

Future Options for Food Waste

18th – 19th June 2014, The Leeds Club, UK

It is recognised in the UK that at the household level we throw away around 7.2 million tonnes of food and drink annually, the majority of which could have been consumed. This figure is likely to be three times larger when wastage from the supply chain and retailers is included. The cumulative value of this waste is around £23 billion. With initiatives such as "Social Supermarkets" to promote the reuse of food and to minimise food waste, and with smart data bars designed to make managing expiry dates easier it begs the question, "what is the role of energy recovery from food waste in the overall hierarchy for food waste reduction?"

This conference will consider, what are the opportunities for achieving a more efficient food waste management system? At present with over 40% of food waste going to landfill, it is clear that there are major improvements still to be made and thus it is both important and timely to consider the options for how this might be achieved. Solutions start at the top of the waste hierarchy, with a scrutiny of the food supply chain and an examination of the initiatives that both growers and retailers can introduce to avoid waste. The conference will also examine consumer behaviour and discuss whether there is adequate guidance to inform people of the needs for greater efficiency and the opportunities to achieve this. As we move down the waste hierarchy, recovering the value of food waste via anaerobic digestion can be a viable option for those situations where there are barriers to either reuse of food or reducing food waste. Research suggests that every 5.5m tonnes of food waste treated by AD can generate enough electricity to meet the needs of up to 164,000 households whilst also generating a valuable end product in digestate. Thus it is also important to consider how the residual value of digestate can be optimized and ensure that it is used optimally in agriculture to enhance future food production.

..... Venue

The Leeds Club, 3 Albion Place, Leeds, West Yorkshire, LS1 6JL

This stunning Victoria building in the heart of Leeds City Centre offers the perfect backdrop and atmosphere for conferences and events.

Venue, travel and accommodation details will be sent out upon registration



..... Programme

Day 1 – 18th June – Reducing and Re-using our Food Waste

9:00 – 9:45	Registration and Coffee
09.45-10:15 – Seminar 1	<p><u>The OPEC project</u> <i>Lucie Pfaltzgraff - University of York</i></p> <ul style="list-style-type: none"> • The OPEC project (valorisation of citrus peel using microwave technology for the recovery of D-limonene, pectin and flavonoids without pre-treatment or acid). • The Wet Waste project (innovative recovery and transformation of wet perishable residues (i.e. peel, pith, stalk, etc) into higher value and innovative textural ingredients for incorporation into food products). • The Waste Valor project
10:15-10:45 – Seminar 2	<p><u>Fareshare - Giving Food</u> <i>Mark Varney – Fareshare</i></p> <ul style="list-style-type: none"> • 5.8 million People in the UK live in 'deep poverty', making it hard for them to afford every day essentials, including food. • At the same time, 3.9 million tonnes of food is wasted every year by the food and drink industry. If just 1% of that food was fit-for-purpose and redistributed to FareShare, we would be able to provide food for 70 million meals.
10.45-11:15 – Seminar 3	<p><u>Food Waste as an issue for Europe: what are the policy options and where might the EU have a role?</u> <i>Julian Parfitt - Oakdene Hollins</i></p> <ul style="list-style-type: none"> • A survey of current interventions: which Member States are doing the most, which are the most effective in tackling food waste? • The current EU food waste baseline and evidence: is it fit for purpose? • The Communication on the Sustainability of the Food System: what might this cover and what emphasis will it give to food waste reduction • Conclusions: food waste as an issue for policy interventions: why is it so difficult?
11:15-11:45	Morning Coffee Break
11:45-12:15 – Seminar 4	<p><u>Should Sewerage companies aim to increase renewable energy generation by encouraging food waste disposal down the sewers</u> <i>Matt Wheeldon - Wessex Water</i></p> <ul style="list-style-type: none"> • Food waste has an energy value that could be harnessed • Sewerage companies have been anaerobically digesting sewage sludge for years to generate renewable energy from biogas • Should they do more to encourage the use of sewer network to become a 21st century waste energy collection system?

12:15-12:45 – Seminar 5	<p><u>There is no silver bullet for food waste</u> <i>Simon Webb - Tidy Planet</i></p> <ul style="list-style-type: none"> • Why do we generate so much food waste and what we can do to reduce this? • What should we do with the waste that's left over? – Overview of the on-site options available to the commercial sector including: hospitality, catering and supermarkets • On site or off site? The pros and cons of both options and how to choose between them
12:45-13:00	Discussion
13:00-14:00	Lunch
14:00-14:30 – Seminar 6	<p><u>The Food Service Enigma</u> <i>Peter Galliford – Mechline</i></p> <ul style="list-style-type: none"> • The Waste hierarchy obligations. <ul style="list-style-type: none"> ○ Prevention & Reduction ○ How to encourage, educate, train, facilitate. ○ Measure, analyse, review. ○ Waste streaming • Understanding Food Service Operations/Operators pressures <ul style="list-style-type: none"> ○ Legislation ○ Environment ○ Facilities / Resource management ○ Proportionality ○ Economics • On-Site / Off Site ? <ul style="list-style-type: none"> ○ System options and appraisal ○ 'Future Nirvana ' – what is the ultimate option ?
14:30-15:00 – Seminar 7	<p><u>Pigging out on food waste</u> <i>Joanna Fry - ERM</i></p> <ul style="list-style-type: none"> • The environmental impacts of pig farming, drivers and hotspots • How the environmental impacts can be reduced through co-product feed • Co-product opportunities in pig farming in a circular economy
15:00-15:30 – Seminar 8	<p><u>Who Says it's Rubbish, it's a Resource!</u> <i>John Garner - Zero Refuse</i></p> <ul style="list-style-type: none"> • Consumer behaviour and whether there is enough guidance to make people aware of the needs for greater efficiency. • Motivate not punish the local community financially • Let the experts transform waste into a valuable commodity • Keep it local, legal & share the rewards
15:30-15:50	Afternoon Coffee Break
15:50-16:20 – Seminar 9	<p><u>Collaborating Along the Food Value Chain</u> <i>Tim Duke and Debbie Hitchen - LRS Consultancy</i></p>

	<ul style="list-style-type: none"> • A brief introduction to LRS and how we work along the food supply chain: from farm to retailer to consumer to waste collectors and energy producers, to improve sustainability and resource efficiency. • We will look to touch on how we are facilitating collaboration to maximise efficiency and value along the food chain. • We aim to reference case studies that broadly profile behaviour change along the food supply chain of where resource efficiency and food wastage have/could be reduced from farm through manufacture (eg, biscuits), production and distribution (eg, HAFS), retail, use (consumer, businesses, NHS), collection (eg, collaborative contracts with BIDS) and energy production (eg, British Sugar and tomatoes).
16:20-16:50 – Seminar 10	<p><u>Circular Economy Applied to Future Options for Food Waste</u> <i>Mark Shayler - Tickety Boo</i></p> <ul style="list-style-type: none"> • Why has Food Waste Occured? • How it fits in to circular economy • What does the future look like?
16:50-17:00	Discussion

Day 2 – 19th June – Recovery of Food Waste Value through Anaerobic Digestion

8:45-9:15	Registration and Coffee
9:15-9:45 – Seminar 1	<p><u>Maximising the energy content of food waste with co and Trigeneration</u> <i>Alex Marshall - Clarke Energy</i></p> <ul style="list-style-type: none"> • Food waste is a resource with an inherent energy content • This energy is renewable and its value maximised • Gas engine technology and how it can be best integrated <ul style="list-style-type: none"> ○ Cogeneration ○ Trigeneration ○ Linking with other facilities to maximise energy content
9.45-10:15 – Seminar 2	<p><u>Digestate quality and suitability for utilisation on land</u> <i>Colin Rudd - 4R Group</i></p> <ul style="list-style-type: none"> • Agriculture and land restoration as key resources for the recycling of AD digestate • Key quality aspects of digestate output • Is their financial value in digestate • Regulatory constraints for the recycling and utilisation of digestate
10:15-10.45 – Seminar 3	<p><u>Separating food waste from plastics and inorganics</u> <i>Tony Clutten – Huber</i></p> <ul style="list-style-type: none"> • washing and pressing rejects from a Hammermill • removal of grit and glass from Supermarket waste • screening out plastics from digestate

10:45-11:15	Morning Coffee Break
11:15-11:45 – Seminar 4	<p><u>Cost Benefit Analysis of Applying Digestate to Agricultural Land in Wales</u> <i>Chris Sherrington – Eunomia</i></p> <ul style="list-style-type: none"> • This project considered the financial cost and environmental impacts of a range of methods for managing the digestate produced by the proposed anaerobic digestion facilities intended to treat Welsh food waste. • Management methods under consideration include a range of techniques for separating the raw digestate and specific techniques for treating the separated fractions including post digestion composting, disposal to sewer and biochemical oxidation
11:45-12:15 – Seminar 5	<p><u>Biomethane to Grid Projects</u> <i>John Baldwin - CNG Services</i></p> <ul style="list-style-type: none"> • Biomethane Market Update • Overall Project Review • Food waste biomethane projects • Market Statistics • Green Gas Certificates
12:15-12:30	Discussion
12:30-13:30	Lunch
13:30-14:00 – Seminar 6	<p><u>Developing Small Scale Urban Anaerobic Digestion</u> <i>Rokiah Yaman - Community by Design</i></p> <ul style="list-style-type: none"> • Turning local food waste into clean fuel and fertiliser to benefit communities and small businesses • Generating local employment and educational opportunities • Central London closed loop demonstrations
14:00-14:30 – Seminar 7	<p><u>Food Waste Digestion made in Germany - Advantages and examples</u> <i>Sven Krafft - Schwarting Biosystem</i></p> <ul style="list-style-type: none"> • basics, background and points to consider • options and layout-variants • case scenarios
14:30-15:00 – Seminar 8	<p><u>Valorisation of Food Waste using biotechnology</u> <i>Linsey Garcia-Gonzalez – ViTo</i></p> <p>This cascade approach respects the marketable value of products and comprises the following steps:</p> <ul style="list-style-type: none"> • Characterization of the food waste to determine which compounds are present in the food waste and which valuable products can be produced from them • Mild extraction of added value compounds • Conversion of extracted compounds and organic waste stream to chemicals using enzymatic conversion/hydrolysis and fermentation technology • Conversion of the residual organic waste stream to chemicals and energy with bioelectrochemical system

	<ul style="list-style-type: none"> Anaerobic digestion
15:00-15:20	Afternoon Coffee Break
15:20-15:50 – Seminar 9	<p><u>Vision 2020, diverting food waste from landfill</u> Dean Pearce – ReFood</p> <ul style="list-style-type: none"> Positioning the food waste issue in a UK and global context Vision 2020's recommendations on how to achieve the goal to eradicate food waste from landfill by 2020 Sector specific issues and solutions for each stage of the food chain
15:50-16:20 – Seminar 10	<p><u>Diverting Food waste from Landfill initiatives - an in depth look at Hospitality & Foodservice</u> Michael Savage - Ricardo-AEA</p> <ul style="list-style-type: none"> The Hospitality & Foodservice Sector and food waste – the big facts and figures, key challenges and opportunities. How these challenges can be overcome including looking at the financial savings and why preventing food waste makes more business sense than recycling. Monitoring, measuring and avoiding food waste in a hospitality business. The structure of the sector, changing behaviour of employees, new technologies and the viability of separate food waste collection. Whether these initiatives are proving to be successful. It will look at examples of what companies are doing to divert food waste from landfill and what is the outlook for the future in the sector.
16:20-16:30	Discussion

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If you are interested in sponsoring or exhibiting, please contact Frances Woodhead:
Tel: +44 (0)1924 257 891 Email: franceswoodhead@aquaenviro.co.uk

..... Delegate Rates

2-DAY

- Standard Delegate = £495 (+VAT)
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1-DAY

- Standard Delegate = £325 (+VAT)
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