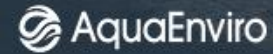


## **EUROPEAN BIOSOLIDS & ORGANIC RESOURCES** CONFERENCE & EXHIBITION



**13-14<sup>TH</sup> NOV. 2018, THE ROYAL ARMOURIES, LEEDS, UK**

### **DAY 1 – TUESDAY 13<sup>TH</sup> NOVEMBER**

#### **PLENARY**

##### **Understanding and manipulating microbial communities in AD**

Chong, J., Royal Society Industry Fellow & Senior Lecturer in Microbiology, University of York, UK

#### **ADVANCES IN ANAEROBIC DIGESTION**

##### **SAS only thermal hydrolysis with series digestion – project results confirm lab predictions**

Shana, A.<sup>1</sup>, Fountain, P.<sup>1</sup>, Christie, I.<sup>1</sup>, Panter, K.<sup>2</sup>, <sup>1</sup>Thames Water, UK, <sup>2</sup>Ebcor Ltd, UK

##### **Biodegradability of filtrate from thermally hydrolysed waste activated sludge**

Toutian, V.<sup>1,2\*</sup>, Barjenbruch, M.<sup>1</sup>, Unger, T.<sup>1</sup>, Loderer, C.<sup>2</sup>, Remy, C.<sup>2</sup>, <sup>1</sup>Technical University of Berlin, Germany, <sup>2</sup>Berlin Centre of Competence for Water, Germany

##### **FOG and Food Waste Receiving and Processing Considerations Before Digestion**

Williams, T.O., Jacobs, USA

##### **HpH advanced anaerobic digestion – a review of five years operation and lessons learnt**

Riches, S. and Brookes, A., Anglian Water Services Ltd, UK

##### **Comparing the performance of thermophilic and mesophilic anaerobic digestion of pasteurised sewage sludge**

Hill, S., Shana, A., Perez, E.R., Fountain, P., Thames Water, UK

##### **Advanced sludge digestion optimisation – introducing innovative Ephyra<sup>®</sup> technology**

Visser, A., Koornneef, E., Traksel, D., Royal HaskoningDHV, The Netherlands

##### **Methane producing bacteria in the Northern hemisphere**

Curtis, T., Newcastle University, UK

##### **New additive to aid digestion of recalcitrant crop fibres**

Gemmell, N.S., Clayton Hall Farm Biogas Products Ltd, UK

##### **GHG impacts of food waste AD and sludge AD**

Harrison, D., and Theodoulou, M., Suez Water Technologies and Solutions

**PANEL DISCUSSION: How close are we to tailoring microbial communities in AD?**

## **CIRCULAR ECONOMY**

### **Biosolids and biogenic fertilisers: converting wishful thinking to reality**

Whipps, A.<sup>1</sup> and Hammond, A.<sup>2</sup>, <sup>1</sup>Pell Frischmann Ltd, UK, <sup>2</sup>CCm Technologies Ltd, UK

### **EuPhoRe® – An advanced process for the disposal of sewage sludge with co-current recovery of phosphates**

Hazard, B.<sup>1</sup>, Zepke, F.<sup>2</sup>, Jabornig, S.<sup>3</sup>, Wutscher, K.<sup>3</sup>, <sup>1</sup>Trant Engineering Ltd, UK, <sup>2</sup>EuPhoRe GmbH, Germany, <sup>3</sup>SFC Umwelttechnik GmbH, Austria

### **Beyond nutrient recovery – what else can we recover from biosolids?**

Georges, K., Antizar, B., Serra, E., Uku, B., Isle Utilities, UK

### **Rashca™: a new robust process for the conversion of digested sewage sludge and sludge screenings to liquid biofuel**

Sirovski, F. and Sharpe, D., Industrial Chemicals Ltd, UK

### **Catalytic slow pyrolysis of biosolids in a bubbling fluidised bed reactor using lime, biochar and activated char**

Patel, S.<sup>1</sup>, Kundu, S.<sup>1</sup>, Halder, P.<sup>1</sup>, Paz-Ferreiro, J.<sup>1</sup>, Surapaneni, A.<sup>2</sup>, Shah, K.<sup>1</sup>, <sup>1</sup>RMIT University, Australia, <sup>2</sup>South East Water, Australia

### **Enzyme recovery from waste activated sludge**

Smith, S.R. and Liu, Z., Imperial College London, UK

### **Enabling a circular economy by recovering commodity products from sludge**

Williams, T.O. and Jeyanayagam, S., Jacobs, USA

### **The organic waste gold rush: optimising resource recovery in the UK bioeconomy**

Marshall, R. University of Lancaster, UK

### **RE-DIRECT - Regional development and integration of unused biomass wastes as resources for circular products and economic transformation**

Wilcox Brooke, A., Severn Wye Energy Agency, UK

### **The importance of anaerobic digestion within the MSW based bio-refinery – Fiberight**

Puri, D., Fiberight, UK

### **Economic optimization of integrated nutrient and energy recovery treatment trains using a new model library**

Vaneckhaute, C.<sup>1</sup>, Belia, E.<sup>2</sup>, Vanrolleghem, P.A.<sup>3</sup>, <sup>1</sup>Bioengine, Université Laval, Canada, <sup>2</sup>Primodal Inc., Canada, <sup>3</sup>modelEAU, Université Laval, Canada

### **Export of upgraded biosolids to emerging markets in Asia**

Ugland, T. HØST Valuable Waste AS, Norway

## MODELLING & SOFTWARE DEVELOPMENTS

### **Critical assessment and optimisation of sewage sludge mesophilic anaerobic digestion processes at operational wastewater treatment plant**

Liu, J. and Smith, S.R., Imperial College London, UK

### **Aquasuite® MINE – the advanced and optimal control of sludge treatment**

Koornneef, E., van Eijden, R. and Visser, A., Royal HaskoningDHV, The Netherlands

### **Hustle and Flow: Product lifecycle management of biosolids**

Oosthuizen, S.<sup>1</sup> and Riches, S.<sup>2</sup>, <sup>1</sup>Business Modelling Associates UK, <sup>2</sup>Anglian Water, UK

### **Full scale validation of a model to predict anaerobic digester performance**

Oxtoby, S.<sup>1,2</sup>, Winter, P.<sup>1</sup>, Smith, S.R.<sup>2</sup>, <sup>1</sup>Thames Water, UK, <sup>2</sup>Imperial College London, UK

### **Maximising energy generation from Anglian Water's Sludge Treatment Centres: Improving the total energy content and available energy of the feedstock**

Smyth, M.<sup>1</sup>, Kabir, M.<sup>1</sup>, Inman, D., <sup>1</sup>Aqua Enviro, UK, <sup>2</sup>Anglian Water, UK

### **Optimising bioresources businesses through masterplanning**

Hughes, S., and Horne, P., United Utilities

### **Digitizing bioresources, utilising the latest advances in machine learning and ai to unlock the true potential bioresources for both TOTEX and performance**

Harrison, D. and Christian, S., Suez Water Technology & Solutions

## BIOGAS AND ENERGY MANAGEMENT

### **Demand-driven biogas production from anaerobic digestion of sewage sludge: preliminary experimental results**

Lafretta, M.<sup>1,2</sup>, Thorpe, R.B.<sup>1</sup>, Ouki, S.K.<sup>1</sup>, Lee, J.<sup>1</sup> and Rus Perez, E.<sup>2</sup>, <sup>1</sup>University of Surrey, UK, <sup>2</sup>Thames Water Utilities Ltd, UK

### **Flexibility potential of waste water treatment plants with anaerobic sludge stabilisation**

Hobus, I., Wupperverbands-gesellschaft für integrale Wasserwirtschaft mbH, Germany

### **Energy recovery from biogas**

Blanchard, R., Loughborough University, UK

### **Boosting biogas generation by 20-30% using biocatalytic augmentation of anaerobic digesters**

Fabiyi, M., Conley, S., Drylet, LLC, USA

### **The ATC Plant at Lower Brighouse – A merchant plant model for life after Water 2020**

Pitt, D., Enertecgreen Limited, UK

## **DAY 2 – WEDNESDAY 14<sup>TH</sup> NOVEMBER**

### **PLENARY**

**Come in, number two – your time is up. Are microplastics the beginning of the end for ‘sludge to land’?**  
Tompkins, D.<sup>1</sup> and Bungay, S.<sup>2</sup>, <sup>1</sup>Aqua Enviro, UK, <sup>2</sup>Helix Environmental Consultancy Ltd, UK

### **PRE / POST-TREATMENT AND THICKENING / DEWATERING** (Sponsored by)

**SEEPEX.**  
**ALL THINGS FLOW**

#### **How sludge characteristics and THP affect dewaterability**

Kjøråug, O.<sup>1</sup>, Rus, E.<sup>2</sup>, Molokwu, O.<sup>2</sup>, Nilsen, P.J.<sup>1</sup>, <sup>1</sup>Cambi Group AS, Norway, <sup>2</sup>Thames Water Innovation, UK

#### **Sludge Pre-Treatment with OREGÉ SLG**

Benamor, H. and Whittle, I., Wessex Water, UK

#### **Energy and Process Efficiency - savings at Thames Water**

McGarian, P.<sup>1</sup> and Fountain, P.<sup>2</sup>, <sup>1</sup>SEEPEX UK Ltd, UK, <sup>2</sup>Thames Water, UK

#### **Polymer split-dosing trial for optimising the dewatering of thermally hydrolysed digested sludge at Long Reach Sewage Treatment Works**

Tilahun, D., Rus, E., Fountain, P., Christie, I., Thames Water Utilities Limited, UK

#### **Concerned about Biosolid cooling after THP? Not with Biosolid Flash Cooler**

Hilstrøm, T., Haarslev Industries A/S, Denmark

#### **Reducing greenhouse gas emissions and improving sludge dewaterability with vacuum degassing of digested sludge**

Cadavid, G., Dittmann, M., O’Brien, L., Eliquo Water Group, UK

#### **Twelve months on – Flottweg’s Xelletor decanter centrifuge proves its worth**

Steiger, W., Flottweg SE, Germany

#### **Bio-cage™, A Novel innovative low-cost solution for sludge thickening – Results from 40 Southern Water Sites**

Veesam, M.<sup>1</sup> and Thomas, P.<sup>2</sup>, <sup>1</sup>Southern Water, UK, <sup>2</sup>Afeco, UK

#### **The significance of direct dewatering of thin sludge to cake by VOLUTE dewatering press**

Mannion, R., Evergreen Water Solutions, UK

#### **DfMA sludge thickening solutions – S-DISC takes a spin on Nereda sludge**

Sims, J., Huber Technology, UK

#### **Evaluation of Anammox Batch Reactors**

Pepper, I. and Foster, A., Water & Energy Sustainable Technology (WEST) Center, The University of Arizona, USA

#### **Nitrogen Removal on anaerobic digestion rejects from a THP-AD pretreatment by deammonification. Experiences in Lagares WWTP**

Oller Balcells, M., GS INIMA Environment, Spain

## LANDBANK SECURITY

### **A survey of UK sewage sludge quality: a contemporary and historical analysis**

Liu, S.<sup>1</sup>, Liu, J.<sup>1</sup>, Macedo, F.<sup>2</sup> and Smith, S.R.<sup>1</sup>, <sup>1</sup>Imperial College London, UK, <sup>2</sup>Thames Water Utilities Ltd, UK

### **Emerging contaminants: a perspective from outside Europe**

Ball, A., RMIT University, Australia

### **Findings of the Irish EPA study on emerging contaminants in sewage sludge**

Healy, M., National University of Ireland, Galway, Ireland

### **Gaining efficiency & facilitating compliance in biosolids operations and reuse**

O'Riain, G., Compass Informatics, Ireland

### **Biosolids Assurance Scheme – maintaining confidence in biosolids recycling to agricultural land in the UK**

Llewellyn, A., Director of Assured Biosolids Ltd

### **Potential transfers of organic contaminants to the human foodchain from agricultural use of biosolids and other waste materials**

Smith, S.R and Rigby, H., Imperial College Consultants Ltd, UK

### **A method for the characterization of microplastics in biosolids**

Campo, P., Holmes, A. and Coulon, F., Cranfield Water Science Institute, Cranfield University, UK

### **Land spreading options for non-source segregated organics – present landbank restrictions and future possibilities**

Ash, C.<sup>1</sup>, Wheeler, R.<sup>1</sup>, Whyatt, P.<sup>1</sup> and Bullock, S.<sup>2</sup>, <sup>1</sup>4R Group, UK <sup>2</sup>Renewi, UK

### **Nanoparticles in biosolids and risks to landbank**

Hough, R., The James Hutton Institute, Scotland

### **Community impacts of land application**

Duckett, D., The James Hutton Institute, Scotland

## **PANEL DISCUSSION: How can we best ensure a sustainable land bank?**

## **WORKSHOP: “MAKING THE BIOECONOMY WORK”**

In collaboration with the NNFC, this full day session will explore how businesses have moved from theory to commercial reality – to bring the bioeconomy to life. Visit [www.european-biosolids.com](http://www.european-biosolids.com) for updates.

### *Supporting Organisations*

