

As the name suggests, RAS-International is read in many countries, we will therefore be including a few stories from around the globe.

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Biggexchange 2018 international symposium and networking event

Experts will discuss current and future challenges and opportunities in the construction and plant engineering industries

The international symposium and networking event Biggexchange deals with current and future challenges in the construction and in plant engineering industries. From 11th to 13th September 2018 topics including people & skilled labor shortages, digitization, urbanization, climate change & sustainability will be covered in depth. The bilingual conference is designed for investors, architects, planners, engineers, entrepreneurs and distributors. All lectures will be simultaneously translated into English and German respectively. The event will be hosted by aquatherm GmbH, an international market leader for innovative pipe systems made of PP-R and extensive provider for plant engineering and building services. It will be held at the company's headquarters in Attendorf.

"With Biggexchange we offer a unique platform for the exchange of knowledge and discussion in our sector", managing director Dirk Rosenberg explains. "In dialogue with speakers and participants we want to show the opportunities that are offered by megatrends such as digitization, urbanization and sustainability. Through these discussions, we also seek to create a profound un-

derstanding of interconnectedness of all people throughout the value chain. At the same time, we provide plenty opportunities for a lively communication among attendees."

World-class speakers from science and industry

More than 15 lectures are scheduled and will offer insight into addressing the biggest challenges of the future for the construction industry and plant engineering: people, digitization and technology. One of the speakers is Matthias Horx who is considered the most influential futurist in the German-speaking world. He will present on trends in digitization and the potential existing therein. Professor Brian Cody, head of the Institute for Buildings and Energy at Graz University of Technology, dedicates himself to the maximization of building energy performance by using natural forces. He will show how and why the most important foundations for sustainable and future-proof buildings are laid in the design and planning phase.

Arab Hoballah is globally regarded as a leading sustainability expert. For more than 30 years, he served in senior positions and decisively contributed to UNEP

(United Nations Environment Programme).

Hoballah is convinced that the building industry can play a leading role in resource and energy efficiency. How exactly, he will be explaining in his presentation: "Climate Change and Resource Efficiency, the Sustainable Building Engine".

Further topics of the symposium are certification schemes for sustainable buildings, fire protection of buildings, BIM (Building Information Modeling), and industrial modular construction, as well as how managers can deal with change.

In addition to world-class experts taking a closer look at these key topics, the event will also feature interactive discussions with participation from all attendees encouraged.

The development and meaning of Biggexchange

The idea for Biggexchange matured early this year, after aquatherm intensely studied and analyzed the future challenges facing the international building industry. According to a study published by McKinsey, global la-

bor-productivity growth in construction has averaged only a quarter of the growth of the manufacturing industry since 1995. "We knew that the building industry develops more slowly than other industrial sectors", said Dirk Rosenberg. "But we did not expect that the differences in productivity would be that big. With this knowledge, together with the challenges due to climate change and the question of how



digitization will decisively influence our processes within the next years, the idea came up to hold an international symposium and networking event."

There is a bit of a hidden meaning within the event name: Biggexchange. „BIG' stands on one side for big buildings which will play a more important role by the increasing urbanization, and with regard to sustainability; but also for leading people in the



Trade Journal for House Technology

construction industry and in plant engineering who will be in attendance,” explained aquatherm marketing manager Anke Bücking.

“The river flowing through the event area is called ‘Bigge’ and provides at the same time the name of the Bigge lake situated in the immediate vicinity. It is a symbol for one of Germany’s strongest industrial regions; home of many owner-managed companies which often take internationally leading roles in their line of business. ‘Change’ points to the permanent and ever-increasing changes which all of us are affected by and which we can master and shape with openness and ‘EXChange’, communication and networking.”

From humble beginnings to world market leader for PP-R pipe systems

Breaking new ground, and doing things not only differently but better, is in aquatherm’s DNA. The foundation was laid by Gerhard Rosenberg who founded a handicraft enterprise in 1973. He was convinced by the idea of developing a hot water floor heating system, providing a faster and better controllability, compared to the electrical floor heating system. Initially, the owner’s garage and cellar rooms served as headquarters and production site.

From that humble start, there has been constant change and innovation. Over the past 40-plus years, the company has developed into the worldwide leading manufacturer of PP-R pipe systems for plant engineering and building services.

The numerous product lines provide superior solutions in potable water applications, heating systems, fire sprinkler systems, air-conditioning and refrigeration technology, as well as in surface heating and cooling systems. The product range comprises more than 17,000 articles in seven product lines. aquatherm prod-

ucts are to be found in various buildings and ships all over the world. These include among others the Elb Philharmonics in Hamburg, the Crane Houses in Cologne, the Mall of Berlin, the European Patent Office in Den Hague, the Agbar Tower in Barcelona, various Olympic sites in Athens, Beijing, Sydney and Vancouver, numerous top hotels and resorts, among others of the international chains of Hyatt, Hilton, Marriott, Banyan Tree and Melia, the Bluewaters Apartments in Dubai and the Dubai Frame, as well as AIDA cruise ships. To ensure the worldwide availability of its products and provide local service aquatherm works closely with long-standing partners in more than 70 countries around the world. The company employs approximately 600 people in Germany, Italy and the USA. aquatherm manufactures exclusively at two German sites in Attendorn (headquarters) and in Radeberg. Customers throughout the world can count on innovative and safe PP-R pipe systems of the highest quality and 100% “Made in Germany”. The family company is managed in the second generation by the brothers Dirk, Maik and Christof Rosenberg.

For more information on the event, speakers and registration, please www.bigexchange.com.

CIHS 2017

New Industry Benchmark Set

The annual China International Hardware Show, held from 22-24 October 2017 at the National Exhibition and Convention Center in Shanghai, was brought to a successful close. Held for the past 17 years, CIHS is devoted to accelerating the development of China’s hardware industry, as well as providing access for global hardware manufacturers to growing markets in Asia.

This year, CIHS achieved breakthroughs on various fronts, including the number of visitors and diversity of the exhibits. In particular, the wide variety of supporting activities was met with much applause from visitors.

Among nearly 3,000 exhibitors from 20 countries and regions, the German Pavilion once again received much attention. Buyers were also impressed by pavilions from Taiwan and India, as well as exhibitors from the US, Japan, Italy and Hong Kong. Tens of thousands of trendy and practical products, new arrivals, cutting-edge technologies and advanced equipment were showcased at the event. Visitors experienced first-hand leading technological innovations, business concepts and service models from home and abroad over the course of three days.

More than 50,000 visitors from over 90 countries and regions visited CIHS and selected high-quality products according to their purchasing needs. Visitors coming from emerging markets accounted for most of the growth.

This year, a Match & Meet Program was launched for participants to establish effective business partnerships, and enhance the value to exhibitors. Sales objectives of exhibiting companies were pre-matched with procurement needs from registered visitors. To encourage participation, a VIP Lounge and Food & Beverage Area respectively were also established to create a relaxing environment for business meetings. Buyers from major retailers welcomed the initiative and reportedly concluded orders at the event.

With the purpose of accelerating both foreign and domestic hardware markets for continuous development, CIHS 2017 not only showcased numerous new products and technologies, but also held a rich variety of supporting activities.

As a special highlight, the 54th

IHA Congress was held in Shanghai just a few days before CIHS 2017. The congress focused on new situations, trends and demands of China and the global economy. At the same time, new concepts, practices and opportunities for the future have been presented. More than 500 hardware professionals from countries such as the US, Japan, France, Germany, England, Italy, Sweden, and Australia were in attendance. The congress was presided over by Mr Xin Guobin, Vice Minister of the Ministry of Industry and Information Technology of the People’s Republic of China; Mr Zhang Chonghe, Chairman of the China National Light Industry Council; Mr Jean Francois Dubost, Chairman of IHA and Mdm Shi Senglan, President of the China National Hardware Association. Updates on the various retail markets worldwide were delivered among others by Mr Bill Lee, CEO of NRHA; Mr John Herbert, Secretary General of EDRA; and senior executives of Alibaba.

Other supporting programme at CIHS included media events on industrial standards for various hardware market segments, a distributor conference on intelligent locks, Lock King Competition, Media Technology Training, as well as seminars, supplier-buyer matching, trade forums and other professional exchange activities. Since the year 2000, CIHS has been striving to create a professional platform of trade exchange and product release for the hardware industry in China. During this time, CIHS has successfully accelerated the development of China’s hardware industry and led industrial trends.

Held from 22-24 October 2018, the next edition of CIHS will once again be the premier trade platform with high-quality service for exhibitors, visitors and media, and set new benchmarks for the industry.

For more information, please visit www.hardware-show-china.com

Slowly moving into the right direction

This year's climate change conference was full of good intentions on how communities, organizations and businesses are aligning their efforts to reduce temperature increase. However, while COP23 delegates from all over the world just finalized their discussions on the framework of how to achieve the Paris Agreement targets, the goals become more challenging to reach.

In its study "Climate Change: Closing the COP21 Gap by Going Solar" REC Group, the leading European brand of solar panels, already highlighted right after the Paris Agreement, how solar can be a key pillar in mitigating emissions and supporting in abating climate change. However, there is a shortfall between the emissions gap to limit temperature increase to below 2°C. To be on track by 2025 to close the emissions gap of the 1.5°C target and avoid further accelerating climate change impacts, the potential solar capacity ramp-up has to be up to 4,800 gigawatts (GW) larger than industry analysts have been forecasting before the Paris Agreement. To put this in perspective: by end of 2016, 303 GW of solar PV capacity has been installed globally.

As one of the first organizations, REC demonstrated in its study how huge exactly the capacity ramp ups need to be on a global scale, and detailed views at the US, India, Japan, Germany, The Netherlands and Belgium. It is clear that postponing installations will require an even greater total capacity by 2025. These key outlooks are still valid and have meanwhile been supported by further studies from different respected research organizations:

- *If the emissions gap is not closed by 2030, it is extremely*

unlikely that the goal of holding global warming to well below 2°C can still be reached: The United Nations Environment Program (UNEP) has recently published a report about the emissions gap. Avoiding building new coal-fired power plants and phasing out existing ones is crucial to closing the emissions gap. The solar energy sector has an annual emission reduction potential of 3 to 6 Gt of CO₂ equivalents in 2030. Solar power capacity can reach 3,725 GW in 2030. This potential would require a growth of the installed solar PV capacity of 14 to 20% per year.

- *Closing the emissions gap will require a sharp ramp up of investment into lower- and zero-carbon sources:* As outlined by Bloomberg New Energy Finance and CERES, forecasted investment into renewable energy power generation will increase by 75% compared to a Business As Usual (BAU) scenario over the next 25 years. This represents a Capex of USD 12.1 trillion (USD 484 billion on average annually). REC's calculated capacity ramp-up of solar PV will require an annual investment of up to USD 157 billion in 2025. The global annual fossil fuel subsidies of around USD 500 billion are much higher. Universal Ecological Fund is claiming in a recent analysis that climate change will cost the US around USD 360 billion per year.

- *Solar PV technology is the key pillar in transforming global energy:* Considering higher future electrification rates which are also part of climate policy strategy and REC's forecast for the 1.5°C target, this will result in around 20% of solar's share in the global electricity mix. This seems to be in line

with a recent study by Energy Watch Group, presented during COP23, in which a transition to 100% renewable energy is feasible as early as 2050. In this scenario, solar PV will make up 69% of the global energy mix standing out as the most important energy technology. REC's calculations on required capacities can be seen as a further step in planning a global power transition and implementing country specific targets and mechanisms. Many countries have started moving into the right direction and have already created success stories for renewable energy. The international community, however, still has a long way to go.

Germany

As REC analyzed in its COP21 study last year, the main driver for Germany's high emissions was the 45% share of coal in the German electricity generation mix. Therefore, Germany's emissions gap can be closed by 2025 by significantly reducing coal capacities. To eliminate coal as well as nuclear, Germany needs to install 8 GW of above-forecast solar capacity every year up to 2025. The proposed ramp ups will bring solar and wind to a total share of approximately 75% in the German electricity consumption mix. The set target for renewable energy to represent 40-45% in the German electricity consumption mix by 2025 is far too low to close the cumulated emissions gap by 2025 and fully exit nuclear power generation by the end of 2022.

India

Globally, India ranks fourth on the list of highest emitters after China, the US and the European Union. According to the UNEP The Emissions Gap Report 2017, India still relied mainly on coal for its electricity generation, contributing 61 percent of total national generation capacity in 2016, but 12 percentage points

less than 2013 (IEA India Energy Outlook). India will require cumulative solar installations of 374 GW above the forecast by 2025 as calculated by REC in 2016. Yet, serious efforts to contribute to the fight against the climate change can be seen. India plans to install 175 GW of renewable power by 2030 which includes 100 GW of solar PV power. In 2016, 4 GW of solar powered capacity was added to the grid doubling the addition of 2015. According to the REN21 Renewables 2017 Global Status Report, India's rooftop solar market has expanded significantly in recent years, but accounted for only about 10 percent of the country's total solar PV capacity at the end of 2016. Financial, regulatory and logistical challenges have hindered growth, and India remains a long way from its rooftop target of 40 GW by 2022.

USA

Despite withdrawal from the Paris Agreement by the White House, a movement towards cleaner energy standards and carbon footprint reduction is evolving in the United States, which is the second largest emissions emitter worldwide. Especially on the federal and municipal level, governments are preparing for the energy transition. In total, 29 states have established Renewable Portfolio Standards. The state of Hawaii has already pledged to be 100% renewable by 2045. According to the REN21 report, in 2016, solar PV has become the country's leading source of new generating capacity. More than 14.8 GW of capacity – almost double the installations in 2015 – was brought online, for a total of 40.9 GW. Per REC's calculations, the US will need cumulative solar PV installations of approximately 790 GW through 2025, which is four times the 2015 forecast. Postponing these efforts by 5 years will require additional 93 GW of solar PV by 2025.