

The Exchanges Continue at WEX

By Sahana Singh

The sixth staging of the Water and Energy Exchange or WEX as it is called was held from January 31 to February 2, 2012 at Lisbon in Portugal. The event has found its own unique niche amongst the hundreds of water-related events and is attended by a growing number of loyal delegates as well as first-timers every year.

One-to-one meetings formed the core strength of WEX yet again, and this time, the meetings began even before the official opening plenary session. The personalised schedule of each delegate included meetings pre-selected from a list of attendees as well as seminars picked out from the sessions spread over two and a half days. The WEX Exchange Lunch, where tables were labelled with different water-related themes was again well received by the delegates, who got a chance to eat with the people specialising in their field of interest.

The nexus between water and energy was given a close look at the 'Water and Energy' keynote session. "We need to re-assess the value of energy and water resources and consider new technologies and approaches," said Leon Awerbuch, Past-President of International Desalination Association (IDA). According to Mr Awerbuch, when the "synergies of water and energy infrastructure are evaluated in a system context, significant improvements can be realised through implementation of innovative processes or integrating technologies, collocation of energy and water facilities or improvements in water and energy generation efficiencies".

Corrado Sommariva, the new President of IDA highlighted that the cost of renewable energy had become comparable to and in some cases cheaper than coal in



Europe thanks to the continuous development of the industry supported by governmental policy. "These policies have incentivised the renewable power industry to both invest in R&D and allowed investors to find viable commercial solutions," he said. However, a similar approach is not being adopted towards renewable desalination in Europe.

"In the Middle East, renewable power made its appearance after being developed and consolidated elsewhere and particularly in Europe," he said. "However the status of renewable desalination is not comparable to the status of renewable power and the installations are at pilot plant level," he remarked.

A workshop on desalination was held before the summit by Dr Sommariva and on the last day, a plenary session on desalination saw an interesting line of presentations by Nikolay Voutchkov of Water Globe Consulting, William Chang of Emirates Sembcorp, Miguel Angel Sanz of Degremont and Ian Lomax of

Dow Chemical Company. According to Mr Voutchkov, R&D activities are at a ten-year high and likely to yield breakthroughs in membrane and desalination technologies by 2015.

Norwegian company Cambi sponsored two workshops, one on sewage sludge digestion and another on generating bio-energy from organic waste and co-digestion plants. The presentations at the first session mostly dealt with applications of Cambi's patented thermal hydrolysis process at locations such as Norway and Chile. Findings from a recent study conducted in Delhi were presented by Richard Ratcliff of MWH who proposed that installing Cambi's advanced sludge digestors at two locations in the city would not only help to generate renewable energy but also reduce the import of chemical fertilisers.

Piers Clark of Thames Water discussed the numerous possibilities of recovering heat from sewage effluent and energy from organic waste and sludge, which Thames



Water was exploring. The company plans to treat 180,000 wet tonnes of food waste per annum and generate British pounds 10 million worth of electricity per annum from it for which it has identified five sites in the UK.

Non-revenue water (NRW) and asset management also got plenty of prime time at WEX with companies such as Bentley, Itron and Echologics sponsoring various sessions on the subject. Marco Fantozzi of Miya explained the many benefits of pressure management in reducing leaks and bursts in pipelines.

The water issues of regions such as the Middle East, Asia, Central and Eastern Europe, Sub-Saharan Africa and Latin America were discussed at separate sessions.

The Asia Business Forum featured BM Dhau, Member of Delhi Jal Board who spoke about Delhi's initiatives to award performance contracts to reduce NRW as well as increase water supply. The water authority is gearing up to award operations and maintenance of a big section of the city's network to the private sector for which tenders will be put out in the near future.

Speaking at the same session,

Amy Leung from Asian Development Bank emphasised that unless the responsibility of providing water supply services was delegated to autonomous and accountable service providers who followed corporate principles, it would be impossible to improve the services. "The role of the government should shift from that of a direct service provider to that of a regulator," she said.

At the innovation forum sponsored by Aqualia, a number of companies came forward to discuss their contribution to innovation. UK-based Isle Utilities spoke about its group called TAG which is engaged in evaluating technologies, verifying their performance claims and then promoting them with end-users as well as facilitating access to investment. Mark Lane of Pinsent Masons discussed the challenges of protecting intellectual property while innovating and of forming joint ventures in order to reach new markets. "How can you carry out the necessary due diligence on your partners when you are stretched for time and income?" he asked.

A number of innovative products

and technologies, some not so new were presented at the forum and the audience was polled to pick a winner. An interesting contraption which eventually won the first prize was a remote-operated flying machine using a technology called EMIGS (Extreme Mobile Information Gathering System). EMIGS can be used to capture aerial images of hard-to-reach places such as reservoirs in real time. According to the inventor Dan Etherington, the high-definition photos and videos can now be taken for a fraction of the cost that would otherwise be incurred by the use of helicopters, planes or costly access solutions such as scaffolding.

WEX also featured a small number of exhibitors on the sidelines. A gala dinner along with a musical performance was arranged on one evening. As the proceedings drew to a close, Mark Barker, organiser of WEX reminded the delegates about the millions of people still without access to clean water and wastewater services. He hoped that the meetings and networking at WEX would in some way lead to the betterment of these services in the regions which lacked them. **AW**