للشركات التي تعمل في المناطق النائية، وتحظى اتصالات بحيرة تزايد من العملاء في هذه السوق. إذ قدمت حلولنا متطورة لجموعة واسعة من العملاء، تتراوح بين شركات النفط الكبرى والجهات الحكومية. وأضاف الخرجي بأن إطلاق خدمات الجيل الرابع LTE والتلفزيون eLife بتقنية الاتصال عبر الأقمار الصناعية، يأتي في إطار حرص الشركة على توفير أفضل خدمات الاتصال السريع، وتجارب الترفيه بالتغطية العريض لعملائها المتواجدين في المناطق النائية، سواء كان ذلك في قلب الصحراء أو في عرض البحر.

المحتويات



القسم العربي أخبار

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- ٤ مصنع للمسكوت بتكلفة ٩٠ مليون دولار تحت الإنشاء في البحرين
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ملخص محتويات القسم الإنجليزي

- أخبار و تطورات السوق، أخبار الفعاليات.
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