SMi Group Proudly Presents the 8th Annual conference...



Smart Water Systems

CONFERENCE: 29TH - 30TH

Using Innovation, technology and resilience to ensure cost reduction and network optimisation

Holiday Inn Kensington Forum, London, UK



BENEFITS OF ATTENDING:

- Gather first hand insight into what OFWAT thought of the water companies Business Plans and what is needed moving forward to reach their goals/targets
- Learn how data can help water companies persuade customers to use less water
- Discover how Data Analytics can lead to more efficient leakage detection and management
- Updates on smart meter programmes and Results of Smart Meter Trials – showing the challenges facing water utilities after the smart meter roll out, as well as the lessons learned
- Explore whether IOT, AI and Automated Water Management can improve customer engagement and make networks more efficient
- Find out what was learnt from the adverse weather conditions of 2018 and how we can ensure water supply is not affected by future disparities

CHAIR FOR 2019:

Jeremy Heath, Innovation Manager, Sutton and East Surrey Water Plc

FEATURED UK SPEAKERS:

- David Black, Senior Director of Water 2020, Ofwat
- David Nwankwo, Smart Technology Lead, Thames Water
- · Jan Gooijer, Innovation Manager, Vitens
- Bert de Winter, Innovation Director, De Watergroep
- Tertius Rust, PDOT Innovation Lead, South East Water
- Sean McCarthy, Head of Leakage and Optimisation, Anglian Water
- Jamie Jones, Distribution Project Manager + Institute of Water Representative, Portsmouth Water Ltd
- Eddie Wrigley, Innovation Facilitator, Northumbrian Water Group
- Adam Smith, Innovation Programme Manager, Yorkshire Water

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Dear Participants,

We are absolutely delighted to welcome each of you to SMi's Smart Water Systems 2019 conference.

In the UK, all of the Water Companies have now submitted their plans for the next five year period. It is clear from the Company plans that there will be a greatly increased focus on smart networks and smart metering, with a number of Companies proposed highly ambitious solutions. At the same time, we are finally seeing the UK roll-out and adoption of the new IoT solutions, with the potential for enhanced communications. It is clear that the combination of these two events will accelerate the adoption of smart solutions within the water industry. What is currently less clear is which of the current technologies and processing techniques will emerge as being at the forefront of this revolution.

Once again we have gathered together experts in smart water systems from all over the world, and we anticipate that this conference will provide an ideal opportunity to learn about, understand and discuss the very latest technical advancements.

We look forward to seeing you there!



Jeremy Heath, Innovation Manager, **Sutton and East Surrey Water**

08.30 **Registration & Coffee**

09.00 Chairman's Opening Remarks Jeremy Heath, Innovation Manager, Sutton and East Surrey Water

POLICY, REGULATION AND NEED FOR INNOVATION AND RESILIENCE

KEYNOTE ADDRESS

09.10 2019 Price Review – Towards Delivery

- Innovation and resilience
- What can we learn from business plans?
- Challenges and opportunities

David Black, Senior Director of Water 2020, OFWAT

- 09.50 Scotland the Hydro Nation – Maximising the value you can gain from Scotland's water resources in economic, social and environmental terms

 - Vision of Scotland as a Hydro Nation
 Understanding the value of the Water Sector: developing economic and non-economic value
 - Regulation, Governance and Innovation for a thriving, sustainable
 - Collaboration and Partnership Opportunities Barry Greig, Senior Policy Adviser: Hydro Nation,

Scottish Government

Morning Coffee 10.30

11.00 Are you as smart as consumers would like?

- Performance suggests the water sector isn't as smart as it
- Consumers trust that the sector thinks smart and innovates
- Internal end-to-end process matter to consumers (they just don't want to know about them)
 • Excellent delivery and the "right first time" mentality can influence
- customers' views of fairness and value for money. Mike Keil, Head of Policy and Research, Consumer Council Water

TECHNOLOGICAL INNOVATIONS IMPROVING WATER NETWORK EFFICIENCY PART 1

11.40 Innovation in smart water network technology

Developments in smart water network technology that:

- Help minimise non-revenue water
- · Enable identification of network leakage
- Foster water use efficiency

Make smart metering more accessible
 Anne Lorrigan, Product Manager, Kamstrup

kamstrup

12.20 **Networking Lunch**

CASE STUDY

13.20 The role IoT can play in Event Management



- What is Event Management?
- Current limitations to Event Management
- The role of IoT in improving Event Management
- · What does the future hold for the Water Industry?

Jamie Jones, Distribution Project Manager + Institute of Water Representative, Portsmouth Water Ltd

DATA DRIVEN SOLUTIONS TO MONITOR, ANALYSE AND PREDICT CONSUMER CONSUMPTION

14.00 **Smart Water Solution**

- Finding a solution that enables SEW to visualise, analyse, monitor, predict and improve the real-time performance of its water network - i.e bringing the network to life
- Integrating relevant internal and external data sources into one platform by also combining new sensors and AMI meters enabling users to correlate and analyse this data while providing different views and capabilities suited to specific job roles and customer needs
- · Converting digital data into meaningful information that is universally accessible to those who need it, integrated to enable an endless capability to analyse and correlate, and structured in a way that it is intuitively easy to tap to derive insights

14.40 Project Barnacle – a smart solution for monitoring the water supply in customers' homes

· How we co-created a unique design proposition

Tertius Rust, PDOT Innovation Lead, South East Water

- From problem to solution in 5 days
- Proving the concept building Barnacle
- Data integration & intelligence
- Use cases & benefits
- Lessons learned & next steps

Eddie Wrigley, Innovation Facilitator, Northumbrian Water Group

15.20 Afternoon Tea

15.50 Discolouration Prediction; A Case Study of Data Governance and **Data Science at DCWW**

- Discuss how DCWW implemented a Data Governance strategy to support improved Data Science solutions
- · Provide an example of how we have utilised machine learning methods to develop a predictive model for discolouration risk
- How the outputs of the model have been productionised into an interactive tool that our operational colleagues can use to support decision making

Isaac Bowen, Principle Statistician, DWR Cymru Welsh Water Justin Doran, Data Governance Manager, DWR Cymru Welsh Water

Smart Data – reducing demand and 2018 climate events 16.30

- Findings from UK's largest smart water meter rollout and data
- · Water data from the Beast from the East and record hot-dry
- · Maximising the benefits of smart water data through water efficiency and customer engagement

Tom Allen, Data and Information Manager, Thames Water Andrew Tucker, Water Efficiency & Affordability Manager, Thames

The SMART business case for Proof of Concept to Business As Usual

- The vision for Intervention Enabling Networks at Yorkshire Water
- The benefit assessment framework strategy
- Requirement of business structure to support SMART
- Future maturation of SMART capability

Adam Smith, Innovation Programme Manager, Yorkshire Water

Chairman's Closing Remarks and Close of Day One Jeremy Heath, Innovation Manager, Sutton and East Surrey Water

Register online at www.smi-online.co.uk/ts24.asp

08.30 Registration & Coffee

09.00 Chairman's Opening Remarks

Jeremy Heath, Innovation Manager, Sutton and East Surrey Water

INTERNATIONAL BENCHMARKING FOR SMART WATER NETWORKS

KEYNOTE ADDRESS

09.10 Vitens Utility: Our Data Based Learning Curve

- · Data Science and Analytics
- Formal assessment of our smart arid
- Cooperation with European Utilities
- Updates on smart meter programmes Results of Smart Meter Trials

Jan Gooijer, Innovation Manager, Vitens

CASE STUDY

09.50 Digital water as a countermeasure to water scarcity in Flanders



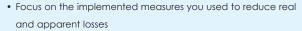
- Smart Metering pilot project: status
- Smart Metering project: further steps and cooperation in Flanders
- Data analytics for leakage reduction

Bert de Winter, Innovation Director, De Watergroep

10.30 Morning Coffee

CASE STUDY

11.00 Urban Water Cycle management in Porto



- Description of the Automated reading meters and App
- Technological platform that manages the entire urban water cycle, in one interface, and connects all the devices that is used throughout the company

Frederico Fernandes, President of the Board, Aguas do Porto

TECHNOLOGICAL INNOVATIONS IMPROVING WATER NETWORK EFFICIENCY PART 2

11.40 Session reserved for Diehl Metering



12.20 Networking lunch

13.20 Using technology to help meet the leakage challenge

- Overview of AW, The leakage challenge
- AWs shop window (Enabling collaboration)
- Sensors, how they will help reduce leakage
- Hydrophone technology, advantages, and challenges!

Sean McCarthy, Head of Leakage and Optimisation, **Anglian Water**

PANEL DISCUSSION

14.00 What technologies are available to enable water companies to reach the PR19 requirement of 15% reduction in water leakage?

Panel Moderator: Jeremy Heath, Innovation Manager, Sutton and East Surrey Water

Panellists:

Sean McCarthy, Head of Leakage and Optimisation, Anglian Water Jamie Jones, Distribution Project Manager + Institute of Water Representative, Portsmouth Water Ltd

Filip Vancoillie, Manager Assets Water Distribution, De Water Groep

14.40 Intelligent Analytics solutions across the Water Cycle

- Smart water analytics solutions can provide measureable benefit to water utilities across the water cycle. We will give examples from drinking and waste water systems:
- In drinking water systems, to help reduce NRW and improve asset repair/replacement strategies by making use of a variety of disparate data sources including smart meter data
- In waste water systems, to help optimise network operation and system response to extreme weather events

Michael Allen, Executive Director, Embedded Systems, **Visenti**, **A Xylem Brand**



15.20 Afternoon Tea

15.50 Technology improvement drive of TW Smart Metering Programme A case for Multi-technology Platform for Water Smart Metering

- Proprietary solutions Vs Open standard solutions
- Base-lining emerging LPWA technologies against current solution
- Allaying the fears of Utilities: No singular technology holds the key
- Multi-technology platform Key to smart networks

David Nwankwo, Smart Technology Lead, Thames Water

16.30 How to maximise the efficiency of assets across the network to provide the best service to customers in preparation for AMP7

- Need to create a more efficient and stable operation to proactively inform customers about changes in the delivered water quality
- Review of attempts to create real-time simulations of complete treatment plants
- A new modelling approach linking hydraulic simulations using EPANET with chemical calculations using PHREEQC

Frank van der Kleij, Head of Asset Risk and Planning, Bristol Water

17.10 Delivering Target 100 in partnership with others

- The 4 pillars of water efficiency
- Using 'carrots' rather than 'sticks'
- Sensible smart metering deployment
- Bespoke water efficiency advice & support
- Smart data deployment

Ben Earl, Water efficiency Manager, Southern Water

17.40 Chairman's Closing Remarks and Close of Day Two

Jeremy Heath, Innovation Manager, Sutton and East Surrey Water

Alternatively fax your registration to Fax +44 (0) 20 7827 6157 or call Fax +44 (0) 20 7827 6156

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www.kamstrup.com/water-metering



Sensus helps water utilities to reach further through the application of technology and data-driven insights that deliver efficiency and responsiveness. We partner with our customers to anticipate and respond to evolving business needs with innovation in communications technologies, advanced metrology, sensors, data analytics and services. With its acquisition of Sensus in November 2016, plus subsequent market leading technology acquisitions, Xylem has brought best-in-class technology solutions together, to create a full end-to-end offering to the global water market delivering an unmatched combination of technology and services. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise.

sensus.com/internet-of-things/smart-water

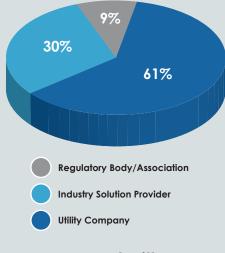
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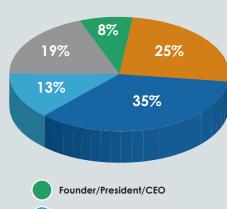
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Smart Water Systems 2018 Attendee Breakdown

By Organisation Type



By Job Title



Analyst

Engineer

COO/Director

Manager/Project Manager



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Institute of Water



SMART WATER SYSTEMS

Conference: Monday 29th & Tuesday 30th April 2019, Holiday Inn Kensington Forum, London, UK

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