Water Innovation 2017: Putting Ideas into Practice
March 15-16, 2017
San Francisco, California
Held in Collaboration with Imagine H2O

A WEF Members’ Only Event

WEF is working with partners and members to establish the conditions that promote accelerated development and implementation of innovative technologies and approaches in the water sector.

WEF, in cooperation with Imagine H2O, will host this exclusive, two-day meeting to bring together water sector leaders for discussion of how to move innovation into practice. This event is only open to WEF members.

This event has been organized as part of the WEF Innovation Initiative, which also includes LIFT, a joint effort between WEF and Water Environment & Reuse Foundation (WE&RF) to help bring new water technology to the field quickly and efficiently.

Agenda

WEDNESDAY, MARCH 15, 2017
Interactive panel discussions will feature experts to distill lessons learned from leading water sector organizations and potentially change the agenda for driving innovation in the entire sector.

8:45am
Event Welcome and Kick Off – Rick Warner, President, WEF
Setting Up Attendees for Success Comments

9:00am – 9:45am
Panel 1
Driving Innovation with Regulation
  • How can regulations drive innovation?
  • How can regulatory flexibility be implemented to enable risk management?
    o Facilitator: Caitrin Chappelle, Associate Director – Water Policy Center, Public Policy Institute of California
    o Speakers
      ▪ Paula Kehoe, Director of Water Resources, San Francisco Public Utilities Commission
      ▪ Mary Ann Dickinson, CEO, Alliance for Water Efficiency
      ▪ Nancy Stoner, Water Program Director and Senior Fellow, Pisces Foundation
      ▪ Alexis Strauss, Acting Regional Administrator, EPA Region 9
9:45am – 10:00am
Coffee Break

10:00am – 11:00am
Panel 2
Putting it in to Practice: Operations and Maintenance
- What does it take to manage change in a mission critical operating environment?
- How can we empower the current operations professionals to propel the utility of the future?
  - Facilitator: Logan Olds, General Manager, Victor Valley Water Reclamation Authority
  - Speakers
    - Mike McClenathan, Foreman: Water, City of Central Point Public Works Department
    - Jeff R. Carson, Acting Water Pollution Control Facility Manager, City of Hayward
    - TBD, San Jose Water
    - Maura Bonnaren, Manager, Wastewater Treatment Division, East Bay Municipal Utility District
    - Doug Little, Plant Operations Superintendent, Central Contra Costa Sanitary District

11:00am – 11:15am
Break

11:15am – 12:00pm
Panel 3
Financing Infrastructure at the Utility of the Future
- What financing strategies (P3, alternative project delivery, etc.) can be used to implement new technologies and approaches?
- What does it take to evolve from a risk avoidance approach to one of risk management?
  - Facilitator: Rick Giardina, Executive Vice President, Raftelis Financial Consultants, Inc.
  - Speakers
    - Brian Shell, Associate Consultant, US Advisory Services, WSP | Parsons Brinckerhoff
    - Steve Wirtel, Director of Business Development, Kore Infrastructure
    - Karen Kubick, Wastewater Enterprise Capital Program Director, San Francisco Public Utilities Commission
    - P. Noel Kullavanijaya, Principal, Equilibrium Capital Group, LLC

12:00pm – 1:30 pm Networking Luncheon
- Speaker 12:30- 1:15pm
  - Gary Kremen, Director – District 7, Board of Directors, Santa Clara Valley Water District
1:30pm – 2:30pm
Panel 4
Harnessing Utility/University Partnerships
- How can utilities leverage the brainpower available at local academic institutions?
- What opportunities exist for students and professors to learn about real world applications at local utilities?
  - Facilitator: Meabon Burns, Research & Industrial Officer, ReNk Wlt, Stanford University
  - Speakers
    - Daniel Child, General Manager, Silicon Valley Clean Water
    - Jason Ren, Associate Professor, Environmental Engineering, University of Colorado
    - Tryg Lundquist, Professor, Civil and Environmental Engineering, Cal Poly – San Luis Obispo
    - Ting Lu, Principal Engineer, Clean Water Services

2:30pm – 3:00pm
Soda Break

3:00pm – 4:15pm
Implementing Innovation: Peer to Peer Knowledge Exchange
Coffee and Structured Networking

4:15pm 4:45pm
Wrap up of Day One – Break Out Themes

6:30pm
Imagine H2O Water Gala
LOCATION: Mezzanine - 444 Jessie St, San Francisco, CA 94103
Collaborating is Key: Connecting with Technical, Academic and Financial Leaders
- The 2017 Imagine H2O Water Gala will feature the finalists and the ten companies in the 2017 accelerator cohort, providing WEF members an opportunity to collaborate with startup companies, venture capitalists, entrepreneurs, academics, and water professionals. Imagine H2O's Accelerator participants represent 1 in every 10 dollars of early-stage investment in the water industry. Since 2009, they have supported over 550 startups in more than 30 countries. Imagine H2O connects the most promising entrepreneurs and innovations with world leaders in the water sector, government, and social enterprise to help turn new ideas into self-funding, high impact solutions. Imagine H2O inspires and empowers people to turn water challenges into opportunities.

THURSDAY, MARCH 16, 2017
The second day of the summit will highlight data and technology.

The day will begin with a session addressing challenges to implanting innovation. Attendees will then have the opportunity to interact directly with representatives from the 2016/2017 Imagine H2O accelerator cohort and selected entrepreneurs and end the day with a session on the promising future of the water sector.

9:00am
Welcome and Day One Recap
9:15am – 10:00am
Panel 5
Implementing Change: Real World Stories and Opportunities Made Possible by Innovation Programs
Panel following up exposure to technologies. Utilities share stories of innovation programs. Attendees will learn from those who are really doing this! What challenges to attendees see in implementation in their areas? Real life questions in action.
  o Facilitator: Jeff Mosher, Chief Research and Strategic Planning Officer, WE&RF
  o Speakers
    ▪ Charles Bott, Director of Water Technology and Research, Hampton Roads Sanitation District
    ▪ Jim McQuarrie, Chief Innovation Officer, Metro Wastewater Reclamation District
    ▪ Mark Poling, Department Director, Clean Water Services
    ▪ John Poling, Business Outreach Director, Metropolitan Water District of Southern California

10:00am – 10:30am
Coffee Break

10:30am – 11:30am
Introduction to Imagine H2O and Cohort Technologies and Companies

11:30am – 12:30pm
Networking Lunch

12:30pm – 12:45pm
Break

12:45pm – 1:45pm
Exploring the Future: Roundtable Discussions with Start Up Companies from Imagine H2O’s Water Data Challenges
WEF members will have the opportunity to sit down and discuss technologies and their potential implementation directly with the entrepreneurs and their technical experts. Learn more about the companies below and via the linked websites.

Imagine H2O’s 2017 Water Data Cohort Winners:

  - Acoustic Sensing Technology (UK) - Acoustic Sensing Technologies provides highly effective solutions to enable those charged with the upkeep and maintenance of the nation’s drain and sewer networks to undertake much faster surveys of their buried pipe infrastructure, starting with SewerBatt, a fast, cost-effective sewer appraisal tool.
  - AquaSeca (USA) - AquaSeca has a leak detection & water consumption management solution that addresses the $10B+ problem of damage and loss from water leaks/events. The system couples low-cost, non-invasive acoustic sensing with cloud-based data analysis to provide 24/7 vigilance over a building’s plumbing infrastructure.
  - Arable Labs (USA) - Arable Labs provide advisors, growers and processors with the tools to directly measure crop growth and weather, making the critical link between microclimate, yield and quality outcomes, thereby empowering agricultural businesses to maximize economic value throughout the supply chain.
  - EMAGIN (Canada) - EMAGIN is an artificial intelligence (AI) company for the water sector. The company helps Municipal water utilities make smarter operational decisions in real-time when controlling their water and wastewater infrastructure so that they can maximize operational savings via energy and water conservation, while minimizing risk on a daily basis.
• **Flo Technologies** (USA) - Flo is a water monitoring and control system for the home that virtually eliminates flooding, saves billions and empowers conservation. Think Nest, but for water.

• **FREDsense** (Canada) - FREDsense is a Calgary-based water instrumentation company building fast, portable and incredibly easy to use chemical sensors using the power of biology. FREDsense builds field-testing equipment that rivals analytical lab data, requires no sample preparation and represents a method for scalable analysis.

• **Hydromodel Host** (Spain) - Hydromodel Host offers the first comprehensive and cloud based groundwater resources management solution designed for planners, managers, aquifer users and technical staff delivering real-time visibility and accurate predictability.

• **Lotic Labs** (USA) - Lotic Labs develops software to quantify and mitigate the impact of environmental risks on water-dependent industries. The company is rethinking current existing risk assessment methods that involve manual and time-intensive data processing, and that omit key environmental-financial impacts.

• **Pluto AI** (USA) - Pluto AI is an analytics platform for water management powered by Deep Learning. Internet-connected sensors and meters mean a lot of data available to monitor everything related to water. Pluto AI has been built to extract actionable intelligence from this data to transform water management.

• **Sutro** (USA) - Sutro provides a smart pool chemistry monitor, allowing customers to easily manage their pool or spa, with everything from the testing of your water, to the administration of chemicals. They have strong traction in the pool market and are exploring market opportunities for their broad spectrum colorimetric sensor, from food & bev to agriculture to wastewater management.

• **Triple Bottom Line Enterprises** (Ethiopia) - 3BL is building Flowius, an app which facilitates the construction water systems, while transforming the economics of construction meaning the systems are so radically affordable that water can be piped in to the homes of rural populations living on $1.50 a day.

• **Utilis** (Israel) - Utilis has developed a cost-effective technological solution for detecting underground potable water leaks in urban supply systems. Utilis' patent protected technology is based on remote sensing techniques, delivering pinpoint locations of system leaks.

1:45pm – 2:15pm
Soda Break

2:15pm – 3:00pm
Panel 6
Creating for the Future: A Discussion with the Leaders of Tomorrow’s Water Sector
The closing panel will focus on emerging leaders from the water sector. The focus will be on how these leaders deal with current challenges and provide next generation solutions.

- **Facilitator**: Jamie Eichenberger, Area Utility Management Leader, HDR
- **Speakers**
  - Sebastien Tilmans, Director of Operations, William and Cloy Codiga Resource Recovery Center, Stanford University
  - Vijay Sundaram, Water Reuse Technology Leader, Stantec
  - Christine Boyle, Founder and CEO, Valor Water Analytics, Inc.
  - Tera Fong, Strategic Business Analyst, DCWater
  - Ifetayo Venner, Global Leader, Water Supply and Treatment, Arcadis

3:00pm – 3:30pm
Next Steps and Wrap Up