



22nd and 23rd of March - Manchester Central, UK

**Day 1**  
**Wednesday 22<sup>nd</sup> of March**

	8:00	Registration opens  <i>Coffee and pastries available from 8am.</i>
<b>Plenary 1</b> <b>9:30-10:30</b>	9:30	<b>Plenary 1</b>  Location: <i>Auditorium</i>
		<b>Bioenergy Challenges</b>  <b>Opening</b> : <i>Professor Patricia Thornley</i> , Director of the SUPERGEN Bioenergy Hub  <b>Challenges in the biomass and bioenergy research space</b> : <i>Ralph Overend</i> , Editor of <i>Biomass and Bioenergy</i>  <b>Policy Challenges</b> : <i>Catherine Bremner</i> , Head of Science - Energy and Climate Change at UK Government Department for BEIS
10:30 <b>Coffee</b> Exchange Hall  <i>Refreshments will be served alongside the poster session</i>		
<b>Posters 1</b> <b>10:30-11:30</b>	10:30	<b>Moderated poster session 1</b>  Location: <i>Exchange Hall</i>
		- <b>Environment</b> Chair: TBC  - <b>Gasification</b>

		<p>Chair: TBC</p> <ul style="list-style-type: none"> <li>- <b>Socio-Economics and Development</b> Chair: TBC</li> <li>- <b>Novel approaches</b> Chair: TBC</li> </ul>
<b>Parallel 1</b> <b>11:30-13:00</b>	11:30	<p><b>Parallel session 1.1: GHG</b></p> <p>Location: <i>Auditorium</i></p> <p>CHAIRS: Dr David Howard (Centre for Ecology and Hydrology) and Dr Mirjam Roeder (Tyndall Centre for Climate Change Research)</p> <p>Keynote: <b>Carbon management and emission accounting frameworks for forest systems:</b> Evelyne Thiffault, Laval University, Canada.</p> <ul style="list-style-type: none"> <li>- <b>Trace gas (N<sub>2</sub>O and CH<sub>4</sub>) flux in land-use transitions to and from agricultural grassland to Miscanthus and SRC willow</b> :Jon McCalmont, IBERS, Aberystwyth University (Confirmed)</li> <li>- <b>Perennial bioenergy crop removal at commercial scales: investigating impacts on soil carbon stocks:</b> Rebecca Rowe, Centre for Ecology and Hydrology, Lancaster (Confirmed)</li> <li>- <b>Bacterial dynamics associated with biochar-mediated reductions in greenhouse gas emissions from soil amended with anaerobic digestates:</b> Helen West, University of Nottingham (TBC)</li> <li>- <b>Climate change impacts and related emission uncertainties from waste wood based energy systems in the UK:</b> Patricia Thornley, University of Manchester (Confirmed)</li> <li>- <b>Emissions Beyond Borders – Bioenergy GHG Emissions across National Borders &amp; Industry Sectors</b> : Andrew Welfle, University of Manchester (Confirmed)</li> </ul>

	11:30	<p><b>Parallel session 1.2: Bioproducts and Biorefineries</b></p> <p>Location: <i>Exchange Room 1</i></p> <p>CHAIRS: Dr Simon McQueen-Mason (University of York) and Dr Nick Turner (University of Manchester)</p> <ul style="list-style-type: none"> <li>- <b>Integration of Hydrothermal Carbonisation with Anaerobic Digestion: Opportunities for Valorisation of Digestate:</b> Kiran Parmar, University of Leeds, UK (Confirmed)</li> <li>- <b>Nutrient cycling and carbon sequestration using bio-refinery residues:</b> Ondrej Masek, University of Edinburgh (TBC)</li> <li>- <b>Use of Near Infrared Spectroscopy for the Rapid Low-Cost Analysis of a Wide Variety of Lignocellulosic Feedstocks:</b> Dan Heyes, Celignis (Confirmed)</li> </ul>
<p>13:00 – 14:00  <b>Networking lunch</b>  <i>Exchange Hall</i></p>		
<p><b>Parallel 2</b>  <b>14:00-15:00</b></p>	14:00	<p><b>Parallel session 2.1: Aviation</b></p> <p>Location: <i>Exchange Room 1</i></p> <p>CHAIRS: Dr Amanda Lea-Langton (University of Manchester) and Dr Simon Christie (MMU).</p> <p><b>Keynote speaker:</b> TBC</p> <ul style="list-style-type: none"> <li>- <b>Drop in potential of upgraded fuels produced at pilot scale via hydrothermal liquefaction of different biomass feedstocks:</b> <i>Patrick Biller</i>, Aarhus University, Denmark (Confirmed)</li> <li>- <b>Review on aviation biofuel processes:</b> <i>Stavros Michailos</i>, European Bioenergy Research Institute (EBRI), Aston University (TBC)</li> </ul>

	14:00	<p><b>Parallel session 2.2: Pyrolysis</b></p> <p>Location: <i>Auditorium</i></p> <p>CHAIRS: Professor Tony Bridgwater (EBRI, Aston University) and Dr Ondrej Masek (University of Edinburgh).</p> <p><b>Keynote speaker: TBC</b></p> <ul style="list-style-type: none"> <li>- <b>Fast pyrolysis bio-oil upgrading by hydrodeoxygenation:</b> Daniel Nowakowski, EBRI, Aston University, UK (Confirmed)</li> <li>- <b>Releasing the commercial potential of microwave pyrolysis: A scalability study:</b> Daniel Beneroso Vallejo, Nottingham (TBC)</li> </ul>
<p>15:00  <b>Coffee and biscuits</b>  Exchange Hall</p> <p><i>Refreshments will be served alongside the poster session</i></p>		
<b>Posters 2</b> <b>15:00 – 16:00</b>	15:00	<p><b>Moderated poster session 2</b></p> <p>Location: <i>Exchange Hall</i></p> <ul style="list-style-type: none"> <li>- <b>Catalysis</b> Chair: TBC</li> <li>- <b>Pyrolysis</b> Chair: TBC</li> <li>- <b>Whole Systems</b> Chair: TBC</li> </ul>

Parallel 3  
16:00 – 18:00

16:00

**Parallel session 3.1: Novel approaches**

Location: *Exchange Room 1*

CHAIRS: Professor Mohamed Pourkashanian (University of Sheffield) and Professor Raffaella Ocone (Heriot-Watt University)

**Keynote: TITLE (TBC)**

Professor Raffaella Ocone (Heriot-Watt University)

- **Process Intensification of Biodiesel Production from Microalgae:** Fernando Jose Russo Abegao, Newcastle University (Confirmed)
- **Treatment of Gasifier Effluents with Non-Thermal Plasmas for Tar Removal :**Kui Zhang, University of Newcastle (Confirmed)
- **Creating EverGreen Food-Energy Systems for Rural Electrification in Africa :** Dr Dennis Garrity, World Agroforestry Centre (TBC)
- **Integration of pyrolysis and AD. How biogas production can benefit:** Dr Jan Mumme, Edinburgh University (TBC)
- **Combustion and emissions characteristics of algal biomass slurry diesel emulsions in a direct injection compression ignition engine:** Paul Hellier, University College London (Confirmed)

16:00

**Parallel session 3.2: Biomass resources**

Location: *Auditorium*

CHAIRS: Dr Ian Shield (Rothamsted Research) and Dr Claire Halpin (University of Dundee)

**Keynote speaker: TBC**

- **Genotyping by Sequencing and Genome Wide Association Genetics for Yield Traits and Drought Tolerance in Bioenergy Populus nigra:** *Mike Allwright*, University of Southampton, England, UK (TBC)
- **Optimisation of Reed Canary Grass as a native European Energy Crop:** *Elaine Jensen*, Aberystwyth University (Confirmed)
- **Restoring management to neglected forests in the UK: Are we barking up the wrong tree?** :*Carly Whittaker*, Rothamsted Research (Confirmed)
- **Improving rice straw as a feedstock for biorefining :** *Simon McQueen-Mason*, University of York, England, UK (Confirmed)

16:00

### Parallel session 3.3: Environment

Location: *Exchange Room 2+3*

CHAIRS: Dr Marcelle McManus (University of Bath) and Professor Gail Taylor (University of Southampton)

- **Effect of AD feedstock on digestate nutrient content, wheat yield and grain quality:** *Helen West*, University of Nottingham (TBC)
- **Integration of biodiversity and ecosystem services into future energy scenarios – lessons learned and next steps:** Robert Holland, University of Southampton, England, UK (Confirmed)
- **Evaluation of the ECOSSE model for simulating soil carbon under sugarcane in Brazil,** Marta Dondini, Institute of Biological and Environmental Sciences, School of Biological Sciences, University of Aberdeen, Scotland (Confirmed)
- **Investigating impacts on hydrology of land use change from grazed grassland to Miscanthus.** Amanda Holder, Institute of Biological, Environmental and Rural Sciences , Aberystwyth University, Wales (Confirmed)
- **Biogenic carbon emissions of ‘hot-spot’ bioenergy sources: emerging findings of the SUPERGEN Challenge project MAGLUE :** Robert Matthews, Forest Research, UK (TBC)

**18:00**

**End of Day 1**

The conference dinner and drinks reception is being held at the Museum of Science and Industry on the 22<sup>nd</sup> of March 2017 (Day 1).

Drinks reception: 7pm-8pm

Dinner served: 8pm

**More information to follow.**

**Day 2**  
**Thursday 23<sup>rd</sup> of March**

<b>Parallel 4</b> <b>9:00-11:00</b>	09:00	<b>Parallel session 4.1: Combustion and Emissions</b>
		<p>Location: <i>Exchange Room 1</i></p> <hr/> <p>CHAIRS: Karen Finney (University of Sheffield and Gordon McFiggans (University of Manchester)</p> <p><b>Introduction:</b> Professor Jenny Jones (University of Leeds)</p> <ul style="list-style-type: none"> <li>- <b>Optimizing the fuel properties of waste wood using pre-treatment methods (washing and torrefaction)</b> : Bijal Gudka ,University of Leeds (Confirmed)</li> <li>- <b>Self-heating and ignition behaviour of torrefied biomass and biochar:</b> Francesco Restuccia, Imperial College London (Confirmed)</li> <li>- <b>The impact of biomass flue gas on the Performance of post combustion CO2 capture plant:</b> Muhammad Akram, University of Sheffield (TBC)</li> <li>- <b>Additives and Coatings to Mitigate Slagging and Fouling in Biomass Combustion:</b> Lee Roberts, University of Leeds (Confirmed)</li> <li>- <b>Predicting the ash deposition propensity of biomass combustion in a pilot-scale facility:</b> Xin Yang, University of Sheffield (Confirmed)</li> </ul>
	09:00	<b>Parallel session 4.2: Whole systems</b>
		<p>Location: <i>Auditorium</i></p> <hr/> <p>Chairs: Professor Jim Watson (UKERC) and Dr Paul Dodds (UCL).</p> <ul style="list-style-type: none"> <li>- <b>Bioenergy role in a decarbonised future: implications of regional variability of biomass availability and costs:</b> <i>Presenter tbc</i> UCL Institute for Sustainable Resources</li> <li>- <b>Emission and cost implications of preferential use of biomass in the residential sector vs transport and industry:</b> Isabela Butnar, UCL Institute for Sustainable Resources, University College of London</li> <li>- <b>South African sugarcane and bioenergy multi-level decision-making tool: strategic, tactical and operational supply chain optimisations :</b> Koen H. van Dam, Department of Chemical Engineering, Imperial College London</li> <li>- <b>A systems approach mapping in assessing primary forest residues as feedstock for sustainable production of bioenergy in Malawi:</b></li> </ul>

		<p>Maxon Chitawo, Stellenbosch University (Confirmed)</p> <ul style="list-style-type: none"> <li>- <b>Biomethane from anaerobic digestion and bio-SNG via gasification – an integrated assessment of environmental balance, market status, and techno-economics:</b> Paul Adams, University of Bath (TBC)</li> <li>- <b>UK bioenergy system assessment: quantifying the GHG benefits of biomass imports for a sustainable future:</b> Miao Guo, Department of Chemical Engineering, Imperial College London (Confirmed)</li> </ul>
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11:00  
**Coffee and biscuits**  
*Exchange Hall*

*Refreshments will be served alongside the poster session*

<b>Posters 3</b> <b>11:00 – 12:00</b>	11:00	<b>Guided poster session</b> Location: <i>Exchange Hall</i>
		<ul style="list-style-type: none"> <li>- <b>Biomass resources</b> Chair: TBC</li> <li>- <b>Bioproducts and Biorefineries</b> Chair: TBC</li> <li>- <b>Combustion and Emissions</b> Chair: Professor Adam Harvey, University of Newcastle</li> </ul>



**Parallel 5  
12:00-1:30**

12:00

**Parallel session 5.1: Catalysis**

Location: *Auditorium*

Chairs: Professor Linda Lawton (Robert Gordon University) and Dr Ignacio Melias-Cabrera (Aston University)

**Keynote: TBC**

- **Valorisation of lignin by catalytic pyrolysis:** *Daniel Nowakowski*, EBRI, Aston University, UK (Confirmed)
- **Hydrogen enriched syngas production from catalytic biomass gasification:** *Chunfei Wu*, University of Hull (Confirmed)
- **Mechanism of catalytic hydrodeoxygenation for phenolic compounds over metal loaded HZSM-5 – A Density Functional Theory (DFT) study:** *Jiajun Zhang*, Cranfield University (Confirmed)
- **Photocatalytic conversion of cellulose into fermentable sugars:** *Aakash Welgamage Don*, Robert Gordon University, Scotland (Confirmed)

12:00

**Parallel Session 5.2: Policy**

Location: *Exchange Room 1*

*Chair: Professor Patricia Thornley (SUPERGEN Bioenergy Hub Director/University of Manchester)*

**Introduction from** *Raphael Slade*, Imperial College London, UK.

**Panel discussion:**

- **Avoiding the food-fuel-water-land nexus:** *Mirjam Roeder*, University of Manchester, UK (Confirmed)
- **Environmental and financial analysis of biogas end-use options:** *Jon McKenchie*, University of Nottingham (Confirmed)
- **Analysing deployment strategies for liquid biofuels in the UK: An agent-based modelling approach:** *Raphael Slade*, Imperial College London (Confirmed)
- **How policy makers learned to start worrying and fell out of love with bioenergy:** *Paul Adams*, University of Bath, UK (TBC)

13:30 – 14:30  
**Lunch and poster session**  
*Exchange Hall*

**Parallel 6**  
**14:30 – 16:00**

14:30

**Parallel Session 6.1: Socio economics/development**

Location: *Exchange Room 1*

CHAIRS: Craig Jamieson (IRRI) and Julia Tomei (Imperial College London).

- **Cost-benefit analyses for small scale biogas systems development in Ethiopia:** *Richard Blanchard*, Loughborough University, England, UK (TBC)
- **How can we engage farmers in rice straw bioenergy development? Perspectives from India and the Philippines:** *Angela Mae Minas*, University of Manchester, England, UK (Confirmed).
- **How should land be used? Bioenergy and responsible innovation in agricultural systems:** *Alison Mohr*, University of Nottingham (Confirmed).
- **Sweet energy – bioenergy integration pathways for sugarcane residues. A case study of Nkomazi, District of Mpumalanga, South Africa:** *Mirjam Roeder*, University of Manchester, England, UK (Confirmed).

14:30

**Parallel Session 6.2: Gasification**

Location: *Auditorium*

CHAIRS: Dr Ian Watson (University of Glasgow) and Professor Paul Williams (University of Leeds).

- **The production and role of bio-hydrogen for delivering low carbon heat:** *Chris Manson-Whitton* – Progressive Energy Ltd (Confirmed)
- **BioSNG Demonstration Project: Results and Lessons Learned:** *Mike Cairns-Terry* – Progressive Energy Ltd (Confirmed)
- **Challenges in developing gas turbines for biomass-derived syngas fuels:** *John Oakey*, Cranfield University (TBC)
- **Improving biomass gasification through tar detection and gasifier control:** *Zakir Khan*, University of Glasgow (Confirmed)
- **Pyrolysis Plasma-Catalytic gasification of biomass to produce high quality syngas:** *Mohamad Anas Nahil*, University of Leeds (Confirmed)

<b>Plenary 2</b> <b>16:00-17:00</b>	<b>16:00</b>	<b>Plenary 2</b> Location: <i>Auditorium</i>
		<b>Implementation and Deployment</b> Professor Nilay Shah, Imperial College London.  <i>With final words from Professor Patricia Thornley.</i>
<b>17:00</b> <b>Conference ends</b>		