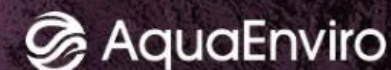


# EUROPEAN WASTEWATER MANAGEMENT CONFERENCE & EXHIBITION

28-29 September 2021 Birmingham / Online



Sponsored by



## TUESDAY 28<sup>TH</sup> SEPTEMBER

	ROOM 1	ROOM 2
	<b>Conference Opening and Plenary</b>	
09.30 – 09.35	Conference opening and welcome	
09.35 – 10.00	Title tbc Prof Dragan Savic, CEO, KWR Water Research Institute, the Netherlands	
	<b>Design Approaches</b>	<b>Phosphorus</b>
10.05 – 10.30	<b>Optioneering at East Hyde STW to meet the new growth and regulatory drivers</b> Lewin, I., Stantec, UK	<b>Process Integration for a Circular Economy of Phosphate</b> Eddowes, P., Arvia Technology, UK

10.30 – 10.55	<b>Collaborative design the YW AMP7 way</b> Bullen, A. <sup>1</sup> and Jeavons, J. <sup>2</sup> , <sup>1</sup> Yorkshire Water, <sup>2</sup> Stantec, UK	<b>Modular te-cyc solution satisfying growth drivers, N and Bio-P removal in a single treatment step</b> Hazard, B. <sup>1</sup> , Jabornig, S. <sup>2</sup> , Marinheiro, L. <sup>3</sup> , Baptista, I. <sup>4</sup> , Löblich, S. <sup>5</sup> , <sup>1</sup> Te-Tech Process Solutions Ltd, <sup>2</sup> SFC Umwelttechnik, Austria <sup>3</sup> AST – Environmental Solutions and Services,, <sup>4</sup> AQUASMART – Water and Wastewater Treatment Solutions, <sup>5</sup> WEDOTECH, Portugal
10.55 – 11.20	<b>Morning break and networking</b>	
	<b>Granular Activated Sludge</b>	<b>Phosphorus Cont.</b>
11.20 – 11.45	<b>Performance and operational experience of Nereda® at United Utilities</b> Black, J., Brabazon, E., Shields, R., Halloran, J., Duckworth, N., Byron, R., United Utilities, UK	<b>Let's not forget the basics of chemical Phosphorus removal</b> Sunner, N., Stantec, UK
11.45 – 12.10	<b>Nereda®: Breakthrough Technology of the Decade! Performance check-in and where to next?</b> Oliver, B., Royal HaskoningDHV, UK	<b>Enhanced P removal through changing design and operational parameters to meet new permits with Sand filters and utilising sand cycle</b> Wilson, V. <sup>1</sup> , Wouters, H. <sup>2</sup> , Medley, G. <sup>1</sup> , Matthews, R. <sup>1</sup> , van Opijnen, E. <sup>3</sup> , Gaskin, L. <sup>1</sup> , <sup>1</sup> Dwr Cymru Welsh Water, <sup>2</sup> Brightwork BV, <sup>3</sup> BW Products BV, The Netherlands
12.10 – 12.35	<b>Modelling Full-scale Granular Sludge Sequencing Tank Performance</b> Burger, G. <sup>1</sup> , Dold, P. <sup>1</sup> , Farilamb, M. <sup>1</sup> , Conidi, D. <sup>1</sup> , Du, W. <sup>2</sup> , Alexander, B. <sup>2</sup> , Giesen, A. <sup>2</sup> , <sup>1</sup> EnviroSim Associates Ltd, Canada, <sup>2</sup> Royal HaskoningDHV	<b>Phosphorus removal using FilterClear with operational flexibility and reliability</b> Hou, C. and Biddle, J., Bluewater Bio, UK
12.35 – 13.00	<b>Nereda®: The route to sustainable Phosphorus removal and bio polymer recovery</b> Oliver, B., Royal HaskoningDHV, UK	<b>Delivering Bio-P solutions for Yorkshire</b> Jeavons, J. <sup>1</sup> , Bullen, A. <sup>2</sup> , Jolly, M. <sup>2</sup> , Machado, C. <sup>1</sup> , Jakeman, C. <sup>2</sup> , <sup>1</sup> Stantec, <sup>2</sup> Yorkshire Water, UK
13.00 – 14.00	<b>Lunch and networking</b>	
	<b>Digital Approaches</b>	<b>Phosphorus Cont.</b>
14.00 – 14.25	<b>Digital twin development implementation, and results for the Changi WRP, Singapore</b> Johnson, B., Kadiyala, R., Owens, G, Lake, A., Jacobs	<b>Severn Trent Water install the largest CoMag™ plant in the World to meet one of its tightest P permits at Finham STW</b> Vale, S., Severn Trent Water, UK

14.25 – 14.50	<b>Using edge analytics to optimize pump performance &amp; asset management</b> Rolls, M., Specific Energy, UK	<b>The implementation of the CoMag process to enhance the Phosphorus removal performance at the Welsh Water plants at Lletty Brongu and Ruthin</b> Radford, S. <sup>1</sup> , Wilson, V. <sup>2</sup> , <sup>1</sup> Evoqua Water Technologies, <sup>2</sup> Dwr Cymru Welsh Water, UK
14.50 – 15.15	<b>Using machine learning techniques to optimise anaerobic digestion performance</b> Stephenson, M. <sup>1</sup> and Minall, R. <sup>2</sup> , <sup>1</sup> Hal24k Water, UK, <sup>2</sup> Aqua Enviro, UK	<b>Reliably meeting very low Total P permits (while not breaching the metals permit!)</b> O'Shea, T. and Kissack, C., Severn Trent Water, UK
15.15 – 15.40	<b>Afternoon break and networking</b>	
	<b>Digital Approaches Cont.</b>	<b>Phosphorus Cont.</b>
15.40 – 16.05	<b>From pilot to full-scale - AI detection of sewer blockages</b> Woolley, T. and Lubbers, C., Royal HaskoningDHV, UK	<b>Simplicity is the ultimate sophistication* Trials show how existing equipment can help utilities meet their onsite P-removal requirements *Leonardo da Vinci</b> Baird, A., WPL, UK
16.05 – 16.30	<b>Preventing pollution from sewerage rising mains using existing monitoring and cloud analytics</b> Heywood, G., Ovarro, UK	<b>AMP 6 highs and lows! A tale of 3 sites</b> Luck, R., Severn Trent Water, UK
16.30 – 16.55	<b>WaterExe4.0 - Results of the first meta-study on digitization in the water industry in the German-speaking region</b> Müller-Czygan, G., Wimmer, M., Tarsayuk, V., Hof University of Applied Science, Germany	<b>Smarter Water Catchments – a partnership approach to deliver outcomes for healthy rivers”</b> Soteriou, H., Thames Water, UK
17.00 – 18.30	<b>Drinks Reception in the exhibition hall</b>	

## WEDNESDAY 29<sup>TH</sup> SEPTEMBER

	ROOM 1	ROOM 2
	<b>Plenary Keynote</b>	
<b>09.00 – 09.25</b>	<b>Fate of microplastic particles during wastewater and sludge treatment - a comprehensive approach</b> Katrin Bauerfeld, Technische Universitaet (TU) Braunschweig, Institute for Sanitary and Environmental Engineering, Germany	
	<b>Instrumentation and Monitoring</b>	<b>Net Zero</b>
<b>09.30 – 09.55</b>	<b>Dynamic resilience for wastewater treatment processes: the use of real instrument data to understand assets</b> Holloway, T. <sup>1</sup> , Williams, J. <sup>1</sup> , Yang, G. <sup>2</sup> , Ouelhadj, D. <sup>1</sup> , <sup>1</sup> University of Portsmouth, <sup>2</sup> Southern Water, UK	<b>Opportunities to Deliver Rapid Reductions in Process Emissions from UK WwTW's</b> Van Voorthuizen, E. and Lavender, P., Royal HaskoningDHV
<b>09.55 – 10.20</b>	<b>Intelligent and dynamic control of optimal WWTP operation from microbial sequencing</b> Stokholm-Bjerregaard, M.A. <sup>1</sup> , Hanse, A.A. <sup>1</sup> , Strandbæk, I. <sup>2</sup> , Vølund, I. <sup>3</sup> , Thornberg, D. <sup>4</sup> , Hughes, L. <sup>5</sup> , Nielsen, P.H. <sup>6</sup> , <sup>1</sup> Krøger A/S, <sup>2</sup> Aalborg Forsyning, <sup>3</sup> VandCenter Syd, <sup>4</sup> BIOFOS, <sup>5</sup> Aarhus Vand, <sup>6</sup> Aalborg University, Denmark.	<b>Making our trickling filters fit for the low carbon future - Part 2; short term TSS variability</b> Pearce, P. <sup>1</sup> and Yang, G. <sup>2</sup> , <sup>1</sup> Farmiloe Fisher Environment Ltd, <sup>2</sup> Southern Water, UK
<b>10.20 – 10.45</b>	<b>Sentry: Real-time microbial performance monitoring in wastewater treatment systems</b> Lamb, N., QuadraChem Laboratories, UK	<b>How did AMBI-ROBIC achieve Low-Carbon, Low-Cost, Low-Temperature Anaerobic Treatment at a municipal wastewater site in the UK? And is this process set to become the industry standard for the 21st Century?</b> Rogers, A. and Hollohan, C., NVP Energy, UK
<b>10.45 – 11.10</b>	<b>Accurate, low-maintenance and real-time measurement of BOD5/COD/TOC for feed forward control and compliance monitoring in wastewater treatment works</b> Stevens, R., Proteus Instruments, UK	<b>Greenhouse gas emissions from wastewater treatment processes</b> Longhurst, P., Jefferson, B., Athanasopoulos-Tseles, D., Cranfield University, UK
<b>11.10 – 11.40</b>	<b>Morning break and networking</b>	

	Process Intensification	Circular Economy
11.40 – 12.05	<p><b>High-rate primary filtration in wastewater treatment plants: an efficient way to upgrade overall plant performance</b> Wouters, H. and Kramer, A., Brightwork BV, the Netherlands</p>	<p><b>Systems thinking and systems analysis for water industry operations, operating costs and investment risk assessment a tool for successful water utility engagement in the circular economy</b> Palmer, S., Quartly, L., Smith, C., Stantec Ltd, UK</p>
12.05 – 12.30	<p><b>Bubble-less benefits: Results from implementing MABR at scale</b> Constantine, T.<sup>1</sup>, Willoughby, A.<sup>1</sup>, Lake, A.<sup>1</sup>, Nielsen, P-H.<sup>2</sup>, Uri, N.<sup>2</sup>, <sup>1</sup>Jacobs, UK, <sup>2</sup>VCS Denmark</p>	<p><b>"Waste is only a resource in the wrong place"</b> Kisielewski, P. and Hammond, P., CCm Technologies Ltd., UK</p>
12.30 – 12.55	<p><b>Intensification and Densification of New Microorganisms for Wastewater Treatment</b> Nair, A., Microvi Biotech, UK</p>	<p><b>Natural Solutions</b></p> <p><b>Developing a nature-based toolkit: Severn Trent's journey towards a nature-based approach</b> Palmer, M., Cooke, A., Smith, R., Richards, A., Smith, R., Severn Trent Water, UK</p>
12.55 – 13.20	<p><b>Fermentation of sievings from domestic wastewater for improvement of biological nutrient removal</b> Oosterhuis, M. Royal HaskoningDHV, the Netherlands</p>	<p><b>Seeing the light...on algae treatment</b> Kissack, C. and Al-Janabi, S., Severn Trent Water, UK</p>
13.20 – 14.15	Lunch and networking	
	<b>New and Emerging Technologies</b>	<b>Natural Solutions cont.</b>
14.15 – 14.40	<p><b>Treatment of emerging contaminants for non-potable wastewater reuse - An evaluation of a novel combination of membrane ultrafiltration and a non-thermal plasma-based oxidation process</b> Hazard, B.<sup>1</sup>, Jabornig, S.<sup>2</sup>, Marinheiro, L.<sup>3</sup>, Baptista, I.<sup>4</sup>, Löblich, S.<sup>5</sup>, <sup>1</sup>Te-Tech Process Solutions Ltd, <sup>2</sup>SFC Umwelttechnik, Austria <sup>3</sup>AST – Environmental Solutions and Services,, <sup>4</sup>AQUASMART – Water and Wastewater Treatment Solutions, <sup>5</sup>WEDOTECH, Portugal</p>	<p><b>Harnessing the natural power of algae: meeting future legislation of phosphate and ammonium</b> Ekins-Coward, T., Castro-Castellon, A., Ho, F., Industrial-Phycology, UK</p>

14.40 – 15.05	<b>What if... oxidation was not allowed?</b> Evenblij, H. <sup>1</sup> , Visser, F. <sup>2</sup> , van Nieuwenhuijzen, A. <sup>3</sup> , <sup>1</sup> Royal HaskoningDHV, <sup>2</sup> Water Authority Vallei and Veluwe, <sup>3</sup> Witteveen+Bos, the Netherlands	<b>Feasibility of Integrated Constructed Wetlands (ICW) to meet future AMP7 Total P consents</b> Turnbull, R., Spall, S., Ludlow, A., McTaggart, R., Stantec, UK
<b>Ammonia Conversion</b>		<b>Bathing Waters</b>
15.05 – 15.30	<b>Incorporation of complete ammonia oxidation into the two-step nitrification process in activated sludge systems: conceptual modelling approach</b> Mehrani, M-J., Kowel, P., Sobotka, D., Makinia, J., Gdansk University of Technology, Poland	<b>Protecting Bathing and Shellfish Waters: virus and indicator organism removal in wastewater treatment and disinfection</b> White, C., Alford, H., Newberry, M., Loughran, P., Stantec Ltd, UK
15.30 – 15.55	<b>Anita Mox for side stream deammonification lessons learned over 10 years of experience</b> Langdon, M. <sup>1</sup> , Lemaire, R. <sup>1</sup> , Christensson, M. <sup>1</sup> , Skonieczny, T. <sup>2</sup> , <sup>1</sup> Veolia Water Technologies, UK, <sup>2</sup> AnoxKaldnes, Denmark	<b>PFA: An Alternative Disinfection Technology</b> Alford, H. and White, C., Stantec Ltd, UK
16.00	<b>Conference Close</b>	