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Greener Infrastructures with Geosynthetics in MENA (P.17)



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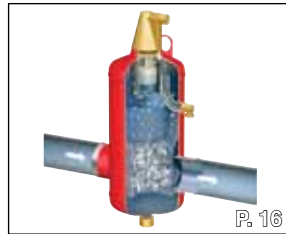
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Business Links

Industry Contacts: This section carries the contact details of agents and distributors as well as companies active in a certain sector in the Middle East and North Africa.

Agents and Distributors: Provides companies seeking representation in the MENA construction market with the opportunity to be out there. Complete contact details are listed as well as region(s) of interest.

Buyers' Guide: This section features a 9 x 6 cm space where every company can include its logo, contact details and over 50 words introducing its products & services

E-mail: businesslinks@cphservices.net



Career Center (Coming Soon)

Area opening up doors before employers to find the right candidate for the right job.

E-mail: careercenter@cphservices.net



Coming Events

The coming events service offers a comprehensive listing of Construction events, conferences, seminars, and workshops. It enables interested users to set their calendars ahead. Information includes name of exhibition, venue, date, organizers' complete details and addresses.

E-mail: comeingevents@cphservices.net



Project Monitor (Coming Soon)

This section highlights the latest news about major projects in the MENA. It is divided into four subsections:

- **Tenders Announcements**, requesting interested companies to make proposals, noting the deadline to do so;
- **Biddings** presented by the different interested parties;
- **Awarded Contracts** with info about the company; and
- **Project Updates** about the projects status along with work progress.

E-mail: projectmonitor@cphservices.net



Promo Shots (Coming Soon)

Promo Shots is a new service serving to promote companies' products and/or services via direct e-mail. A mail merge is sent to a vast number of regional and international decision-makers found in the ACW database.

E-mail: promoshots@cphservices.net



Bigger ... and Greener



The whole Gulf Cooperation Council region is experiencing a construction boom, despite the global economic difficulties and the UAE has a major share of the market with local projects representing 24 per cent of the entire GCC's building construction activities. Contracts worth around USD 27 million were awarded in 2010, with 2011 expected to see actual building construction spending hitting the USD 25 billion mark. Moreover, the UAE's construction sector would even reach USD 21 billion in 2015. Most developments are taking place in Abu Dhabi and Dubai, with the construction sector accounting for at least 10 per cent of the GDP of both emirates.

In Qatar, property development is expected to witness tremendous growth following the country winning the bid to host the FIFA World Cup in 2022. New projects are expected to be developed in the hospitality, infrastructure, and sports sectors over the next decade. Qatar's construction industry is projected to drive in more than USD 22 billion in new contract awards by 2012 and showing an increase from the USD 20.21 billion worth of contracts awarded in 2010. Qatar's construction sector is expected to grow at a compound average growth rate (CAGR) of 12 per cent from USD 7 billion in 2010 to USD 12 billion in 2015.

As reported on page 20, regional construction projects are also taking into consideration the environmental impact. Many of the GCC countries have introduced voluntary rating systems for projects based on their environmental impacts in tune with international standards. Moreover, Qatar has pledged to make all its FIFA 2022 World Cup projects "green" by including solar powered "eco-stadiums".

Turkey's role in the regional construction market is increasing and reports show that in 2009, its building materials export reached USD15.7 billion with local construction companies earning a 2% share of the entire global construction market; more on page 35.

Moreover, the June issue of Arab Construction World (ACW) magazine covers the latest developments in the global and regional construction markets; so enjoy reading it and don't forget to send us your thoughts and ideas.

Until the next issue,

Rodrigue El Balaa (PhD.)

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أكبر ... وأكثر خضرة

تمرّ منطقة الخليج بأكملها بطفرة في قطاع الإنشاء بالرغم من الصعوبات الاقتصادية العالمية مع سيطرة الإمارات العربية المتحدة على حصة كبيرة من السوق إذ تشكل مشاريعها المحلية ٢٤ في المئة من حركة إنشاء المباني في منطقة الخليج. لقد منحت عقود تقدر قيمتها بـ٢٧ مليون دولار أميركي في العام ٢٠١٠ مع توقّعات بأن تصل قيمة الإنفاق على تشييد المباني ٢٥ مليار دولار أميركي في العام ٢٠١١. بالإضافة إلى ذلك، يُتوقّع أن يصل قطاع الإنشاء في الإمارات العربية المتحدة إلى ٢١ مليار دولار أميركي في العام ٢٠١٥. تتركز معظم المشاريع في أبو ظبي ودبي حيث تبلغ قيمة قطاع الإنشاء ١٠ في المئة على الأقل من إجمالي الناتج المحلي لكلا الإماراتيتين. يُتوقّع أن يشهد قطاع التطوير العقاري في قطر نمواً هائلاً على إثر فوز قطر بالرهان لاستضافة كأس العالم في العام ٢٠٢٢ وأن تشهد قطاعات الضيافة والبنى التحتية والرياضة مشاريع جديدة خلال العشر سنوات القادمة. من المنتظر أن يجذب قطاع الإنشاء في قطر أكثر من ٢٢ مليار دولار أميركي من خلال العقود الممنوحة بحلول العام ٢٠١٢ مسجّلة بذلك زيادة عن العقود الممنوحة في العام ٢٠١٠ والتي تبلغ قيمتها ٢٠,٢١ مليار دولار أميركي. كما يُتوقّع أن يشهد قطاع الإنشاء في قطر نمواً بنسبة ١٢ في المئة وفقاً لمعدل النمو السنوي المركّب فترتفع من ٧ مليار دولار أميركي في العام ٢٠١٠ إلى ١٢ مليار دولار أميركي في العام ٢٠١٥. من ناحية أخرى، وكما جاء في الصفحة ٢٠ من هذا العدد، فقد بدأت مشاريع الإنشاء في المنطقة بالأخذ في الاعتبار أيضاً التأثيرات على البيئة. فقد اعتمدت الكثير من دول منطقة الخليج أنظمة تصنيف طوعية لمشاريع تركز على تأثيراتها على البيئة بالتوافق مع المعايير العالمية. كما وتعهّدت قطر بأن تكون جميع المشاريع المتعلقة بكأس العالم ٢٠٢٢ خضراء عبر إنشاء "ملاعب بيئية" مجهزة بنظام الطاقة الشمسية. أما بالنسبة لتركيا فإن دورها في سوق الإنشاء في المنطقة يزداد إذ تشير التقارير إلى أن صادرات مواد البناء التركية قد وصلت في العام ٢٠٠٩ إلى ١٥,٧ مليار دولار أميركي مع حصول شركات الإنشاء المحلية على ٢ في المئة من سوق الإنشاء العالمي؛ المزيد على الصفحة ٣٥. كما ويغطي عدد حزيران (يونيو) من عالم الإنشاءات العربي آخر التطورات في أسواق الإنشاء العالمية والمحلية لذا استمتعوا بقراءة هذا العدد ولا تنسوا أن ترسلوا لنا آراءكم وأفكاركم.

وإلى العدد القادم،

د. رودريغ البلعة

مدير الكتابة والتحرير والأبحاث



ALGERIA

Algerian Exports

Recorded an Increase of 16.45%

A new report has shown that Algeria's trade surplus during the first four months of the year 2011 amounted about USD 8.6 billion, compared to USD 6.8 billion during the same period in 2010. According to the report, Algeria's exports amounted USD 23.63 billion during the first months of this year, an increase of 16.45%. The report relates the increase in the value of Algerian exports to the increase of oil prices, which still represents 97.49% of the total volume of the North African country's exports.

JORDAN



Jordan Themed Entertainment Resort to Be Built

by 2014

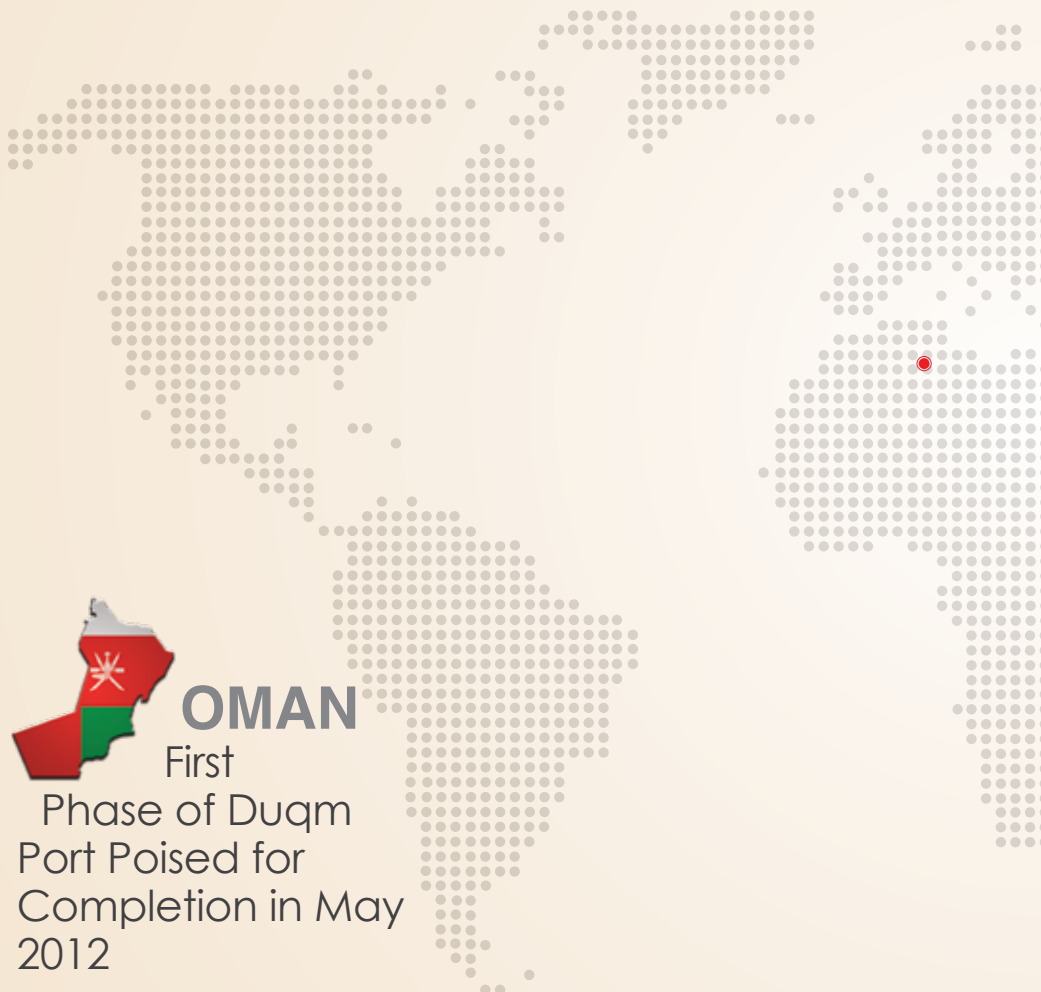
The schematic design for the USD1 billion Red Sea Astrarium, a 75-hectare themed entertainment resort to be built in Aqaba, Jordan by 2014, is in the process of being finalized in conjunction with local architects, says Callison principle architect Bill Lacey. Architectural firm Callison of the US is working with **Rubicon Group Holding (RGH)** in conjunction with **CBS Consumer Products** and **Paramount**, which is developing the first Star Trek attraction outside the US specifically for the project. Lacey said that Jordan is an incredible country, with such a rich culture and history, that the master-planning has been relatively easy. The remote location did pose some challenges, however, in terms of utilities and infrastructure

such as water features and landscaping.

Lacey added that the Star Trek section will aim to symbolize future history. Designed by **Paramount Recreation**, it will reportedly be based on the 2009 J.J. Abrams reboot movie, and deliver a variety of multi-sensory 23rd-century experiences, culminating with a state-of-the art space-flight adventure that takes real-time immersive entertainment experiences to bold new heights.

start cargo handling operations by the end of this year. He added: "This month, the port will start receiving vessels from the shipyard. The port will drive the development of Al Wusta region. The port will handle containers, general and bulk cargo." Noting that the port will be operated by the Antwerp Port of Belgium.

Darwish bin Ismaeel al Balushi, Minister Responsible for Financial Affairs said that investments in Duqm Economic Zone is expected to touch



OMAN

First Phase of Duqm Port Poised for Completion in May 2012

The Port of Duqm is expected to start cargo handling operations by the end of this year. The first phase of the world-class port is poised for completion in May 2012 and it will become fully operational by 2013, according to the port officials. *Stordiau*, deputy chairman of **Port of Duqm Co (PDC)**, said at the Economic Forum for the Investment Opportunities in Duqm Economic Zone that it is planning to

USD10-15 billion and create around 20,000 jobs in the coming 10 years as per the initial plan. He added that the refinery and petrochemical industries complex will be among the first investment projects to be set up in the zone. H E Balushi added that Duqm's infrastructure requirements, including roads, electricity, water and communications, will be of the highest international standards.



SAUDI ARABIA

New Petrochemicals Plant in Jubail

The **Saudi Arabian Mining Company (Ma'aden)** and **Sahara Petrochemical Company (Sahara)**, which is 90 percent owned by **Zamil Group Holding**, have established a new joint ven-

ment follows the announcement by both companies last year that they received the approval of the Saudi Industrial Development Fund to provide USD240 million in project financing.



SYRIA

IFC Forecasted a 3% Slowdown in the Syrian Economy

and next as first assessments of the impact on the economy of the current turmoil gripping Syria and the Middle East. The Syrian government plans to finance its expenses by increasing its deficit and plans to review free trade agreements signed with partner countries. Syria economic policy seems to switch towards protectionism with a risk of a devaluation of its national currency.



UAE

Prequalification Bids for a Second Main Road between Abu Dhabi & Dubai

The Department of Transport (DoT) of Abu Dhabi is inviting prequalification bids for the new Abu Dhabi to Dubai main road project. Tenders will be called for by Q3, and contracts awarded by Q4, according to the DoT. The new main carriageway will link with the existing Emirates Road at the border between Abu Dhabi and Dubai onto the Abu Dhabi to Al Ain Road (E22) near Baniyas, and on the Al Ain truck route at E30. **Aurecon** was appointed in February to carry out the project management consultancy, which included verification of the existing design of the proposed route and contract document preparation.

The route is broken down into three main packages, which are all included in the prequalification. The project will be based on the **American Association of State Highway and Transportation Officials (ASSHTO)** standards and specifications, "with the incorporation of international best practices to improve the delivery and lifecycle aspects." The road will ultimately be required to achieve a Gold Green Road Accreditation based on the University of Washington Green Road adjudication matrix, as adjusted for the local environment.

ture that will create a caustic soda and ethylene dichloride (EDC) plant. The USD750 million project, located within Sahara's complex in Jubail Industrial City, will produce 250,000 tons per year of caustic soda and 300,000 tons per year of EDC. The two companies also agreed to use the procured caustic soda in the production of alumina for Ma'aden's refinery in Ras Azzour. The joint venture arrange-

A recently released specialized report by The **International Finance Corporation (IFC)**, a member of the World Bank, have released a report in which it forecasted a slowdown by 3% by the end of 2011 of the Syrian economy in the wake of the bloody protests and political unrest in the country. In addition, the IFC predicts a further deterioration in the budget and current account deficits this year

Energy Efficiency with Wood Buildings

Nowadays steel and concrete are the predominant materials used to construct tall buildings and long-span bridges. But wood is still used as a major material in houses, smaller buildings, for decorative purposes and furniture. It is also a raw material for pulp-based products such as paper. Although wood is in many cases replaced by stronger and lighter materials, it is still in great demand. However, the switch into adopting green building will enhance the role of wood.

The vital role of wood in green building

Green building incorporates building design, construction, and maintenance to promote more energy-efficient, environmentally friendly, and sustainable building practices. Green builders select appropriate sites, employ green materials, take advantage of optimum lighting, and install energy-efficient mechanical equipment. Wood is the only naturally renewable building material, and that cycle of growth has an added benefit. When a young forest is growing, it produces 1.07 tons of oxygen and absorbs 1.47 tons of carbon dioxide for every ton of wood. But as the forest matures, growth slows, and the absorption rate drops off. Harvesting a mature forest sequesters the carbon in the wood, meaning it will not be released into the atmosphere.

Because wood is an inherently green material, the trend toward green building represents an opportunity. In addition to being the only major building material that's renewable and sustainable over the long term, studies have shown that wood is superior to steel and cement in almost every environmental impact category. In conclusion, wood has a vital role to play in meeting the growing demand for green building materials.

With most rating systems, wood use is rewarded in the context of renewability, sustainability and/or the purchase of environmentally preferable products. But it can also be used to help meet overall energy-efficiency objectives. Because wood has better insulating value than other materials, a wood-framed home can minimize the energy needed for heating and cooling—which represents about 45% of most utility bills.

MENA's Wood Market

Dubai serves as a hub for Middle Eastern wood importers. In 2007, United Arab Emirates Wood market registered 25-30 per cent growth annually in comparison with 2005 statistics, with certain segments registering higher growth rates according to statistics from the Dubai Ports, Customs and Free Zone Corporation. US Census figures show that in 2010, exports of wood products from the US into the UAE jumped by 48 per cent compared to 2006, while furniture exports grew by 54 per cent. US wood products destined for India increased by 69 per cent from 2006 to 2010, while furniture exports jumped by 57 per cent. Meanwhile, China's import of wood products from the US grew by 27 per cent from 2006 to 2010, and furniture increased by 34 per cent. Certainly the volume of wood imports into China are much higher than into the middle east or India, USD526



million worth of wood products into China for 2010 compared to USD23.5 million into UAE, but the rate of growth cannot be ignored.

According to the United States Department of Agriculture, the value of American hardwood exports in 2010 grew to a record-breaking USD72.7 million, a 46 per cent increase over 2009. To date, Egypt remains the top destination for American hardwood lumber and veneers. Underlining the increase in exports of American hardwood logs, lumber, veneer and flooring across the Middle East region are key figures that show an 82 per cent increase in exports of American hardwood flooring in 2010. During this period, there was also a 38.5 per cent growth in the shipments of red oak lumber to the Middle East and North Africa region. The USDA also reports that veneer exports to Turkey and Lebanon have increased by 108 per cent amounting to USD3.75 million and by 86 per cent amounting to USD3.33 million respectively in 2010.

As for wood prices, they have stabilized over the past six months in the Middle East, according to **Danube Building Materials**, one of the largest suppliers of building material in the region. The company noted that the price for medium density fiberboard (MDF) has been USD285 per cubic meter (CBM), while the Malaysian Hardwood Plywood was priced at USD495 per CBM. The pricing for film face plywood was pegged at USD375 per CBM, and the meranti wood pricing saw an increase of 0.67 per cent from USD750 to USD755 per ton. ■

Prepared by ACW Staff

يعتبر الصلب والأسمنت المادتين الأساسيتين في تشييد الأبنية الشاهقة والجسور الطويلة إلا أن الخشب لا يزال يشكل مادة أساسية للمنازل والأبنية الصغيرة والأثاث. وعلى الرغم من استبدال الخشب في الكثير من الحالات بمواد أقوى وأخف فإن الطلب عليه لا يزال كبيراً. ومع ذلك، فإن التوجه نحو اعتماد الأبنية الخضراء سيعزز من دور الخشب في عمليات التشييد. فالخشب هو مادة خضراء وهو مادة البناء الوحيدة المتجددة بشكل طبيعي، كما ويتمتع بميزة العزل مما يؤدي إلى توفير الطاقة وبالتالي المحافظة على البيئة. تشكل دبي المحور لمستوردي الخشب في الشرق الأوسط وقد ارتفعت نسبة صادرات المنتجات الخشبية من الولايات المتحدة الأمريكية إلى الإمارات العربية المتحدة بنسبة ٤٨ في المئة مقارنة بالعام ٢٠٠٦ بينما ارتفعت نسبة صادرات الأثاث بنسبة ٤٥ في المئة. تجدر الإشارة إلى أن مصر تبقى حتى اليوم الوجهة الأساسية لصادرات الخشب الأمريكي.



Powerful New EDGE Post Pounder & Puller

CEAttachments, Inc., a global supplier of attachments and accessories for compact equipment, announces the addition of the all new EDGE Post Pounder and Puller to their lineup of attachments for the skid steer loaders. The all new EDGE Post Pounder and Puller is the perfect attachment for quick and cost effective installation and removal of property line fences with solid steel or wood posts, and particularly in agricultural applications. This easy to use, one-person operation will drive fence posts as wide as 25.4 centimeters and up to 3 meters long into the ground in minutes with its powerful 22680 Kilograms impact force. No need to ever touch the post by hand! Simply use the attachment to pick up the post, position it using the 30.48 centimeters plumb chain, and use the power of the skid steer to drive it into the ground, even as low as 45.72 centimeters above ground. The EDGE Post Pounder and Puller will also pull old fence, small trees or steel posts from 2.54 centimeters in diameter out of the ground with ease. An optional T-Post Adapter Kit is a simple accessory to assist in driving or pulling T-Posts. This new EDGE Post Pounder and Puller requires a minimum of 15 gpm hydraulic flow and is recommended for use on a skid steer with a minimum lift capacity of 750 kilograms.

CEAttachments is a full service international wholesale distributor of attachments and accessories for all brands and models of compact equipment including skid steer and



The new EDGE Post Pounder and Puller

track loaders, compact excavators and compact utility tractors. Its products will bring to equipment versatility, increased productivity and a quick return on investment. The company is committed to becoming customer's one stop shop for attachments through customer satisfaction, product knowledge, and an understanding of customer's equipment capabilities. ■

Doosan 22Ton Excavator at R H Ovenden Ltd

R H Ovenden Ltd, the materials and waste recycling company based at Aylesham near Canterbury in Kent, has purchased a new Doosan DX225LC crawler excavator from **Promac Solutions Ltd**, the authorized Doosan dealer for South East England. The reasons for purchasing the new DX225LC excavator include the high productivity, operator comfort, safety and low maintenance offered by the machine. The new DX225LC is based at the Ovenden transfer station at Tilmanstone, where the machine sorts and stockpiles materials such as construction waste, hardcore, concrete, soil, metals and wood brought to the site by customers or in the company's own fleet of waste trucks and skips.

The excellent working range and lift capacities of the DX225LC contribute to the high productivity offered by the excavator. One of the principal applications for the machine at Ovenden is for sorting, storing and reloading wood waste. With specifications that include a maximum digging reach at ground level of 9.3 meters and a maximum dump height of 6.83 meters, the DX225LC has the range to work quickly in and around the wood pile, both storing and unloading wood for recycling.

To meet Ovenden's requirements, Promac Solutions fitted an additional rotation circuit to the DX225LC excavator so that it can operate a grab attachment to handle the wood waste. The machine's operator, *John Faithfull*,



Doosan DX225LC crawler excavator at R H Ovenden Ltd

uses the grab to stockpile the wood waste brought to the transfer station, before using the grab again to reload the wood from the pile into articulated trucks for onward supply to chipboard manufacturers. All of the features on the DX225LC combine to allow Mr. Faithfull to fully load one of the articulated trucks in just 25 minutes. When it is not handling the wood waste, the Geith quick hitch on the excavator allows Ovenden to change the grab to a shear attachment for reduction work on other construction waste materials. ■

Road Safety is a Necessity rather than a Luxury

Every year, 1.3 million people around the world are killed and 34 times that number are injured in traffic accidents. The World Health Organization (WHO) estimates that by 2020, unless action is taken, road trauma will rank as the sixth biggest cause of death; 17 million more could die and over 200 million could be seriously injured and permanently disabled on the world's roads. Road trauma is among the world's largest public health problems: according to the World Health Organization's (WHO) Global Burden of Disease and Injury report, it ranks with malaria, tuberculosis and HIV/AIDS as a leading global cause of death and disability.

Road trauma, the sixth biggest cause of death

Safety and security are important issues for society. In traffic environments both traffic itself and other people may contribute to feelings of insecurity. This may affect people's habits and may even result in that certain people avoid public places such as streets, squares, parks and public transportation. There is no doubt that good design of road infrastructure can help substantially. Building more and more roads may not always be the best answer to traffic growth and other problems. For instance, the emphasis in several Western European countries is now getting directed towards making the best use of existing road networks and giving priority to sites where the worst accident, congestion and/or environmental problems exist.

Nearly 0.5 million people die and up to 15 million people are injured in urban road accidents in developing countries each year, at a direct economic cost of between 1 and 2 percent of worldwide gross domestic product. Improvements in road surface and horizontal and vertical alignment at black spots has proved very effective in a number of cases. Much is already well known about measures to protect the pedestrians and cyclists, who are the most vulnerable road users, according to WHO. Proper provision of footways, controlled signals for at-grade pedestrian crossings, grade-separated crossings, pedestrian-only areas, and segregated bicycle lanes and tracks are all effective and, in comparison with most infrastructure, relatively inexpensive.

It is generally accepted that in industrialized countries, the three most common causes of fatalities and injuries are the excess driving speed, driving under the influence of alcohol, and inadequate protection of vulnerable persons in accidents. At the national level there should be enforced systematic policies for dealing with each, while at the local level those policies should be rigorously enforced. Due to coordinated inter-agency approaches in developed countries, the situation is improving. However, projections indicate that unless there is a new strong political commitment to prevention, the crash death rate in low and middle-income countries will double by 2020, reaching more than 2 million people per year.

Measures taken in some Arab countries

In Lebanon, the overall road safety situation is poor. The actual number of casualties is high in relation to the number of



inhabitants and motor vehicle ownership, as compared to countries with good road safety records. However, many measures have been implemented since last year in order to reduce the increasing number of road accidents and it proved to be efficient. Among these measures, the mandatory use of seat-belt that has proved to be one of the greatest success stories of road injury prevention and has saved many lives since last year; setting speed limits and installing radars to monitor traffic and detect speed violation on both highways and inner roads. According to **Internal Security Forces (ISF)**, a significant drop in the rates of road accidents after the activation of speed radars across the country has been shown. Not to forget the role that plays the organizations and associations such as **Yasa** and **Kunhadi** in promoting awareness among people, especially young ones. Kunhadi launched the United Nations "Decade of Action for road safety 2011-2020" on the 11th of May, at UNESCO palace. The project follows up on a UN resolution passed in March, which designated the next 10 years as the decade for reducing the number of traffic fatalities around the world.

In Qatar, students at **Northwestern University** have developed QatarAccidents.org website that investigates traffic safety in Qatar. This website gives users an overview of traffic safety in the country as well as insight into the lives of traffic accident victims. It also features stories on traffic safety in the country, original journalism pieces, high-quality video, informational graphics and interactive maps. On the other hand, the civic administration in Al Ain, UAE has launched a safety project to control growing pedestrian accidents on city streets with enhanced road safety mechanisms. ■

Prepared by ACW Staff

يلقى كل سنة ١.٣ مليون شخص حتفهم ويجرح ٣٤ مرة ضعف هذا العدد في العالم من جراء حوادث السير. تتوقع المنظمة العالمية للصحة بأن تحتل حوادث الطريق بحلول العام ٢٠٢٠ المركز السادس في أسباب الوفاة في حال لم تتخذ أي إجراءات احترازية إذ يتوقع أن يلقى ١٧ مليون شخص مصرعهم وأن يصاب أكثر من ٢٠٠ مليون شخص بجروح خطيرة ويعجز دائم على الطرقات في العالم. تشكل حوادث الطريق إحدى مشاكل الصحة العامة الكبرى في العالم إذ تحتل وفقاً لتقرير "العابء العالمي للأمراض والإصابات" الصادر عن منظمة الصحة العالمية المرتبة ذاتها مع الملاريا والسل والإيدز (فيروس نقص المناعة البشرية) كسبب عالمي أساسي للوفاة والشلل. من دون أن ننسى حوادث المرور على الطرق التي تشكل حالياً ٢٥ في المئة من حالات الوفاة بسبب الجروح حول العالم.



PoliScan^{speed} & PoliScan^{redlight} to Improve Traffic Safety

Modern laser technology optimizes speed measurements and red light monitoring in road traffic. The PoliScan^{speed} speed measuring systems by VITRONIC operate with LIDAR technology (Light Detection and Ranging) and therefore are capable of simultaneously registering several vehicles in different lanes - with rates of usable images that are three times higher than those of other speed control systems. PoliScan^{speed} requires no roadside installations and - in contrast to radar devices and laser guns - also operates reliably on construction sites and curvy roads. PoliScan^{speed} can be used for speed measurements in the form of a permanently installed column system or in the form of a mobile solution. PoliScan^{redlight} is the solution for efficient red light monitoring. The traffic situation is also illustrated with the aid of laser technology in this case. If a violation occurs, two photos are produced: one when the vehicle crosses the stopping line and one in the region of the intersection.

Clear argumentation due to reliable recording and documentation of violations

The speed measurement system and the red light monitoring system are both based on the same principle of laser transit time measurement: the LIDAR sensor permanently registers all vehicles in several lanes. Tailgaters and vehicles that drive next to one another or change lanes are also positively identified. The reliable tracking system furthermore ensures the clear documentation and classification



Preliminary Intertraffic with PoliScan^{speed}

of violations. All required data is incorporated into the case file in a manipulation-proof fashion and ensures a continuous chain of evidence. It is also possible to realize combined speed measurement and red light monitoring with the PoliScan systems.

Since 1984, VITRONIC in Wiesbaden delivers standard products from modules that can be expanded in accordance with customer specifications to individual special solutions. VITRONIC develops, manufactures and distributes these products itself. Consequently, the customers receive turn-key systems from one source. ■

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Volvo Trucks Tackles Right-Turn Accident Scenarios

Volvo Trucks has a long tradition of working with traffic safety. Through innovative solutions, the company strives constantly to improve safety in and around the truck. Among the most vulnerable road users are those that the truck driver has difficulty seeing in what is known as the "blind spot". Sweden's Volvo Trucks is tackling this problem at every level, for example by means of new technology and public traffic education.

It is easy for pedestrians and cyclists to spot a truck. But unfortunately, it is not quite so easy for truck drivers to spot pedestrians and cyclists. A truck has more blind spots than a car does, and it is particularly difficult - despite the fitting of no less than four rear-view mirrors - to get a good rear view along the vehicle's right side. The statistics speak clearly: 20 percent of all accidents between vulnerable road users and trucks occur when the truck turns right at a junction. "As long as there is a need for transporting goods in cities, there will be trucks on the streets. But there are things we can do to improve the situation, and the right-hand turn has been identified as a particularly relevant safety issue," says *Carl Johan Almqvist*, Traffic and Product Safety Director at Volvo Trucks.

City crossroads are dangerous places. Traffic of all types jostle for space, and it is difficult to gain a clear overview. It is most difficult of all for truck drivers. "If you stop at a red light, the environment around you changes while your vehicle is stationary. Meanwhile, the driver is focusing on something else, such as the traffic lights or looking for a suitable gap in the traffic ahead. Above all, it is changes behind the truck that the driver does not see. Cyclists, in particular, can close the gap quickly," says *Malte Ahrholdt*, project manager at Volvo Technology. He works with Intersafe-2, an EU-financed project that focuses on making crossroads less dangerous. Volvo Trucks' contribution to the project is a system that aims at solving the problem of the truck driver's blind spot on the passenger side. In a test truck, Ahrholdt and his colleagues have fitted laser scanners and ultrasonic sensors



Fitting laser scanners and ultrasonic sensors that monitor the area on the truck's passenger side in order to reduce accidents

that monitor the area on the right of the vehicle. When a cyclist or pedestrian gets too close, the truck driver is alerted by flashing lamps and audible warning signals. "The warning lights and sounds become increasingly urgent the more critical the situation is," relates Ahrholdt.

According to Almqvist, technical innovations are not the only solution to the problem. "Generally speaking, people are seldom aware of the driver's restricted visibility. If we are to truly succeed in reducing accident statistics, it is also necessary for the general public to have an increased understanding of how trucks work in traffic. We generally say 'Keep away from the truck's passenger side'. You're never visible there." He adds: "Volvo Trucks is working on all fronts to improve safety - with both advanced technology and enhanced information." One example of the latter is a project entitled Road Safety at Eye Level, which Volvo Trucks is operating in Denmark. The background is that many accidents were occurring when trucks turned right at junctions, and many of the injured were children. The project involves visits to schools throughout Denmark, and so far more than 60,000 children have participat-

ed in the training program.

In Denmark, the number of accidents involving cyclists and trucks during right turns has decreased since the campaign began in 2003, dropping from approximately ten fatalities per year to just one in 2009. Of course it is difficult to specify exactly just how much the campaign has contributed to this improvement, but today there is considerable demand for the program among Danish schools. And Volvo Trucks has taken the initiative to launch similar projects in several other European countries.

The system developed by Intersafe-2 is still at the development stage. However, Volvo Trucks is already offering solutions that make it easier for drivers to keep an eye on other road users. In addition to the legally required rear-view mirrors, these solutions include reversing cameras and Lane Change Support, a system that helps the driver change lanes safely. "Our safety enhancement efforts continue constantly. We have a vision that states that we will never accept any accidents. That's why we must constantly be on the lookout for new and better ways of working with safety. It's our responsibility as a truck manufacturer," says Almqvist. ■

Hydropower Produces Electricity without Harmful Emissions

Measures against global warming have become an important issue for the world. The use of fossil fuels like oil has raised concerns about carbon dioxide emissions, which cause global warming, and the future depletion of energy sources. Facing this situation, hydropower generation is drawing renewed attention, with renewable energy sources such as solar power and wind power being actively introduced as alternative energy sources. Hydropower is a major source of low-carbon renewable energy. It accounts for 2.2% of primary energy supply and contributes 16% of the world's electricity, and represents 85% of all that is generated from renewable sources.

Hydropower features

Hydropower is the capture of the energy derived from moving water for some useful purpose. Prior to the widespread availability of commercial electric power, hydropower was used for irrigation, milling of grain, textile manufacture, and the operation of sawmills. Power generated from a hydro scheme depends on the height the water falls and the volume of water available. Water is diverted from a given point on the river through to a turbine house where a turbine converts the kinetic energy of falling water into mechanical energy. Then a generator converts the mechanical energy from the turbine into electrical energy.

Compared with other forms of natural energy, hydropower features high energy conversion efficiency and high energy density. Unlike solar power and wind power, hydropower can generate stable electricity as it is little affected by weather changes in hours; therefore, it does not exert negative impact on power systems. Furthermore, hydropower with regulating ponds or reservoirs has a load following capability that automatically regulates excesses or shortages of electricity in accordance with changes in system frequency, and therefore hydropower can contribute the stability of existing power systems.

Less CO2 with hydropower energy

In contrast to burning fossil fuels, Hydropower energy is not a significant contributor to global warming through production of CO2 or other harmful emissions because the total CO2 emissions of hydropower generation throughout its lifecycle, from construction to operation to maintenance, are extremely low. Also, some reports showed that CO2 emissions from small-scale hydropower, which utilizes existing facilities, are approximately a half from a newly constructed hydropower. Hydroelectric power can be far less expensive than the electricity generated from fossil fuel or nuclear energy. Areas with abundant hydroelectric power attract industry. Environmental concerns about the effects of reservoirs may prohibit development of economic hydropower sources in some areas.

Extent of use of hydropower

Hydropower currently accounts for approximately 20% of the world's electricity production, with about 650,000 MW installed and approximately 135,000 MW under construction or in the final planning stages, as stated in **Energy Business Reports**. Notwithstanding this effort, there are large untapped resources on all continents, particularly in areas of the world that are likely to experience the greatest growth in power demand over the next century. It is estimated that only about a quarter of the economically exploitable wa-



ter resources has been developed to date, leaving the potential for hydro to continue to play a large role in sustaining renewable global electricity production in the future. Apart from a few countries with abundance, hydro power is normally applied to peak load demand because it can be readily stopped and started. Nevertheless, hydroelectric power is probably not a major option for the future of energy production in the developed nations, however, because most major sites within these nations are either already being exploited or are unavailable for other reasons, such as environmental considerations.

Hydropower in developing countries

In China and India, electricity consumption grew by 5.3-fold and 2.7-fold, respectively, in the 17 years from 1990 to 2007. In emerging countries like China and India, large-scale hydropower development is aggressively under way. There are many non-electrified areas in Southeast Asia, and the common energy policy of the countries in the region is to bring the electrification rate to 100%. However, as central governments do not have the necessary funds, they rely on overseas assistance for funding for the development of large-scale power plants.

Recently, Iran and China have finalized a hydropower project construction agreement. Due to open in 2014, the Bakhtiari Dam and Hydroelectric Power Plant in southwest Iran will be the tallest dam in the world at 315 meters, surpassing China's 305 meter Jinping-I Hydropower Station with a generation capacity of 1.5GW. As for Syria, its hydropower resources are constrained by the precipitation levels in the country and depend on the flow in international rivers. Most of the available hydropower potential has been harnessed and limited scope remains to harness micro or small hydropower. ■

Prepared by ACW Staff

أصبحت الإجراءات المتخذة لمكافحة الاحتباس الحراري موضوعاً هاماً للعالم. فقد أثار استعمال الوقود الأحفوري كالنفط القلق حول انبعاثات ثاني أكسيد الكربون الذي يسبب الاحتباس الحراري ونضوب موارد الطاقة في المستقبل. وفي ظل هذه الوقائع، تستعيد الطاقة الكهرومائية الانتباه مجدداً مع تقديم مصادر الطاقة المتجددة مثل الطاقة الشمسية وطاقة الرياح كمصادر طاقة بديلة. وسيجعل اعتماد الطاقة الكهرومائية سير السيارات بواسطة الكهرباء ممكناً عبر استبدال المحركات البخارية بالمحركات الكهربائية واستعمال الكهرباء في عمليات الإنتاج. إن الطاقة الكهرومائية هي مصدر أساسي للطاقة المتجددة التي تبعث كميات ضئيلة من الكربون. وتشكل هذه الطاقة ٢.٢ في المئة من موارد الطاقة الأولية و١٦ في المئة من كهرباء العالم و٨٥ في المئة من كل ما هو مولد من المصادر البديلة.

New 710 V Classic Hydrodemolition Robot

Hydrodemolition specialist **Aquajet Systems AB** has introduced its next generation of the proven Aqua Cutter Series of robots with the 710 V Classic to offer further improved automatic and manual options to suit the demands for efficient concrete removal. The new model is ideal for working on bridges, tunnels, roads, walls, parking garages or overhead roofs. Working with a typically 1000 bar pressure and 250 l/min, the robot handles removal depths down to approximately 1000 mm of concrete if required.

Aquajet has recognized that there is frequently a demand for its hydrodemolition systems with reduced computer control allowing manual handling with, for example, flow control valves for oscillating speed, roller speed, lance-angle speed and mechanical stops for operation widths and lance angles. Facilitating operators comfort and convenience new improvements have been made to the settings of programs with several parameters easily selected and adjusted on the color display with iconic Multilanguage operator instructions. Built to operate in tough conditions, the system has been designed with the operator in mind and is easy to operate.

Aquajet robots are equipped with the patented EDS, Equal Distance System. Regardless of the set lance attach angle, the system controls and maintains the nozzles distance from the concrete surface. Maintaining an opti-



710 V Classic, the new Aqua Cutter hydrodemolition robot

imum distance, EDS ensures that no power is lost due to the nozzle being too far from the surface which will ensure a 15 to 20% increase in removal capacity. The patented ISC is an advanced sensing system and features no electronics, such as sensors or cables, exposed to the moisture environs, resulting in a more efficient production with less stops due to problems with sensors, etc. A new improved rubber lined splashguard on the power head ensures improved noise reduction. Easy service access is also assured with 'gull wing' hoods and 'fold down' hydraulics for cleaning and maintenance. ■

New Efficient Borehole Pumps

Japanese multinational **EBARA**, market leader in the pumps production and design since 1912, presents new and efficient borehole pumps, offering cutting-edge technical solutions for water supply systems on housing, irrigation field and industrial applications. The experience acquired in the last years has enabled Ebara to use its knowledge to develop the most advanced technologies aiming at reducing the environmental impact of industrial production and enduring human progress. Every product and system supplied by EBARA is designed to guarantee superior functionality. The entire manufacturing cycle is subjected to a strict and comprehensive quality control program.


EBARA Pump Industries distributes products of EBARA in Iran & neighboring countries and capable of providing a wide range of services before and after sales. The company tries to deliver products to customers in the shortest possible time. EBARA is actively engaged in developing and commercializing new energy technologies, including wind power generators, fuel cell cogeneration systems, and photovoltaic power generators.

Ebara borehole pumps have greater saving and high operating yield, safe and continuous operation, simple construction and easy maintenance and designed for high resistance to abrasion by sand. As for the specifications of Ebara borehole pumps, it has an external casing, shaft, discharge casing and valve made of AISI 304 or AISI 316 Stainless Steel, impellers in AISI 304 or 316 (technopolymer



Ebara efficient borehole pumps

in some models), a total capacity from less than 1 m³/h up to 125 m³/h, a total head from 6 meter up to 450 meter, 2 pole motor in bath of liquid refrigerant (OY) or in water bath (WY) and Motor joint and coupling flange in compliance with NEMA Standards. In addition, these pumps have a protection rating IP58 and IP68 and a Maximum sand content: 50 ppm. Not to forget, its voltage that registers 230V for single phase and 400V for three phases. ■



SPECIAL FEATURE

HVAC/R

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Switching to Energy-Efficient Air-Conditioning Systems

While man's desire to control the indoor environment led to the invention of air conditioning systems, on the other hand, population growth, sturdy economic progress, industrialization, rising standards of living, affordability of technology and increase in commercial applications have led to its rapid proliferation across the globe. The field of air-conditioning technology in the market is characterized by three main requirements: energy efficiency, controllability for adequate load matching, and the adaptability to meet a wide range of customer needs.

HVAC systems towards decreasing energy costs

Although the primary purpose of heating, ventilation, and air-conditioning (HVAC) systems in commercial buildings is occupant productivity, a new report from **Pike Research** finds that the objective of most changes to HVAC systems in the next five years will be to decrease energy cost. According to the study, because of rising energy prices and the drive to reduce greenhouse gas emissions associated with building operations, many building owners have begun to manage energy cost as an asset, rather than a fixed cost. HVAC accounts for almost one-third of the energy cost in commercial buildings, so these systems hold great potential for energy savings.

The HVAC industry in the United States changes slowly. Most commercial space is in small and medium-sized buildings and is heated and cooled by packaged units sold as commodities. Because of intense price sensitivity in the market, new features are only added as necessary for regulatory compliance and market differentiation. In large buildings, new construction and retrofits are designed for energy cost savings in the range of 20% to 35%, with incremental changes in conventional practices. While unconventional HVAC engineers achieve HVAC energy cost savings well over 50% with improved occupant productivity, at comparable prices, this practice is rare and appears unlikely to spread rapidly, the report stated.

Growing need to replace old air conditioning systems

J.P. Morgan, the financial services company, mentioned in its report that the HVAC market bottomed out in 2009, started climbing in 2010 and that both the residential and commercial sectors of the market should improve and yield a solid 2011. The growth in the residential sector will not be coming from increased housing starts, but rather from pent-up demand for replacement of units that have either been repaired or where repairs have been deferred for the past three years. The company's report details expected residential system replacements to grow to 6.91 million units in 2011, 8.16 million replacements in 2012 and 9.12 million in 2013.

Global Industry Analysts, Inc. (GIA) agrees with J. P. Morgan as it mentions in its recent report that the rapidly growing replacement need, particularly in mature markets such as the US and Europe is expected to steer the market in the next few years. Given the growing focus on energy conservation, the demand for replacing old air conditioning systems with new energy efficient models will be on the rise, thereby adding to market gains. Replacement demand is also generated by the consumers' need to replace their existing air



conditioning systems with quieter and more feature rich air conditioner models, adds the report.

The global air conditioning systems market in Asia-Pacific, according to GIA, continues to be the largest regional market, having accounted for a share of about 49% in the total volume sales generated for the year 2009. Growth in Asia-Pacific is fuelled by factors such as rise in urban population, cushioned impact of the global recession on regional economies, favorable job market, and resulting high income levels, increased household gains and rising per capita incomes in countries such as China and India. By product, the room air conditioning systems market- has been the largest market segment for air conditioning systems, contributing a share of about 80% in the total volume for the year 2009.

Pushing UAE banks to invest in district cooling industry

Emirates Central Cooling Systems Corporation (Empower) has urged regional and local banks to enhance their funding to district cooling industry which is considered one of the safest industries in terms of risks and return on investment (ROI). Demand for district cooling has been increasing rapidly in the last decade. In the UAE, it was first used in the 1970s at the Dubai International Airport. It began to be adopted commercially in 1998 with the real estate boom in the country. The adoption rate in this technology has remarkably increased in the past five years especially amongst large scale projects. In Dubai, residents are becoming increasingly aware of the importance of using district cooling system as an alternative to conventional AC system, leading to energy saving and environment conservation, as well as lower operations and maintenance costs. ■

Prepared by ACW Staff

حيث أن رغبة الانسان بالتحكم بالبيئة الداخلية أدت إلى اختراع أنظمة تكييف الهواء، فقد أدى النمو السكاني والتقدم الاقتصادي الثابت والتصنيع وارتفاع مستويات المعيشة والقدرة على تحمل تكاليف التكنولوجيا إلى انتشارها السريع في مختلف أنحاء العالم. ويعتبر الاحتباس الحراري مسؤولاً بشكل أساسي عن هذا الانتشار، فارتفعت الحرارة الملحوظة في السنوات الأخيرة قد جعل أنظمة تكييف الهواء من أساسيات العيش في معظم الدول. تتميز تكنولوجيا تكييف الهواء في السوق بثلاث شروط أساسية وهي توفير الطاقة والقدرة على التحكم من أجل توفير الكمية المناسبة والقدرة على تلبية احتياجات شريحة واسعة من الزبائن.



Climate Wizard, the Innovation Revolution in Cooling Technology

High performance indirect evaporative cooling – 140% wet bulb depression

Climate Wizard is a completely new category of cooling – a high-performance indirect evaporative air conditioner. It uses the same principles as traditional (direct) evaporative cooling, but does not add water to the delivered air. This means that Climate Wizard's cooling performance can rival that of refrigerated systems. Results approach the ambient dew-point temperature (up to 140% wet bulb depression), without using synthetic refrigerants. It sounds impossible, but several independent tests have confirmed these amazing statistics. Climate Wizard also needs significantly less energy to run than refrigerated systems – it can save up to 80% of electricity costs. Even when temperatures soar, Climate Wizard's performance increases without drawing additional power. This is in direct contrast to refrigerated systems, which require increasing amounts of power as outside temperatures rise.

A comparative performance between Climate Wizard and refrigerated air conditioning shows that Climate Wizard's cooling capacity and coefficient of performance (COP) increase as temperatures rise, while the input power remains constant. Contrast that with the reduced performance and COP of the refrigerated system, which requires additional power input. It is clear that Climate Wizard has a greater cooling capacity and requires less power than refrigerated systems.

Different applications to suit customer's needs

Climate Wizard can be used stand-alone or with refrigerated systems to reduce running costs. For example, if the customer has an existing refrigerated plant, he can incorporate Climate Wizard to reduce load on the plant, increase cooling capacity, reduce the amount of energy required and provide fresh, cool air. Existing installations include offices, data centres, universities, food processing plants. Designed for easy installation and low maintenance, Climate Wizard is flexible enough for almost any application you can think of.

Climate Wizard is manufactured in Australia by **Seeley International**, Australia's leading air conditioning manufacturer. Seeley International is Australia's largest air conditioning manufacturer and is market leader in the design and manufacture of ducted and portable cooling and heating systems for the home, commercial and industrial markets in Australia. Known for its innovation, product reliability and energy-efficiency, Seeley International's brands include Breezair, Braemar, Coolair and Convair and the innovation revolution in cooling technology, Climate Wizard.

Seeley International is Australia's largest air conditioning manufacturer and is market leader in the design and manufacture of ducted and portable cooling and heating systems for the home, commercial and industrial markets in Australia. Known for its innovation, product reliability and energy-efficiency, Seeley International's brands include Breezair, Braemar, Coolair and Convair– and now, the



Climate Wizard has a greater cooling capacity and requires less power than refrigerated systems

innovation revolution in cooling technology, Climate Wizard. Based in Adelaide and founded by *Frank Seeley, AM*, who remains Chairman, the company has been manufacturing air conditioners since 1972. It has manufacturing plants in Lonsdale, South Australia and Albury, New South Wales. Seeley International exports to more than 100 countries, including the Middle East, and has offices in USA, UK, France, Italy, Spain and South Africa. Unlike many of its competitors, Seeley International designs and manufactures most of the components for its products within its own facilities. In Australia, Seeley is the undisputed market leader in evaporative cooling and ducted gas heating market. ■

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Breakthrough in Air and Dirt Separation with Flamco

Systems that are properly de-aerated, from which both small and larger particulate matter can be removed efficiently and that have better output are quieter and have a longer service life. In order to achieve that, the Dual Zone Flow Diversion technology has been introduced for the **Flamco** Clean, Flamcovent and Flamcovent Clean product lines. This innovation represents a sustainable solution for both dwellings and businesses that means a significantly lower risk of malfunction. The latest generation of Flamco air and dirt separators prevents three-way valves from sticking as it may lead to a build-up of dirt particles in boilers (heat exchanger), pumps, radiators and pipes. Efficiently separating and removing air bubbles prevents the formation of rust and magnetite in the inner workings of the system. Rust and magnetite can have an adverse effect on the circulation pump.

Sustainability and cost-efficiency

The three existing technologies that the new Flamco air and dirt separators use simultaneously are coalescence, reduction of the flow speed and reduction of pressure. Research from the **University of Antwerp** has shown that Flamco's new invention even removes microscopic air bubbles from between 10 and 20 µm. Moreover, the optimized through-flow in cooling and heating systems is due to the efficient way in which the Dual Zone Flow Diversion



Separating air and dirt particles from the system water with patent Dual Zone Flow Diversion technology

technology separates dirt particles such as grains of sand, bits of metal and paint or tape residue from the water. The innovation is an "invention with optimum performance that makes a contribution to a cleaner environment". Thanks to the Dual Zone Flow Diversion technology, it is possible to use a smaller pump that consumes less electricity, helping to keep down costs. The Dual Zone Flow Diversion technology fits in both small and large systems, in sealed heating and cooling systems, and even in solar thermal systems in which steam can be created. ■

Increase of Regional Expertise in HVAC Field

Regional expertise in the field of facilities management, HVAC and other operational maintenance is increasing as a result of intensive training that **MAF Dalkia** staff across the Middle East is undergoing with Campus Veolia Environnement, the internal training entity of **Dalkia's** parent company, **Veolia Environnement**. Fundamental issues in facilities management including cooling processes, air conditioning and other key technical aspects facing companies which own buildings in the Middle East made up the bulk of MAF Dalkia's training conducted last month.

"Facilities management is a dynamic sector and the more training that FM providers in the Middle East conduct annually to teach new ways to reduce costs and introduce more efficient systems, the more benefit that business owners in the region derive from the services our industry provides," said *Alexandre Mussallam*, CEO of MAF Dalkia. The company requires a minimum of one training session per year for its 1000 staff in the Middle East.

Adina Barsan, the international training project manager from Campus Veolia Environnement, added, "As MAF Dalkia heads into 2011, its training needs will increase so that it keeps up with the latest developments in the maintenance and operational fields, enabling the company to enhance its current facilities management offerings. In addition, MAF Dalkia plans to focus and invest in certify-



Intensive Training for MAF Dalkia staff with Campus Veolia Environnement

ing its employees on core-business skills in order to offer a consistently high level of service to its Middle East clients". The Veolia Environnement Group offers a range of effective programs which encourage individual development in an open and stimulating setting. Campus Veolia Environnement carries out 825,000 training hours and instructs 17,300 trainees per year awarding a range of 15 different diplomas from basic certification up to master degree level. MAF Dalkia is a joint venture created in 2002 between **Majid Al Futtaim Ventures** and Dalkia. ■

Greener Infrastructures with Geosynthetics in MENA

During this year's international engineering conference Geo-Frontiers 2011 in Dallas, Texas, barrier geosynthetics such as geomembranes were high on the discussion list. A special panel session addressed geomembrane installation practices between different continents. Another session focused on liner integrity (leak location) surveys. And the Geosynthetic Institute's GRI-24 symposium focused on sustainability issues, such as the rather staggering statistic that it takes 150 truckloads of clay (for traditional compacted clay layers) to equal the performance of a single truckload of geosynthetic clay liners (GCLs). Considering the cost of transporting construction materials, the pollution that results from repeated heavy truck traffic, and increased demands upon construction companies to reduce their carbon footprints, a ratio of 150:1 is pretty hard to ignore—especially for equivalent performance of the barrier materials. In addition to these matters, some other geosynthetic issues stood out: the important role ethylene vinyl alcohol (EVOH) can play in gas barrier performance for geomembranes (and plastic pipe), the further growth of geosynthetics specialization in the Middle East, and other opportunities in the MENA region.

Better gas barrier performance

Common plastic packaging in the food industry may be the inspiration for the next big option in geotechnical and architectural barrier membranes: heightened gas barrier performance through the incorporation of EVOH layers. Food packaging may seem simple, but all those little plastic cups and bags can be five, seven or even nine-layer structures that incorporate resins designed to optimize moisture and gas barrier performance. It's what keeps food fresh. Soon, these EVOH layers may be part of membranes used to protect building substructures, soils, and water at risk of contamination.

Geomembranes and geosynthetic clay liners (GCLs) perform exceptionally well in liquid containment applications, but gas barrier performance can still be improved. Volatile organic compounds (VOCs) can diffuse through these barrier geosynthetics. The rate is low, but the incorporation of EVOH into select geosynthetics in lab and field tests shows that the diffusion rate can actually be much lower. The immediate potential for EVOH seems to be in vapor retarders for commercial/residential construction and, on the geotechnical side of things, in caps overlying polluted soils to prevent the upward migration of harmful gases (what some regions refer to as "brownfields").

Raven Industries is the first manufacturer to utilize EVOH in its geomembranes, but given this segment's potential will certainly not be the only manufacturer. "Geomembranes were not our first target," says Raven's Gary Kolbasuk. "We asked where else we could use this kind of tech-

Cover Photo Courtesy of:
Leister Process Technologies



nology. One idea was in agriculture for things like broadcast fumigation film, mulch film, silage film, things of that nature. For construction, there's underslab vapor retarders for radon and VOC control."

EVOH is part of the polyethylene family, and it's easily co-extruded with materials like linear low-density polyethylene (LLDPE), high density polyethylene (HDPE), and polypropylene. EVOH is a polar molecule, making it a strong barrier to non-polar contaminants like VOCs. Polyethylene is a great barrier to water. The incorporation of EVOH with PE leads to some wonderful performance properties in a geosynthetic composite. For larger-scale membrane production, one challenge is that EVOH and PE don't bond to one another. A third polymer, or tie layer, is needed on either side of the EVOH. The tie layer is a modified PE, typically with maleic anhydride that bonds physically and chemically the EVOH and the primary geomembrane polymer. So these

products must have at least five layers (primary polymer, tie layer, EVOH, tie layer, primary polymer). While this structure is common to food packaging, most geomembrane manufacturers do not (yet) have the dies necessary for this type of production. "For geomembranes, it's going to take some investment in co-extrusion," says Robert Armstrong of **Kuraray**. The company's EVAL unit produces EVOH. "We've investigated a lot of ideas on how to incorporate EVOH into barrier liner and cover systems....For example, in addition to producing unreinforced and reinforced coextruded 40 to 60 mil geomembranes with EVOH it would be perfectly possible to sandwich a GCL with a thin EVOH co-extruded barrier film that could be made on existing co-extrusion equipment. That would be another way of getting the EVOH barrier into a project's system." Such a solution may be very applicable to contaminated soil capping fairly soon. As for geomembranes, it may

be only a handful of months before thicker membranes with EVOH are available. Raven is currently installing a line that will have the capacity for 60- and 80-mil LLDPE and HDPE geomembranes with EVOH. That line is expected to be operational later in 2011, and other producers are soon to follow. Kuraray, meanwhile, has constructed a research and development manufacturing line capable of exploring up to 21 layers in a film. It promises to facilitate great communication and ideas between manufacturers and the company.

Will EVOH incorporation affect the performance of geomembranes? The EVOH is a thin layer, so even though it is a highly crystalline component, a higher modulus material, its impact on barrier flexibility is negligible. It will alter ultimate elongation values in non-reinforced membranes, but it won't alter material use. For example, pre-fabrication of flexible membranes with EVOH will not be limited. And no problems have been found in welding these materials. Research conducted by Rebecca McWatters and Dr. R. Kerry Rowe at **Queen's University** in Canada has shown that the VOC barrier properties of even monolayer EVOH film submitted to 100% relative humidity—an absolute worst-case condition—remain several orders of magnitude higher than normal high-density polyethylene. From this, it can be assumed that even at the edges of a panel of EVOH-enhanced material, there will not be limited performance or any elevated design risk involved. Also, there is the possibility of EVOH being incorporated into HDPE pipe, which would allow a level of diffusion protection that PVC pipe cannot offer. (EVOH and PVC are not really compatible.) This could allow for pipe running through contaminated soils or new solutions in oil and gas exploration applications.

Growth and Opportunities

I-CORP INTERNATIONAL's Ian Peggs has conducted workshops on geomembranes in the United Arab Emirates. He says, "The future for geosynthetics in the Middle East is extremely bright especially for those companies that have committed to manufacture in the region – of which there are several."

He's right. UAE-based **Kangaroo Plastics**, for example, is manufacturing good quality high-density polyethylene (HDPE) liners, linear low density polyethylene (LLDPE), and other materials. Dubai-based **Mattex** has expanded its portfolio of products through the establishment of a woven geotextile line for separation and stabilization of pavements and unpaved roads, erosion control, reinforcement of earthen structures, and for separation and support in other civil engineering applications. And all across the region manufacturers and key geosynthetic services firms (e.g., construction quality assurance, testing, installation and welding) are furthering their international reputations with top-notch projects.

The Qatar National Convention Centre, for example, is developing into one of the world's premier convention and exhibition centers. Its bold, 100,000 sq. m design incorporates a three-story car park underneath the modern four-story building. Waterproofing the large structure required 135,000 sq. m of 2 mm PVC geomembrane from **Sika**. Installed by **BMC Qatar** with **Leister** welding machines, the project team was able to execute a massive amount of seaming in difficult, high-heat conditions in a tight construction window. All in all, it has been a quick and impressive transition in the region from a raw materials supplier to a major producer of and expert service market for finished geosynthetics.

Regional geosynthetics conferences have, expectedly, developed to bring

together this growing wave of engineers, manufacturers, regulators and builders for the sharing of knowledge and to continue driving growth. Germany-based **SKZ** has held three previous Geosynthetics Middle East conferences in the region. The last one was held in late 2010 in Abu Dhabi with the patronage of the Municipality of Abu Dhabi. That key municipal support and the previous years' word-of-mouth support helped push attendance of the event to beyond 300 and with 25 countries represented.

"Companies such as **BMC-Gulf** (**Fouad and Reda Ashkar**), who have been local co-organizers of the conferences with SKZ, have done a great job in leading the industry's growth and development throughout the region," says Dr. Peggs. "They have been working on projects such as the tunnel from the Palm Jumeirah islands to Treasure Island and on the complex water features at the base of the Burj Khalifa, the world's tallest building." Dr. Peggs notes that the Municipality of Abu Dhabi's support was also significant to its drive to be a global leader in green engineering and urban design. "It is their intention to become one of the world's top five green city destinations with the help of geosynthetics," he says.

The next edition of Geosynthetics Middle East will be held 24-26 October 2011 in Abu Dhabi. Topics to be covered will include transportation, polymer and product development, environmental and water management applications, design and installation of geosynthetics, testing and quality assurance, international regulations and standards, and more. ■

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خلال مؤتمر الهندسة العالمي "Geo-Frontiers 2011" الذي عُقد هذا العام في دالاس، تكساس، احتلت التركيبات الاصطناعية الجيولوجية العازلة مثل الأغشية الجيولوجية المساحة الأكبر من مواضيع المناقشة. كانت هناك جلسة نقاش خاصة مخصصة لأساليب تركيب الأغشية الجيولوجية بين مختلف القارات. وسلطت جلسة أخرى الضوء على استطلاعات سلامة أماكن التسرب. كما وركزت ندوة "GRI-24" التي نظمتها "Geosynthetic Institute" على مواضيع الاستدامة مثل الإحصائية المذهلة التي أشارت إلى أن كل ١٥٠ شاحنة من الطين (لطبقات الطين المضغوطة التقليدية) توازي فعالية شاحنة واحدة من طبقات الطين من منتجات التركيبات الاصطناعية الجيولوجية العازلة. ونظراً لكلفة نقل مواد الإنشاء فإن التلوث الناتج عن سير الشاحنة الثقيلة المتكثرت والضغط المتزايد على شركات الإنشاء للحد من انبعاثات الكربون، فإنه من الصعب تجاهل نسبة ١:١٥٠ وخاصة لفعاليتها الموازية للمواد العازلة. إضافة إلى هذه المواضيع، فقد برزت مواضيع أخرى خاصة بالتركيبات الاصطناعية الجيولوجية العازلة: الدور الهام الذي يلعبه الإيثيلين فينيل ألكول (EVOH) في فعالية عزل الغاز للأغشية الجيولوجية (والأنابيب البلاستيكية) والنمو الإضافي لاختصاص التركيبات الاصطناعية الجيولوجية العازلة في الشرق الأوسط وفرص أخرى في منطقة الشرق الأوسط وشمال أفريقيا.

Spuntex's Spunbond Nonwoven Mats



Producing spunbond roofing membrane reinforcement and geotextiles at Spuntex factory

Spuntex Company will be exhibiting at INDEX 11 for the first time. The company produces 10,000 tons per annum of PET spunbond nonwovens. The two main target markets of the company are roofing membranes reinforcements and geotextiles. The company uses a state of the art 4.5 meter wide German/ Italian production line using a continuous filament (spunbond) process, elliptical needling, chemical bonding, and thermal bonding. Spuntex runs an advanced on-premise PET bottle recycling line made by a world – renowned Italian supplier. The spunbond line is capable of using the recycled PET flakes to produce high quality nonwovens with 100% recycled PET content.

Reinforcements for bituminous roofing and waterproofing membrane (Roofrex brand)

Spunbond polyester fabric is an engineered product that is manufactured through a continuous filament process. The outcome of that process is a nonwoven reinforcement mat that is ideal reinforcement for roofing membranes. The mat provides good tensile strength, elongation and tear strength to a roof membrane, thereby yielding a level of performance which makes the polyester mats an excellent reinforcing material. Non-woven polyester reinforcement in roofing and waterproofing membranes enhances performance, improves tolerance of the dimensional

changes of the substrates, and increases the puncture resistance of the bitumen compound/reinforcement composites.

Geotextiles (Geotex brand)

The geotextile mats are designed to offer long-term strength and reinforcement, and generate tensile forces to carry tensile stress through interlocking, and friction with the surrounding soil. The material's superior mechanical properties prevent

extreme soil deformation. Polyester spunbond needle punched mats are resistant to ultraviolet degradation, and to biological and chemical soil surroundings. They provide increased soil stability in civil works.

Spuntex is an export – oriented company serving roofing membrane manufacturers and geotextile users in Europe, Africa, Asia and the Middle East. Spuntex is ISO 9001 certified and has an advanced QA/QC lab which administers rigorous testing of all raw materials and products. ■

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Climate Wizard

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- 2010 Southern Adelaide Innovation Award for Innovation in an Environmental Product
- 2010 Gold GAIA Award at the Big 5 International Show, Dubai

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Building Green, the New Trend toward Sustainability

The global market for green building material is expected to be worth USD406 billion by 2015, driven largely by environmental consciousness, high energy costs, and the understanding that green buildings contribute to long-term benefits such as improved efficiency, cost savings and higher production. As costs of green building materials drop, they are becoming increasingly popular the world over.

GCC turning green

Infrastructure projects in the GCC, currently valued at USD452 billion, can spearhead the growth of the regional construction industry, according to a comprehensive report by market research specialists **Ventures Middle East**. Massive investment in infrastructure, 80 percent of this in Saudi Arabia, the UAE and Qatar, is likely to put the other segments of the construction sector, in particular buildings and energy, back on track by 2012. According to the report, construction across the GCC is now turning "green", with the focus shifting to sustainability and environmentally friendly impacts. Therefore, many of the GCC countries have introduced voluntary rating systems for projects based on their environmental impacts in tune with international standards. In addition, the trend is highlighted by Qatar's pledge to make all its FIFA 2022 World Cup projects "green". These includes solar powered "eco-stadiums" which will be dismantled for future use at other sporting events worldwide, and building materials that encourage water conservation and low-carbon transport systems. Recently, Abu Dhabi rolled out the Arab world's first specialized green building rating system, **Estidama**. Now, all new development in the emirate must comply with the standards set by the system, including commercial and government projects. Dubai too has been driving change through increasing implementation of LEED standards across the construction industry.

The increasing stress on implementation of green building standards by local governments and civil authorities led to a growing demand for green building material in the regional real estate industry. The performance contracting (PC) market in the Gulf Cooperation Council (GCC) countries is expected to grow significantly over the next five years, mainly due to the

growth in the infrastructure and increased interest in sustainability. The market is forecast to grow at a marginal rate during the first half of 2012 till 2014 due to expectations of stronger concern over energy efficiency/saving at the cost of depleting oil reserves. "The need for saving energy, growing awareness on environment sustainability, increasing trend in electricity tariff, mitigating measures towards carbon footprint reduction are considered as strong growth boosters for GCC PC market in the next 5 years," says Frost & Sullivan Building Technologies Research Analyst.

Demand for green building materials

Demand for green building products (products which can contribute to LEED credits) is expected to increase by 13 percent annually through 2015 generating sales of more than USD70 billion, as forecasted by **the Freedonia Group**, a Cleveland-based research firm. According to the study, concrete made from recycled materials is expected to soar by 24% annually between 2010 and 2015. Meanwhile, green floor coverings, which include Green Label Plus-certified carpets and products made from fast-growing natural resources such as bamboo and cork, are expected to grow by nearly 12% annually through 2015. The study predicts, however, that flooring will not grow at the same pace as some other green building materials, in part because many flooring products already are considered green.

Over this period, growth in green building material demand will outpace the growth of building construction expenditures as green materials continue to account for an increasing share of materials used. While the rising use of green materials will support gains, the most important driver for demand will be the expected rebound in the construction market from low 2010 levels. Demand for a number of green



building products is expected to post gains in excess of 20 percent annually through 2015, benefiting from greater availability, environmental concern and more stringent regulatory or building code standards, coupled with the rebound in the construction market. Among these products are water-efficient plumbing fixtures and fittings, energy-efficient lighting fixtures, permeable pavement, and concrete that features recycled content. However, with the exception of recycled concrete, the market for most of these materials is fairly small and the additional demand will be relatively modest in value terms. Through 2015, sustainable doors are predicted to increase by 12% annually, green windows will grow by 8% each year, and insulation and other green building products will jump 14% annually, the Freedonia Group study mentioned. Nevertheless, green roofing materials will see the smallest annual growth (4.1%). ■

Prepared by ACW Staff

أشارت دراسة مؤخراً بأن تسجل السوق العالمية لمواد الأبنية الخضراء 406 مليار دولار أميركي بحلول العام 2015 وذلك نتيجة للوعي البيئي المتزايد بشكل أساسي وتكاليف الطاقة المرتفعة والفوائد التي توفرها الأبنية الخضراء على المدى الطويل كالتفاهلية المحسنة وتوفير التكاليف وزيادة الإنتاج على سبيل المثال. وبما أن تكاليف مواد المباني الخضراء تنخفض فهي تصبح أكثر تداولاً يوماً بعد يوم في جميع أنحاء العالم. وقد أدت المخاوف بشأن تأثير قطاع الإنشاء على البيئة المحلية وكذلك إدراك الحاجة لتنمية مستدامة إلى اعتماد قطاع الإنشاء معايير المباني الخضراء.



93% Less CO₂ Emissions with Unibeton Concrete

Unibeton Ready Mix, the leading UAE supplier of sustainable concrete, is working to create a pioneering product that will reduce CO₂ emissions by as much as 93 per cent. Representatives from Unibeton discussed future plans at CityBuild Abu Dhabi Awards when they collected the Innovation Award for their Green and Sustainable Concrete Solutions. Unibeton's current award winning 'green concrete' product already reduces CO₂ emissions by 75 per cent and is being used on some major developments throughout the UAE, including Abu Dhabi's tallest tower, the Landmark Tower, where the largest single pour of 16,000 cubic meters of self-compacting concrete was performed in the GCC. Unibeton's green products and solutions offer significant potential to reduce verifiable emissions up to 93 per cent.

During the construction of the capital's Sheikh Zayed Bridge, completed last year, Unibeton's green concrete product prevented 80,000 tons of carbon emissions being spewed into the air, which is the equivalent to the carbon offset of 400,000 trees. The cement manufacturing process is the major contributor of CO₂ emissions in the production of concrete. By using cement replacement substitutes such as Pulverised Fuel Ash (PFA) and Ground Granulated Blast Furnace Slag (GGBS), carbon dioxide emissions are greatly reduced. The biggest reduction can be achieved while completely replacing Portland cement by industrial waste product which improves the concrete's performance.



Unibeton General Manager, Dr. Jean Francois Trothier and Dr. Huiqing He, Unibeton's Asst Operations Director, were at the City-Build Abu Dhabi Awards to accept an Innovation award

Dr. Huiqing He, Assistant Operations Director for Unibeton, who was on hand to receive the Innovation Award, said: "Unibeton's vision is to be the first choice of sustainable concrete solutions, and we are excited to have been recognised by industry peers at the CityBuild Abu Dhabi Construction Awards." Chris Speller, Director of Cityscape and CityBuild Abu Dhabi, said, "Unibeton's proactive use of technology to provide sustainable building solutions definitely places them at the forefront of the regional and global construction industry." ■

Energy Savings with OKALUX Functional Glass

OKALUX is one of the leading insulating glass manufacturers and its extensive product range of functional glass and design-oriented glazing offers almost unlimited possibilities for façades, roofs and interior design. Product development at the **Marktheidenfeld**-based company is focused on optimal use of daylight. Special inserts in the cavity provide a harmonious solution to the often contrasting demands of a façade's protection and supply functions. The functional glass improves the overall energy balance and user comfort – this is how OKALUX already contributing to the creation of the innovative buildings of the future.

With its product portfolio, OKALUX is an ideal fit for current and future sustainable building requirements. Alongside light-directing systems and improved light diffusion, the inserts in the cavity also ensure optimal heat insulation of the glazing. Furthermore, energy efficiency can be extended by integrating solar cells to generate electricity. Capillary slabs, metal grids, filigree wooden grids or solar cells in the window cavity can be adapted according to functional and aesthetic requirements. They are protected from the elements in the cavity, making the system maintenance-free and extremely durable. OKALUX stands for an integrated development and design concept. The functional properties of the insulating glass are always linked to high demands in creative quality. For example, solar cells can



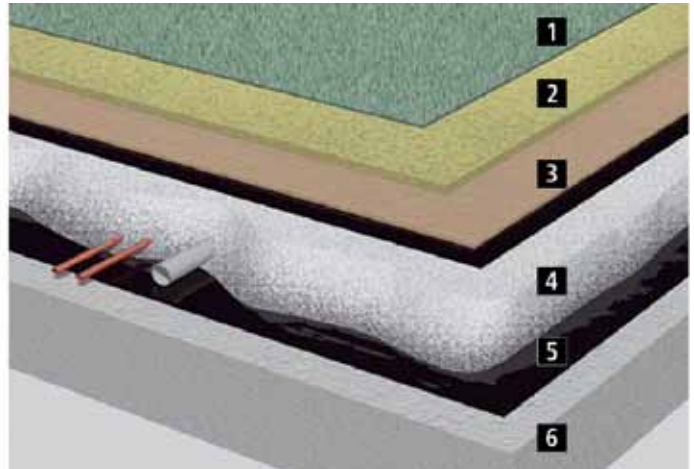
The high heat insulating properties of OKAGEL insulating glass supports the innovative, energetic concept of the climate market. The building needs only 50 % of the energy required by comparable markets and has zero CO₂ emission.

be inserted in the cavity to generate electricity. The required incidence of light can be accurately set using the whole patterns and variable distances between cells. Additional inserts can be used to distribute daylight evenly inside. Solar cells are available in a large choice of colors and designs, giving planners lots of freedom. "We want to play an active part in discussions about the further development of innovative façade solutions," said *Oliver Hübler*, CEO of OKALUX. Because a significant proportion of worldwide energy needs is used by buildings, there is enormous potential for optimizing the energy efficiency of building envelopes. ■

Leveling Naturally with Bisotherm's BIO Dry Fills

As many as four kinds of fill, each with special properties for common applications are now available in the **Bisotherm** product range. All four BIO fills are based on the natural, siliceous source material. This makes them environmentally friendly and safe when used in residential applications. The four dry fills are officially approved and thus have proven their usefulness as insulation or a leveling layer. They meet the criteria of DIN 18560-2. When installed, the organic dry fills of Bisotherm GmbH correspond to an insulating material of the application area DEO according to DIN 4108-10.

Thus the fill program of Bisotherm is suitable for both the use in new construction as well as in renovation and modernization, for height adjustment at the floor construction, for reduction of impact noise and airborne noise, for thermal insulation and cavity filling. In order to meet, with the respective installation situation, the desired result, different dry fills have been developed: BISOTHERM BIO dry fill (it has its strengths in the floor construction in screed elements as well as in cast plaster and mastic asphalt on concrete, wood beams and stone or hollow core slabs), BISOPHON BIO leveling and noise insulation fill (it is perfectly suitable as a sound insulation level and height adjustment layer under the current, load-distributing floor structures), BISOTOP BIO alignment fill and BISOLIT BIO perlite fill. Based on a matrix in the brochure "BIO TROCKENSCHUETTUNG (dry fill)", the most suitable fill for various uses and purposes can be directly referenced by looking at the use and



- | | |
|--|---|
| 1 floor covering | 4 BISOPHON® Bio leveling and sound fill |
| 2 chipboard, min. 22-24 mm | 5 Moisture barrier according to DIN 18195 |
| 3 Foil, screed paper or lumber soft fiber slab, 8 mm | 6 floor slab |

The BISOPHON BIO leveling and noise insulation fill is perfectly suitable as a sound insulation level and height adjustment layer under the current, load-distributing floor structures and can also be used as "installation layer"

application areas. The new brochure also includes many construction details that explain quickly and clearly how, what and where it is to be properly installed. All Bisotherm products are sold through building material suppliers in Germany, the Benelux countries and Switzerland. ■

Green Globe Program Cuts Tons of CO2 Emissions

UAE-based **Farnek Avireal**, which currently holds the exclusive rights in the region to utilize the Green Globe brand, the premier worldwide sustainability stamp for the tourism industry, exhibited at this year's FM EXPO. General Manager, *Markus Oberlin*, commented, "Recently, Mövenpick Hotels and Resorts embarked on the Green Globe Certification (GGC) program globally, which could cut the annual carbon emissions of each hotel by more than 6,250 tons as well as saving utility costs equivalent to around USD5 per room-night."

Farnek Avireal have developed a unique energy benchmark auditing system which uses internet based software 'hotel-optimizer' to calculate CO2 emissions and provide an industry benchmark. This includes the financial cost, allowing hotels to track their energy and water consumption as well as non-recyclable waste production. "Sustainability and energy management have become increasingly important for the regional facilities management industry as property owners become more aware of not only new regulations being introduced but the positive impact it can have on their bottom line," added Oberlin.

Farnek Avireal, the leading sustainable facilities management company in the region, was the recipient of the Emirates Energy Award for research after conducting a survey which revealed the average CO2 emissions from five-star hotels in Dubai, are around 6,250 tons a year. This



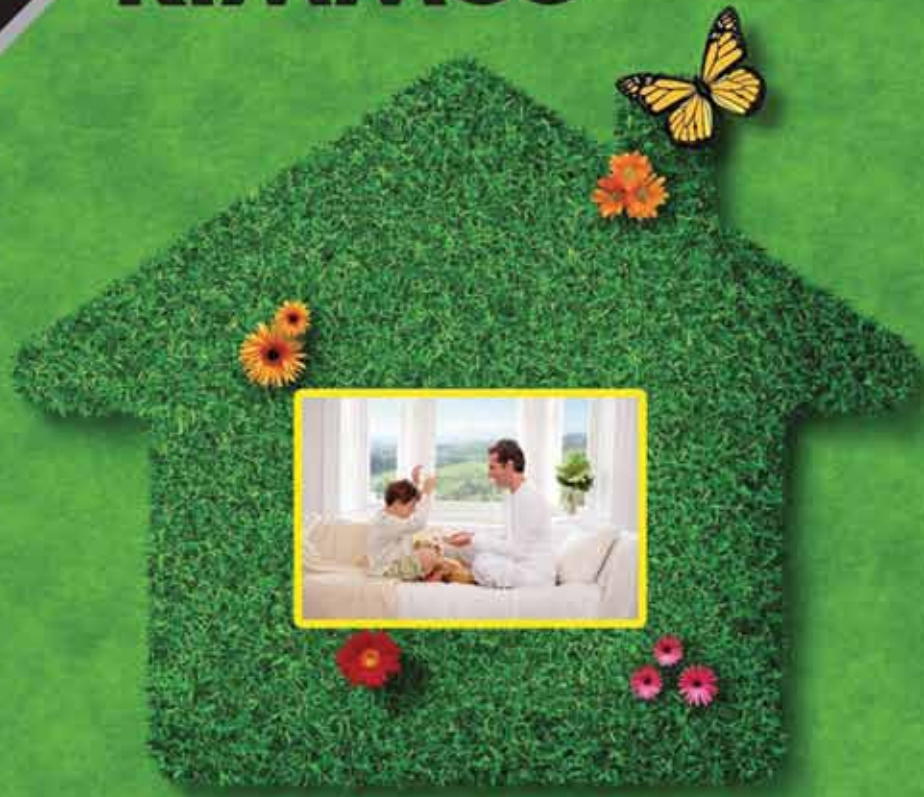
Markus Oberlin, Farnek Avireal General Manager

compares with 3,000 tons from a similar hotel in Europe, labeling the Arabian Gulf with one of the world's highest CO2 emissions on a per capita basis.

"Moreover, **myclimate** which began in 2002 as a project by students and professors in Zürich will be a feature of our stand," said Oberlin. "myclimate uses offset payments to develop and support carbon offset projects around the globe. What makes their projects effective is that they focus on substituting fossil fuels with renewable energy sources and energy efficiency measures," he added. ■



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Kuwait Insulating Material Manufacturing Co. is a major Mineral wool insulation solutions provider in the Middle East, Africa, and Asian countries, it manufactures and supplies Thermal, Acoustical and Fire-resistant insulation products with the highest international standards. KIMMCO is committed to manufacture sustainable and eco-friendly insulation products that contribute to greener future. KIMMCO is a licensee of Saint Gobain, Isover and have supplied insulation Material for BURJ KHALIFA and MASDAR.

www.kimmcoinsulation.com

LED Lighting Market Set to Expand

According to International Energy Agency, it is estimated that existing buildings are responsible for more than 40% of the world's total primary energy consumption and for 24% of global carbon dioxide emissions. Green building is developed to reduce the environmental impact of new buildings. For green building, the plan of reducing the use of energy is always included as one of the key features; therefore lighting is an important aspect to consider in designing an environmentally friendly structure. The use of Light Emitting Diode (LED) luminaires are the option to a sustainable building for healthier environment. LED is a semiconductor device that converts electricity to light by using the movement of electrons. They are much more efficient than incandescent or fluorescent bulbs.

Lighting currently represents about 17.5% of all global electricity consumption. The U.S. alone accounts for approximately 20% of this amount at an annual cost of over USD40 billion. As energy efficiency becomes increasingly important for controlling costs, improving energy independence, and reducing environmental impacts, governments and organizations have looked to lighting as the "low hanging fruit" of energy efficiency. A new report by **Pike Research**, a market research and consulting firm focused on global clean technology markets, predicts that by 2020 fluorescent and light emitting diode (LED) lighting technologies will become the standard lighting types and will account for over three quarters of the market by 2020. France market research company **Yole** predicts that by 2012, the overall LED market will reach 10.3 billion U.S. dollars. Among them, high brightness and high brightness LED total will reach 4.45 billion U.S. dollars, almost USD783 million in 2007 forecast to 5.5 times. Wider use of energy efficient lighting technologies already available would lead to huge energy savings. A range of government incentives and other programs currently exist to encourage lighting retrofits in existing facilities as well as to lead developers to install efficient lighting in new projects. In addition, government and industry are investing significant resources into the development of even more efficient and better performing lighting technologies.

China's LED lighting market

According to relevant statistics, lighting accounts for about 20% of total world energy consumption. Owing to advantages of the LED lights like energy-saving, environmental protec-

tion, bright color and varied shapes, in recent years, China has launched the green lighting project, semiconductor lighting project, and the "Ten City assembled one hundred thousand LED feature lighting" plan to promote the lighting industry's development. After 20 years of evolution and progress, China's lighting industry has been rapidly growing, number of lighting manufacturers and lighting suppliers increased from the initial number of firms in dozens, to today's nearly ten thousand. Since a couple of years, the export volume of China manufacturers of LED lighting keeps increasing year by year due to the increasing global demand for LED products especially the LED lightings. By the end of 2010, more than fifteen countries are becoming the key potential target market of China LED supply. Furthermore, the new and developing blue sea markets, such as the North Europe and the Middle East, keep expanding every year. It can be expected that in 2011, China's exports of LED lighting will be very considerable. This gratifying tendency will be a good news definitely to those Chinese LED lighting Suppliers.

LED based lighting for street-lighting in India

Frost & Sullivan's estimates for the India market for lighting system which includes lamps, luminaires, gears, and control and automation was USD1728 million, for the year 2010. The market is expected to grow at 12 to 15 percent per annum, over the next five years. According to Frost & Sullivan, the present scenario of poor street lighting management and growing emphasis for energy efficiency will augment the market for integrated lighting management system for street lighting in India.

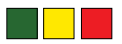


For street lighting, the potential savings can be enormous; India can save USD3.54 billion in running cost, through energy-efficient ILMS lighting each year, equivalent to the price of 105 million barrels of oil annually.

Lighting companies could derive growth through newer strategies by bundling offerings such as energy saving performance contracting (ESPC) and LED based lighting with ILMS for street-lighting segment. But there is a challenge to overcome which is conflicting interest of various entities involved in an energy efficiency project executed through performance contracting. Leveraging on the energy saving potential of ESPC, ILMS and LED based lighting, India can accelerate the National Mission for Enhanced Energy Efficiency (NMEEE) and spur an energy efficiency business. ■

Prepared by ACW Staff

أشارت وكالة الطاقة العالمية إلى أنّ المباني الموجودة مسؤولة عن أكثر من ٤٠ في المئة من إجمالي استهلاك الطاقة الأولية وعن ٢٤ في المئة من انبعاثات ثاني أكسيد الكربون. لذا فقد نشأت المباني الخضراء من أجل تقليص التأثير البيئي السلبي للمباني الجديدة. وتشكل خطة تقليص استعمال الطاقة ميزة أساسية دوماً في مبنى أخضر لذا تلعب الإنارة دوراً أساسياً أثناء تصميم مبنى صديق للبيئة. يشكل استعمال الصمام الثنائي الباعث للضوء الخيار الأفضل لمبنى مستدام من أجل بيئة صحية. إنّ الصمام الثنائي الباعث للضوء هو آلة أشباه الموصلات تحوّل الكهرباء إلى نور عبر استعمال حركة الإلكترونات وفعاليتها تتخطى بأشواط فعالية المصابيح التوهجية أو الفلورية.



The Fresh Light of Corian®

Light is immaterial but is transformed by materials. The art of transforming light through the creative combination of materials, of innovative shapes, of never-tried-before design solutions, has reached a new frontier in recent years. A frontier breached by a material that offers designers superior modeling possibilities as well as unique aesthetic, tactile and sensorial qualities and a special capability to interpret light. This material is **DuPont™ Corian®** techno-surface, known and used worldwide by creative professionals and companies from a wide variety of cultures in an extensive and almost unlimited range of applications. During the 2011 Milan week of design, DuPont celebrates the ability of DuPont™ Corian® to provide a fresh innovative input to lighting design, in an exhibition presenting a variety of imaginative lighting objects.

«Since the late '90s, DuPont™ Corian® has been presenting innovation

at the Milan week of design where we have successfully collaborated many times with a large number of creatives based in Western Europe. For the past few years DuPont™ Corian® has been significantly growing in countries such as Croatia, Czech Republic, Poland, Romania, Serbia, and Slovenia, that are gaining momentum in the furnishing and building markets due to their different design cultures and traditions but also thanks to the talent of local architects and designers. "The Fresh Light of Corian®" exhibition is a recognition of these emerging design cultures, a way to provide exposure to creative professionals from these countries and thank them for the preference they are giving to DuPont™ Corian® for their projects. The collaboration in this project of companies from those countries specialized in the fabrication of DuPont™ Corian® is something that makes us very proud, it is a further demonstration of the capability of



Designer: Bevk Perovic Arhitekti – Project: Bottlight

our material to meet the needs of a continuously growing and diversified number of markets» says *Jean-Yves Bach*, DuPont Building Innovations, Business Director, Europe Middle East and Africa. ■

Two New Collaborations for Home Lighting & Furnishings

This edition of Euroluce will also be a showroom for numerous **Lucente** novelties that take the floor as exclusive objects of home decoration. The recent collaboration with architect and designer *Mario Mazzer* has produced the floor lamp *Up*, the first Lucente project also aimed at outdoor use. *Up*, with its enhanced dimensions, plays with the geometry of volumes elegantly displayed in a spiral decoration. *UP* is a large floor lamp for both indoors and outdoors, completely made of polyethylene by rotational moulding technologies. The aesthetic character of *Up* is defined by the interpenetration of two volumes: a truncated cone forming the base, and one inserting itself into the upper part. The geometric rigour of forms is made softer and elegant by a subtle embossed decoration that runs in irregular spirals across the entire lamp.

The hanging lamp *Vita*, designed by *Brian Rasmussen*, also wishes to act

as protagonist of its surrounding environment. The structure is made up of 19 metal elements that recall an helicoidal form, and which, from the centre of the lamp, radiate outwards. As stated by the designer: «the light source at the centre of the lamp is the fulcrum from which everything radiates and, therefore, takes life...the style is designed to look geometric and neat from certain viewing points and random from others».

Research and innovation are also in the works at Lucente Lab through a series of lamps having different features: *Clivia*, a led lamp, is an interesting wall lamp of minimal décor that provides lighting and energy savings; *Nura*, proposed in numerous variations, is a revisitation of the classical lamp and plissé shade configuration; *Tara*, similar to a painting with its decorated frame, is perfect to enhance and light the most diverse environments; *River veils* a beam of horizontal illumination and decorates



Up, the new floor lamp from Lucente, designed by Mario Mazzer

with light; *Mai* is essential, contemporary, and smoothly enriches any ambience. ■

Maximum LED Efficiency in a Sophisticated Design

With the Lyon LED spotlight range, **Zumtobel** is breaking new ground in the area of efficient high-quality illumination of retail areas. The spotlight's sophisticated design accommodates a unique lens/reflector system that allows for high-precision, uniform accent lighting with a variety of beam patterns. With its excellent color rendition properties, high-power LED modules and high energy efficiency, Lyon is a perfect tool for lighting and presenting goods in shops and showrooms. The Lyon spotlight range is available in two design sizes for various wattages in Stable White and Tunable White.

Zumtobel developed the Lyon LED spotlight in collaboration with the Austrian architects' studio of **Delugan Meissl Associated Architects**. The clear lines of the die-cast aluminum housing in particular give the spotlight its elegant look, combined with high functionality. *Roman Delugan* describes the design of Lyon as a

flowing synthesis of object and medium: "We sought to create a spotlight with a maximum range of applications. Its design, surface finish and function-focused, individually controllable lighting technology live up to this ambition in terms of both aesthetics and function."

The special design of the die-cast aluminum housing allows for purely passive cooling of the LED modules, ensuring a long service life. Owing to the use of high-quality LED modules, the LED spotlight provides very good lighting quality: Lyon with a stable color temperature of 3000 K or 4000 K is available as Advanced Stable White version providing optimum color quality and stability; as Essential Stable White version, it provides high-power pinpoint lighting accents. With luminous flux levels of 1100 lm, 2000 lm and 3200 lm, the spotlight is an efficient alternative to HIT luminaires up to 70 W. The spotlight range boasts



Quality of perception and efficiency: Lyon sets the stage in shop and retail areas, providing high-precision accent lighting and high-power LED modules at a superior level

constant lighting quality, a maintenance-free service life of up to 50,000 h at 70% luminous flux, and extra energy saving potential as the spotlights can be dimmed. ■

Philips Wins Red Dot Awards

After announcing the high number of iF product design awards the beginning of February, **Philips** is proud to announce new award success in its ongoing journey for bringing design excellence in product design to the market. A total of 17 Philips projects are awarded in the "red dot award: product design 2011". "It is an honor that our people-focused design approach is reflected in our products and awarded by so many red dot design awards, including the best of the best award for our outdoor solution SpeedStar," says *Stefano Marzano*, Chief Design Officer of Royal Philips Electronics.

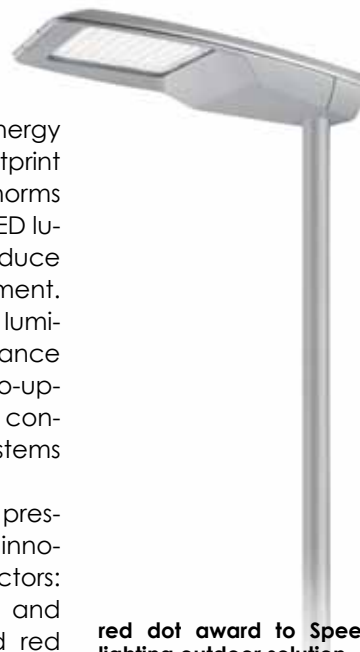
"The Philips SpeedStar LED road-lighting luminaires addresses our aim to help cities become more desirable and livable with the least impact to our environment", says *Cees Bijl*, Global Segment Leader Outdoor at Philips Lighting. "Municipalities are under pressure to meet energy conser-

vation goals by reducing their energy consumption and carbon footprint while complying with lighting norms and standards. Our SpeedStar LED luminaire provides a solution to reduce the impact on our environment. SpeedStar is an energy-efficient luminaire requiring minimal maintenance and incorporating the easy-to-upgrade LEDGINE, which can be connected to lighting regulation systems for further energy savings."

The red dot can be seen as a prestigious recognition for Philips innovative design across all its sectors: Healthcare, Consumer Lifestyle and Lighting. Most of the awarded red dot design already won an iF award with the remark that StyliD won an iF gold award and SpeedStar is winner of the best of the best red dot product design award 2011.

red dot design award

With more than 12,000 submissions



red dot award to SpeedStar, the lighting outdoor solution

from more than 60 countries, the international "red dot design award" is the largest and most renowned design competition in the world. The award-winning products are put before an international public in the red dot design museum. ■

Upturn in China's Construction Sector

The world economy climbed out of the shadow of the worst economic crisis and started its slow pace of recovery in 2010. This trend will continue in 2011 which will see further consolidation for the better despite discrepancies among countries. Likewise, the world construction industry, after seeing polarization of development between the west and the east, is expected to improve. In recent years, China has become one of the countries with the fastest economic growth rate in the world, and it is worth mentioning that its economic growth greatly depends on the promotion of fixed assets investment.

Emerging Market Intelligence (EMI) reports that in 2006-2010, the sales revenue of China's construction machinery industry maintained a rapid growth in general. Generally speaking, the machinery equipment necessary for comprehensive mechanical construction projects required by earthwork construction projects, road construction and maintenance, mobile crane loading and unloading operations and various construction projects is referred to as construction machinery. Due to the influence of financial crisis of 2009, the growth rate slowed down, but it resumed rapidly in 2010.

With the global transference of demand and manufacture of construction machinery, China has become the global manufacture center of construction machinery. The majority of global construction machinery powers have entered China by means of construction of new production bases and acquisitions of China's enterprises. In the field of China's construction machinery, foreign-funded enterprises have occupied a considerable share.

Starting from 2004, the export of China's construction machinery saw a rapid growth. In 2006, overseas sales volume was in particularly strong growth. In 2006, the export of construction machinery exceeded the import for the first time with nearly USD 1.10 billion surplus. By the end of 2008, export had accounted for 30% of the sales revenue of the whole industry. Therefore, the construction machinery industry greatly relies on the export.

Influenced by international crisis, the export of China's construction machinery industry showed a substantial decline in 2009. The export value reached USD7.71 billion, decreasing by 42.60% over 2008. In January-November, 2010, the export value

of China's construction machinery reached USD 9.31 billion, increasing by 35.40% over 2009. The export began to resume growth.

The sub-industries of China's construction machinery mainly include forklift trucks, loaders, excavators, concrete machinery, cranes, compaction machinery and bulldozers. It is predicted that respective industries will continue to maintain the stable and rapid growth in the next few years under the condition of China's intensifying the construction of water conservation, high speed railway, road and other infrastructure as well as other fixed assets investment, but the development speed will vary.

As for the infrastructure sector; China surprised the energy industry with the announcement that it is suspending approvals for new nuclear power plants until a full safety review of plans is completed in the aftermath of the Fukushima nuclear accident.

Energy and utilities contribute to the majority of value to China's infrastructure industry in the coming years. The government's high-speed railway spending plans are unsustainable in light of massive debt liabilities of the Ministry of Railways and monetary tightening.

In the housing sector, the government has pledged the construction of another 50mn low cost housing units. While this will drive construction, the plan remains opaque in terms of allocations to central and state governments and implementation.

December saw China's real estate prices rise by 6.4% year on year in 70 cities. It was the 19th consecutive month of an uptrend, while investments in the property sector soared by 33% year on year to CNY4.827 trillion (USD733 billion), according to latest data from the National Bureau of Statistics of China.

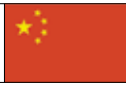
China's domestic housing prices were



expected to grow by 15% year on year in 2010 - 10 percentage points slower than in 2009, thanks to the government's cooling-down measures, according to a report released by the **Chinese Academy of Social Sciences** in December. However, the report says housing prices are poised for a 20-25% rebound in 2011 if the government eases controls on housing speculation.

Since early last year, China has taken a slew of measures to curb the property market, such as suspending mortgages for third-home purchases and increasing the down payment for a second home. But these tools proved unable to push down high housing prices.

Analysts expect the strength of 2010 to continue this year. The central government will continue to crack down on property speculation to contain inflation using macro-control measures, but it will also seek to foster low-income housing construction,



helping the property market along a healthy road. Analysts say that investments in the property sector will grow by a relatively high 20-30% this year, driven by investment in the low-income housing sector, while real estate prices remain stable. China is expected to build 10m units of low-income housing this year, significantly more than last year's 5.9 million units, official data show.

That means the demand for construction polymers, such as polyvinyl chloride (PVC), polyethylene (PE) and polypropylene (PP), will be propped up by a firm housing market. The main polymers used in the construction sector are PVC and high-density polyethylene (HDPE), while bulk chemicals include polyurethanes (PUs), melamine, formaldehyde and toluene di-isocyanate (TDI).

Downstream buyers of PVC reckon

that PVC prices are not likely to be affected by property tax moves because the housing sector is a key contributor to economic expansion and so must be allowed to continue growing.

A booming housing sector also stimulates the home appliance market, with people buying new flat-panel TVs, refrigerators and washing machines, driving consumption of engineering plastics such as polystyrene (PS) and acrylonitrile-butadiene-styrene (ABS).

In 2011, the Chinese government will continue to subsidize home appliance purchases or trade-ins in rural areas which is good for chemical producers. With demand relatively stable, commodity chemical prices may not be as volatile this year, but absolute prices may be higher than in 2010 because of rising crude oil

prices. Many analysts believe crude oil could exceed USD100/bbl in 2011. On the other hand, China will continue to boost energy efficiency in its 12th five-year plan (2011-2015) to meet its commitment to a 40-45% reduction in carbon intensity by 2020 from 2005 levels.

Phasing out outdated capacity and high-energy-consuming plants is still high on the government's agenda as it realizes it must pursue more sustainable and environmental growth instead of chasing GDP growth by sacrificing its resources.

Late last year, power cuts to achieve energy reduction targets in the 11th five-year plan resulted in higher energy prices. Similar circumstances may happen this year and beyond, supporting firm domestic chemical prices. ■

Prepared by ACW Staff

استطاع الاقتصاد العالمي الخروج من ظل تبعات أسوأ أزمة اقتصادية حلت به وزاويل انتعاشه على وتيرة بطيئة خلال عام ٢٠١٠. وسيستمر هذا التوجه أيضاً خلال عام ٢٠١١ والذي سوف يشهد مزيداً من التحسن على الرغم من التفاوت بين الدول. وعلى نحو مماثل، يتوقع لسوق الإنشاءات في الصين التحسن بعد تركيز فرق النمو بين الغرب والشرق. وفي الأعوام الأخيرة، أصبحت الصين واحدة من أسرع البلدان في معدلات النمو الاقتصادي في العالم، ومما هو جدير بالذكر أن نمو الصين الاقتصادي يعتمد بشكل كبير على تعزيز الاستثمارات في الأصول الثابتة.

Four SITECH Technology Dealers Established in China

Trimble announced that it has established four **SITECH®** Technology Dealers in China. SITECH North China, SITECH South China, SITECH East China and SITECH West China join the premier network of SITECH dealerships—the first fully dedicated global distribution network offering the most comprehensive portfolio of construction technology systems available to the heavy and highway contractor. SITECH Technology Dealers represent Trimble® and **Caterpillar®** machine control systems for the contractor's entire fleet of heavy equipment regardless of machine brand, along with Trimble's portfolio of Connected Site™ solutions—site positioning systems, construction asset management services, software and powerful wireless and Internet-based site communications infrastructure.

The experienced construction professionals at each SITECH Technology Dealership can advise contractors on the appropriate construction



technology solutions to utilize, and can provide high-quality local customer service, personalized training and technical support. As authorized dealers for Trimble site-wide solutions and Caterpillar's machine control systems, the SITECH Technology Dealers understand how to apply innovative construction technology to help solve a variety of contractors' construction challenges. Leveraging technology, contractors can gain greater insight into their operations, enabling them to lower operating costs and improve accuracy, safety and productivity. Through the adoption of construction technology, contractors can experience new levels of productivity that enable more competitive bidding on projects. SITECH Technology Dealers

offer the most advanced and complete set of tools to revolutionize the construction workflow.

Trimble is establishing a SITECH Technology Dealer network in the Americas, Europe and Asia / Pacific regions. The four SITECH dealers in China will serve contractors involved in a range of earthmoving applications such as the construction of roads, highways, railways and airports as well as site prep for large commercial, industrial and residential projects. The four SITECH dealers in China are now a part of the worldwide SITECH distribution network, which offers consultative advice on construction technology solutions, customized training, data services, installation, service and technical support. ■

Passion for **Excellence**

with the Hyundai's 9S series in the Infinite Potential

Robex 9S



India Construction Sector Progressing Positively

The building and construction industry in India has recorded a consistent strong year-on-year growth during 2006-2010, and is expected to continue to grow during 2011-2015. Supported by robust economic growth and government spending, Emerging Market Intelligence expects a broad base growth in building construction across all key sectors: residential, commercial, industrial and institutional.

The construction industry is the second largest industry of the country after agriculture accounting for 11 percent of India's GDP. Exports constitute about 5% of the size of domestic market and include construction materials, services, and cheap labor. The country's main international trading partners in this sector are the Middle East, Africa, and Malaysia. Indian companies have very limited exposure to large markets such as the United States, Japan, and West Europe. The level of the country's development is reflected by its infrastructure and the desperate need for infrastructure development has increased the demand of the construction industry in India. Infrastructure development and maintenance is a major input to the economic development and the sustained growth in an economy. It includes electricity (including non-conventional energy), telecommunications, roads and bridges, railways (including mass rapid-transport system - MRTS), ports, airports, irrigation (including watershed development), water supply and sanitation, storage, and gas-distribution sectors.

The activities of the construction industry include working on new structures as well as additions, alterations, and repairs to existing ones. The industry can be broadly classified into two segments - organized and unorganized. The organized segment consists of firms and independent contractors who manage their business (design, financing, execution, etc.) on a professional basis. The organized segment operates on small, medium, and large scales. The unorganized segment primarily consists of standalone contractors that operate at a small scale. Construction activities of smaller firms in the organized segment and contractors in the unorganized segment are mainly focused on simple construction projects - building houses for individuals, repair, and maintenance for smaller buildings. Construction activities for larger firms involve complex logistics management of men, machinery, and materials.

One of the latest technologies used in construction industry is Building Information Model (BIM). This technology helps all the factors of a project to work in a collaborative and concerted manner solely based on the platform of Information Technology. BIM helps the different members of a project to communicate information among themselves which consequently leverages the productivity and at the same time minimizes the error along with cost.

Construction is an important part of the industrial sector and one of the core sectors of India's economy. According to **IHS Global Insight**, USD175 billion was spent on construction in India in 2007 after growing 156% since 2005. Out of USD175 billion, USD140 billion was spent on nonresidential, and the remaining USD35 billion was spent on residential construction.



Construction spending is expected to increase to USD370 billion by the end of 2013, with residential totaling USD63 billion and nonresidential registering USD307 billion. This represents a compound annual growth rate (CAGR) of 13.3%. Rapid growth in the construction sector is creating enormous potential for manufacturers of construction machinery in India. Sales of earthmoving equipment have increased by 17 percent and those of construction vehicles and mining equipment by almost 53 per cent over the past few years.

Although the Indian government has been proactive in building necessary infrastructure in the energy, transportation, and urban sectors, additional investment is needed. Like many countries, private-sector involvement will be critical in escalating India's infrastructure beyond meeting basic needs and reaching a level that advances the efficiency with which India's economy operates.

Investment in Indian construction is expected to rise by ten percent. Interest is particularly high for efficient formwork and scaffolding systems, especially self-climbing formwork systems and slab table-form system formwork. Modern formwork and scaffolding systems are attractive in particular for their speed of erection, safety, cost-efficiency and flexibility. These qualities are increasingly in demand among Indian construction firms and developers.

Since the end of last year, the building industry in India has experienced positive growth. **The Construction Industry Development Council (CIDC)** predicts that investment in construction in this populous country will rise by ten percent over the current year of 2010/11. This in turn will have positive effects on suppliers of formwork and scaffolding technology. IHS Global Insight's nonresidential construction forecast for India, including major sub-categories (transportation, public health, energy, office, commercial, institutional, and industrial) is expected to rise at a CAGR of 13.9% during 2007-2013. ■

Prepared by ACW Staff

سجلت صناعة البناء والتشييد في الهند نمواً كبيراً وثابتاً على أساس سنوي بين عامي ٢٠٠٦ - ٢٠١٠ ويتوقع لها استمرار النمو خلال الفترة الممتدة من ٢٠١١ - ٢٠١٥. واستناداً إلى النمو الاقتصادي الثابت والإنفاق الحكومي، تتوقع شركة الأبحاث "Emerging Market Intelligence" نمواً كبيراً في الإنشاءات في جميع القطاعات الرئيسية: السكنية والتجارية والصناعية والمؤسسية. هذا ويتوقع أن تزداد الاستثمارات في قطاع الإنشاءات بما نسبته ١٠٪ حتى عام ٢٠١١ وهذا بدوره سيكون له تأثيراً إيجابياً على الموردين والتكنولوجيا المستخدمة في البناء والتشييد.

New-Generation High-Rise Tower in Mumbai

A **Liebherr 71 EC-B 5 FR. tronic Flat-Top crane**, set on a custom-built base at foundation level to ensure a secure working height over the surrounding residential buildings, is being used by developer/contractor **Nahalchand Laloochand Pvt Ltd (NL)**; to construct one of Mumbai's new generation of tall apartment buildings. The crane has been supplied by Liebherr India Pvt Ltd, which is headquartered in Mumbai.

With building height restrictions now being eased in parts of Mumbai, which has until recently been primarily a low-rise city, new commercial and residential buildings are being developed that reach heights of 90 meter and more. The Aravat residential building, that is about to be constructed by NL in the suburbs of Mumbai, will reach 30 storeys and have a height of 110 meter, and the Liebherr 71 EC-B 5 FR. tronic will climb with the structure as it grows. Although the site is on the fringe of open countryside, it is bounded on three sides by residential buildings of eight and 12 storeys in height. Consequently, the clearance of the boom at the foundation stage has necessitated the construction of a 5.5 m steel base, which stands on top of a 2 meter concrete block. "The excavation for the foundations is about 10 meter deep," says NL's chief engineer on the site *Prakash Parab*. "The crane stands at about 45 meter in height, so to comply with safety requirements for



Liebherr 71 EC-B 5 FR. tronic Flat-Top crane in the field

the surrounding buildings we constructed this base on the site, and mounted the crane upon that." The crane has a boom length of 50 meter and can handle a maximum load of 5 tons, or 1 ton at the full reach, which is enough to cover the project area but necessitates the boom over-sailing part of the adjacent residential area. ■

Hi-Tech Ceramics: Sacmi Arrives in India

Special ceramics with a very high-tech content indeed: this is the core business of Indian company **Carborundum Universal Limited (CUMI)**, a leading player in making advanced ceramics located at Hosur industrial district in the country's south. Products such as these require cutting-edge partners, able to provide efficient, high-performance solutions.

Partners like **Sacmi**, which has just supplied CUMI with a PH 2090 hydraulic press from the 2000 series – extensively market-tested and widely appreciated among the international ceramic industry's major players – for the production of 20x30 cm alumina slabs. A 'difficult' product requiring, on the one hand, a particularly sophisticated press filling system and, on the other, an equally refined methodology for ejection of the densely pressed material from the mould.

That's why Sacmi has also supplied, in addition to the press itself, the entire 'accessories pool', from the powder filling system to the outside 'electronic ejector', indispensable for management of this type of output. Special slabs, then, that undergo, after pressing, an ultra-high temperature sintering process, making them just perfect for a vast range of applications from industrial to space applications.



CUMI's latest investment decision has, then, reinforced an already solid industrial partnership that began some time ago. CUMI's spray driers and continuous grinding mills are, in fact, also Made in Sacmi, as are other machines and equipment provided by the Group's refractory division. SACMI is an international group manufacturing machines and complete plants for the Ceramics, Beverage & Packaging, Processing and Plastics industries - markets in which it is a recognized worldwide leader. The strengths of both sides of the business lie in the application of innovative technology, the well-established position the group holds on international markets and its commitment to research in order to ensure consistent top quality and service to the client. ■



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**Serving the Building, Construction Machinery,
Roads & Power Generation Sectors in the Middle East & North Africa**
Since 1983





The new EDGE Post Pounder Puller attachment for skid steer loaders provides quick and cost-effective installation and removal of wood or solid steel fence posts, all in one. This easy-to-use, one-person operation drives wood or solid steel fence posts up to 25.4 centimeters wide and 3 meters long into the ground in minutes with its powerful 25 ton impact force. The operator never needs to touch the post by hand. Simply use the attachment to pick up the post, position it using the 30.48 centimeters plumb chain, and use the power of the skid steer to drive it into the ground, even as low as 45.72 centimeters above ground.



India's First Underground Crude Oil Storage Cavern

Four **Sandvik** DT 820 underground drill rigs have been used throughout the construction of India's first underground crude oil storage caverns, located at Visakhapatnam in Southern India; together with two Sandvik DX 700 surface drill rigs for benching works. The project is being constructed under a USD75.5 million contract by Mumbai-based **Hindustan Construction Co Ltd (HCC)** for **Indian Strategic Petroleum Reserves Limited**, a subsidiary of the Oil Industry Development Board of India under the Petroleum Ministry.

Located at a hill known as Dolphin's Nose on land belonging to the Eastern Naval Command in Visakhapatnam – usually abbreviated to Vizag – the scheme will have a storage capacity of 1.33 million tons of crude oil. Vizag, on the east coast and considered the eastern gateway to India, was selected as the site because it has a large seaport for the import of oil. Adjacent to the cavern site is South East Asia's first underground LPG storage cavern and which also used Sandvik jumbo's during construction.

HCC began work on the cavern in 2008 in a 36 month schedule expected to be handed over in August 2011. The contract covers detailed engineering and design, underground excavation, access tunnels, water curtain galleries, main storage caverns, shafts and associated underground civil works. The contractor's Project Manager, *Ramana Rao*, confirmed that there are five caverns for the crude storage, all 30 meter in height and 20 meter wide, together with associated tunneling. Three caverns are each 840 meter long and each is connected at one end to form a 'w' shape. Two shorter 370 meter tunnels are also joined to form a 'u' shape.

An essential part of the project, the water will prevent seepage of crude fumes through the fissures; eliminating the possible risk of explosions. Similarly, the strictly enforced smooth finish specification of the walls, with just 400 mm tolerance either side of the tunnels, is set to reduce the risk of voids in the caverns and the possible build-up of fumes – thereby once again preventing the risk of explosions. The complete length of the underground works exceeds 6 km and by completion of the excavations more than 1.8 million tons of rock will have been excavated.

HCC is using the four Sandvik jumbos simultaneously for much of the time, as the drilling and blasting is being undertaken on several fronts. "Our logistics are designed to supply power and water to four headings simultaneously, and to remove the rock and do the shotcreting," said Mr. Rao. "The four Sandvik machines are therefore working within this cycle." The jumbos are drilling at least 150 holes per blast cycle, at depths of between 2 meter and 4 meter, depending on the section of the cavern on which they are working. It takes on average two minutes to drill one hole, with the holes closely following the tunnel profile.



Sandvik DT 820 underground drill rig

Power Bulk Drive-T liquid explosives, supplied and charged by **Orica Mining Services**, have been used for only the second time on a construction project in India. The key advantages being faster cycle times and providing controlled blasting to ensure the specified smooth finish, plus improved safety. Mr. Rao says that with work proceeding 24 hours a day, the production cycle allows three blastings to be carried out during a two-day period, and that each blast advances the work by 3.5 to 3.8 m.

HCC's project mechanical engineer *Kaushal Kumar Sharma* says that the machines are hosed down at the washing area next to the access portal, and that routine maintenance is undertaken once a week. "We inspect the hoses and linkages and the drill bits, and oil and lubricate the machines. Our own staff do this, but Sandvik has an onsite presence and works very closely with our maintenance and operating teams."

The jumbos were supplied to HCC by Sandvik India, whose senior engineer on site, *Harish Pokharkar*, says that spare parts are supplied via the company's Pune headquarters. The two Sandvik DX 700 surface drill rigs are being used around the two cavern benches, where they are undertaking vertical drilling: minimizing explosives consumption and increased advance rates. "The DX 700s are drilling down to depths of 21 m on all three benches," he says. "We have a grinding facility for the drill bits installed at the site, and we have recorded that by grinding we are achieving 30% extra life with the bits."

The crude oil cavern at Vizag is one of three such caverns planned by the Indian Government, with a storage capacity of 5.3 million tons of crude. Two other caverns will be at Mangalore and Padur, with the crude designed to act as a buffer in the event of emergencies or disruptions in supply. All three projects are scheduled to be operational by 2013. ■

Significant Upside Potential for Turkey

Construction is one of the leading sectors in Turkey which is among the top countries exporting construction services. These factors also support the strong local building materials industry and enable manufacturers and exporters to compete throughout the world, especially in cement, ceramics, most of metal products, glass, natural stones, paints & coatings, building hardware and HVAC-R products. Analysts report that in 2009, the Turkish exports of building materials reached USD15.7 billion with local construction companies earning a 2% share of the entire global construction market.

The general economic environment remains positive. A disciplined and under-gearred banking sector ensured that the Turkish economy emerged from the global financial crisis more or less unscathed. Interest rates have fallen to record low levels. In spite of mounting inflationary pressures, general perceptions of risk are moving in the right direction.

WMI reports that the Turkish construction industry grew at a CAGR of 13.54% for the period 2003-2008. Non-residential sectors market share was 56.9% in 2008, while residential sector accounted for the balance 43.1%. Turkish economy remained one of the fastest growing economies in Europe with a growth rate of 4.5% in 2008.

One of the main drivers for this bullish pace of the economy is the high growth rates in the construction and industrial sectors. Construction sector in Turkey is third largest after agriculture and textiles. It contributed near about 6.0% to the GDP as its direct share; while it can add up to 30.0% of GDP if all the other sectors that are affected directly or in-directly by the construction sector are taken into consideration.

Due to Turkey's recent achievements and security provided under the prospective accession of Turkey into the European Union, there has been a sudden surge in foreign direct investment (FDI) inflows since 2005. This has led to a rise in the growth of construction sector by 21.5% in 2005. Total construction industry output in Turkey for the year 2008 amounted to USD36.6 billion, an increase of 3.7% over 2007. Residential construction sector is the major driver in the construction industry. Around 95% of Turkey lies along the Anatolian fault, which has active earthquake belts. This area has high casualty rate as tremors killed 20,000 people in northwest Turkey in 1999 and left 500,000 persons homeless. Further, almost 60% of residential areas in Turkey are slums, or ramshackle built on private or state property.

These rundown residential areas need to be reconstructed, as they are prone to collapse under powerful tremors. Hence, the importance of building earth quake-resistant houses is very much on the rise, giving ground for the construction activity in the residential sector. In 2008, residential sector accounted for 43.1% of the construction market. Non-residential sector contributed about 56.9% to the Turkish construction market. This is on account of the rapid urban expansion, which has created a need for the construction of more commercial, office, and professional buildings. Likewise shopping malls and retail establishments are being built to meet with increased spending of the consumer. Developments in tourism sector continued to generate new construction projects as well from time to time.



The construction sector has however taken a hit in 2008, and the weakness is likely to continue in 2009. This deceleration was mainly due to the effect of the US subprime crisis, which created liquidity crunch in the European markets.

Business Monitor International (BMI) forecasts for Turkey's infrastructure sector indicate that in 2012 the sector will overtake residential and non-residential construction in making the largest contribution to Turkey's total construction industry value, accounting for 50.3% of the total. Transport is a key thrust behind value creation for the industry and there is further upside for the energy and utilities.

Major developments since the beginning of the year 2011 include the Gebze – Izmir motorway entered the first construction phase, which sets the trend for our forecast for Turkey's road infrastructure sector to play out from 2011 onwards.

The pre-qualification documents that were due by September 2010 for the Elazig Integrated Health Campus Public Private Partnership (PPP), the latest in an ambitious program of PPP projects launched by the Ministry of Health. The strategy has the potential to place Turkey firmly ahead of most other emerging markets in terms of the private procurement of hospitals.

A string of mega property development projects announced this quarter highlight the momentum building in Turkey's residential construction sector. A USD2.5 billion mixed use development in Istanbul and **Sanko Holding's** plan to build 20,000 apartments in Turkey's south-eastern

province of Gaziantep, illustrate the favorable growth conditions emerging in Turkey's real estate market.

Turkey is planning the construction of 100 new high speed railway stations across the country. Construction will take place following the installation of a further seven high speed rail lines connecting Turkish cities in addition to a first line connecting Ankara and Konya. The first three stations will be built in Ankara.

Following the privatization of electricity grids, Turkey's **Privatization Administration (ÖİB)**, announced that 2011 'will be the year of the privatization of power plants'. The privatization will cover various power plants for some 16,000MW.

In January 2011, Turkey finally approved a new renewable energy law with a view to bring the domestic industry on par with the international renewables sector. Feed-in-tariffs specific for different technologies were introduced. In December 2010, the **Agaoglo Group** acquired a 241,954 square meter (sq m) parcel of land worth in central Istanbul that will see the company em-

bark upon one of Turkey's largest ever residential construction projects. The development follows the announcements of a string of mega residential and commercial construction projects in the city in recent months, highlighting the momentum that is building in the sector. A significant upside potential is seen for Turkey, whose infrastructure and construction market has strong domestic players and is buttressed by positive population and macro fundamentals.

Unlike much of the rest of Central and Eastern Europe, a surge in capital values is not expected to be seen. The country has practiced responsible lending by banks and this has provided stability in the industry, allowing developers and landlords to ride through less positive years without the need to shed real estate quickly and cheaply. In practice, yields to track upwards in the coming years are expected as rental values increase faster than property values do. ■

Prepared by ACW Staff

يعد قطاع الإنشاءات من القطاعات الرائدة في تركيا، وتعد تركيا من بين أوائل الدول العالمية المصدرة لخدمات التشييد والبناء مما يدعم صناعة مواد البناء ويمكن المصنعين والمصدرين في تركيا من المنافسة على الصعيد الدولي، لا سيما فيما يختص بالإسمنت والسيراميك ومعظم المنتجات المعدنية والزجاج والأحجار الطبيعية والدهانات ومواد الطلاء ومعدات البناء ولوازم التدفئة والتهوية والتبريد والتكييف وما إليها. ويشير المحللون إلى أنه في عام ٢٠٠٩، وصلت صادرات تركيا من مواد البناء إلى ١٥.٧ مليار دولار وبلغ ما تجنيه الشركات التركية ٢٪ من إجمالي سوق الإنشاءات العالمي. تجدر الإشارة إلى أن هناك إمكانيات كبيرة لقطاع الإنشاءات في تركيا الذي تنبع قوته من الفاعلين الأساسيين في سوقه والتعداد السكاني وأساسيات الاقتصاد الكلي.

Thuraya among Sponsors of Green Technology Initiative Race

Thuraya Telecommunications Company will be sponsoring the **Istanbul University** Solar Race Team in the World Solar Challenge across the continent of Australia. During this week-long international green technology initiative, the Turkish racers will be depending on Thuraya IP, the world's smallest satellite broadband solution supporting 384 Kbps data streaming, and Thuraya XT, world's toughest satellite handheld, as their full communication solutions. As Thuraya provides ubiquitous coverage over Australia and Tasmania even in remote areas through its robust satellite network, it is the definitive choice for the Solar Challenge. Australia is within the Thuraya-3 satellite coverage area that spans the Asia Pacific region.

Thuraya's Vice President Corporate and Marketing Communications, **Mr. Ebrahim K. Ebrahim** said, "The World Solar Challenge is about both the environment and innovative technology, which lie in the heart of our corporate values and CSR commitments as a leading satellite telecom operator. Thuraya's blanket coverage over Australia supported by its dynamic portfolio of products will allow the Istanbul University team access to effective mobile satellite communication throughout the course of the race."

According to **Mr. Murat Altug** from the Istanbul Solar Race Team, "We are deploying Thuraya for the World Solar Challenge in Australia because we are confident that the service offered by this leading satcom operator will always be reliable. The rules of the Race dictate that

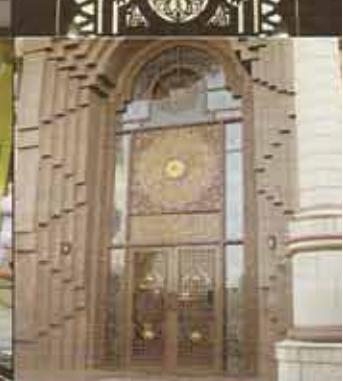


Mr. Ebrahim K. Ebrahim, Thuraya's Vice President Corporate and Marketing Communications

we have solid satellite communications onboard the Solar Car and after meticulous testing we found Thuraya's data and voice services to be the most appropriate. With Thuraya we are ensured that at any given time in Australia we have easy access to the network especially in the areas which are not covered by any terrestrial networks. Furthermore, Thuraya's data services will facilitate the sending and analysis of accurate information regarding battery levels of the car, speed and weather conditions throughout the race which are vital for our success." ■



هندسة المعادن Metal Engineering

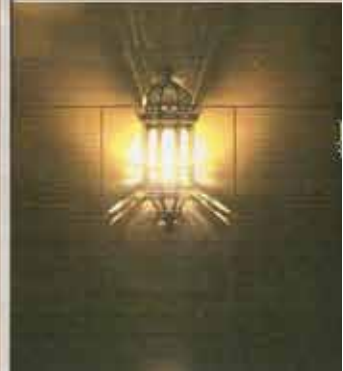
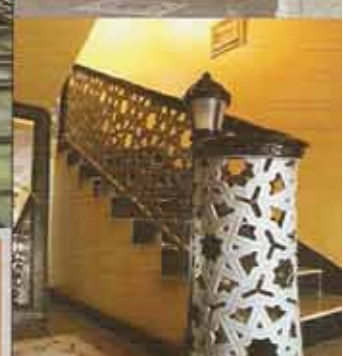


Activities:

Alum Div : Aluminum casting and fabrication of, gates, doors, security grills, bollards, screens, flag poles, garden lightings, street lightings, in addition to customized designs and sizes execution.

Steel Div : Steel fabrications, tanks, vessels, structural works, Mechanical maintenance, (EOT PDO approved), customized fabrication.

Coating : Powder coating, chrome plating, gold plating, hard chroming...



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Teka Projects 20% Middle East Growth for 2011

German manufacturer of high quality built-in kitchen appliances and kitchen sinks, **Teka Küchentechnik** has announced positive growth figures for 2010 and an encouraging outlook for continued growth in 2011 and beyond. With a steady stance during the recent economic downturn, Teka has managed to expand its dealer network though struggling with sales – with 2010 seeing 112 dealers in the UAE as opposed to just double digits in 2009. “Though it has been a struggle for all of us during the past two years, our vision has been unwavering – support our partners and clients at all times – and we are finally seeing the benefits,” commented *Arturo Manso*, Managing Director at Teka Küchentechnik Middle East.

This business strategy has seen the manufacturer regain over 40% of sales over those in 2009. With over 150 proj-

ects spread across the UAE, Teka has already forecast a further 20% growth in sales for 2011 with the impending launch of their new collection of high range sinks including the LED illumination and glass sinks, along with an eye on environmental sustainability with their kitchen appliances. Teka’s recently introduced Intelligent Power Management (IPM) appliances have been developed with minimum power consumption in mind as well as for buildings in which there are power restrictions. “Abu Dhabi has been a key area of focal point for us this year with steady, focused growth and a site on sustainability. Our commitment of quality, outstanding installation, commissioning, warranty and post sales service has meant that numerous developers and contractors in the city and across the UAE and Middle East are returning to us in 2011,” added Manso.



Arturo Manso, Managing Director, Teka Küchentechnik Middle East

To celebrate their achievements, the company recently held their Annual Event in Abu Dhabi, which attracted more than 400 guests from across the industry including the main developers, contractors, kitchen cabinet studios, consultants and interior designers. ■

Intergraph® SmartPlant® Enterprise Selected by FLSmidth

FLSmidth, a global engineering supplier of equipment and services to the global cement and minerals industries, has selected **Intergraph® SmartPlant® Enterprise** to design cement and mineral processing facilities, in order to improve processes control and increase efficiency. This multiyear agreement, signed in Denmark, comprises a suite of high-end solutions, including among others SmartPlant 3D Materials Handling Edition, SmartPlant Foundation and SmartPlant P&ID. This will allow FLSmidth to better integrate work processes, as well as engineering disciplines, and to standardize project phases from proposal to handover to service more than 400 users globally. “Being an organization with employees worldwide, we need a solution that supports global and concurrent work processes,” said FLSmidth Vice President *Per Mejnert Kristensen*. “Aligning our work processes on a global scale enables us to work as one company, offering our customers the FLSmidth expertise from one source. Offering an integrated and object-oriented solution, Intergraph has made this possible.” SmartPlant Enterprise is an integrated solutions



SmartPlant 3D Materials Handling Edition is a major breakthrough in the mining sector

suite that provides full design, construction, material handling and engineering data management capabilities needed for the creation, safe operation and maintenance of large-scale process projects. SmartPlant Enterprise solutions help lower project costs, compress schedules and improve risk management. FLSmidth General Manager *Michael K. Nielsen* said, “Together with strong design features such as clash detection and simulation of construction and erection, Intergraph’s solution can handle large design measures, which is cru-

cial when working with cement plant scales.” *Gerhard Sallinger*, Intergraph Process, Power & Marine president, said, “SmartPlant 3D Materials Handling Edition is a major breakthrough in the building materials and mining sectors.” The **ARC Advisory Group**, a leading industry analyst firm, ranked Intergraph the No. 1 overall engineering design 3D software and process engineering tools (PET) provider worldwide and for the oil and gas industry according to its PET Worldwide Outlook Market Analysis and Forecast through 2013. ■

Terex® Bid-Well Breaks Ground on New Facility

Terex Corporation announced a big investment in the small city of Canton, S.D. In the city where Terex® Bid-Well started 50 years ago, the Governor of South Dakota, the Mayor of Canton and representatives from Terex Corporation and the **Lincoln County Economic Development Corporation** broke ground on a new 7432 square meters facility for the manufacture of bridge, highway and airport pavers and related equipment. The new eight-acre site is just miles from the company's current multi-facility downtown campus, and the new building will house all operations under one roof. "We have a dedicated team with a 50-year knowledge-base for building a niche product that requires customization to meet customer needs," said **George Ellis**, president of Terex Construction.

The new USD4.8 million Terex Bid-Well facility promises to improve manu-

facturing efficiency and reduce lead time for the paving equipment. "Using Lean Manufacturing principles, material will enter through one end of the building, flow through fabrication and assembly and leave through the opposite end," explained **Rob Drew**, site director for Terex Bid-Well. "Strong growth and high customer demand for our equipment has forced us to grow into a campus of nine separate buildings over the years." At a press conference held directly after the ground breaking ceremony, officials addressed the local media and business owners. Approximately 95% of the building's metal frame includes recycled steel. With windows for sunlight harvesting, walls built with a minimum of R-30 insulation and insulated floors, the building is designed to efficiently capture heat in a climate that sees winter temperatures drop to -34.4° Celsius. The building's exte-



Terex Bid-Well Facility Rendering

rior will feature "cool" colors adopted by LEED construction guidelines. Inside the manufacturing space, the factory will include high-efficiency lighting and a separate welding area with exhaust fans to keep the rest of the space clean. ■

MWM Gas Gensets for British Water Suppliers

Edina UK, distribution partner of **MWM** in the United Kingdom, has had a year of major successes in supplying gas-powered generators from Mannheim-based MWM GmbH to the UK Water Utility industry, concluding a multi-year contract with **Anglian Water**, and numerous projects for **Welsh Water**, two important UK water suppliers. The order for Welsh Water comprises the delivery of complete container gensets for four large Advanced Thermal Digestion projects at Eign, Wrexham, Cardiff, and Afan, with a total generator output of more than 10.2 MWe. Edina UK received the second order for power generation from sewage gas from Anglian Water under the AMPS5 program. The contract provides for the supply of container gensets over a period of five years. The first six were commissioned in early 2011. MWM is the world's oldest manufacturer of gas-powered generators whose innovative gas engines are noted for their high-efficiency, proven reliability and low maintenance, two features that make them a highly profitable solution. The Edina Group has an enviable track record in design, construction, and long-term operation of gas engines powered by various types



Edina UK received the second order for power generation from sewage gas

of gas, including sewage gas. The company plays a key role in the development of renewable and sustainable energy sources to reduce dependence on fossil fuels. The long-established company MWM in Mannheim, Germany, is one of the world's leading system providers of highly efficient and eco-friendly complete plants for decentralized power supply with gas and diesel engines. For 140 years the com-

pany has stood for the reliable, uninterrupted provision of electricity, heat and cooling at all times and at any location. MWM has 1,200 employees around the globe. From its engineering accomplishments, the decentralized energy generation with gas engines which is both highly effective and extremely practical, whilst taking the strain off the environment and protecting world finite primary energy sources. ■

ADNEC, "the Middle East's Leading Exhibition Centre"

ADNEC (Abu Dhabi National Exhibition Centre) was named "Middle East's Leading Exhibition Centre" at the World Travel Awards 2011 Middle East ceremony. Commenting on the award, ADNEC's Managing Director H.E. *Ali Saeed bin Harmal Al Dhaheri* said that the latest accolade for the Abu Dhabi National Exhibition Centre served to underscore the successful strategies recommended by the ADNEC board of directors. Receiving the award on behalf of ADNEC, *Humaid Al Dhaheri*, Chief Sales & Marketing Officer said: "Our second World Travel Award in three years is a testament to ADNEC's rapid rise in the global events industry. This award is particularly significant as it is voted for thousands of industry professionals from around the world and recognizes our industry leadership in what is a very competitive industry. "In 2010, we witnessed a 24 per cent spurt in the number of events staged over the previous year (2009) and ADNEC would like to remain a magnet for a growing and varied number of events in the coming years." Al Dhaheri said, stating that the continuing industry recognition for ADNEC was thanks to the collaborative work of the ADNEC board, partners and staff, which had resulted in a redefinition of the region's events industry. Hailed as "The Oscars of the Travel Industry", the World Travel Awards celebrates brands that are pushing the boundaries of industry excellence. The Awards were first launched in 1993 and are now in their 18th edition. This year votes were cast by 213,000 travel professionals in over 160 countries across the globe. More than 462 orga-



Humaid Al Dhaheri, ADNEC's Chief Sales & Marketing Officer while receiving the award at the World Travel Awards 2011 Middle East ceremony

nizations across the Middle East spanning more than 125 categories entered the Middle East competition. This latest recognition award for ADNEC follows other international accolades for the venue including 'International Venue of the Year' (2010 AEO awards) and 'Best International Venue'. ■

Cristal Hotels' First Venture in Lebanon

Cristal Hotels & Resorts, the most dynamic hotel brand in the region, has signed a Memorandum of Understanding (MoU) with **Bliss 3000 SAL** to operate the latter's property in Beirut, Lebanon. The agreement was sealed during the 2011 Arabian Travel Market, the Middle East's leading travel show held recently in Dubai, and marks Cristal Hotels' first venture in Lebanon. Under the terms of the MoU, Cristal Hotels and Resorts will operate the furnished apartments under the name **Cristal Bliss Residences**. The newly renovated and fully-furnished studios are especially appealing to corporate and leisure guests as they are within walking distance of the Corniche, Hamra Street, the American University of Beirut and the American University Hospital. Cristal Bliss Residences will be operational starting June 2011. Residents will have access to high-speed wireless internet, cable TV, housekeeping and laundry services, the Atlantis Fitness Center, an Olympic-sized swimming pool, Jacuzzi, sauna and steam bath, ladies salon and the exclusive Cristal Spa. Guests can also dine at the roof deck restaurant offering Sea views. "**Cristal Bliss Residences** is only the start of major projects we have lined up to tap Lebanon's dynamic hospitality market. It reflects our pursuit of facilities that are strategically located and carry our unique brand of business and leisure living. Tourism is one of the main pillars of the Lebanese economy, so we look forward to playing an important role in providing world-class accommodations to Lebanon's local, regional and interna-



Peter Blackburn & Toufic El Tal while signing the Memorandum of Understanding

tional travelers," said *Peter Blackburn*, CEO, Cristal Hotels & Resorts. "We are pleased that one of our premier developments has found its place in such worthy hands. Cristal Hotels is a welcome addition to Lebanon's hospitality community, not only because of the high quality of facilities and services attached to its name, but because of its commitment to various social and environmental causes," added *Toufic El Tal*, Managing Director, Bliss 3000. ■

Zacrotek to Represent Krypton Chemicals in the Middle East



Roof waterproofing of Terminal 2, Barcelona airport, with Impermax Plus System from Krypton Chemicals

Zacrotek LLC, with head office in Dubai, has signed an agreement to become the exclusive Middle East distributor for **Krypton Chemicals**, a leading European manufacturer of resin-based solutions for the construction industry. With plants in Spain and commercial subsidiaries in France, the UK and Chile, Krypton Chemicals is an integrated supplier of waterproofing and flooring solutions, developing systems based on polyurethane and epoxy technologies. "We are well positioned to meet a growing demand for reasonably priced, durable and high performance waterproofing and flooring systems. Zacrotek and Krypton Chemicals will work together to provide solutions and exceptional technical support for the construction industry in the Middle East." said Dr. *Salwan Al-Assafi*, Managing Director of Zacrotek LLC.

Single component polyurethane waterproofing system, branded as Impermax, developed by Krypton Chemicals to be used in a range of waterproofing applications, such as roofs, wet areas, ponds and tanks. Impermax membranes are jointless, UV resistant and very elastic, providing crack bridging capabilities. Impermax is BBA and ETA certified. Polyurethane flooring systems, such as Pavifloor, Paviflex and Colodur, are designed for a variety of flooring applications, such as car parks, warehouses, showrooms, offices, and sports facilities. These flooring systems are UV resistant and have excellent wear resistance. Zacrotek also offers high performance marble and tile sealer that is based on polyurethane technology. In addition to the excellent UV and wear resistance, this durable sealer provides protection from oil and other chemical stains. The sealer comes with gloss or mat finish and can also be provided with clear anti-slip finish. Zacrotek has already secured several projects in the region, and is in the process of establishing local presence throughout the Middle East and North Africa. The company is a provider of advanced construction material system for the building industry in the Middle East and North Africa. ■

CONGRATULATIONS
TWO ORDERS AT SAUDI BUILD 2010

MUSTANG-2000 (160T/H) TO AL OTAIBI

LANCELOT-3000 (240T/H) TO AL ROSAN

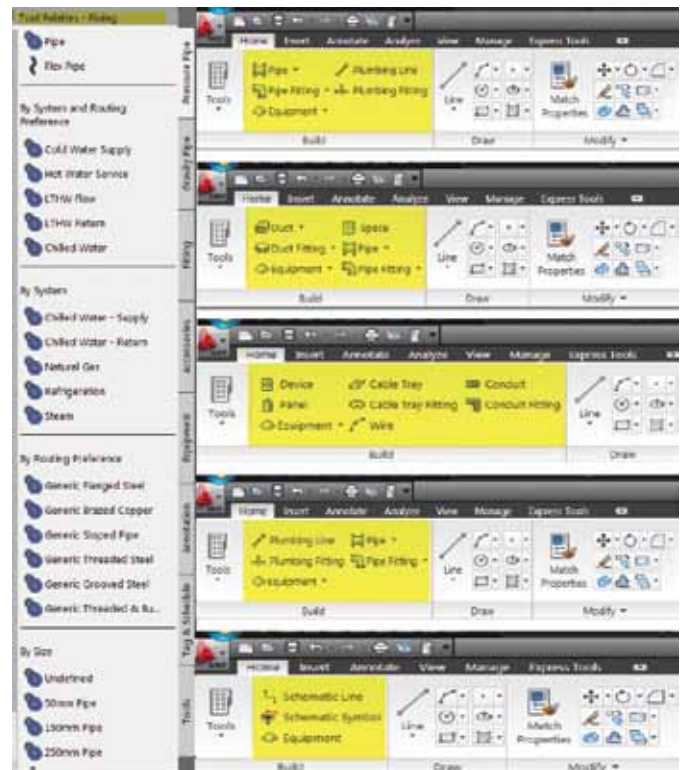
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Autodesk Unveils 2012 Manufacturing Software Portfolio

Autodesk, Inc. introduced its new 3D design and engineering software portfolio for manufacturers, including the new Autodesk Product Design Suite that makes design, visualization and simulation software easier to adopt, use and maintain. The complete Autodesk Digital Prototyping software portfolio helps manufacturers to design and build better, more sustainable products, reduce development costs and get to market faster. "No product design and development challenge is too complex to overcome when you combine the powerful 3D mechanical design capabilities of Autodesk Inventor together with world-leading Autodesk visualization and simulation software," said *Anders Arthur*, Regional Director, MEA for Autodesk. "Our customers need to create remarkable products more efficiently. The new Autodesk Product Design Suite makes it easier for manufacturers to adopt Digital Prototyping workflows to achieve this goal."

Unbeatable design innovation and quality with new Autodesk suites

Autodesk Product Design Suite is a new, comprehensive and cost-effective design solution for creating compelling products. Containing Autodesk's leading design, visualization and simulation software for manufacturers, the new suite provides flexibility to innovate and more easily respond to changing business requirements from early concepts to detailed engineering and simulation. Autodesk Product Design Suite also provides significant cost savings and is easier to deploy, maintain and manage than stand-alone products. "Combining our Autodesk Inventor Professional products with the software powering Hollywood-quality imagery, movies and interactive presentations enables us to create visually impressive and dynamic engineering solutions for our design and engineering teams," said *Carl Maas*, CAD/engineering services manager with L-3 Communications, Power Paragon, Inc. "With the new Autodesk Product Design



Autocad Discipline Specific Tool Palettes

Suite we can create, validate and communicate our digital designs with even greater confidence and shortened development time." Launched in 2010 and updated this year, Autodesk Factory Design Suite 2012 is a factory layout and optimization solution that helps manufacturers make better layout decisions through the creation of a digital factory model, helping save time and money. ■

NVT Launches Ethernet-Over-Coax (EoC) Solution

Network Video Technologies (NVT) has released a new Ethernet-over-Coax (EoC) transmission solution that enables coax-based CCTV installations to migrate to IP. The NV-EC1701 Ethernet-over-Coax (EoC) Transceiver is a compact media converter that allows 10/100 BaseT Ethernet and PoE power to be transmitted up to 1,500 m, using new or existing coax cable. Transceivers may be linked together using BNC 'T' adaptors, forming a bus-architected network that supports up to 4 EoC transceivers and IP/Megapixel cameras. 48VDC class 2 power is delivered to one transceiver, which distributes 'always on' PoE to up to 4 remote transceivers and their IP/PoE cameras (or other devices). Camera loads of up to 45 watts are supported. Saving time and money, the NV-EC1701 is quick to install, simple to use and network transparent, with no transceiver IP or MAC address configuration required. Three status LEDs indicate power, link, and activity for its RJ45 and coax ports. "With the introduction of the EoC product, we are providing our customers with a cost-effective opportunity to deploy IP cameras over installed coax cable, at distances and power supply levels far beyond conventional PoE," says *Steve Proctor*, NVT's Sales Director. "NVT's advanced transmission and power technology



NV-EC1701 Ethernet-over-Coax (EoC) Transceiver with BNC

provides ultra-robust full-duplex connectivity for all IP cameras, including megapixel, affording an easy transition to IP." NVT will also be showing their range of UTP CCTV Hybrid VideoTM transmission products. These include the PS42 Power Supply StubEQTM Active Receiver Hubs that provide exceptional noise-free DigitalEQTM video and camera power, the award-winning 'DigitalEQTM' and StubEQTM Active Receiver Hubs, and Power, Video & Data (PVDTM) range. NVT develops and markets an award winning line of video transmitters/receivers and hub/power systems for the transport of quality color video, data, low voltage power and audio, over unshielded twisted pair wire (UTP). ■

Reynobond® ColorLab: Aluminum Cladding in 3D

At www.excellence-in-innovation.eu, Reynobond® Architecture offers architects, engineers and all those working with cladding a unique design tool in the form of its new online configurator, the Reynobond® ColorLab. This allows the user to obtain a realistic impression of the vast range of modern façade solutions that can be realized with Reynobond® aluminum composite boards – including the various effects of the individual boards under light.

The wide range of surfaces from Reynobond® is made up of the Standard, Wood Design, Natural Finish and Effects design lines. The effect obtained from surfaces selected from this range can be viewed online on a 3D building model, which, in terms of realism, is of photographic quality, as well as allowing of rotation through all axes. So, instead of, as in the past, illustrating their concept for façade design on the basis of sample boards, architects and civil engineers can now present their preferred façade from various 360° perspectives in Reynobond® ColorLab or their own CAD drawing. Currently 79 Reynobond® surfaces are available for download free of charge as image files or plug-in for ArchiCAD, Allplan and AutoCAD software. Given the rapid progress in 3D technol-



Reynobond® ColorLab, the new online configurator from Reynobond® Architecture

ogy, Alcoa Architectural Products is set to encourage further development and use of 3D applications as a modern presentation form. Expansion of the online platform as well as solutions for its mobile application are already in hand. Guy Scheidecker, Marketing and Distribution Manager for **Alcoa Architectural Products**, said: "For us it's important that we

do not just develop a wide range of different surface versions. We also need to ensure customers can experience and use them – preferably in any place and at any time." It is not without reason that Alcoa can vaunt its claim to excellence *in innovation*, and the company will no doubt be coming up with a few more interesting innovations. ■

Lower Emissions with Metso's Energy Management System

Metso will supply an energy management system to **Pori Energia** in Pori, Finland, to enhance the efficiency of production planning and the overall economical operation of its power plants. The energy management system will be used to collect data from the power plants' information systems, steam consumers and service providers. The system analyzes the data based on which it makes various consumption forecasts and calculates the production plans of all production units.

Reliable, quickly available production plans make it possible to operate the power plants in the most energy-efficient way, which lowers fuel consumption and reduces emissions to the air. The system will also be used in electricity and emissions trading, fuel acquisition and annual planning. "With the opera-

tion environment and cost factors constantly changing, the significance of flexibility and efficiency in production planning is growing. A model-based, optimizing energy management system enables us to enhance our production planning as a whole, starting from short-term electricity production forecasts up to annual planning of revisions and fuel acquisition. Metso's system will also enable us to improve the information distribution in our organization and overall economical operation of the power plants," says Development Engineer **Eero Niemitalo** of Pori Energia.

The Metso DNA energy management system covers forecasts for steam and district heat consumption, optimization of production planning, long-term optimization, and support for electric-



ity trading. The new system will be operational in the fall of 2011 and will be integrated into the existing automation and information systems supplied by Metso. Pori Energia Oy's most important products include electricity, district heat, industrial energy services as well as contracting and maintenance services. In 2010, its electricity sales amounted to 1,185 GWh and district heat sales to 638 GWh. The company has over 200 employees, and its net sales were USD204 million in 2010. ■

eumenes: A New Player on the International Design Scene

After making its debut in Paris at the Maison&Objet trade show in January, eumenes introduces itself to the international public at the Salone del Mobile with new versions and extensions of its chair and table collections: Eu/phoria and Eus by Paola Navone, and Arkys and Aracne by Jean Marie Massaud.

The fruit of Marco Dolcino's entrepreneurial vision and his experience in the sector, **eumenes** is a new brand of designer furnishing accessories aimed at the mid- to high segment of the market. Eumenes made its debut at the latest edition of Maison&Objet in Paris at the **SILVERA Université** store with two product collections (each one consisting of a line of chairs and tables), designed, respectively, by Paola Navone and Jean Marie Massaud. The company's mission can be summed up in three key concepts: reason, flexibility and research.

Reason

Every single eumenes project/product has its origins in a deep-seated reason: the need to turn innovation into substance. Modern materials and innovative finishing and industrial processes flow from the designers' insights or from the efforts of the eumenes R&D department, and these form the basis of the creative process. Not appearance for its own sake, then, but creativity arising from the spur of innovation.

Flexibility

The underlying idea of the eumenes product philosophy - in a market saturated with offerings - is to propose a limited number of products, which are extremely flexible from both a functional and an aesthetic point of view. Every eumenes product is offered in a number of alternative options. The tabletops and the shells of the seats can be freely combined with any colour of their respective supporting structures. The eumenes catalogue details all the finishes and colours available for every single element, so customers may easily provide a guide to the composition of the product they desire. Every product is thus the fruit of the unrestricted choice of its individual components. Inventive and dynamic manufacturing solutions and logistics mean the ability to respond instantly to the customer's demand for a customizable or limited-edition product.

Research

The research conducted into the product is expressed firstly through its conception, which is entrusted to two of the world's foremost designers; but also, and primarily, it is evident in the technological processes and in the materials employed. The eumenes goal is to offer solutions that have never been seen before, through the use of eco-friendly materials that are extremely practical, recyclable or user-friendly. In addition, an advanced industrial approach makes it possible to offer good value for money. Attention to quality is also a priority of the commercial strategy, which focuses on excellence in distribution and communication.

"Make your own eumenes product"

eumenes was created fully formed, because its vision has always been far-sighted and original. eumenes made its debut with four product ranges, which, thanks to perceptive insights into materials, industrial processes and the lo-



gistic solutions adopted, can "transform" and adapt to the customer's specific requirements. The four ranges give rise to several interpretations, testifying to a dynamic, versatile and cutting-edge product strategy, which closely echoes that of the fashion, automotive and hi-fi industries. Flexibility and customization: this is the essence of every eumenes creation. All the products are available in several variants and, thanks to a highly efficient approach to logistics, sellers and end users are free to order the exact quantity of products they wish, in the versions chosen, without having to order a minimum or standard number of items per shipment.

The stars of the collection

"Eu/phoria": The idea underlying the Eu/phoria project is to transform a material used in the automotive sector, for car interiors, to make a large, comfortable monocoque shell. The material, Woodstock®, is a compound of polypropylene and powdered wood.

"Eus": The Eu/phoria chair goes wonderfully with the "Eus" table which comes in two rectangular versions with slightly beveled corners, produced especially for this edition of the Salone del Mobile. The painted metal base (in white, orange, blue and grey) is distinguished by lightness of touch and the tongue-in-cheek design of the supporting feet.

"Arkys": A comfortable wraparound armchair, the strong personality of Arkys is expressed through its metal mesh shell. Arkys is available in two versions: basic, with epoxy-polyester-painted steel in various colors; and rubberized, with a special clear PVC covering.

"Aracne": A wide range of tables offering countless possibilities, they are ideal for use in the home, for office contracts, or for communal areas. The distinctive feature of the tables in the Aracne range is their supporting structure, whose design recalls the shape of a spider.

The eumenes collection thus offers hundreds of alternative opportunities leaving the customer and the interior designer the widest creative possibilities for each of the four products that make up the two ranges. ■

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Watermaster Classic IV

The best has become even better - Classic IV is the next generation of the versatile and mobile Watermaster concept. Watermaster is a Finnish-made serially produced versatile dredger that can do suction- and backhoe dredging and even pile driving work. Watermaster can "walk" in and out of water without crane assistance and it moves independently in water as well, minimizing the need of extra machinery and labor and is thus a very cost-effective solution.

The Watermaster concept originates from the mid 1980s, when the first Watermaster Classic was launched and a new era began. Watermasters created a whole new category to the field of dredgers and construction machinery by combining multipurpose concept with innovative and smart moving capabilities. Watermaster was then systematically developed and new generations arrived in 1996 (Classic II) and 2003 (Classic III) that further improved the unique concept.

Aquamec is proud to present the next generation Watermaster - Watermaster Classic IV. Classic IV offers more depth, bigger buckets, greater forces, Cabin LX and dozens of other improvements thus still amplifying the keys



Watermaster - greater force

to Watermaster's success - its versatility, mobility, reliability and comfort. Watermaster is a proven serial product. Aquamec has manufactured over 200 machines and Watermasters operate all over the world. ■

VIP Polyurea: A Revolution in Coating Technology

The coatings industry has come a long way from brushes and buckets to arrive at revolutionary polymer resins. Polyurea is the magic word for a newly developed innovative 2-part polymer, a dramatic advancement of Polyurethane and Epoxy. Extremely fast gel-times, VOC-free, friendly to the environment and many outstanding features make the big difference. Excellent mechanical properties and highly resistant to chemicals make Polyurea a most universal coating system for various applications in all industries and handcrafts. Insensitive to moisture and fluctuation of temperatures, combined with high elongation and superior tensile strength. Pure Polyurea creates a highly resistant, durable coating to almost any surface. Practically this means little or no down time during repair work or newly applied coatings even working on the outside under adverse weather conditions.

VIP, Voelkel Industrial Products LLC in Munich, Germany, for years one of the leading manufacturers with new production sites in Dubai is convinced that with Pure Polyurea, the existing level of quality and the innovative potential new benchmarks will be set in the coating industry. According to the motto "time is money" Polyurea Quick Spray is applied to concrete, metal or foam by high pressure spray units which also make it a mobile system. Within seconds it will build a "Vinyl like" elastic skin that will resist punctual tears and is highly impact resistant even in highly abrasive environment. The coating will protect against corrosion, has excellent resistance to heat distortion and sagging by maintaining its flexibility and shape.



Polyurea Quick Spray is applied to concrete, metal or foam by high pressure spray units

No fumes or emissions are associated with Polyurea which even makes it ideal for applications in the chemical as well as food and beverage industry. Major applications in the construction industry include roofing/waterproofing applications, hygienic flooring solutions for hospitals and the food manufacturing industry (i.e. cold storage rooms) as well as water theme parks, swimming pools and artificial ponds, rivers and lakes. ■

Hydraulic Crane Systems Adapted to User Requirements

Where a hydraulic power system supply is available on site, then hydraulic cranes from **J D Neuhaus** can be a more practical option for all lifting and handling operations than their well established compressed air operated products. The range of cranes that can be supplied include both single and double girder overhead travelling cranes together with slewing jib cranes and underslung cranes incorporating special low-headroom trolley designs. Cranes with parallel hoists and synchronized lifting hoist arrangements can also be supplied, with individual hoist capacities up to 100 tons.

J D Neuhaus specialize in the provision of crane systems adapted to suit individual requirements. This can include remote radio control of the crane lift and traverse operations, covering comprehensive application requirements and even simultaneous operation of multiple hoists. For lifting operations on offshore rigs or sea going vessels, crane systems can be fitted with rack and pinion drive systems to ensure safe operation during bad-weather conditions. Control boxes with receiver can also be customized to suit specific electro-hydraulic interface requirements, together with all necessary system tubing in stainless steel where required. All equipment is designed and rated for use in explosion-endangered areas. The standard rating is EX II 2 GD IIA/II 3 GD IIB T4 (X), with higher classifications also available on request. Super-silent operation is combined with sensitive, infinite controls including controlled load-lowering in the event of supply oil failure, together with an integrated overload switch-off function. Oil or HFC pressure fluids can be used at intake pressures of 100 to 180 bar. Only two supply connec-



Typical J D Neuhaus hydraulic monorail hoist which can be integrated into a crane system featuring a wide range of control and drive options

tions are required per hoist with leakage oil drained internally for maximum safety. J D Neuhaus is a privately-owned company, founded in 1745, and for over 260 years they have been using their expertise and experience to manufacture the highest quality hoists, winches and cranes. ■

The New SILVERLINE Elite EPDM Tarp Strap

Ancra International, the global leader in load securement innovation, introduced the new SILVERLINE Elite EPDM Tarp Strap. The new strap provides Ancra customers with a high-quality, American-made EPDM tarp strap that can be purchased at a competitive price. Until now, the SILVERLINE Brand Tarp Strap has been positioned as a Chinese-made natural rubber product and has been most popular among those operating vehicles in colder climates. Ancra announced that both the new SILVERLINE Elite EPDM Tarp Strap and the original SILVERLINE Natural Rubber Tarp Strap will be exclusively manufactured in the United States and both will be available starting July 1, 2011.

Ancra currently offers the ultra-premium, EPDM-based GOLDLINE Tarp Strap. The GOLDLINE and SILVERLINE Tarp Straps are famous among fleets and independent truckers and are favored for their quality and durability. Like the new SILVERLINE Elite EPDM Tarp Strap, the GOLDLINE Tarp Strap is made of ethylene propylene diene monomer (EPDM) rubber, a material capable of delivering exceptional strength, durability and resistance to everyday environmental road conditions, like ultraviolet (UV) radiation and ozone.



21" SILVERLINE Strap from Ancra International

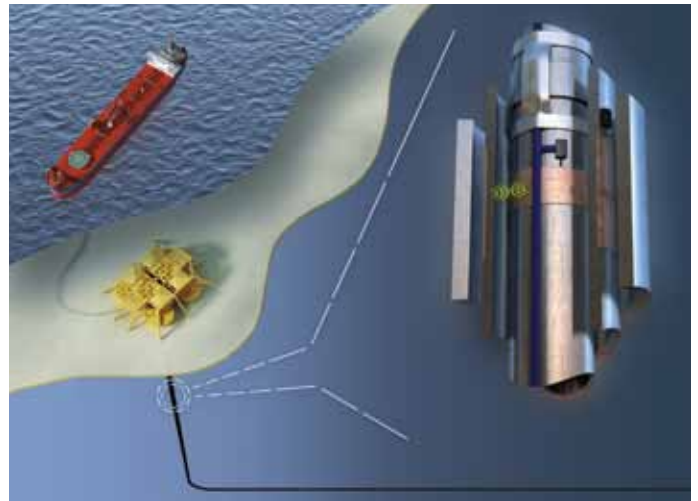
Because of its robustness and its capacity to maintain its elastomeric properties in high-temperature environments, the ultra-premium-quality GOLDLINE Tarp Strap is a mainstay among vehicles operating in moderate and warm climates. EPDM-based tarp straps have proven to last five to 20 times longer than natural rubber tarp straps, and the lower profile SILVERLINE Elite EPDM Tarp Strap is exceptionally resilient as well. The SILVERLINE Tarp Strap is made of the highest quality natural rubber and includes UV inhibitors to promote durability. The SILVERLINE brand has gained popularity among fleets and drivers doing business in colder climates, like Canada. The natural rubber in the SILVERLINE Tarp Strap remains uniquely flexible, even in sub-zero conditions. The new SILVERLINE Elite EPDM Tarp Strap was designed to provide the marketplace with a tough, high-functioning, U.S.-made, EPDM alternative to the status quo.

Annulus B to Measure Pressure behind Well Casing

Emerson Process Management launched the Roxar Downhole Wireless PT Sensor System – Annulus B at OTC 2011. The new instrument will measure online and in real-time previously inaccessible pressure and temperature information behind the casing in subsea production wells, providing operators with an important new tool for well integrity monitoring. The annulus of an oil well is the space between two concentric objects, such as between the wellbore and casing or between casing and tubing, where fluid can flow. In a completed well, there are normally at least two annuli. The A annulus is the space between the production tubing and the smallest casing string with the B annulus located between different casing strings.

Cement seals behind the wellbore casing provide a barrier against the high pressures encountered deeper in the well. Poor or deteriorating cement sealing or casing collapse, however, can lead to a loss in casing integrity, allowing oil or gas to migrate vertically towards the surface along the outside of the casing. This can result in potentially hazardous situations, especially during workover operations, where uncontrolled gas may escape at the surface. In the worst case scenarios, a shallow gas blow out might evolve due to the failed barriers in the casing systems.

With online pressure monitoring, the Roxar Downhole Wireless PT Sensor System – Annulus B can provide positive confirmation of the pressure barrier's integrity. The tool will also negate



The Roxar Downhole Wireless PT Sensor System

the sometimes excessive and expensive over dimensioning of casings that can take place to compensate for worst case scenarios and will also potentially provide operators with significant cost savings previously incurred in shutting in wells, due to their lack of ability to verify barrier integrity. The new wireless PT Sensor System and its permanent monitoring capabilities will give added certainty to the well integrity monitoring process as well as valuable input during well trouble-shooting. ■

Atlas Copco's CC 4700 Hydraulic CombiCutter



The new hydraulic CombiCutter from Atlas Copco

The new CC 4700 demolition cutter for 45-65 ton carrier units completes Atlas Copco's range. The system of two articulated arms and two lifting cylinders has been tried and tested: it offers a constant high crushing force throughout the entire closing process. And the combination of one single and one twin blade arm enables maximum stability even under extreme loads. The crusher arms are stably mounted on a central main pin, reducing the time required for changing crusher arms by up to 75%. The CC 4700 is designed for use in demolition of industrial facilities, bridges and buildings.

aMsp's Concealed Flush Pull Handles



aMsp's new concealed flush pull handle

All Metric Small Parts (aMsp), a leading provider of metric industrial hardware components, announced the availability of the MAKTOOMTHA236 Series of flush pull handles that feature a unique rotary design. These zinc die cast handles with a chrome-plated finish have a superior space-saving design. The handle is hidden within and rotates out for use with fully concealed mounting hardware. These Pull-type handles are typically used on measuring instruments, telecommunication devices, distribution boards, distribution panels, and control boards. The rotary flush pull handle can be used for lifting or pulling. The aMsp online eStore offers an extensive selection of all Metric standard industrial machine components. ■

BAUER Vietnam Carries out Foundation Works in Hanoi

In October 2010, the City of Hanoi celebrated its 1000th anniversary. Despite such a remarkable age, Vietnam's Capital City is presenting itself in a new look as a modern international city. Entire districts rise literally out of the ground, as for instance the new Exchange City (CT2) District along Pham Van Dong road in the northwest of the capital, one of the main traffic arteries connecting the city center with Noi Bai International Airport in the north.

The first phase of the Exchange City construction project is seven luxury apartment towers which are later also to include a commercial center and a cinema complex. In the summer of 2009, **BAUER Vietnam Ltd.**, a subsidiary of the German **BAUER Spezialtiefbau GmbH**, was appointed by An Binh Star Joint Stock Company to carry out the main foundation construction works. Bauer Vietnam commenced the works on the 28,000 square meter site in July 2010 and anticipates completion of the works in August 2011.

The foundation works for the three main towers with 35 storeys each and two twin towers with 28 storeys each comprise a total of 640 bored piles ranging in diameter from 1,000 milli-



BAUER Vietnam Ltd. carries out foundation works for luxury apartment towers in Hanoi

meter to 1,800 millimeter, also 7,500 square meters of nailed walling as well as the excavation and construction of a two storey basement. Two BG 40 rotary drilling rigs, one BG 30 and two anchor drills are employed on site. This project is the largest and most complex carried out in Hanoi by BAUER Vietnam Ltd. to date. ■

DAMAC Adds a New Tower to the Skyline of Abu Dhabi

The region's largest independent property developer, **DAMAC Properties**, is adding a new tower to the skyline of Abu Dhabi's Al Reem Island, with its Marina Bay development already reaching the 7th floor. The Tower will feature a 25 storey tower of one, two and three bedroom apartments. In addition there will be retail and commercial space with shops and restaurant outlets along the ground and mezzanine levels. Marina Bay's prime location within the Al Reem master development means that residents will have views across the canals that run through the entire development and also out across the Marina itself.

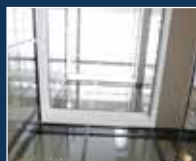
The development comprises a state-of-the-art gym, a spa with steam, sauna and massages, meditation, yoga room and children's playroom. The additional leisure facilities include a pool, entertainment and games room. The retail blocks offer high-class retail brands, landscaped surroundings with restaurant's, café's and boutiques, while the commercial blocks offer hi-speed internet, business lounge, business centre and 24-hr security camera's.

Niall Mc Loughlin, Senior Vice President of DAMAC Properties, commented: "DAMAC Properties is dedicated to selecting premium locations for our developments. Al Reem offers an idyllic island lifestyle, while still in close proximity to the city centre. It's for people who want to be close to work,



Marina Bay, a waterfront, mixed use development, offering residential, retail and commercial space

but outside of work hours, feel like they are miles away." McLoughlin added: "Part of our success as a developer in other markets has been the ability to identify prime locations and then deliver stylish and iconic buildings. Even with the market leveling out and showing slow signs of recovery, particularly in Abu Dhabi, location is still a hugely influential factor in the decision making process for customers and we know that Al Reem Island will be at the heart of that. We are confident that the location of our Marina Bay tower will prove very attractive for customers," he said. ■



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LINDEN COMANSA Extends Jordan Airport

Three 21 LC 400 Flat-Top cranes from **LINDEN COMANSA** are working on the extension of the Amman's International Airport in Jordan, known as Queen Alia International Airport. With a 640 million dollar budget, it's one of the country's most important projects, and will increase the airports capacity from the current 3 million passengers per year, to 7 million when the phase under construction is completed in 2012. This ambitious extension has been designed by **Foster & Partners** (Norman Foster's prestigious studio), designers of many prominent buildings, such as the restoration of Germany's Reichstag in Berlin, the new Wembley Stadium in London, and top international airports such as Hong Kong and Beijing. The Construction company **J&P (O) Ltd (Joannou & Paraskevaides (Overseas) Limited)**, one of the strongest Building and Civil Engineering Contractors in the Middle East, is currently executing the works and three Linden Comansa Flat-Top cranes on rails are engaged for the particular project. The cranes are



Extension of the Amman's International Airport in Jordan by LINDEN COMANSA

model 21 LC 400, with maximum load capacity of 18 tons and a jib length of 80 meter. The cranes have been erected at various heights ranging from 45 meters to 65.5 meters and on rails in order to work at various areas of the jobsite. LINDEN COMANSA, originally known as "IMAUSA", commenced activities in the early 1960's, as jig and tool makers, supplying principally the larger sub-contractors to the then fast-growing automotive industry. The strong industrial

expansion in Spain during this period soon saw IMAUSA producing, in addition to progressively more sophisticated jigs and tools, machine tools, both for in-house and external use, together with pre-fabricated steel structures for industrial buildings. The birth of the Spanish tourist industry - soon to become the world's largest, with its parallel demand for housing, schools, hospitals, etc., made IMAUSA'S entry into the crane market a logical, almost inevitable step. ■

The First Sustainable City to Be Launched in Dubai

Diamond Developers announced that it had put the final touches on plans to develop the first sustainable city in Dubai propagating the vision of His Highness *Sheikh Mohammed bin Rashid Al Maktoum*, Vice-President, Prime Minister of the UAE and the Ruler of Dubai. The project also stems from the mounting UAE trend to adopt an urban sustainable approach in its quest to become a world leader in global environmental protection. Engineer *Faris Saeed*, Chairman of Diamond Developers and an influential member of the Dubai Real Estate Community which was founded by the Dubai Land Department said: "The announcement of the launch signifies the culmination of over three years of vigorous efforts to develop the first sustainable city in Dubai. The final concept is the product of in-depth studies and discussions carried out by Diamond Developers with international uni-

versities, experts and UN specialized organizations. The development will be instrumental in stamping the UAE's fingerprint on the world map, for the progressive initiative and its meticulous attention to every detail." The city project is expected to meet the highest standards of sustainability requirements, including optimal use of land. The project will also respond to the population's needs for electric power by harnessing solar energy, and to combat growing water shortages in the region, waste and sewage water will be treated and recycled for irrigation purposes. The city will also adopt several initiatives to reduce carbon emissions by more than 75% and the city will be 100% free of waste due to a fully integrated waste treatment system. Residents of the community can enjoy a sustainable transport system that constitutes of solar energy powered vehicles and horses. The revolutionary project will



Engineer Faris Saeed, Chairman of Diamond Developers

be completed through four phases; the first will be complete in 2013 with each of the three remaining stages finalized over consecutive years. The project will be ready in 2016. ■

Letter of Intent to Operate the Nobu Hotel in Abu Dhabi

Reem Investments has signed a non-binding letter of intent with **Nobu Hospitality** to operate and manage the planned Nobu Hotel at Najmat, Reem Island, Abu Dhabi. The spectacular development will occupy a prime position on Najmat Marina and Canal, delivering panoramic views of the Abu Dhabi skyline. Guests will have exclusive access to a variety of destination dining and entertainment facilities in addition to the Nobu Restaurant, as well as a private beach. The waterfront hotel will feature a new addition to the celebrated chain of Nobu restaurants, which are as renowned for their celebrity clientele as much as their unique culinary brand.

The luxury hotel will deliver world-class accommodation and service that are synonymous with Nobu Hospitality and in the vision of Reem Investments, the master developer for Najmat, a USD8 billion, 1 486 448.64 sq meter real estate development on Reem Island, just 300 metres off the coast of Abu Dhabi's city centre. "We look forward to establishing a close working partnership with Nobu Hospitality to create a new focal point for luxury lifestyle and hospitality in Abu Dhabi," said *Bambang Sugeng Bin Kajairi*, Chief Executive Officer of Reem Investments.

The design will maximize the waterfront views of the site location, and in addition to the Nobu Restaurant outlets and facilities will include a variety of other captivating restaurants and bars, a spa and gymnasium, private cabanas,



The planned Nobu Hotel at Najmat, Reem Island, Abu Dhabi

retail outlets and full beachfront service. The completion of the transaction is subject to a number of conditions, including the negotiation of definitive documentation, the finalization of capital financing and the final approval of this transaction by the board of directors of Reem Investments and the shareholders of Nobu Hospitality. Reem Investments is also the master developer of Rawdhat on Airport Road in Abu Dhabi, the first dedicated 'develop to lease' residential, business and retail community in the capital. ■

Topping out Milestone Achieved for Rosewood

Mubadala Real Estate & Hospitality (MREH) has announced that Rosewood Abu Dhabi, the landmark luxury waterfront hotel on Sowwah Island, has reached its final height of 143 meters and is structurally complete. MREH commemorated the event with a ceremony on level 32 of the Rosewood Abu Dhabi hotel site on Sowwah Island, the heart of Abu Dhabi's new Central Business District (CBD). The ceremony was witnessed by senior members of the MREH team along with representatives of the **Arabian Construction Company (ACC)** and Rosewood Hotels along with the architects and interior designers of the project.

Opening in 2012, Rosewood Abu Dhabi will be a 34-storey hotel offering 189 spacious guest rooms and suites, 131 serviced residences and six penthouses, all with access to Rosewood's world-class services. Guests will enjoy extensive amenities, retail and a variety of signature and all day dining offerings. The hotel will also feature Sense, a Rosewood Spa™, a 1672 square meter beauty, wellness and fitness retreat. Located on the waterfront next to Sowwah Square, Rosewood Abu Dhabi is fully equipped with business facilities and services to meet the needs of its guests and neighboring offices. Rosewood Abu Dhabi is the first venture in the emirate by **Rosewood Hotels & Resorts**.

Speaking after the ceremony, *Peter Wilding*, Executive Director MREH said "Rosewood Abu Dhabi will offer guests an elegant experience in the dynamic urban environment



Abdulla Abdul Aziz Al Shamsi, Senior Architect, Mubadala and Hamed Mikati, COO, Arabian Construction Company

at Sowwah Island. We are delighted by this milestone achievement". "Rosewood Abu Dhabi will redefine the luxury experience in Abu Dhabi and we are pleased that the significant topping out milestone for the hotel structure has been achieved. Rosewood Abu Dhabi is reflective of the vibrant, mixed-use nature of the new CBD, which has been designed to the highest standard of quality, functionality and sustainability", said *John Scott* President and CEO Rosewood Hotels & Resorts. ■

Emaar Starts the Year with USD115 Million Net Profit

Led by project deliveries in the UAE and international markets, and the robust performance of its hospitality & leisure and shopping malls & retail businesses, **Emaar Properties PJSC** recorded a net profit of USD 115 million in the first quarter of 2011 and a revenue of USD 540 million. First quarter results were supported by the continued delivery of residential units in Burj Khalifa in Dubai and the handover of commercial offices in The Eighth Gate, Syria, an integrated project billed to become the financial nerve centre of the country. The company also commenced delivery of one of its premium commercial projects - Boulevard Plaza within Downtown Dubai during this quarter. The company handed over approximately 270 units during the quarter as compared to more than 1,300 and 1,000 units during the first and fourth quarters of 2010 respectively. However, due to higher margins recorded on the deliveries

and the hospitality and malls businesses, the gross margins increased significantly as compared to first and fourth quarters of 2010. This resulted in the gross profit being at similar levels to the compared quarters of last year.

Emaar's business subsidiaries contributed to the company's revenue stream with the shopping malls & retail business demonstrating strong growth trends. The Dubai Mall, the flagship development of Emaar Malls Group, reported first quarter 2011 footfall of 13.5 million visitors – the highest-ever quarterly performance since its opening in November 2008. Emaar Hospitality Group, the hospitality & leisure subsidiary, also recorded positive growth with its flagship Address Hotels + Resorts recording an average occupancy of 87 per cent in the first quarter. In addition to the handover of homes in Burj Khalifa, in January 2011 Emaar opened one of the world's



Downtown Dubai by Emaar

highest restaurants, *At.mosphere*, located on Level 122 of the world's tallest building. The restaurant further builds on the Lifestyle Dining division of Emaar Hospitality Group. ■

Mortgage Financing Buys Abu Dhabi Real Estate Market

TASWEEK Real Estate Marketing and Development, a leading property advisor and solutions provider, says that easy access to mortgage financing has helped sustain Abu Dhabi's property sector amidst the global economic crisis. The company presented key trends the second day of CITYSCAPE Abu Dhabi, the local edition of the region's premier real estate investment and development event. *Masood Al Awar*, CEO of TASWEEK, delivered a speech on mortgaging's impact on the growth of Abu Dhabi's real estate business. He discussed the development of regulatory frameworks for the issuance of mortgages and identified legislative changes needed to enhance the local mortgage system. Al Awar also evaluated criteria for ensuring sustainable mortgage financing and talked about the benefits of a robust housing financing system. "Mortgage financing has been play-

ing a major role in keeping Abu Dhabi's real estate market attractive and productive. It is thus vital for industry to understand key mortgage trends and adjust their activities accordingly. A survey conducted as a run-up to CITYSCAPE Abu Dhabi shows that more than 25 percent of property professionals in the Middle East have limited understanding of the Abu Dhabi market. Mortgage financing is an area that needs to be explained further to help investors and developers maximize existing and upcoming opportunities," said Al Awar.

Backed by more than 20 years of innovation and leadership, TASWEEK Real Estate Development and Marketing has emerged as a one-stop shop for the region's real estate and related services and marketing. The company's offerings include Purchase and Sale of Strategic Assets; Asset Management; Joint Ventures and Strategic Alliances;



Mr. Masood Al Awar, CEO of TASWEEK

and Marketing Consultancy. Recent studies conducted by TASWEEK show that the UAE's real estate market is stabilizing and will require improvements in real estate financing and legislation to sustain investor confidence. ■



Access to Multiple Markets with 19th Yapex Exhibition

19th International Yapex Exhibition, one of the biggest trade fair for the Building & Construction Industry in Turkey, has been taking place in Antalya Expo Center since 1993, in the most gorgeous vacation resort on Mediterranean Seaside Area Antalya, and has enjoyed steadily increasing popularity. YAPEX, the unique fair specialized in tourism investments for years, is an international meeting point for the construction industry of the entire Eastern Mediterranean area as well as the Middle East. It has become a gathering platform for not only Antalya but also its neighbors from inside and outside of Turkey.

Turkey provides economic access to a large region when its surrounding countries are also taken into consideration. It has become a prominent global and regional hub for many international companies in managing, production and distribution, mainly due to the geographical advantages. The Turkish Riviera Antalya is in on the southern coast of Turkey, where hundreds of tourist facilities (with more than 1000 hotels) are located and considerable renovation work is necessary every year. Antalya is one of the most important cities of Turkey with its potential of new facility investments and hotel renovation projects. 300.000 houses, new community buildings, tourist centers and further investments are planned to be constructed in accordance with the development plans for the region of Antalya.



Yapex trade fair 2010

In the last few years, foreign investors, particularly in the Antalya region have been investing in land with newly acquired planning permissions with the aim of taking advantage of these ideal capital returns. The Russian, British and Arabian investors have been analyzing the region in particular. YAPEX, which is going to be held between 27-30 October, 2011, will be an excellent occasion to meet the expanding building construction market of Turkey and to present products to international professional visitors. ■

Saudi Energy Confirms 300 Exhibitors Ahead of May29 Opening

Saudi Energy – The 14th International Show for Electricity, Lighting, Power Generation, Water Technology, and HVAC for Saudi Arabia – has confirmed the participation of over 300 exhibitors who will showcase the latest equipment, services and best practices to help the Kingdom formulate efficient solutions to meet its energy challenge. Held under the patronage of H.E. *Abdullah Al Hussayen*, Saudi Arabia's Minister of Water and Electricity, Saudi Arabia's leading energy trade fair will host exhibitors from 19 countries including China, UAE, UK, Spain, Taiwan, India, Canada, Czech Republic, Korea, Malaysia, Pakistan, Singapore, Switzerland, Turkey, Germany and Saudi Arabia, from May 29 to June 1, 2011, at the Riyadh International Convention and Exhibition Center.

"Saudi energy use has been escalating mainly due to both an expanding and highly-diversified industry base that accounts for 61.9 per cent of the Kingdom's GDP and a rapidly growing population which is expected to double by 2032. This reflects the need to consider both the production and consumption aspects of Saudi energy management and to tap multiple resources including hydro, solar and nuclear energy. Saudi Energy 2011 is set to boost government and private sectors' collaboration on strategies to address growing local demand for energy, which is expected to reach 120 gigawatts by 2032," said *Mohammed Al Hussaini*, Deputy General Manager, **Riyadh Exhibitions Company**.



Mohammed Al Hussaini, Deputy General Manager, Riyadh Exhibitions Company

Also to be held under the show is Saudi Energy Conservation (SEC 2011), the International Conference on Energy Conservation, which is set to introduce the legislations, strategies and projects of efficient energy use locally and internationally. Saudi Energy 2011 will include Saudi ELENEX; Saudi Luminex; Saudi Aircon.; and Saudi Water Tech. Saudi Energy is accredited by UFI, the **Global Association of the Exhibition Industry**. ■

Bee'ah & Expo Center Sharjah to Host Green Middle East 2011

Bee'ah, one of the region's leading integrated environmental and waste management organizations, along with Expo Centre Sharjah will host Green Middle East 2011. The event aims to address waste, pollution, recycling and alternative energy issues by featuring the latest in environmental management systems and sustainable technology. "The best countries in the world are the ones already implementing effective environmental solutions and being at the forefront of positive environmental change, it is Bee'ah's ultimate vision to position the UAE as a model for an environmentally sustainable future," said *H.E Saalim Bin Mohammed Al Owais*, Chairman of Bee'ah.

Dealing with solid waste is a particularly acute issue. The UAE has the dubious distinction of being the world's largest per capita producer of waste. Sharjah itself generates 2,200 tons of municipal solid waste daily. In comparison, Dubai generates more than 10,000 tons of general waste per day and Abu Dhabi generates about 4.2 kg of garbage per person per day. This is much higher than the **Organization for Economic Co-operation and Development (OECD)** countries' average of 1.54 kg per inhabitant per day. In 2010 Sharjah produced 48% of the UAE's non-oil industrial output, up 2% since 2006 and by simply generating more power, the Sharjah government is well aware that long term, that is not the solution.

The three-day event which takes place on 17-19 October



Photovoltaic and wind energies to be discussed at Green Middle East 2011

2011 will take a holistic approach of the environmental issues, affecting Sharjah, the UAE and the wider Middle East. It will feature five highly focused areas of sustainability namely, solid waste, waste water, air pollution, scrap metal, alternative energy and green buildings. Comprising an exhibition, conference, seminars and workshops, the sustainable showcase will feature the technology equipment and products that go into environment conservation and protection, offering participants a platform to access the region's multi-million dollar spending in environmental protection. ■

Consense 2011 on Course for Expansion

Consense, the international trade fair and congress for sustainable building, investment and operation, is heading into its fourth year. With an innovative program of events, **Messe Stuttgart** and the **German Sustainable Building Council DGNB (Deutsche Gesellschaft für Nachhaltiges Bauen)** will be providing international guests from the building and property industry with the ideal platform to exchange ideas and information on 29 and 30 June at the Stuttgart Trade Fair Centre. The combination of trade fair and congress makes Consense particularly attractive. Directly addressing both practical and scientific aspects, this is an event that sets the pace both at home and abroad, offering multidisciplinary solutions for those pressing questions of the future.

The exhibition part of Consense succeeds in bringing many interesting ideas together. Take, for example, the various pavilions, each of which address a separate theme. One of the new features this year will be the "Facility Management Software" Pavilion. Also making an appearance for the first time will be the "Sustainable Building with Windows and Facades" Pavilion from **iff Rosenheim**, the scientific service provider for manufacturers of the most varied components. Using component parts, the experts will be highlighting how energy saving measures are implemented through the targeted use of windows and facades.

Handwerk International, business division of the **Chamber of**



Consense 2010

Crafts and Trades in the region of Stuttgart, will be taking part for the first time this year. "Consense is an important platform for sustainable building. Handwerk International supports member companies as they tap into international markets and deal with the increased competitiveness that this involves," said *Gabriele Hanisch*, deputy Managing Director of Handwerk International. As has been the case for the past three years, PE International, a strategic consultancy firm in the field of sustainability, will be sponsoring Consense once again making sure that the event is a CO2-neutral one. ■



interlift 2011

Welcome

to the 10th world of elevators
20 years of innovation in Augsburg

18th to 21st October -
Augsburg Trade Fair Grounds - Germany
www.interlift.de

Results of the interlift 2009*

- ▶ **67% of the 477 exhibitors** assessed their participation as "very good" or "good", 26% as "satisfactory"
- ▶ **76% of the 18,212 visitors** rely only on the interlift as their source of information
- ▶ **75% of the visitors** are involved in decisions

* Herbert Dirr, Trade Fair and Congress Consultant, Hamburg



Organiser:



AFAG Messen und
Ausstellungen GmbH
www.interlift.de

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www.vfa-interlift.de

111.320 People Visited this Year's 34th YAPI - TURKEYBUILD

"34th YAPI - TURKEYBUILD Istanbul Exhibition, hosted this year 111.320 local and international professionals on an 81.000 sq meter exhibition area, with new halls allowing to grow the total exhibition area by 30% as compared to previous year's total area. Organized by **Yapi-Endüstri Merkezi "YEM The Building Information Centre"**, YAPI - Turkeybuild Istanbul is dubbed the biggest Building Exhibition that covers a wide circle including the Balkan Region, Former CIS Countries, Russia, Middle East and North Africa.

At the opening speeches, distinguished guests including Mr. *Mustafa Demir* - Turkish Minister of Public Works and Settlement, Dr. *Peter Ramsauer* - Federal German Minister of Transport Building and Urban Development, Mr. *Murat Yalcintas* - President of Istanbul Chamber of Commerce, Mr. *Dogan Hasol* - President of YEM The Building Information Centre and Mr. *Baris Onay* - General Manager of YEM The Building Information Centre addressed to representatives of international delegations, government officials and leading companies of the Turkish building industry. Highlights of the opening ceremony were this year's "Guest Country Russia" project, "EKOWorld Fair". Furthermore, Building Industry's most prominent prize "Golden Plumb" Construction Material of the Year award ceremony was held following the opening speeches. Winners of "Golden Magnet" Best Stand Prize, a traditional YAPI - TURKEYBUILD Exhibitions prize, were also honored during the opening ceremony.

Organized for the 34th time by YEM The Building Information Centre, YAPI - TURKEYBUILD Istanbul was home to several new initiatives. To live up to growing expectations of Turkish Building Industry, the exhibition grew by 30% reaching a total area of 81.000 sq meter, where thousands of products, new technologies and services were exhibited through 1.100 exhibitors. Only this year, YAPI - TURKEYBUILD Istanbul managed to bring together buyer delegations from 56 countries with 111.320 local and international visitors. YAPI - TURKEYBUILD Istanbul is dubbed the biggest building exhibition that covers the Balkan Region, Former CIS Countries, Russia, Middle East and North Africa.

YAPI - TURKEYBUILD Istanbul 2011: Two New Initiatives...

Guest Country Russia Project: The First Guest Country Project of YAPI - TURKEYBUILD's Business Development Platform hosted "Russian Federation" this year. The idea behind this special project was to create synergies between Russian and Turkish Building Industries by providing a common platform to increase the trade volume of building materials, contracting projects and foreign direct investments through Joint-Ventures in both Russia and Turkey. The platform has, thus far, brought together several Russian and Turkish investors, professionals and entrepreneurs through a series of conferences throughout which investment experiences, success stories, research studies and sector-specific projections were shared with representatives of the Turkish Building Industry.

EKOWorld Fair debuted this year in Hall 11A to promote environment-friendly buildings, building materials, technologies, alternative energy and climate systems. Not only topics on environment-friendly applications of innovative materials



Opening Ceremony of the "34th YAPI - TURKEYBUILD Istanbul Exhibition"

and solutions were shared through special on-site events but also information sessions were held by NGO's, green leaders and manufacturers of green building materials in an effort to create local awareness and emphasize the importance of sustainability to build a better future.

Building Industry's Favorite Pick: YAPI - TURKEYBUILD

Undersecretariat of the Turkish Prime Ministry for Foreign Trade's joint efforts with YAPI - TURKEYBUILD's Business Development Platform reached out to 56 countries this year to organize International Visitor Delegations. Additionally, local representatives and industry leaders from all over Turkey including Chambers, Associations, NGO's and Professional Committees visited the exhibition to represent chambers, professional associations and committees.

Winners of "Golden Plumb Construction Material of the Year" and "Golden Magnet Best Stand" received their prizes at YAPI

YEM The Building Information Centre's "Golden Plum" award ceremony was held for the 19th time this year. The initiative aims to support technological enhancements and product innovations that add value to the Building Industry. 2011's Golden Plum winner was **Seranit Granit Seramik's** "Seranit DRC^o" system. The second best product prize "Silver Plum" went to **Seranit Granit's** "Sukar Flat Shower System". Winners received their prizes at the opening ceremony of the exhibition from Mr. *Mustafa Demir* - Turkish Minister of Public Works & Settlement and Dr. *Peter Ramsauer* - Federal German Minister of Transport Building & Urban Development. Winners of YAPI - TURKEYBUILD's traditional "Golden Magnet Best Stand" award also received their prizes. 1st prize went to **Aspen Yapi ve Zemin Sistemleri San. Ve Tic A.S.**'s stand that was designed by **Zoom Mimarlik**. 2nd and 3rd prize winners were **Viko Elektrik ve Elektronik A.S.** and **Demirden Kaleseramik Canakkale Kalebodur Seramik Sanayi A.S.**, respectively. While **Mitsubishi Plastics** received honorable mention prize, **Albayrak Tente Sistemleri** received YEM Special Prize as part of Golden Magnet Best Stand Competition. ■

JUNE 2011

GERMANY

CONSENCE

International Trade Fair and Congress for Sustainable Building, Investment Operations and Maintenance
29 – 30

Stuttgart Trade Fair Center
Stuttgart - Germany

Info: Landesmesse Stuttgart GmbH
Melanie Bachmann
Messepiazza 1

70629 Stuttgart, Germany
Tel.: +49 (0)711 18560 – 2631

Fax: +49 (0)711 18560 - 2657

Email:

melanie.bachmann@messe-stuttgart.de

Http: www.messe-stuttgart.de

JULY 2011

IRAN

TEHRAN CONFAIR 2011

Tehran International Construction Fair
26 – 29

Tehran Permanent Fairground
Tehran – Iran

Info:

IIEC (Iran International Exhibitions Company)

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Email: contact@iranfair.com

Http: www.iranfair.com

SEPTEMBER 2011

UAE

Light Middle East 2011

Middle East International Trade Event for Urban, Architectural and Retail Lighting Solutions
12 – 14

Dubai International Exhibition Center
Dubai – UAE

Info:

Epoc Messe Frankfurt GmbH

Tel: +971 (4) 3380102

Fax: +971 (4) 338 0041

E-mail: info@epocmessefrankfurt.ae

Http: www.messefrankfurtme.com

JORDAN

INTER-BUILD JORDAN 2011

Fair and Forum for Construction, Building Industry, Properties Development, Architecture & Design
19 - 22

Zara Expo Amman
Amman - Jordan

Info:

Jordan Fairs

Tel: +962 65658501

Fax: +962 65650085

Email: goldgate@go.com.jo

Http: www.jordan-fairs.com

OCTOBER 2011

QATAR

INFDEX - INTERNATIONAL FURNITURE & DESIGN EXHIBITION 2011

INFDEX is the trade event for cutting edge interior design and architecture, furniture, art, lighting, fabrics, textiles and accessories

5 – 8

Doha Exhibition Center

Doha – Qatar

Info:

Qatar Expo

Tel: +974 4650211

Fax: +974 4674506

Email: vida.hayes@qatar-expo.com

Http: www.qatar-expo.com

SAUDI ARABIA

Saudi Stone 2011

International Stone and Stone Technology Exhibition

16 - 19

Riyadh International Exhibition Center

Riyadh – Saudi Arabia

Info:

Riyadh Exhibitions Co. Ltd

Tel: +966 1 454 1448

Fax: +966 1 454 4846

Email: esales@recexpo.com

Http: www.recexpo.com

KUWAIT

KUWAIT WASTE MANAGEMENT CONFERENCE & EXHIBITION 2011

Waste Management Conference & Exhibition

18 - 19

Hilton Kuwait Resort
Kuwait - Kuwait

Info:

Promedia International
Dasman 15463, Kuwait

Tel: +965 24342929

Fax: +965 24330809

Email: azhadkhan@promediakw.com

Http: www.promediakw.com

UAE

GREEN MIDDLE EAST 2011

The International Management & Technology Exhibition & Conference
17-19

Sharjah - UAE

Info: Expo Centre Sharjah

P.O.Box: 3222, Sharjah

Tel: +971-6-5770000

Fax: +971-6-5770111

Email: info@expo-centre.ae

Http: www.expo-centre.ae

ALGERIA

SIVA 2011

International Exhibition of glass and aluminum

24 - 27

Palais des Expositions d'Alger

Algiers – Algeria

Info: AK Events

38, Rue de la Gaité

El Madania

16060 Alger

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Fax: +213 (0) 21 400 441

Email: tr_abrous@siva-dz.com

Http: www.siva-dz.com

TURKEY

BAUCON YAPEX 2011

International Trade Fair for Building Materials, Construction Technology and Building Renovation

27 - 30

Antalya Expo Centre

Antalya - Turkey

Info: Messe München

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D-81823 München

Germany

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Fax: 0020-2-2683 96 18

Email: ghareb@ie-eg.com

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Founded in 1972, Sakr Power Group is a group of companies specialized in Power Generation with a scope of services covering the manufacturing, sales and rental of generating sets.

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UAE Market Showing Positive Signs of Maturity

Tasweek Real Estate Marketing & Development, a property adviser and solutions provider in the Middle East, has recently released its latest analysis on the UAE's real estate market. According to the analysis, Abu Dhabi has witnessed a continuing increase in supply levels as demand in the emirate remains upbeat. Property development in Abu Dhabi is around two to three years behind Dubai and this is one of the key reasons why property demand has been more robust in the UAE capital compared to Dubai.

There are still signs though of falling rental rates, reduced sales or transactions, or a "watch and wait" attitude from investors. Nonetheless, all indicators point towards the maturity of the real estate sector in a positive way, which is shaping up fundamentals of retain on investment for the real estate industry. The expected growth of facilities management capabilities and services in Abu Dhabi will be a key factor that will improve property values both in terms of rental and prices. Dubai has now passed through the peak in the construction cycle, with many projects delayed and at least 115 officially cancelled according to recent reports. New supply in 2011 will therefore be lower compared to 2010, according to Tasweek study. Despite the slowdown in the past two years, the long-term prospects in Dubai's property market remain upbeat.

There are positive signs indicating that the UAE's real estate sector is now stabilizing, as the experience and the lessons learned in the past two years have resulted in key improvements that have helped fast track the recovery process. Strong government support has likewise been crucial in reducing the negative impact of the downturn, keeping the country on track with its long-term real estate development plans and protecting its status as a real estate leader in the region. Moving forward, the main task for the UAE now is to focus on scaling new heights. The biggest challenge, however, will be to improve real estate financing and legislation, which will be crucial in strengthening confidence in the UAE market.



Masood Al Awar
CEO
TASWEEK Real Estate Development & Marketing

سوق الإمارات العربية المتحدة يظهر مؤشرات إيجابية من النضج

نشرت "تسويق للتطوير والتسويق العقاري"، الشركة المتخصصة في مجال توفير استشارات وحلول القطاع العقاري في أسواق الشرق الأوسط، مؤخراً أحدث دراسة تحليلية لها حول سوق القطاع العقاري في دولة الإمارات. أظهرت هذه الدراسة بأن أبوظبي قد شهدت زيادة مطردة في مستويات العرض نظراً لأن الطلب في الإمارة لا يزال مشجعاً. ونظراً لتأخر قطاع التطوير العقاري في أبوظبي عن مثيله في دبي بحوالي سنتين إلى ثلاث سنوات، فإن ذلك يعد أحد أهم الأسباب التي تجعل من الطلب على العقارات في العاصمة أكثر قوة مقارنة بدبي.

ولا يزال هناك مؤشرات مشجعة بالرغم من انخفاض معدلات الإيجارات أو انخفاض المبيعات أو المعاملات أو اتخاذ موقف "المراقبة والانتظار" من قبل المستثمرين. ومع هذا، تشير جميع المؤشرات وبطريقة إيجابية إلى نضج القطاع العقاري، الأمر الذي يشكل الأسس السليمة لعوائد الاستثمار خاصة والقطاع العقاري عامةً. وسيشكل النمو المتوقع لخدمات وقدرات إدارة المرافق في أبوظبي عاملاً هاماً من شأنه تحسين قيمة العقارات من حيث الإيجارات والأسعار. أما دبي فقد تخطت الآن ذروة دورة البناء، حيث تم تأجيل الكثير من المشاريع وتم إلغاء ما لا يقل على 115 مشروعاً وفقاً لتقارير حديثة. لذلك، فإن العرض خلال العام الجاري سيكون أقل بالمقارنة مع العام الماضي وذلك كما جاء في الدراسة. وبالرغم من التباطؤ الاقتصادي خلال العامين الماضيين، فإن الآفاق طويلة الأجل لسوق القطاع العقاري في دبي ستبقى مشجعة من حيث العوائد.

وهناك مؤشرات إيجابية تشير إلى استقرار القطاع العقاري في دولة الإمارات حالياً، حيث أدت التجارب والدروس المستفادة في العامين الماضيين إلى إحداث تحسينات كبيرة ساعدت على تسريع مسار عملية التعافي في هذا القطاع. كما كان الدعم الحكومي القوي عاملاً حاسماً في الحد من الآثار السلبية للتباطؤ الاقتصادي، الأمر الذي أبقى الدولة على الطريق الصحيح فيما يتعلق بخطط التطوير العقاري بعيدة المدى والحفاظ على مكانتها كوجهة رائدة في القطاع العقاري على مستوى المنطقة. وبالنظر إلى المستقبل، تتمثل المهمة الأساسية لدولة الإمارات في التركيز على طرق آفاق جديدة، حيث يكمن التحدي الأكبر في تحسين خدمات التمويل العقاري والتشريعات الخاصة بهذا القطاع، الأمر الذي سيكون له دور في تعزيز الثقة في سوق الدولة.

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