EUROPEAN BIOSOLIDS AND ORGANIC RESOURCES CONFERENCE, EXHIBITION & SITE VISITS


Invitation to Register

Monday 20th November
- Dewatering
- Maximising Energy
- Process Efficiency
- Odour
- THP

Tuesday 21st November
- Liquor Treatment
- Material use
- New Markets
- Pre-treatment

Wednesday 22nd November
- Site Visits:
  - Davyhulme Advanced Sludge Treatment Plant
  - Commercial (waste-fed) Anaerobic Digestion Facility

End of Waste Seminar

Sponsor:

Supporting Organisations:

Media Partners:

www.european-biosolids.com
Now in its 22nd year, the conference has a reputation for quality and attracts the most authoritative global experts in biosolids and organic resource handling, treatment and recycling. The programme includes the latest innovations in and updates to technologies. Presentations from respected industry experts and newcomers highlight the development of technologies and legislation from inception to full-scale installations.

With over 250 delegates from all over Europe and beyond, many of them return every year for the technical presentations, networking opportunities and stimulating new ideas.

EXHIBITION AND SPONSORSHIP

Stand spaces are 3m x 2m for £995 plus VAT for two days including one person to attend the stand, you then also get a 20% reduction for any delegates wishing to attend the conference.

- 250-300 delegates attending over 2 days
- All delegate refreshments served in the exhibition area allowing plenty of time to network informally

Current exhibitors include: Verder, Drylet, Hydrok, Mavitech, Veolia, Suez, Huber, Evergreen Water Solutions

The Biosolids is a great opportunity to raise the profile of your organisation to this specific target audience whilst showcasing your solutions to influential members of the industry.

This isn’t just one marketing opportunity: sponsors of the Biosolids are prominent on all the marketing and advertising before and during the conference. We welcome your input to tailor the sponsorship package to showcase your latest developments and be part of Europe’s leading conference for the biosolids and organic resources industries.

“I have been attending the Biosolids conference for the last 14 years. The possibility to meet the key technical people involved in the different aspects of the sludge treatment during 2 or 3 days, outside the conventional business environment, is invaluable. I have always found the presentations very interesting regarding the new technologies or feedback from site operations. I believe the Biosolids conference is the best technical event in Europe related to Sludge.”

Technical Director, Veolia Water Technologies

For more details on Sponsorship or Exhibiting please visit www.european-biosolids.com where you can download an exhibition booking form or contact Clare: e. clarehunter@aquaenviro.co.uk | t. +44 (0)1924 257891

LOCATION & VENUE

The Royal Armouries is in Leeds city centre in the waterfront development, Clarence Dock.

The museum houses a large part of the national collection of arms and armour. The venue has on-site hotel accommodation at the Express by Holiday Inn and a multi-storey car park.

Leeds is only 2 hours from London by train and there are flights from across the UK and Europe into Leeds Bradford International Airport or there is a direct train from Manchester Airport.

CONFERENCE DINNER  Monday 20th November

Brasserie Blanc, in a converted Victorian mill on the canal which is full of character and atmosphere. Tickets are £60 + VAT per head and guests will enjoy drinks on arrival, 3 course dinner and half a bottle of wine.

The Conference Dinner is a great opportunity to network with people in the industry in a relaxed atmosphere. Why not take a corporate table to entertain your guests? This is a perfect opportunity to impress your most important clients. The event is always a sell out so we encourage you to book early to avoid disappointment.

Full travel and accommodation details will be sent when you register. www.aquaenviro.co.uk
**Day 1 Monday 20th November**

### PLENARY

**From incineration to digestion over 10 years**  
Jolly, M., Black & Veatch, UK

### DEWATERING

**Mobile Sludge Thickening: Results from Anglian Water’s Shop Window**  
Inman, D.¹, Robino, T.², Capeau, P.², Pathejohans, I.²,  
¹ Anglian Water Services, UK, ² Orege, France

**Quantification of EPS and the role PSD and EPS play in dewaterability of THP digested sludge**  
Molokwu, O.¹, Masse, A-L.¹, Gavory, M.², Moreira, L.²,  
¹ Thames Water, UK, ² ENSCR, France

**A rough guide to trial/mobile thickeners and dewaterers**  
Sims, J., Huber, UK

**Comparison of sludge dewatering technologies on Cambi hydrolysed digested sludge**  
Vliegen, J., GEA

**Dewatering Lagoon Sludges – a case study for the Dewatering Optimisation Tool**  
Herron, D., Lavender P., Aqua Enviro, UK

**The Future of Sludge Thickening & Dewatering is DFMA**  
Foster D., Huber, UK

**Advanced dewatering using Flocformer: results from Scottish Water demonstration trials**  
Ashton, S., Bouchy, L., Shröder, C., Suez, Spain

**Next generation high performance cationic dewatering flocculants**  
Ades, JC., Van Rossum R., Kemira, France

### THP

**The Microbial Community of Thermal Hydrolysis Digesters**  
Mah, J., Novak J., Virginia Tech, USA

**Comparing the performance of Thermophilic and Mesophilic anaerobic digestion of THP Pre-treated Sewage Sludge**  
Shana, A., Gurton, L., Perez, E.F., Thames Water, UK

**Advanced Digestion of Sludge enhances shift of biosolids management strategy in Beijing**  
Liao, Z.², Zhang, R.², Huang, O.²,¹, Cambi Group AS, Norway, ² Beijing Drainage Group, PR China, ¹ Beijing General Design Institute of Municipal Engineering, PR China

**Investment Decisions - Building up a cost for a Thermal Hydrolysis Facility**  
Koodie, A., Strange, G., Walker C., Black & Veatch, UK

**Unique full-scale configuration of THP combined with thermophilic digestion**  
vande Ven, M., Luning, L., Traksel, D., Sustec BV, Netherlands

### ODOUR

**Abatement techniques to treat odorous chemicals**  
Hantoosh S., Environment Agency, UK

**Managing and mitigating odour at Anaerobic Digestion facilities**  
Wise, S., Amec Foster Wheeler, UK

**Abatement of odours from WWTP sludge processes by a system consisting of a biotrickling filter and an activated carbon unit**  
Sempere, F.¹, Winter, P.¹, Wadakens, A.¹, Hühnert, N.², Cranshaw, I.³, Beigi, B.¹, Thorpe, P.B.¹,²,³, Pure Air Solutions, Netherlands, ² Thames Water, UK, ³ MWH, (Part of Stantec) UK, 4 University of Surrey, UK

**New Developments in Biotrickling Air Filtration Technology using novel recovered materials for high H2S applications on air and Landfill/Biogas**  
Phillips, I., Anua Clean Air International, Ireland

### MAXIMISING ENERGY

**Calcium nitrate dosage results in improved biogas quality in the anaerobic digesters**  
Stoeck, T.¹, Filker, S.¹, Breiner, H-W.¹, Ettl, M.², Doppelbauer, G.³,¹  
¹ University of Kaiserslautern, Germany, ² Yara Industrial, Germany

**Optimal operational conditions for conventional anaerobic digestion of sewage sludge**  
Giacalone, S.¹,², UK, Winter, P.², and Smith SR.¹,², ¹ Thames Water Utilities, UK, ² Imperial College London, UK

**Max and Min: An Energy Conundrum**  
O’Brien, L., Cooper-Smith, G., Eliquo Hydrok, UK

**Spark Ignition CHPs – Great performance, but lots to think about**  
Elson, O., Atkins, UK

### PROCESS EFFICIENCY

**A whole works approach for maximising energy generation: BioWin modelling**  
Forgacs, G., Smyth, M., Aqua Enviro, UK

**The Grit Problem: Contamination of AD Feed Materials**  
O’Loon, R., CDEnviro, UK

**The application of Lean/Six Sigma principles to improve process quality at Ireland’s largest Biosolids treatment facility**  
McCausland, C., O’Connor F., CAW, Ireland

**Controlled Sludge Stream at Swindon STW: Initial results**  
Masse, A-L., Thames Water, UK
Day 2 Tuesday 21st November

MATERIAL USE

Norwegian Sludge and Fertiliser Regulation Revision: A Post-Brexit Model? Torres, O., Whippis, A., 1, 1 IVAR IKS, Norway, 2 Pell Frischmann, UK

Balancing the benefits and impacts of spreading waste-derived materials to farmland Davis, M., Martin, I., Environment Agency, UK


HACCPI for biore sources: a reality check Tompkins, D., Aqua Enviro, UK

Meeting BAS & Regulatory Requirements while Generating Income from Biosolids Stack, J., Severn Trent Water, UK

Roadmap for implementation of optimal nutrient recovery treatment trains at WRRFs Vaneeckhaute, C., Bela, E., Meers, E., Tack, F.M.G., 1, Peter A, Vanelleghem, PA, 1 Biodev, Université Laval, Canada, 2 Primodal Inc., Canada, 2 EcoChem, Ghent University, Belgium, 3 modelEAU, Université Laval, Canada

NEW MARKETS & MATERIALS

Performance of sludge composting processes of Alexandria sludge treatment plant (Site 9N) Halley, H.A., Alexandria Sanitary Drainage Company, Egypt

Industrial Scale Plant for Sewage Sludge Treatment by Hydrothermal Carbonization in Jining/ China and Phosphate Recovery by TerraNova Ultra HTC Process Buttmann, M., Terranova Energy, Germany

A US Perspective on Alternative Uses of Thermal Processes Burrowes, P., Williams, T., Lukicheva, I., CH2M, Canada

Waste and wastewater characterisation to minimise Opex and maximise energy generation Burgess, A., Smyth, M., Aqua Enviro, UK

PRE-TREATMENT

AD pre-treatment (THP, enzymic, hydrolysis, shearing, steam explosion) Tooke, M., 2gb Consulting, UK

Class A Biological Hydrolysis: Adapting a Proven Technology for Global Markets Theodoulou, M., Penny, J., Hong, Y., GE Water & Process Technologies, Canada

Advanced Digestion – from Concept to Commissioning Hart, M., GHD, UK

LIQUOR TREATMENT

Nutrient Recovery by Novel Membrane Stripping Luning L., van de Ven, M., Traksel, D., Sustec BV, Netherlands

Anammox for Sidestream Treatment of Wastewater Effluent Pepper, I., University of Arizona, USA

The assessment of risk in the selection of post-THP sludge liquor treatment D. Nemtsov, D., Pozanitska-Chapman, K., Hopkins S., Matt MacDonald Bentley, UK

Treatment of thermal hydrolysis dewatering liquors using the Amtreat process at Leigh WWTP, IU Bungay, S., 1 Edgington, R., 2 Helix ECL, UK, 3 United Utilities, UK

Biosolids, Biogas and the Realisation of the Circular Economy in Norway Torres, O., Whippis, A., 1, 1 IVAR IKS, Norway, 2 Pell Frischmann, UK

Co-digestion and food waste anaerobic digestion: BioWin modelling for design and optimisation Fargacs, G., Aqua Enviro, UK

Maximizing maximizing digestate quality in co-digestion applications Theodoulou, M., Maclouf G., Malpica de la torre, J., Penny J, GE Water & Process Technologies, Canada

Dissolvable polymer makes AD more profitable Williams, J., Aquapak Polymers, UK

Will dried sludge from fish farming become a contributor or competitor to the utilization of municipal sludge? Rohold, L., Scanship, Norway

The application of WAS-only Thermal Hydrolysis at Psyttalia WWTP Zikakis D., Chatzis J., Droubogianis I., 1, Georgakopoulos A., 1, 1 Aktor S.A., Greece 2 Cambi AS, Norway

Chemistry mass balance across THP digesters (recirculation loop and feed) in five different Sewage Treatment Works Ghafori, M., 1&2 Fountain, P., 2 Shana, A., 2 Macedo, F., 2 Higgins, M., 2 Tlahun, D., 2 Thames Water, UK, 3 University of Bradford, UK, 4 Bucknell University, USA

ExelysTM Continuous Thermal Hydrolysis – from concept to reality to DFMA Boulou, B., Gilbert, A., Fraen, M., Veolia Water Technologies, UK

END-OF-WASTE SEMINAR

Changing the regulatory status of your material from waste to product can be an essential first step in market acceptance. This facilitated session will bring together experts from industry (Ostara and SecAnim), the environmental regulators (EA), the legal profession (TK Associates), scheme owners (REAL) and academia (Leeds University) to discuss previous experience of the End-of-Waste process and to look ahead at what the future might bring.

This is your opportunity to hear first-hand how companies have taken materials through the end of waste process, how the EU fertiliser regulations may change the playing field, and how the process is driven by data.

In conjunction with the Resource Recovery from Waste (RRfW) programme
**Day 3 Wednesday 22nd November**

**SITE VISITS**

Delegates have the option of two site visits. For both visits, a coach will collect participants from Leeds early on the morning of Wednesday 22nd November. Lunch will be provided and there will be a return coach to Leeds for late afternoon. Places are limited.

**Option 1. Davyhulme Advanced Sludge Treatment Plant**

United Utilities flagship Advanced Sludge Treatment Plant at Davyhulme, Manchester. You will have an opportunity to see the whole of the sludge treatment train from the import cake silos, pre-dewatering centrifuges, Cambi Thermal hydrolysis plant, digesters and dewatering, as well as the NEW Malmberg BIOMETHANE PLANT. The site aims to process 91,000 tonnes of dry solids per annum and the tour will be led by United Utilities’ experienced Operations team, able to talk you through plant modifications and efficiencies made over the past 6 years.

The visit will also include a workshop and lunch designed to enable participants to network with one another and engage with experts in the field.

**Option 2. Commercial (waste-fed) Anaerobic Digestion Facility**

You will have an opportunity to see the whole digestion process at a commercial (waste-fed) anaerobic digestion facility, from feedstock (e.g. preparation, pre-treatment), digestion and gas and digestate handling. The visit will include a discussion on the challenges faced by AD facilities outside the water industry, what the future might hold, as well as allowing delegates to network with one another and experts in the field.

If you would like to attend one of the site visits, please select which one when you register.

**BOOKING**

You can register online or download a printable booking form at [www.aquaenviro.co.uk](http://www.aquaenviro.co.uk)

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Please direct any registration queries to Rhys Gillard:

e. rhysgillard@aquaenviro.co.uk | t. +44 (0)1924 257891

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TECHNICAL SESSIONS

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