

CURRENT PRESENTS THE THIRD ANNUAL:

# INNOVATORS FORUM AT



## THE INTELLIGENT WATER TRANSFORMATION

SEPTEMBER 25, 2019 | 8:30 AM - 1:00 PM  
MCCORMICK PLACE, ROOM S102B, CHICAGO, IL

# Current

IN PARTNERSHIP WITH



IMAGINE {  } H<sub>2</sub>O

## 2019 PROGRAM GUIDE

# Thank You

---

## Premiere Sponsors



**GREELEY AND HANSEN**

**uMORE**

---

## General Sponsors



flume.

**OZINGA®**

@hydrate spark™



# Welcome Letter

## from *Current's* Leadership

On behalf of *Current's* Board of Directors and staff, we are excited to welcome you all to the third annual Innovators Forum at WEFTEC. The Forum has become an important event within this great conference and we're glad you can join us.

This year, we're deepening our focus on The Intelligent Water Transformation, and doing so in collaboration with BlueTech Research, Imagine H2O and WEF. The Forum features two panels and a roundtable session that will explore leading-edge topics, ranging from workforce gaps in intelligent water systems to data-science innovations in the water and wastewater sectors. We've invited key leaders from every corner of the water world to explore how a smarter and more integrated water sector can help address many of the growing challenges and opportunities that face us today.

An exciting demonstration of the Intelligent Water Transformation is today's public unveiling of H2NOW Chicago's online platform ([www.h2nowchicago.org](http://www.h2nowchicago.org)). Led by *Current* with funding support from the Chicago Community Trust's Our Great Rivers Chicago program and others, H2NOW is a global partnership of 19 public and private sector organizations working together to create the nation's first real-time microbial pollution monitoring effort. When fully operational, H2NOW will collect, analyze and publicly display real-time water quality information from a major urban waterway – the Chicago River.

For those of you who are new to *Current*, we are a non-profit organization dedicated to addressing persistent water challenges by creating cross-sector collaborations to build innovative solutions. We work with stakeholders across the water ecosystem: utility and industrial end-users seeking ways to improve service and lower costs; water corporates and engineering firms scouting for emerging technologies; startups seeking pathways to market validation and growth; and cleantech investors looking for de-risked solutions with clear market potential. Our objective is to build the bridges that allow you, global water innovators, to go farther and faster together.

Thank you for participating in today's event, and thanks to our sponsors and members for supporting this year's Innovators Forum!

**Steve Kloos**, Partner, True North Venture Partners and Chairman, *Current*  
**Alaina Harkness**, Executive Director, *Current*

# Current

## Board of Directors

Richard Assmus | Board Secretary  
Partner  
Mayer Brown LLP

Randy Conner | Ex Officio  
Commissioner  
Chicago Department of Water  
Management

Brian Perkovich | Ex Officio  
Executive Director  
Metropolitan Water Reclamation  
District of Greater Chicago

MarySue Barrett  
President  
Metropolitan Planning Council

Dr. Ka Yee Lee  
Vice Provost for Research  
University of Chicago

Ald. Patrick Thompson  
Alderman  
City of Chicago 11th Ward

Dr. Ed Seidel  
Vice President for Economic  
Development & Innovation  
University of Illinois

Andy Richardson  
Chairman & CEO  
Greeley and Hansen

Steven Kloos | Board Chairman  
Partner  
True North Venture Partners

Thru Shivakumar | Board Treasurer  
CEO  
cohesionIB

Venkat Atluri  
Senior Partner  
McKinsey & Company

Brenna Berman  
Executive Director  
City Tech at UI LABS

Dr. Matt Tirrell  
Dean & Founding Pritzker Director of  
the Institute for Molecular Engineering  
University of Chicago

Dennis Vicchiarelli  
Executive Vice President & Managing  
Director, Business Development  
World Business Chicago

Dr. Jay Walsh  
Vice President for Research  
Northwestern University



INNOVATIONS IN ADVANCED  
WATER RESEARCH &  
TECHNOLOGY

Whether you develop, use, or invest in water tech solutions, becoming a member of *Current* will help you create value, improve performance and deliver results.

## WHY BECOME A MEMBER?

### **Utilities / Industrial Water Users**

*Current* sources and de-risks innovative hardware and software solutions to help water/wastewater utilities, as well as water-intensive industries, ensure compliance, achieve sustainability goals, and optimize operational and financial performance to drive results.

### **Water Tech Corporates / Engineering Firms**

*Current* provides curated validation services to help water tech corporates and engineering firms commercialize in-house technologies. *Current* supports M&A strategies by sourcing new innovations that complement existing solution portfolios to strengthen competitive positioning and grow top-line revenue.

### **Innovators / Researchers**

*Current* helps innovators gain market traction to accelerate growth and scale, through curated advisory services that validate innovative solutions, assess market fit, and provide access to new channel partners, customers and investment capital. *Current* also supports the commercialization of innovations developed by partnering research institutions.

### **Cleantech Investors**

*Current* supports deal flow and due diligence, by identifying investable innovations with demonstrated market potential. By sourcing and de-risking new solutions, *Current* supports the investment objectives of investors, including family offices, as well as VC and PE firms deploying growth capital to corporate venture funds seeking M&A opportunities.

### **Professional Services Firms**

*Current*'s targeted events, marketing channels and global network of industry and innovation leaders across the water value chain, offer professional services firms opportunities for business development, as well as the ability to showcase thought leadership and core capabilities to prospective clients.

**Join us today!**

**[currentwater.org/membership](https://currentwater.org/membership)**

# Agenda

**8:30 AM – 9:00 AM**

**Registration & Networking**

**9:00 AM – 9:15 AM**

**Welcome & Opening Remarks** with Alaina Harkness, Executive Director – Current and Walter Marlowe, Executive Director – WEF

**9:15 AM – 10:00 AM**

## **PANEL 1 – DRIVING ADOPTION OF NEXT-GEN DECISION SUPPORT, AUTOMATION, AND OPTIMIZATION**

**Moderator:** Jeremy Lenz, CEO – Lenz Consulting

**Featuring:**

- Chris Dooley, President & CEO – DMP Corp | Industrial Wastewater Treatment Solutions
- Diogo Vitorino, CTO – Baseform
- Robert Montenegro, Executive VP – Grundfos
- Ting Lu, PH.D., PE, Business Practice Leader – Clean Water Services

**10:00 AM – 10:45 AM**

## **PANEL 2 – LEADING EARLY-STAGE DATA INNOVATORS**

**Moderator:** Tom Ferguson, VP of Programming – Imagine H2O

**Featuring:**

- Christine Boyle, CEO & Founder – Valor Water Analytics (a Xylem Brand)
- Emily Hicks, President & Co-Founder – FREDsense
- Jodi Glover, CEO & Co-Founder – Real Tech Inc.
- Megan Glover, CEO & Co-Founder – 120WaterAudit

# Agenda

**10:45 AM – 11:00AM**

**Coffee & Networking Break**

**11:00 AM – 12:00 PM**

## **ROUNDTABLES**

**Featuring:**

- George Demosthenous, [VODA.ai](#)
- John Robinson, [Mazarine Ventures](#)
- Sally C. Gutierrez, [National Risk Management Research Laboratory at US EPA](#)
- Manish Backliwal, [Aquatech](#)
- Divya Inna, [BlueTech Research](#)
- Anders Hallsby, [Mazarine Ventures](#)
- Paul O'Callaghan, [BlueTech Research](#)
- Hosted by Rick Bacon, [Aqua Metrology Systems](#)
- Glenn Vicevic, [Suez](#)
- Steve Kloos, [True North Venture Partners](#)
- William E. Toffey, [Mid-Atlantic Biosolids Association](#)
- Jeff Mosher, [Carollo Engineers, Inc.](#)
- Matt Mallory, [BlueTech Research](#)
- Bri Nakamura, [WEF](#)

**12:00 PM – 12:15 PM**

**Closing Remarks & Raffle**

**12:15 PM – 1:00 PM**

**Beergarden Reception**





**GREELEY AND HANSEN**

# designing better urban environments worldwide

*water wastewater infrastructure*

A leading civil and environmental engineering firm dedicated to providing sustainable water resources solutions to clients worldwide.

*Current*  
Corporate Member



[greeley-hansen.com](http://greeley-hansen.com)



# Driving Adoption of Next-Gen Decision Support, Automation, & Optimization Tools

## Panel 1



### Moderator: Jeremy Lenz

#### Chairman & CEO, Lenz Consulting

Jeremy Lenz is a technology consultant and executive with over 20 years of experience in business strategy, executive management, new venture creation, and business incubation. Since 2014, Lenz has focused on the water industry with a strong emphasis on the digital water and data science sectors. His client portfolio includes large industrial manufacturers, investors, NGOs, early-stage companies and government entities. Lenz helps clients find strategic clarity; make valuable connections between people, ideas, and opportunities; launch successful and award-winning businesses, programs, and products; successfully navigate organizational change; and distill complex concepts into clear, concise and persuasive communication.



### Chris Dooley

#### President & CEO, DMP Corp | Industrial Wastewater Solutions

Christopher Dooley is the CEO of DMP Corporation, the leading provider of integrated wastewater treatment solutions for customers across a variety of industries. Prior to his time at DMP, Chris held senior leadership positions in other fast growing organizations including The Alexander Group, a sales and marketing strategy consultancy, and Siebel Systems, the leading provider of CRM software acquired by Oracle. Chris has a BA from Haverford College and an MBA from The Wharton School at The University of Pennsylvania.

## Diogo Vitorino

### CTO, Baseform

Diogo is a software and product expert based in Lisbon, Portugal, where he founded his own software company, Addition, back in 1998, and in 2015, co-founded Baseform, where he also serves as CTO. Baseform is a mature startup company born from the combination of state-of-the-art software and decades of worldwide R&D on water, offering its solution as a new SaaS product worldwide. Baseform software is designed from the ground up for water, wastewater and stormwater systems, and its technology includes new approaches to digital water, AI and machine learning, hydraulic modeling, big data, for short-, medium-, and long-term decisional support.



## Robert Montenegro

### Executive Vice President, Grundfos

Robert (Rob) Montenegro has more than 30 years of senior management experience and expertise in the water and wastewater field. He is the Executive Vice President for Grundfos USA, the world's leader in water and wastewater pumping solutions. Under his leadership, Frost & Sullivan recognized Grundfos with the 2018 Global Water and Wastewater Pumps Company of the Year Award for its exceptional organic growth and focus on innovation. Prior to joining Grundfos, Rob held leadership positions with ARI USA, Synagro, and ABS/Sulzer USA. Rob has a Mechanical Engineering Degree from Lehigh University in Bethlehem, PA.



## Ting Lu, PH.D., PE

### Business Practice Leader, Clean Water Services

Dr. Ting Lu is the Business Practice Leader for Digital Solutions at Clean Water Services in Hillsboro, Oregon. Ting leads the innovation of digital solutions, oversees day-to-day IT implementations and data management, and OT integration. She is the Intelligent Water Focus Group Chair for the WRF LIFT program and initiated the first international Intelligent Water Challenge to advance the adoption of smart systems into the water sector.



# Member Testimonials

“As a 100-year old family-owned company, we at W.S. Darley see great opportunity as a member of *Current* to collaborate with other water sector experts, create beneficial partnerships and develop new solutions as part of our commitment to a sustainable future. Darley offers a diverse line of quality equipment, pumps and firefighting apparatus that serve military, municipal, first-responder and humanitarian markets. Other innovative solutions include water purification and sprinkler systems, fire hydrant pressure boosters, water storage, and our bag-in-box water.”

Paul Darley, President & CEO, W.S. Darley



---

“Greeley and Hansen is the only global provider of comprehensive engineering services in the water sector headquartered in Chicago, a city known globally as a great ‘water city.’ Our mission is strongly aligned with *Current*’s efforts to advance innovation and research in the water industry. As a founding member of *Current*, Greeley and Hansen is committed to working with *Current*’s community of innovators, researchers, investors and end-user to accelerate the solutions our industry needs, from enhancing water treatment to creating ‘smart’ distribution and collection systems, and beyond.”

Andy Richardson, CEO, Greeley and Hansen



# Leading Early-Stage Data Innovators

## Panel 2



**Moderator: Tom Ferguson**

**VP of Programming, Imagine H2O**

Since 2015 Tom has run Imagine H2O's global accelerator program, helping to build it into the world's foremost entrepreneurial program for founders in the water sector. Each year, more than 500 water entrepreneurs globally submit their business plans to the organization, with an acceptance rate of 5%. Accelerator companies are supported through entrepreneurial development, marketing & visibility support, and customer and investor introductions. Imagine H2O's portfolio has received over \$470m in investment, and improved the lives of millions of people worldwide since 2009. Tom holds an MBA from Harvard Business School, and an MA in Politics from Edinburgh University.



**Dr. Christine Boyle**

**CEO & Founder, Valor Water Analytics**

Dr. Christine Boyle is the CEO and founder of Valor Water Analytics – A Xylem Brand. Her work focuses on developing decision support software that achieves both resource and financial sustainability goals for water utilities. She received a doctorate in water resource planning in 2011 and “spun” Valor Water out of her thesis work at the University of North Carolina. She is a trustee of the Cal-Nevada American Water Works Association Operators Division and a water policy adviser for the World Bank.

## Emily Hicks

### President & Co-Founder, FREDsense

A graduate of the University of Calgary and an alumnus of Singularity University, Emily is currently President and co-founder of FREDsense Technologies. Coupling genetic engineering and electrochemistry, FREDsense creates portable devices that enable anyone, anywhere to measure trace contaminants in water. Currently in-use by utilities and mining companies, FREDsense has won a number of awards including The Queen's Entrepreneurship competition, Singularity University's Global Grand Challenge for water and the She Loves Tech Global competition. Emily is a Kairos fellow, has been a top 30 under 30 in Canada for Sustainability and was featured on Real Leader's list of 100 young visionary leaders.



## Jodi Glover

### CEO & Co-Founder, Real Tech Inc.

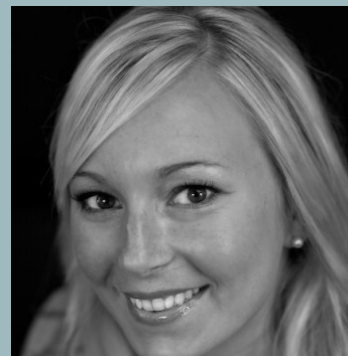
Jodi Glover is the Chief Executive Officer and Co-Founder of Real Tech Inc., an award-winning company that specializes in designing and manufacturing innovative solutions for water quality monitoring and detection. Jodi started Real Tech in 2004 with the vision to improve access to water quality monitoring through the development of practical, accurate, and affordable solutions. She has been at the helm since start-up with one single product to the expansion of a comprehensive sensor platform with custom data analytics services that bring continuous intelligence to water and wastewater processes. With thousands of clients in over 50 countries, she continues to lead her company to improve global water quality.



## Megan Glover

### CEO & Co-Founder, 120WaterAudit

Megan Glover is the CEO and Co-Founder of 120WaterAudit, an enterprise software and water kit company that provides a platform for Government Agencies, Public Water Systems and Facilities to manage their water programs. A data and software veteran, prior to founding 120WaterAudit, she spent nearly 15 years as an executive building and scaling various software-as-a-service products in Indianapolis including Angie's List (exit to Home Advisor), Compendium (exit to Oracle), Delivra, RICS Software and DyKnow. With a passion and knowledge base for utilizing modern software technology to solve problems, Megan founded 120WaterAudit to provide the software and applications necessary to solve some of our most complex drinking water challenges.





INNOVATIONS IN ADVANCED  
WATER RESEARCH &  
TECHNOLOGY

*Current* delivers advanced research and market-driven innovations to meet the world's water needs. *Current* bridges gaps in the water solutions ecosystem to develop, validate, and commercialize innovations for greater environmental and economic sustainability.

## CORE PROGRAMS



### **CURRENTRESEARCH**

AMPLIFIES WATER RESEARCH

- Convenes the capabilities of the *Current* Research Consortium, a global center of excellence in water research and technology development
- Aligns member research capabilities with market-driven opportunities
- Delivers advanced fundamental science and practical, outcome-based applied research
- Pursues new funding opportunities and cross-institutional/international partnerships



### **CURRENTDEMONSTRATION**

VALIDATES INNOVATIVE TECHNOLOGIES

- Identifies the top needs of members, and sources, de-risks and validates potential water tech solutions, through a structured and comprehensive process
- Analyzes technical and economic merits of innovative technologies
- Pilots technologies at-scale through *Current*'s testbed network of utility and industrial sites
- Assesses market potential and refines the business case for early and growth-stage companies
- Reduces technology time-to-market



### **CURRENTCONNECT**

DRIVES GROWTH & SCALE

- Identifies early-adopter and beachhead market customers for successful commercialization
- Connects validated technologies with investors and customers
- Enhances members' brand awareness through curated events and communication channels
- Supports members' business development goals through new channel partners, markets and customers
- Builds and convenes, national and international networks of researchers, innovators, solution providers, investors and end-users

**[www.currentwater.org](http://www.currentwater.org)**

# Roundtables

## 1. No drop left behind: a realistic approach to leakage prevention and control. Is there an optimum level of leakage and what are the tools that can get us there?



Hosted by George Demosthenous from Voda.ai

Leakage is a major issue for water suppliers across the globe, particularly those in water-stressed areas. Today utilities and technology companies alike are moving towards automated inline leak detection technologies like never before. Emerging sensor technologies are at the heart of this transition, while objects such as drones are no longer intended just for the sky. With this degree of usability, there comes the question of what is an acceptable amount of leakage and how can we reach this on a widespread scale?

## 2. Big data gold rush - who will be the winners and losers in the data monopoly game?



Hosted by John Robinson from Mazarine Ventures

When it comes to operations using water, monitoring water use, quality, and treatment hardware are at the forefront of understanding how to optimize a system. The amount of data that can now be practically produced is far too much for any human to analyze and act on in a timely manner. Knowing this, we ask: Who will be the winners and losers in the big data gold rush and how will machine learning impact asset performance management?

## 3. Impact of regulations and policy on driving water technology adoption



Hosted by Sally C. Gutierrez from NRMRL at USEPA

Regulations and their enforcement, or lack thereof, are the key factors that drive and influence the adoption of water technologies. This discussion will focus on important upcoming policy and legislative drivers and discuss timeframes for impact.



# Roundtables

## 4. Managing brine on the salty planet



Hosted by Manish Backliwal from Aquatech

Currently, more than 300 million people around the world rely on desalinated water for part or all of their daily needs. As water reuse becomes more widespread, what do we do with all that brine? With an endless amount of salt to dispose of, there is a risk that we are nearing a regulatory 'red-light'.

## 5. Solving the decentralized jigsaw puzzle in developed and emerging economies



Hosted by Divya Inna from BlueTech Research

There is broad consensus on the benefits of decentralized treatment as an alternative model that can replace, or go hand in hand, with centralized systems. How does this play out in Developed versus Developing world scenarios?

## 6. The future of membranes



Hosted by Anders Hallsby from Mazarine Ventures

This roundtable will involve a discussion on the more recent membrane developments and how these developments will impact the membrane technology and market landscape.

## 7. Not all innovations are created equally – determining the best path to market



Hosted by Paul O'Callaghan from BlueTech Research

Saying that we need innovation to solve water issues is a little like saying we need to get fit to win Olympic gold medals. There are many types of innovation and each is suited to a different type of player and has its own timelines and success rates. Knowing your innovation type helps to define your best strategy.

# Roundtables

## 8. The emerging water quality paradigm shift



Hosted by Rick Bacon from Aqua Metrology Solutions

Low-cost sensors enabling treatment and delivery of fit-for-purpose water, and increasing (potable) water reuse schemes are sparking a hot debate on whether all water needs to be treated to potable standards – what exactly is the potable water standard? How is the role of the utility changing? How should this be communicated with customers?

## 9. Resource recovery – essential for a sustainable future



Hosted by Glenn Vicevic from SUEZ

Driven by environmental, economic, and ecological benefits, resource recovery from waste has started to draw attention worldwide. Recovering resources from water and wastewater can provide an alternative and economically viable source of resources supporting the resilience of human and natural systems under water stress. Resources from the water cycle can be water itself, energy (organic or thermal) and components, such as nutrients and metals.

## 10. The key to successful investment strategies in water



Hosted by Steve Kloos from True North Venture Partners

How much investment is taking place in the water sector? What are some notable investments in startups? Why do companies fail to get investments? Why do investments fail?

## 11. Biosolids to land: story of a cat with 9 lives or death by a 1000 cuts?



Hosted by William E. Toffey from Mid-Atlantic Biosolids Association

The use of biosolids in agriculture is regulated; however, despite the mandatory guidelines, unlegislated metals, microplastics, pharmaceuticals and personal-care products can enter the food chain when biosolids are applied repeatedly. This table will discuss how end-users and local authorities can work to reduce the impact of these pollutants.

# Roundtables

## 12. Water reuse



Hosted by Jeff Mosher from Carollo Engineers, Inc.

Meeting today's (and future) water demand from individuals, communities and businesses, amidst global climate change and a rapidly growing population necessitates new and collaborative methods to reuse water. Without innovation, our planet will continue to see the depletion of freshwater reserves, waterway pollution and greater energy consumption (to extract even more water).

## 13. Asset performance management, A.I. and machine learning



Hosted by Matt Mallory from BlueTech Research

The water industry is in the midst of a digital transformation. Asset-intensive organizations, such as water and wastewater utilities, and industrial corporates are implementing data, enabling technologies to transition from reactive maintenance to a more predictive risk-based maintenance schedule. There are a number of companies in the market now offering AI and machine learning based asset management tools with different pricing models and support mechanisms.

## 14. Workforce gaps in intelligent water systems



Hosted by Bri Nakamura from WEF

The last several decades have seen rapid innovations in cloud software, data analysis, artificial intelligence, machine learning, and renewable energy. However, the water sector has been slow to implement these new technologies, even though they promise utilities and communities with new possibilities of sustainable management, reuse, and quality monitoring of water resources. Does part of the problem lie within workforce gaps in intelligent water systems?

# Members & Partners



CityTech Collaborative



Downers Grove  
Sanitary District



GREELEY AND HANSEN



ISRAEL - US  
WATER INITIATIVE



**NALCO** Water  
An Ecolab Company



**UIC**  
UNIVERSITY  
OF ILLINOIS  
AT CHICAGO



# H<sub>2</sub>NOW CHICAGO

## WATERWAY MONITORING

The first *real-time* water quality monitoring project  
in the U.S. to measure microbial pollutants



Learn more at [www.H2NOWChicago.org](http://www.H2NOWChicago.org)

*Current*

#INNOVATORSFORUM2019