

May 29, 2012

5:30 PM **REGISTRATION OPENS**
BlueTech Forum Technology Showcase Opens

6:00 PM **WELCOME RECEPTION** (ends at 7:00 PM)

Join us for a welcome reception with cocktails and hors d'oeuvres. Take a moment to assemble with fellow attendees the evening before the conference in order to make new contacts in a relaxed atmosphere.

May 30, 2012

7:00 AM **NETWORKING BREAKFAST**

An opportunity to connect with peers and industry experts before the conference begins.

8:30 AM **WELCOME TO THINKING OUTSIDE THE BUBBLE ...**
Paul O'Callaghan, MSc, Founder and CEO, O₂ Environmental Inc.
Michael Ahearn, Managing Director, True North Venture Partners

*The **BlueTech Showcase** is devoted to giving innovative water technology companies a platform from which they can 'pitch' their technology and business plan. Some of these companies are presenting to raise funds. Many are presenting to create awareness among potential strategic partners, identify additional channels to market and raise their company profile in the marketplace.*

9:00 AM **BLUETECH SHOWCASE** – Releasing Energy from Water

The interrelationship between energy and water is well established. There is 36.5 million MW hours of energy in the municipal wastewater going through US wastewater treatment plants each year. MaxWest will present on how their gasification technology can help unlock this energy and deal with biosolids disposal issues. Hydrovolts will outline how we can tap into the hydro energy present in irrigation canals and produce distributed, consistent base-load power. Arbsource will present their patent-pending Arbcell bioreactors that cut treatment costs up to 50% while at least matching the speed and effluent quality of competitors. Hydrasyst will introduce their revolutionary wastewater recycling system which boasts the lowest operating costs, highest energy efficiency and smallest footprint available on the market.

Moderator: **Tim Evans**, Proprietor at Tim Evans Environment and member of the O₂ Environmental TAG

- **Burt Hamner**, CEO, *Hydrovolts*
- **Kelly Sarber**, Vice President, *MaxWest Environmental Systems, Inc.*
- **Mark Sholin**, Founder and CEO, *Arbsource*



- **Dr. Venkata Kambala**, Chemical Engineer, *Hydrasyst*

9:45 AM **BLUETECH SHOWCASE** – Desalination Driving Down Energy Costs and Ready To Go Mainstream

The mantra that desalination is too energy intensive to ever be widely adopted has been trotted out so often that it has become self-perpetuating. The reality is different. The rate of innovation is increasing, as evidenced by the number of desalination patents in 2010 were double the amount filed in 2005. The increasing size of the market is attracting more entrants, and is increasing competition and competitive pressure.

Desalination is ready to go mainstream. Desalination energy inputs have been drastically reduced—by over 50% in the past decade.

The Alternative Desalination Showcase features three alternative and very different approaches to desalination: carbon nanotubes, biomimetic aquaporin membranes, and radial deionization.

[Porifera Inc.](#) will talk about their breakthrough forward osmosis membrane and the various applications that the membrane will have for dewatering, water treatment, and ultimately for desalination.

[Aquaporin DV](#) will outline how aquaporin proteins are used to produce biomimetic membranes with the Aquaporin Inside™ membrane.

[Atlantis Technologies](#), a short-listed company in the ImagineH2O Competition, will describe their innovative approach to capacitive deionization and radial deionization (RDI) using supercapacitors.

As the desalination market continues to grow, this will attract more entrants and increase competition. This will in turn lead to competitive pressure where technological advantage, particularly in lowering whole of life costs, will be increasingly important in retaining and achieving market share. This session will explore innovation in the desalination space.

Moderator: **Tyler Algeo**, BA Sc., Research Analyst at BlueTech Research

- **Jeffrey Mendelssohn**, Vice President Business Development, *Porifera Inc.*
- **Pat Curran**, CEO, *Atlantis Technologies*
- **Jörg Vogel**, Project Manager Development, *Aquaporin*

10:20 AM **30-MINUTE NETWORKING BREAK**



10:50 AM **BLUETECH SHOWCASE** – Removing the “Unremovable”: New Water Technologies Treat Problem Contaminants

As treatment technologies advance, monitoring techniques improve and regulatory limits tighten, there is a focus on removing particular problem contaminants such as selenium, mercury and radionuclides. We will hear from companies that have adsorbents to capture mercury and selenium from the coal-powered burning stations and oil and gas industry wastewater and removing naturally occurring radionuclides, such as radium from groundwater.

Moderator: **Bill de Waal**, PhD, Director Innovation Management at Trojan Technologies and member of O₂ Environmental TAG

- **Tony Lammers**, President and CEO, *MAR Systems*
- **Michael Dimitriou**, President, *Water Remediation Technologies (WRT)*
- **Sergio Berretta**, Senior Process Engineer, *NORAM Engineering*
- **Adam Blunn**, CEO, *ABR Process Development*

11:35 AM **BLUETECH SHOWCASE** – Biotechnology: The Next Tech Frontier for Water Treatment

Biotechnology has delivered huge advances in many spheres of human life including medicine, biofuels and food production. Biotechnology is fundamental to water treatment and represents one of the next technological frontiers for the industry. There is also a new level of understanding and sophistication in how biotechnology is being applied to water. Biotechnology companies and research institutes are working to expand into this market area.

[Bilexys](#), winner of the recent [Imagine H2O Pre-revenue Track Award](#), will describe how bio-electrochemical systems can be used to treat industrial wastewater and produce energy and chemicals. [Ecolyse](#) will describe how bacteriophages can be used to provide chemical-free targeted disinfection for problem microorganisms. [Battelle Memorial Institute](#) will present the Battelle Photo-Bioreactor, a wastewater treatment technology that utilizes photo-reactive phosphorus-accumulating bacteria to remove phosphorus from wastewater.

Moderator: **Conor Dennehy**, M.Sc., Research Analyst at BlueTech Research

- **James Lancaster**, President and CEO, *Ecolyse*
- **Paul Barrett**, Commercialisation Manager, *UniQuest* presenting for *Bilexys*
- **John McArdle**, Manager of Business Development, *Water Technology*, *Battelle Memorial Institute*





12:10 PM **NASA Ames Water Recycling Technology Development**

NASA is at the forefront of researching advanced life support and closed water systems for deep space exploration, and for expanding the frontiers for long-term human colonization of space. The focus on water has led to inventions and applications that we commonly use in everyday life.

On our space station, Planet Earth, we have a limited supply of water and we are increasingly looking at ways to sustainably meet water needs. These programs have yielded forward osmosis, osmotic distillation, and ammonia reduction - just a few of the topics we will hear about in this engaging "Thinking Outside the Bubble" presentation.

Speaker: **Michael Flynn**, Head of Water Technology Development Laboratory, NASA Ames Research Center

12:30 PM LUNCHEON

1:10 PM **LUNCHEON KEYNOTE - The Water Technology Opportunity in Green Buildings**

Advances in water technology used to reduce building water consumption offer new business opportunities for selling packaged graywater, blackwater and rainwater reclaim systems, technologies and management/monitoring systems to building owners, especially those committed to green building projects. In this presentation, Jerry Yudelson, the most published author chronicling the green building movement worldwide, will profile some of these opportunities for corporate investment and entrepreneurial potential.

Jerry Yudelson is widely recognized as one of the leading green building experts in the United States. He is co-author of the Green Operations Guide, a publication released by the U.S. Green Building Council (USGBC) that shows companies how to use the LEED-EBOM rating system to increase their sustainability profile. He is also the author of Greening Existing Buildings, a guide to implementing the LEED-EBOM rating system. He served on the national board of the USGBC and was a Founding Board Member of the Association for the Advancement of Sustainability in Higher Education.

His firm, Yudelson Associates, based in Tucson, offers green building consulting services, corporate and institutional sustainability planning, water management and policy consulting, LEED® training and contract research services.

Introduced by: **Henrik Skov Laursen**, Head of Grundfos Water Technology
Speaker: **Jerry Yudelson**, PE, MS, MBA, LEED® AP, Yudelson Associates





1:40 PM **URBAN WATER SYSTEMS OF THE FUTURE - New Models and Macro Trends**

Urban water systems of the future are evolving now. New designs and implementations will need to integrate other aspects of the municipal economy and services such as energy, industrial ecology and materials recovery in addition to traditional public health and environmental protection. A business model will need to shift from payment for services to value creation.

Moderator: **Joe Zuback**, Global Water Advisors and member of BlueTech Forum Advisory Board

Speakers:

Harold Leverenz, Researcher, Department of Civil and Environmental Engineering at University of California at Davis

Slav Hermanowicz, Professor, Department of Civil and Environmental Engineering at University of California at Berkeley

2:20 PM **MODELS FOR SUCCESS: HOW THEY DID IT - The Norit Clean Process Technologies Story**

Norit Clean Process Technologies is one of the most successful water technology companies in recent years. The company provides a fascinating case-study of the commercial life of a water technology company. Norit CPT went from technology start-up, to IPO, being subsequently delisted, acquired by private equity company Doughty Hanson and most recently acquired by Pentair.

This fireside chat style interview will be conducted by **Dr. Graeme Pearce**, O₂ Environmental TAG member with **Menno Holterman**, former CEO of Norit CPT.

This interview will provide an insight into that journey, what was needed along the way; the key strategic decisions that formed part of the companies success, IP and acquisition strategy and lessons learned that may benefit water technology companies and investors looking to follow this path.

2:40 PM **TECTONIC SHIFTS IN THE WATER INDUSTRY – An Exploration of M&A Activity in the Water Sector and What It All Means.**

The last 12 months has seen an incredible amount of M&A Activity in the water sector ranging from acquisitions of some of the worlds largest water companies, to exits by venture capital and private equity funds.

The team on the stage have been personally involved in executing over \$30 billion of water-related M&A activity.

The panel will explore some of the most significant activity, what it means for the future, what trends are being set and some of the strategic thinking behind these decisions.





Pentair acquired Norit CPT for an estimated \$700 million, in what was deemed to be one of the largest actionable ultrafiltration company acquisitions and has just announced a merger with Tyco Flow.

Nalco one of the worlds largest water chemical companies was acquired by Ecolab for \$1.6 billion. We will hear what life is like when there is a merger of equals.

Xylem was of course spun out of the ITT Group, to become one of the largest pure-play water technology companies and has been active on its own acquisition trail acquiring among others, Yellow Springs Instruments (YSI).

Moderator: **Ramesh Rengarajan**, Angstrom LLC and member of BlueTech Forum Advisory Board

Speakers:

Philip M. Rolchigo, PhD, Vice President, Technology, *Pentair, Inc.*

Manian Ramesh, Chief Technology Officer, *Nalco*

Johan Grön, Chief Technology Officer at *Xylem Inc.*

3:20 PM 30-MINUTE NETWORKING BREAK

3:50 PM INNOVATION FROM THREE OF THE WORLD'S LEADING WATER 'HUBS' - Israel, the Netherlands and Australia

Many of the water technologies in use today originated outside the corporate structure and outside the USA. It's quite likely that some of the solutions that will become mainstream in the near future are being developed today in water research institutes and university laboratories. To get a glimpse of tomorrow's technologies, we will take a look at what's happening in the leading water research systems globally: Zuckerberg Institute for Water Research (Israel), Wetsus (Netherlands) and UniQuest (Australia).

This panel will give insight into what the future may hold for water innovations. The panel will also discuss their experience with licensing and technology spin-outs and commercialization.

Moderator: **Steve Kloos**, Partner at True North Venture Partners and member of BlueTech Forum Advisory Board

Speakers:

Cees Buisman, Scientific Director, *Wetsus*

Zhiguo Yuan, Deputy Director, *Advanced Water Management Centre, University of Queensland*

Paul Barrett, Commercialisation Manager, *UniQuest*

Eilon Adar, Director, *Zuckerberg Institute for Water Research, Ben-Gurion University of the Negev*



4:30 PM **AFTERNOON KEYNOTE** - Re-inventing Sanitation for the Bottom-of-the-Pyramid Market

Inventors and tech innovators stand up and take notice. The challenge of our decade: invent a better solution to sanitation. The world needs a new toilet to replace the flushing porcelain pot, a relic of the 1700s.

The Bill & Melinda Gates Foundation believes that modern science and technology can deliver a re-engineered solution for sanitation and are investing in \$41.5 million worth of grants to make it happen. The current slate of submissions being evaluated include microwave powered plasma gasification and solar powered toilets that produce energy and turn faeces into fuel. Hear Carl Hensman, Program Officer, Water, Sanitation & Hygiene, at the Bill & Melinda Gates Foundation describe the foundation's sanitation-focused approach to grant-making and its recent "Reinvent the Toilet" call to action.

Introduced by: **Donna Vincent Roa**, VP Marketing & Communications, O₂ Environmental Inc.

Speaker: **Carl Hensman**, PhD., Program Officer, Water, Sanitation & Hygiene, at the Bill & Melinda Gates Foundation

4:55 PM **2012 BLUETECH RESEARCH AWARDS**

Companies taking part in the BlueTech Showcase are eligible for The BlueTech Research® Awards. The BlueTech Research® 'Disrupt-o-Meter Award' and 'Go-to-Market Strategy Award' will be judged by the Forum attendees.

The winners will receive a one-year subscription to the BlueTech Research Advisory Service and will be included in the innovation pavilion at WEFTEC.

5:00 PM COCKTAIL RECEPTION





May 31, 2012

Optional Site Tours to:

➤ **NASA Ames Research Center**

9:00 AM	Meet in hotel lobby and board bus. <i>Please have breakfast before the trip.</i>
9:30 AM – 10:15 AM	Travel to NASA Ames Research Center
10:15 AM – 10:45 AM	Collect badges
10:45 AM – 12:15 PM	Tour the following labs: <ul style="list-style-type: none">• Solid Waste Lab• Air Lab• Water Lab
12:15 PM – 1:00 PM	Return to hotel

➤ **Criddle Research Institute, Stanford University**

A visit to the Stanford Engineering Department will focus on work of the research group under Craig Criddle. The general theme of this group is '**Energy and Resource Recovery from Wastewater**'. Craig Criddle's research focuses on biotechnology and microbial ecology for clean water, clean energy and healthy ecosystems.

9:00 AM	Meet in hotel lobby and board bus <i>Please have breakfast before the trip.</i>
9:30 AM – 10:15 AM	Travel to Stanford University Engineering Building
10:30 AM – 11:15 AM	Quick presentations give a taste for the type of ongoing research
11:30 AM – 12:30 PM	Tour of the labs
12:30 – 1:00 PM	Return to hotel

